

# **PARTS MANUAL**

---

**CHALLENGER  
H14.00-18.00XM-12, -12EC  
(A214)**

**CUSTOMER EDITION**

---

***HYSTER***



## SECTIONS

1	FRAME
2	ENGINES
3	FUEL SYSTEM
4	ELECTRICAL SYSTEM
5	TRANSMISSION
6	DRIVE AXLE
7	STEERING SYSTEM
8	BRAKE SYSTEM
9	HYDRAULIC SYSTEM
10	MAST-TWO STAGE VISTA
11	MAST WITH EMPTY CONTAINER HANDLER
12	OPTIONS
13	NUMERICAL INDEX

This Parts Manual is divided into 13 major sections which are listed above. Quick reference to these sections can be made by placing the right thumb on the tab of the desired section, bending the book back and thumbing the pages to the corresponding tab.





**TABLE OF CONTENTS**

DESCRIPTION	PAGE
<b>A</b>	
AIR COMPRESSOR PLUMBING	
TIER II ENGINE (S/N A214E01954A →) .....	2-68
AIR FILTER	
EMPTY CONTAINER HANDLER - TIER II ENGINE (S/N A214E01849Z →) .....	2-122
FORK LIFT TRUCK - TIER II ENGINE (S/N A214E01843Z →) .....	2-120
TIER I ENGINE .....	2-118
AIR FILTER ASSEMBLY .....	2-124
AIR INTAKE CONNECTION	
TIER I ENGINE .....	2-26
TIER II ENGINE .....	2-88
AIR INTAKE HEATER	
TIER I ENGINE .....	2-6
AIR INTAKE HOSE	
TIER II ENGINE .....	2-90
AIR TRANSFER CONNECTION	
TIER II ENGINE .....	2-91
ALTERNATOR	
TIER I ENGINE .....	2-11
ALTERNATOR MOUNTING	
TIER II ENGINE .....	2-69
AUXILIARY ATTACHMENTS	
EMPTY CONTAINER HANDLER .....	11-58
<b>B</b>	
BRAKE ASSEMBLY	
DISC (→ S/N A214E01995B (H14.00-16.00XM FLT)) (S/N A214E02034A → (H18.00-20.00XM FLT)) (S/N A214E02001B → (H14.00-16.00XM ECH)) .....	6-20
BRAKE CHECK VALVE	
EMPTY CONTAINER HANDLER (→ S/N A214E01572) .....	8-26
FORK LIFT TRUCK (→ S/N A214E01572) .....	8-28
BRAKE COOLING SYSTEM	
ACCUMULATOR .....	9-72
EMPTY CONTAINER HANDLER (→ S/N A214E01751) .....	9-64
EMPTY CONTAINER HANDLER (S/N A214E01752 →) .....	9-66
FORK LIFT TRUCK (→ S/N A214E01751) .....	9-68
FORKLIFT TRUCK (S/N A214E01752 →) .....	9-70
BRAKE LINES	
EMPTY CONTAINER HANDLER .....	8-2
FORK LIFT TRUCK (→ S/N A214E01765Y) .....	8-6
FORK LIFT TRUCK (S/N A214E01766Y →) .....	8-10
BRAKE PEDAL LINKAGE	
EMPTY CONTAINER HANDLER .....	8-14
FORK LIFT TRUCK (→ S/N A214E01765Y) .....	8-18
FORK LIFT TRUCK (S/N A214E01766Y →) .....	8-22
BRAKE SYSTEM	
POWER BRAKE VALVE .....	8-30
BREATHING PLUMBING	
TIER II ENGINE .....	2-58

## TABLE OF CONTENTS (continued)

DESCRIPTION	PAGE
<b>C</b>	
CAM FOLLOWER COVER	
TIER I ENGINE .....	2-7
CAMSHAFT	
TIER II ENGINE .....	2-46
CARRIAGE	
HYDRAULIC SYSTEM - TWO STAGE VISTA .....	10-48
TWO STAGE VISTA .....	10-42
WITH QUICK DISCONNECT - TWO STAGE VISTA .....	10-44
CONTROL PANEL	
→ S/N A214E01806 .....	4-28
S/N A214E01807 → .....	4-30
COOLING	
EMPTY CONTAINER HANDLER - TIER II ENGINE (S/N A214E01849Z →) .....	2-134
FORK LIFT TRUCK - TIER II ENGINE (S/N A214E01843Z →) .....	2-130
TIER I ENGINE .....	2-126
COUNTERWEIGHTS .....	1-48
COVER AND SEAL	
TIER I ENGINE .....	2-13
COVERS	
EMPTY CONTAINER HANDLER .....	1-28
FORK LIFT TRUCK .....	1-30
CRANKCASE BREATHER	
TIER II ENGINE .....	2-65
CRANKSHAFT AND MAIN BEARINGS	
TIER II ENGINE .....	2-40
CYLINDER BLOCK	
TIER II ENGINE .....	2-34
CYLINDER HEAD	
TIER II ENGINE .....	2-36
<b>D</b>	
DIFFERENTIAL ASSEMBLY	
→ S/N A214E02033A (H18.00-20.00XM FLT) → S/N A214E02000B (H14.00-16.00XM ECH)	
→ S/N A214E01994B (H14.00-16.00XM FLT) .....	6-10
S/N A214E02034B → (H18.00-20.00XM FLT) S/N A214E02001B → (H14.00-16.00XM ECH)	
S/N A214E01995B → (H14.00-16.00XM FLT) .....	6-14
DOORS .....	1-26
DRIVE AXLE	
→ S/N A214E01994B (H14.00-16.00XM FLT) → S/N A214E02000B (H14.00-16.00XM ECH)	
→ S/N A214E02033A (H18.00-20.00XM FLT) .....	6-2
S/N A214E02034A → (H18.00-20.00XM FLT) S/N A214E01995B → (H14.00-16.00XM FLT)	
S/N A214E02001B → (H14.00-16.00XM ECH) .....	6-6
DRIVE SHAFT .....	6-22
<b>E</b>	
ELECTRICAL	
CHASSIS (TIER II ENGINE) - PAGE 1 OF 4 .....	4-12
CHASSIS (TIER II ENGINE) - PAGE 2 OF 4 .....	4-14

**TABLE OF CONTENTS (continued)**

<b>DESCRIPTION</b>	<b>PAGE</b>
CHASSIS (TIER II ENGINE) - PAGE 3 OF 4 .....	4-16
CHASSIS (TIER II ENGINE) - PAGE 4 OF 4 .....	4-20
CHASSIS TIER I ENGINE - PAGE 1 OF 3 .....	4-4
CHASSIS TIER I ENGINE - PAGE 2 OF 3 .....	4-6
CHASSIS TIER I ENGINE - PAGE 3 OF 3 .....	4-8
<b>ELECTRONIC FOOT PEDAL MOUNT</b>	
TIER II ENGINE .....	3-12
<b>ENGINE ASSEMBLY</b> .....	2-5
<b>ENGINE CONTROL SYSTEM</b>	
TIER II ENGINE .....	2-52
<b>ENGINE MOUNT</b> .....	2-138
<b>ENGINE OIL COOLER</b>	
TIER II ENGINE .....	2-93
<b>EXHAUST</b>	
EMPTY CONTAINER HANDLER - TIER I ENGINE .....	2-140
EMPTY CONTAINER HANDLER - TIER II ENGINE .....	2-142
FORK LIFT TRUCK .....	2-144
<b>EXHAUST MANIFOLD</b>	
TIER II ENGINE .....	2-104
<b>EXTENSION CYLINDER</b>	
EMPTY CONTAINER HANDLER (→ S/N A214E01806) .....	11-38
<b>F</b>	
<b>FAN DRIVE</b>	
TIER I ENGINE .....	2-14
TIER II ENGINE .....	2-71
<b>FAN PILOT SPACER</b>	
TIER II ENGINE .....	2-103
<b>FENDERS</b>	
EMPTY CONTAINER HANDLER .....	1-52
<b>FLOOR PLATES AND COVERS</b>	
EMPTY CONTAINER HANDLER .....	1-4
FORK LIFT TRUCK - PAGE 1 OF 2 .....	1-8
FORK LIFT TRUCK - PAGE 2 OF 2 .....	1-12
<b>FLYWHEEL</b>	
TIER I AND TIER II ENGINES .....	2-66
<b>FLYWHEEL HOUSING</b>	
TIER II ENGINE .....	2-56
<b>FORK POSITIONER AND SIDE-SHIFT CYLINDER</b>	
TWO STAGE VISTA .....	10-50
<b>FORKS</b>	
HOOK TYPE .....	12-12
PIN TYPE .....	12-10
<b>FRONT DRIVE GEAR COVER</b>	
TIER I ENGINE .....	2-8
<b>FRONT GEAR COVER</b>	
TIER II ENGINE .....	2-84
<b>FRONT GEAR TRAIN COVER</b>	
TIER II ENGINE .....	2-55

**TABLE OF CONTENTS (continued)**

<b>DESCRIPTION</b>	<b>PAGE</b>
FUEL DRAIN	
TIER I ENGINE .....	2-9
FUEL FILTER	
TIER I ENGINE .....	2-15
FUEL FILTER PLUMBING	
TIER II ENGINE (S/N A214E01950A →) .....	2-76
TIER II ENGINE (S/N A214E01951A →) .....	2-77
FUEL INJECTION PUMP	
TIER II ENGINE .....	2-78
FUEL PUMP MOUNT	
TIER II ENGINE .....	2-80
FUEL SHUT-OFF VALVE	
TIER I ENGINE .....	2-19
FUEL SYSTEM	
TIER I ENGINE .....	3-2
TIER II ENGINE .....	3-6
<b>G</b>	
GEAR HOUSING	
TIER II .....	2-86
GENERAL TRUCK .....	1-2
<b>H</b>	
HEADER HOSE	
EMPTY CONTAINER HANDLER (→ S/N A214E01807Y EXC. 01791) .....	11-42
EMPTY CONTAINER HANDLER (S/N A214E01808Y ↔ S/N A214E01962A INC. 01791) .....	11-46
EMPTY CONTAINER HANDLER (S/N A214E01963A ↔ S/N A214E02077B) .....	11-50
EMPTY CONTAINER HANDLER (S/N A214E02078B →) .....	11-54
TWO STAGE VISTA .....	10-34
HEATER .....	1-40
HEATER CONTROL .....	1-44
HEATER PLUMBING	
TIER I ENGINE .....	2-29
HOOD	
EMPTY CONTAINER HANDLER .....	1-34
FORK LIFT TRUCK .....	1-36
HYDRAULIC	
CONTROL VALVE - ATTACHING PARTS .....	9-40
CONTROL VALVE - MAIN .....	9-42
DIRECTIONAL CONTROL VALVE - EMPTY CONTAINER HANDLER .....	9-46
HYDRAULIC CONTROL	
→ S/N A214E01842Z .....	9-32
S/N A214E01843Z → .....	9-36
HYDRAULIC LINES	
AUXILIARY - FORK LIFT TRUCK .....	9-29
CONTROL VALVE (→ S/N A214E01806) .....	9-20
CONTROL VALVE (S/N A214E01807 →) .....	9-24
CONTROL VALVE .....	9-26
LIFT - FORK LIFT TRUCK .....	9-30

**TABLE OF CONTENTS (continued)**

<b>DESCRIPTION</b>	<b>PAGE</b>
SUPPLY AND RETURN - EMPTY CONTAINER HANDLER .....	9-2
SUPPLY AND RETURN - FORK LIFT TRUCK (→ S/N A214E01842Z) .....	9-12
SUPPLY AND RETURN - FORK LIFT TRUCK (S/N A214E01843Z →) .....	9-16
HYDRAULIC PILOT CONTROL SUPPLY VALVE	
EMPTY CONTAINER HANDLER .....	9-54
HYDRAULIC PILOT CONTROL VALVE	
EMPTY CONTAINER HANDLER .....	9-52
HYDRAULIC PUMP .....	9-58
HYDRAULIC RELIEF VALVE	
TILT (→ S/N A214E02029B) .....	9-56
HYDRAULIC SOLENOID VALVE	
LIFT AND LOWERING INTERRUPT - EMPTY CONTAINER HANDLER (S/N A214E01752X →) .....	9-50
HYDRAULIC SOLENOID VALVE ATTACHING PARTS	
LIFT AND LOWERING INTERRUPT - EMPTY CONTAINER HANDLER (S/N A214E01752X →) .....	9-48
HYDRAULIC SYSTEM	
EMPTY CONTAINER HANDLER - PAGE 1 OF 2 (→ S/N A214E01806) .....	11-32
EMPTY CONTAINER HANDLER - PAGE 2 OF 2 (→ S/N A214E01806) .....	11-34
TILT CYLINDER - EMPTY CONTAINER HANDLER .....	9-74
TILT CYLINDER - FORK LIFT TRUCK .....	9-76
HYDRAULIC TANK	
→ S/N A214E01534 .....	9-60
S/N A214E01535 → .....	9-62
<b>I</b>	
INJECTOR	
TIER II ENGINE .....	2-48
INNER MAST	
EMPTY CONTAINER HANDLER .....	11-6
TWO STAGE VISTA .....	10-6
INSTRUMENT PANEL	
PAGE 1 OF 2 .....	4-22
PAGE 2 OF 2 .....	4-26
<b>L</b>	
LABELS	
EXTERIOR - EMPTY CONTAINER HANDLER .....	1-66
EXTERIOR - FORK LIFT TRUCK .....	1-68
INTERIOR .....	1-64
LIFT CYLINDER	
EMPTY CONTAINER HANDLER (→ S/N A214E01574) .....	11-18
EMPTY CONTAINER HANDLER (S/N A214E01575 →) .....	11-20
H14.00-16.00XM - TWO STAGE VISTA (→ 9/2004) .....	10-18
H14.00-16.00XM - TWO STAGE VISTA (9/2004 →) .....	10-22
H18.00-20.00XM - TWO STAGE VISTA (→ 9/2004) .....	10-26
H18.00-20.00XM - TWO STAGE VISTA (9/2004 →) .....	10-30
LIFT CYLINDER ATTACHING PARTS	
EMPTY CONTAINER HANDLER (→ S/N A214E02236D) .....	11-22
EMPTY CONTAINER HANDLER (S/N A214E02237D →) .....	11-24

**TABLE OF CONTENTS (continued)**

<b>DESCRIPTION</b>	<b>PAGE</b>
LIFT PUMP	
TIER I ENGINE .....	2-17
TIER II .....	2-82
LIFT PUMP PLUMBING	
TIER II ENGINE .....	2-83
LIFTING BRACKET	
TIER I ENGINE .....	2-20
TIER II ENGINE .....	2-92
LIGHT BAR AND MOUNT	
TWISTLOCK MODULE - CAB .....	4-126
LIGHT CONTROLS .....	4-32
LIGHTS	
EMPTY CONTAINER HANDLER .....	4-34
FORK LIFT TRUCK .....	4-38
ROTATING BEACON .....	4-42
<b>M</b>	
MAIN LIFT	
EMPTY CONTAINER HANDLER (→ S/N A214E01654) .....	11-10
EMPTY CONTAINER HANDLER (S/N A214E01655 →) .....	11-14
TWO STAGE VISTA - PAGE 1 OF 2 .....	10-10
TWO STAGE VISTA - PAGE 2 OF 2 .....	10-14
MAST INSTALLATION	
EMPTY CONTAINER HANDLER .....	11-60
TWO STAGE VISTA .....	10-40
<b>O</b>	
OIL COOLER	
TIER I ENGINE .....	2-21
OIL COOLER AND ATTACHING PARTS	
EMPTY CONTAINER HANDLER - TIER II ENGINE .....	9-6
FORK LIFT TRUCK - TIER II ENGINE .....	9-8
OIL FILLER ARRANGEMENT	
S/N A214E01951A → .....	2-96
TIER I ENGINE .....	2-24
TIER II ENGINE (→ S/N A214E01950A) .....	2-95
OIL FILTER	
TIER II ENGINE .....	2-98
OIL LEVEL GAUGE	
TIER I ENGINE .....	2-23
TIER II ENGINE .....	2-62
OIL PAN	
TIER II ENGINE .....	2-60
OIL PUMP	
TIER II ENGINE .....	2-64
OPERATOR COMPARTMENT	
WITH CAB - PAGE 1 OF 3 .....	1-18
WITH CAB - PAGE 2 OF 3 .....	1-20
WITH CAB - PAGE 3 OF 3 .....	1-24

**TABLE OF CONTENTS (continued)**

<b>DESCRIPTION</b>	<b>PAGE</b>
WITHOUT CAB .....	1-16
OUTER MAST	
EMPTY CONTAINER HANDLER .....	11-2
TWO STAGE VISTA .....	10-2
<b>P</b>	
PARK BRAKE	
→ S/N A214E01994B (H14.00-16.00XM FLT) → S/N A214E02000B (H14.00-16.00XM ECH)	
→ S/N A214E02033B (H18.00-20.00XM FLT) .....	6-18
PISTON AND CONNECTING ROD	
TIER II ENGINE .....	2-38
PRE-CLEANER ASSEMBLY .....	2-125
<b>R</b>	
RADIATOR PLUMBING	
TIER II ENGINE .....	2-101
ROCKER LEVERS	
TIER II ENGINE .....	2-44
<b>S</b>	
SEAT	
HIGH BACK - KAB (→ S/N A214E02193C) .....	1-54
SEAT ASSEMBLY	
HIGH BACK - KAB (S/N A214E02194C →) .....	1-56
SIDE-SHIFT CYLINDER	
CONTAINER HANDLING ATTACHMENT (→ S/N A214E01806) .....	11-40
SOLENOID VALVE	
TWO STAGE VISTA .....	10-52
STARTER	
TIER I ENGINE .....	2-25
STARTING MOTOR	
TIER II ENGINE .....	2-102
STEERING AXLE .....	7-18
STEERING CONTROL	
BLOCK VALVE (→ 10/2003) .....	7-16
STEERING CYLINDER .....	7-10
OPTIONAL .....	7-12
STEERING HOUSING AND CONTROL UNIT .....	7-2
STEERING HYDRAULICS	
EMPTY CONTAINER HANDLER .....	7-6
FORK LIFT TRUCK .....	7-8
STEERING PUMP .....	7-14
SUSPENSION SEAT	
GRAMMER HIGH BACK - PAGE 1 OF 2 .....	1-58
GRAMMER HIGH BACK - PAGE 2 OF 2 .....	1-62
<b>T</b>	
TENSIONER	
TIER II ENGINE .....	2-116

## TABLE OF CONTENTS (continued)

DESCRIPTION	PAGE
THERMOSTAT	
TIER I ENGINE .....	2-10
TIER II ENGINE .....	2-67
THERMOSTAT HOUSING	
TIER I ENGINE .....	2-27
THROTTLE	
TIER I ENGINE .....	3-8
THROTTLE PEDAL	
TIER I ENGINE (→ 11/2002) .....	3-14
TIER I ENGINE (12/2002 →) .....	3-16
TILT CYLINDER	
EMPTY CONTAINER HANDLER .....	9-78
FORK LIFT TRUCK .....	9-80
TORQUE CONVERTER OIL COOLER	
TIER II ENGINE .....	2-105
TRANSMISSION	
CLUTCH PACK - FORWARD AND SECOND GEAR - PAGE 2 OF 3 .....	5-32
CLUTCH PACK - REVERSE AND FIRST GEAR - PAGE 1 OF 3 .....	5-28
CLUTCH PACK - THIRD GEAR - PAGE 3 OF 3 .....	5-36
CONTROL VALVE (→ S/N A214E01615) .....	5-20
CONTROL VALVE (S/N A214E01616 →) .....	5-24
CONTROL VALVE ATTACHING PARTS .....	5-18
INCHING PEDAL (→ S/N A214E01615) .....	5-42
INCHING VALVE (→ S/N A214E01615) .....	5-46
INPUT SHAFT .....	5-14
SHIFT LEVER .....	5-40
TORQUE CONVERTER .....	5-17
TRANSMISSION ATTACHING PARTS .....	5-2
OIL FILTER .....	5-8
TRANSMISSION HYDRAULIC LINES	
→ S/N A214E01615 .....	5-10
S/N A214E01616 → .....	5-12
TRANSMISSION MOUNT AND ATTACHING PARTS .....	5-6
TURBOCHARGER	
TIER II ENGINE .....	2-99
TURBOCHARGER PLUMBING	
TIER II ENGINE .....	2-108
TWIST LOCK CYLINDER	
EMPTY CONTAINER HANDLER (→ S/N A214E01806) .....	11-36
<b>V</b>	
VALVE COVER	
TIER I ENGINE .....	2-28
TIER II ENGINE .....	2-110
VALVE TAPPET	
TIER II ENGINE .....	2-50
VERTICAL END BEAM	
EMPTY CONTAINER HANDLER (→ S/N A214E01806) .....	11-30



**TABLE OF CONTENTS (continued)**

DESCRIPTION	PAGE
VIBRATION DAMPER	
TIER II ENGINE .....	2-54
<b>W</b>	
WATER INLET CONNECTION	
TIER I ENGINE .....	2-30
TIER II ENGINE .....	2-112
WATER OUTLET CONNECTION	
TIER I ENGINE .....	2-31
TIER II ENGINE .....	2-114
WATER PUMP	
TIER I ENGINE .....	2-32
TIER II ENGINE .....	2-115
WATER SEPARATOR	
TIER II ENGINE .....	2-74
WEAR PLATES	
EMPTY CONTAINER HANDLER (→ S/N A214E01806) .....	11-28
WHEEL AND TIRE	
BIAS TIRE .....	12-2
BIAS TIRE - SIMEX AND GOODYEAR TIRES .....	12-4
RADIAL TIRE .....	12-5
SOLID TIRE - WITH TREAD .....	12-7
SOLID TIRE - SMOOTH .....	12-8
WINDSHIELD WASHER .....	1-46
WIRE HARNESS	
ATTACHMENT CONTROL - PAGE 1 OF 2 (→ S/N A214E01650) .....	4-44
ATTACHMENT CONTROL - PAGE 2 OF 2 (→ S/N A214E01650) .....	4-46
ATTACHMENT CONTROL (S/N A214E01651 ↔ S/N A214E01806) .....	4-48
ATTACHMENT CONTROL SWITCH (S/N A214E01807 →) .....	4-50
ATTACHMENT CONTROL SWITCH (S/N A214E02078B ↔ S/N A214E02193C) .....	4-52
ATTACHMENT CONTROL SWITCH (S/N A214E02194C →) .....	4-54
ATTACHMENT LIGHTS (S/N A214E01807 →) .....	4-56
CAB (→ S/N A214E01797) .....	4-58
CAB (S/N A214E01798 →) .....	4-60
CARRIAGE CONTROL SWITCH (S/N A214E01403 →) .....	4-62
CHASSIS - EMPTY CONTAINER HANDLER .....	4-64
CHASSIS - FORK LIFT TRUCK .....	4-66
EMPTY CONTAINER HANDLER (→ S/N A214E01806) .....	11-62
ENGINE (→ S/N A214E01718) .....	4-68
ENGINE (S/N A214E01719 →) .....	4-70
ENGINE - TIER II .....	4-72
FRONT END EQUIPMENT - EMPTY CONTAINER HANDLER (→ S/N A214E01806) .....	4-74
FRONT END EQUIPMENT - EMPTY CONTAINER HANDLER (S/N A214E01807 ↔ S/N A214E02077B) .....	4-76
FRONT END EQUIPMENT (S/N A214B02078B →) .....	4-78
FRONT END EQUIPMENT - FORK LIFT TRUCK .....	4-80
FRONT END EQUIPMENT - HEADER HOSES, MAST REAR .....	10-54
FRONT END EQUIPMENT - HEADER HOSES, MAST FRONT .....	10-56

## TABLE OF CONTENTS (continued)

DESCRIPTION	PAGE
FRONT END EQUIPMENT - HEADER HOSES, EMPTY CONTAINER HANDLER (S/N A214E01963A →)	
.....	11-70
FRONT LIGHTS .....	4-81
HOOK ATTACHMENT (S/N A214E01807 ↔ S/N A214E01962A) .....	11-65
HYDRAULIC - EMPTY CONTAINER HANDLER (→ S/N A214E01806) .....	4-82
HYDRAULIC - EMPTY CONTAINER HANDLER (S/N A214E01807 →) .....	4-84
HYDRAULIC - FORK LIFT TRUCK (→ S/N A214E01806Y) .....	4-86
HYDRAULIC - FORK LIFT TRUCK (S/N A214E01807Y →) .....	4-88
HYDRAULIC OIL COOLER .....	4-124
MAST (→ S/N A214E02077B) .....	11-66
MAST (S/N A214E02078B →) .....	11-68
MODULE (→ S/N A214E01797) .....	4-89
MODULE (S/N A214E01798 →) .....	4-90
OPERATOR COMPARTMENT (TIER I) - PAGE 1 OF 2 .....	4-92
OPERATOR COMPARTMENT (TIER I) - PAGE 2 OF 2 .....	4-94
OPERATOR COMPARTMENT (TIER II) - PAGE 1 OF 2 (S/N A214E01843Z → (FLT)) (S/N A214E01849Z → (ECH)) .....	4-96
OPERATOR COMPARTMENT (TIER II) - PAGE 2 OF 2 (S/N A214E01843Z → (FLT)) (S/N A214E01849Z → (ECH)) .....	4-98
OPERATOR COMPARTMENT TO MAST LIGHT JUMPER - FORK LIFT TRUCK .....	4-100
REAR LIGHT .....	4-101
ROTATING BEACON .....	4-102
SELECTOR VALVE .....	4-122
STEERING POD .....	4-104
SWITCH - WARNING .....	4-107
SWITCH LIGHTS .....	4-106
TRANSMISSION .....	4-108
TRANSMISSION (→ S/N A214E01615) .....	4-110
TRANSMISSION (S/N A214E01616 ↔ S/N A214E002194C) .....	4-112
TRANSMISSION (S/N A214E02194C →) .....	4-114
TURN SIGNAL .....	4-116
TWIST LOCK (S/N A214E01807 ↔ S/N A214E01962A) .....	11-64
WINDSHIELD WASHER .....	4-117
WORK LIGHTS .....	4-118
WORK LIGHTS - EMPTY CONTAINER HANDLER .....	4-119
WORK LIGHTS - FORK LIFT TRUCK .....	4-120
WORK LIGHTS EXTENSION - FORK LIFT TRUCK .....	4-121
WIRING ACCESSORIES	
TIER II ENGINE .....	2-117

**ABBREVIATIONS QUICK REFERENCE SHEET**

Listed below are abbreviations used in parts manuals to denote the following expressions:

<b>TERM</b>	<b>DEFINITION</b>	<b>TERM</b>	<b>DEFINITION</b>
Amp	Amperes	FRE	Freezer Environment
AR	As Required	in.	inches
BDI	Battery Discharge Indicators	LPG	Liquefied Petroleum Gas
BWI	Brush Wear Indicator	MAP	Manifold Absolute Pressure
CE	Communicator End	mm	millimeters
CRE	Corrosive Environment	MSTS	Microprocessor Spark Timing System
D/B	Date Break	NPT	National Pipe Threads
dbA	Decibel "A" Scale	O/S	Oversize
DE	Drive End	PTO	Power Take Off
ECH	Empty Container Handler	RPM	Revolutions per Minute
ECH-3	Empty Container Handler - 3 High Stacking	S/N	Serial Number
ECH-4	Empty Container Handler - 4 High Stacking	TMM	Truck Management Module
ECH-5	Empty Container Handler - 5 High Stacking	UL Type D	Diesel-Powered Safety Rating
ECH-6	Empty Container Handler - 6 High Stacking	UL Type DS	Diesel-Powered Safety Rating
ECH-7	Empty Container Handler - 7 High Stacking	UL Type E	Battery-Powered Safety Rating
ECM	Electronic Control Module	UL Type EE	Battery-Powered Safety Rating
ECN	Engineering Change Notice	UL Type ES	Battery-Powered Safety Rating
EEPROM	Electrically Erasable Programmable Read Only Memory	UL Type G	Gasoline-Powered Safety Rating
EPA	US Environmental Protection Agency	UL Type GS	Gasoline-Powered Safety Rating
EPROM	Electrically Programmable Read Only Memory	UL Type LP	Gas-Powered Safety Rating
		UL Type LPS	LP Gas-Powered Safety Rating
		U/S	Undersize
		UL	Underwriters Laboratory
		V	Volts

## HOW TO USE THE ILLUSTRATED PARTS MANUAL

This parts manual describes and illustrates assemblies, subassemblies, and detail parts needed for service replacement.

The different constructions are indicated by keys and footnotes. The callouts correspond to descriptions found on the next page.

The diagram illustrates the structure of the parts manual with the following callouts:

- 1:** SECTIONS
- 2:** MAST-TWO STAGE LI
- 3:** TABLE OF CONTENTS
- 4:** TABLE OF CONTENTS
- 5:** SECTION 11 NUMERICAL INDEX
- 6:** TRANSMISSION HOUSING
- 7:** TRANSMISSION HOUSING
- 8:** TRANSMISSION HOUSING
- 9:** TRANSMISSION HOUSING
- 10:** TRANSMISSION HOUSING

**SECTION 11 NUMERICAL INDEX**

PART NO.	PG	ITEM	PART NO.	PG	ITEM	PART NO.	PG	ITEM	PART NO.	PG	ITEM
138	5-9	31	5-17	42	16481	6-25	3	6-7	28		
139	5-13	31	7-13	8	16482	6-25	4	16882	9-7	8	
12921	3-12	32	1-3	6	16883	6-25	53	16883	6-25	5	
14269	5-5	8	1-4	45	16982	6-26	65	16982	7-5	25	
			5-9	16		10-3	16		8-5	24	
			5-13	10		6-26	48		9-5	19	
			5-13	8		6-11	3	16989	6-25	19	
			5-13	8		6-11	9	17051	7-5	10	
			5-13	8		6-13	101		8-5	13	
			5-13	8		6-25	7		9-5	13	
			5-13	8		6-25	7	17061	6-25	6	
			5-13	8		6-25	8	17151	3-9	24	
			5-13	8		6-25	11		3-11	26	
			5-13	8		6-25	20		6-25	22	
			5-13	8		9-7	7	17775	6-25	22	

**TRANSMISSION HOUSING**  
(→ S/N G160-2528)

ITEM	PART NO.	DESCRIPTION	QTY	A	B
1	2022547	Transmission	1		
2	2023329	Transmission	1		
3	2021370	Case	2		
4	2932415	Bearing Cap	4		
5	296426	Washer	4		
6	293692	Capscrew	1		
7	2021390	Cover	2		
8	1371656	Cotter Pin	4		
9	2021329	O-Ring	1		
10	2021915	Plug	4		
11	2021675	Housing	22		
12	287860	Pin	39		
13	2021336	Capscrew	1		
14	292682	Lockwasher	1		
15	2021345	Hydraulic Pump (see Figure 6-6)	8		
16	296418	Gasket	8		
17	2021388	Capscrew	1		
18	2021389	Washer	1		
19	2021383	Temperature Switch	1		
20	292515	Breather	9		
21	136692	Dipstick	9		
22	292527	Capscrew	2		
23	292531	Capscrew	3		
24	292683	Nut	3		
25	293637	Capscrew	2		
26	296420	Washer	4		
	996403	Transmission Kit (Include Item 7)	1		
	996405	Transmission Kit (Include Item 14)	1		

This Parts Manual is divided into 11 major sections which are listed above. Quick reference can be made by placing the right thumb on the tab of the desired section, bending the book pages to the corresponding tab.

See Service Manual for service procedures.

©2020 HYSTER COMPANY

## HOW TO FIND THE DESIRED PART NUMBER

### WHEN THE PART NUMBER AND THE NEXT HIGHER ASSEMBLY IS NOT KNOWN:

1. Determine the function and application of the part required. Turn to the Sections Page. Choose the general area of reference most likely to include the part.
2. Turn to the section you chose. Use the Section Table of Contents to determine the assembly which would normally contain the part required. Then locate the part on the assembly breakdown page.

### WHEN THE PART NUMBER IS NOT KNOWN AND THE NEXT HIGHER ASSEMBLY IS KNOWN:

3. Determine the assembly the required part is used on. Turn to the Table of Contents (Page i).
4. Locate the assembly the required part is used on and turn to the page indicated for that assembly. Then locate the part on the assembly breakdown page.

### WHEN THE PART NUMBER IS KNOWN:

5. Use the Numerical Index (Page 13-1) to find the part number. Turn to the page listed and locate the part as indicated by the item number.

### GENERAL:

The assembly breakdowns include part numbers, descriptions, quantities required, keys and footnotes to help in selecting correct parts.

6. Parts Supersession Information. Part numbers that have this history will be displayed in the parts list in the order that they were superseded (from oldest to newest). The superseded part numbers will be shown with a line through them.

Five periods in the PART NO. column (. . . . .) indicate that the part is either *Not Serviced Separately* or there is a reference to another figure. A figure reference is denoted by a pointing hand followed by a figure number in the DESCRIPTION column (☞ Figure 10)

7. Keys are used to show two or more similar assemblies, RH and LH assembly parts, etc. Select the appropriate key, "A", "B", "C", "D", or "E" and the corresponding quantity column to find the required parts. Two periods in the QTY column (..) indicate that the part is not used for that assembly.
8. Indented descriptions under the DESCRIPTION column are used to indicate assemblies and

subparts of assemblies. In the example on the previous page, *BEARING CAP* (Item 2) is a subpart of the major assembly *CASE*.

9. Quantities shown are for one assembly. The quantities of the subpart *BEARING CAP* are indicated as two and two. This means two per *CASE* assembly.
10. Serial number breaks identify the most current parts information and are shown as follows:
  - **S/N D001H2628**  
Indicates last serial number affected.
  - S/N D001H2629** →  
Indicates the first serial number affected.
  - S/N D001H1553** ↔ **S/N D001H3291**  
Indicates a range of serial numbers affected.

ECN numbers for pending serial numbers are shown to allow for the inclusion of the most current parts information and are identified as follows:

→ **S/N Pending Per ECN 63243**

Indicates a pending serial number for last unit affected.

**S/N Pending Per ECN 63243** →

Indicates a pending serial number for first unit affected.

Date breaks are used to indicate when a change occurred but a subsequent serial number break was not recorded. This is an arbitrary date usually based on the ECN release and are identified as follows:

→ **D/B 3/00**

Indicates that a change occurred sometime within that month for the item affected.

**D/B 3/00** →

Indicates that a change occurred sometime within that month for the item affected.

**D/B 3/00** ↔ **D/B 4/00**

Indicates a range of production dates of the item affected.

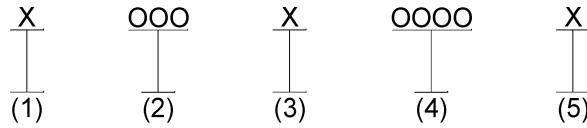
Contact your local dealer for Hyster lift trucks for serial number information for items with a ECN or a date break.

### ORDERING PARTS:

When ordering replacement parts, give the unit serial number, part number, name of part and quantity required.

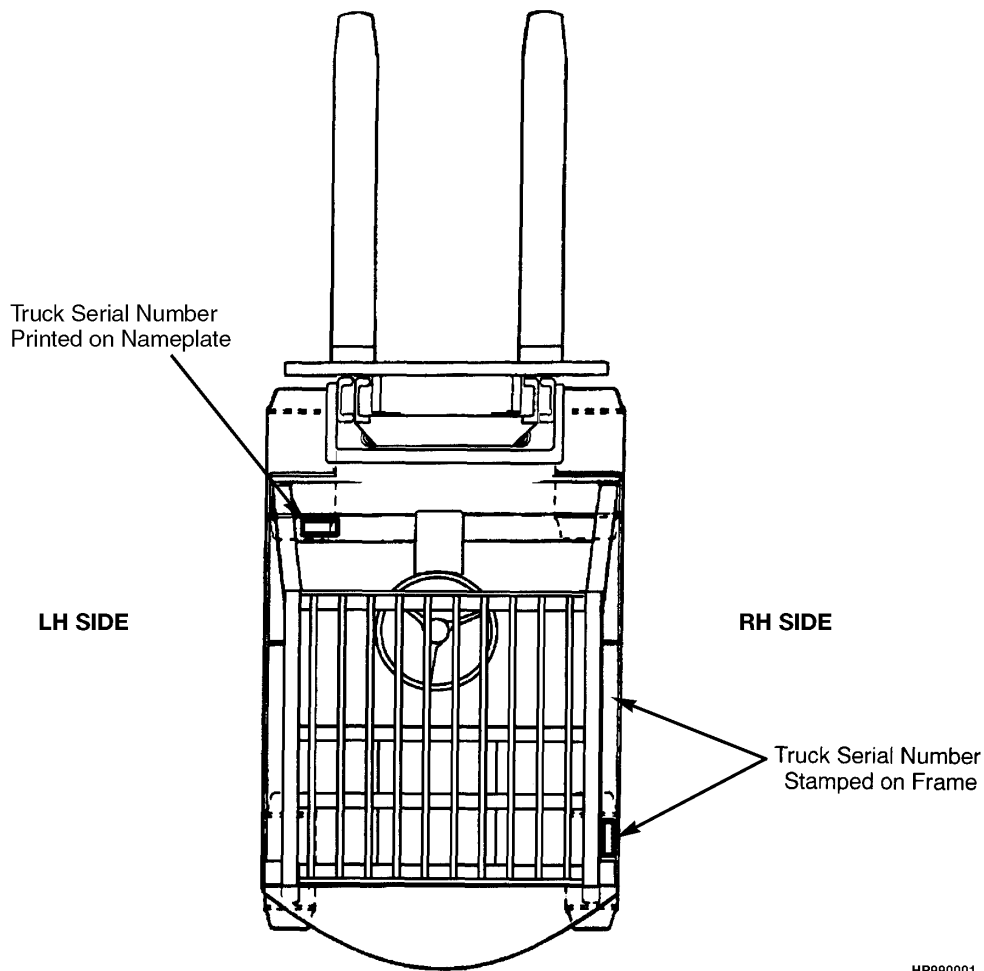
For any further information on parts, service, or ordering, consult your local dealer for Hyster lift trucks.

## IDENTIFICATION OF TRUCK SERIAL NUMBERS



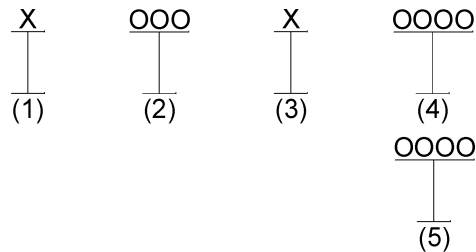
- (1) and (2) The first letter and three numbers indicate the truck unit code.
- (3) The second letter indicates the plant of manufacture.
- (4) The four or five digit number indicates the production sequence number of the truck.
- (5) The final letter indicates the year of manufacture starting with "A" in 1957, 1980, and 2003. The letters "I", "O", and "Q" will not be used.

For pending serial numbers contact your local dealer for Hyster lift trucks.



HP990001

Parts referred to in this book as right or left hand parts are in accordance with the illustration above.

**IDENTIFICATION OF MAST SERIAL NUMBERS**

- (1) and (2) The first letter and number indicates the mast unit code.
- (3) The second letter indicates the plant of manufacture.
- (4) The four or five digit number indicates the production sequence number of the mast.
- (5) Carriage travel in millimeters stamped just below the serial number.

Mast Group identification consists of mast unit code (1) and (2) plus carriage travel (5).

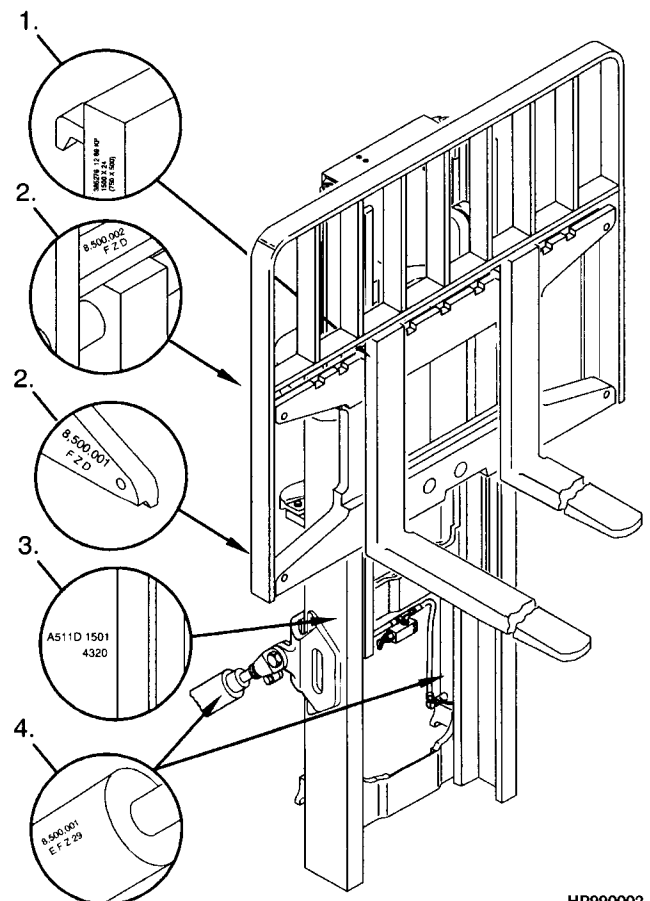
For pending production sequence numbers contact your local dealer for Hyster lift trucks.

**LIFT EQUIPMENT IDENTIFICATION**

1. Fork part number, capacity rating, plant code letter, and date of manufacture are stamped approximately six inches below the top of most forks.
2. The carriage group number is stamped on the right hand side of the top crossmember (pin type) or on the back of the right hand end of the bottom crossmember (hook type). A date code has two letters in line with or below the carriage group number.
3. The mast identification number has a unit code, a letter indicating the plant of manufacture, and a serial number. Underneath the production sequence number is a four digit number that indicates the carriage travel in millimeters.
4. Tilt and lift cylinder group numbers are stamped on the cylinder shell.

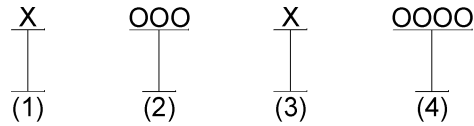
Always refer to the group, serial, or part number when ordering service parts.

Modification of masts and carriages by SPED (Special Products Engineering Department) are identified by a model prefix code beginning with the letter "S". contact your dealer for Hyster lift trucks for information on these assemblies.



HP990002

## IDENTIFICATION OF ATTACHMENT AND SIDE-SHIFT CARRIAGE SERIAL NUMBERS

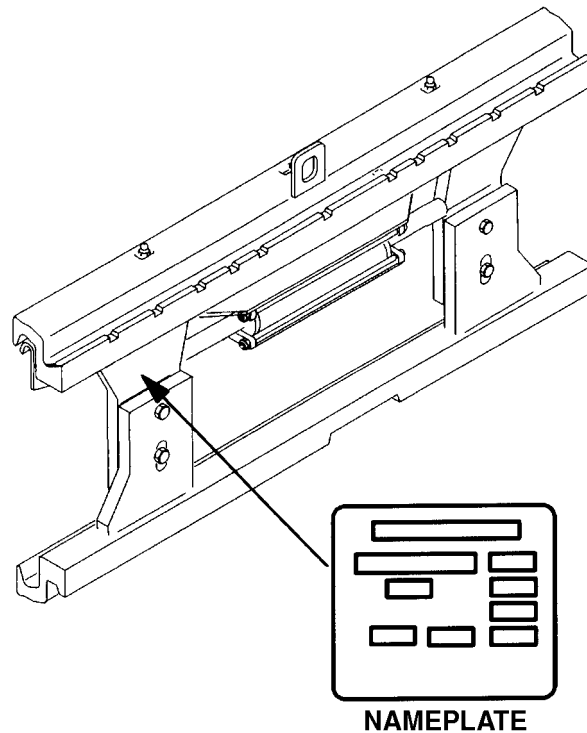


(1) and (2) The first letter and three numbers indicate the attachment unit code.

(3) The second letter indicates the plant of manufacture.

(4) The four or five digit number indicates the production sequence number.

For pending production sequence numbers contact your local dealer for Hyster lift trucks.



HP990003

Side-shift carriages and attachments have nameplates. Use the serial number found on the nameplate to identify the attachment.

Always refer to the group, serial, or part number when ordering service parts.

Modifications of attachments and side-shift carriages by SPED (Special Products Engineering Department) are identified by a model prefix code beginning with the letter "S". Contact your dealer for Hyster lift trucks for information on these assemblies.



**PUBLICATIONS**

Every new lift truck is provided with an OPERATING MANUAL. This manual has information that the operator must know for inspection and operation of the lift truck.

SERVICE MAINTENANCE MANUALS, which provide service and overhaul procedures, and PARTS

MANUALS with complete replacement part identification, are available at a nominal fee from your Hyster dealer to assist users in effectively maintaining Hyster lift trucks in a safe, useful condition. See the list below for information on ordering specific publications for this model lift truck.

---

<b>PUBLICATION</b>	<b>HYSTER PART NUMBER</b>
Operating Manual.....	897997
Service Manual (Complete).....	1452607
Parts Manual.....	1452617



**1**

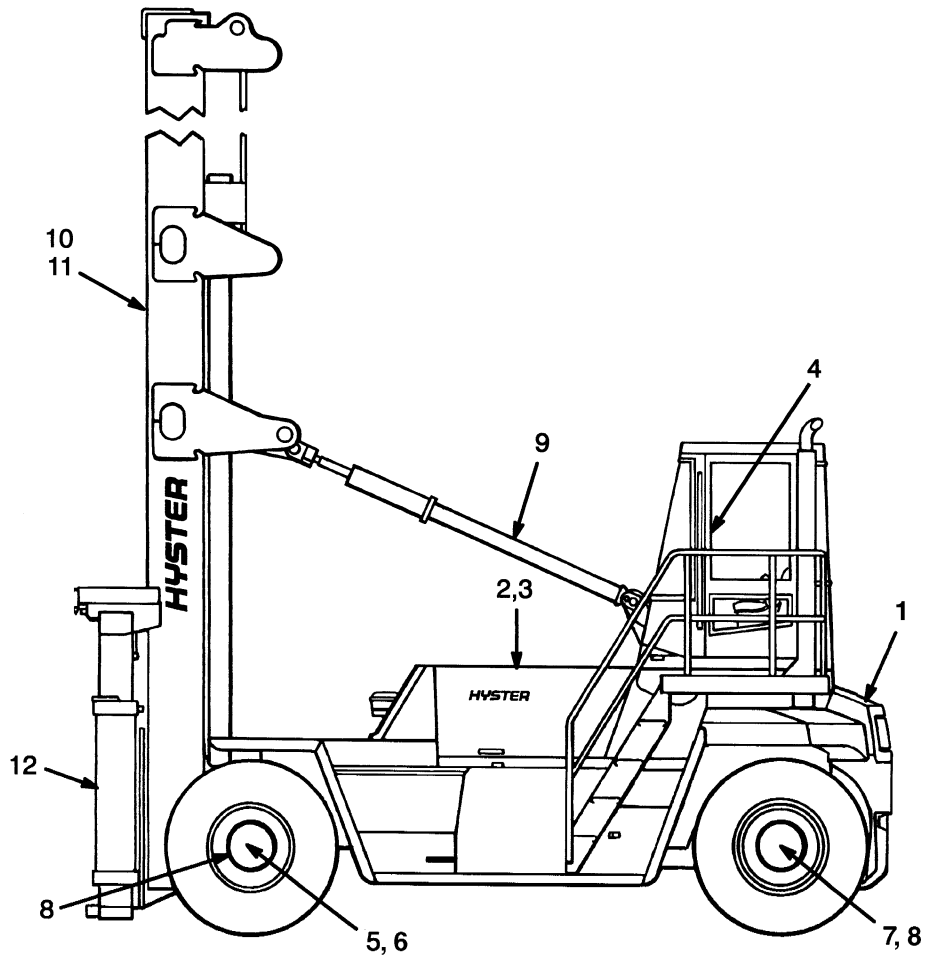
**FRAME**



**SECTION 1**  
**FRAME**

<b>DESCRIPTION</b>	<b>PAGE</b>
COUNTERWEIGHTS .....	1-48
COVERS	
EMPTY CONTAINER HANDLER .....	1-28
FORK LIFT TRUCK .....	1-30
DOORS .....	1-26
FENDERS	
EMPTY CONTAINER HANDLER .....	1-52
FLOOR PLATES AND COVERS	
EMPTY CONTAINER HANDLER .....	1-4
FORK LIFT TRUCK - PAGE 1 OF 2 .....	1-8
FORK LIFT TRUCK - PAGE 2 OF 2 .....	1-12
GENERAL TRUCK .....	1-2
HEATER .....	1-40
HEATER CONTROL .....	1-44
HOOD	
EMPTY CONTAINER HANDLER .....	1-34
FORK LIFT TRUCK .....	1-36
LABELS	
EXTERIOR - EMPTY CONTAINER HANDLER .....	1-66
EXTERIOR - FORK LIFT TRUCK .....	1-68
INTERIOR .....	1-64
OPERATOR COMPARTMENT	
WITH CAB - PAGE 1 OF 3 .....	1-18
WITH CAB - PAGE 2 OF 3 .....	1-20
WITH CAB - PAGE 3 OF 3 .....	1-24
WITHOUT CAB .....	1-16
SEAT	
HIGH BACK - KAB (→ S/N A214E02193C) .....	1-54
SEAT ASSEMBLY	
HIGH BACK - KAB (S/N A214E02194C →) .....	1-56
SUSPENSION SEAT	
GRAMMER HIGH BACK - PAGE 1 OF 2 .....	1-58
GRAMMER HIGH BACK - PAGE 2 OF 2 .....	1-62
WINDSHIELD WASHER .....	1-46

## GENERAL TRUCK (FIGURE 1-1)

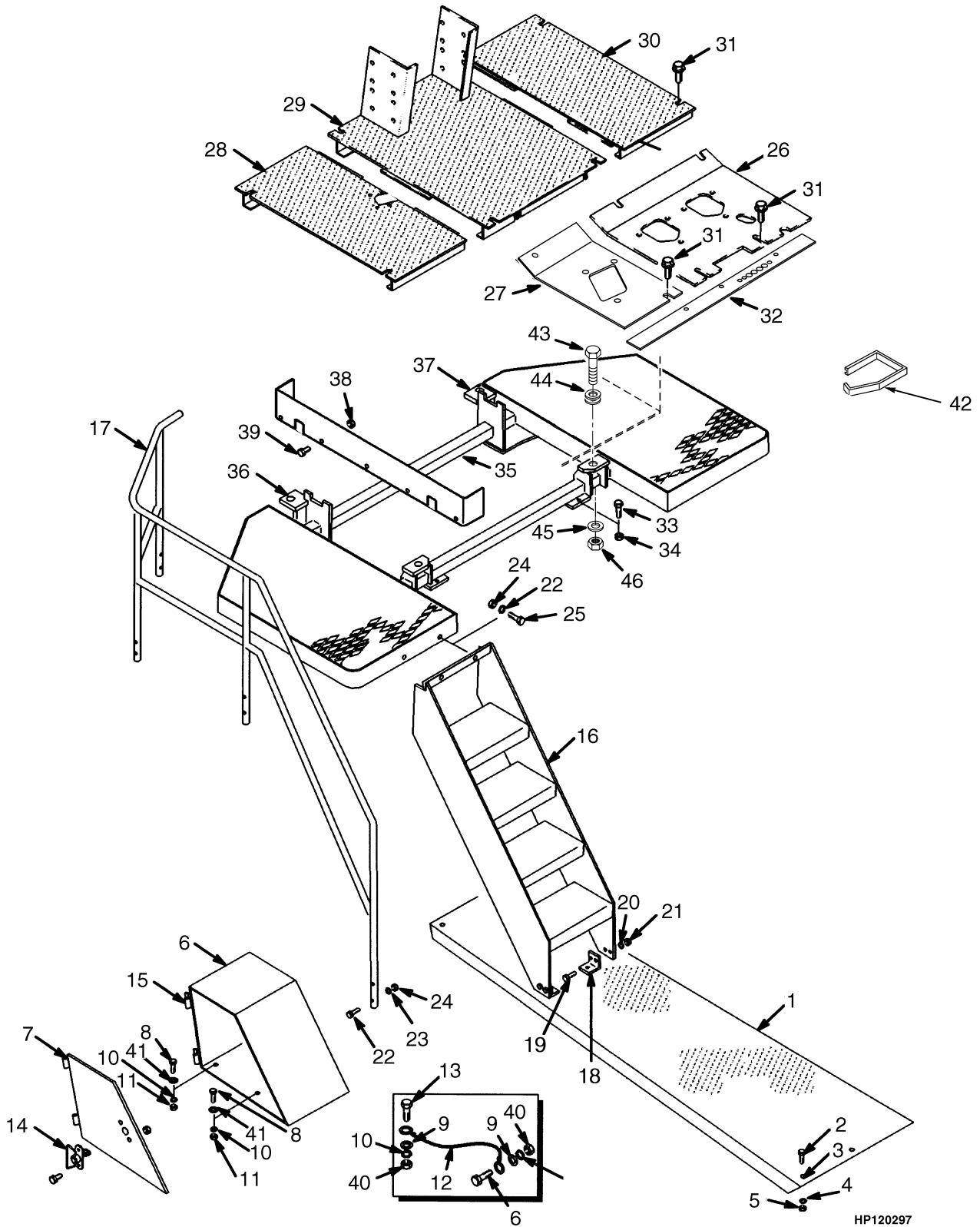


HP990033

ITEM	PART NO.	DESCRIPTION	QTY
1	.....	Frame (☞ Figure 1-2).....	1
2	.....	Engines (☞ Figure 2-85).....	1
3	.....	Fuel System (☞ Figure 3-1).....	1
4	.....	Electrical System .....	1
5	.....	Transmission (☞ Figure 5-1).....	1
6	.....	Drive Axle (☞ Figure 6-1).....	1
7	.....	Steering System (☞ Figure 7-2).....	1
8	.....	Brake System (☞ Figure 8-1).....	1
9	.....	Hydraulic System (☞ Figure 9-1).....	1
10	.....	Mast-Two Stage Limited Free-Lift .....	1
11	.....	Mast-Empty Container Handler (☞ Figure 11-1).....	1
12	.....	Options (☞ Figure 12-1).....	1



## FLOOR PLATES AND COVERS (FIGURE 1-2) EMPTY CONTAINER HANDLER



HP120297



**FLOOR PLATES AND COVERS  
EMPTY CONTAINER HANDLER**

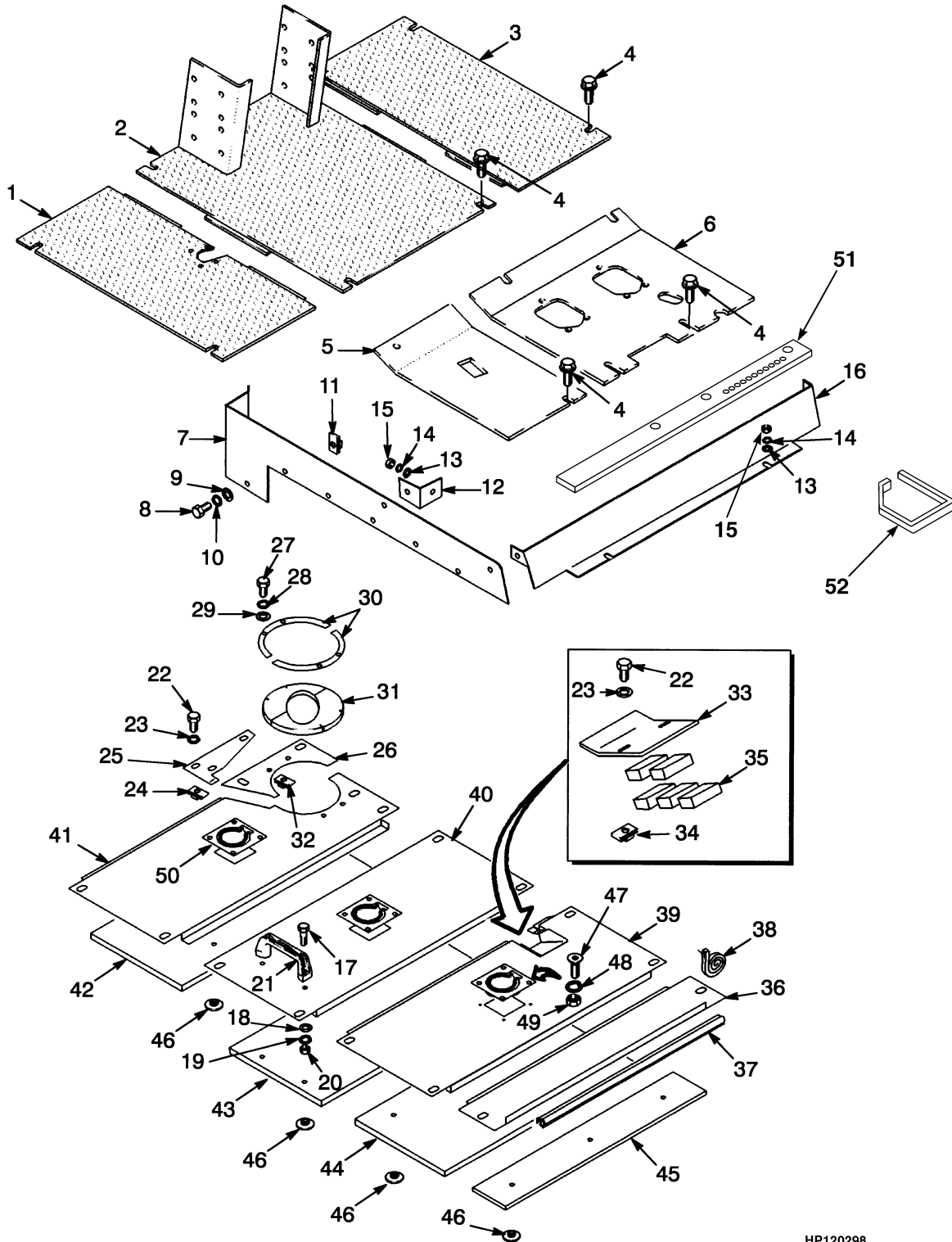
ITEM	PART NO.	DESCRIPTION	QTY
1	1541792	Running Board (RH) .....	1
1	1541791	Running Board (LH) .....	1
2	246001	Capscrew .....	14
3	216735	Grommet .....	14
4	320162	Washer .....	42
5	300937	Nut .....	14
6	1382005	Battery Tray .....	1
6	3047451	Hinge .....	2
6	1382017	Storage Box .....	1
6	3047451	Hinge .....	2
7	1382007	Door (LH) .....	1
7	3047452	Hinge .....	2
7	1382018	Door (RH) .....	1
7	3047452	Hinge .....	2
8	287854	Capscrew .....	8
9	320159	Washer .....	8
10	<del>388049</del>		
	292682	Lockwasher .....	8
11	<del>1586693</del>		
	136692	Nut .....	8
12	1456622	Cable .....	2
13	296172	Capscrew .....	4
14	1391416	Latch .....	2
15	1301700	Ring (Brass) .....	4
16	1519654	Step .....	2
17	1373739	Hand Rail (LH) .....	1
17	1373740	Hand Rail (RH) .....	1
18	1382612	Bracket (Tier I Engine) .....	4
19	302335	Capscrew .....	12
20	320159	Washer .....	12
21	<del>1586693</del>		
	136692	Nut .....	12
22	302349	Capscrew .....	8
23	320162	Washer .....	8
24	300937	Nut .....	14
25	302343	Capscrew .....	6
26	1382649	Floorplate (LH Front) .....	1
27	1355113	Floorplate (RH Front) (Tier I Engine) .....	1
27	1508108	Floorplate (RH Front) (Tier II Engine) .....	1
28	1336914	Floorplate (RH) .....	1
29	1465374	Floorplate (Center) .....	1
30	1325557	Floorplate (LH) .....	1
31	329067	Screw .....	15
32	1336912	Seal (Tier I Engine) .....	1
32	1508250	Seal (Tier II Engine) .....	1
33	292563	Capscrew .....	4
34	316828	Nut .....	4
35	1545279	Platform .....	1
36	1373747	Plate (LH) .....	1
37	1373746	Plate (RH) .....	1

**FLOOR PLATES AND COVERS  
EMPTY CONTAINER HANDLER**

<b>ITEM</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY</b>
38	316826	Nut .....	10
39	292514	Capscrew .....	10
40	316826	Nut .....	4
41	320160	Washer .....	8
42	1457097	Molding (Rubber) .....	2
43	292535	Capscrew .....	4
44	1325519	Motor Mount (Cab) .....	4
45	300939	Washer .....	4
46	300937	Nut .....	4



## FLOOR PLATES AND COVERS (FIGURE 1-3) FORK LIFT TRUCK — PAGE 1 OF 2



HP120298

**FLOOR PLATES AND COVERS**  
**FORK LIFT TRUCK – PAGE 1 OF 2**

ITEM	PART NO.	DESCRIPTION	QTY
1	1336914	Floorplate (RH) .....	1
2	1465374	Floorplate (Center) .....	1
3	1325557	Floorplate (LH) .....	1
4	329067	Screw .....	15
5	1355113	Floorplate (RH Front) (Tier I Engine) .....	1
5	1508108	Floorplate (RH Front) (Tier II Engine) .....	1
6	1382649	Floorplate (LH Front) .....	1
7	<b>a</b> 1393855	Plate (RH) .....	1
7	<b>b</b> 1393853	Plate (RH) .....	1
7	<b>a</b> 1393854	Cover (LH) .....	1
7	<b>b</b> 1393852	Cover (LH) .....	1
8	<b>a</b> 136749	Screw .....	18
8	<b>b</b> 136749	Screw .....	16
9	<b>a</b> 320158	Washer .....	18
9	<b>b</b> 320158	Washer .....	16
10	<b>a</b> 292681	Lockwasher .....	18
10	<b>b</b> 292681	Lockwasher .....	16
11	<b>a</b> 1384661	Nut .....	18
11	<b>b</b> 1384661	Nut .....	16
12	1393856	Bracket .....	2
13	320160	Washer .....	4
14	<del>388049</del>		
	292682	Lockwasher .....	4
15	<del>1586693</del>		
	136692	Nut .....	4
16	<b>a</b> 1393858	Cover (Front) .....	1
16	<b>b</b> 1393850	Cover (Front) .....	1
17	292501	Capscrew .....	2
18	320156	Washer .....	2
19	292680	Washer .....	2
20	136687	Nut .....	2
21	362030	Handle .....	1
22	136749	Screw .....	20
23	320158	Washer .....	20
24	1385535	Nut , Clip Nut .....	18
25	1451594	Plate .....	1
26	1456189	Plate .....	1
27	296155	Capscrew .....	4
28	292679	Washer .....	4
29	320155	Washer .....	4
30	1451555	Plate .....	2
31	1451522	Cover (Exhaust) .....	2
32	1364542	Nut .....	4
33	1451559	Bracket .....	1
34	1384661	Nut .....	2
35	217549	Foam Tape .....	AR
36	1451783	Cover .....	1
37	1393871	Seal .....	1
38	261158	Foam Tape .....	AR
39	1451717	Cover .....	1

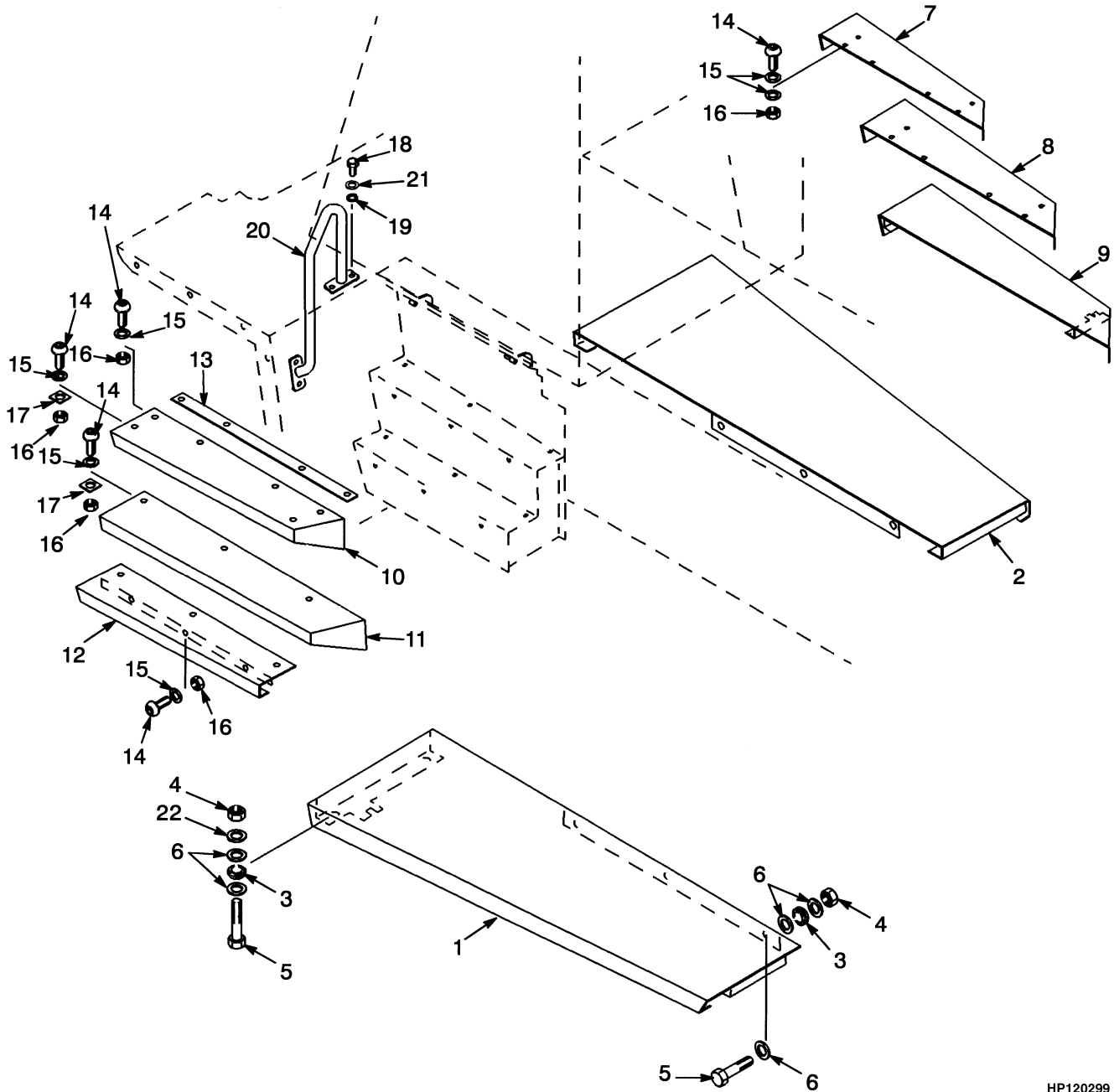
## FLOOR PLATES AND COVERS FORK LIFT TRUCK – PAGE 1 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
40	1393872	Cover .....	1
41	1451782	Cover .....	1
42	1451530	Insulation .....	1
43	1451529	Insulation .....	1
44	1451528	Insulation .....	1
45	1451527	Insulation .....	1
46	1361087	Button .....	10
47	296150	Capscrew .....	12
48	320154	Washer .....	12
49	815597	Nut .....	12
50	1451521	Handle .....	3
51	1336912	Seal (Tier I Engine) .....	1
51	1508250	Seal (Tier II Engine) .....	1
52	1457097	Molding (Rubber) .....	2

**FOOTNOTES:****a** H16.00XM**b** H18.00XM



## FLOOR PLATES AND COVERS (FIGURE 1-4) FORK LIFT TRUCK — PAGE 2 OF 2



HP120299



**FLOOR PLATES AND COVERS**  
**FORK LIFT TRUCK – PAGE 2 OF 2**

ITEM	PART NO.	DESCRIPTION	QTY
1	<b>a d</b> 1450769	Running Board (LH) .....	1
1	<b>a h</b> 1541789	Running Board (LH) .....	1
1	<b>b d</b> 1450783	Running Board (LH) .....	1
1	<b>b h</b> 1541787	Running Board (LH) .....	1
2	<b>a d</b> 1450770	Running Board (RH) .....	1
2	<b>a h</b> 1541790	Running Board (RH) .....	1
2	<b>b d</b> 1450784	Running Board (RH) .....	1
2	<b>b h</b> 1541788	Running Board (RH) .....	1
3	216735	Grommet .....	10
4	300937	Nut .....	10
5	246001	Capscrew .....	10
6	<b>d</b> 320162	Washer .....	30
6	<b>h</b> 320162	Washer .....	34
7	<b>a c</b> 1452202	Step (RH) .....	1
7	<b>a e</b> 1518324	Step (RH) .....	1
7	<b>b c</b> 1452197	Step (RH) .....	1
7	<b>b e</b> 1518171	Step (RH) .....	1
8	<b>a c</b> 1452203	Step (RH) .....	1
8	<b>a e</b> 1518323	Step (RH) .....	1
8	<b>b c</b> 1452198	Step (RH) .....	1
8	<b>b e</b> 1518100	Step (RH) .....	1
9	<b>a c</b> 1454945	Step (RH) .....	1
9	<b>a e</b> 1518322	Step (RH) .....	1
9	<b>b c</b> 1454949	Step (RH) .....	1
9	<b>b e</b> 1518099	Step (RH) .....	1
10	<b>a d</b> 1451497	Step (Top) (LH) .....	1
10	<b>a h</b> 1554855	Step (Top) .....	1
10	<b>b d</b> 1451484	Step (Top) .....	1
10	<b>b h</b> 1556307	Step (Top) .....	1
11	<b>a d</b> 1451494	Step (LH) .....	1
11	<b>a f</b> 1554857	Step (LH) .....	1
11	<b>a g</b> 1589321	Step (LH) .....	1
11	<b>b d</b> 1451489	Step (LH) .....	1
11	<b>b f</b> 1556306	Step (LH) .....	1
11	<b>b g</b> 1589330	Step (LH) .....	1
12	<b>a d</b> 1451503	Step (LH) .....	1
12	<b>a f</b> 1554858	Step .....	1
12	<b>a g</b> 1589323	Step .....	1
12	<b>b d</b> 1451500	Step .....	1
12	<b>b f</b> 1556304	Step .....	1
12	<b>b g</b> 1589328	Step .....	1
13	<b>a</b> 1451478	Plate .....	1
13	<b>b</b> 1451477	Plate .....	1
14	<b>e</b> 296174	Capscrew .....	27
15	<b>e</b> 320160	Washer .....	30
16	<b>e</b> 316826	Nut .....	27
17	1451012	Spacer .....	8
18	287860	Capscrew .....	8
19	316826	Nut .....	8
20	1452277	Hand Rail (LH) .....	1

## FLOOR PLATES AND COVERS FORK LIFT TRUCK – PAGE 2 OF 2

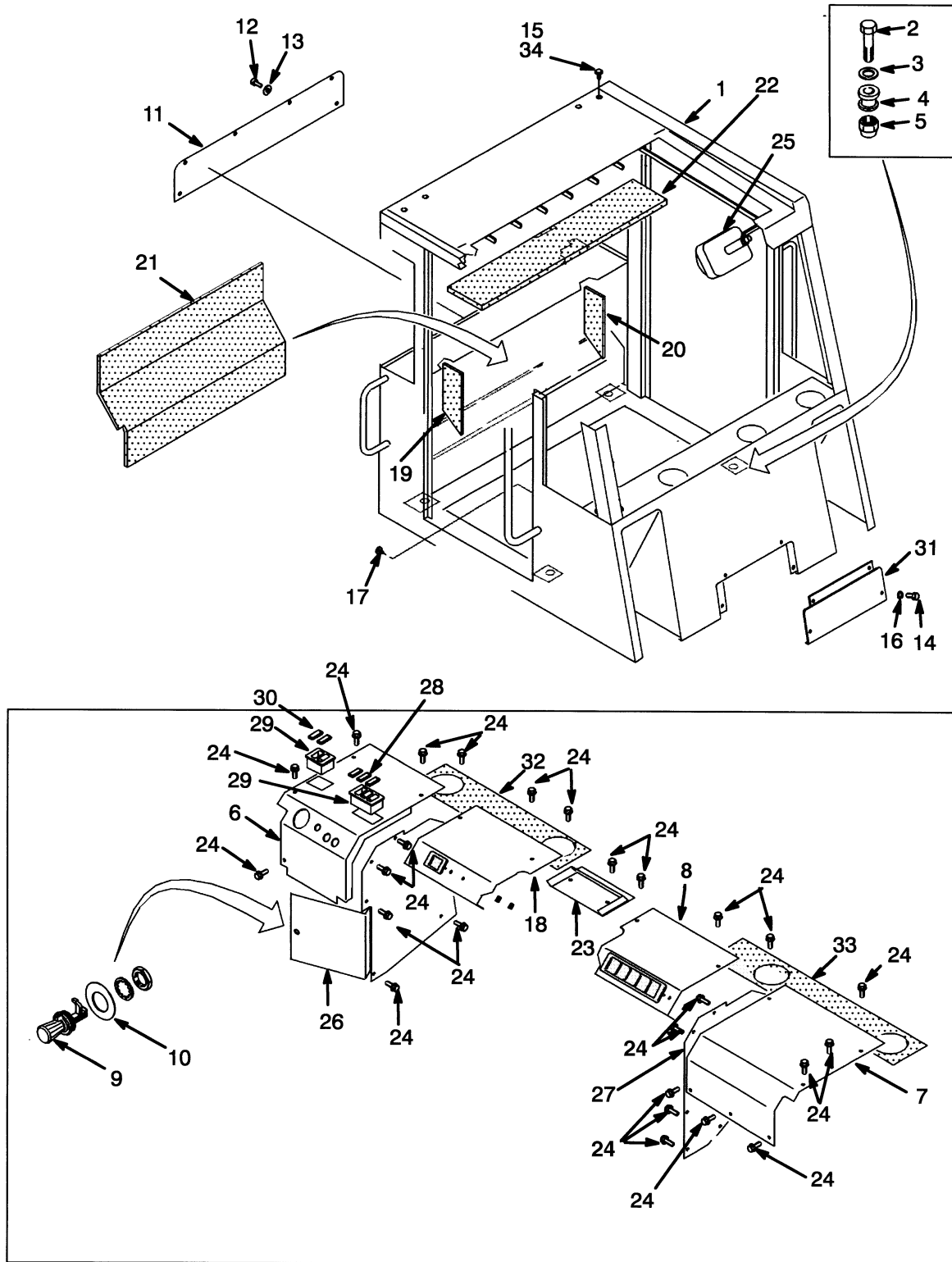
ITEM	PART NO.	DESCRIPTION	QTY
20	1452278	Hand Rail (RH) .....	1
21	320159	Washer .....	16
22	320161	Washer .....	8

### FOOTNOTES:

- |          |                  |          |                                   |
|----------|------------------|----------|-----------------------------------|
| <b>a</b> | H16.00XM         | <b>e</b> | S/N A214E01843 ↔ S/N A214E02062   |
| <b>b</b> | H18.00XM         | <b>f</b> | S/N A214E02063E ↔ S/N A214E02120C |
| <b>c</b> | → S/N A214E01842 | <b>g</b> | S/N A214E02121C →                 |
| <b>d</b> | → S/N A214E02062 | <b>h</b> | S/N A214E02063 →                  |



## OPERATOR COMPARTMENT (FIGURE 1-5) WITHOUT CAB

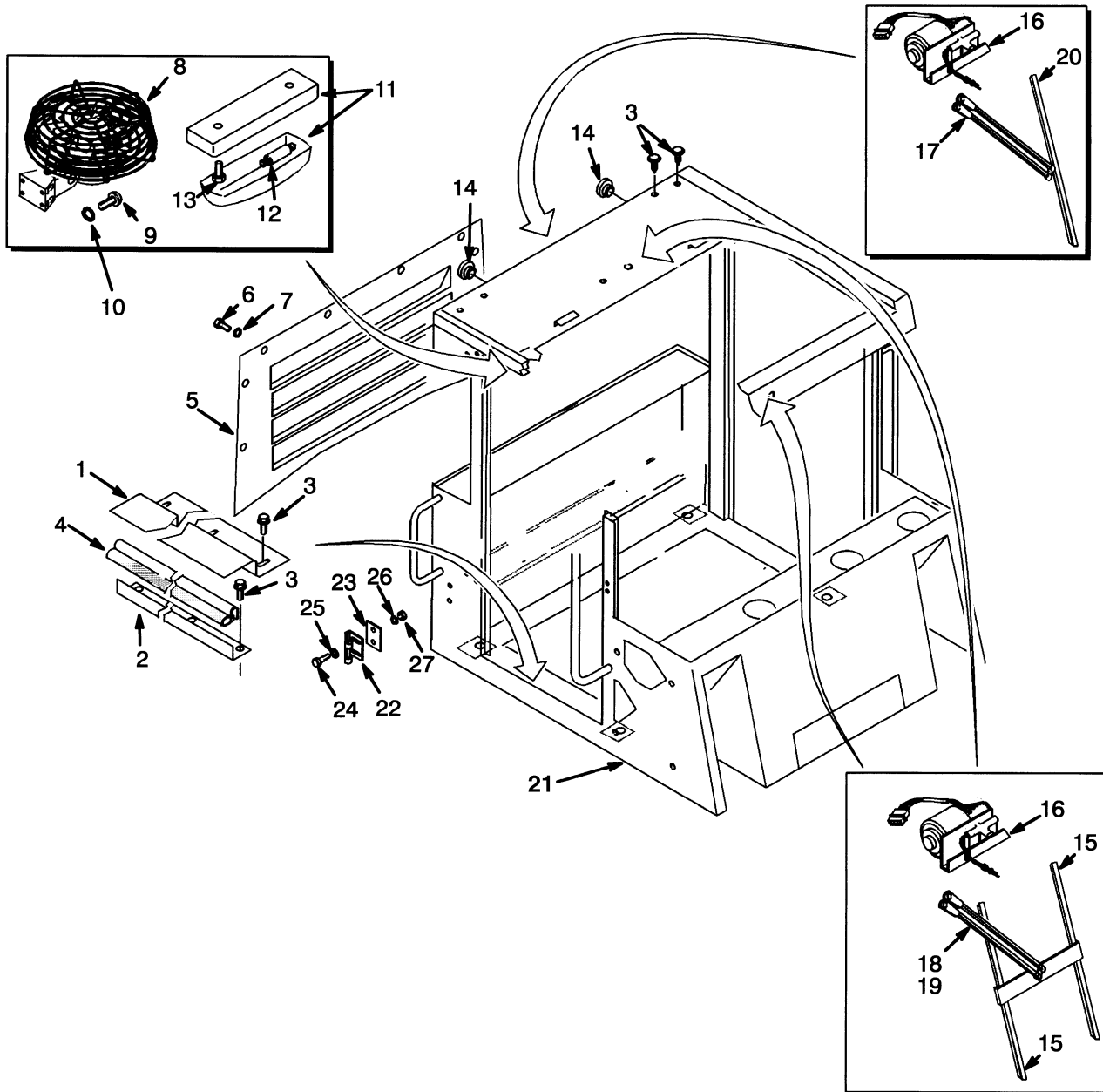


HP120300

**OPERATOR COMPARTMENT  
WITHOUT CAB**

ITEM	PART NO.	DESCRIPTION	QTY
1	1373718	Operator Compartment .....	1
2	292535	Capscrew .....	4
3	300939	Washer .....	4
4	1325519	Motor Mount (Cab) .....	4
5	300937	Nut .....	4
6	1451065	Cover (LH) (Tier I Engine) .....	1
6	1521834	Cover (LH) (Tier II Engine) .....	1
7	1325597	Cover (RH) .....	1
8	1393754	Cover Plate .....	1
9	1311288	Latch .....	1
10	1311287	Washer .....	1
11	1453421	Plate .....	1
12	1384659	Capscrew .....	6
13	1324577	Washer .....	6
14	369242	Capscrew .....	4
15	1307737	Fastener .....	4
16	375629	Washer .....	4
17	1304971	Fastener (Tier I Engine) .....	2
18	1393755	Cover Plate (Tier I Engine) .....	1
18	1507272	Cover Plate (Tier II Engine) .....	1
19	1301263	Sound Liner (LH Lower) .....	1
20	1301264	Sound Liner (RH Lower) .....	1
21	1325623	Liner (Lower Center) .....	1
22	1325624	Liner (Top) .....	1
23	1301189	Cover .....	1
24	1301177	Screw .....	31
25	1301286	Mirror .....	2
26	1311388	Door .....	1
27	1301255	Panel (RH Access) .....	1
28	376947	Frame .....	1
29	376949	Cover .....	5
30	376948	Bezel .....	2
31	1393833	Plate .....	1
32	1301293	Gasket (LH) .....	1
33	1301292	Gasket (RH) .....	1
34	280472	Sealant .....	AR

## OPERATOR COMPARTMENT (FIGURE 1-6) WITH CAB — PAGE 1 OF 3



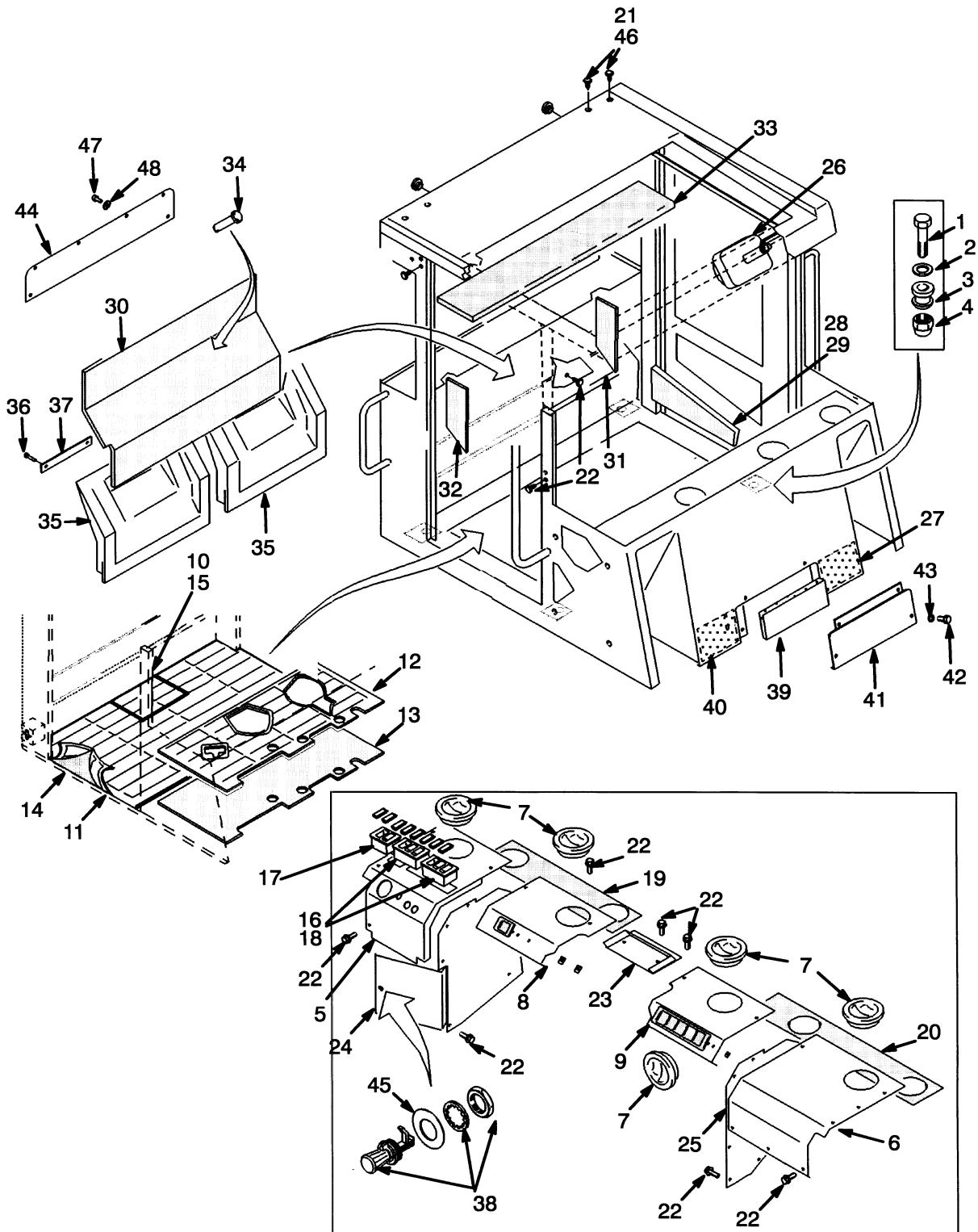
HP120319

**OPERATOR COMPARTMENT  
WITH CAB – PAGE 1 OF 3****KEY:****A: Empty Container Handler****B: Fork Lift Truck**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1325567	Bracket .....	2	2
2	1325576	Bracket .....	2	2
3	309637	Screw .....	12	12
4	1325582	Seal-Bulk .....	AR	AR
5	1384506	Cover .....	1	..
6	1384659	Capscrew .....	8	..
7	1324577	Washer .....	8	..
8	1312226	Fan Assembly .....	1	1
8	1307755	Fan .....	1	1
8	181045	Connector Body .....	1	1
8	134810	Terminal .....	1	1
8	1301783	Ring Terminal .....	1	1
9	16750	Screw .....	4	4
10	15152	Lockwasher .....	4	4
11	1301254	Dome Light .....	1	1
12	1307051	Bulb .....	1	1
13	302236	Capscrew .....	2	2
14	1311217	Plug .....	2	2
15	816046	Wiper Blade .....	4	4
16	<b>b</b> 1306902	Wiper Motor .....	3	3
16	<b>d</b> 1504017	Kit-Wiper Motor .....	1	1
16	<b>d</b> 1517976	Wiper Motor .....	1	1
16	<b>d</b> 1504014	Wire Harness (Adapter) .....	1	1
17	816045	Wiper Arm (Rear) .....	1	1
18	1458609	Wiper Arm (Front) .....	1	1
19	816372	Wiper Arm (Top) .....	1	1
20	1318443	Wiper Blade .....	1	1
21	1373701	Operator Compartment .....	1	..
21	1373725	Operator Compartment .....	..	1
22	<b>a</b> 1369520	Striker .....	..	2
22	<b>c</b> 1393748	Striker .....	..	2
23	<b>a</b> 1373690	Spacer .....	..	2
24	287854	Capscrew .....	..	4
25	<del>388049</del> 292682	Lockwasher .....	..	4
26	320159	Washer .....	..	4
27	<del>4586693</del> 136692	Nut .....	..	4

**FOOTNOTES:****a** → 3/1998**b** → S/N A214E01797**c** 1/1998 →**d** S/N A214E01798 →

## OPERATOR COMPARTMENT (FIGURE 1-7) WITH CAB — PAGE 2 OF 3



HP120236



**OPERATOR COMPARTMENT  
WITH CAB – PAGE 2 OF 3****KEY:****A: Empty Container Handler****B: Fork Lift Truck**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	292535	Capscrew .....	4	4
2	300939	Washer .....	4	4
3	1325519	Motor Mount (Cab) .....	4	4
4	300937	Nut .....	4	4
5	1373691	Cover (LH) (Tier I Engine) .....	1	1
5	1521833	Cover (LH) (Tier II Engine) .....	1	1
6	1325550	Cover (RH) .....	1	1
7	376276	Nozzle .....	5	5
8	<b>a</b> 1393750	Cover Plate .....	1	..
8	<b>b</b> 1393756	Cover Plate (Tier I Engine) .....	1	1
8	1507271	Cover Plate (Tier II Engine) .....	1	1
9	1393753	Cover Plate .....	1	1
10	1383855	Floormat .....	1	1
11	1355028	Floormat .....	1	1
12	1382832	Floormat .....	1	1
13	1355027	Barrier .....	1	1
14	1382833	Barrier .....	1	1
15	1383856	Barrier .....	1	1
16	376947	Frame .....	2	2
17	376948	Bezel .....	1	1
18	376949	Cover .....	5	5
19	1301293	Gasket (LH) .....	1	1
20	1301292	Gasket (RH) .....	1	1
21	1307737	Fastener .....	4	4
22	1301177	Screw .....	31	31
23	1301189	Cover .....	1	1
24	1311388	Door .....	1	1
25	1301255	Panel (RH Access) .....	1	1
26	1301286	Mirror .....	2	2
27	1393836	Liner .....	1	1
28	1311432	Sound Liner (RH) .....	1	..
28	1377728	Liner (RH) .....	..	1
29	1311433	Sound Liner (LH) .....	1	..
29	1377729	Liner (LH) .....	..	1
30	1325729	Liner (Lower Center) .....	1	1
31	1311430	Sound Liner (LH Lower) .....	1	1
32	1336986	Liner (RH Lower) .....	1	1
33	1456470	Liner (Top) .....	2	2
34	280644	Button .....	4	4
35	1342664	Sound Liner .....	2	..
36	329067	Screw .....	2	..
37	1301297	Plate .....	1	1
38	1311288	Latch .....	1	1
39	1393835	Liner .....	1	1
40	1393834	Liner .....	1	1

## OPERATOR COMPARTMENT WITH CAB – PAGE 2 OF 3

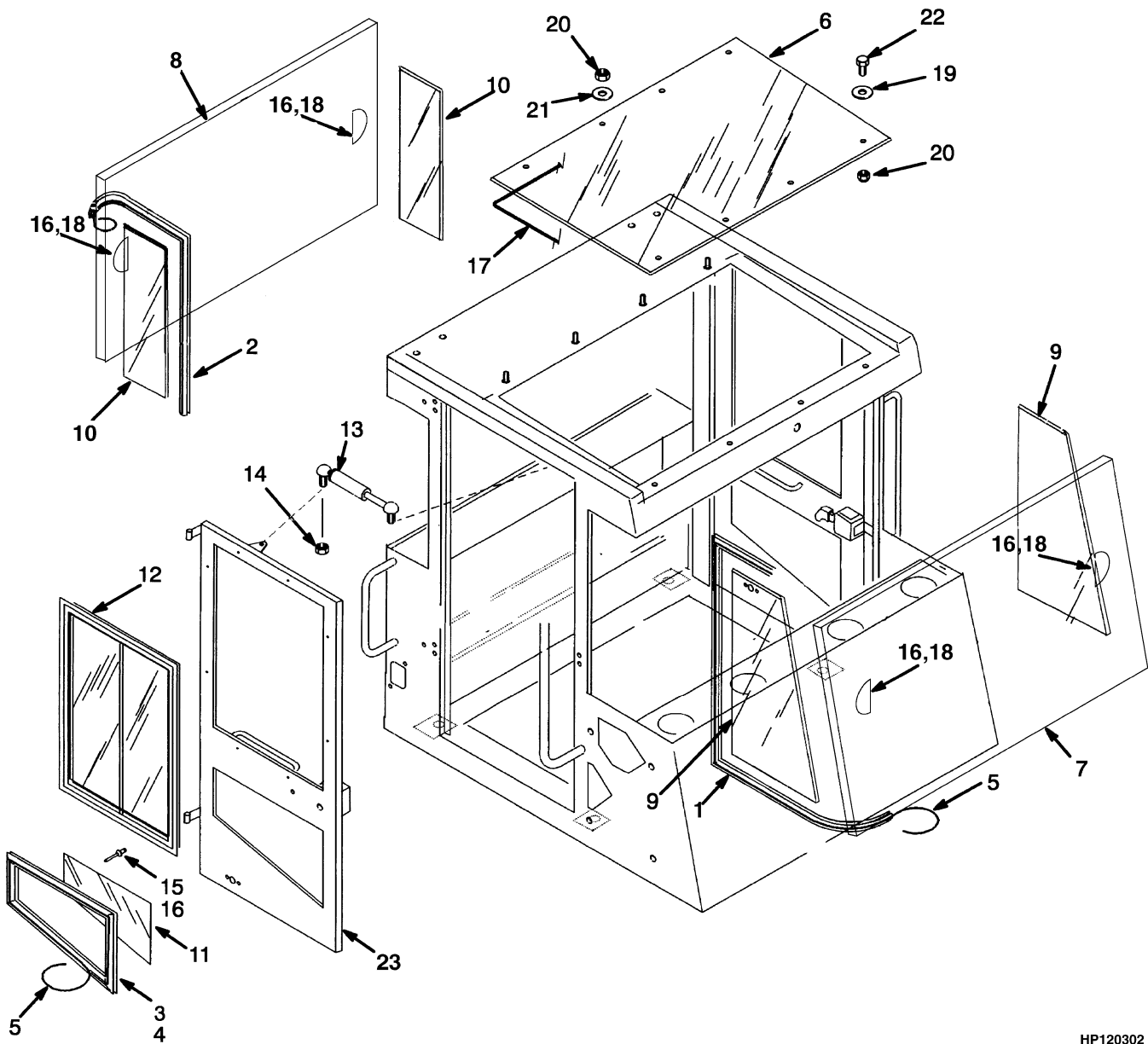
**KEY:****A:** Empty Container Handler**B:** Fork Lift Truck

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
41	1393833	Plate .....	1	1
42	369242	Capscrew .....	4	4
43	375629	Washer .....	4	4
44	1453421	Plate .....	..	1
45	1311287	Washer .....	1	1
46	280472	Sealant .....	AR	AR
47	1384659	Capscrew .....	..	6
48	1324577	Washer .....	..	6

**FOOTNOTES:****a** → S/N A214E01806**b** S/N A214E01807 →



**OPERATOR COMPARTMENT (FIGURE 1-8)  
WITH CAB — PAGE 3 OF 3**



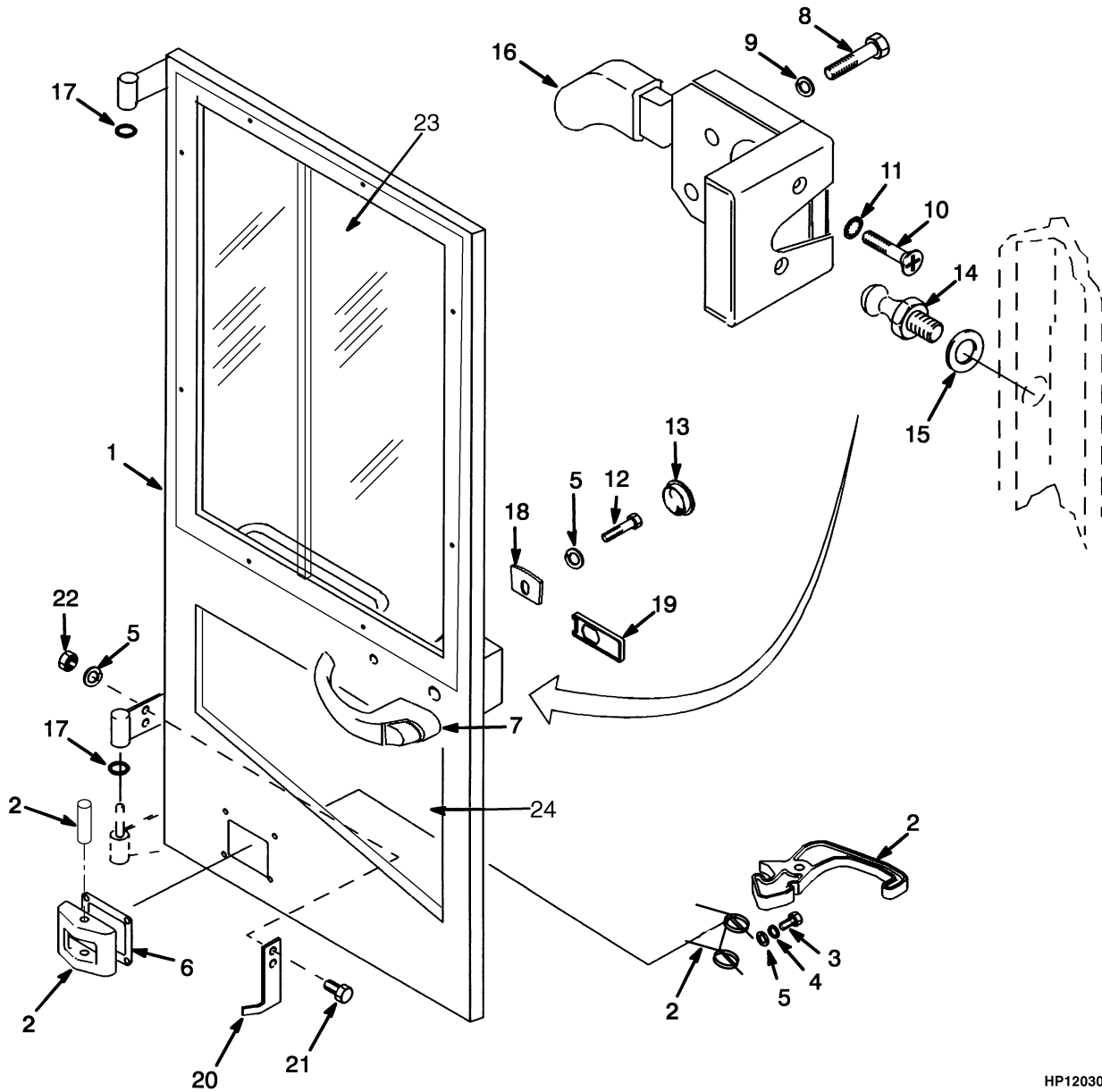
HP120302

**OPERATOR COMPARTMENT  
WITH CAB – PAGE 3 OF 3****KEY:****A: Empty Container Handler****B: Fork Lift Truck**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1346426	Seal .....	1	1
2	376064	Seal .....	1	1
3	376867	Seal .....	1	1
4	376868	Seal .....	1	1
5	376922	Strip Seal .....	AR	AR
6	1595164	Window (Top) .....	1	1
7	1346424	Front Window (Front) .....	1	1
8	1301372	Glass (Rear) .....	1	1
9	1346425	Front Window .....	2	2
10	1301374	Glass (Rear) .....	2	2
11	1301375	Glass .....	2	2
12	1375984	Sliding Window (RH) .....	1	1
12	1377703	Glass .....	1	1
12	1377704	Glass .....	1	1
12	1377702	Latch .....	1	1
12	1377271	Screw .....	4	4
12	1375985	Sliding Window (LH) .....	1	1
12	1377703	Glass .....	1	1
12	1377704	Glass .....	1	1
12	1377702	Latch .....	1	1
12	1377271	Screw .....	4	4
13	816380	Gas Spring .....	2	..
14	316835	Nut .....	4	..
15	265817	Rivet .....	16	16
16	3047334	Adhesive .....	AR	AR
17	318352	Sealant .....	AR	AR
18	<b>a</b> 376840	Spacer .....	2	2
19	1324577	Washer .....	4	4
20	302401	Locknut .....	8	8
21	320160	Washer .....	4	4
22	1384659	Capscrew .....	4	4
23	1391422	Door (☞Figure 1-9).....	1	..
23	1391423	Door (☞Figure 1-9).....	1	..
23	1377726	Door (☞Figure 1-9).....	..	1
23	1377727	Door (☞Figure 1-9).....	..	1

**FOOTNOTES:****a** Half of Item Used in Four Locations

## DOORS (FIGURE 1-9)

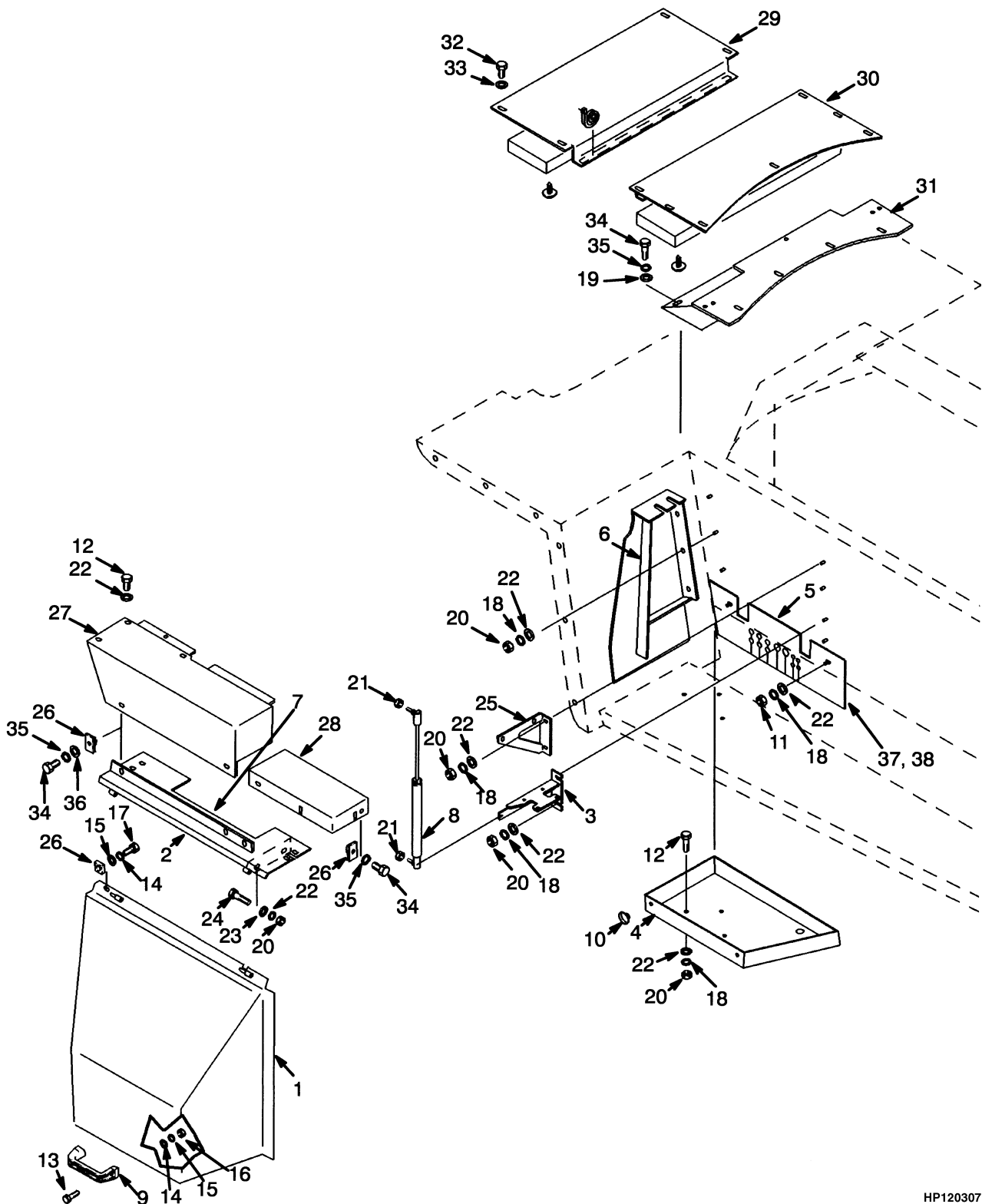


HP120303

**DOORS****KEY:****A: Empty Container Handler****B: Fork Lift Truck**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1377726	Door (LH) .....	..	1
1	1377727	Door (RH) .....	..	1
1	1391422	Door (LH) .....	1	..
1	1391423	Door (RH) .....	1	..
2	1374428	Latch .....	..	2
2	1356943	Latch .....	..	1
2	1356948	Bracket .....	..	1
2	1358734	Spring .....	..	1
2	226774	Pin .....	..	1
3	292500	Capscrew .....	..	8
4	320156	Washer .....	..	8
5	292680	Washer .....	6	10
6	1369496	Seal .....	..	2
7	1319177	Handle .....	2	2
7	1360777	Key .....	2	2
8	302248	Capscrew .....	4	4
9	292679	Washer .....	4	4
10	296464	Screw .....	4	4
11	296396	Washer .....	4	4
12	302256	Capscrew .....	2	2
13	309666	Plug .....	2	2
14	365344	Bolt .....	2	2
15	296423	Washer .....	2	2
16	1309824	Door Handle (LH) .....	1	1
16	1312450	Door Handle (RH) .....	1	1
17	1301700	Ring (Brass) .....	4	4
18	816378	Seal .....	2	..
19	816377	Seal .....	2	..
20	1391910	Plate (LH) .....	1	..
20	1393763	Plate (RH) .....	1	..
21	292501	Capscrew .....	4	..
22	4586693	Nut .....	4	..
23	1375985	Sliding Window (LH) (☞Figure 1-8).....	AR	AR
23	1375984	Sliding Window (RH) (☞Figure 1-8).....	AR	AR
24	1301375	Glass (☞Figure 1-8).....	AR	AR

## COVERS (FIGURE 1-10) EMPTY CONTAINER HANDLER



HP120307



**COVERS**  
**EMPTY CONTAINER HANDLER**

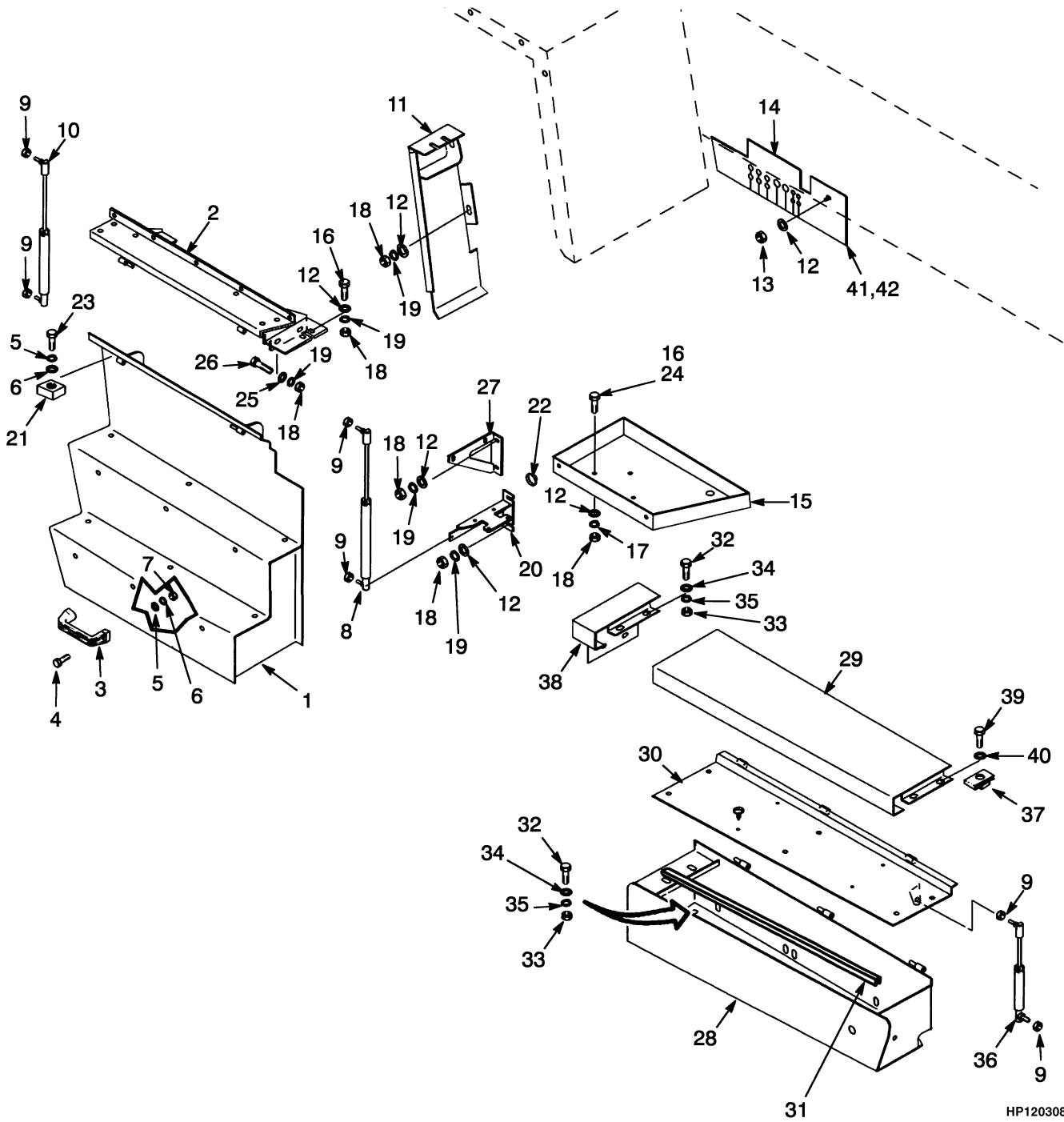
ITEM	PART NO.	DESCRIPTION	QTY
1	1382634	Cover .....	1
2	1383879	Cover .....	1
3	1382846	Bracket Wldmt .....	1
4	<b>b</b> 1450761	Pan .....	1
4	<b>c</b> 1516916	Pan .....	1
5	<b>a</b> 1384507	Mud Flap .....	1
5	1465470	Mud Flap (Alternate Part) .....	1
6	1382848	Bracket Wldmt .....	1
7	1383876	Plate .....	1
8	1385584	Gas Spring .....	1
9	362030	Handle .....	1
10	1450759	Button .....	2
11	316836	Nut .....	2
12	287854	Capscrew .....	7
13	292501	Capscrew .....	2
14	320156	Washer .....	3
15	292680	Washer .....	3
16	136687	Nut .....	2
17	292500	Capscrew .....	1
18	320160	Washer .....	16
19	292681	Lockwasher .....	6
20	<del>1586693</del> 136692	Nut .....	16
21	239503	Nut .....	2
22	<del>388049</del> 292682	Lockwasher .....	16
23	320159	Washer .....	4
24	136985	Capscrew .....	2
25	1384667	Bracket Wldmt .....	1
26	1384661	Nut .....	6
27	1384532	Cover (LH) .....	1
27	1384648	Cover (RH) .....	1
28	1393861	Cover .....	1
29	1384652	Cover .....	1
30	1384653	Cover .....	1
31	1384651	Mount .....	1
32	329067	Screw .....	18
33	320158	Washer .....	23
34	136749	Screw .....	6
35	320160	Washer .....	4
36	292681	Lockwasher .....	6
37	1302109	Trim .....	AR
38	238810	Adhesive .....	AR

**FOOTNOTES:**

**a** → S/N A214E01658  
**b** → S/N A214E01842Z

**c** S/N A214E01843Z →

## COVERS (FIGURE 1-11) FORK LIFT TRUCK



HP120308

**COVERS  
FORK LIFT TRUCK**

ITEM	PART NO.	DESCRIPTION	QTY
1	<b>a</b> 1450972	Cover .....	1
1	3047452	Hinge .....	1
1	3047451	Hinge .....	1
1	<b>b</b> 1450971	Cover .....	1
1	3047452	Hinge .....	1
1	3047451	Hinge .....	1
2	<b>a</b> 1451515	Cover .....	1
2	3047452	Hinge .....	1
2	3047451	Hinge .....	1
2	<b>b</b> 1451514	Cover .....	1
2	3047452	Hinge .....	1
2	3047451	Hinge .....	1
3	362030	Handle .....	1
4	292501	Capscrew .....	2
5	320156	Washer .....	3
6	292680	Washer .....	3
7	136687	Nut .....	2
8	1385584	Gas Spring .....	1
9	239503	Nut .....	6
10	1450762	Gas Spring .....	1
11	1451508	Cover .....	1
12	<b>e</b> 320160	Washer .....	33
12	<b>g</b> 320160	Washer .....	42
13	<b>e</b> 316836	Nut .....	1
14	<b>e</b> 1450757	Mud Flap .....	1
15	<b>c</b> 1450761	Pan .....	1
15	<b>i</b> 1516916	Pan .....	1
16	<b>e</b> 287854	Capscrew .....	7
16	<b>g</b> 287854	Capscrew .....	13
17	320166	Washer .....	3
18	<del>1586693</del> 136692	Nut .....	15
19	<del>388049</del> 292682	Lockwasher .....	12
20	1450872	Bracket Wldmt .....	1
21	1383876	Plate .....	1
22	1450759	Button .....	2
23	292500	Capscrew .....	1
24	280472	Sealant .....	AR
25	<b>e</b> 320159	Washer .....	4
25	<b>g</b> 320159	Washer .....	20
26	136985	Capscrew .....	2
27	1384667	Bracket Wldmt .....	1
28	<b>a</b> 1451452	Battery Tray .....	1
28	<b>b</b> 1451451	Battery Tray .....	1
29	<b>a d</b> 1451018	Step (Battery Box) .....	1
29	<b>a f</b> 1554866	Step (Battery Box) .....	1
29	<b>a h</b> 1589318	Step (Battery Box) .....	1
29	3047452	Hinge .....	3
29	<b>b d</b> 1451470	Step (Battery Box) .....	1

## COVERS FORK LIFT TRUCK

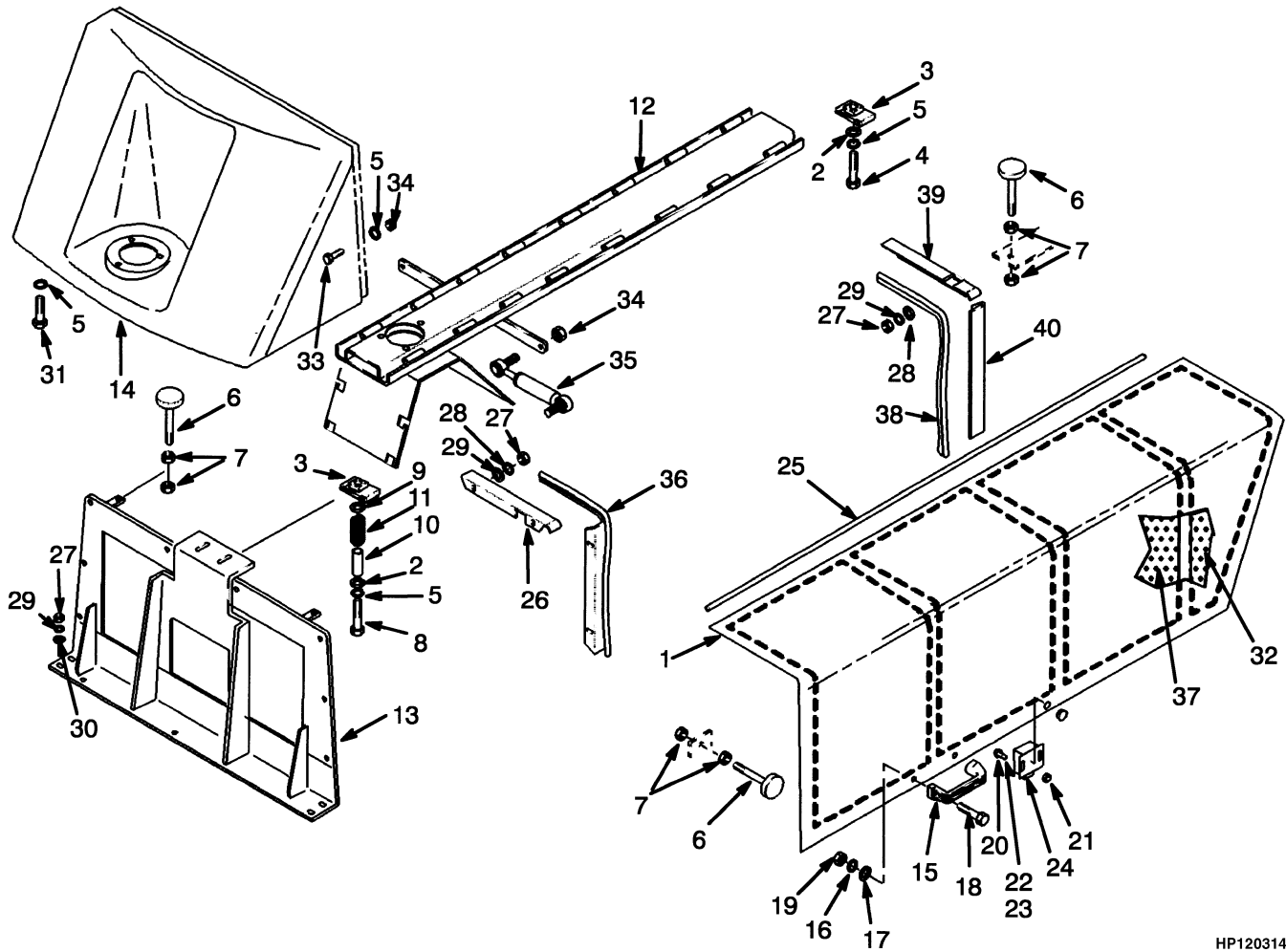
ITEM	PART NO.	DESCRIPTION	QTY
29	<b>b f</b> 1556302	Step (Battery Box) .....	1
29	<b>b h</b> 1589325	Step (Battery Box) .....	1
29	3047452	Hinge .....	3
30	<b>a d</b> 1451476	Cover (Battery Box) .....	1
30	3047452	Hinge .....	1
30	<b>a f</b> 1554865	Cover (Battery Box) .....	1
30	<b>a h</b> 1589320	Cover (Battery Box) .....	1
30	<b>b d</b> 1450897	Cover (Battery Box) .....	1
30	3047452	Hinge .....	1
30	<b>b f</b> 1556299	Cover (Battery Box) .....	1
30	<b>b h</b> 1589327	Cover (Battery Box) .....	1
31	1451450	Edge Protector .....	1
32	<b>e</b> 292527	Capscrew .....	8
32	292527	Capscrew .....	4
33	<b>e</b> 300937	Nut .....	8
33	<b>f</b> 300937	Nut .....	4
33	<b>h</b> 302402	Locknut .....	4
34	<b>e</b> 320161	Washer .....	16
34	<b>g</b> 320161	Washer .....	8
35	<b>e</b> 292683	Lockwasher .....	8
35	<b>g</b> 292683	Lockwasher .....	4
36	1455087	Gas Spring .....	1
37	1385535	Nut , Clip Nut .....	6
38	1451208	Step .....	1
39	136681	Capscrew .....	6
40	320158	Washer .....	12
41	1302109	Trim .....	AR
42	238810	Adhesive .....	AR

**FOOTNOTES:**

- |   |   |
|---|---|
| <b>a</b> H16.00XM                         | <b>f</b> S/N A214E02063 ↔ S/N A214E02120C |
| <b>b</b> H18.00XM                         | <b>g</b> S/N A214E02063 →                 |
| <b>c</b> → S/N A214E01842                 | <b>h</b> S/N A214E02121C →                |
| <b>d</b> → S/N A214E02062                 | <b>i</b> S/N A214E01843 →                 |
| <b>e</b> S/N A214E01658 ↔ S/N A214E002062 |   |



## HOOD (FIGURE 1-12) EMPTY CONTAINER HANDLER

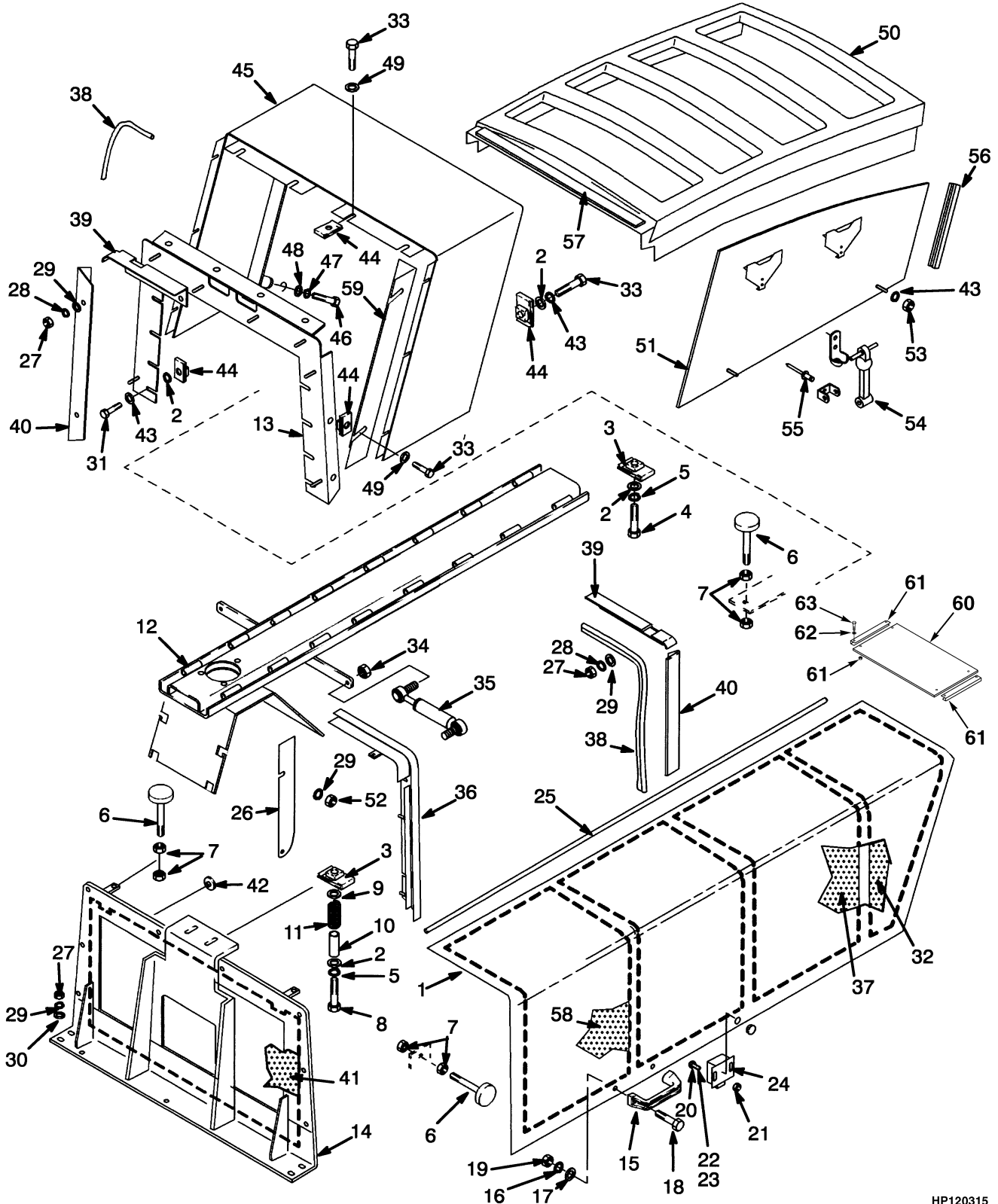


HP120314

**HOOD  
EMPTY CONTAINER HANDLER**

ITEM	PART NO.	DESCRIPTION	QTY
1	1373540	Hood (LH) .....	1
1	1373541	Hood (RH) .....	1
2	292681	Lockwasher .....	4
3	376397	Retainer .....	4
4	18498	Capscrew .....	2
5	320157	Washer .....	20
6	367251	Screw .....	8
7	15055	Nut .....	16
8	18516	Capscrew .....	2
9	296422	Washer .....	4
10	1301703	Spacer .....	2
11	1301702	Spring .....	2
12	1373743	Channel (Tier I Engine) .....	1
12	1516935	Channel (Tier II Engine) .....	1
13	1373527	Support .....	1
14	1384627	Cover .....	1
15	362030	Handle .....	2
16	292680	Washer .....	4
17	320156	Washer .....	4
18	292501	Capscrew .....	4
19	136687	Nut .....	4
20	296152	Capscrew .....	4
21	292668	Nut .....	4
22	292679	Washer .....	4
23	320155	Washer .....	4
24	1382332	Latch .....	2
25	1382408	Rod .....	2
26	1373655	Bracket (LH) .....	1
26	1373656	Bracket (RH) .....	1
27	<del>4586693</del> 136692	Nut .....	20
28	296421	Washer .....	16
29	<del>388049</del> 292682	Lockwasher .....	20
30	296420	Washer .....	4
31	176640	Bolt .....	4
32	1393842	Liner (LH) .....	1
32	1393843	Liner (RH) .....	1
33	136749	Screw .....	6
34	239503	Nut .....	10
35	1385584	Gas Spring .....	2
36	1373653	Bracket (LH) .....	1
36	1373654	Bracket (RH) .....	1
37	1373547	Hood Liner .....	6
38	300088	Seal (Door) .....	AR
39	1373658	Bracket (RH) .....	1
39	1373657	Bracket (LH) .....	1
40	1373659	Bracket .....	2

## HOOD (FIGURE 1-13) FORK LIFT TRUCK



HP120315



**HOOD  
FORK LIFT TRUCK****KEY:****A: H14.00-16.00XM****B: H18.00-20.00XM**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1455040	Hood (LH) .....	1	1
1	1455042	Hood (RH) .....	1	1
2	292681	Lockwasher .....	16	16
3	376397	Retainer .....	4	4
4	18498	Capscrew .....	2	2
5	320157	Washer .....	4	4
6	367251	Screw .....	8	8
7	15055	Nut .....	16	16
8	18516	Capscrew .....	2	2
9	296422	Washer .....	4	4
10	1301703	Spacer .....	2	2
11	1301702	Spring .....	2	2
12	<b>a</b> 1373744	Channel (Tier I Engine) .....	1	1
12	<b>b</b> 1516936	Channel (Tier II Engine) .....	1	1
13	<b>a</b> 1455466	Support (Tier I Engine) .....	1	1
13	<b>b</b> 1517676	Support (Tier II Engine) .....	1	1
14	1384683	Support .....	1	1
15	362030	Handle .....	2	2
16	292680	Washer .....	4	4
17	320156	Washer .....	4	4
18	292501	Capscrew .....	4	4
19	136687	Nut .....	4	4
20	296152	Capscrew .....	4	4
21	292668	Nut .....	4	4
22	292679	Washer .....	4	4
23	320155	Washer .....	4	4
24	1382332	Latch .....	2	2
25	1382408	Rod .....	2	2
26	1455049	Plate .....	1	1
27	<del>1586693</del> 136692	Nut .....	20	20
28	296421	Washer .....	16	16
29	<del>388049</del> 292682	Lockwasher .....	22	22
30	296420	Washer .....	4	4
31	176640	Bolt .....	8	8
32	1393842	Liner (LH) .....	1	1
32	1393843	Liner (RH) .....	1	1
33	136749	Screw .....	8	14
34	239503	Nut .....	4	4
35	1385584	Gas Spring .....	2	2
36	1455060	Plate (LH) .....	1	1
36	1455177	Plate (RH) .....	1	1
37	1373547	Hood Liner .....	4	4
38	300088	Seal (Door) .....	AR	AR

## HOOD FORK LIFT TRUCK

**KEY:**

**A: H14.00-16.00XM**

**B: H18.00-20.00XM**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
39	1373657	Bracket (LH) .....	1	1
39	1373658	Bracket (RH) .....	1	1
40	1373659	Bracket .....	2	2
41	1393906	Liner .....	1	1
42	1361087	Button .....	4	4
43	296419	Washer .....	16	16
44	1384661	Nut .....	16	22
45	1393876	Cover .....	..	1
46	292540	Capscrew .....	..	2
47	292683	Lockwasher .....	..	2
48	320162	Washer .....	..	2
49	320158	Washer .....	4	10
50	1393878	Cover .....	1	1
51	1452829	Cover (LH) .....	1	1
51	1452830	Cover (RH) .....	1	1
52	310102	Nut .....	2	2
53	302400	Nut .....	4	4
54	1452820	Keeper .....	4	4
55	222029	Rivet .....	8	8
56	1345675	Edge Protector .....	2	2
57	261156	Foam Tape .....	AR	AR
58	1455044	Hood Liner .....	2	2
59	1455191	Bracket (LH) .....	1	..
59	1455192	Bracket (RH) .....	1	..
60	1516593	Panel .....	2	2
61	1516594	Bracket .....	4	4
62	15175	Washer .....	8	8
63	16374	Capscrew .....	8	8
64	376397	Retainer (Not Illustrated) .....	8	8
65	15155	Lockwasher (Not Illustrated) .....	8	8

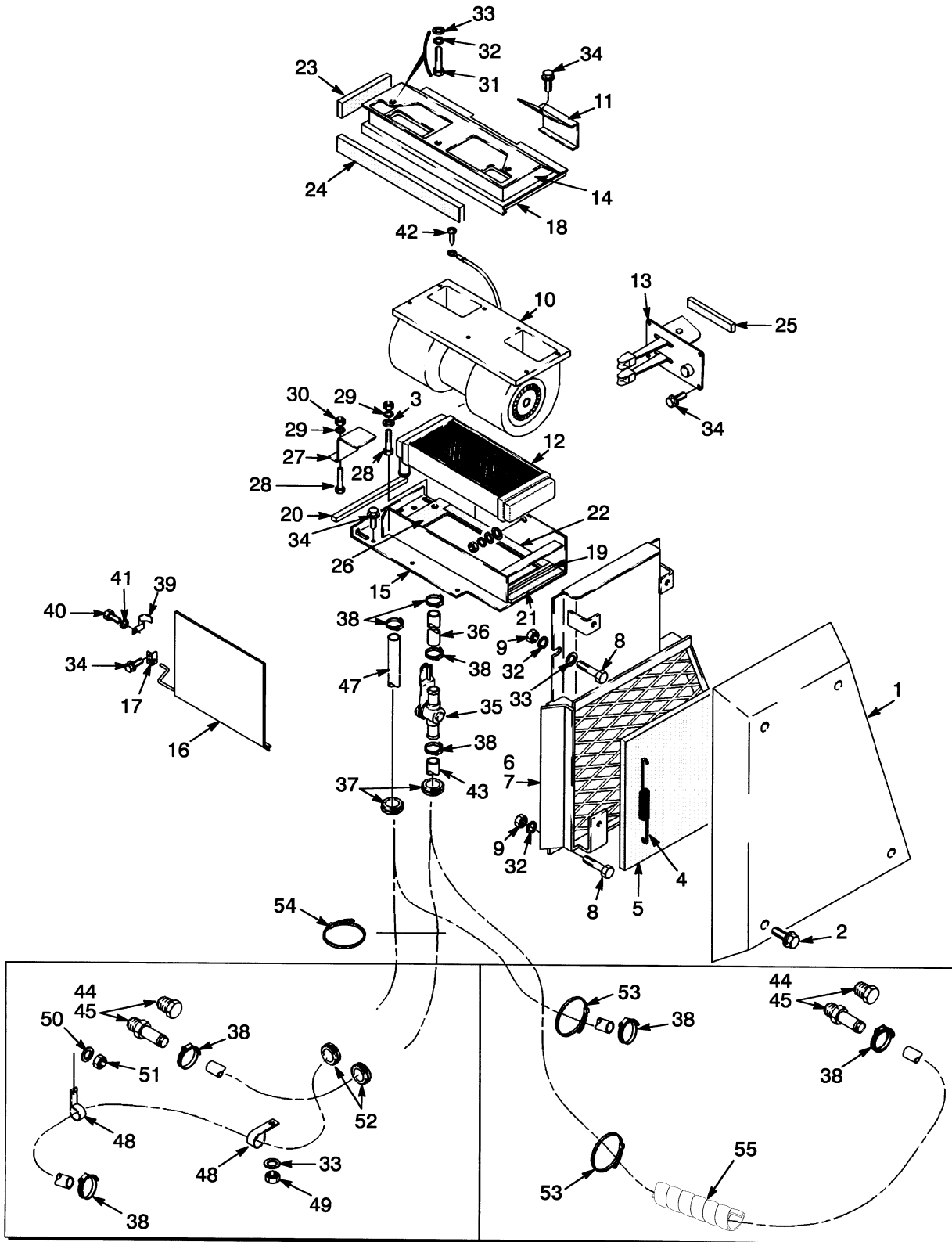
**FOOTNOTES:**

**a** → S/N A214E01841Z

**b** S/N A214E01842Z →



## HEATER (FIGURE 1-14)



HP120304

**HEATER****KEY:****A: Empty Container Handler****B: Fork Lift Truck**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1301326	Cover .....	1	1
2	1301708	Capscrew .....	4	4
3	320156	Washer .....	3	3
4	1301323	Spring .....	2	2
5	1301127	Filter .....	1	1
6	280472	Sealant .....	AR	AR
7	1301310	Plate .....	1	1
8	136681	Capscrew .....	4	4
9	239503	Nut .....	4	4
10	1301587	Blower .....	1	1
10	1368151	Blower .....	1	1
10	1453031	Resistor .....	1	1
11	1301389	Retainer .....	1	1
12	376137	Core .....	1	1
13	1301020	Heater Control (☞ Figure 1-15).....	1	1
14	1301393	Flange .....	1	1
15	1325585	Support .....	1	1
16	1325548	Damper .....	1	1
17	1301121	Bracket .....	2	2
18	1311273	Gasket .....	1	1
19	1301395	Foam .....	1	1
20	1301396	Foam .....	1	1
21	1301397	Foam .....	1	1
22	1301398	Foam .....	2	2
23	1301404	Foam .....	4	4
24	1301405	Foam .....	1	1
25	1301589	Foam .....	1	1
26	1301399	Foam (Sound Barrier) .....	1	1
27	1301400	Clamp .....	1	1
28	292501	Capscrew .....	2	2
29	292680	Washer .....	3	3
30	136687	Nut .....	3	3
31	287851	Capscrew .....	3	3
32	292681	Lockwasher .....	7	7
33	320157	Washer .....	6	8
34	1301177	Screw .....	11	11
35	1301001	Drain Valve .....	1	1
36	1301598	Hose .....	1	1
37	279752	Grommet .....	4	4
38	130845	Clamp .....	6	6
39	18901	Clamp .....	1	1
40	302244	Capscrew .....	1	1
41	292679	Washer .....	1	1
42	1301284	Screw .....	1	1
43	1313368	Hose .....	1	..
43	163520	Hose .....	..	1

## HEATER

**KEY:**

**A:** Empty Container Handler

**B:** Fork Lift Truck

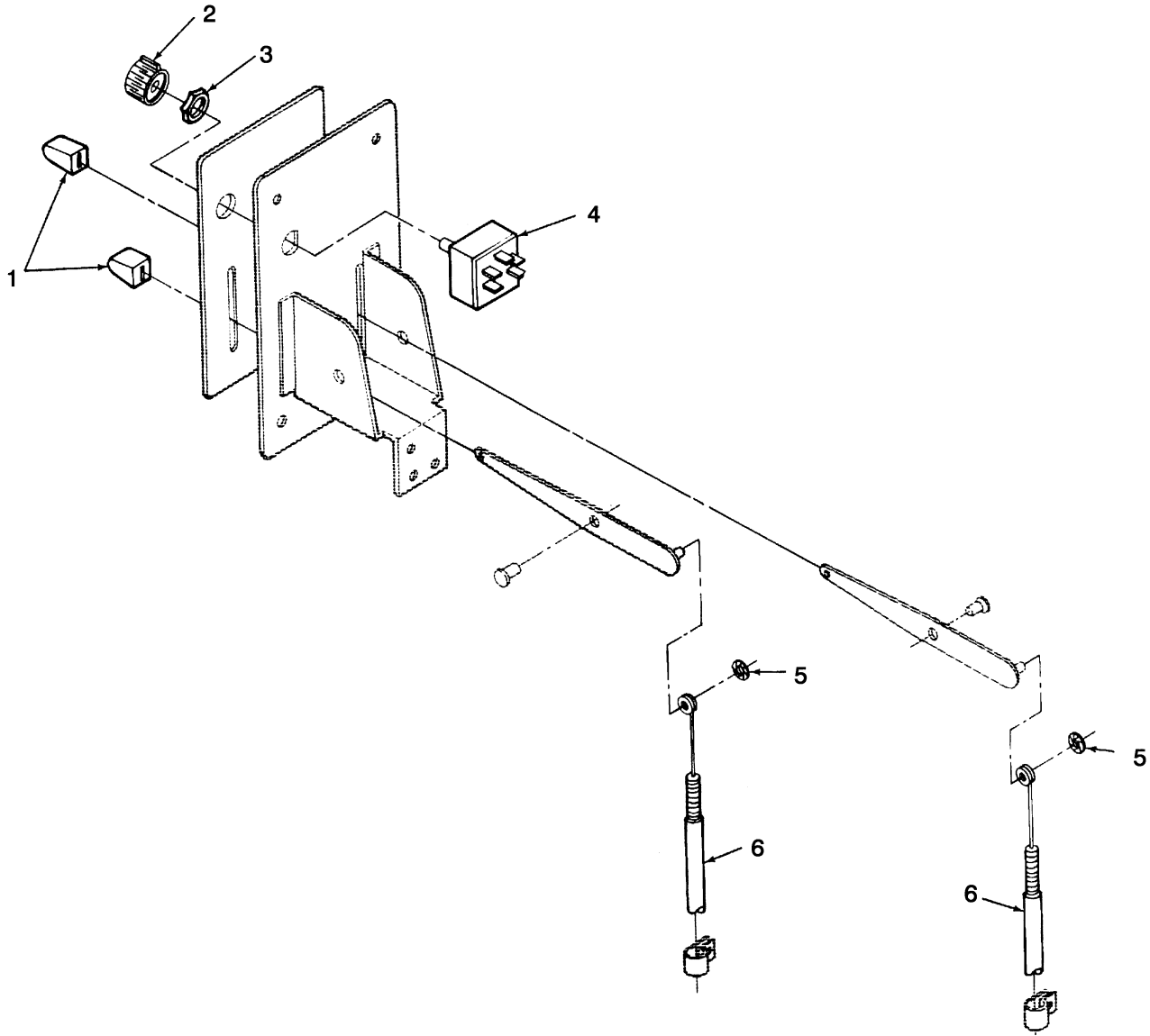
ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
44	127852	Fitting (With Cab Tier I) .....	1	1
44	14388	Fitting (Without Cab) .....	1	1
44	222482	Fitting (With Cab Tier II) .....	1	1
45	246108	Sealant .....	AR	AR
	<b>a</b> 323864	Strap Clamp .....	AR	AR
47	1313368	Hose .....	1	..
47	258493	Hose .....	..	1
48	1310611	Clamp .....	..	4
49	302400	Nut .....	..	2
50	320159	Washer .....	..	4
51	302401	Locknut .....	..	2
52	164658	Grommet .....	..	2
53	1350911	Strap .....	2	..
54	255578	Clamp .....	..	1
55	1561538	Sleeve .....	1	..

**FOOTNOTES:**

**a** Not Illustrated



## HEATER CONTROL (FIGURE 1-15)



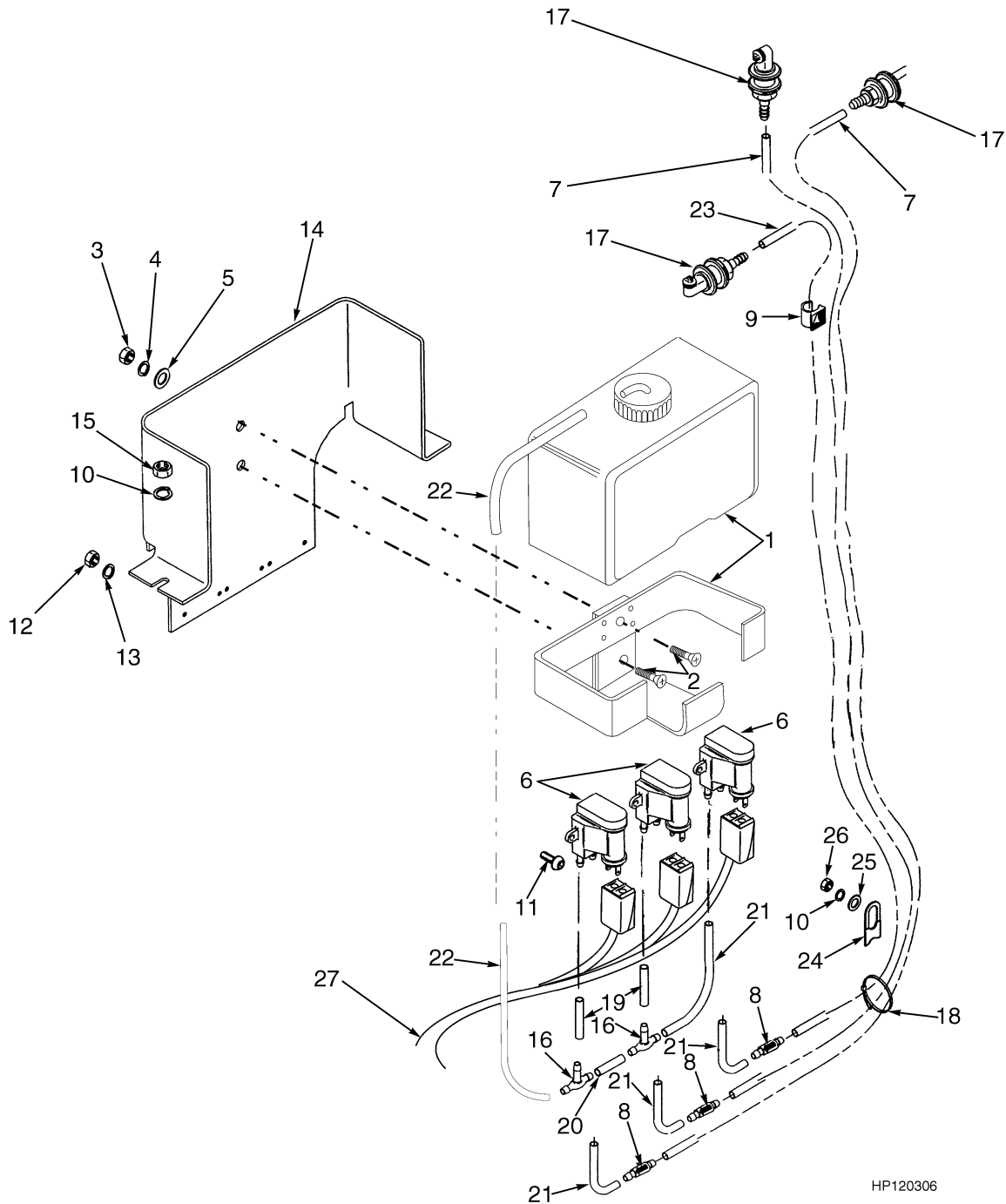
HP120305



**HEATER CONTROL**

<b>ITEM</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY</b>
	1301020	Heater Control .....	1
1	1313733	Knob .....	2
2	1313734	Knob .....	1
3	1313744	Nut .....	1
4	1313735	Switch .....	1
5	1313736	Nut .....	2
6	1313737	Cable Assy .....	2

## WINDSHIELD WASHER (FIGURE 1-16)

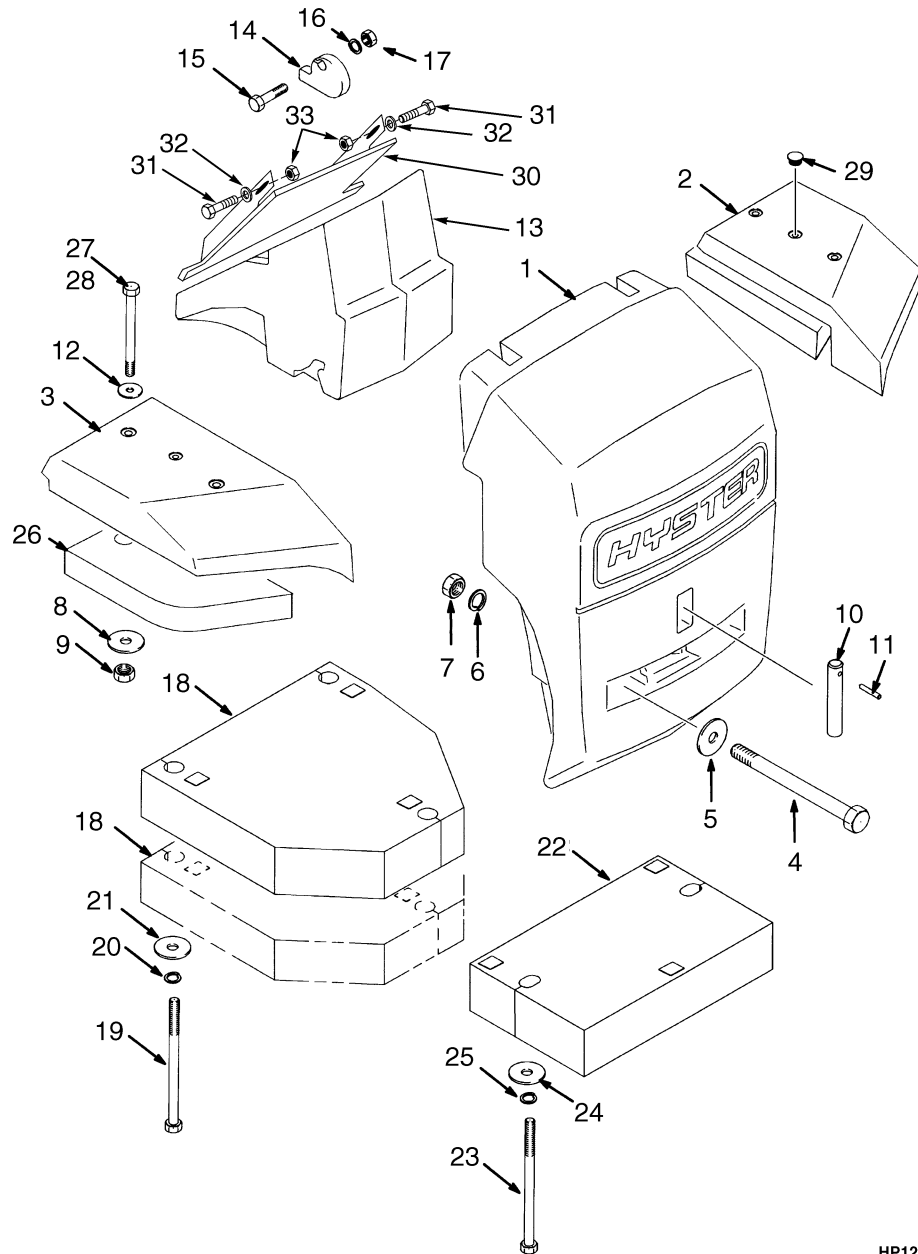


HP120306

**WINDSHIELD WASHER****KEY:****A: Empty Container Handler****B: Fork Lift Truck**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1311267	Reservoir .....	1	1
1	.....	Bracket .....	1	1
2	296472	Screw .....	2	2
3	136687	Nut .....	2	2
4	292680	Washer .....	2	2
5	197068	Washer .....	2	2
6	1316593	Pump (24 Volt) .....	3	3
7	1311300	Hose .....	..	2
7	1373727	Hose .....	2	..
8	<del>1393495</del>			
	1301685	Check Valve .....	3	3
9	1301727	Clamp .....	1	1
10	320159	Washer .....	3	5
11	302036	Screw .....	6	6
12	292668	Nut .....	6	6
13	292679	Washer .....	6	6
14	1452663	Bracket .....	1	1
15	<del>1586693</del>			
	136692	Nut .....	2	2
16	1311260	Fitting .....	2	2
17	1301686	Nozzle .....	3	3
18	114312	Strap Clamp .....	1	3
19	1311295	Hose .....	2	2
20	1311296	Hose .....	1	1
21	1311297	Hose .....	4	4
22	1326772	Hose .....	1	1
23	1373728	Hose .....	1	..
23	86520	Hose .....	..	1
24	1356947	Strap , Bracket .....	1	3
25	320161	Washer .....	1	2
26	302401	Locknut .....	1	2
27	1384602	Wire Harness (☞Figure 4-57).....	1	1

## COUNTERWEIGHTS (FIGURE 1-17)



HP120310

**COUNTERWEIGHTS****KEY:****A: H14.00XM****B: H15.00XM****C: H16.00XM****D: H18.00XM****E: H20.00XM**

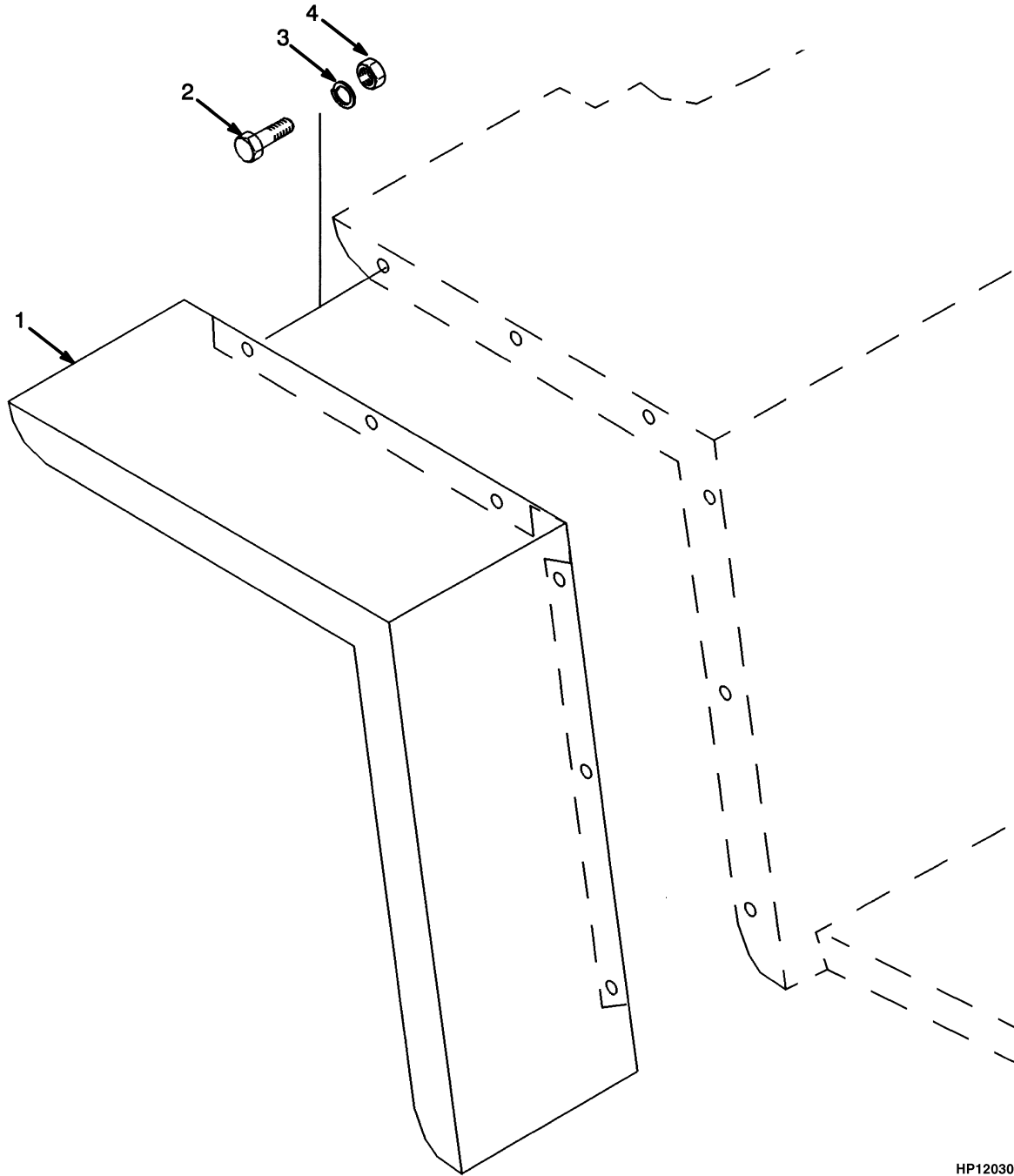
ITEM	PART NO.	DESCRIPTION	QTY				
			A	B	C	D	E
1	1373570	Counterweight (Center) .....	1	1	1	1	1
2	<b>b</b> 1373571	Counterweight (LH) (Rear Fender) .....	1	1	..	1	1
2	<b>a</b> 1453024	Counterweight (LH) (Rear Fender) .....	..	..	1	1	..
3	<b>b</b> 1373572	Counterweight (RH) (Rear Fender) .....	1	1	..	1	1
3	<b>a</b> 1453025	Counterweight (RH) (Rear Fender) .....	..	..	1	1	..
4	376319	Capscrew .....	2	2	2	2	2
5	149531	Washer .....	2	2	2	2	2
6	197070	Washer .....	2	2	2	2	2
7	221372	Locknut .....	2	2	2	2	2
8	1301086	Washer .....	4	4	4	4	6
9	316829	Nut .....	4	4	4	4	4
10	1373760	Tow Pin .....	1	1	1	1	1
11	<b>c</b> 302497	Roll Pin .....	1	1	1	1	1
11	<b>d</b> 1453739	Tow Pin (Coated) .....	1	1	1	1	1
12	296431	Washer .....	4	4	4	4	4
13	1373573	Counterweight (Tier I Engine) .....	..	1	1	1	1
13	1517108	Counterweight (Tier II Engine) .....	..	1	1	1	1
14	1373750	Cam .....	..	2	2	2	2
15	292591	Capscrew .....	..	2	2	2	2
16	296431	Washer .....	..	4	4	4	4
17	316829	Nut .....	..	2	2	2	..
18	<b>b</b> 1373773	Slab .....	1	2	..	2	..
19	<b>b</b> 1382624	Capscrew .....	1	..	..	..	..
19	<b>b</b> 1385545	Capscrew .....	..	1	..	1	..
20	<b>b</b> 292687	Lockwasher .....	3	3	..	3	..
21	<b>b</b> 1301086	Washer .....	3	3	..	3	..
22	1493615	Counterweight (Slab) .....	1	1	1	..	..
23	292597	Capscrew .....	2	2	2	..	..
24	<b>b</b> 1301086	Washer .....	1	2	..	..	..
25	<b>b</b> 292687	Lockwasher .....	1	2	..	..	..
26	<b>b</b> 1373574	Counterweight .....	..	..	..	2	2
27	<b>b</b> 1373761	Capscrew .....	..	..	..	4	4
28	<b>a</b> 1382624	Capscrew .....	..	..	2	2	..
28	264134	Loctite .....	AR	AR	AR	AR	AR
28	<b>b</b> 309707	Capscrew .....	4	4	4	..	..
28	<b>a</b> 309707	Capscrew .....	..	..	2	2	..
29	334639	Plug .....	AR	AR	AR	AR	AR
30	1454087	Deflector .....	1	1	1	1	1
30	2048776	Edge Protector .....	2	2	2	2	2
31	292535	Capscrew .....	2	2	2	2	2
32	320162	Washer .....	4	4	4	4	4
33	302402	Locknut .....	2	2	2	2	2

**FOOTNOTES:**

- |          |   |          |                  |
|----------|---|----------|------------------|
| <b>a</b> | Empty Container Handler                               | <b>c</b> | → S/N A214E01552 |
| <b>b</b> | Fork Lift Truck with Pin or Quick Disconnect Carriage | <b>d</b> | S/N A214E01553 → |



## FENDERS (FIGURE 1-18) EMPTY CONTAINER HANDLER



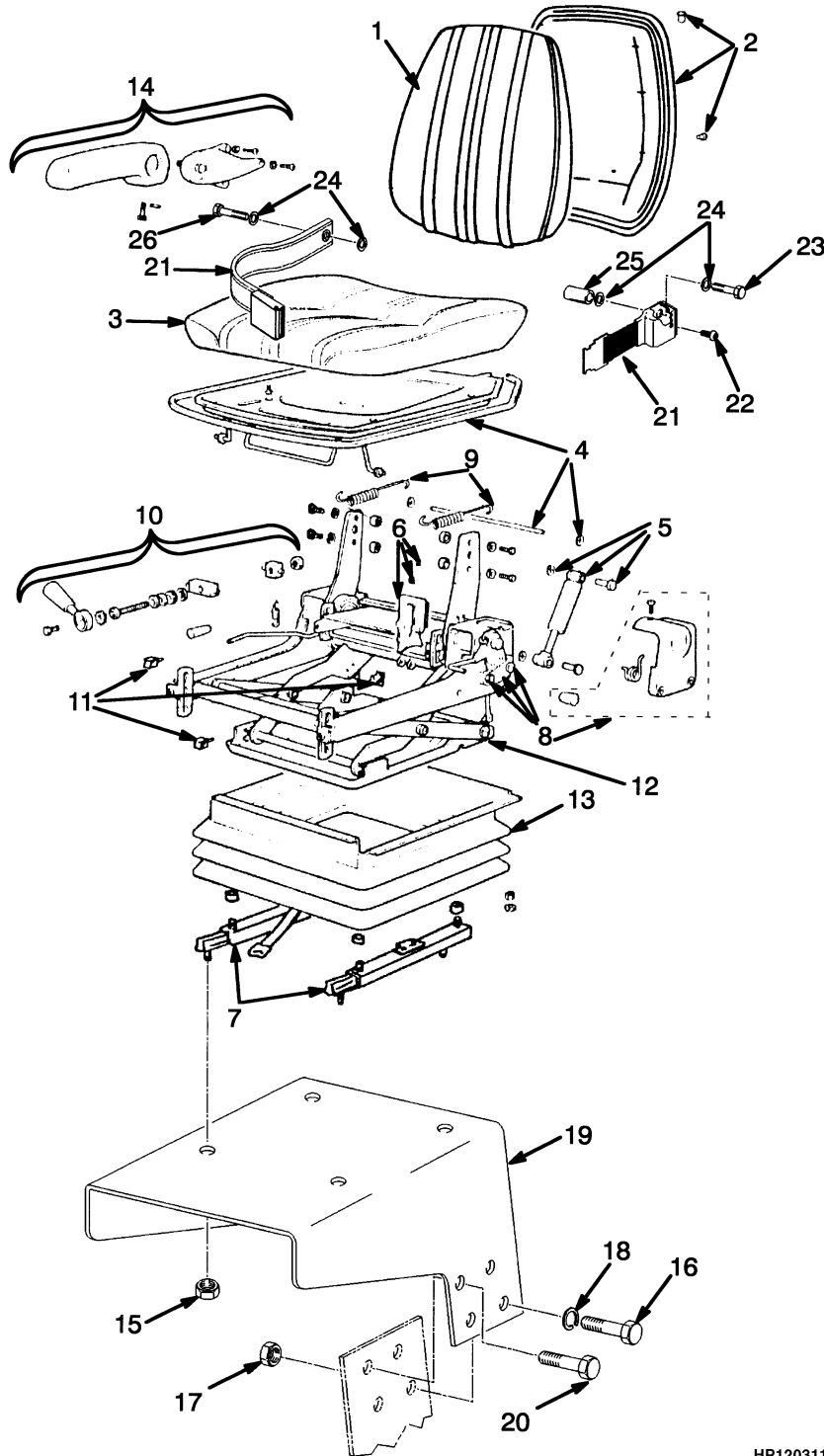
HP120309



**FENDERS**  
**EMPTY CONTAINER HANDLER**

ITEM	PART NO.	DESCRIPTION	QTY
1	1381956	Fender (LH) .....	1
1	1381959	Fender (RH) .....	1
2	136985	Capscrew .....	14
3	<del>388049</del> 292682	Lockwasher .....	14
4	<del>1586693</del> 136692	Nut .....	14

## SEAT (FIGURE 1-19) HIGH BACK — KAB (→ S/N A214E02193C)



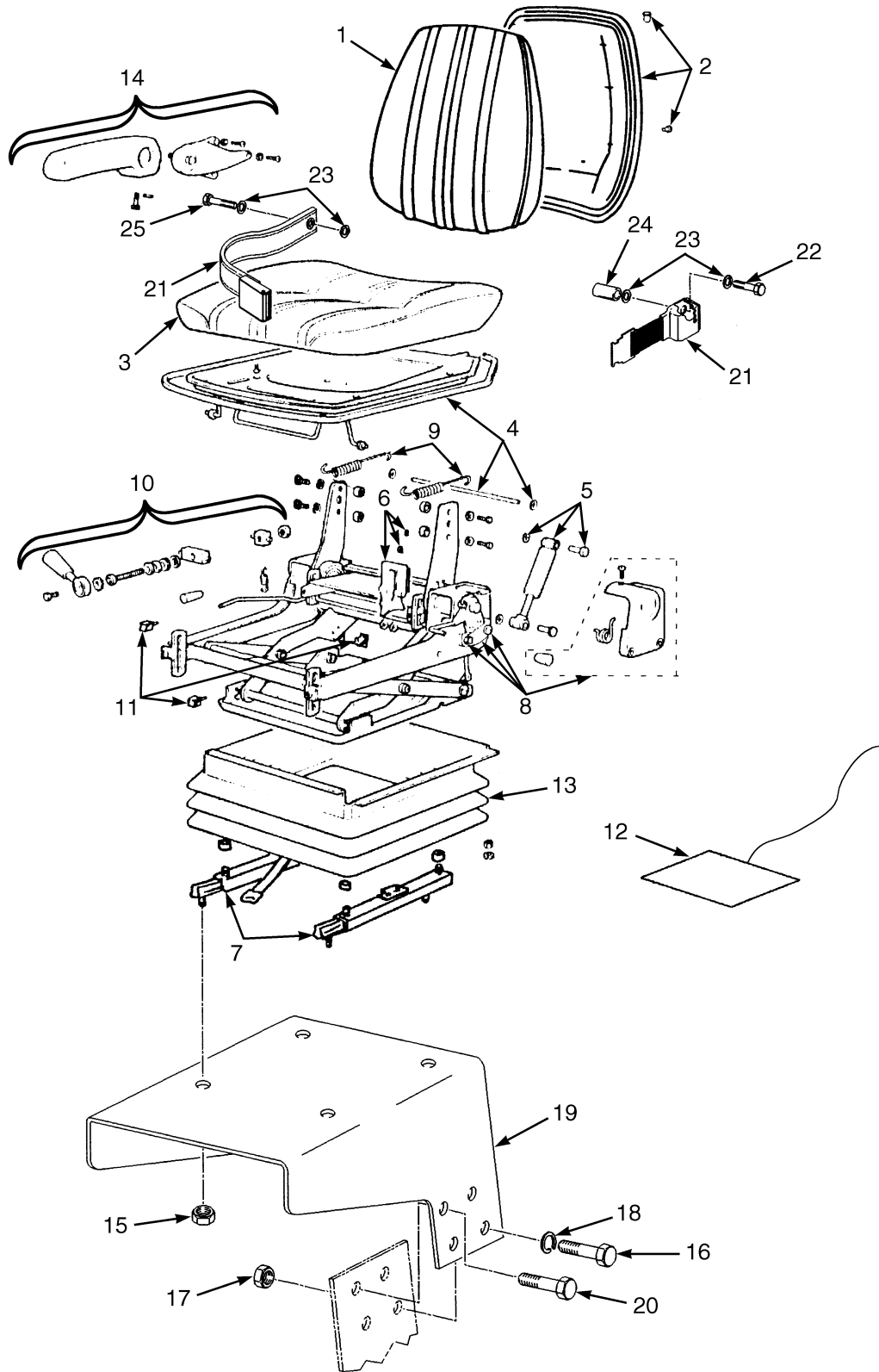
HP120311

**SEAT**  
**HIGH BACK – KAB (→ S/N A214E02193C)**

**KEY:****A: Fabric Cover (Without Operator Restraint)****B: Fabric Cover (With Operator Restraint)****C: Vinyl Cover (Without Operator Restraint)****D: Vinyl Cover (With Operator Restraint)**

ITEM	PART NO.	DESCRIPTION	QTY			
			A	B	C	D
	1453798	Seat-Full Suspension .....	1	1	..	..
	1453799	Seat-Full Suspension .....	..	..	1	1
1	1454002	Seat Cushion .....	1	1	..	..
1	1454003	Seat Cushion .....	..	..	1	1
2	1454004	Pan (Back) .....	1	1	1	1
3	1334470	Seat Cushion .....	1	1	..	..
3	1454006	Seat Cushion .....	..	..	1	1
4	1334461	Pan (Seat Assembly) .....	1	1	1	1
5	1335579	Kit-Damper .....	1	1	1	1
6	1334465	Kit-Indicator Ride .....	1	1	1	1
7	1334468	Kit-Seat Rail .....	1	1	1	1
8	1334464	Kit-Recliner (Knob) .....	1	1	1	1
9	1334466	Kit-Height Adjuster .....	1	1	1	1
10	1334462	Handle .....	1	1	..	..
11	1334467	Kit-Bumper .....	1	1	1	1
12	1335575	Kit-Suspension .....	1	1	1	1
13	1325346	Kit-Cover .....	1	1	1	1
14	1453800	Kit-Armrest .....	1	1	1	1
15	313828	Nut .....	4	4	4	4
16	287854	Capscrew .....	6	6	6	6
17	<del>4586693</del>					
	136692	Nut .....	8	8	8	8
18	<del>388049</del>					
	292682	Lockwasher .....	8	8	8	8
19	1465382	Seat Pan .....	1	1	1	1
20	136985	Capscrew .....	2	2	1	1
21	1374750	Seat Belt .....	..	1	..	1
22	379650	Screw .....	..	1	..	1
23	1323115	Capscrew .....	..	1	..	1
24	1323117	Washer .....	..	4	..	4
25	385516	Spacer .....	..	1	..	1
26	1323116	Capscrew .....	..	1	..	1

## SEAT ASSEMBLY (FIGURE 1-20) HIGH BACK — KAB (S/N A214E02194C →)

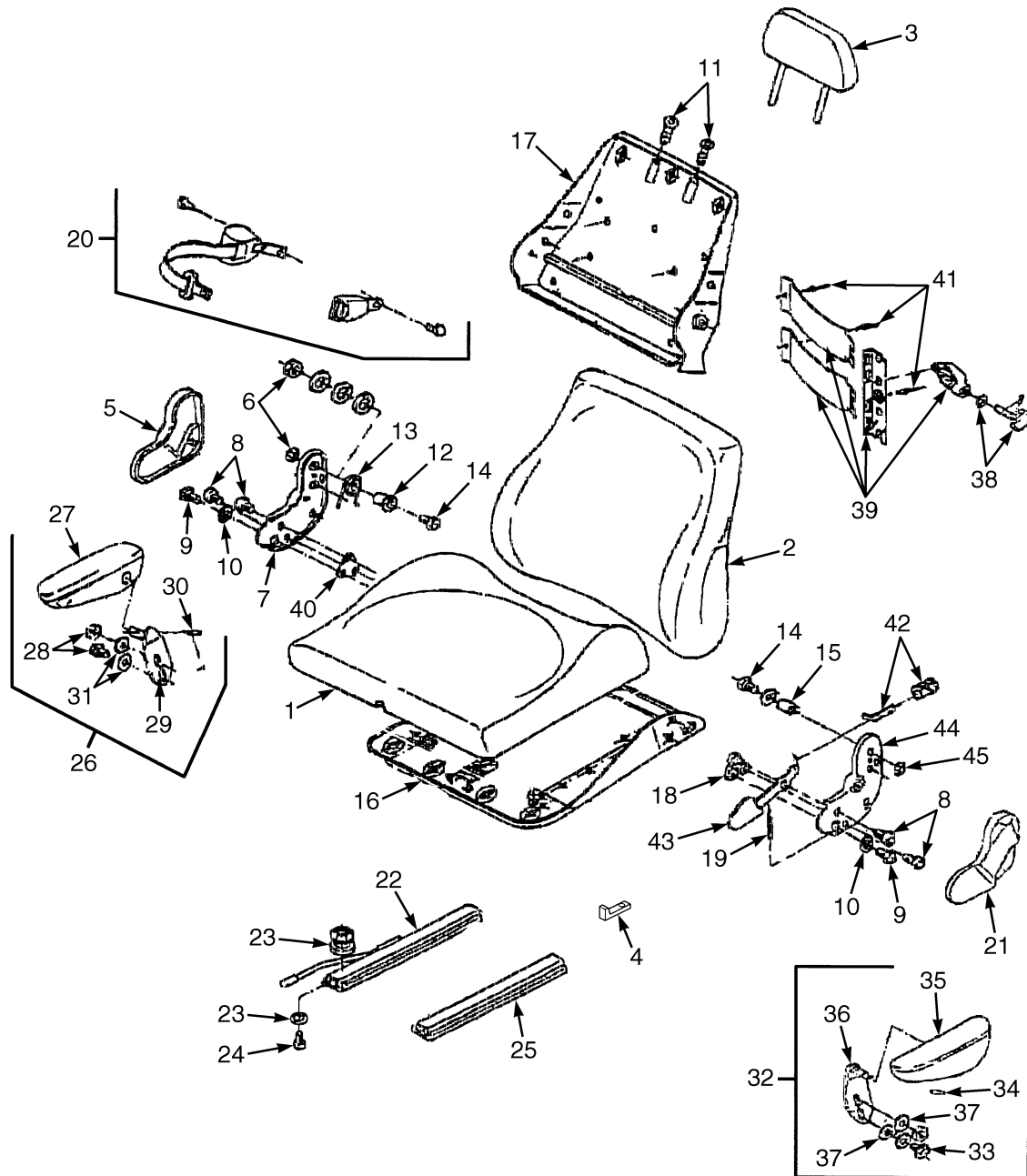


HP120908

**SEAT ASSEMBLY**  
**HIGH BACK – KAB (S/N A214E02194C →)****KEY:****A: Fabric Cover****B: Vinyl Cover**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1611639	Seat-Full Suspension .....	1	..
	1611640	Seat-Full Suspension .....	..	1
1	1613832	Cushion .....	1	..
1	1613831	Seat Cushion .....	..	1
2	1454004	Pan (Back) .....	1	1
3	1613833	Seat Cushion .....	1	..
3	1335578	Seat Cushion .....	..	1
4	1334461	Pan (Seat Assembly) .....	1	1
5	1334463	Kit-Damper .....	1	1
6	1334465	Kit-Indicator Ride .....	1	1
7	1613834	Kit-Seat Rail (Fore and Aft) .....	1	1
8	1334464	Kit-Recliner (Knob) .....	1	1
9	1334466	Kit-Height Adjuster .....	1	1
10	1334462	Handle .....	1	1
11	1334467	Kit-Bumper .....	1	1
12	1613835	Switch .....	1	1
13	1325346	Kit-Cover .....	1	1
14	1453800	Kit-Armrest .....	1	1
15	313828	Nut .....	4	4
16	287854	Capscrew .....	6	6
17	<del>4586693</del>			
	136692	Nut .....	8	8
18	<del>388049</del>			
	292682	Lockwasher .....	8	8
19	1465382	Seat Pan .....	1	1
20	136985	Capscrew .....	2	2
21	1374750	Seat Belt .....	1	1
22	1323115	Capscrew .....	1	1
23	1323117	Washer .....	4	4
24	385516	Spacer .....	1	1
25	1323116	Capscrew .....	1	1

## SUSPENSION SEAT (FIGURE 1-21) GRAMMER HIGH BACK — PAGE 1 OF 2



HP120128

**SUSPENSION SEAT**  
**GRAMMER HIGH BACK – PAGE 1 OF 2****KEY:****A: Fabric Cover****B: Vinyl Cover**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1465401	Seat-Full Suspension .....	1	..
	1465402	Seat-Full Suspension .....	..	1
1	1473699	Seat Cushion (Bottom) .....	1	..
1	1474624	Seat Cushion (Bottom) .....	..	1
2	1315643	Seat Cushion (Back) .....	..	1
2	1473700	Cushion (Back) .....	1	..
3	1473701	Cushion (Extension) .....	1	..
3	1474626	Cushion (Extension) .....	..	1
4	1473630	Stop .....	1	1
5	1473674	Cover .....	1	1
6	1474647	Nut .....	2	2
7	1473676	Plate .....	1	1
8	1473677	Capscrew .....	4	4
9	1473678	Capscrew .....	2	2
10	1473679	Washer .....	2	2
11	1473681	Bushing .....	2	2
12	1473684	Bushing .....	1	1
13	1473683	Spring .....	1	1
14	1473685	Capscrew .....	2	2
15	1473694	Tube .....	1	1
16	1473703	Seat Pan .....	1	1
17	1473717	Cushion .....	1	1
18	1473689	Plate .....	1	1
19	1473692	Spring .....	1	1
20	1473713	Seat Belt .....	1	1
21	1473693	Cover .....	1	1
22	1473632	Rail .....	1	1
23	1473631	Washer .....	4	4
24	1473704	Screw .....	4	4
25	1473633	Rail .....	1	1
26	1473617	Armrest (Assembly) (RH) .....	1	1
27	1473705	Armrest .....	1	1
28	1473706	Screw .....	1	1
29	1473707	Support .....	1	1
30	1473708	Screw .....	2	2
31	1473631	Washer .....	2	2
32	1473618	Armrest (Assembly) (LH) .....	1	1
33	1473706	Screw .....	1	1
34	1473708	Screw .....	2	2
35	1473709	Armrest .....	1	1
36	1473710	Support .....	1	1
37	1473631	Washer .....	2	2
38	1473698	Plate .....	1	1
39	1473714	Support .....	1	1
40	1473715	Spindle .....	1	1

## SUSPENSION SEAT GRAMMER HIGH BACK – PAGE 1 OF 2

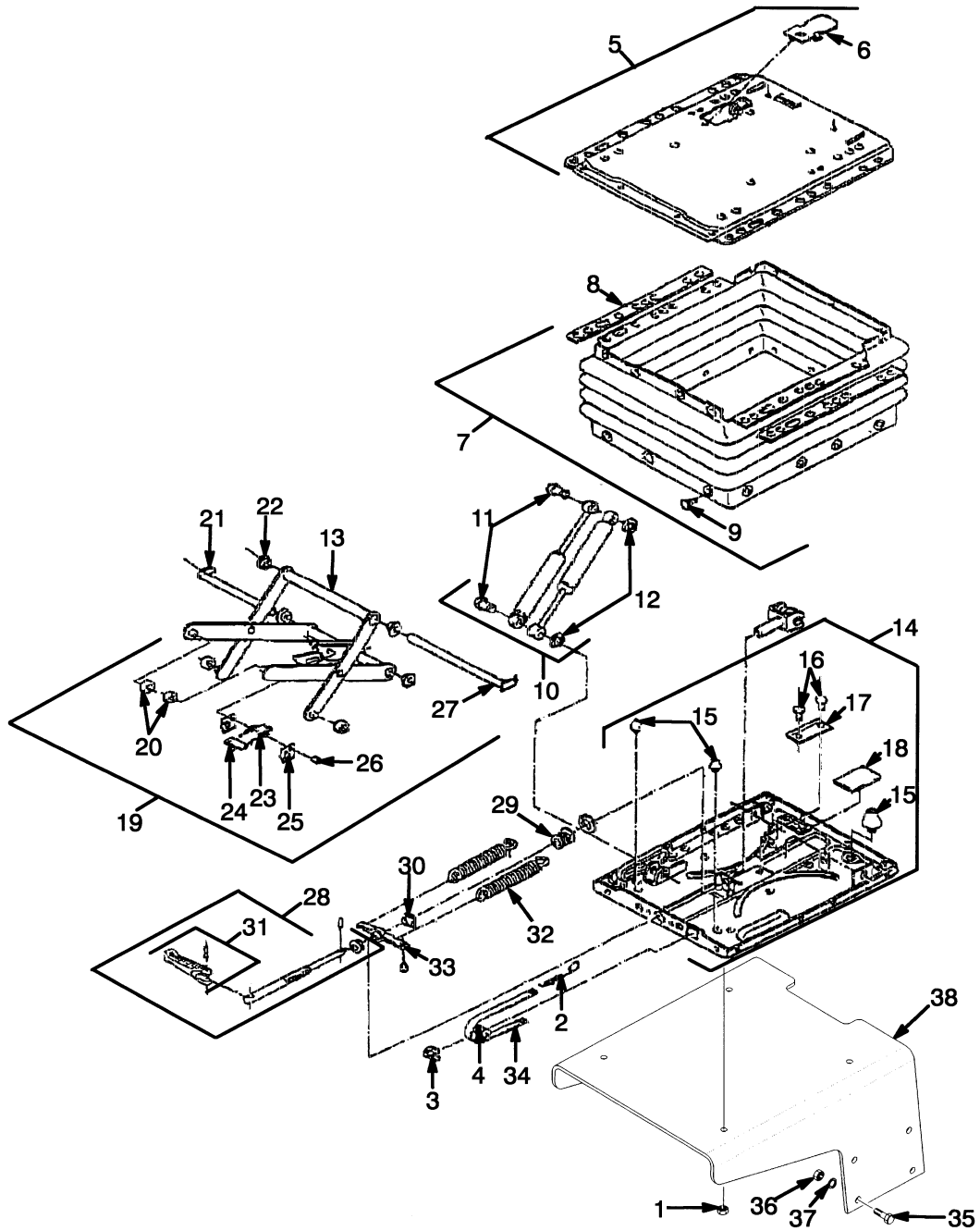
**KEY:****A: Fabric Cover****B: Vinyl Cover**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
41	1473716	Rivet .....	3	3
42	1473718	Kit-Support .....	1	1
43	1473691	Lever .....	1	1
44	1473688	Plate .....	1	1
45	1474647	Nut .....	1	1





## SUSPENSION SEAT (FIGURE 1-22) GRAMMER HIGH BACK — PAGE 2 OF 2



HP120129

**SUSPENSION SEAT**  
**GRAMMER HIGH BACK – PAGE 2 OF 2**

ITEM	PART NO.	DESCRIPTION	QTY
	1465401	Seat-Full Suspension (Fabric Cover) .....	1
	1465402	Seat-Full Suspension (Vinyl Cover) .....	1
1	313828	Nut .....	4
2	1315641	Spring .....	1
3	1473670	Guide .....	1
4	1473671	Roller .....	1
5	1473637	Suspension (Upper) .....	1
6	1473636	Cover .....	1
7	1473639	Bellows .....	1
8	1473638	Strap .....	1
9	306957	Plug .....	21
10	1473643	Gas Spring .....	1
11	1473640	Bolt .....	2
12	1473641	Washer .....	2
13	1473644	Fork .....	1
14	1473652	Base (Plate) .....	1
15	1473647	Bumper (Set) .....	1
16	1473648	Rivet .....	2
17	1473649	Rail .....	1
18	1473650	Plate .....	1
19	1473661	Arm .....	1
20	306954	Roller .....	4
21	1473653	Bolt .....	1
22	1473654	Bushing .....	4
23	1473656	Spring .....	2
24	1473657	Plate .....	1
25	1473658	Plate .....	2
26	1473659	Bolt .....	1
27	1473660	Bolt .....	1
28	1473666	Spindle .....	1
29	1473662	Thrust Washer Set .....	1
30	1473663	Nut .....	1
31	1627649	Seat Switch .....	1
32	306952	Spring .....	2
33	1473668	Bracket .....	1
34	1474655	Tape .....	AR
35	287854	Capscrew .....	8
36	<del>1586693</del>	Nut .....	8
37	388049	Lockwasher .....	8
38	1508454	Seat Pan .....	1



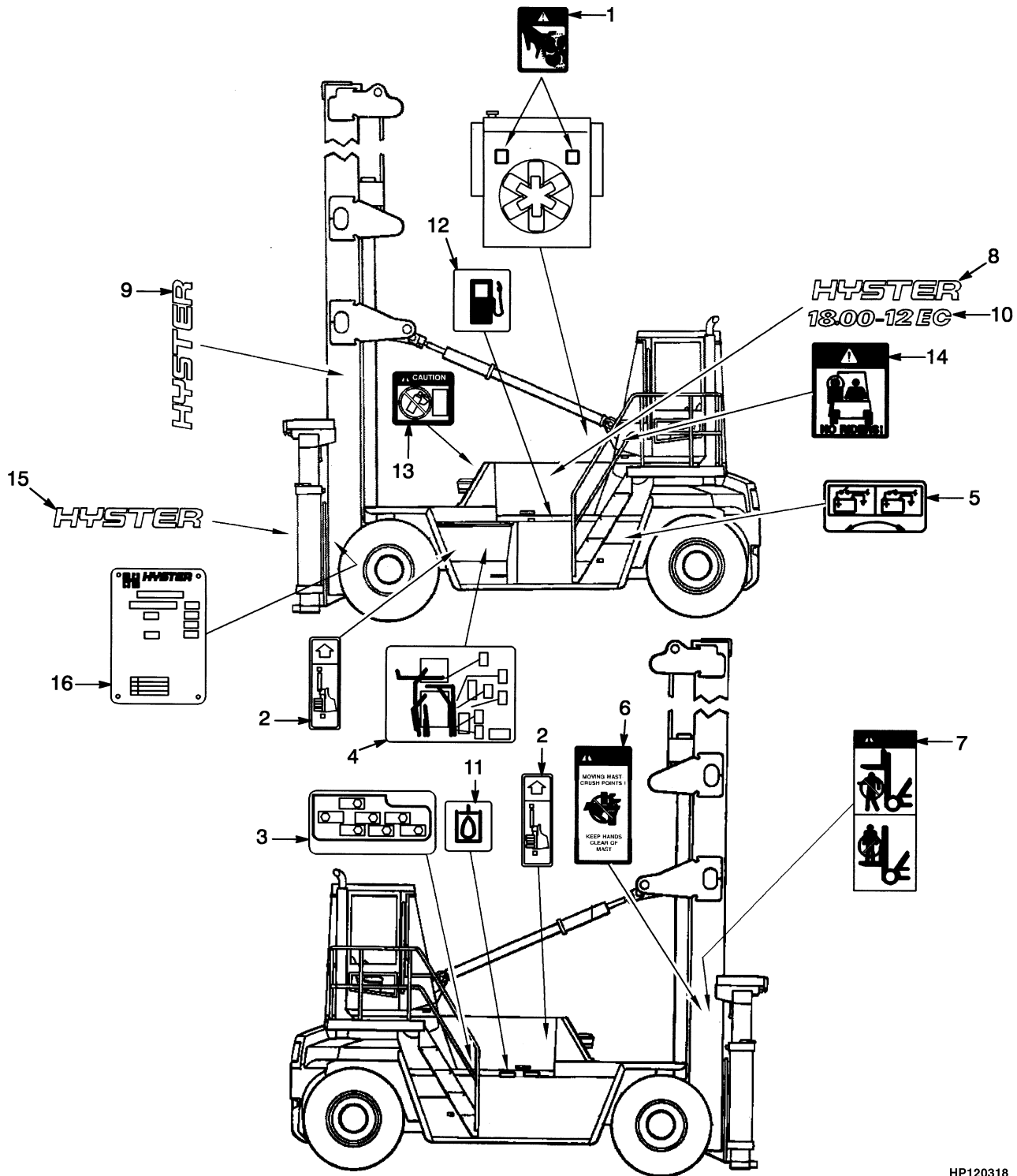
**LABELS  
INTERIOR**

ITEM	PART NO.	DESCRIPTION	QTY
1	331536	Label (Control) .....	1
2	1534660	Label (Patents and Trademarks) .....	1
3	389688	Nameplate Cover (Nameplate) .....	1
4	166818	Rivet .....	12
5	1373710	Label (Brake Temperature) .....	1
6	1383842	Label (Fuse Panel) (Tier I Engine) .....	1
6	1509833	Label (Fuse Panel) (Tier II Engine) .....	1
7	<b>e</b> 1336592	Label (Operator Warning) .....	1
7	<b>d</b> 1366725	Label (Operator Warning) .....	1
8	<b>e</b> 1335143	Label (Tip Over Warning) .....	2
8	<b>d</b> 1359588	Label (Operator Restraint) .....	2
9	1381126	Label (Nameplate, EEC) .....	1
10	1451416	Label (Door Release) .....	2
11	335989	Information Case (Information Case) .....	1
12	335991	Cover (Information Case) (Information Case) .....	1
13	222029	Rivet .....	4
14	<b>b</b> 1316542	Label (Control) .....	1
14	<b>a</b> 1393745	Label (Control Label with Container Attachment) .....	1
15	<b>a f</b> 1393744	Label (Container Attachment Switches) .....	1
15	<b>a h</b> 1499043	Label (Container Attachment Switches) .....	1
15	<b>b</b> 1393741	Label (Fork Control Switches) .....	1
16	<b>a</b> 1330576	Label (Container Attachment Load Center) .....	1
17	<b>a</b> 1452269	Label (Attachment Controls) .....	1
18	1328205	Label (Replace Operator Manual) .....	1
19	1346918	Label (Impact Resistant Window) .....	1
20	1335138	Label (Complete Truck) .....	1
21	1326805	Label (Read Operators Manual) .....	1
22	<b>a</b> 1452271	Label (Attachment Controls) .....	1
23	<b>g</b> 1458769	Label (Parking Brake) .....	1
	<b>c</b> 1521832	Label (Brake Temperature) .....	1
	<b>c</b> 2084159	Label (Operator Presence) .....	1

**FOOTNOTES:**

<b>a</b>	Container Handling Attachment	<b>e</b>	Without Operator Restraint
<b>b</b>	Fork Lift Truck	<b>f</b>	→ S/N A214E01806
<b>c</b>	Not Illustrated	<b>g</b>	S/N A214E01590 →
<b>d</b>	With Operator Restraint	<b>h</b>	S/N A214E01807 →

## LABELS (FIGURE 1-24) EXTERIOR — EMPTY CONTAINER HANDLER



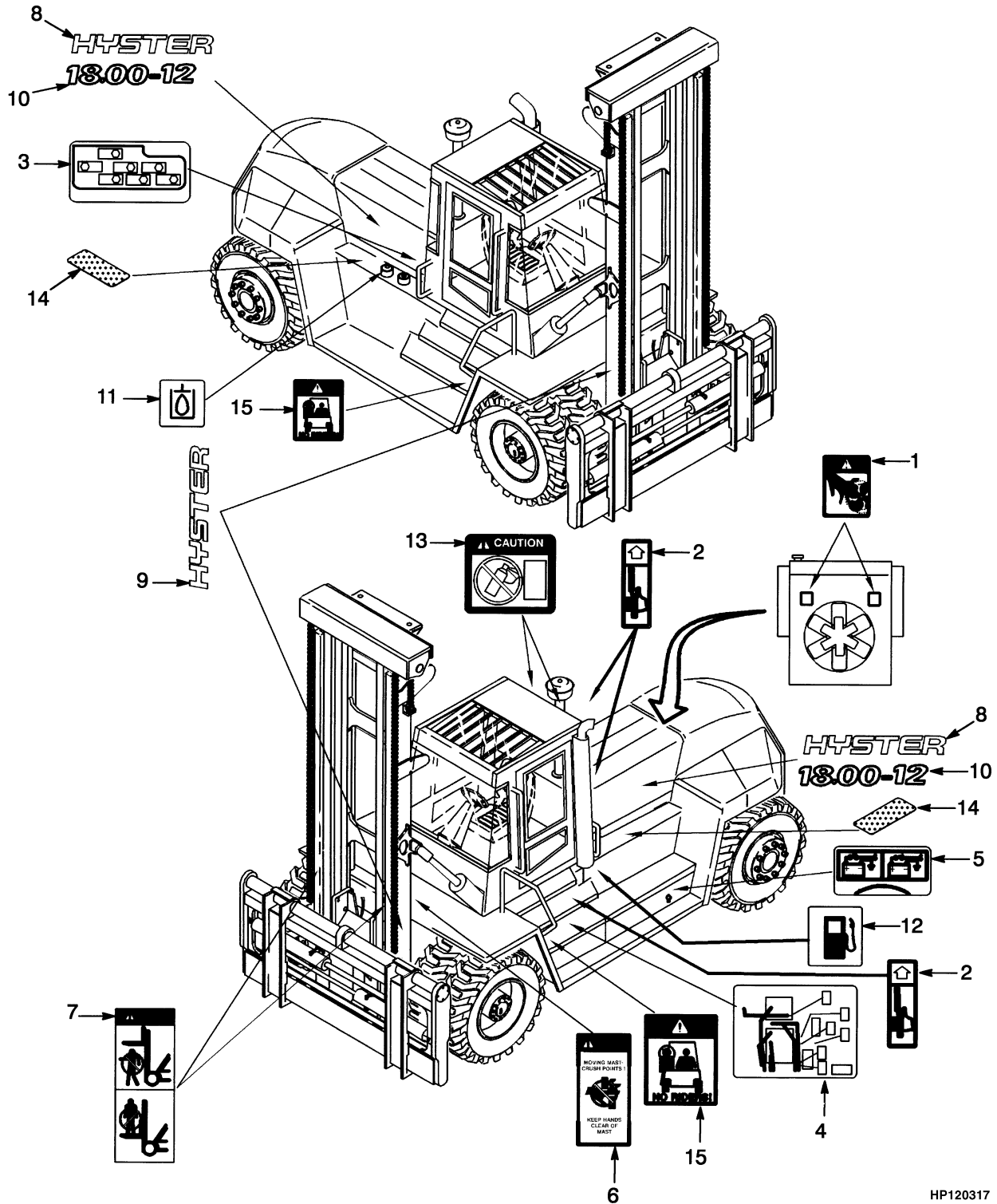
HP120318

**LABELS**  
**EXTERIOR – EMPTY CONTAINER HANDLER**

ITEM	PART NO.	DESCRIPTION	QTY
1	1300094	Label (Fan Warning) .....	2
2	1311423	Label (Gas Spring) .....	3
3	1450811	Label (Transmission Check Port) .....	1
4	<b>b</b> 1450812	Label (Hydraulic Check Port) .....	1
4	<b>c</b> 1468677	Label (Hydraulic Pressure Checkpoint) .....	1
4	<b>d</b> 1499041	Label (Hydraulic Pressure Checkpoint) .....	1
5	1352190	Label (Battery Disconnect) (Tier I Engine) .....	1
5	1515475	Label (Battery Disconnect) (Tier II Engine) .....	1
6	1346894	Label (Mast Warning) .....	2
7	1339829	Label (Mast Warning) .....	2
8	888012	Label (Hyster) .....	2
9	1450810	Label (Hyster) .....	2
10	1450856	Label (Model 16.00-12EC) .....	2
10	1450857	Label (Model 18.00-12EC) .....	2
	<b>a</b> 1385099	Label (Hydraulic Oil Fill) .....	1
	<b>a</b> 1385130	Label (Fuel Fill) .....	1
13	2034460	Label (Ether Warning) .....	1
14	1339828	Label (No Riders) .....	4
15	1393760	Label (Hyster) .....	1
16	1500965	Nameplate (Attachment) .....	1

**FOOTNOTES:****a** Not Illustrated**b** → S/N A214E01665W**c** S/N A214E01666W ↔ S/N A214E01806Y**d** S/N A214E01807Y →

## LABELS (FIGURE 1-25) EXTERIOR — FORK LIFT TRUCK



HP120317







**2**

**ENGINES**



**SECTION 2  
ENGINES**

<b>DESCRIPTION</b>	<b>PAGE</b>
AIR COMPRESSOR PLUMBING	
TIER II ENGINE (S/N A214E01954A →) .....	2-68
AIR FILTER	
EMPTY CONTAINER HANDLER - TIER II ENGINE (S/N A214E01849Z →) .....	2-122
FORK LIFT TRUCK - TIER II ENGINE (S/N A214E01843Z →) .....	2-120
TIER I ENGINE .....	2-118
AIR FILTER ASSEMBLY .....	2-124
AIR INTAKE CONNECTION	
TIER I ENGINE .....	2-26
TIER II ENGINE .....	2-88
AIR INTAKE HEATER	
TIER I ENGINE .....	2-6
AIR INTAKE HOSE	
TIER II ENGINE .....	2-90
AIR TRANSFER CONNECTION	
TIER II ENGINE .....	2-91
ALTERNATOR	
TIER I ENGINE .....	2-11
ALTERNATOR MOUNTING	
TIER II ENGINE .....	2-69
BREATHER PLUMBING	
TIER II ENGINE .....	2-58
CAM FOLLOWER COVER	
TIER I ENGINE .....	2-7
CAMSHAFT	
TIER II ENGINE .....	2-46
COOLING	
EMPTY CONTAINER HANDLER - TIER II ENGINE (S/N A214E01849Z →) .....	2-134
FORK LIFT TRUCK - TIER II ENGINE (S/N A214E01843Z →) .....	2-130
TIER I ENGINE .....	2-126
COVER AND SEAL	
TIER I ENGINE .....	2-13
CRANKCASE BREATHER	
TIER II ENGINE .....	2-65
CRANKSHAFT AND MAIN BEARINGS	
TIER II ENGINE .....	2-40
CYLINDER BLOCK	
TIER II ENGINE .....	2-34
CYLINDER HEAD	
TIER II ENGINE .....	2-36
ENGINE ASSEMBLY .....	2-5
ENGINE CONTROL SYSTEM	
TIER II ENGINE .....	2-52
ENGINE MOUNT .....	2-138
ENGINE OIL COOLER	
TIER II ENGINE .....	2-93
EXHAUST	
EMPTY CONTAINER HANDLER - TIER I ENGINE .....	2-140
EMPTY CONTAINER HANDLER - TIER II ENGINE .....	2-142

**SECTION 2  
ENGINES**

<b>DESCRIPTION</b>	<b>PAGE</b>
FORK LIFT TRUCK .....	2-144
EXHAUST MANIFOLD	
TIER II ENGINE .....	2-104
FAN DRIVE	
TIER I ENGINE .....	2-14
TIER II ENGINE .....	2-71
FAN PILOT SPACER	
TIER II ENGINE .....	2-103
FLYWHEEL	
TIER I AND TIER II ENGINES .....	2-66
FLYWHEEL HOUSING	
TIER II ENGINE .....	2-56
FRONT DRIVE GEAR COVER	
TIER I ENGINE .....	2-8
FRONT GEAR COVER	
TIER II ENGINE .....	2-84
FRONT GEAR TRAIN COVER	
TIER II ENGINE .....	2-55
FUEL DRAIN	
TIER I ENGINE .....	2-9
FUEL FILTER	
TIER I ENGINE .....	2-15
FUEL FILTER PLUMBING	
TIER II ENGINE (S/N A214E01950A →) .....	2-76
TIER II ENGINE (S/N A214E01951A →) .....	2-77
FUEL INJECTION PUMP	
TIER II ENGINE .....	2-78
FUEL PUMP MOUNT	
TIER II ENGINE .....	2-80
FUEL SHUT-OFF VALVE	
TIER I ENGINE .....	2-19
GEAR HOUSING	
TIER II .....	2-86
HEATER PLUMBING	
TIER I ENGINE .....	2-29
INJECTOR	
TIER II ENGINE .....	2-48
LIFT PUMP	
TIER I ENGINE .....	2-17
TIER II .....	2-82
LIFT PUMP PLUMBING	
TIER II ENGINE .....	2-83
LIFTING BRACKET	
TIER I ENGINE .....	2-20
TIER II ENGINE .....	2-92
OIL COOLER	
TIER I ENGINE .....	2-21
OIL FILLER ARRANGEMENT	
S/N A214E01951A → .....	2-96

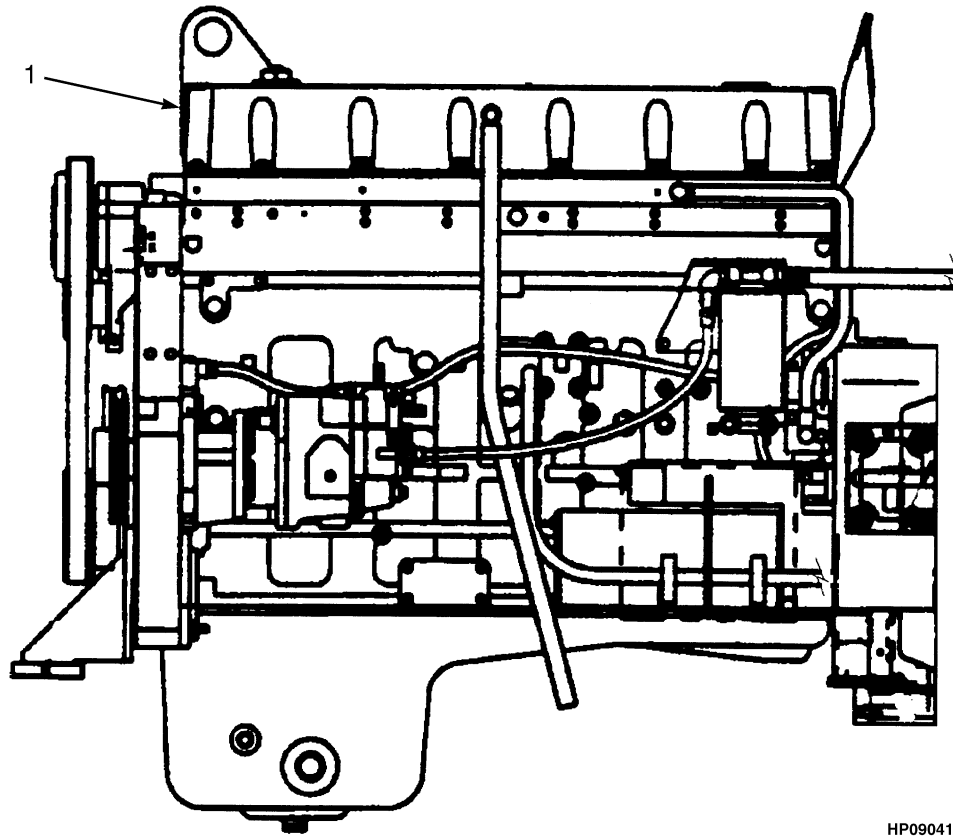
**SECTION 2  
ENGINES**

<b>DESCRIPTION</b>	<b>PAGE</b>
TIER I ENGINE .....	2-24
TIER II ENGINE (→ S/N A214E01950A) .....	2-95
<b>OIL FILTER</b>	
TIER II ENGINE .....	2-98
<b>OIL LEVEL GAUGE</b>	
TIER I ENGINE .....	2-23
TIER II ENGINE .....	2-62
<b>OIL PAN</b>	
TIER II ENGINE .....	2-60
<b>OIL PUMP</b>	
TIER II ENGINE .....	2-64
<b>PISTON AND CONNECTING ROD</b>	
TIER II ENGINE .....	2-38
<b>PRE-CLEANER ASSEMBLY</b> .....	2-125
<b>RADIATOR PLUMBING</b>	
TIER II ENGINE .....	2-101
<b>ROCKER LEVERS</b>	
TIER II ENGINE .....	2-44
<b>STARTER</b>	
TIER I ENGINE .....	2-25
<b>STARTING MOTOR</b>	
TIER II ENGINE .....	2-102
<b>TENSIONER</b>	
TIER II ENGINE .....	2-116
<b>THERMOSTAT</b>	
TIER I ENGINE .....	2-10
TIER II ENGINE .....	2-67
<b>THERMOSTAT HOUSING</b>	
TIER I ENGINE .....	2-27
<b>TORQUE CONVERTER OIL COOLER</b>	
TIER II ENGINE .....	2-105
<b>TURBOCHARGER</b>	
TIER II ENGINE .....	2-99
<b>TURBOCHARGER PLUMBING</b>	
TIER II ENGINE .....	2-108
<b>VALVE COVER</b>	
TIER I ENGINE .....	2-28
TIER II ENGINE .....	2-110
<b>VALVE TAPPET</b>	
TIER II ENGINE .....	2-50
<b>VIBRATION DAMPER</b>	
TIER II ENGINE .....	2-54
<b>WATER INLET CONNECTION</b>	
TIER I ENGINE .....	2-30
TIER II ENGINE .....	2-112
<b>WATER OUTLET CONNECTION</b>	
TIER I ENGINE .....	2-31
TIER II ENGINE .....	2-114

**SECTION 2  
ENGINES**

<b>DESCRIPTION</b>	<b>PAGE</b>
WATER PUMP	
TIER I ENGINE .....	2-32
TIER II ENGINE .....	2-115
WATER SEPARATOR	
TIER II ENGINE .....	2-74
WIRING ACCESSORIES	
TIER II ENGINE .....	2-117



**ENGINE ASSEMBLY (FIGURE 2-1)**

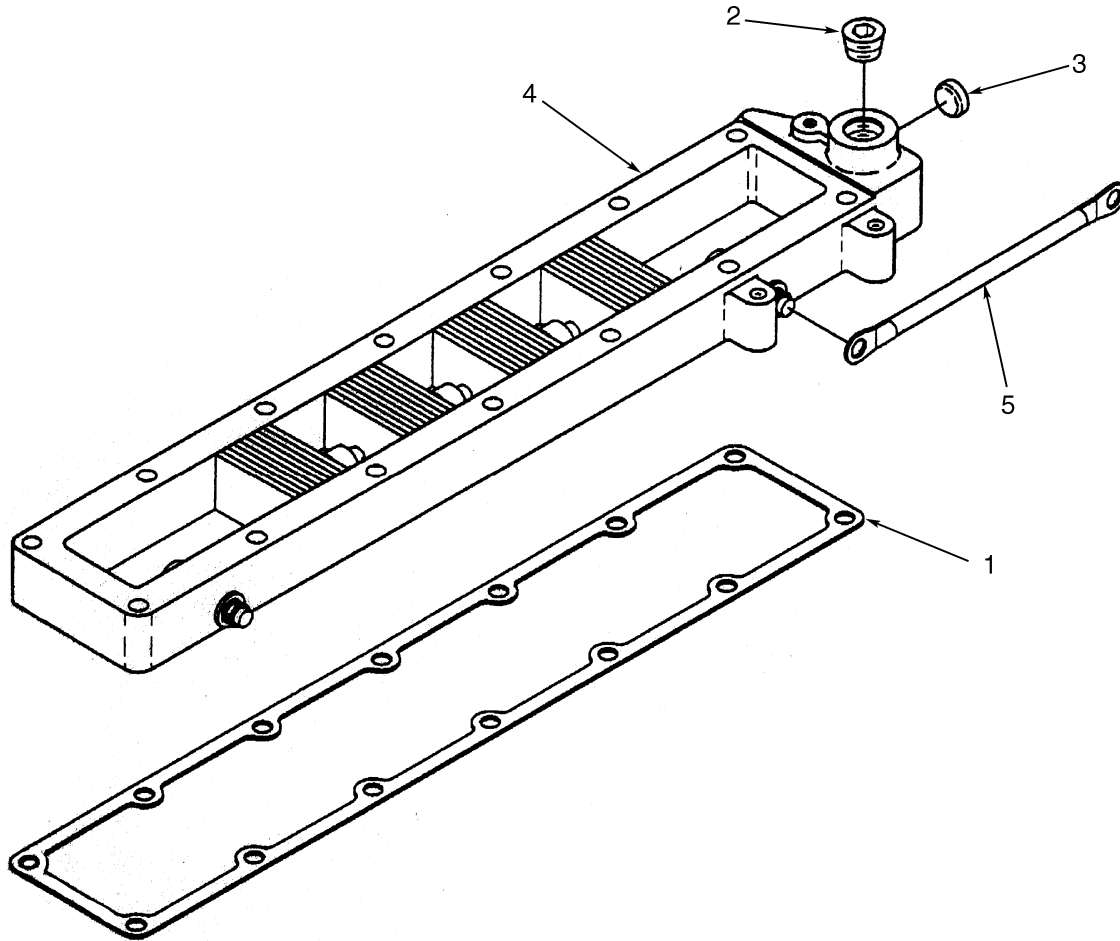
HP090416

ITEM	PART NO.	DESCRIPTION	QTY
1	<b>a b</b> 1484262	Engine Assy-Diesel (Tier I Engine) .....	1
1	<b>c d</b> 1499323	Engine Assy-Diesel (Tier II Engine) .....	1
1	<b>e</b> 1532627	Engine Assy-Diesel (Tier II Engine) .....	1
1	<b>f</b> 1607649	Engine Assy-Diesel (Non Certified) .....	1
1	<b>g</b> 1633033	Engine Assy-Diesel (Certified) (Tier II Engine) .....	1

**FOOTNOTES:**

- |   |   |
|---|---|
| <b>a</b> → S/N A214E01842Z (FLT)                          | <b>e</b> S/N A214E01951A ↔ S/N A214E-02180C |
| <b>b</b> → S/N A214E01848Z (ECH)                          | <b>f</b> S/N A214E02181C →                  |
| <b>c</b> S/N A214E01843Z ↔ S/N A214E-01950A ((FLT)) (FLT) | <b>g</b> S/N A214E02283D →                  |
| <b>d</b> S/N A214E01849Z ↔ S/N A214E-01950A (ECH)         |   |

## AIR INTAKE HEATER (FIGURE 2-2) TIER I ENGINE



HP090868

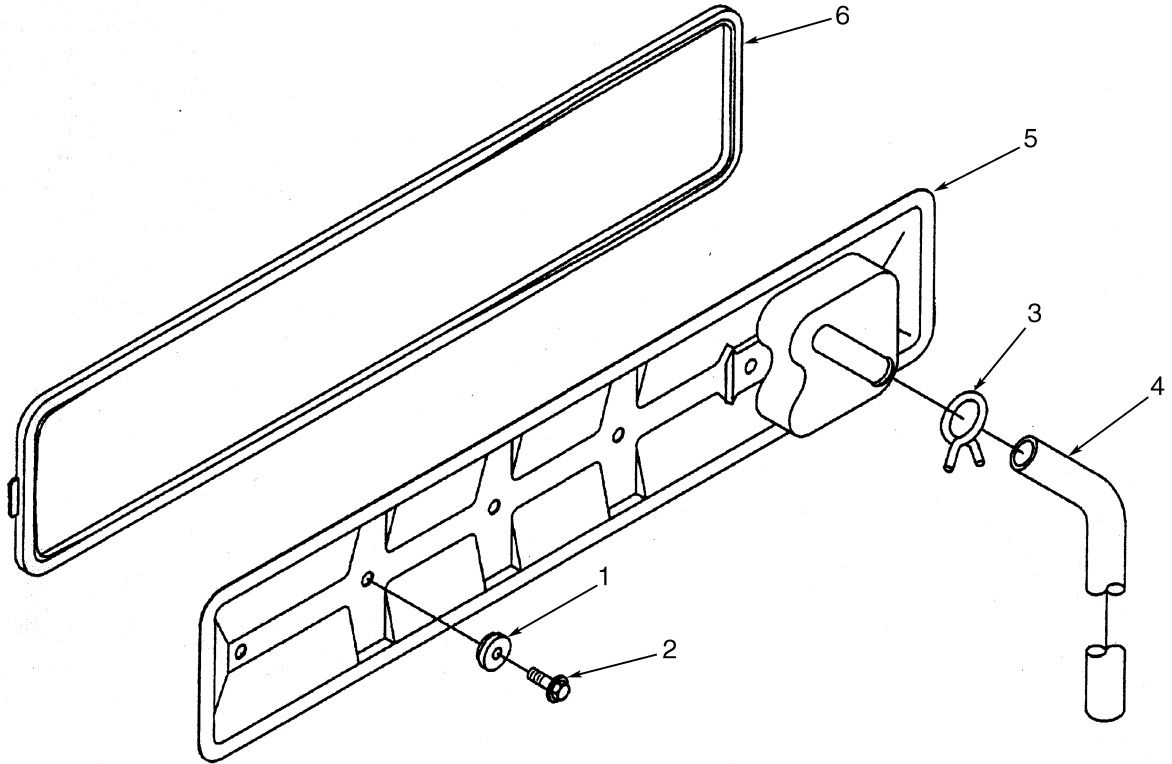
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1484262	Engine Assy-Diesel .....	1
1	1512300	Gasket .....	1
2	1511952	Fitting .....	1
3	1512304	Plug .....	1
4	.....	Heater .....	1
5	1512413	Wire (Ground) .....	1

### FOOTNOTES:

**a** → S/N A214E01842Z (FLT)

**b** → S/N A214E01848Z (ECH)

**CAM FOLLOWER COVER (FIGURE 2-3)  
TIER I ENGINE**



HP090869

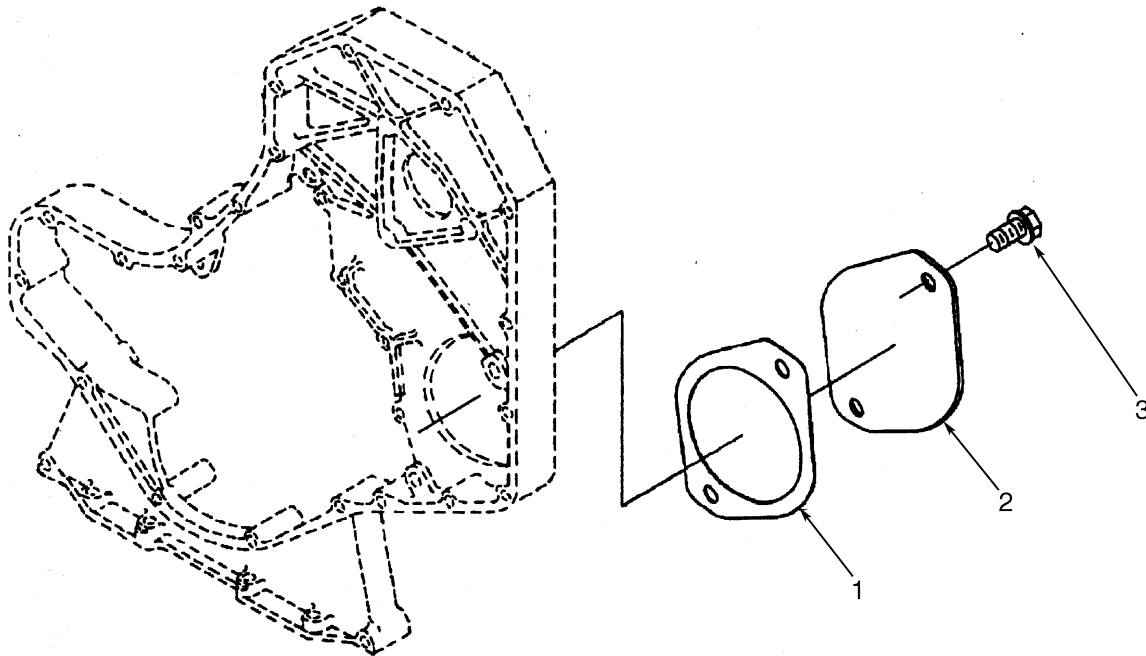
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1484262	Engine Assy-Diesel .....	1
1	1511969	Seal .....	4
2	1511970	Capscrew .....	4
3	1511971	Hose Clamp .....	1
4	1511972	Hose .....	1
5	1511973	Cover (Push Rod) .....	1
6	1511974	Gasket .....	1

**FOOTNOTES:**

**a** → S/N A214E01842Z (FLT)

**b** → S/N A214E01848Z (ECH)

## FRONT DRIVE GEAR COVER (FIGURE 2-4) TIER I ENGINE



HP090870

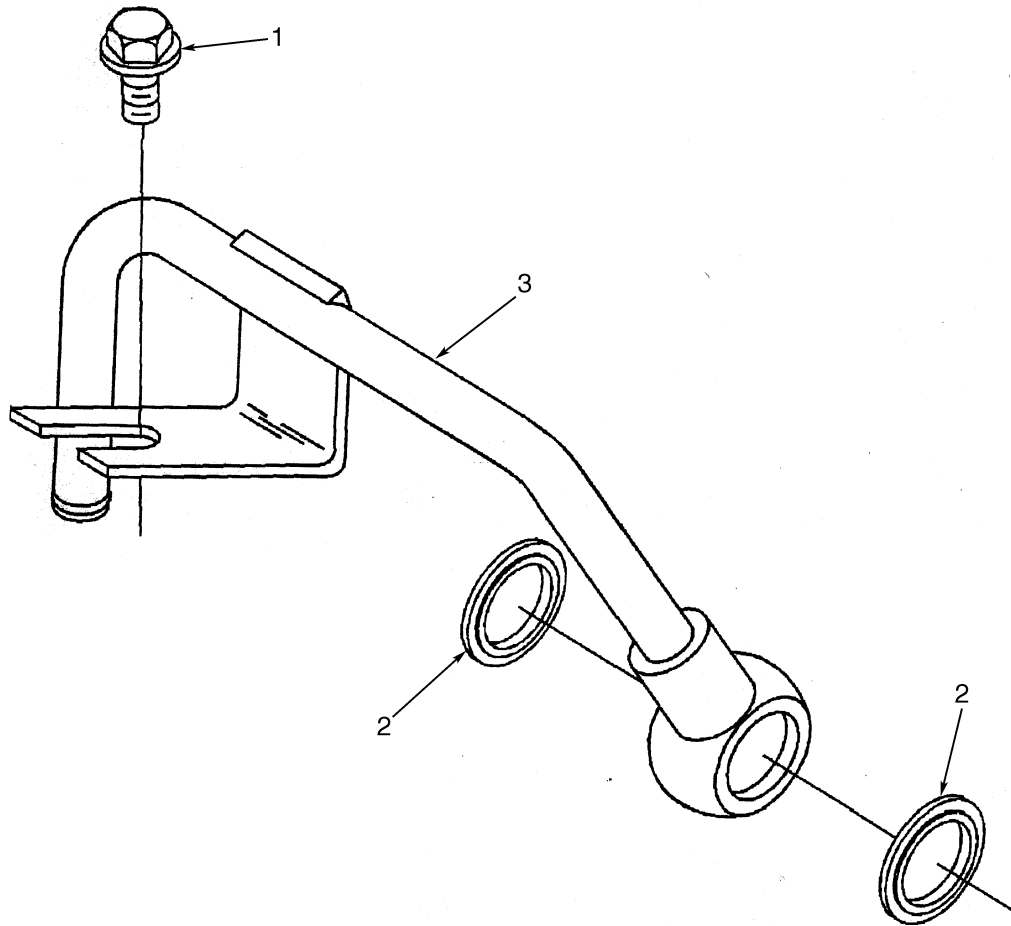
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1484262	Engine Assy-Diesel .....	1
1	1511984	Gasket .....	1
2	1512417	Cover Plate .....	1
3	1512418	Capscrew .....	2

**FOOTNOTES:**

**a** → S/N A214E01842Z (FTL)

**b** → S/N A214E01848Z (ECH)

**FUEL DRAIN (FIGURE 2-5)  
TIER I ENGINE**



HP090871

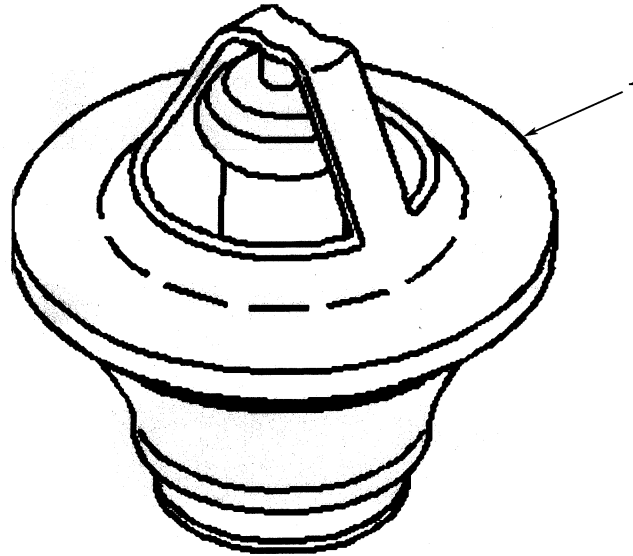
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1484262	Engine Assy-Diesel .....	1
1	1512097	Capscrew .....	1
2	1511998	Sealing Ring .....	2
3	1512420	Tube .....	1

**FOOTNOTES:**

**a** → S/N A214E01842Z (FLT)

**b** → S/N A214E01848Z (ECH)

## THERMOSTAT (FIGURE 2-6) TIER I ENGINE



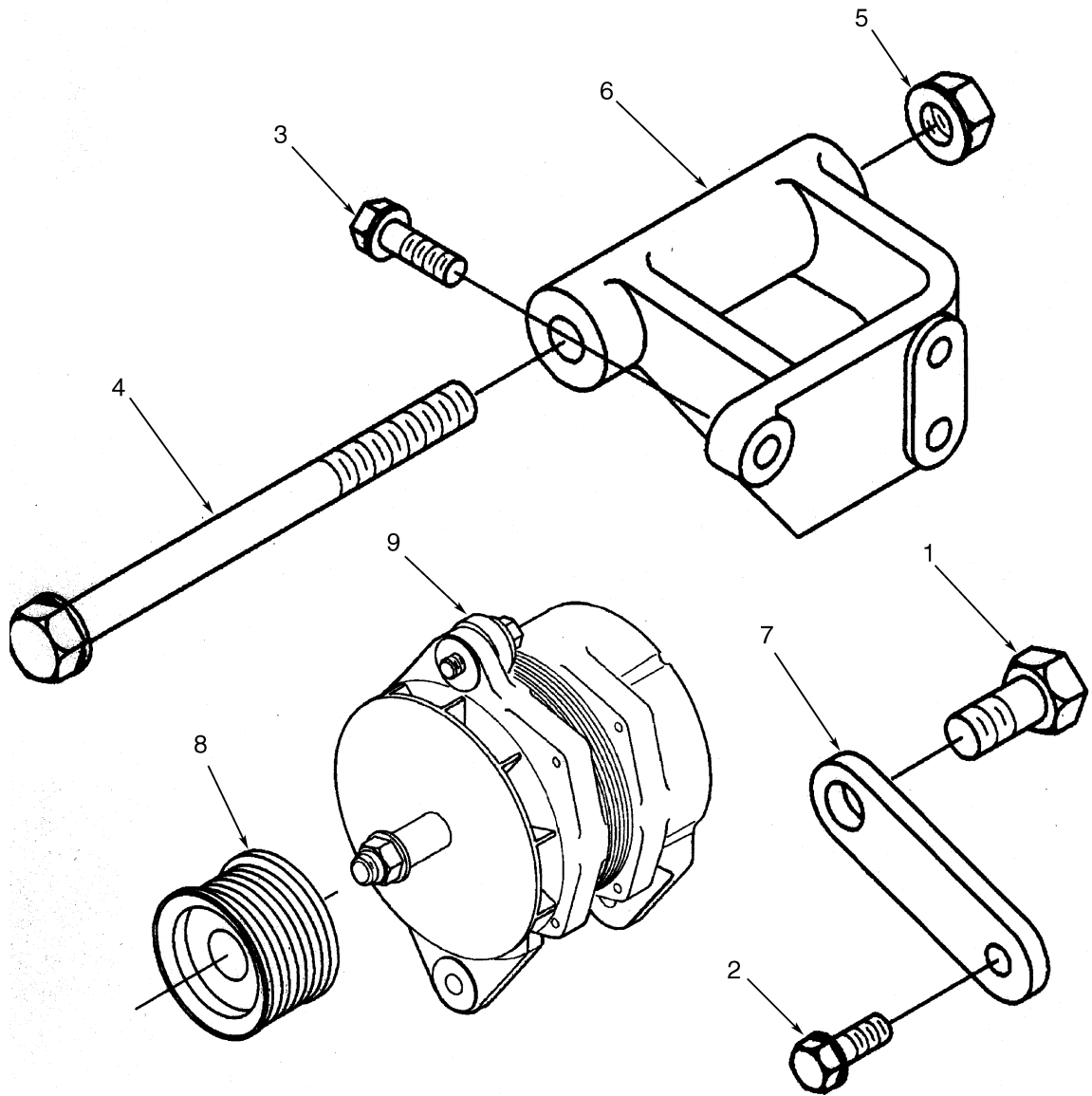
HP090872

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1484262	Engine Assy-Diesel .....	1
1	1603897	Thermostat .....	1

### FOOTNOTES:

**a** → S/N A214E01842Z (FLT)**b** → S/N A214E01848Z (ECH)

**ALTERNATOR (FIGURE 2-7)  
TIER I ENGINE**



HP090873

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1484262	Engine Assy-Diesel .....	1
1	1512003	Capscrew .....	1
2	1512004	Capscrew .....	1
3	1512005	Capscrew .....	3
4	1512006	Capscrew .....	1
5	1511978	Nut .....	1
6	1512007	Support .....	1
7	1512008	Brace .....	1
8	1512009	Pulley .....	1
9	1512001	Alternator .....	1

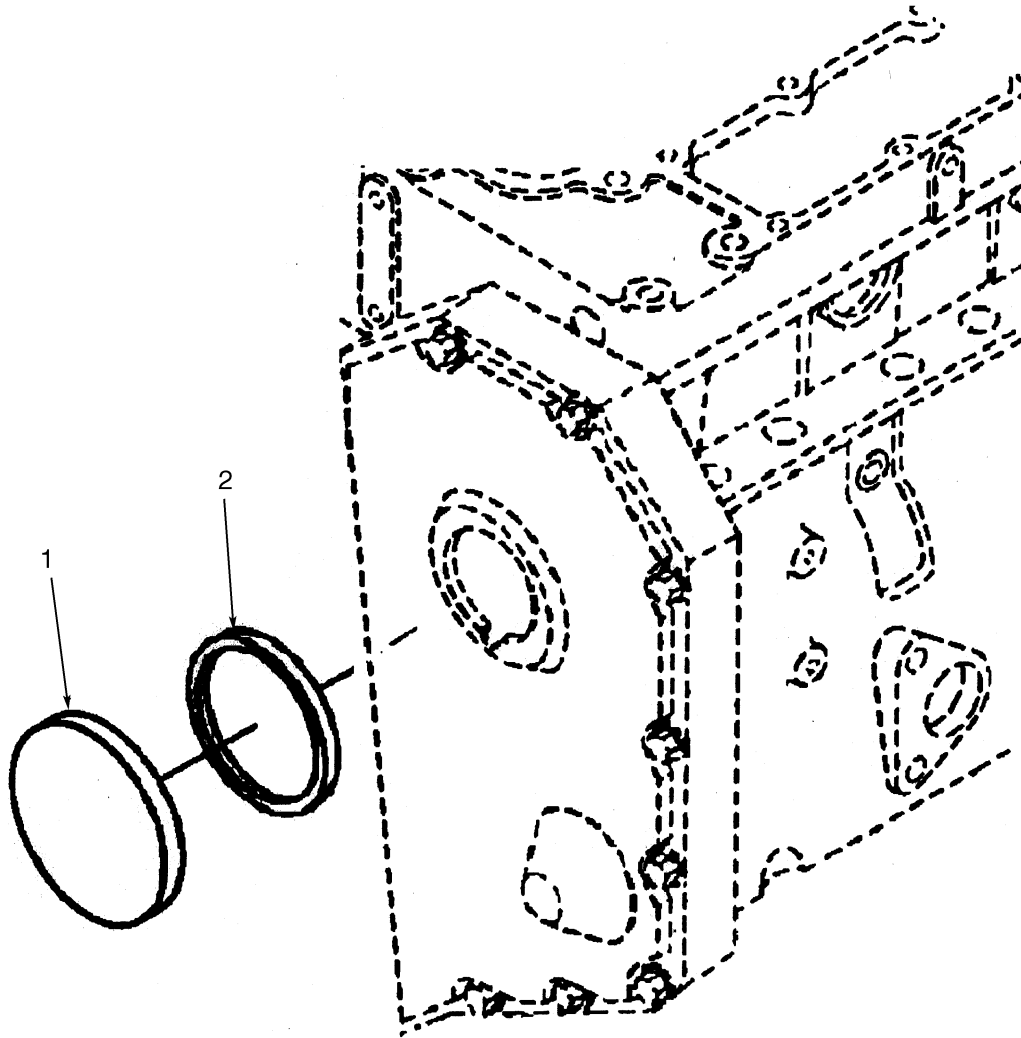
**FOOTNOTES:**

**a** → S/N A214E01842Z (FLT)

**b** → S/N A214E01848Z (ECH)



**COVER AND SEAL (FIGURE 2-8)  
TIER I ENGINE**



HP090874

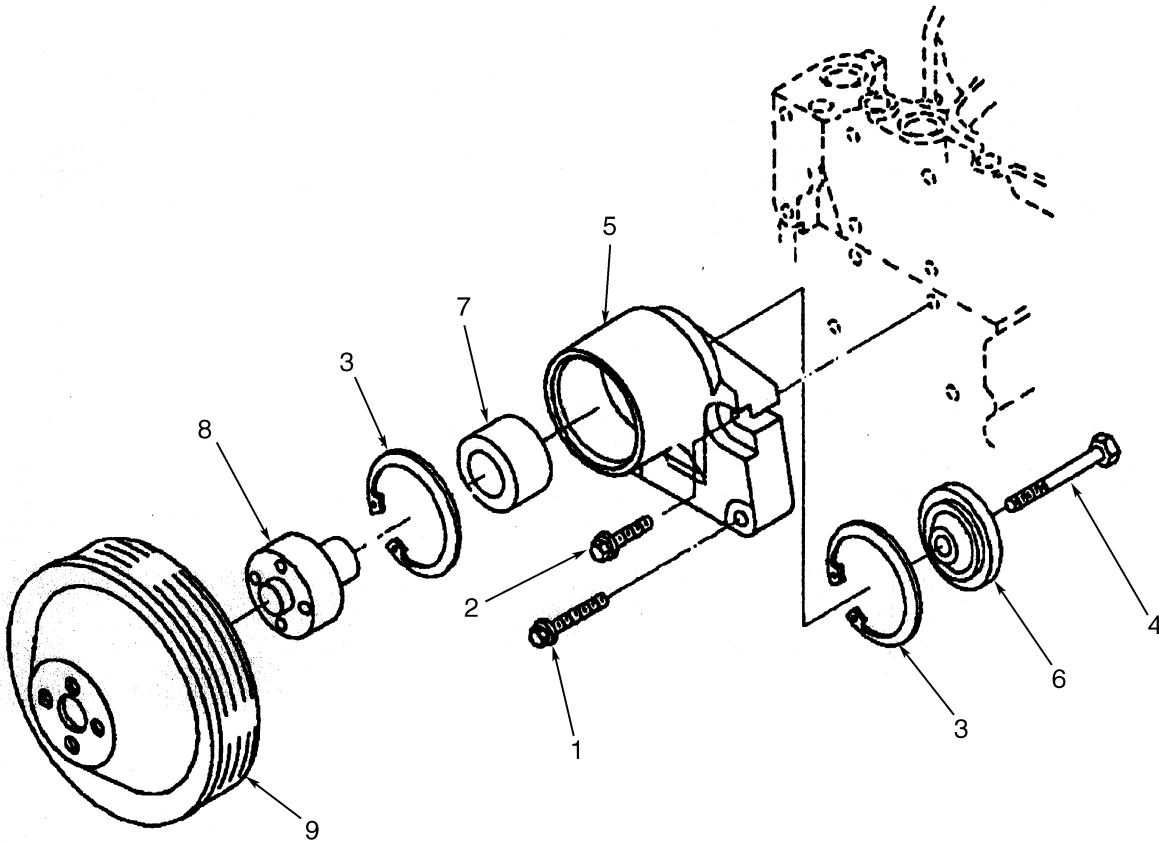
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1484262	Engine Assy-Diesel .....	1
1	1512011	Cover .....	1
2	1512012	Sealing Ring .....	1

**FOOTNOTES:**

**a** → S/N A214E01842Z (FLT)

**b** → S/N A214E01848Z (ECH)

## FAN DRIVE (FIGURE 2-9) TIER I ENGINE



HP090875

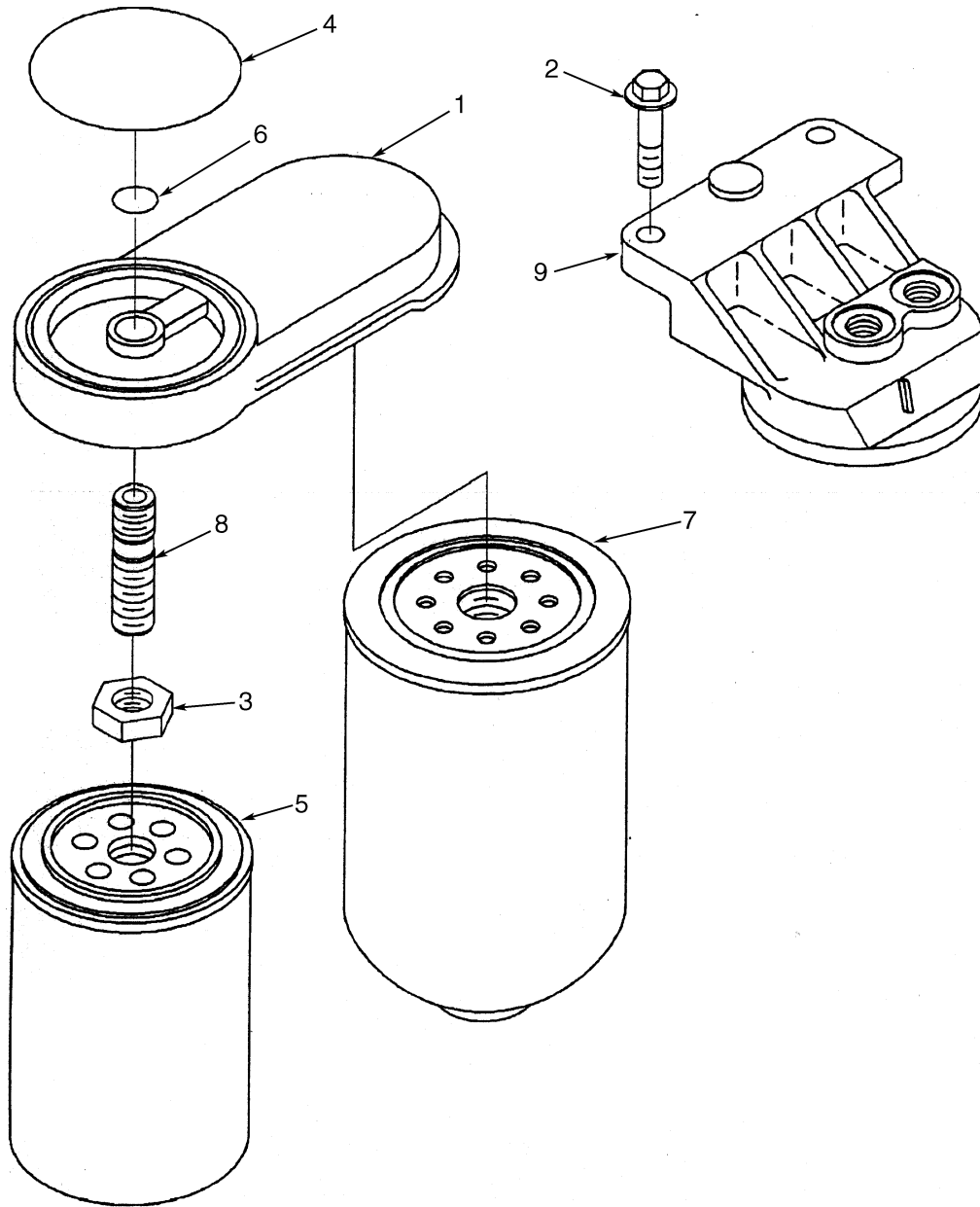
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1484262	Engine Assy-Diesel .....	1
1	1512029	Screw .....	2
2	1512423	Capscrew .....	2
3	1512026	Retaining Ring .....	2
4	1512027	Capscrew .....	1
5	1512424		
	4045106	Support Assembly, Fan Mount .....	1
6	1512025	Hub Retainer .....	1
7	1512015	Ball Bearing .....	1
8	1512024		
	4045108	Hub .....	1
9	1512425	Fan Pulley .....	1

### FOOTNOTES:

**a** → S/N A214E01842Z (FLT)

**b** → S/N A214E01848Z (ECH)

**FUEL FILTER (FIGURE 2-10)  
TIER I ENGINE**



HP090876

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1484262	Engine Assy-Diesel .....	1
1	4094919	Filter Head .....	1
1	4094920	Sealing Ring .....	1
2	1512033	Capscrew .....	2
3	1512034	Nut .....	1
4	1512427	O-Ring .....	1
5	1512428	Fuel Filter .....	1
6	1512429	O-Ring .....	1
7	1512430	Fuel Filter .....	1
8	1512040	Adapter .....	1

---

ITEM	PART NO.	DESCRIPTION	QTY
9	1512037	Filter Head .....	1

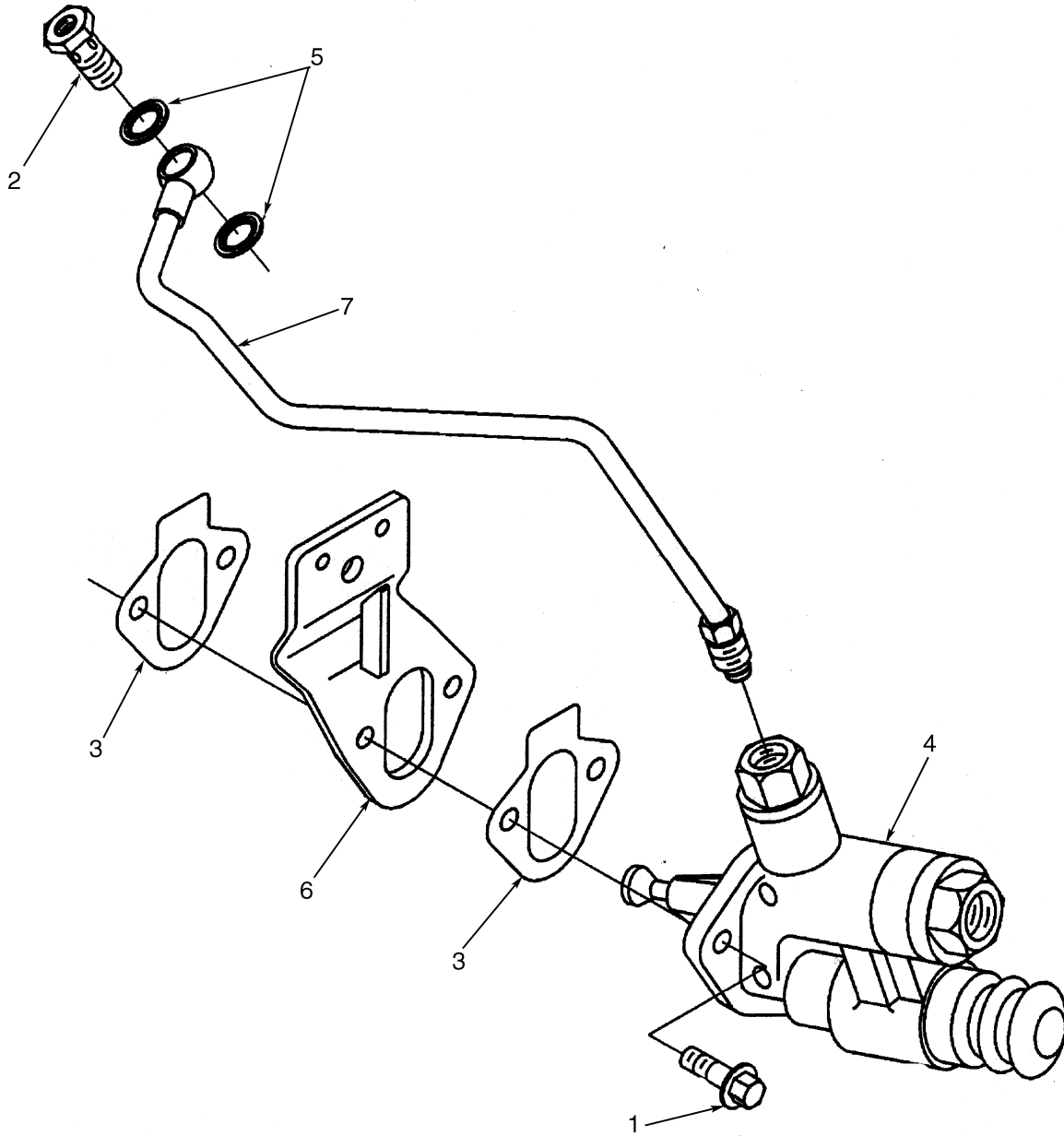
---

**FOOTNOTES:**

**a** → S/N A214E01842Z (FLT)

**b** → S/N A214E01848Z (ECH)

**LIFT PUMP (FIGURE 2-11)  
TIER I ENGINE**



HP090877

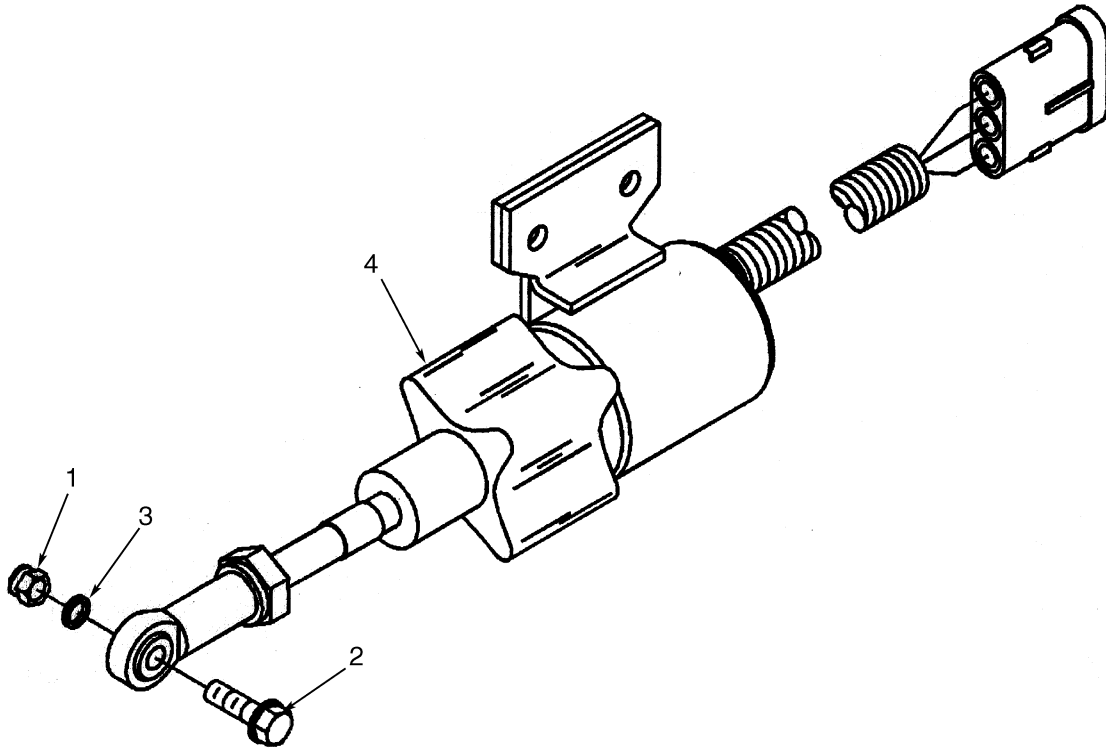
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1484262	Engine Assy-Diesel .....	1
1	1512005	Capscrew .....	2
2	1512091	Screw .....	1
3	.....	Gasket .....	2
4	1512094	Lift Pump .....	1
5	1512092	Sealing Ring .....	2
6	1512438	Bracket .....	1
7	1512439	Tube Assy .....	1

**FOOTNOTES:**

**a** → S/N A214E01842Z (FLT)

**b** → S/N A214E01848Z (ECH)

**FUEL SHUT-OFF VALVE (FIGURE 2-12)  
TIER I ENGINE**



HP090878

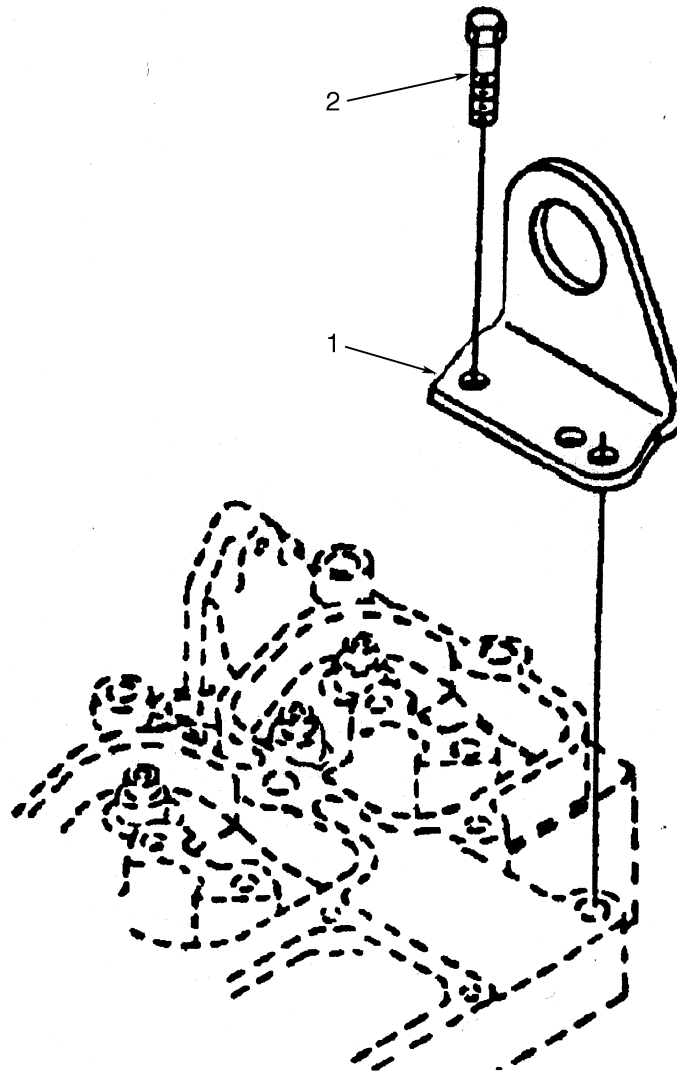
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1484262	Engine Assy-Diesel .....	1
1	302399	Nut .....	1
2	1512441	Screw .....	2
3	1512102	Washer .....	1
4	1512442	Solenoid (Fuel Pump) .....	1

**FOOTNOTES:**

**a** → S/N A214E01842Z (FLT)

**b** → S/N A214E01848Z (ECH)

## LIFTING BRACKET (FIGURE 2-13) TIER I ENGINE



HP090880

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1484262	Engine Assy-Diesel .....	1
1	1512109	Bracket .....	1
2	1511953	Capscrew .....	2

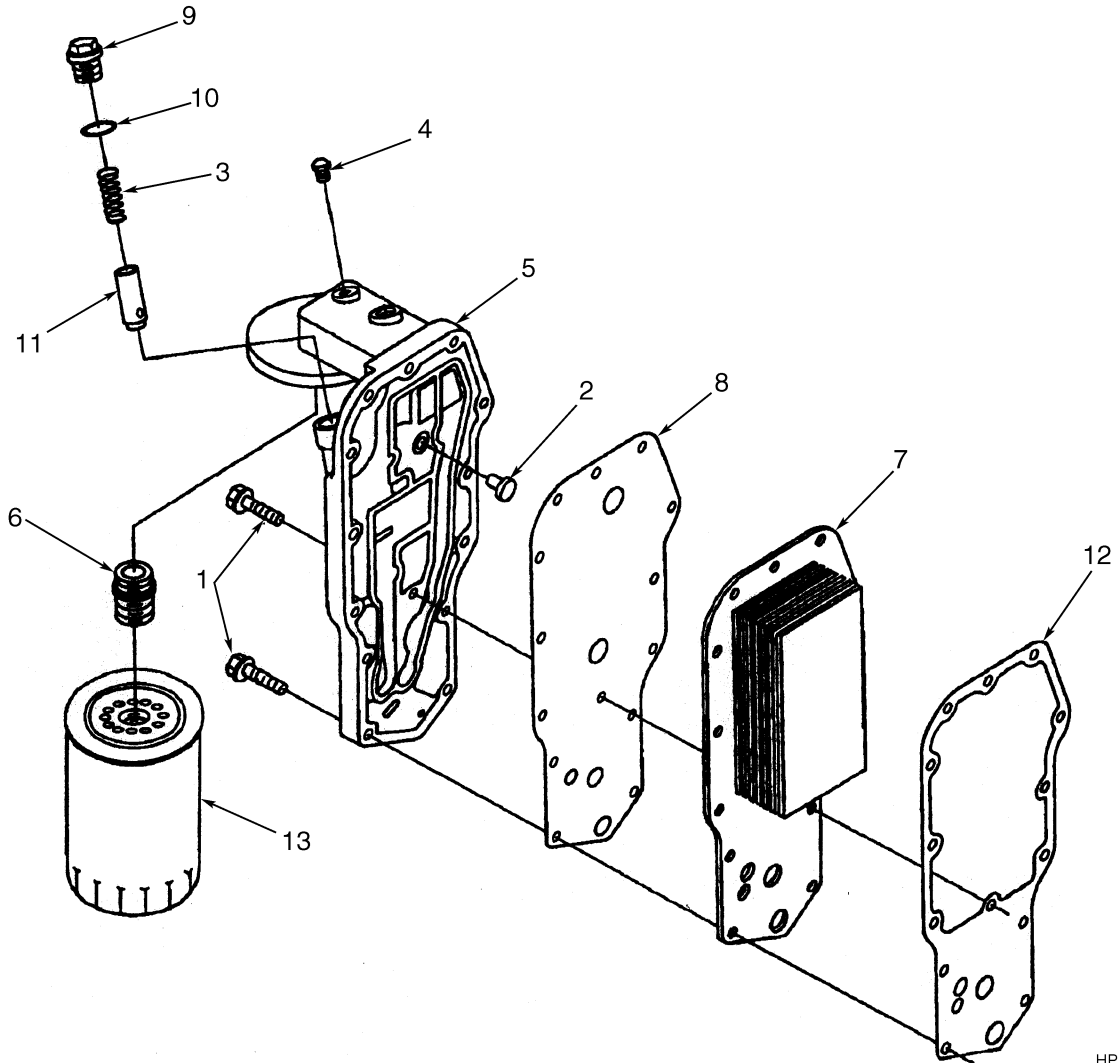
**FOOTNOTES:**

**a** → S/N A214E01842Z (FLT)

**b** → S/N A214E01848Z ECH



**OIL COOLER (FIGURE 2-14)  
TIER I ENGINE**



HP090881

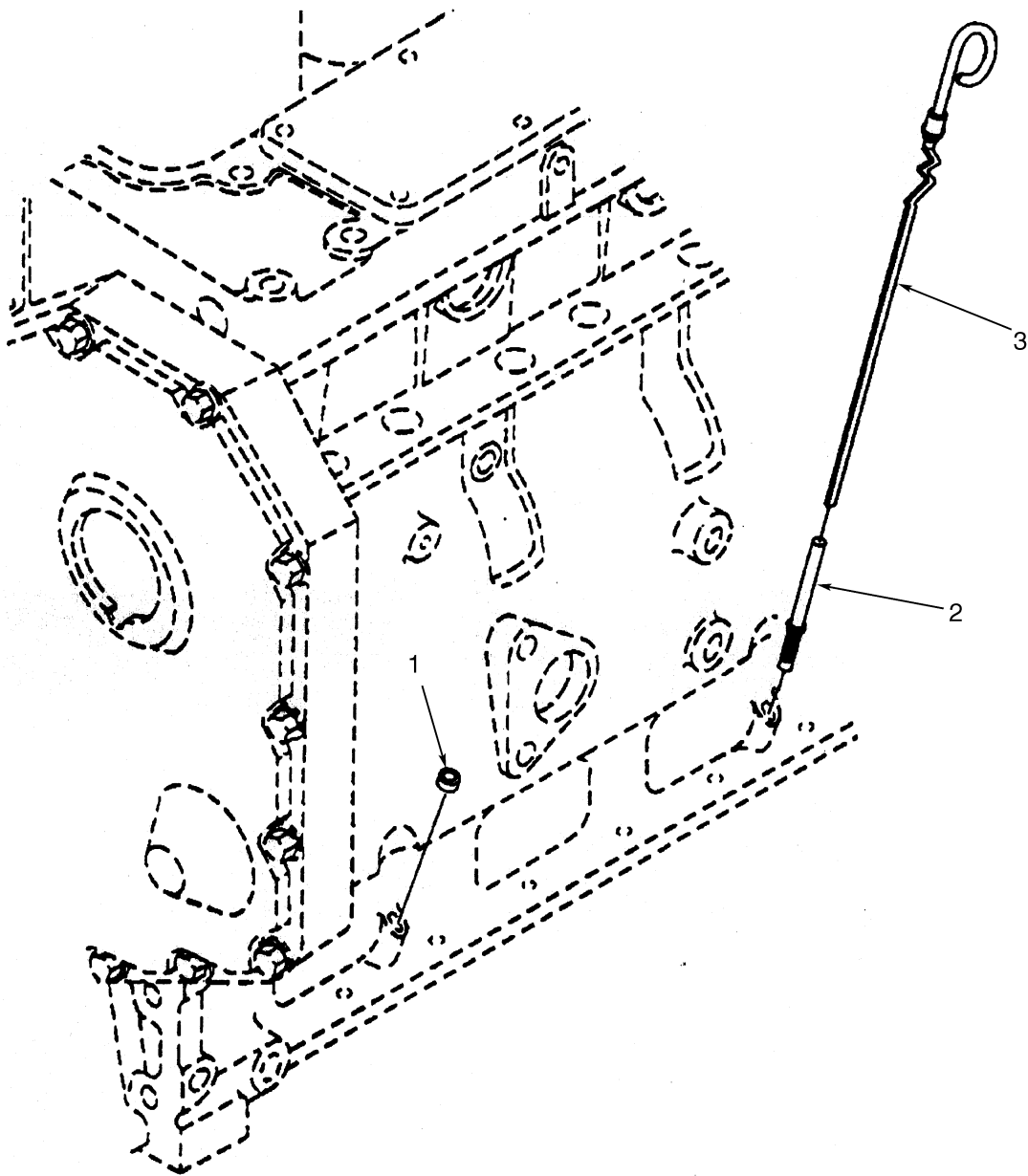
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1484262	Engine Assy-Diesel .....	1
1	1512033	Capscrew .....	14
2	1512447	Relief Valve .....	1
3	1512112	Spring , Pressure Regulator .....	1
4	1512448	Fitting .....	1
5	1512450	Filter Head (Oil Filter) .....	1
6	1512451	Adapter .....	1
7	1512114	Core .....	1
8	1512452	Gasket .....	1
9	1512453	Plug .....	1
10	1512118	O-Ring .....	1
11	1512119	Plunger .....	1
12	1638856	Gasket .....	1
13	1512454	Oil Filter .....	1

**FOOTNOTES:**

**a** → S/N A214E01842Z (FLT)

**b** → S/N A214E01848Z (ECH)

**OIL LEVEL GAUGE (FIGURE 2-15)  
TIER I ENGINE**



HP090882

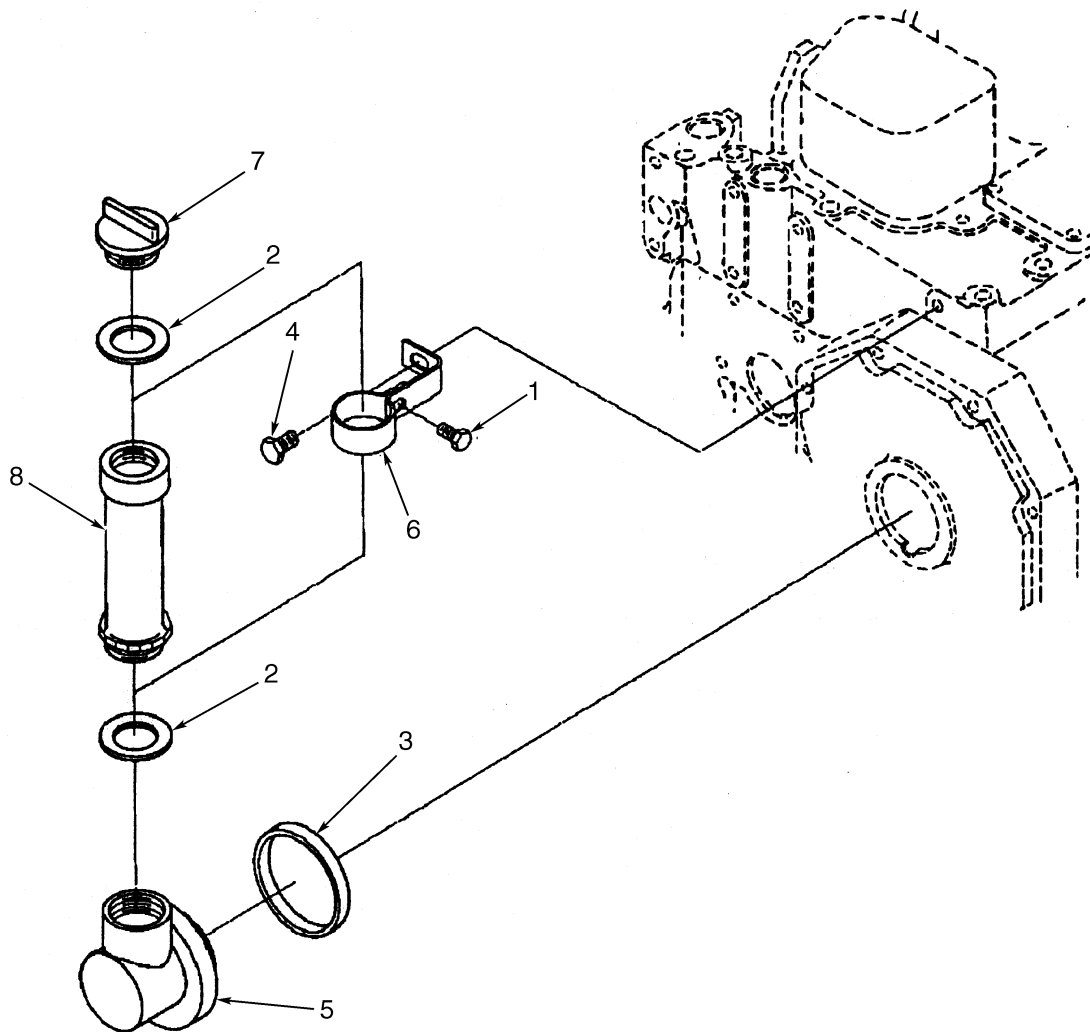
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1484262	Engine Assy-Diesel .....	1
1	1512130	Plug .....	3
2	1624829	Dipstick Tube .....	1
3	1512132	Dipstick .....	1

**FOOTNOTES:**

**a** → S/N A214E01842Z (FLT)

**b** → S/N A214E01848Z (ECH)

## OIL FILLER ARRANGEMENT (FIGURE 2-16) TIER I ENGINE



HP090883

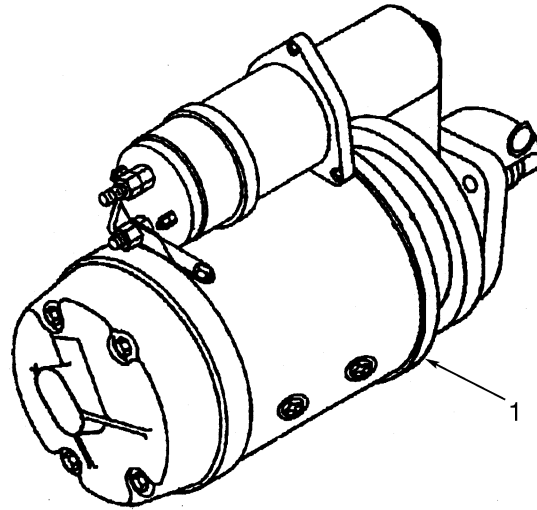
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1484262	Engine Assy-Diesel .....	1
1	1512051	Capscrew .....	1
2	1512459	Sealing Ring .....	2
3	1512012	Sealing Ring .....	1
4	1512460	Capscrew .....	1
5	1512461	Connector .....	1
6	1512462	Brace .....	1
7	1512463	Cap .....	1
8	1512464	Tube .....	1

**FOOTNOTES:**

**a** → S/N A214E01842Z (FLT)

**b** → S/N A214E01848Z (ECH)

**STARTER (FIGURE 2-17)  
TIER I ENGINE**



090884

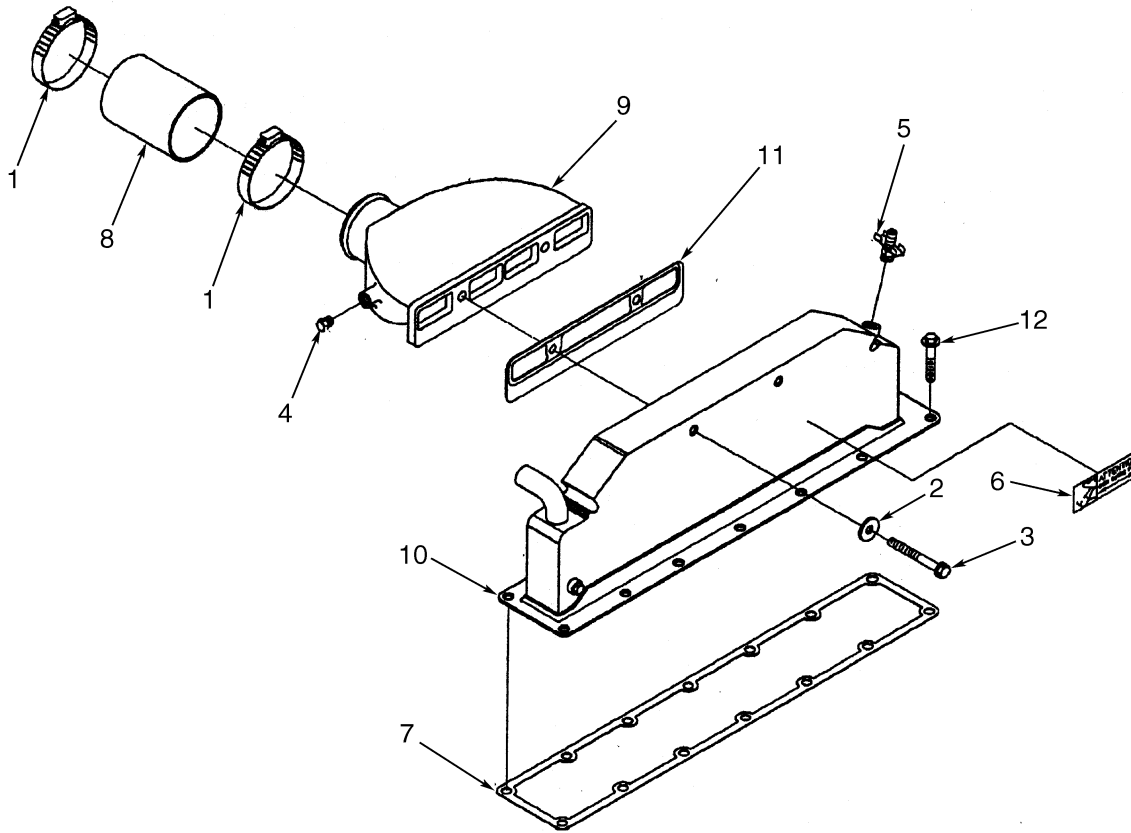
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1484262	Engine Assy-Diesel .....	1
1	1512485	Starter .....	1

**FOOTNOTES:**

**a** → S/N A214E01842Z (FLT)

**b** → S/N A214E01848Z (ECH)

## AIR INTAKE CONNECTION (FIGURE 2-18) TIER I ENGINE



HP090885

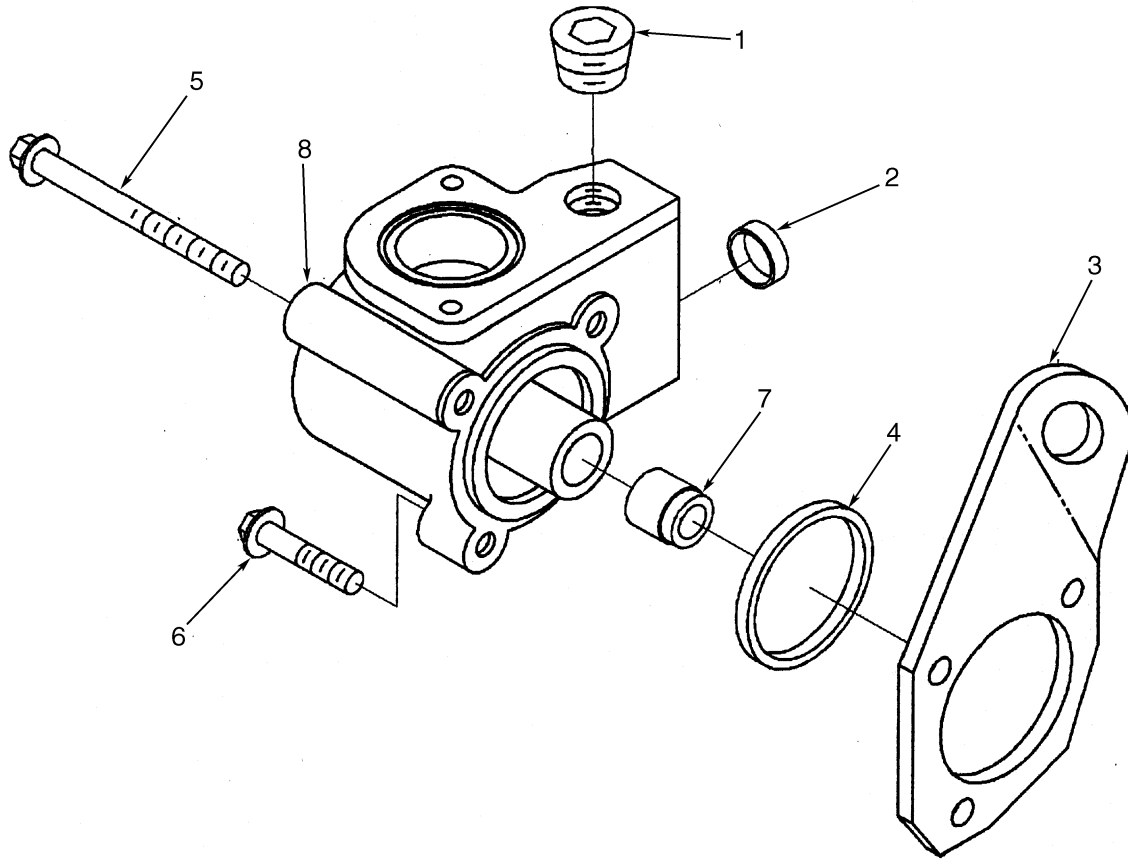
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1484262	Engine Assy-Diesel .....	1
1	1512293	Hose Clamp .....	2
2	1512487	Washer .....	2
3	1512488	Screw .....	2
4	1512448	Fitting .....	2
5	1512489	Drain Valve .....	1
6	.....	Decal .....	1
7	1512300	Gasket .....	1
8	1512490	Hose .....	1
9	1512491	Connector .....	1
10	1512492	Aftercooler .....	1
11	1512493	Gasket .....	1
12	1512494	Screw .....	10

### FOOTNOTES:

**a** → S/N A214E01842Z (FLT)

**b** → S/N A214E01848Z (ECH)

**THERMOSTAT HOUSING (FIGURE 2-19)  
TIER I ENGINE**



HP090886

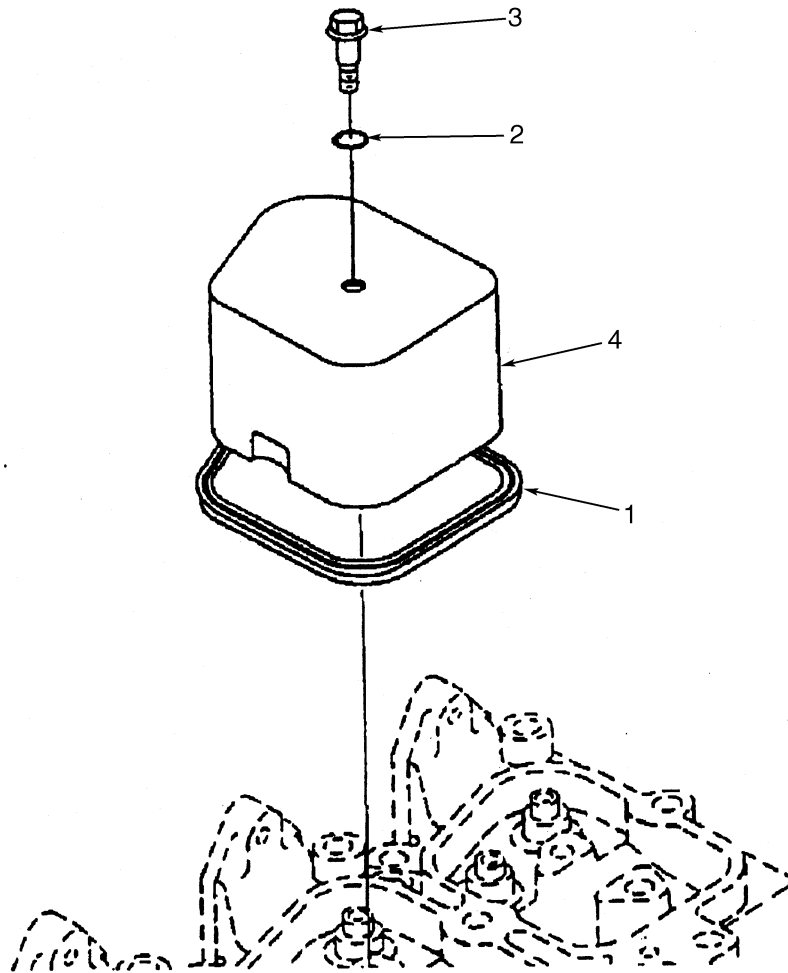
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1484262	Engine Assy-Diesel .....	1
1	1512292	Plug .....	1
2	.....	Plug .....	1
3	1512302	Bracket .....	1
4	1512305	O-Ring .....	1
5	1512296	Capscrew .....	1
6	1512029	Screw .....	2
7	1512496	Insert .....	1
8	.....	Housing (Thermostat) .....	1

**FOOTNOTES:**

**a** → S/N A214E01842Z (FLT)

**b** → S/N A214E01848Z (ECH)

## VALVE COVER (FIGURE 2-20) TIER I ENGINE



HP090887

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1484262	Engine Assy-Diesel .....	1
1	1512307	Gasket .....	6
2	1512308	Isolator .....	6
3	1512309	Capscrew .....	6
4	1512310	Cover .....	6

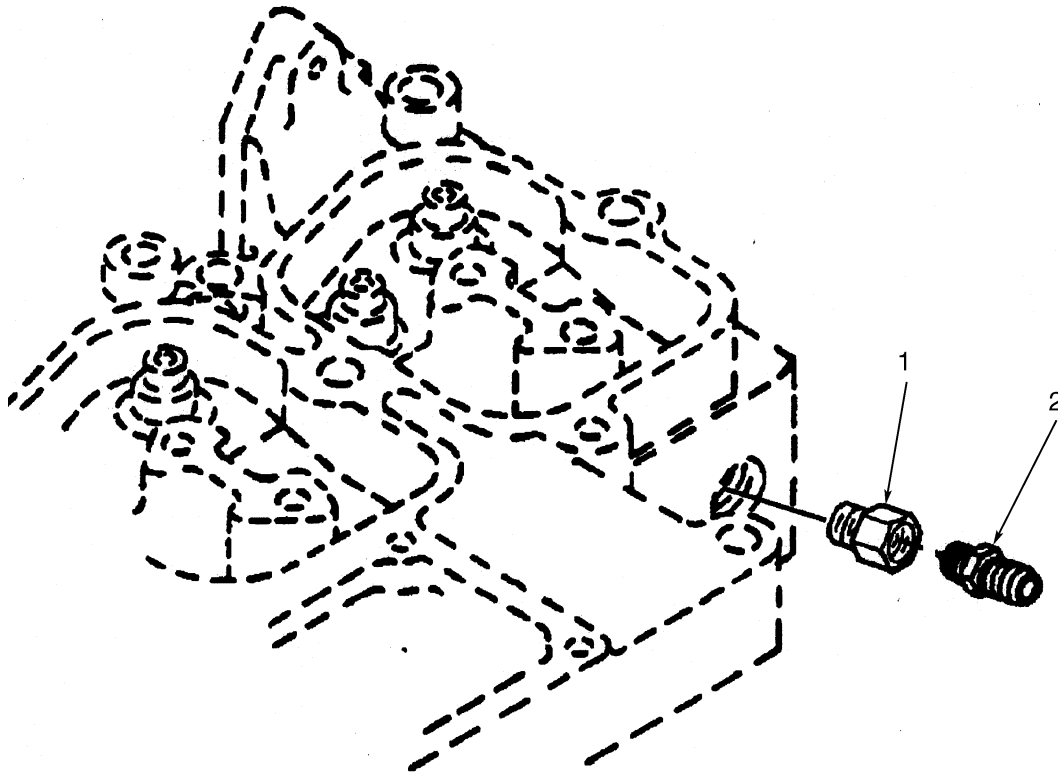
**FOOTNOTES:**

**a** → S/N A214E01842Z (FLT)

**b** → S/N A214E01848Z (ECH)



**HEATER PLUMBING (FIGURE 2-21)  
TIER I ENGINE**



HP090888

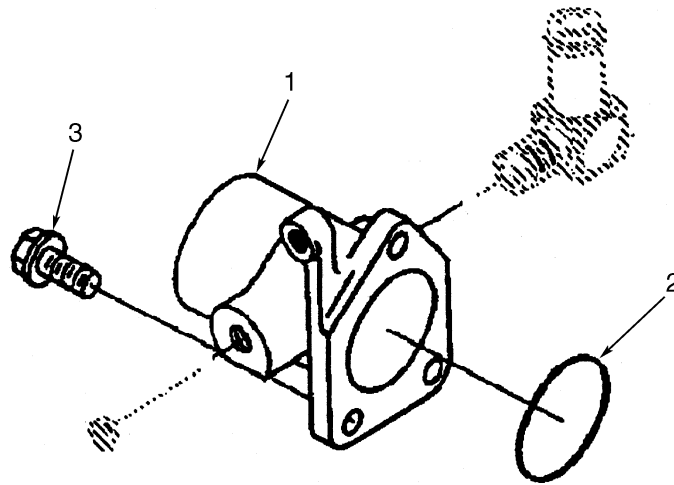
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1484262	Engine Assy-Diesel .....	1
1	1512499	Bushing .....	1
2	1512500	Coupling .....	1

**FOOTNOTES:**

**a** → S/N A214E01842Z (FLT)

**b** → S/N A214E01849Z (ECH)

## WATER INLET CONNECTION (FIGURE 2-22) TIER I ENGINE



HP090889

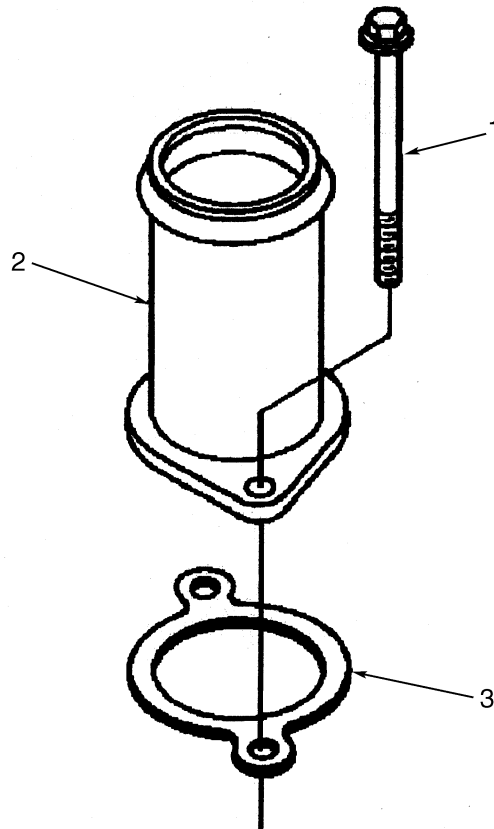
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1484262	Engine Assy-Diesel .....	1
1	1512502	Water Inlet .....	1
2	1512305	O-Ring .....	1
3	1512503	Capscrew .....	3

**FOOTNOTES:**

**a** → S/N A214E01842Z (FLT)

**b** → S/N A214E01848Z (ECH)

**WATER OUTLET CONNECTION (FIGURE 2-23)  
TIER I ENGINE**



HP090890

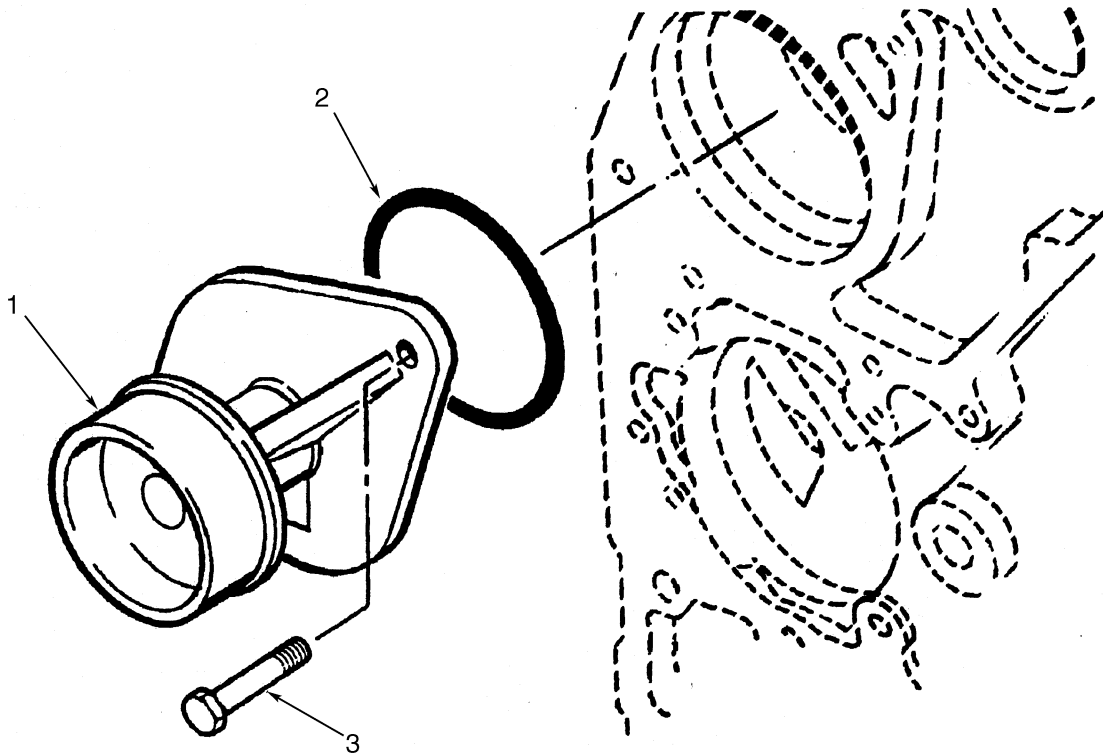
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1484262	Engine Assy-Diesel .....	1
1	1512004	Capscrew .....	2
2	1512318	Connector .....	1
3	1512319	Gasket .....	1

**FOOTNOTES:**

**a** → S/N A214E01842Z (FLT)

**b** → S/N A214E01848Z (ECH)

## WATER PUMP (FIGURE 2-24) TIER I ENGINE



HP090891

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1484262	Engine Assy-Diesel .....	1
1	4512505		
	1707014	Water Pump Kit .....	1
2	1512322	Sealing Ring .....	1
3	1512323	Screw .....	2

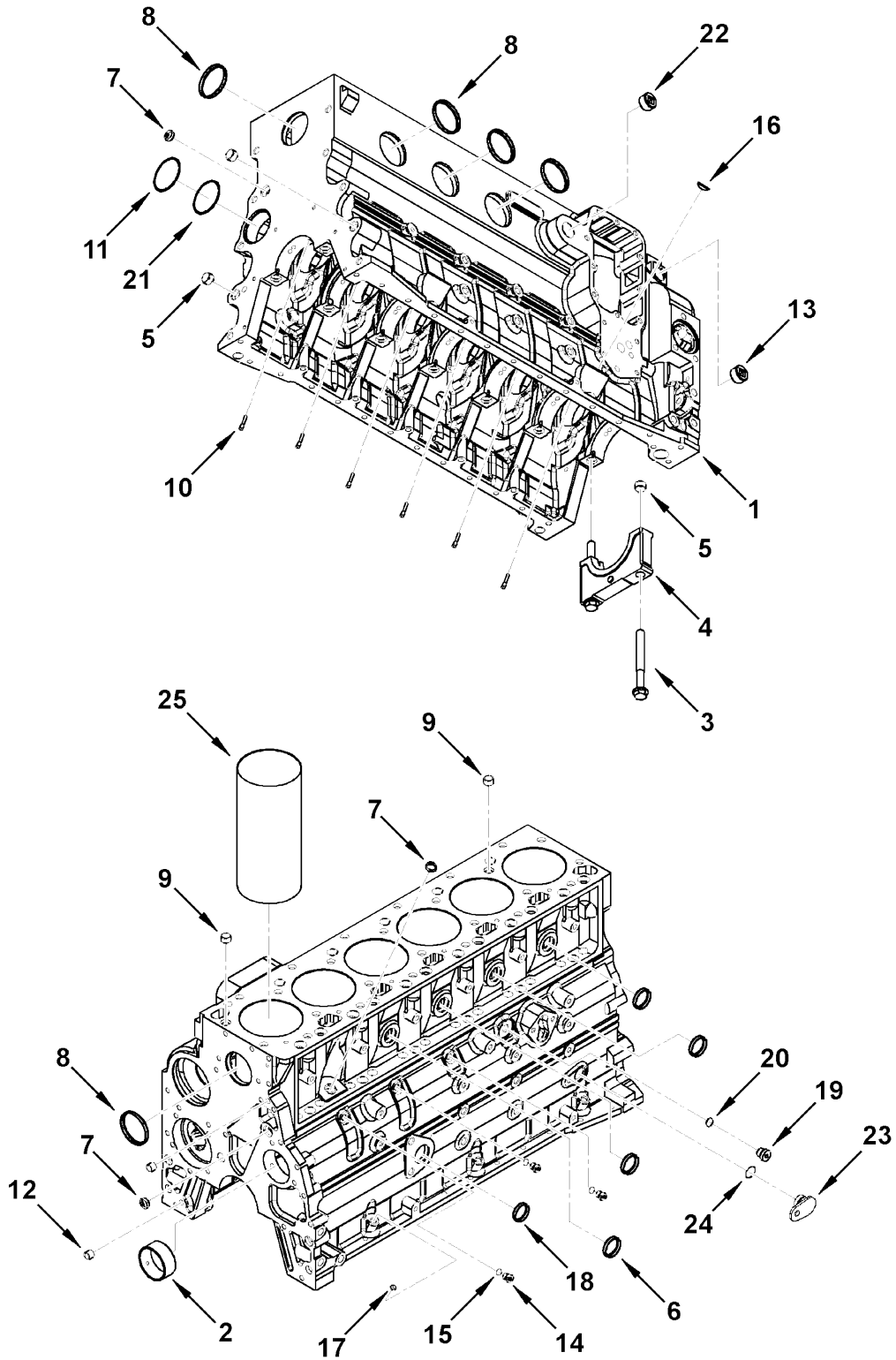
### FOOTNOTES:

**a** → S/N A214E01842Z (FLT)

**b** → S/N A214E01848Z (ECH)



## CYLINDER BLOCK (FIGURE 2-25) TIER II ENGINE



HP091115

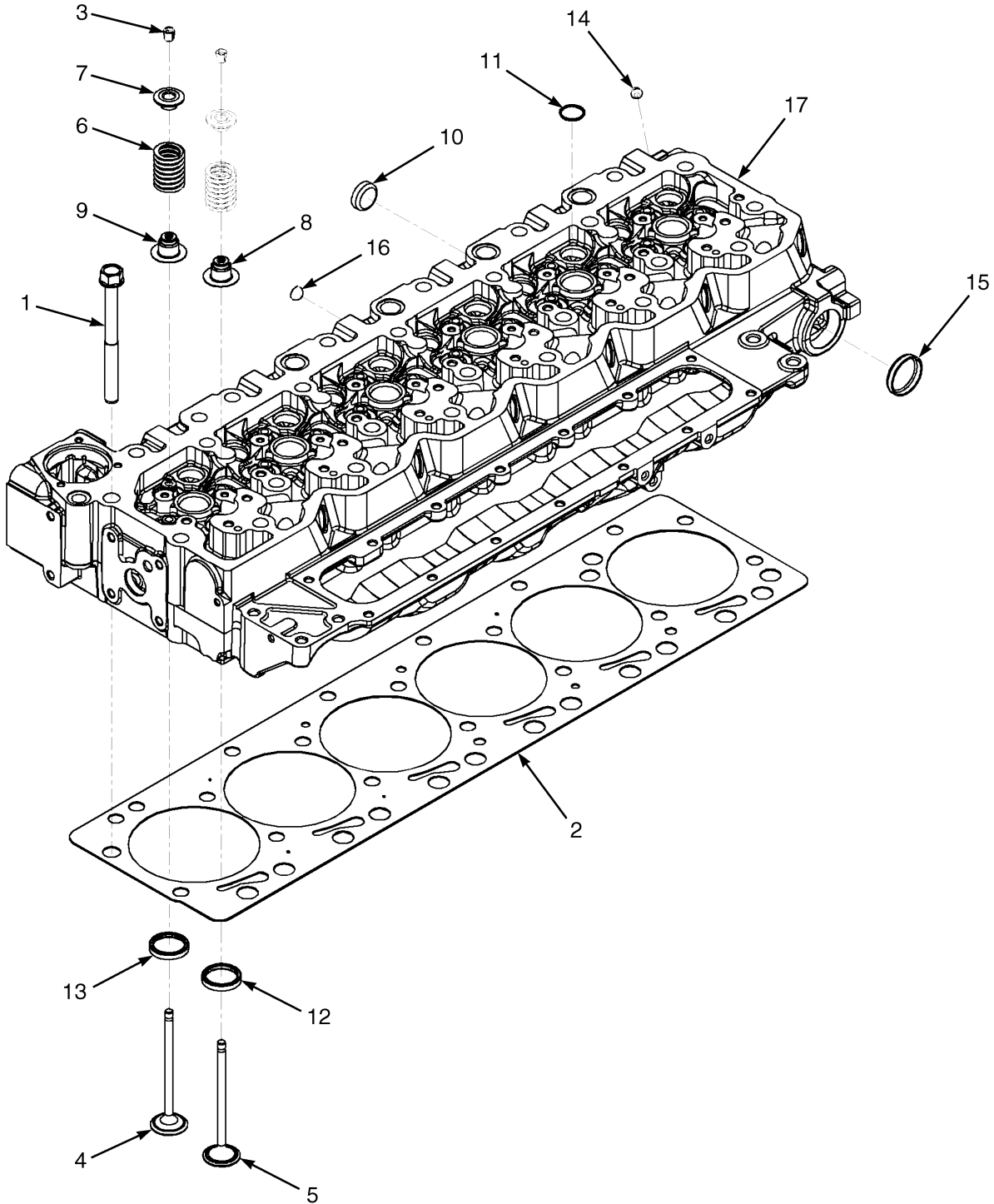
**CYLINDER BLOCK  
TIER II ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1499323	Engine Assy-Diesel .....	1
	<b>c</b> 1532627	Engine Assy-Diesel .....	1
	<b>d</b> 1607649	Engine Assy-Diesel .....	1
	<b>e</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	.....	Cylinder Block .....	1
2	1521682	Bushing .....	1
3	1521683	Capscrew .....	14
4	1635307	Cap (Main Bearing) .....	7
5	1521685	Ring , Dowel .....	2
6	1543325	Plug .....	4
7	1512304	Plug .....	3
8	1514542	Plug .....	5
9	1521691	Dowel .....	2
10	1521692	Nozzle (Piston Cooling) .....	6
11	1521693	Plug .....	1
12	1513878	Dowel .....	2
13	1511952	Fitting .....	1
14	1517010	Plug .....	3
15	1517011	O-Ring .....	1
16	1514339	Plug .....	2
17	1512130	Plug .....	3
18	1521694	Plug .....	1
19	1521695	Plug Assembly .....	1
20	1517119	O-Ring .....	1
21	1521696	O-Ring .....	1
22	1512292	Plug .....	1
23	1521697	Fitting .....	1
24	1543321	Sealing Ring .....	1
25	1585284	Sleeve .....	AR
	1521686	Kit-Cylinder Block .....	1

**FOOTNOTES:**

- a** S/N A214E01843Z ↔ S/N A214E-01950A (FLT)      **d** S/N A214E02181C →  
**b** S/N A214E01848Z ↔ S/N A214E-01950A (ECH)      **e** S/N A214E02283D →  
**c** S/N A214E01951A ↔ S/N A214E-02180C

## CYLINDER HEAD (FIGURE 2-26) TIER II ENGINE



HP091126



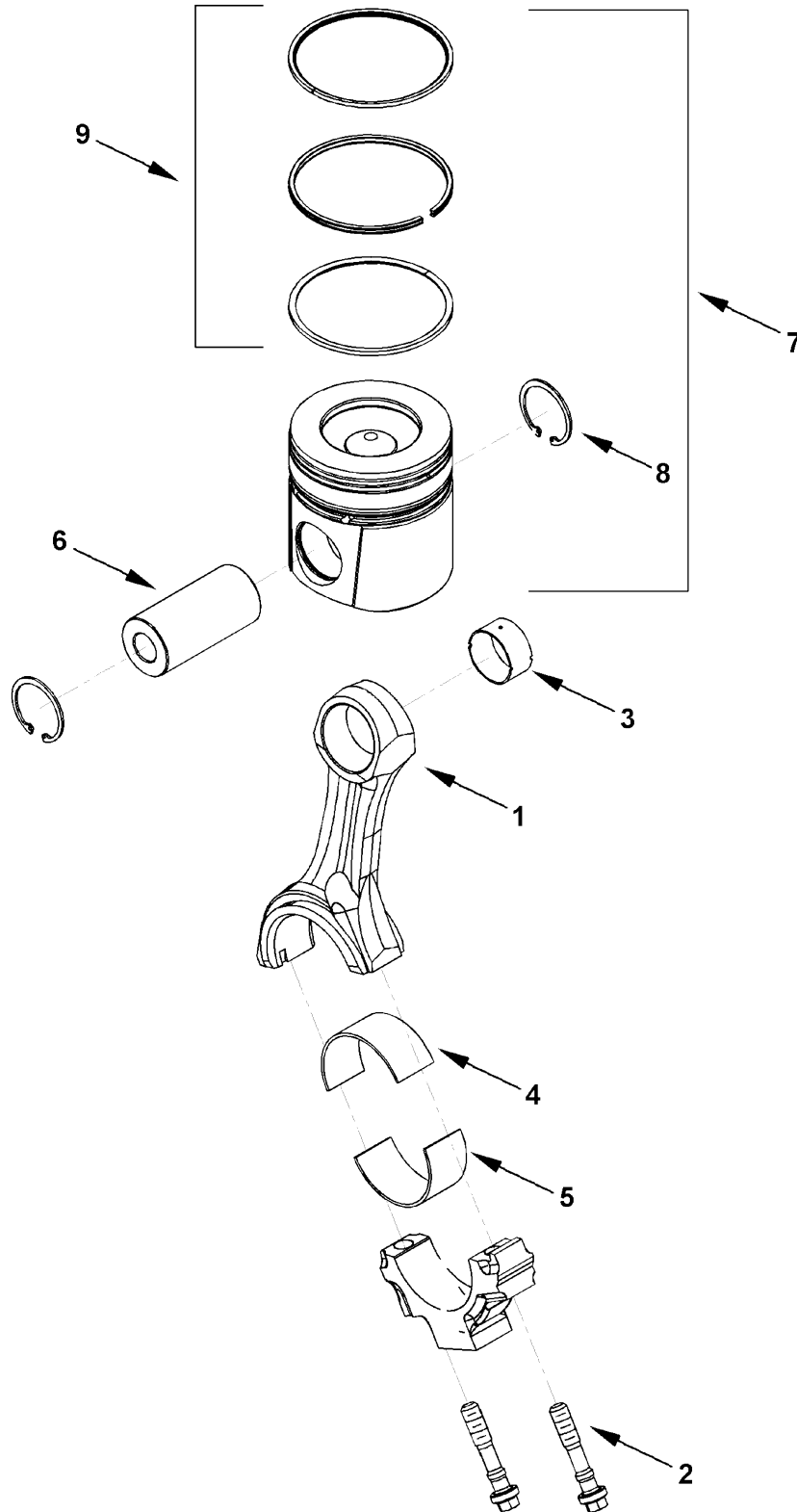
**CYLINDER HEAD  
TIER II ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1499323	Engine Assy-Diesel .....	1
	<b>c</b> 1532627	Engine Assy-Diesel .....	1
	<b>d</b> 1607649	Engine Assy-Diesel .....	1
	<b>e</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1521901	Screw .....	26
2	1673902	Cylinder Head Gasket .....	1
3	1521914	Keeper (Valve Collet) .....	2
4	1635346	Kit-Exhaust Valve .....	1
5	<del>1553873</del>		
	1521913	Kit-Valve (Intake) .....	1
6	<del>1661289</del>		
	4164161	Spring .....	1
7	1521915	Retainer .....	24
8	<del>4104412</del>		
	1584922	Seal (Valve Stem) (Intake) .....	12
9	1584923	Seal (Valve Stem) (Exhaust) .....	12
10	1543325	Plug .....	14
11	1514339	Plug .....	11
12	1602488	Insert (0.127 mm) (Intake) .....	12
12	1602489	Insert (0.254 mm) (Intake) .....	12
12	1602490	Insert (0.508 mm) (Intake) .....	12
13	<del>1602491</del>		
	4033239	Insert (0.127 mm) (Exhaust) .....	12
13	<del>1602492</del>		
	4033240	Insert (0.254 mm) (Exhaust) .....	12
13	<del>1602493</del>		
	<del>4033241</del>		
	<del>4033240</del>		
	4033241	Insert (0.508 mm) (Exhaust) .....	12
14	1512586	Plug .....	7
15	.....	Plug .....	2
16	1521919	Plug .....	2
17	1584921	Cylinder Head .....	1
	1673901	Kit-Seal .....	1

**FOOTNOTES:**

- a** S/N A214E01843Z ↔ S/N A214E-01950A (FLT)      **d** S/N A214E02181C ↔ S/N A214E02280D  
**b** S/N A214E01848Z ↔ S/N A214E-01950A (ECH)      **e** S/N A214E02283D →  
**c** S/N A214E01951A ↔ S/N A214E-02180C

## PISTON AND CONNECTING ROD (FIGURE 2-27) TIER II ENGINE



HP091125

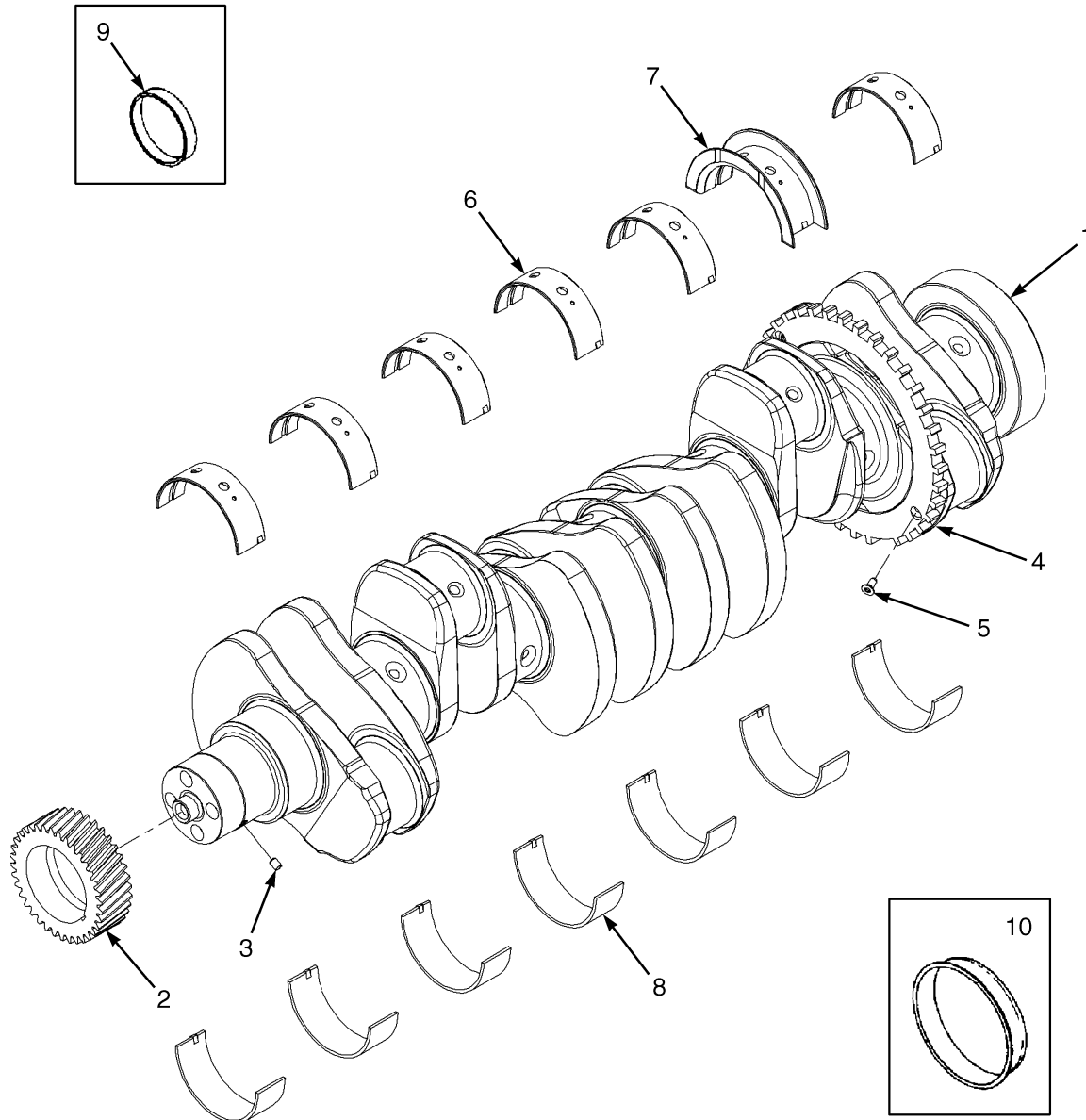
**PISTON AND CONNECTING ROD  
TIER II ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a e</b> 1499323	Engine Assy-Diesel .....	1
	<b>b</b> 1532627	Engine Assy-Diesel .....	1
	<b>c</b> 1607649	Engine Assy-Diesel .....	1
	<b>d</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1597832	Piston Rod .....	1
2	1553261	Capscrew .....	2
3	1553262	Bushing .....	1
4	1543446	Bearing (Standard) (Upper) .....	6
4	<del>1512150</del>		
	1638419	Bearing (0.25 mm) (Upper) .....	AR
4	<del>1512151</del>		
	1638420	Bearing (0.50 mm) (Upper) .....	AR
4	<del>1512152</del>		
	1638421	Bearing (0.75 mm) (Upper) .....	AR
4	<del>1512153</del>		
	1638422	Bearing (1.00 mm) (Upper) .....	AR
5	1543445	Bearing (Standard) (Lower) .....	6
5	1584817	Bearing (0.25 mm) (Lower) .....	AR
5	1584818	Bearing (0.50 mm) (Lower) .....	AR
5	1584819	Bearing (0.75 mm) (Lower) .....	AR
5	1584820	Bearing (1.00 mm) (Lower) .....	AR
6	1512149	Pin (Piston) .....	1
7	1526088	Kit-Piston ("A") .....	6
7	1526090	Kit-Piston ("B") .....	6
7	1526091	Kit-Piston ("C") .....	6
7	1526092	Kit-Piston (0.50 mm) .....	6
7	1526094	Kit-Piston (1.00 mm) .....	6
8	1512146	Retaining Ring .....	2
9	1584814	Kit-Piston Ring (Grade A, B, C) .....	1
9	1584815	Kit-Piston Ring (0.50 mm) .....	1
9	1584816	Kit-Piston Ring (1.00 mm) .....	1

**FOOTNOTES:**

- a** S/N A214E01843Z ↔ S/N A214E-01950A (FLT)      **d** S/N A214E02283D →  
**b** S/N A214E01951A ↔ S/N A214E-02180C      **e** S/N A214E01849Z → ECH  
**c** S/N A214E02181C →

## CRANKSHAFT AND MAIN BEARINGS (FIGURE 2-28) TIER II ENGINE



HP091116

**CRANKSHAFT AND MAIN BEARINGS  
TIER II ENGINE**

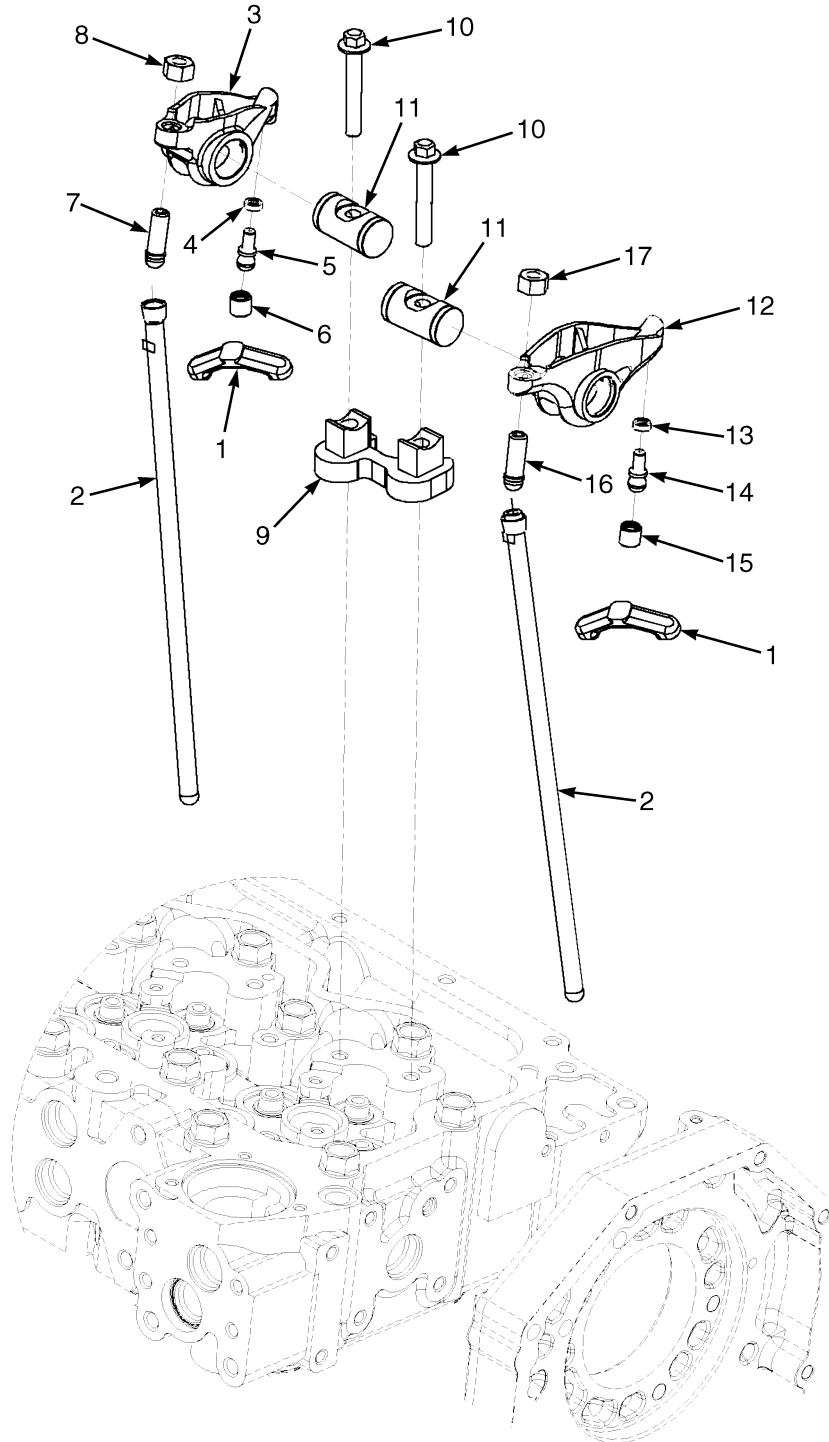
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1499323	Engine Assy-Diesel .....	1
	<b>c</b> 1532627	Engine Assy-Diesel .....	1
	<b>d</b> 1607649	Engine Assy-Diesel .....	1
	<b>e</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1521700	Crankshaft .....	1
2	.....	Gear .....	1
3	.....	Dowel Pin .....	1
4	.....	Ring (Speed Indicator) .....	1
5	.....	Capscrew .....	5
6	1543317	Bearing (Standard) (Standard) .....	6
6	1585002	Bearing (0.25 mm O/S) .....	6
6	1584992	Bearing (0.50 mm) .....	6
6	1707620	Bearing , Main (Upper) (0.50 mm O/S) (Alternate Part) .....	6
6	1584995	Bearing (0.75 mm) .....	6
6	1584998	Bearing (1.00 mm) .....	6
6	1584994	Bearing (0.50 mm) .....	1
6	1584998	Bearing (1.00 mm) .....	1
6	1708511	Bearing , Main (Upper) (1.00 mm O/S) (Alternate Part) .....	6
7	1554044	Thrust Bearing (Standard) (Standard) .....	1
7	1584990	Crankshaft Bearing (0.25 mm) .....	1
7	1584993	Thrust Bearing (0.50 mm) .....	1
7	1707621	Thrust Bearing (0.50 mm O/S) (Alternate Part) .....	1
7	1584996	Thrust Bearing (0.75 mm) .....	1
7	1584999	Thrust Bearing (1.00 mm) .....	1
7	1585001	Thrust Bearing (0.50 mm) .....	1
7	1585003	Thrust Bearing (1.00 mm) .....	1
7	1708512	Thrust Bearing (1.00 mm O/S) (Alternate Part) .....	1
8	1543318	Bearing (Standard) (Standard) .....	7
8	1584991	Bearing (0.25 mm) .....	7
8	1584994	Bearing (0.50 mm) .....	7
8	1707622	Bearing , Main (Lower) (0.50 mm O/S) (Alternate Part) .....	7
8	1584997	Bearing (0.75 mm) .....	7
8	1585000	Bearing (1.00 mm) .....	7
8	1708513	Bearing , Main (Lower) (1.00 mm O/S) (Alternate Part) .....	7
9	1554045	Kit - Front Crankshaft Seal and Wear Sleeve (Front) .....	1
10	1514354	Kit - Rear Crankshaft Seal and Wear Sleeve (Rear) .....	1
	1554043	Kit-Bearing (Standard) .....	1
	1521705	Bearing Set (0.25 mm) .....	1
12	1708510	Bearing Set (1.00 mm O/S) (Alternate Part) .....	1
	4007075	Bearing Set (0.25 mm O/S) (Alternate Part) .....	1
	1521706	Bearing Set (0.50 mm) .....	1
	1707619	Bearing Set (0.50 mm O/S) (Alternate Part) .....	1
	1521707	Bearing Set (0.75 mm) .....	1
	1521708	Bearing Set (1.00 mm) .....	1
	1708510	Bearing Set (1.00 mm O/S) (Alternate Part) .....	1
	1521709	Kit-Thrust Bearing (0.50 mm) .....	1
	1521710	Kit-Thrust Bearing (1.00 mm) .....	1

**FOOTNOTES:**

- |          |  |          |                   |
|----------|--|----------|-------------------|
| <b>a</b> | S/N A214E01843Z ↔ S/N A214E-01950A (FLT) | <b>d</b> | S/N A214E02181C → |
| <b>b</b> | S/N A214E01849Z ↔ S/N A214E01950A (ECH)  | <b>e</b> | S/N A214E02283D → |
| <b>c</b> | S/N A214E01951A ↔ S/N A214E-02180C       |          |                   |



## ROCKER LEVERS (FIGURE 2-29) TIER II ENGINE



HP091128



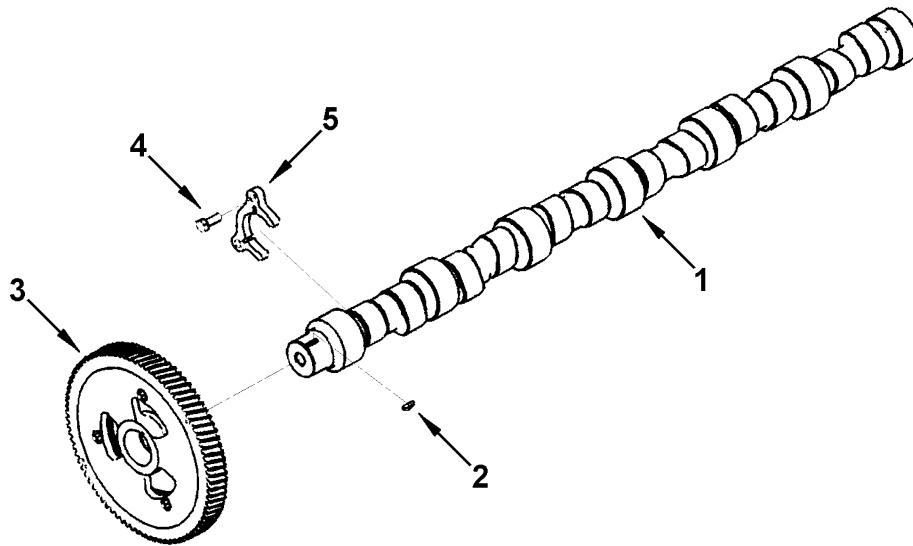
**ROCKER LEVERS  
TIER II ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a</b> 1499323	Engine Assy-Diesel .....	1
	<b>b</b> 1532627	Engine Assy-Diesel .....	1
	<b>c</b> 1607649	Engine Assy-Diesel .....	1
	<b>d</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1521944	Valve (Crosshead) .....	12
2	1521943	Push Rod .....	12
3	1521937	Rocker Assembly (Exhaust) .....	1
4	.....	Retainer .....	1
5	.....	Ball .....	1
6	.....	Socket .....	1
7	1553956	Screw .....	1
8	1517246	Nut .....	1
9	1584933	Support Assembly .....	1
10	1553952	Capscrew .....	2
11	1635388	Rocker Shaft .....	2
12	1521939	Rocker Assembly (Intake) .....	1
13	.....	Retainer .....	1
14	.....	Ball .....	1
15	.....	Socket .....	1
16	1553956	Screw .....	1
17	1517246	Nut .....	1

**FOOTNOTES:**

- a** S/N A214E01843Z ↔ S/N A214E-01950A (FLT)      **c** S/N A214E02181C →  
**b** S/N A214E01951A ↔ S/N A214E-02180C      **d** S/N A214E02283D →

## CAMSHAFT (FIGURE 2-30) TIER II ENGINE



HP091132

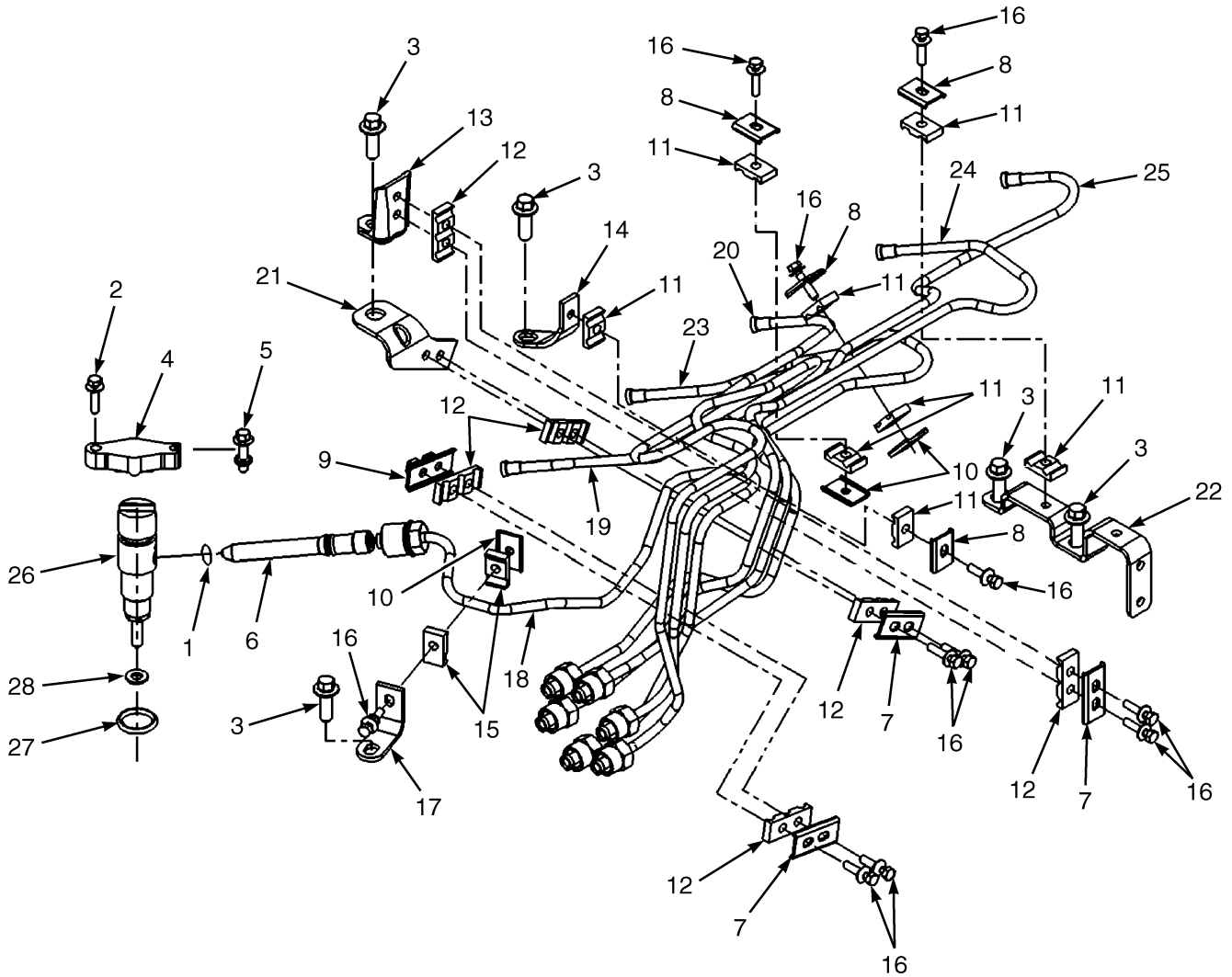
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1499323	Engine Assy-Diesel .....	1
	<b>c</b> 1532627	Engine Assy-Diesel .....	1
	<b>d</b> 1607649	Engine Assy-Diesel .....	1
	<b>e</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1526099	Camshaft .....	1
2	1512161	Woodruff Key .....	1
3	1526100	Gear (Camshaft) .....	1
4	1512163	Capscrew .....	2
5	1512164	Support .....	1

### FOOTNOTES:

- |   |                            |
|---|----------------------------|
| <b>a</b> S/N A214E01843Z ↔ S/N A214E-01950A (FLT) | <b>d</b> S/N A214E02181C → |
| <b>b</b> S/N A214E01849Z ↔ S/N A214E-01950A (ECH) | <b>e</b> S/N A214E02283D → |
| <b>c</b> S/N A214E01951A ↔ S/N A214E-02180C       |                            |



## INJECTOR (FIGURE 2-31) TIER II ENGINE



HP091127

**INJECTOR  
TIER II ENGINE**

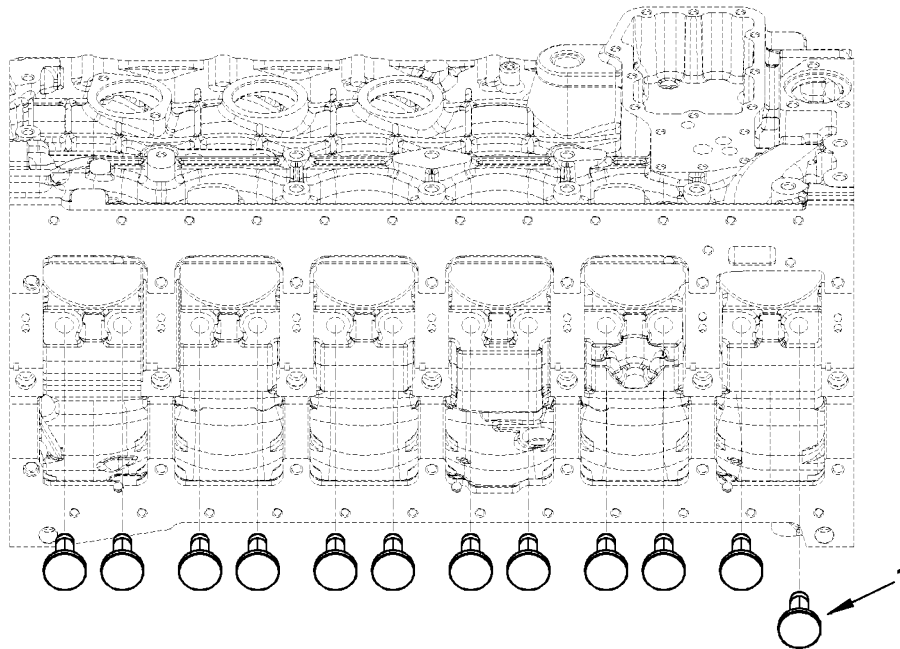
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a e</b> 1499323	Engine Assy-Diesel .....	1
	<b>b</b> 1532627	Engine Assy-Diesel .....	1
	<b>c</b> 1607649	Engine Assy-Diesel .....	1
	<b>d</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1584910	Sealing Ring .....	1
2	1517194	Screw .....	6
3	1512295	Capscrew .....	5
4	1517195	Clamp .....	6
5	1517196	Screw .....	6
6	1584909	Connector .....	6
6	1517197	Fitting .....	1
7	1514497	Brace .....	1
8	1514498	Brace .....	2
9	1514499	Brace .....	1
10	1514500	Brace .....	1
11	1514501	Isolator .....	4
12	1514502	Isolator .....	2
13	1514496	Brace .....	1
14	1521921	Brace .....	1
15	1517198	Isolator .....	2
16	1514504	Capscrew .....	7
17	1521922	Brace .....	1
18	1521923	Tube Assy .....	1
19	1521924	Tube Assy .....	1
20	1521925	Tube Assy .....	1
21	1521928	Brace .....	1
22	1584911	Brace .....	1
23	1521930	Tube Assy .....	1
24	1521931	Tube Assy .....	1
25	1521932	Tube Assy .....	1
26	1584912	Injector .....	6
27	1517210	O-Ring .....	1
28	1584914	Seal .....	1
	1521926	Tube Assy .....	1
	1521927	Tube Assy .....	1

**FOOTNOTES:**

**a** S/N A214E01843Z ↔ S/N A214E-01950A (FLT)  
**b** S/N A214E01951A ↔ S/N A214E-02180C  
**c** S/N A214E02181C →

**d** S/N A214E02283D →  
**e** S/N A214E01849Z → ECH

## VALVE TAPPET (FIGURE 2-32) TIER II ENGINE



HP091133

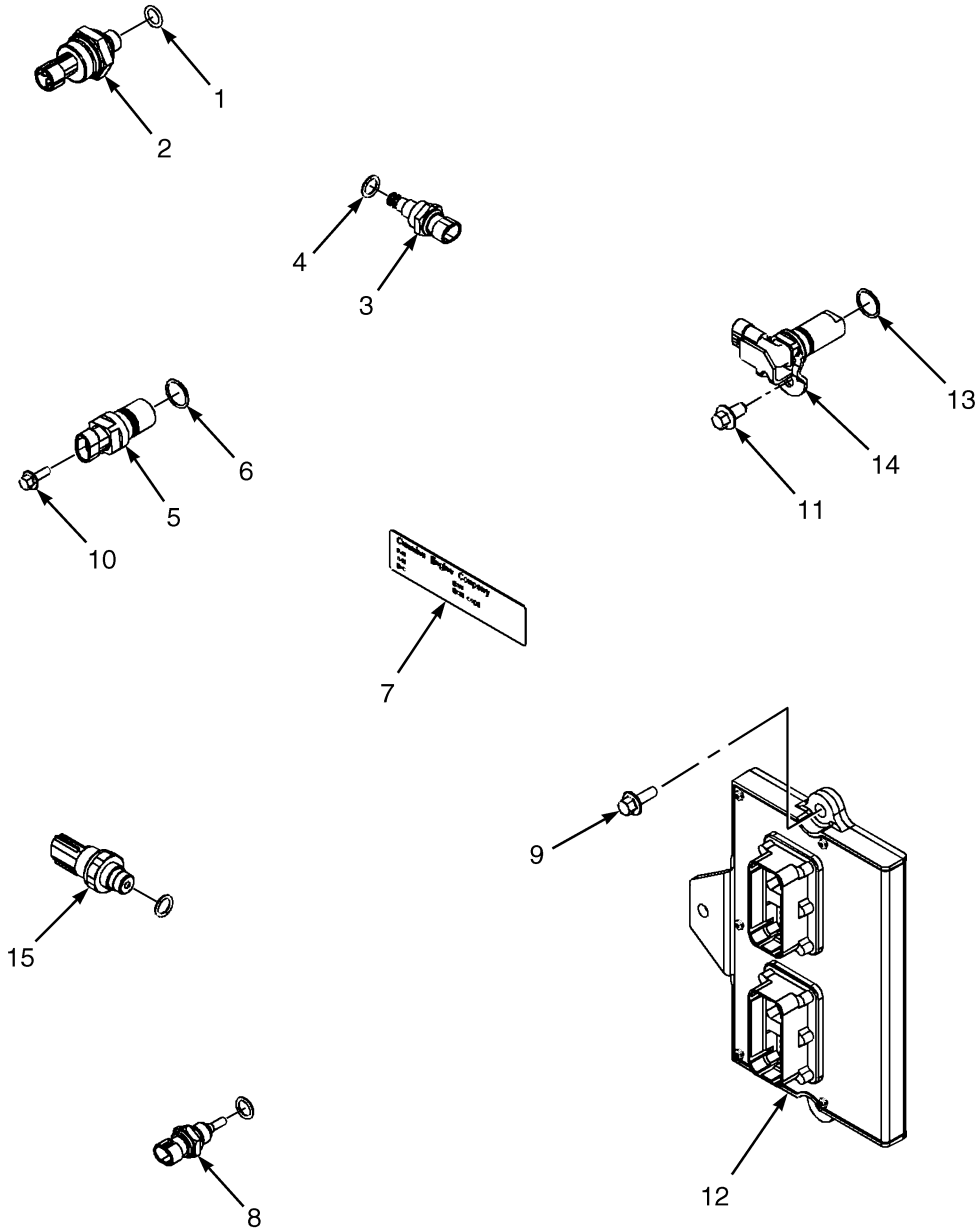
ITEM	PART NO.	DESCRIPTION	QTY
a b	1499323	Engine Assy-Diesel .....	1
c	1532627	Engine Assy-Diesel .....	1
d	1607649	Engine Assy-Diesel .....	1
e	1633033	Engine Assy-Diesel (Certified) .....	1
1	1521713	Valve Tappet .....	12

### FOOTNOTES:

- |   |  |   |                   |
|---|--|---|-------------------|
| a | S/N A214E01843Z ↔ S/N A214E-01950A (FLT) | d | S/N A214E02181C → |
| b | S/N A214E01849Z ↔ S/N A214E-01950A (ECH) | e | S/N A214E02280D → |
| c | S/N A214E01951A ↔ S/N A214E-2180C        |   |                   |



## ENGINE CONTROL SYSTEM (FIGURE 2-33) TIER II ENGINE



HP091124



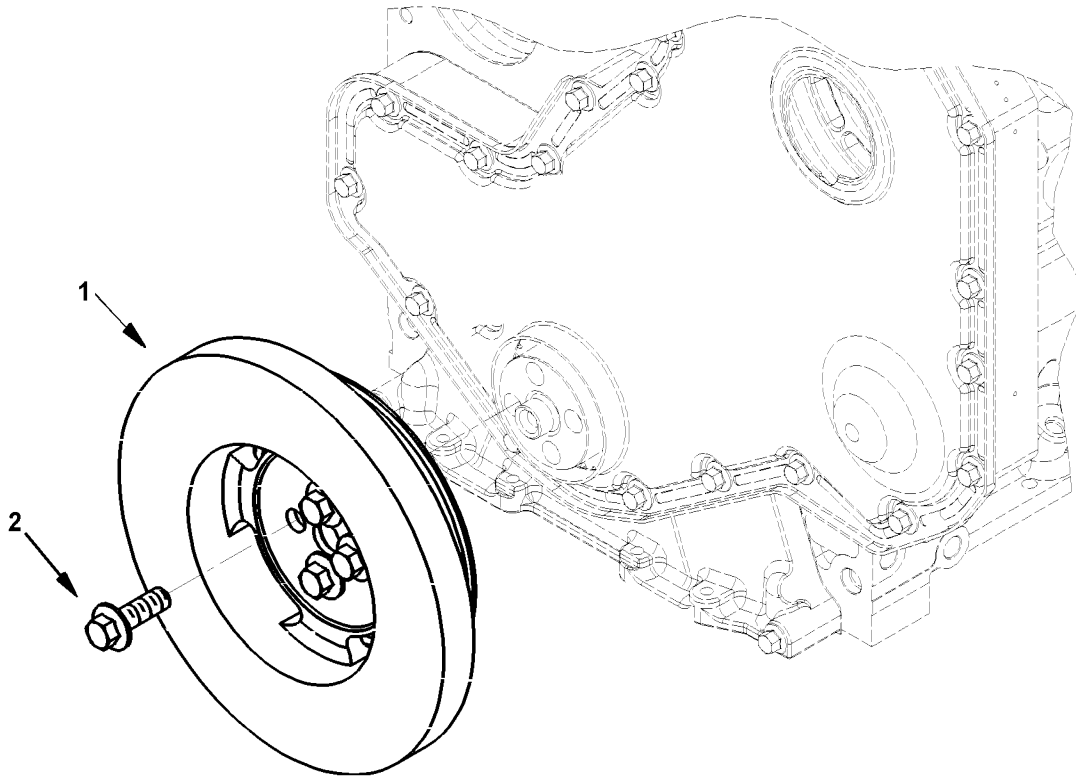
**ENGINE CONTROL SYSTEM  
TIER II ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1499323	Engine Assy-Diesel .....	1
	<b>c</b> 1532627	Engine Assy-Diesel .....	1
	<b>d</b> 1607649	Engine Assy-Diesel .....	1
	<b>e</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1517116		
	1543435	O-Ring .....	1
2	1659572	Sensor (Boost Pressure) .....	1
3	1517118	Sensor (Air Intake Temperature) .....	1
4	1517116		
	1543435	O-Ring .....	1
5	1619371	Sensor (Camshaft Position) .....	1
6	1552288	O-Ring .....	1
7	.....	Dataplate .....	1
8	<del>1565040</del>		
	1691873	Sensor Assembly (Temperature) (Water or Oil) .....	1
8	<del>1565040</del>		
	1691873	Sensor Assembly (Temperature) (Alternate Part) .....	1
8	1517116		
	1543435	O-Ring .....	1
9	1512004	Capscrew .....	3
10	1512051	Capscrew .....	1
11	1521908	Capscrew .....	1
12	<del>1543438</del>		
	1554029	Engine Control Module .....	1
13	.....	Seal Ring .....	1
14	1521907	Sensor .....	1
15	1543439	Switch, Oil Pressure (Oil Pressure) .....	1
15	1517116		
	1543435	O-Ring .....	1

**FOOTNOTES:**

- |          |  |          |                   |
|----------|--|----------|-------------------|
| <b>a</b> | S/N A214E01843Z ↔ S/N A214E-01950A (FLT) | <b>d</b> | S/N A214E02181C → |
| <b>b</b> | S/N A214E01849Z ↔ S/N A214E-01950A (ECH) | <b>e</b> | S/N A214E02283D → |
| <b>c</b> | S/N A214E01951A ↔ S/N A214E-02180C       |          |                   |

## VIBRATION DAMPER (FIGURE 2-34) TIER II ENGINE



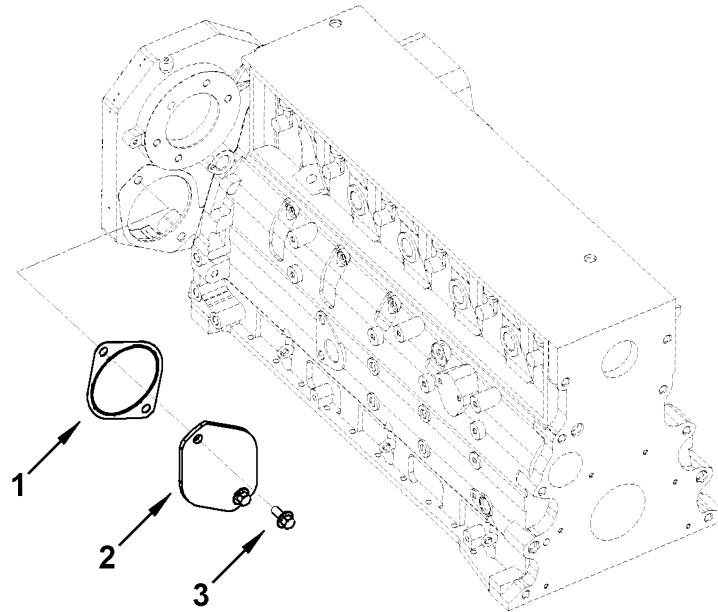
HP091114

ITEM	PART NO.	DESCRIPTION	QTY
a b	1499323	Engine Assy-Diesel .....	1
c	1532627	Engine Assy-Diesel .....	1
d	1607649	Engine Assy-Diesel .....	1
e	1633033	Engine Assy-Diesel (Certified) .....	1
1	1512415	Damper .....	1
2	1511996	Capscrew .....	4

### FOOTNOTES:

- |   |  |   |                   |
|---|--|---|-------------------|
| a | S/N A214E01843Z ↔ S/N A214E-01950A (FLT) | d | S/N A214E02181C → |
| b | S/N A214E01849Z ↔ S/N A214E-01950A (ECH) | e | S/N A214E02283D → |
| c | S/N A214E01951A ↔ S/N A214E02180C        |   |                   |

**FRONT GEAR TRAIN COVER (FIGURE 2-35)  
TIER II ENGINE**



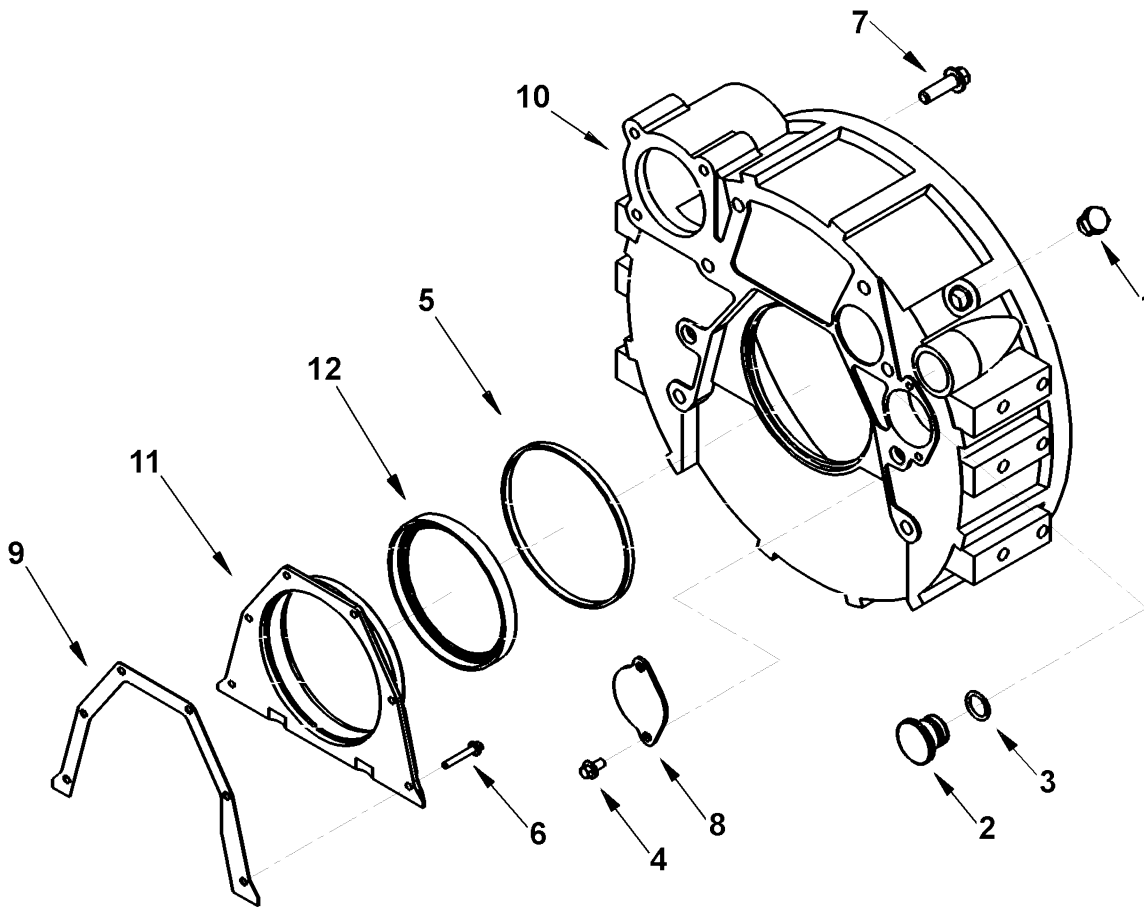
HP091117

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1499323	Engine Assy-Diesel .....	1
	<b>c</b> 1532627	Engine Assy-Diesel .....	1
	<b>d</b> 1607649	Engine Assy-Diesel .....	1
	<b>e</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1511984	Gasket .....	1
2	1526085	Cover Plate .....	1
3	1512418	Capscrew .....	2

**FOOTNOTES:**

- |   |                            |
|---|----------------------------|
| <b>a</b> S/N A214E01843Z ↔ S/N A214E-01950A (FLT) | <b>d</b> S/N A214E02181C → |
| <b>b</b> S/N A214E01849Z ↔ S/N A214E-01950A (ECH) | <b>e</b> S/N A214E02283D → |
| <b>c</b> S/N A214E01951A ↔ S/N A214E-02180C       |                            |

## FLYWHEEL HOUSING (FIGURE 2-36) TIER II ENGINE



HP091118

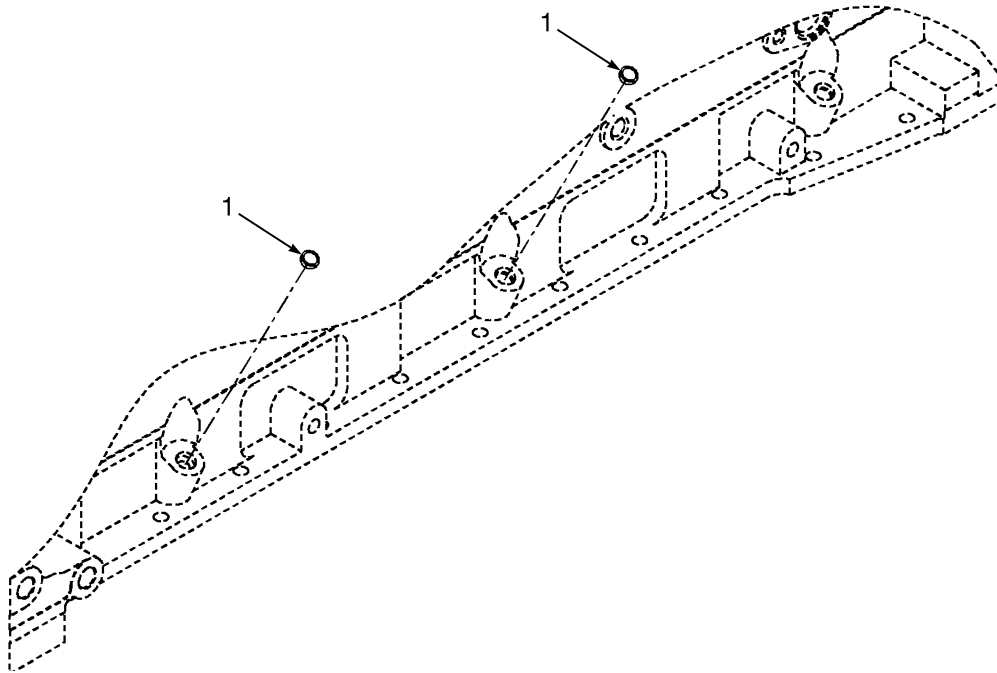
**FLYWHEEL HOUSING  
TIER II ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1499323	Engine Assy-Diesel .....	1
	<b>c</b> 1532627	Engine Assy-Diesel .....	1
	<b>d</b> 1607649	Engine Assy-Diesel .....	1
	<b>e</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1512046	Plug .....	1
2	1512047	Fitting .....	1
3	1512048	O-Ring .....	1
4	1512433	Screw .....	2
5	1512050	O-Ring .....	1
6	1543362	Capscrew .....	6
7	1512053	Capscrew .....	8
8	1512056	Cover Plate .....	1
9	1512052	Gasket (Rear Cover) .....	1
10	1512432	Flywheel Housing (Flywheel) .....	1
11	1584540	Cover (Rear) .....	1
11	<del>1564992</del>		
	1512049	Seal Kit (Rear Crank) .....	1
12	.....	Oil Seal .....	1

**FOOTNOTES:**

- a** S/N A214E01843Z ↔ S/N A214E-01950A (FLT)      **d** S/N A214E02181C →  
**b** S/N A214E01849Z ↔ S/N A214E-01950A (ECH)      **e** S/N A214E02283D →  
**c** S/N A214E01951A ↔ S/N A214E-02180C

## BREATHER PLUMBING (FIGURE 2-37) TIER II ENGINE



HP091130

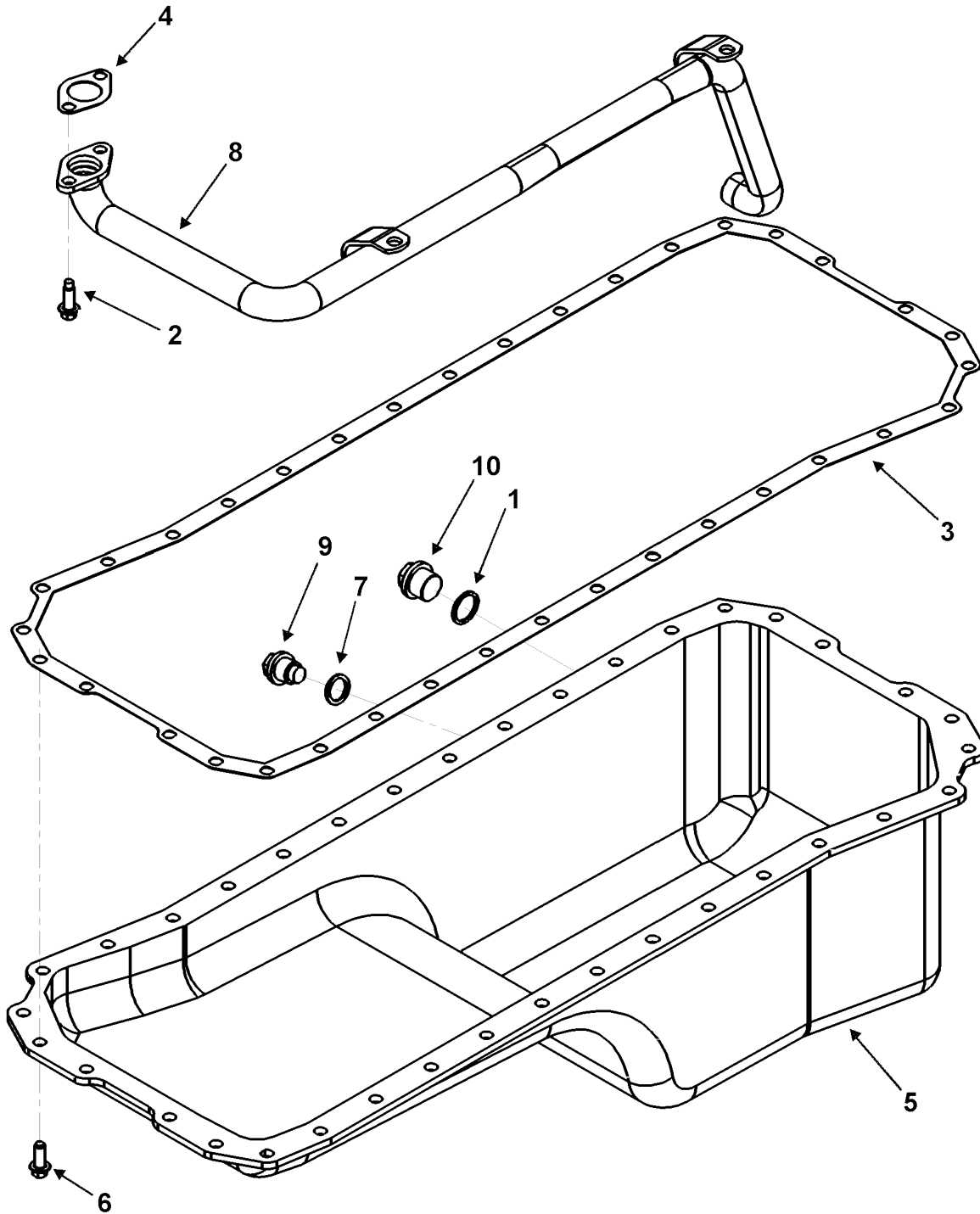
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a e</b> 1499323	Engine Assy-Diesel .....	1
	<b>b</b> 1532627	Engine Assy-Diesel .....	1
	<b>c</b> 1607649	Engine Assy-Diesel .....	1
	<b>d</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1512130	Plug .....	2

### FOOTNOTES:

- |   |                                |
|---|--------------------------------|
| <b>a</b> S/N A214E01843Z ↔ S/N A214E-01950A (FLT) | <b>d</b> S/N A214E02283D →     |
| <b>b</b> S/N A214E01951A ↔ S/N A214E-02180C       | <b>e</b> S/N A214E01849Z → ECH |
| <b>c</b> S/N A214E02181C →                        |                                |



## OIL PAN (FIGURE 2-38) TIER II ENGINE



HP091123



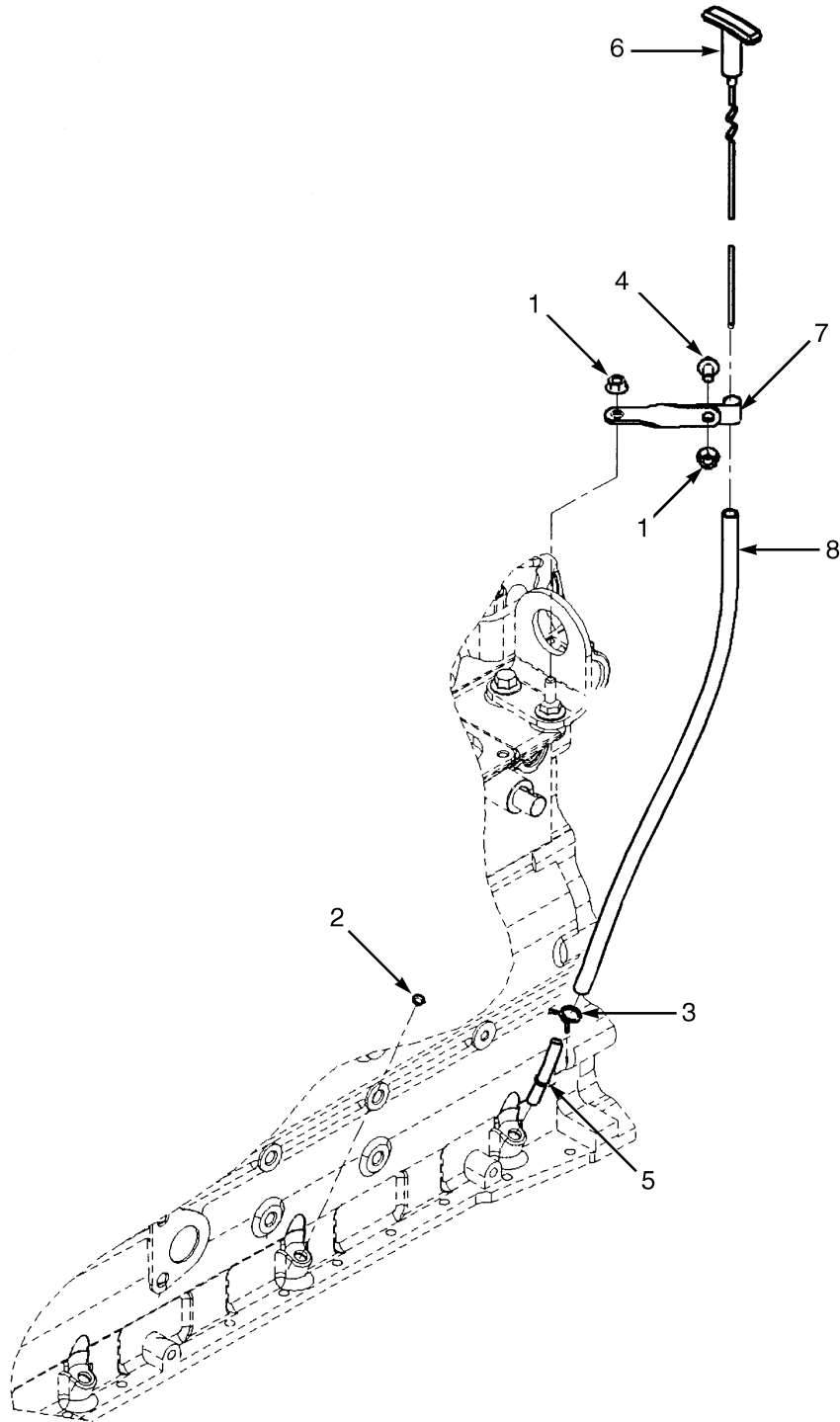
**OIL PAN  
TIER II ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a e</b> 1499323	Engine Assy-Diesel .....	1
	<b>b</b> 1532627	Engine Assy-Diesel .....	1
	<b>c</b> 1607649	Engine Assy-Diesel .....	1
	<b>d</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1512135	Seal .....	1
2	1512004	Capscrew .....	4
3	1543424	Gasket .....	1
4	1512139	Gasket .....	1
5	1543430	Kit-Service (Oil Pan) .....	1
5	.....	Oil Pan .....	1
5	1513769	Capscrew .....	4
5	1543432	Clamping Plate .....	1
5	1543424	Gasket .....	1
6	1513794	Capscrew .....	36
7	1512137	Seal .....	1
8	1512136	Adapter (Oil Suction) .....	1
9	1512138	Plug .....	1
10	1512134	Plug .....	1
	1673901	Kit-Seal .....	1

**FOOTNOTES:**

- a** S/N A214E01849Z ↔ S/N A214E01950A (ECH)      **d** S/N A214E02283D →  
**b** S/N A214E01951A ↔ S/N A214E02180C            **e** S/N A214E01843Z → FLT  
**c** S/N A214E02181C →

## OIL LEVEL GAUGE (FIGURE 2-39) TIER II ENGINE



HP091265

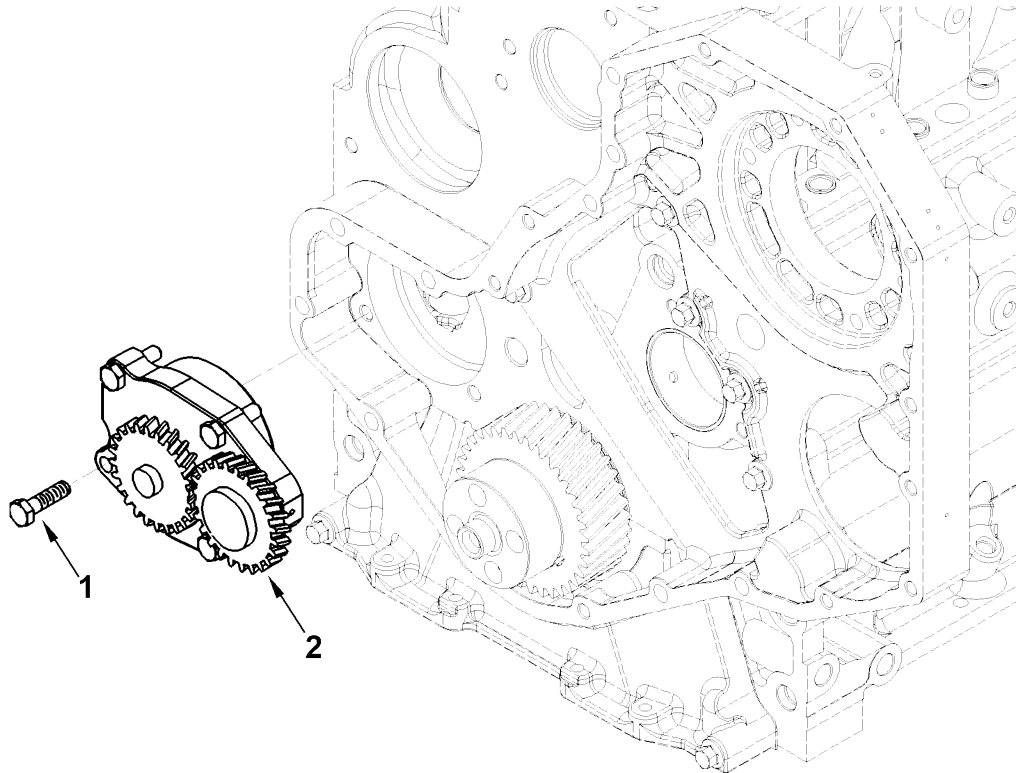
**OIL LEVEL GAUGE  
TIER II ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1499323	Engine Assy-Diesel .....	1
	<b>c</b> 1532627	Engine Assy-Diesel .....	1
	<b>d</b> 1607649	Engine Assy-Diesel .....	1
	<b>e</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1513712	Nut .....	2
2	1512130	Plug .....	2
3	1513780	Hose Clamp .....	2
4	1513749	Capscrew .....	1
5	1598447	Dipstick Tube .....	1
6	1598448	Dipstick .....	1
7	1597813	Brace .....	1
8	1597822	Dipstick Tube .....	1

**FOOTNOTES:**

- |          |   |          |                   |
|----------|---|----------|-------------------|
| <b>a</b> | S/N A214E01843Z ↔ S/N A214E01950A (FLT) | <b>d</b> | S/N A214E02181C → |
| <b>b</b> | S/N A214E01849Z ↔ S/N A214E01950A (ECH) | <b>e</b> | S/N A214E02283D → |
| <b>c</b> | S/N A214E01951A ↔ S/N A214E02180C       |          |                   |

## OIL PUMP (FIGURE 2-40) TIER II ENGINE

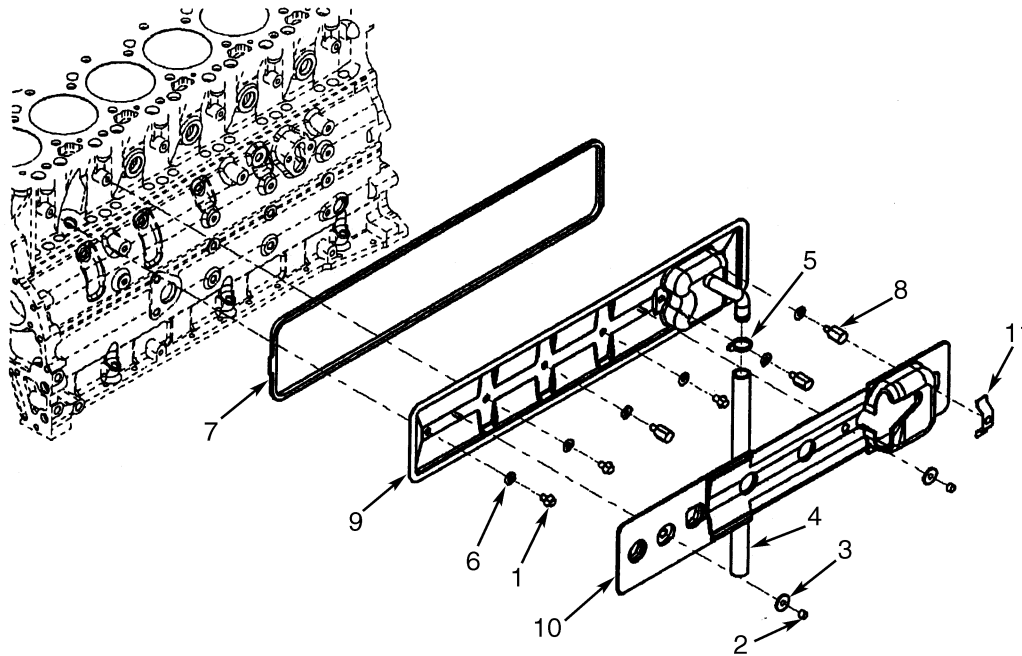


HP091122

ITEM	PART NO.	DESCRIPTION	QTY
a b	1499323	Engine Assy-Diesel .....	1
c	1532627	Engine Assy-Diesel .....	1
d	1607649	Engine Assy-Diesel .....	1
e	1633033	Engine Assy-Diesel (Certified) .....	1
1	1512456	Capscrew .....	4
2	1661076	Oil Pump .....	1

### FOOTNOTES:

- |   |   |   |                   |
|---|---|---|-------------------|
| a | S/N A214E01843Z ↔ S/N A214E01950A (FLT) | d | S/N A214E02181C → |
| b | S/N A214E01849Z ↔ S/N A214E01950A (ECH) | e | S/N A214E02283D → |
| c | S/N A214E01951A ↔ S/N A214E02180C       |   |                   |

**CRANKCASE BREATHER (FIGURE 2-41)  
TIER II ENGINE**

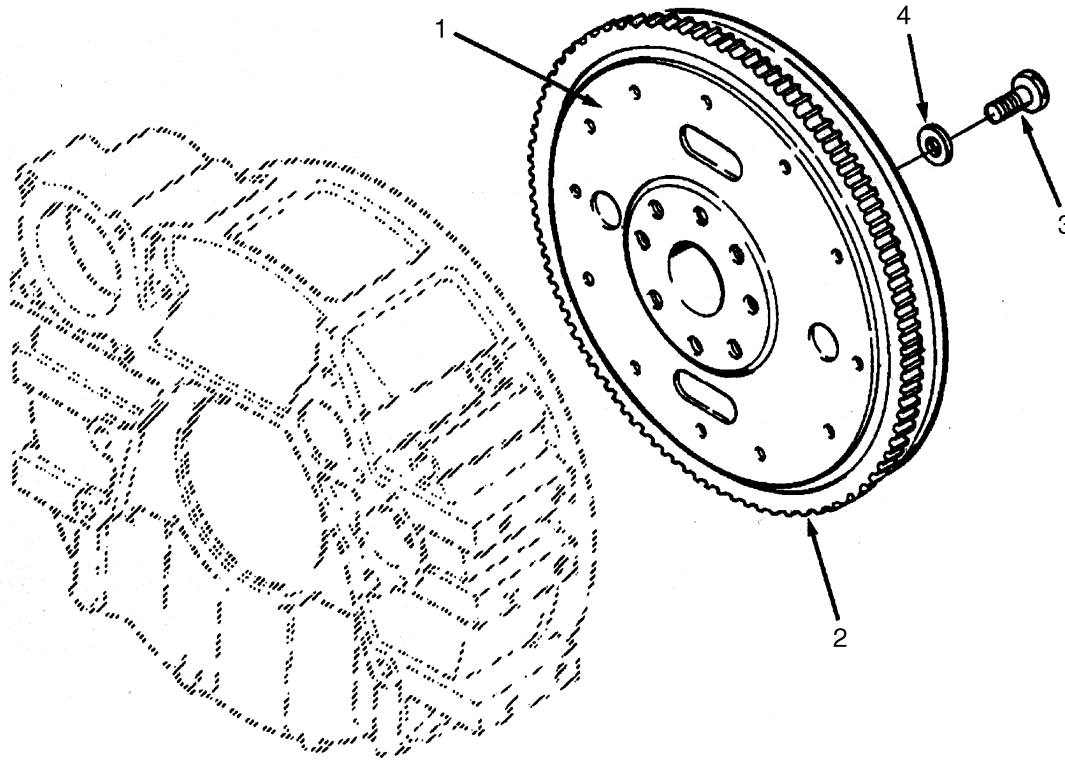
HP090892

ITEM	PART NO.	DESCRIPTION	QTY
a b	1499323	Engine Assy-Diesel .....	1
c	1532627	Engine Assy-Diesel .....	1
d	1607649	Engine Assy-Diesel .....	1
e	1633033	Engine Assy-Diesel (Certified) .....	1
1	1521810	Capscrew .....	3
2	302399	Nut .....	2
3	1513797	Washer .....	2
4	1521811	Hose .....	1
5	1521812	Clamp .....	1
6	1511969	Seal .....	6
7	1511974	Gasket .....	1
8	1517122	Spacer .....	3
9	1521813	Cover (Push Rod) .....	1
10	1552714	Noise Panel .....	1
11	1521814	Brace .....	1

**FOOTNOTES:**

- a** S/N A214E01843Z ↔ S/N A214E01950A (FLT)      **d** S/N A214E02181C →  
**b** S/N A214E01849Z ↔ S/N A214E01950A (ECH)      **e** S/N A214E02283D →  
**c** S/N A214E01951A ↔ S/N A214E02180C

## FLYWHEEL (FIGURE 2-42) TIER I AND TIER II ENGINES



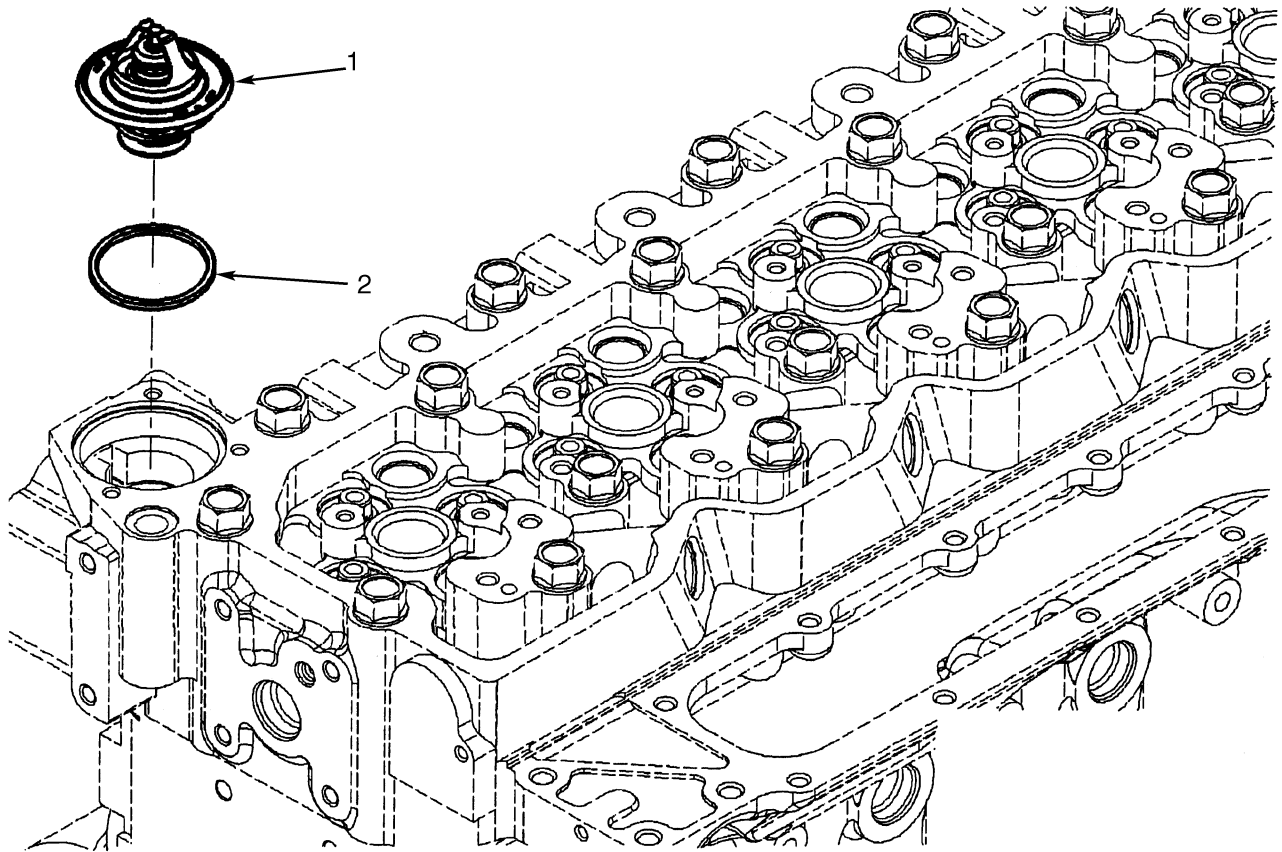
HP090879

ITEM	PART NO.	DESCRIPTION	QTY
a b	1484262	Engine Assy-Diesel (Tier I) .....	1
c d	1499323	Engine Assy-Diesel (Tier II) .....	1
e	1532627	Engine Assy-Diesel (Tier II) .....	1
f	1607649	Engine Assy-Diesel (Non Certified) .....	1
g	1633033	Engine Assy-Diesel (Certified) .....	1
1	1512444	Flywheel .....	1
2	1512445	Ring Gear .....	1
3	1512106	Capscrew .....	8
4	1512107	Washer .....	8

### FOOTNOTES:

- |   |  |   |                                    |
|---|--|---|------------------------------------|
| a | → S/N A214E01842Z (FLT)                  | e | S/N A214E01951A ↔ S/N A214E-02180C |
| b | → S/N A214E01848Z (ECH)                  | f | S/N A214E02181C →                  |
| c | S/N A214E01843Z ↔ S/N A214E-01950A FLT   | g | S/N A214E02283D →                  |
| d | S/N A214E01849Z ↔ S/N A214E-01950A (ECH) |   |                                    |

**THERMOSTAT (FIGURE 2-43)  
TIER II ENGINE**



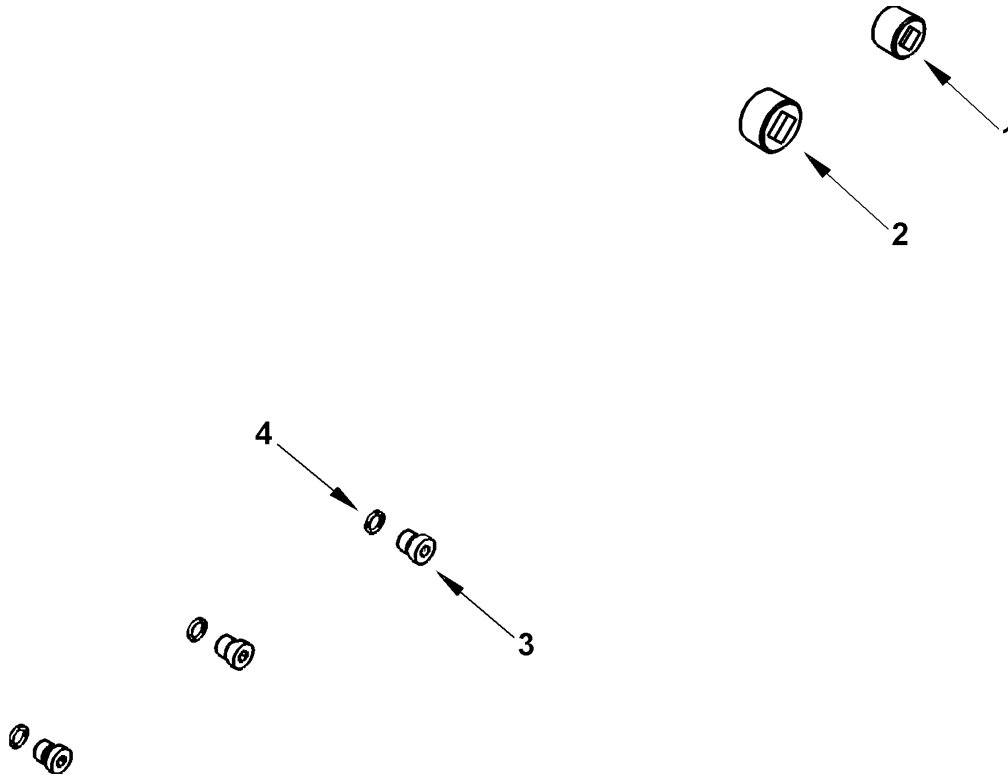
HP090893

ITEM	PART NO.	DESCRIPTION	QTY
	<b>f g</b> 1499323	Engine Assy-Diesel .....	1
	<b>b</b> 1532627	Engine Assy-Diesel .....	1
	<b>d</b> 1607649	Engine Assy-Diesel .....	1
	<b>e</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	<b>a</b> 1521824	Thermostat .....	1
1	<b>c</b> 1552715	Thermostat .....	1
2	<b>h</b> 1521825	Seal .....	1
2	<b>c</b> 1552716	Seal .....	1

**FOOTNOTES:**

- |  |                                |
|--|--------------------------------|
| <b>a</b> → S/N A214E01950A                 | <b>e</b> S/N A214E02283D →     |
| <b>b</b> S/N A214E01951A ↔ S/N A214E02180C | <b>f</b> S/N A214E01843Z → FLT |
| <b>c</b> S/N A214E01951A →                 | <b>g</b> S/N A214E01849Z → ECH |
| <b>d</b> S/N A214E02181C →                 | <b>h</b> S/N A214E01950A →     |

## AIR COMPRESSOR PLUMBING (FIGURE 2-44) TIER II ENGINE (S/N A214E01954A →)



HP091131

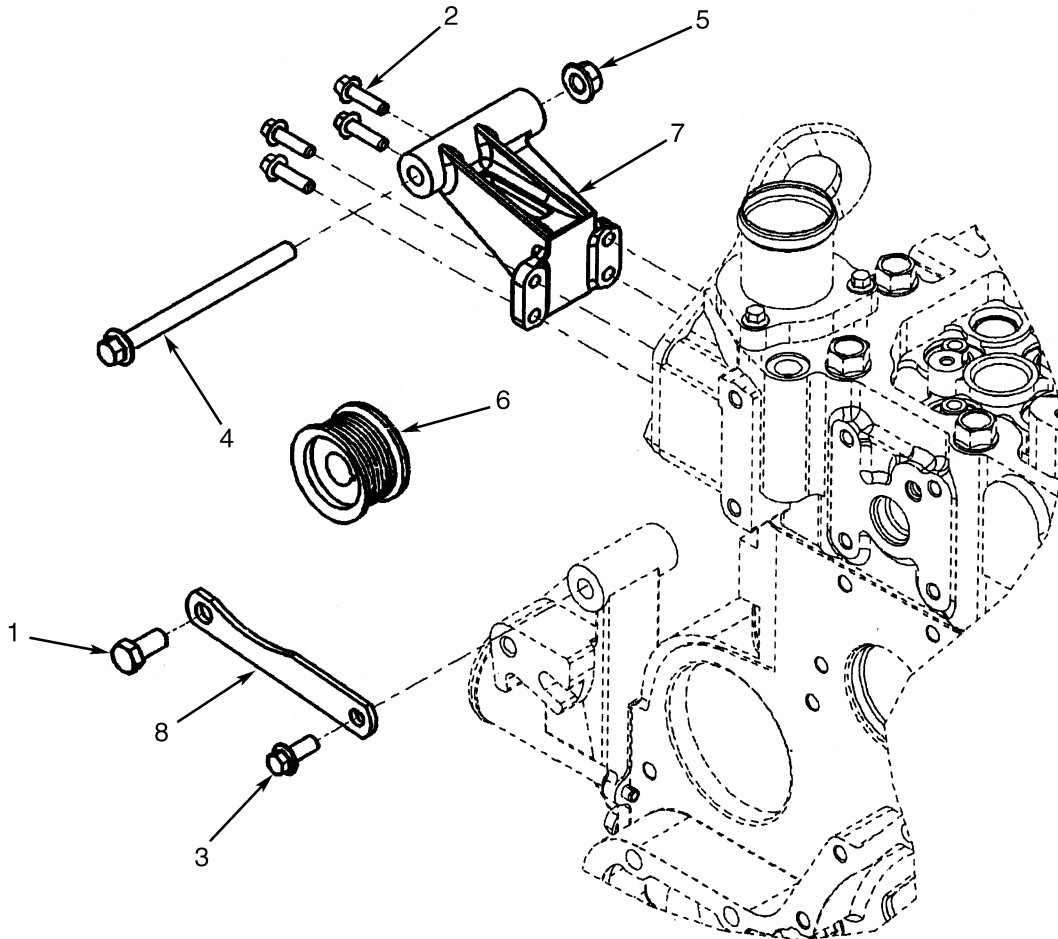
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1499323	Engine Assy-Diesel .....	1
	<b>c</b> 1532627	Engine Assy-Diesel .....	1
	<b>d</b> 1607649	Engine Assy-Diesel .....	1
	<b>e</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1511952	Fitting .....	1
2	1512292	Plug .....	1
3	1517010	Plug .....	3
4	1517011	O-Ring .....	1

### FOOTNOTES:

- a** S/N A214E01843Z ↔ S/N A214E01950A (FLT)      **d** S/N A214E02181C →
- b** S/N A214E01849Z ↔ S/N A214E01950A (ECH)      **e** S/N A214E02283D →
- c** S/N A214E01951A ↔ S/N A214E02180C



**ALTERNATOR MOUNTING (FIGURE 2-45)  
TIER II ENGINE**



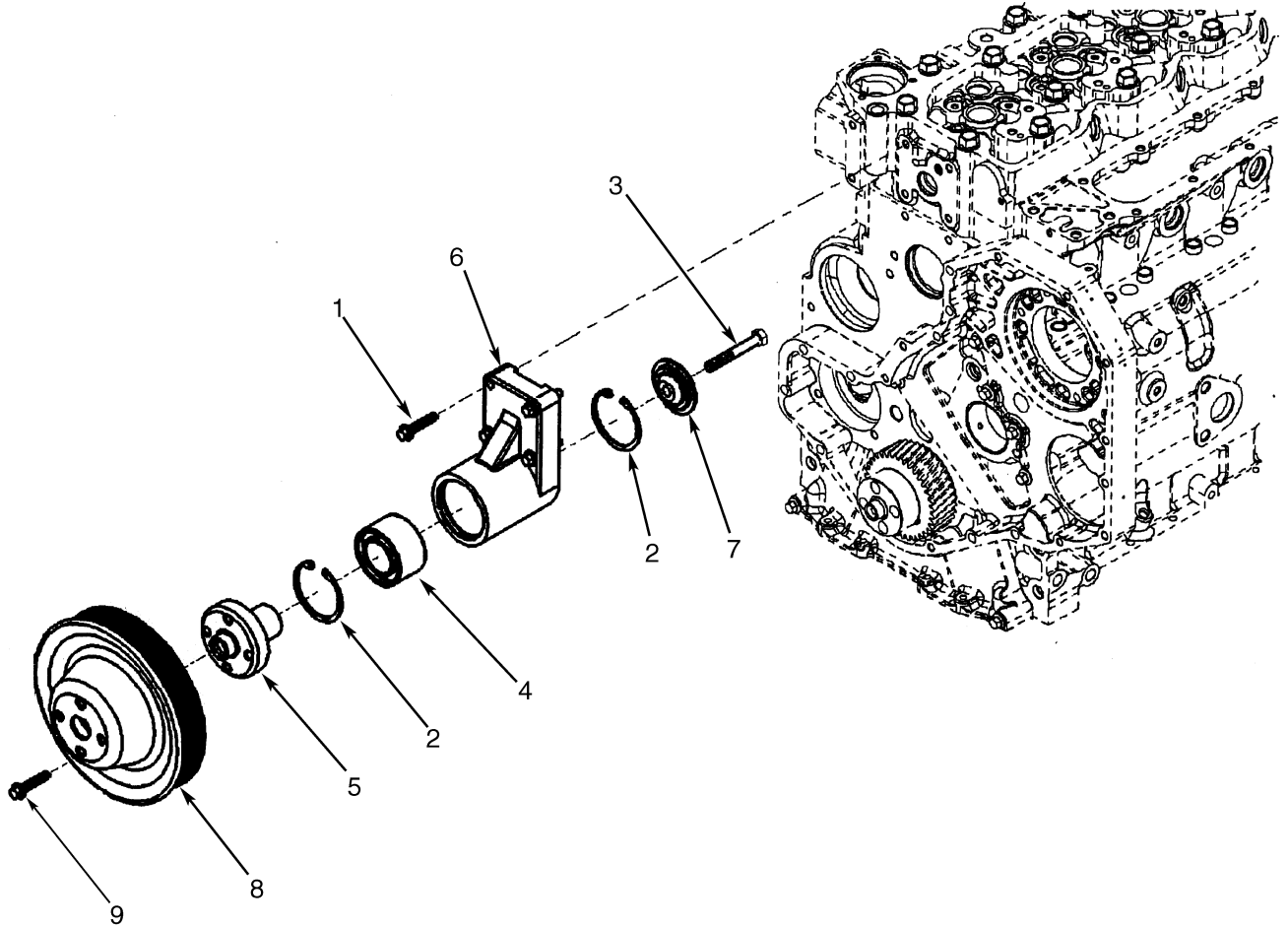
HP090894

ITEM	PART NO.	DESCRIPTION	QTY
	<b>b c</b> 1499323	Engine Assy-Diesel .....	1
	<b>a</b> 1532627	Engine Assy-Diesel .....	1
	<b>f</b> 1607649	Engine Assy-Diesel .....	1
	<b>g</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1512003	Capscrew .....	1
2	1512033	Capscrew .....	4
3	1512503	Capscrew .....	1
4	1512006	Capscrew .....	1
5	1511978	Nut .....	1
6	1521827	Pulley (Alternator) .....	1
7	1521828	Brace .....	1
8	<b>d</b> 1521829	Support .....	1
8	<b>e</b> 1552718	Support .....	1

**FOOTNOTES:**

- |          |   |          |                   |
|----------|---|----------|-------------------|
| <b>a</b> | S/N A214E01951A ↔ S/N A214E02180C       | <b>e</b> | S/N A214E01951A → |
| <b>b</b> | S/N A214E01843Z ↔ S/N A214E01950A (FLT) | <b>f</b> | S/N A214E02181C → |
| <b>c</b> | S/N A214E01849Z ↔ S/N A214E01950A (ECH) | <b>g</b> | S/N A214E02283D → |
| <b>d</b> | S/N A214E01950A →                       |          |                   |

**FAN DRIVE (FIGURE 2-46)  
TIER II ENGINE**



HP090895

ITEM	PART NO.	DESCRIPTION	QTY
a	1499323	Engine Assy-Diesel .....	1
b	1532627	Engine Assy-Diesel .....	1
c	1607649	Engine Assy-Diesel .....	1
d	1633033	Engine Assy-Diesel (Certified) .....	1
1	1512029	Screw .....	4
2	1512026	Retaining Ring .....	2
3	1512027	Capscrew .....	1
4	1512015	Ball Bearing .....	1
5	4045108	Hub .....	1
6	1521831	Support .....	1
7	1512025	Hub Retainer .....	1
8	1512425	Fan Pulley .....	1
9	1512328	Capscrew .....	4

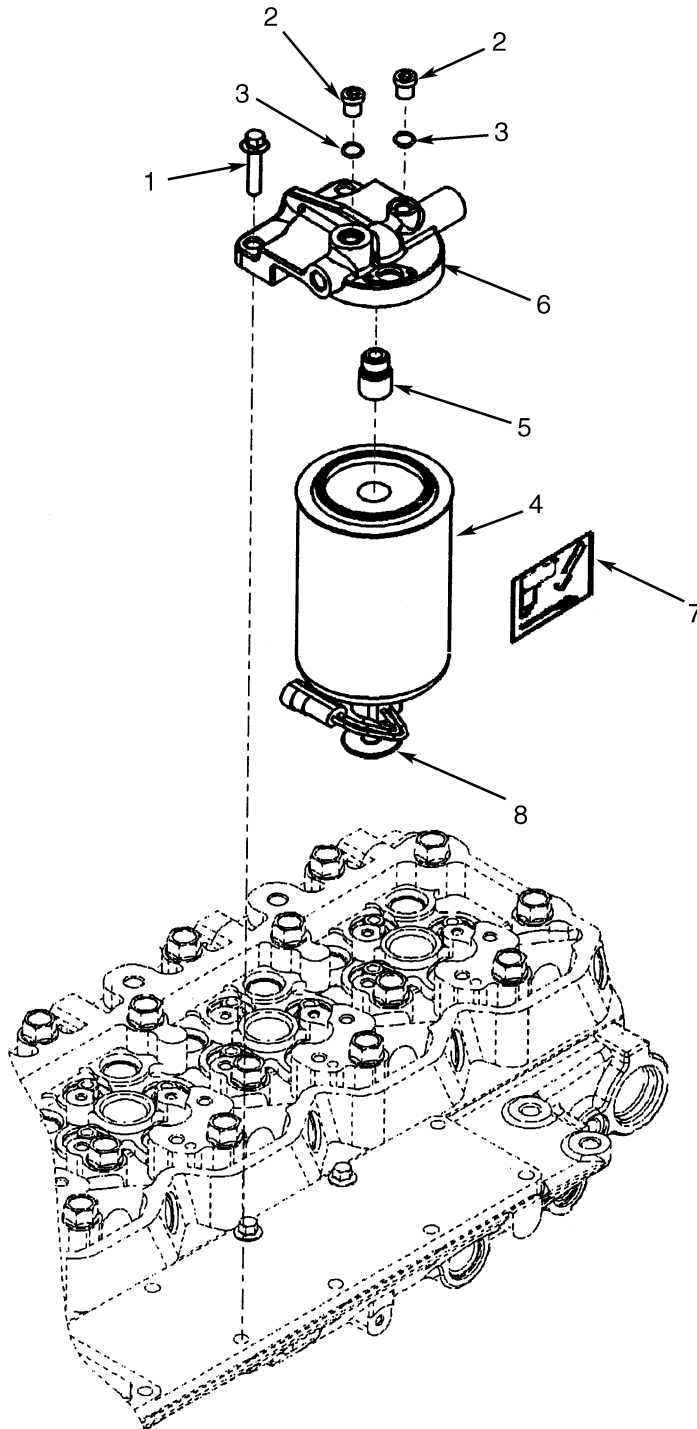
**FOOTNOTES:**

- |          |   |          |                   |
|----------|---|----------|-------------------|
| <b>a</b> | S/N A214E01843Z ↔ S/N A214E01950A (FLT) | <b>d</b> | S/N A214E02181C → |
| <b>b</b> | S/N A214E01849Z ↔ S/N A214E01950A (ECH) | <b>e</b> | S/N A214E02283D → |
| <b>c</b> | S/N A214E01951A ↔ S/N A214E02180C       |          |                   |

**NOTES**

Lined area for notes with 20 horizontal lines.

## WATER SEPARATOR (FIGURE 2-47) TIER II ENGINE



HP090896

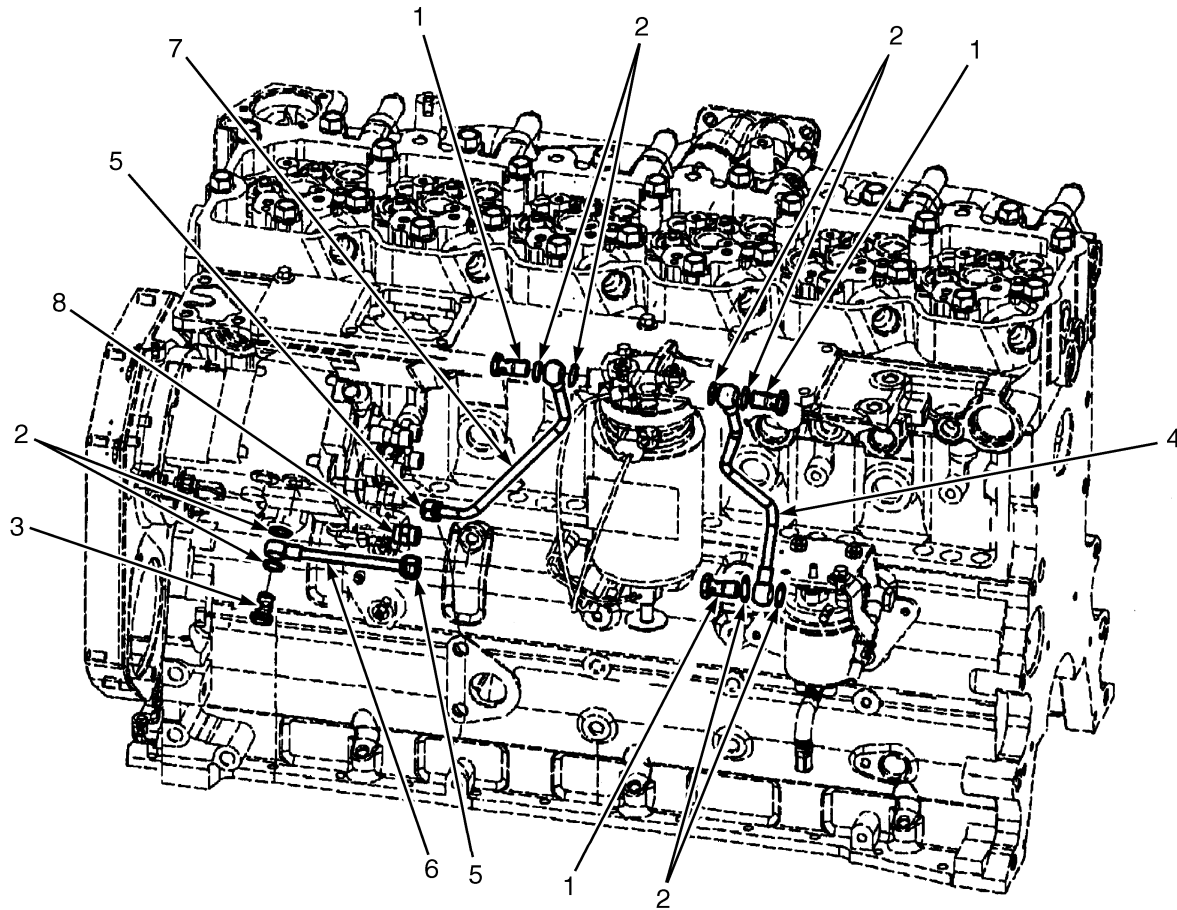
**WATER SEPARATOR  
TIER II ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1499323	Engine Assy-Diesel .....	1
	<b>c</b> 1532627	Engine Assy-Diesel .....	1
	<b>d</b> 1607649	Engine Assy-Diesel .....	1
	<b>e</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1512033	Capscrew .....	1
2	1517010	Plug .....	2
3	1515895	O-Ring .....	1
4	1596647	Water Separator .....	1
5	1521837	Adapter .....	1
6	1675439	Filter Head .....	1
7	.....	Decal .....	1
8	1521839	Sensor .....	1

**FOOTNOTES:**

- |          |   |          |                   |
|----------|---|----------|-------------------|
| <b>a</b> | S/N A214E01843Z ↔ S/N A214E01950A (FLT) | <b>d</b> | S/N A214E02181C → |
| <b>b</b> | S/N A214E01849Z ↔ S/N A214E01950A (ECH) | <b>e</b> | S/N A214E02283D → |
| <b>c</b> | S/N A214E01951A ↔ S/N A214E02180C       |          |                   |

## FUEL FILTER PLUMBING (FIGURE 2-48) TIER II ENGINE (S/N A214E01950A →)

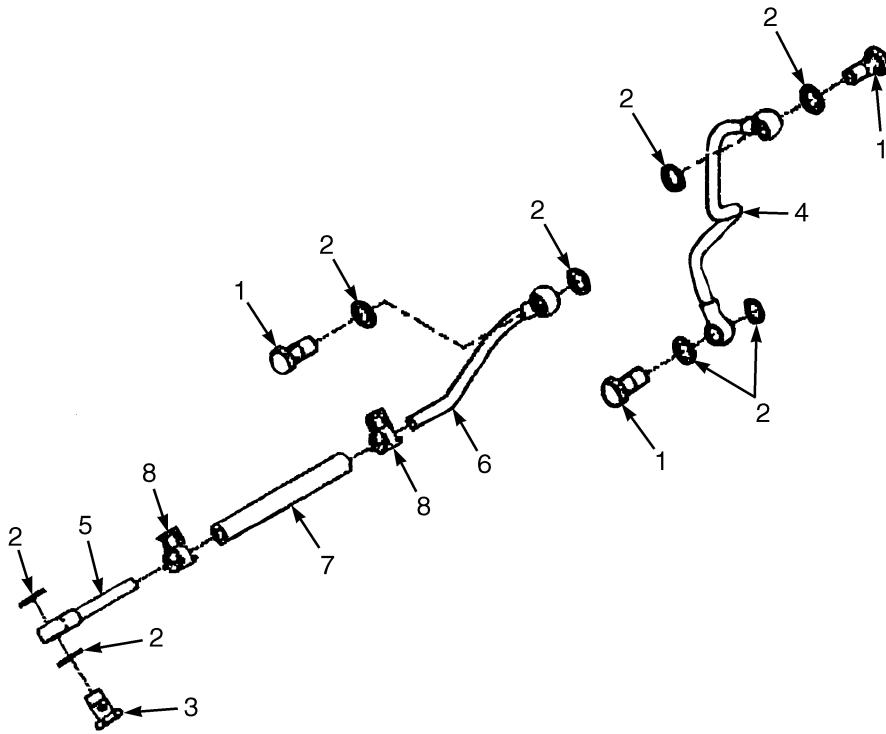


HP090897

ITEM	PART NO.	DESCRIPTION	QTY
	1499323	Engine Assy-Diesel .....	1
1	1514371	Capscrew .....	3
2	1512092	Sealing Ring .....	8
3	1521841	Screw .....	1
4	1521842	Tube Assy .....	1
5	1521846	Clamp .....	2
6	1521844	Tube Assy .....	1
7	1521845	Tube Assy .....	1
8	1521847	Hose .....	1



**FUEL FILTER PLUMBING (FIGURE 2-49)**  
TIER II ENGINE (S/N A214E01951A →)



HP091068

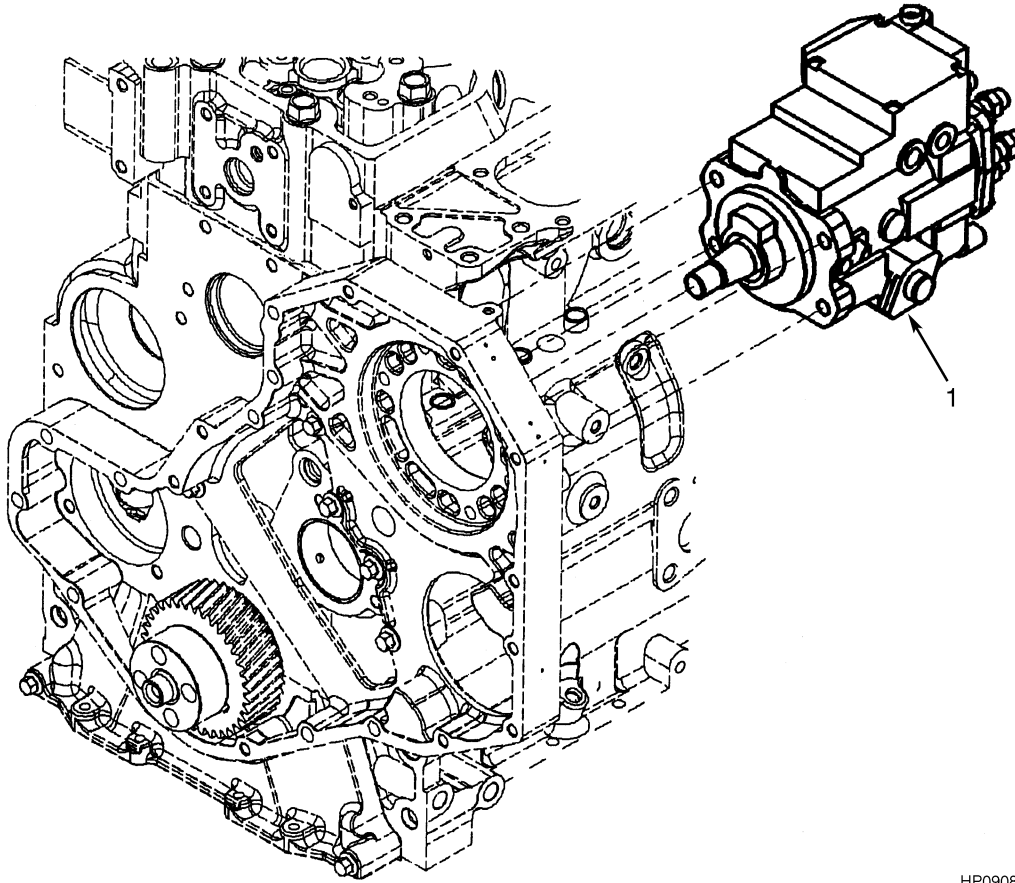
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a</b> 1532627	Engine Assy-Diesel .....	1
	<b>b</b> 1607649	Engine Assy-Diesel .....	1
	<b>c</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1514371	Capscrew .....	3
2	1543359	Sealing Ring .....	8
3	1521841	Screw .....	1
4	1521843	Tube Assy .....	1
5	1521844	Tube Assy .....	1
6	1521845	Tube Assy .....	1
7	1521847	Hose .....	1
8	1521846	Clamp .....	2

**FOOTNOTES:**

**a** → S/N A214E02180C  
**b** S/N A214E02181C →

**c** S/N A214E02283D →

## FUEL INJECTION PUMP (FIGURE 2-50) TIER II ENGINE



HP090898

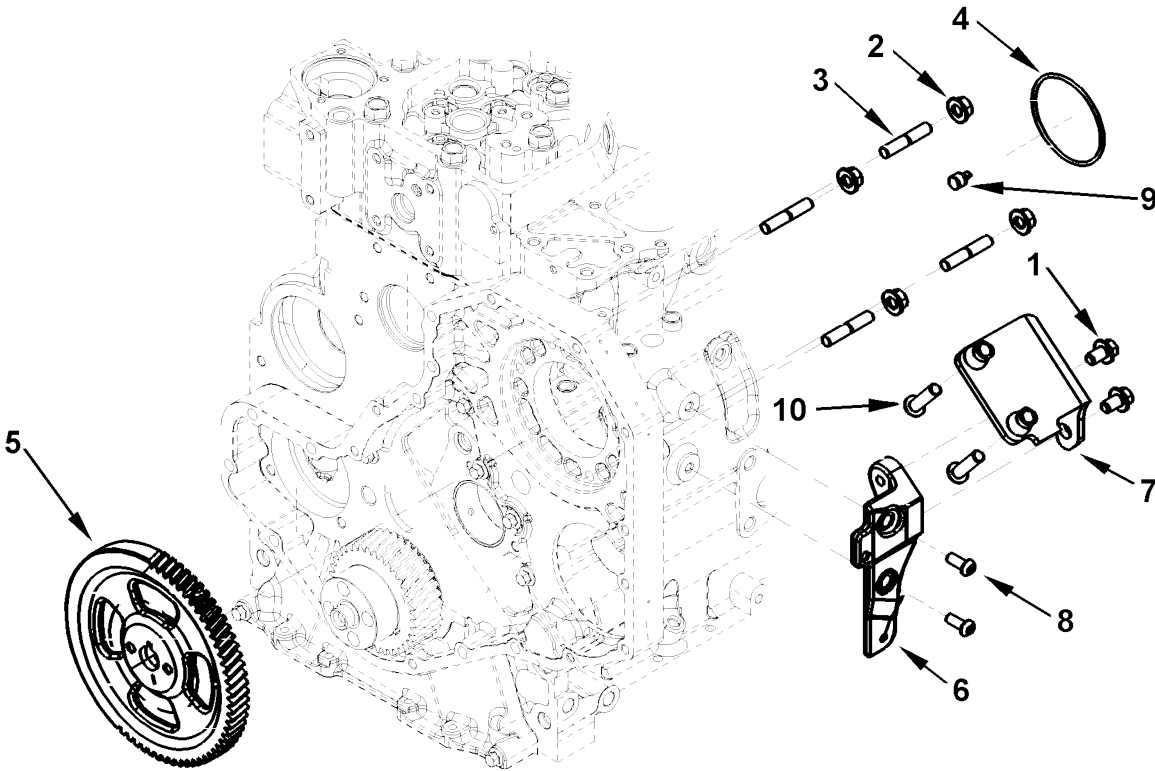
ITEM	PART NO.	DESCRIPTION	QTY
	<b>b c</b> 1499323	Engine Assy-Diesel .....	1
	<b>d</b> 1532627	Engine Assy-Diesel .....	1
	<b>f</b> 1607649	Engine Assy-Diesel .....	1
	<b>g</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	<b>a</b> 1521850	Injection Pump .....	1
1	<b>e</b> 1700081	Injection Pump .....	1

### FOOTNOTES:

- |          |   |          |                   |
|----------|---|----------|-------------------|
| <b>a</b> | → S/N A214E01950A                       | <b>e</b> | S/N A214E01951A → |
| <b>b</b> | S/N A214E01843Z ↔ S/N A214E01950A (FLT) | <b>f</b> | S/N A214E02181C → |
| <b>c</b> | S/N A214E01849Z ↔ S/N A214E01950A (ECH) | <b>g</b> | S/N A214E02283D → |
| <b>d</b> | S/N A214E01951A ↔ S/N A214E02180C       |          |                   |



## FUEL PUMP MOUNT (FIGURE 2-51) TIER II ENGINE



HP091119

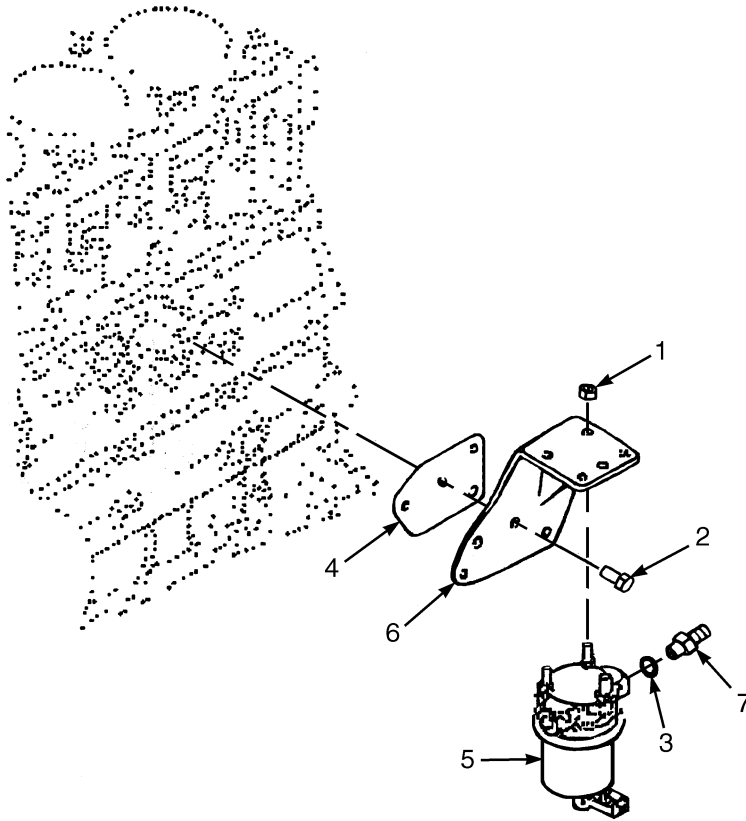
**FUEL PUMP MOUNT  
TIER II ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1499323	Engine Assy-Diesel .....	1
	<b>c</b> 1532627	Engine Assy-Diesel .....	1
	<b>d</b> 1607649	Engine Assy-Diesel .....	1
	<b>e</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1521852	Capscrew .....	2
2	1514483	Nut .....	4
3	1553768	Stud .....	4
4	1514488	Sealing Ring .....	1
5	1584542	Gear (Fuel Pump) .....	1
6	1521854	Support .....	1
7	1521855	Brace .....	1
8	1512004	Capscrew .....	2
9	1521857	Dowel .....	1
10	1521858	Screw .....	2

**FOOTNOTES:**

- |          |   |          |                   |
|----------|---|----------|-------------------|
| <b>a</b> | S/N A214E01843Z ↔ S/N A214E01950A (FLT) | <b>d</b> | S/N A214E02181C → |
| <b>b</b> | S/N A214E01849Z ↔ S/N A214E01950A (ECH) | <b>e</b> | S/N A214E02283D → |
| <b>c</b> | S/N A214E01951A ↔ S/N A214E02180C       |          |                   |

## LIFT PUMP (FIGURE 2-52) TIER II



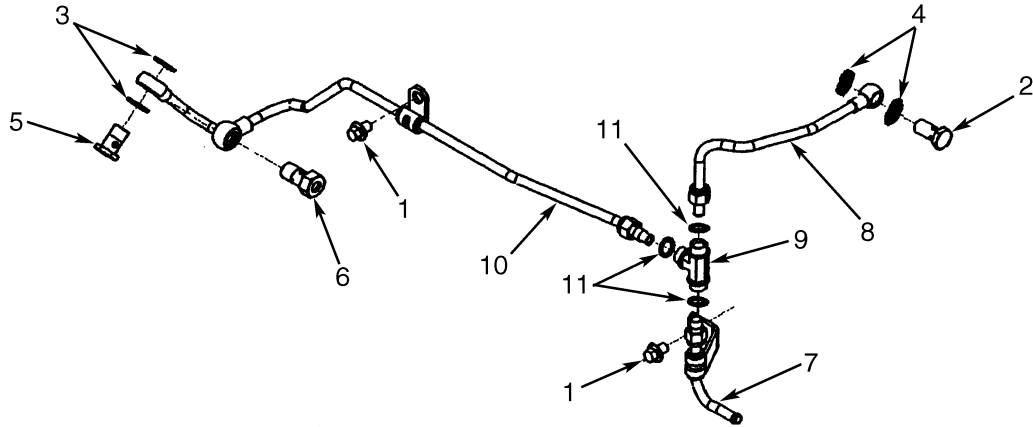
HP091071

ITEM	PART NO.	DESCRIPTION	QTY
a c	1499323	Engine Assy-Diesel .....	1
b	1532627	Engine Assy-Diesel .....	1
d	1607649	Engine Assy-Diesel .....	1
e	1633033	Engine Assy-Diesel (Certified) .....	1
1	1521860	Nut .....	3
2	1512004	Capscrew .....	4
3	1543359	Sealing Ring .....	1
4	1521861	Gasket .....	1
5	1521864	Fuel Pump .....	1
6	1521863	Bracket .....	1
7	1521862	Coupling .....	1

### FOOTNOTES:

- |   |   |   |                   |
|---|---|---|-------------------|
| a | S/N A214E01843Z ↔ S/N A214E01950A (FLT) | d | S/N A214E02181C → |
| b | S/N A214E01951A ↔ S/N A214E02180C       | e | S/N A214E02283D → |
| c | S/N A914E01849Z ↔ S/N A914E01950A (ECH) |   |                   |

**LIFT PUMP PLUMBING (FIGURE 2-53)  
TIER II ENGINE**



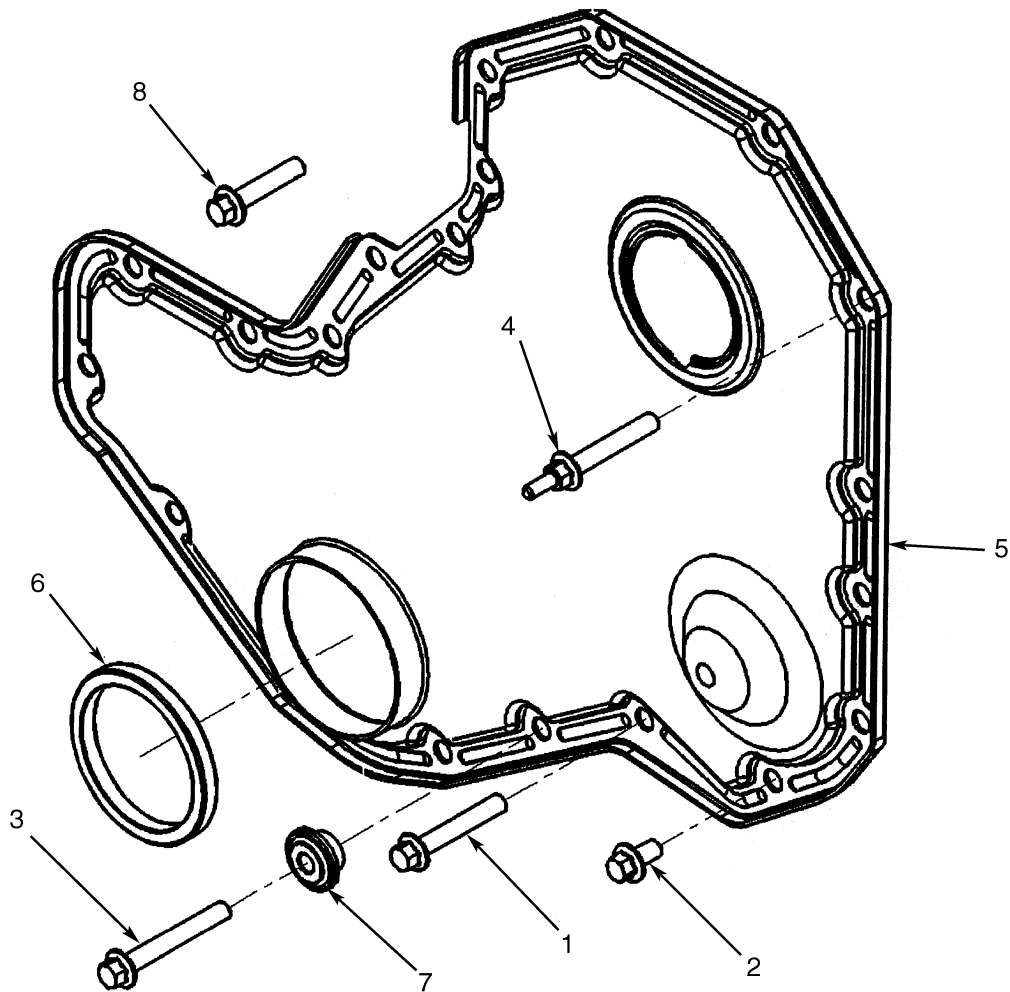
HP090899

ITEM	PART NO.	DESCRIPTION	QTY
	<b>b c</b> 1499323	Engine Assy-Diesel .....	1
	<b>d</b> 1532627	Engine Assy-Diesel .....	1
	<b>f</b> 1607649	Engine Assy-Diesel .....	1
	<b>g</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1517266	Capscrew .....	2
2	1514371	Capscrew .....	1
3	<b>a</b> 1521866	Sealing Ring .....	3
3	<b>e</b> 1584546	Sealing Ring .....	3
4	<b>a</b> 1512092	Sealing Ring .....	2
4	<b>e</b> 1543359	Sealing Ring .....	2
5	1521867	Check Valve .....	1
6	1521868	Screw .....	1
7	<b>a</b> 1521869	Tube Assy .....	1
7	<b>e</b> 1584547	Tube Assy .....	1
8	1521870	Tube Assy .....	1
9	1521871	Fitting .....	1
10	1666548	Tube Assy .....	1
11	<b>a</b> 1521873	Seal .....	3

**FOOTNOTES:**

- |          |   |          |                   |
|----------|---|----------|-------------------|
| <b>a</b> | → S/N A214E01950A                       | <b>e</b> | S/N A214E01951A → |
| <b>b</b> | S/N A214E01843Z ↔ S/N A214E01950A (FLT) | <b>f</b> | S/N A214E02181C → |
| <b>c</b> | S/N A214E01849Z ↔ S/N A214E01950A (ECH) | <b>g</b> | S/N A214E02283D → |
| <b>d</b> | S/N A214E01951A ↔ S/N A214E02180C       |          |                   |

## FRONT GEAR COVER (FIGURE 2-54) TIER II ENGINE



HP090900

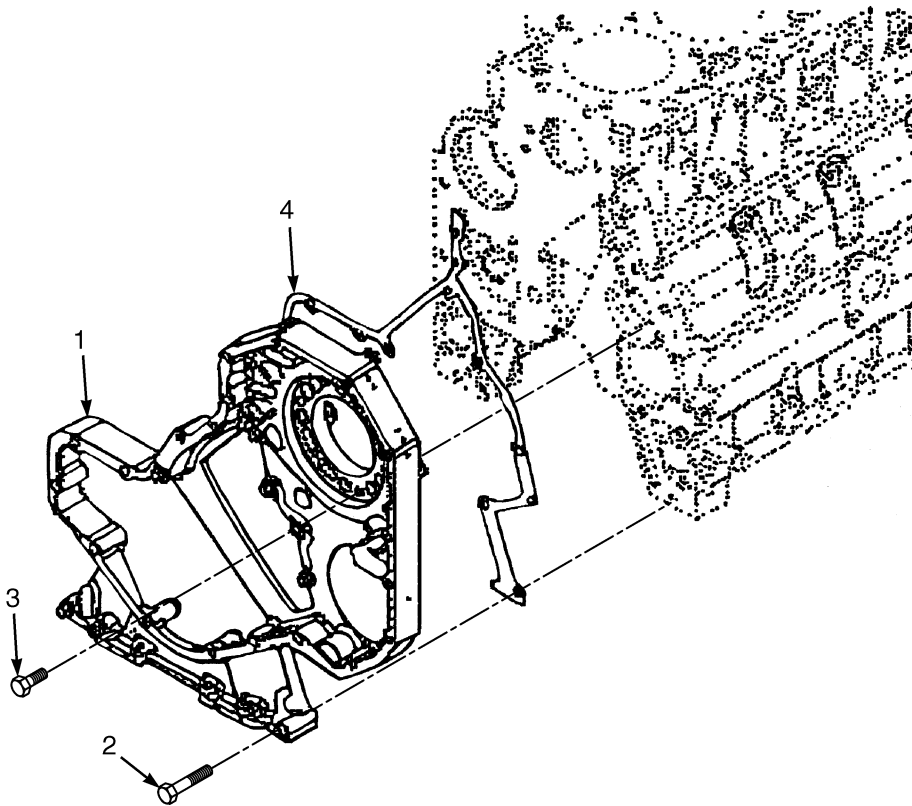
ITEM	PART NO.	DESCRIPTION	QTY
a	1499323	Engine Assy-Diesel .....	1
b	1532627	Engine Assy-Diesel .....	1
c	1607649	Engine Assy-Diesel .....	1
d	1633033	Engine Assy-Diesel (Certified) .....	1
e	1513725	Capscrew .....	7
1	1521875	Screw .....	7
2	1513760	.....	
3	1553781	Capscrew .....	1
4	1521876	Screw .....	1
5	1521879	Cover .....	1
5	1521878	Cover .....	1
6	.....	Oil Seal .....	1
7	1521880	Retainer .....	1
8	1513789	Capscrew .....	4



**FOOTNOTES:**

- |          |   |          |                   |
|----------|---|----------|-------------------|
| <b>a</b> | S/N A214E01843Z ↔ S/N A214E01950A (FLT) | <b>d</b> | S/N A214E02181C → |
| <b>b</b> | S/N A214E01849Z ↔ S/N A214E01950A (ECH) | <b>e</b> | S/N A214E02283D → |
| <b>c</b> | S/N A214E01951A ↔ S/N A214E02180C       |          |                   |

## GEAR HOUSING (FIGURE 2-55) TIER II



HP091070

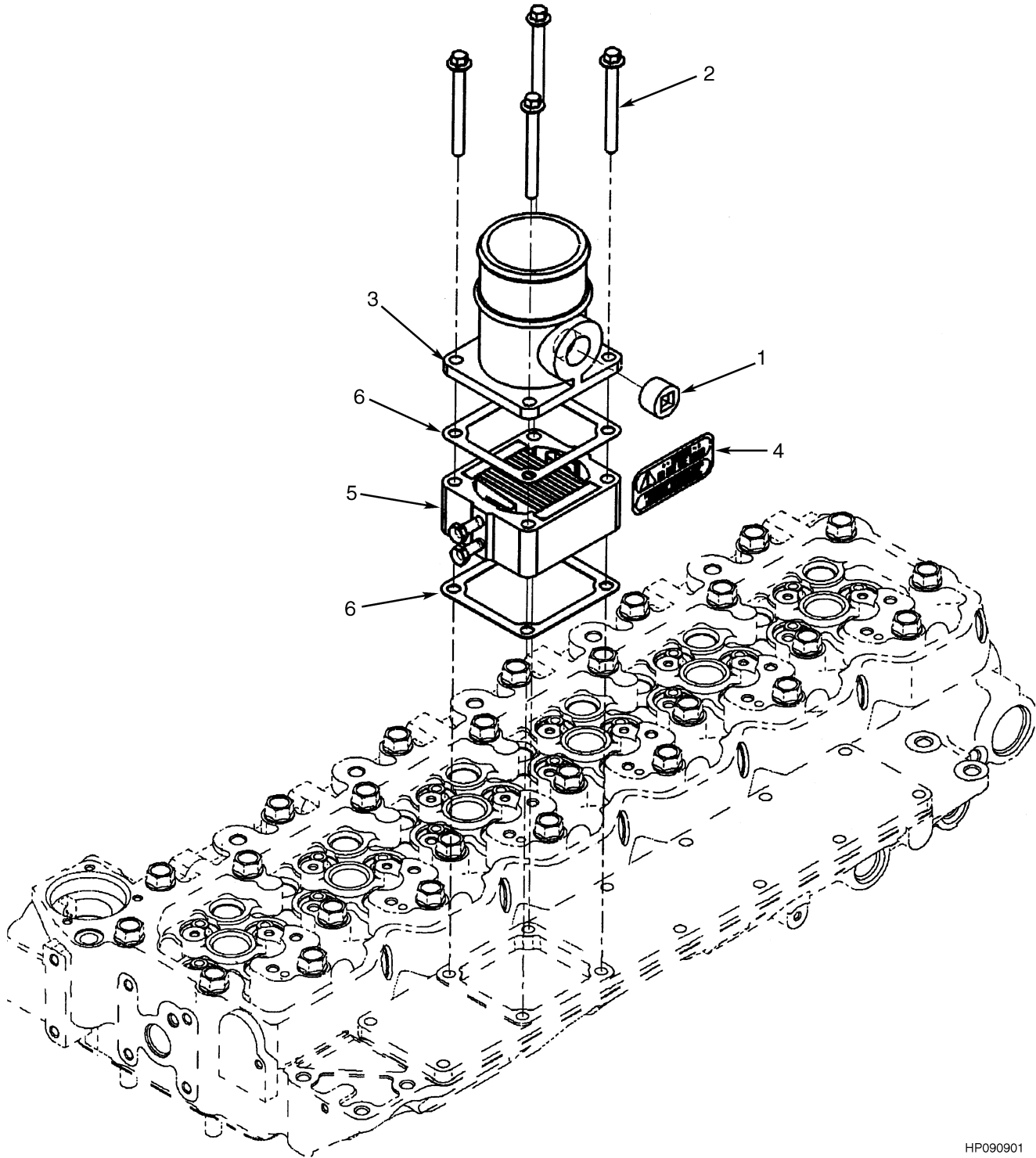
ITEM	PART NO.	DESCRIPTION	QTY
a e	1499323	Engine Assy-Diesel .....	1
b	1532627	Engine Assy-Diesel .....	1
c	1607649	Engine Assy-Diesel .....	1
d	1633033	Engine Assy-Diesel (Certified) .....	1
1	.....	Gear Housing .....	1
2	1513725	Capscrew .....	2
3	1513751	Screw .....	5
4	1521712	Gasket .....	1

### FOOTNOTES:

- |   |   |   |                       |
|---|---|---|-----------------------|
| a | S/N A214E01843Z ↔ S/N A214E01950A (FLT) | d | S/N A214E02283D →     |
| b | S/N A214E01951A ↔ S/N A214E02180C       | e | S/N A214E01849Z → ECH |
| c | S/N A214E02181C →                       |   |                       |



## AIR INTAKE CONNECTION (FIGURE 2-56) TIER II ENGINE



HP090901

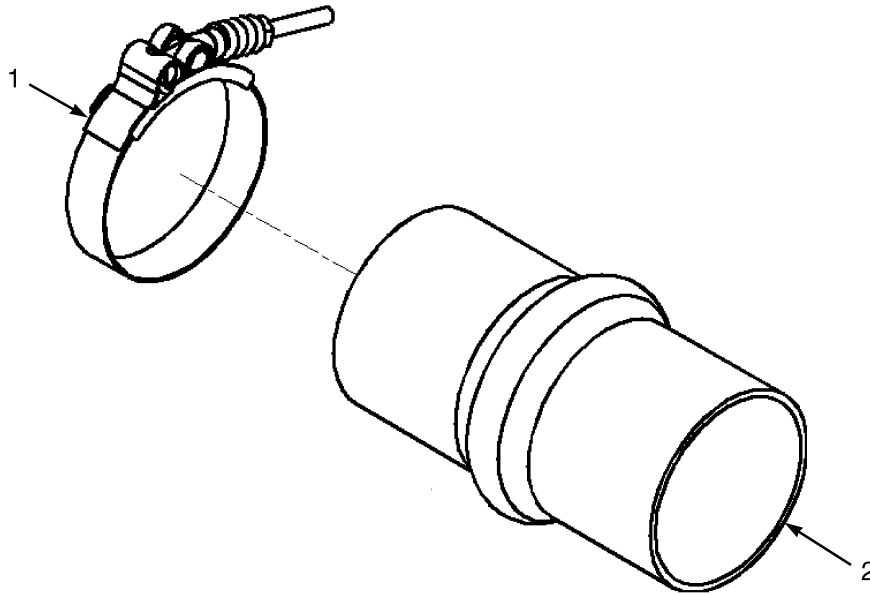
**AIR INTAKE CONNECTION  
TIER II ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
	<b>b g</b> 1499323	Engine Assy-Diesel .....	1
	<b>c</b> 1532627	Engine Assy-Diesel .....	1
	<b>e</b> 1607649	Engine Assy-Diesel .....	1
	<b>f</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1512292	Plug .....	1
2	1521884	Screw .....	4
3	<b>a</b> 1521885	Connector .....	1
3	<b>d</b> 1584549	Connector .....	1
4	1521886	Tag .....	1
5	1543315	Heater (Air Intake) .....	1
6	1596648	Gasket .....	2
	1673901	Kit-Seal .....	1

**FOOTNOTES:**

<b>a</b>	→ S/N A214E01950A	<b>e</b>	S/N A214E02181C →
<b>b</b>	S/N A21401843Z ↔ S/N A21401950A (FLT)	<b>f</b>	S/N A214E02283D →
<b>c</b>	S/N A214E01951A ↔ S/N A214E02180C	<b>g</b>	S/N A214E01849Z → ECH
<b>d</b>	S/N A214E01951A →		

## AIR INTAKE HOSE (FIGURE 2-57) TIER II ENGINE



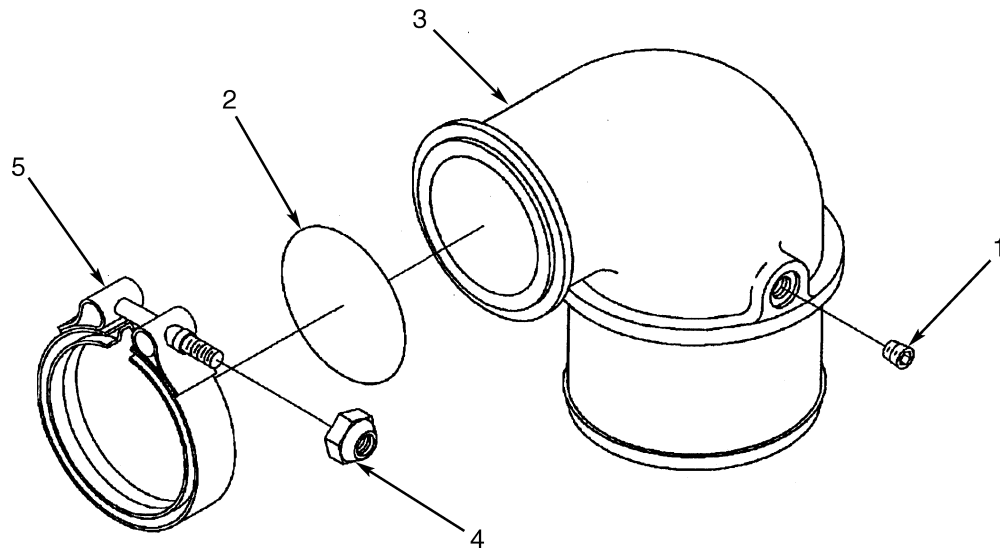
HP091345

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1499323	Engine Assy-Diesel .....	1
	<b>c</b> 1532627	Engine Assy-Diesel .....	1
	<b>d</b> 1607649	Engine Assy-Diesel .....	1
	<b>e</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1521888	Hose .....	4
2	1521889	Clamp .....	8

### FOOTNOTES:

- |  |                            |
|--|----------------------------|
| <b>a</b> S/N A214E01843Z ↔ S/N A214E01950A (FLT) | <b>d</b> S/N A214E02181C → |
| <b>b</b> S/N A214E01849Z ↔ S/N A214E01950A (ECH) | <b>e</b> S/N A214E02283D → |
| <b>c</b> S/N A214E01951A ↔ S/N A214E02180C       |                            |

**AIR TRANSFER CONNECTION (FIGURE 2-58)  
TIER II ENGINE**



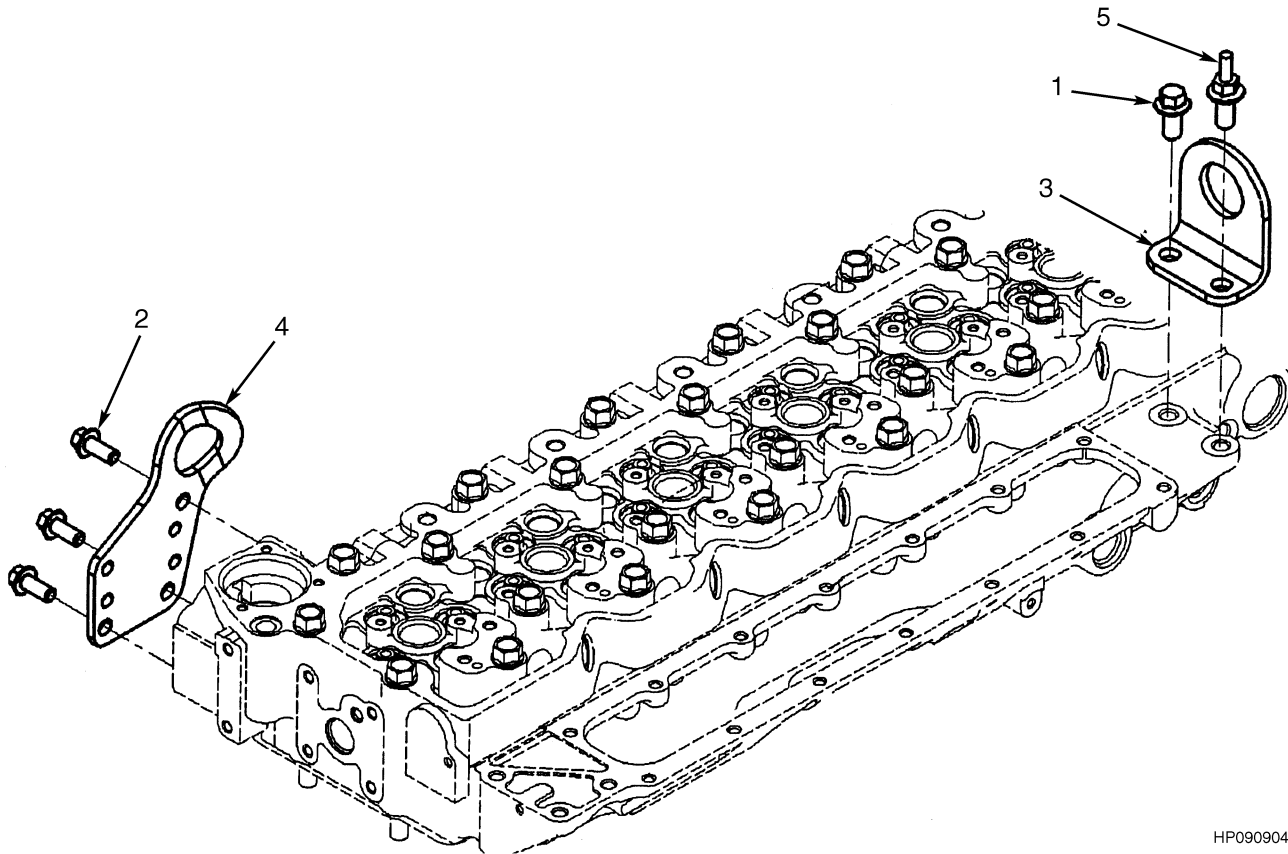
HP090903

ITEM	PART NO.	DESCRIPTION	QTY
<b>a b</b>	1499323	Engine Assy-Diesel .....	1
<b>c</b>	1532627	Engine Assy-Diesel .....	1
<b>d</b>	1607649	Engine Assy-Diesel .....	1
	1633032	Engine Assy-Diesel (EPA Certified) .....	1
<b>e</b>	1633033	Engine Assy-Diesel (Certified) .....	1
1	1513191	Fitting .....	1
2	1515787	O-Ring .....	1
3	1521891	Pipe .....	1
4	1517094	Locknut .....	1
5	1597806	Clamp .....	1
	1673901	Kit-Seal .....	1

**FOOTNOTES:**

- |          |   |          |                   |
|----------|---|----------|-------------------|
| <b>a</b> | S/N A214E01843Z ↔ S/N A214E01950A (FLT) | <b>d</b> | S/N A214E02181C → |
| <b>b</b> | S/N A214E01849Z ↔ S/N A214E01950A (ECH) | <b>e</b> | S/N A214E02283D → |
| <b>c</b> | S/N A214E01951A ↔ S/N A214E02180C       |          |                   |

## LIFTING BRACKET (FIGURE 2-59) TIER II ENGINE



HP090904

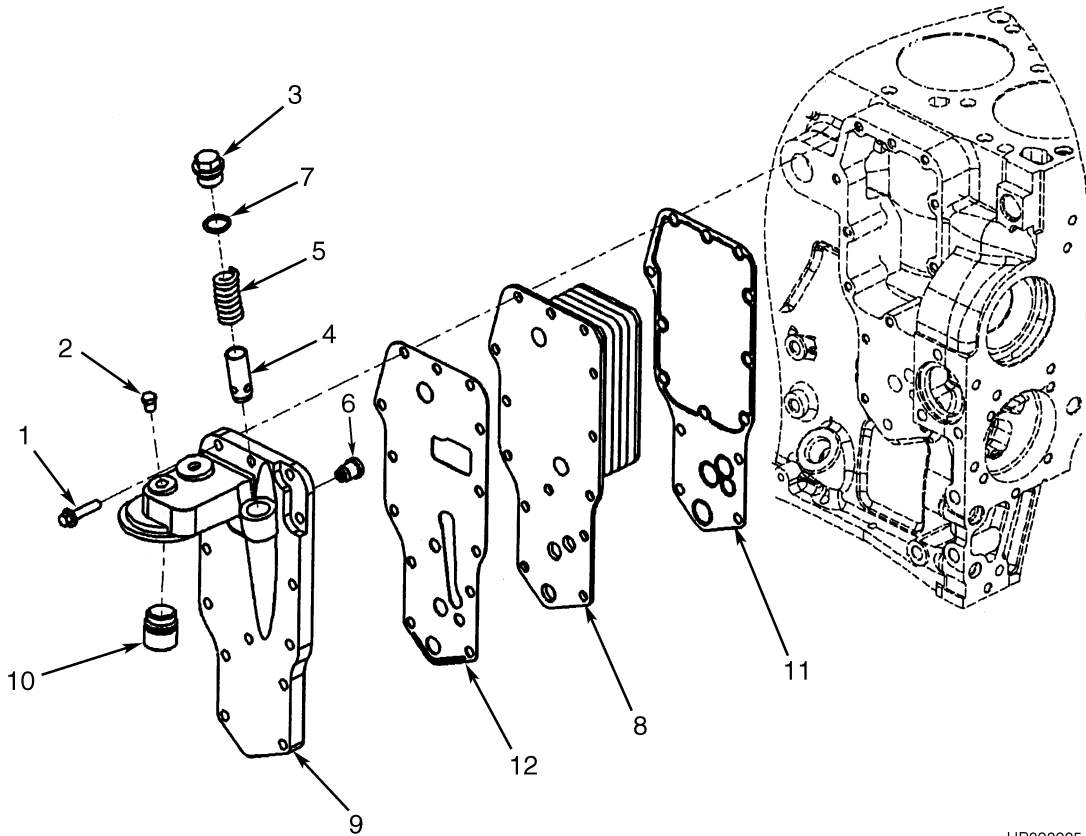
ITEM	PART NO.	DESCRIPTION	QTY
a b	1499323	Engine Assy-Diesel .....	1
c	1532627	Engine Assy-Diesel .....	1
d	1607649	Engine Assy-Diesel .....	1
e	1633033	Engine Assy-Diesel (Certified) .....	1
1	1512418	Capscrew .....	1
2	1512503	Capscrew .....	3
3	1521893	Bracket .....	1
4	1521894	Bracket .....	1
5	1521895	Screw .....	1

### FOOTNOTES:

- |   |   |   |                   |
|---|---|---|-------------------|
| a | S/N A214E01843Z ↔ S/N A214E01950A (FLT) | d | S/N A214E02181C → |
| b | S/N A214E01849Z ↔ S/N A214E01950A (ECH) | e | S/N A214E02283D → |
| c | S/N A214E01951A ↔ S/N A214E02180C       |   |                   |



**ENGINE OIL COOLER (FIGURE 2-60)  
TIER II ENGINE**



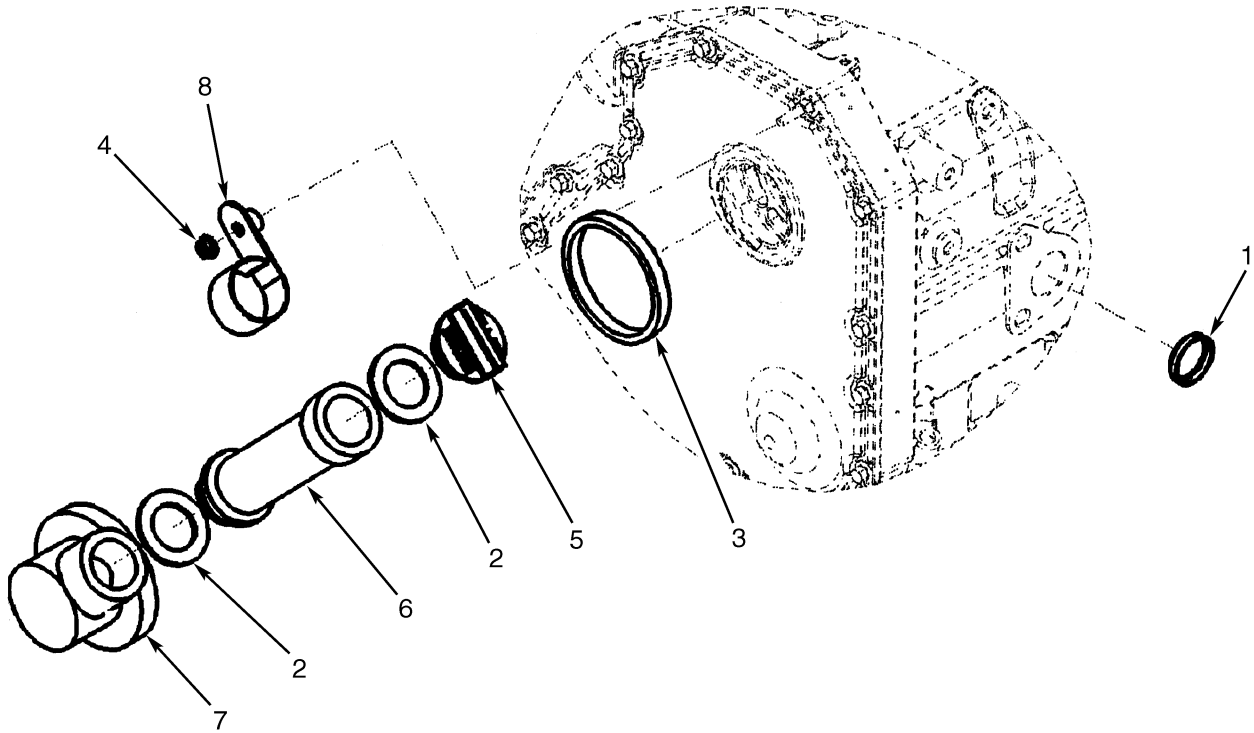
HP090905

ITEM	PART NO.	DESCRIPTION	QTY
	<b>b c</b> 1499323	Engine Assy-Diesel .....	1
	<b>d</b> 1532627	Engine Assy-Diesel .....	1
	<b>f</b> 1607649	Engine Assy-Diesel .....	1
	<b>g</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1512033	Capscrew .....	14
2	1512448	Fitting .....	1
3	1512453	Plug .....	3
4	1512119	Plunger .....	1
5	1512112	Spring , Pressure Regulator .....	1
6	1513772	Relief Valve (Pressure) .....	1
7	1512118	O-Ring .....	1
8	<b>a</b> 1512114	Core .....	1
8	<b>e</b> 1552286	Core .....	1
9	1521897	Filter Head .....	1
10	1553782	Adapter .....	1
11	1638856	Gasket .....	1
12	1512452	Gasket .....	1
	1524551	Oil Filter (Not Illustrated) (☞ Figure 2-63).....	1

**FOOTNOTES:**

- |          |   |          |                   |
|----------|---|----------|-------------------|
| <b>a</b> | → S/N A214E01950A                       | <b>e</b> | S/N A214E01951A → |
| <b>b</b> | S/N A214E01843Z ↔ S/N A214E01950A (FLT) | <b>f</b> | S/N A214E02181C → |
| <b>c</b> | S/N A214E01849Z ↔ S/N A214E01950A (ECH) | <b>g</b> | S/N A214E02283D → |
| <b>d</b> | S/N A214E01951A ↔ S/N A214E02180C       |          |                   |

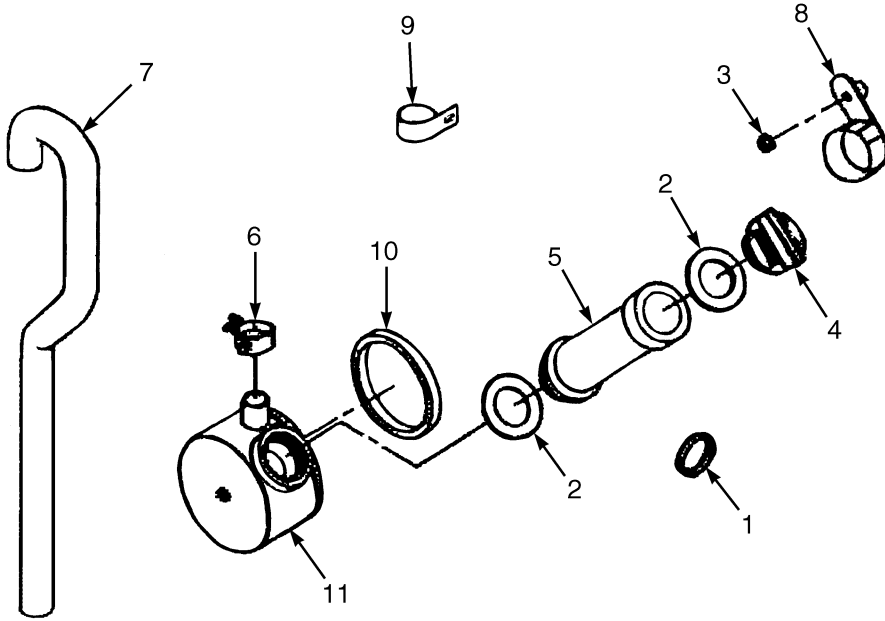
**OIL FILLER ARRANGEMENT (FIGURE 2-61)**  
TIER II ENGINE (→ S/N A214E01950A)



HP090906

ITEM	PART NO.	DESCRIPTION	QTY
	1499323	Engine Assy-Diesel .....	1
1	1521694	Plug .....	1
2	1512312	Sealing Ring .....	2
3	1512012	Sealing Ring .....	1
4	1513793	Nut .....	1
5	1512463	Cap .....	1
6	1512464	Tube .....	1
7	1512461	Connector .....	1
8	1521902	Clip .....	1

## OIL FILLER ARRANGEMENT (FIGURE 2-62) (S/N A214E01951A →)



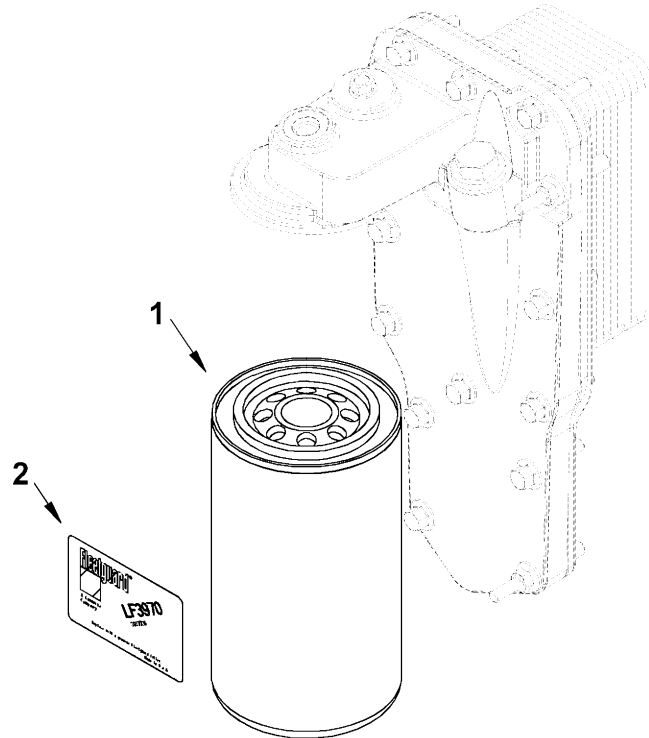
HP091069

**OIL FILLER ARRANGEMENT**  
(S/N A214E01951A →)

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a</b> 1532627	Engine Assy-Diesel .....	1
	<b>b</b> 1607649	Engine Assy-Diesel .....	1
	<b>c</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1521694	Plug .....	1
2	1512312	Sealing Ring .....	2
3	1513793	Nut .....	2
4	1512463	Cap .....	1
5	1512464	Tube .....	1
6	1513701	Hose Clamp .....	1
7	1527012	Hose .....	1
8	1521902	Clip .....	1
9	1527013	Clip .....	1
10	1512012	Sealing Ring .....	1
11	1527014	Breather (Crankcase) .....	1

**FOOTNOTES:****a** S/N A214E01951A ↔ S/N A214E02180C**c** S/N A214E02283D →**b** S/N A214E02181C →

## OIL FILTER (FIGURE 2-63) TIER II ENGINE



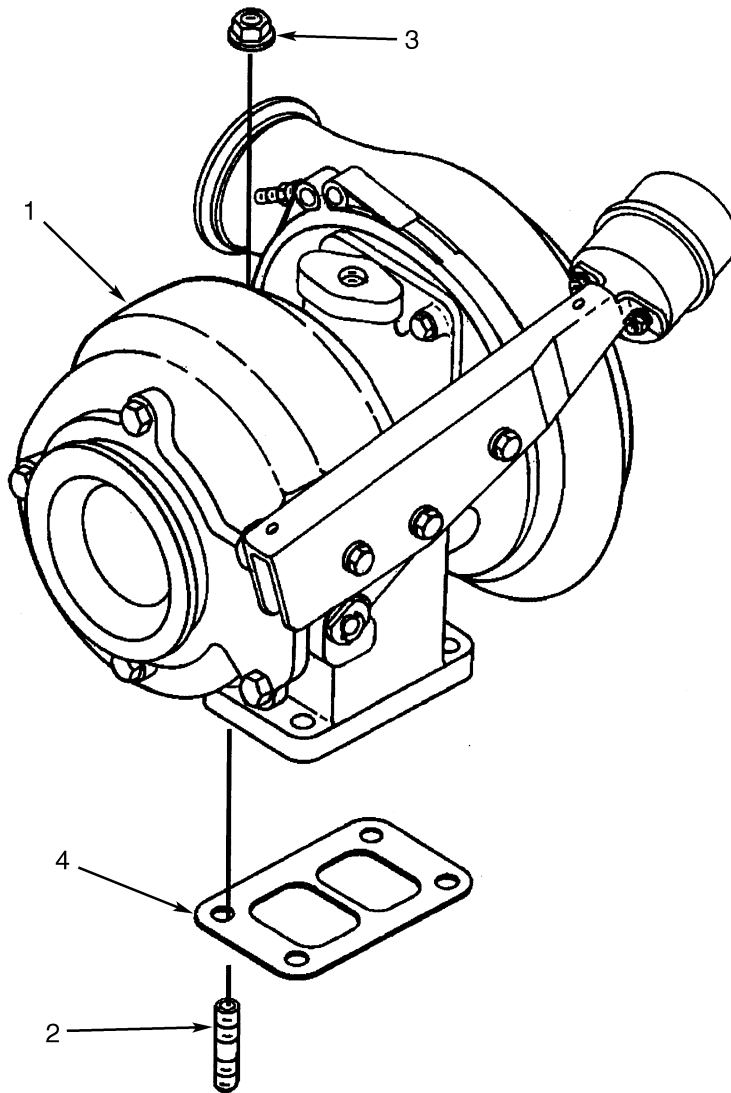
HP091120

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1499323	Engine Assy-Diesel .....	1
	<b>c</b> 1532627	Engine Assy-Diesel .....	1
	<b>d</b> 1607649	Engine Assy-Diesel .....	1
	<b>e</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1524551	Oil Filter .....	1
2	.....	Decal .....	1

**FOOTNOTES:**

- |  |                            |
|--|----------------------------|
| <b>a</b> S/N A214E01843Z ↔ S/N A214E01950A (FLT) | <b>d</b> S/N A214E02181C → |
| <b>b</b> S/N A214E01849Z ↔ S/N A214E01950A (ECH) | <b>e</b> S/N A214E02283D → |
| <b>c</b> S/N A214E01951A ↔ S/N A214E02180C       |                            |

**TURBOCHARGER (FIGURE 2-64)  
TIER II ENGINE**



HP090907

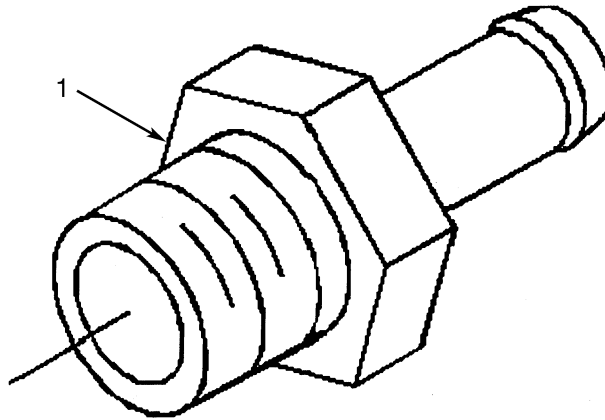
ITEM	PART NO.	DESCRIPTION	QTY
	<b>b c</b> 1499323	Engine Assy-Diesel .....	1
	<b>a</b> 1532627	Engine Assy-Diesel .....	1
	<b>e</b> 1607649	Engine Assy-Diesel .....	1
	<b>f</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	.....	Turbocharger .....	1
1	1597833	Kit-Repair Turbocharger .....	1
2	1513337	Stud .....	1
3	1513338	Nut .....	4
4	1517238	Gasket (Turbocharger) .....	1
4	1597142	Gasket (Optional) .....	1
	<b>d</b> 1673901	Kit-Seal .....	1

**FOOTNOTES:**

- |          |   |          |                   |
|----------|---|----------|-------------------|
| <b>a</b> | S/N A214E01951A ↔ S/N A214E02180C       | <b>d</b> | S/N A214E01951A → |
| <b>b</b> | S/N A214E01843Z ↔ S/N A214E01950A (FLT) | <b>e</b> | S/N A214E02181C → |
| <b>c</b> | S/N A214E01849Z → ECH                   | <b>f</b> | S/N A214E02283D → |



**RADIATOR PLUMBING (FIGURE 2-65)  
TIER II ENGINE**



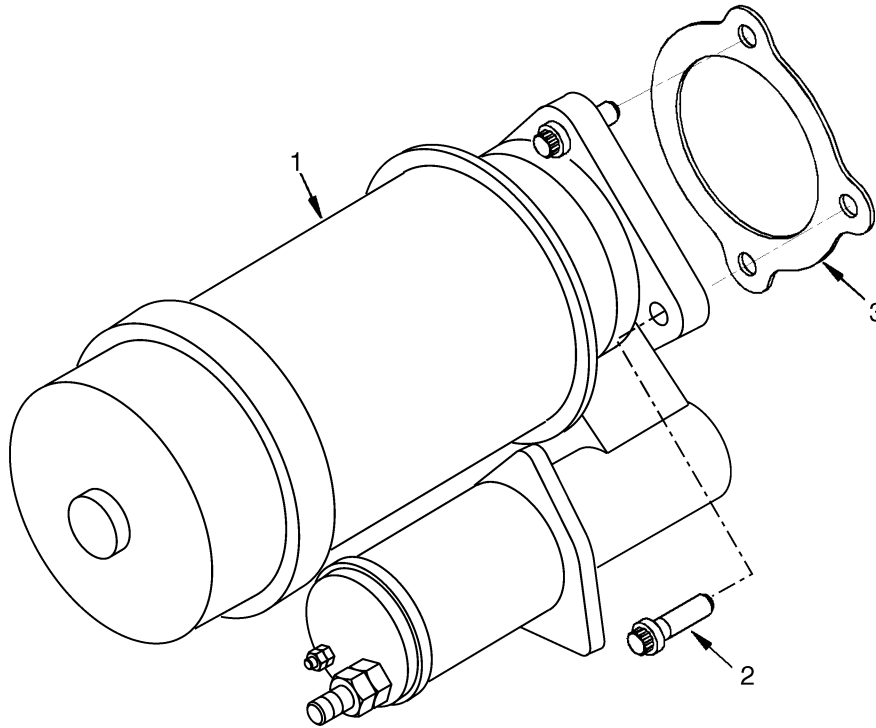
HP090908

ITEM	PART NO.	DESCRIPTION	QTY
	<b>b c</b> 1499323	Engine Assy-Diesel .....	1
	<b>a</b> 1532627	Engine Assy-Diesel .....	1
	<b>d</b> 1607649	Engine Assy-Diesel .....	1
	<b>e</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1517250	Fitting .....	1

**FOOTNOTES:**

- a** S/N A214E01651A ↔ S/N A214E02180C
- b** S/N A214E01843Z ↔ S/N A214E01950A (FLT)
- c** S/N A214E01849Z ↔ S/N A214E01950A (ECH)
- d** S/N A214E02181C →
- e** S/N A214E02283D →

## STARTING MOTOR (FIGURE 2-66) TIER II ENGINE



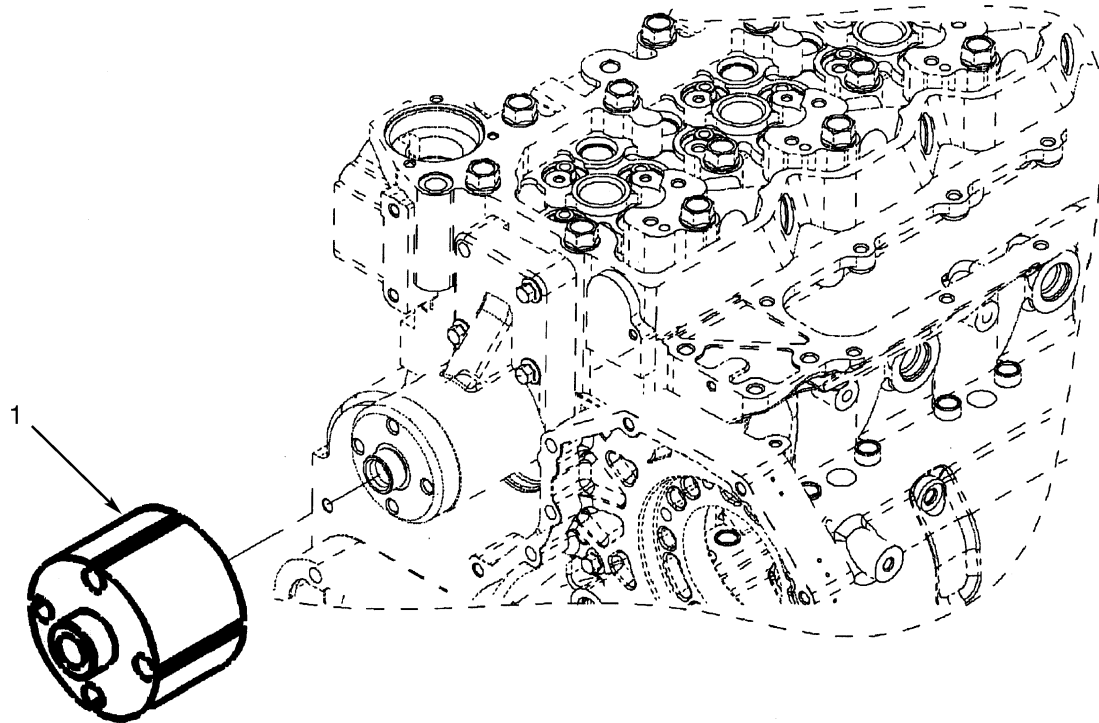
HP091129

ITEM	PART NO.	DESCRIPTION	QTY
	<b>b c</b> 1499323	Engine Assy-Diesel .....	1
	<b>d</b> 1532627	Engine Assy-Diesel .....	1
	<b>f</b> 1607649	Engine Assy-Diesel .....	1
	<b>g</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	<b>a</b> 1512485	Starter .....	1
1	<b>e</b> 4551462	Starter .....	1
	4033323	Starter .....	1
2	<b>a</b> 1521946	Capscrew .....	3
2	<b>e</b> 1584936	Capscrew .....	2
3	<b>e</b> 1584935	Spacer .....	1

### FOOTNOTES:

- |  |                            |
|--|----------------------------|
| <b>a</b> → S/N A214E01950A                       | <b>e</b> S/N A214E01951A → |
| <b>b</b> S/N A214E01843Z ↔ S/N A214E01950A (FLT) | <b>f</b> S/N A214E02181C → |
| <b>c</b> S/N A214E01849Z ↔ S/N A214E01950A (ECH) | <b>g</b> S/N A214E02283D → |
| <b>d</b> S/N A214E01951A ↔ S/N A214E02180C       |                            |

**FAN PILOT SPACER (FIGURE 2-67)  
TIER II ENGINE**



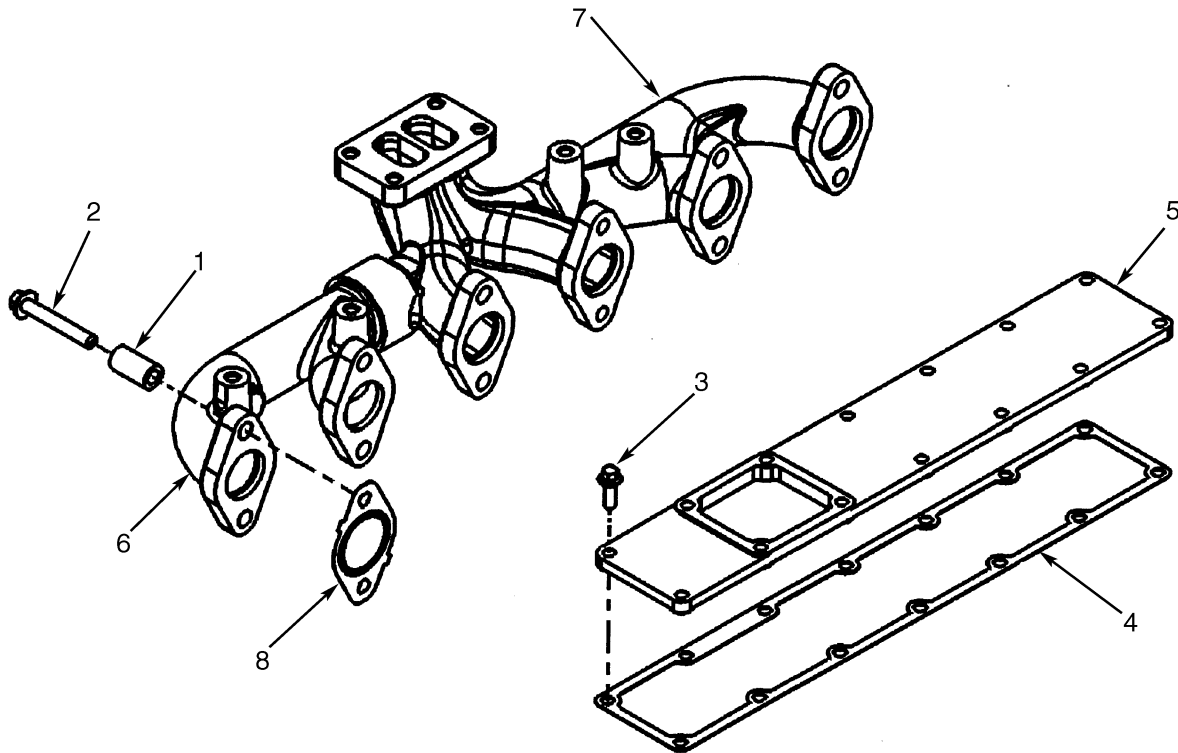
HP090910

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1499323	Engine Assy-Diesel .....	1
	<b>c</b> 1532627	Engine Assy-Diesel .....	1
	<b>d</b> 1607649	Engine Assy-Diesel .....	1
	<b>e</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1512287	Spacer (Fan Pilot) (50.8 mm) .....	1

**FOOTNOTES:**

- |  |                            |
|--|----------------------------|
| <b>a</b> S/N A214E01843Z ↔ S/N A214E01950A (FLT) | <b>d</b> S/N A214E02181C → |
| <b>b</b> S/N A214E01849Z ↔ S/N A214E01950A (ECH) | <b>e</b> S/N A214E02283D → |
| <b>c</b> S/N A214E01951A ↔ S/N A214E02180C       |                            |

## EXHAUST MANIFOLD (FIGURE 2-68) TIER II ENGINE



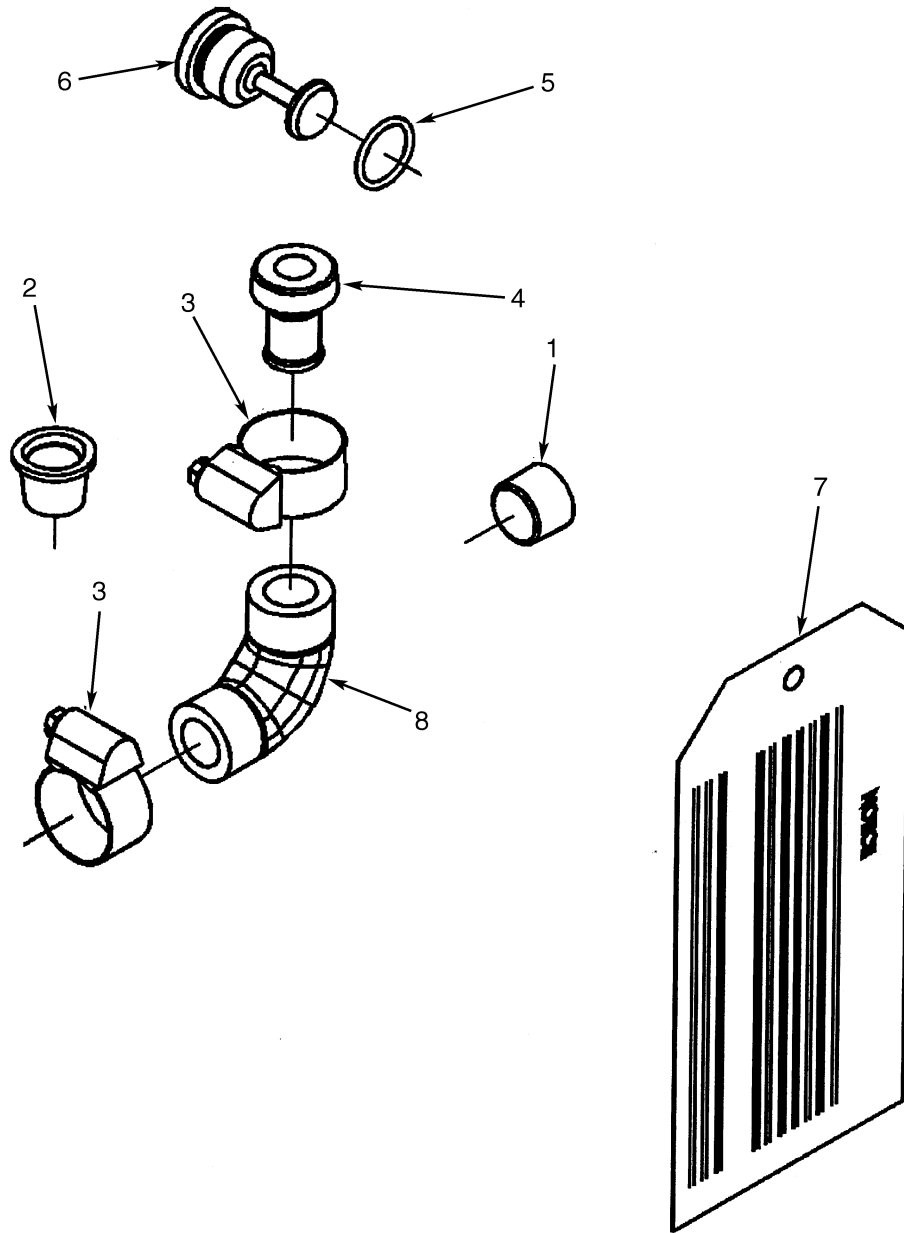
HP090911

ITEM	PART NO.	DESCRIPTION	QTY
	<b>b c</b> 1499323	Engine Assy-Diesel .....	1
	<b>a</b> 1532627	Engine Assy-Diesel .....	1
	<b>f</b> 1607649	Engine Assy-Diesel .....	1
	<b>g</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1517256	Spacer .....	12
2	1517257	Screw .....	12
3	1512295	Capscrew .....	3
4	1512300	Gasket .....	1
5	1521949	Cover .....	1
6	1597821	Exhaust Manifold (1/3 Manifold) .....	1
7	1521951	Exhaust Manifold (2/3 Manifold) .....	1
8	<b>d</b> 1521952	Gasket .....	6
8	<b>e</b> 1553965	Gasket .....	6
	4033384	Gasket .....	6
	4185124	Gasket .....	6
	1673901	Kit-Seal .....	1

### FOOTNOTES:

<b>a</b>	S/N A214E01951A ↔ S/N A214E02180C	<b>e</b>	S/N A214E01951A →
<b>b</b>	S/N A214E01843Z ↔ S/N A214E01950A (FLT)	<b>f</b>	S/N A214E02181C →
<b>c</b>	S/N A214E01849Z ↔ S/N A214E01950A (ECH)	<b>g</b>	S/N A214E02283D →
<b>d</b>	S/N A214E01950A →		

**TORQUE CONVERTER OIL COOLER (FIGURE 2-69)  
TIER II ENGINE**



HP090912

ITEM	PART NO.	DESCRIPTION	QTY
a b	1499323	Engine Assy-Diesel .....	1
c	1532627	Engine Assy-Diesel .....	1
d	1607649	Engine Assy-Diesel .....	1
e	1633033	Engine Assy-Diesel (Certified) .....	1
1	1511952	Fitting .....	1
2	1521954	Cover .....	1
3	1521955	Clamp .....	1
4	1521956	Fitting .....	2
5	1517262	O-Ring .....	1
6	1521957	Plug .....	1

---

ITEM	PART NO.	DESCRIPTION	QTY
7	.....	Tag .....	1
8	1521958	Hose .....	1

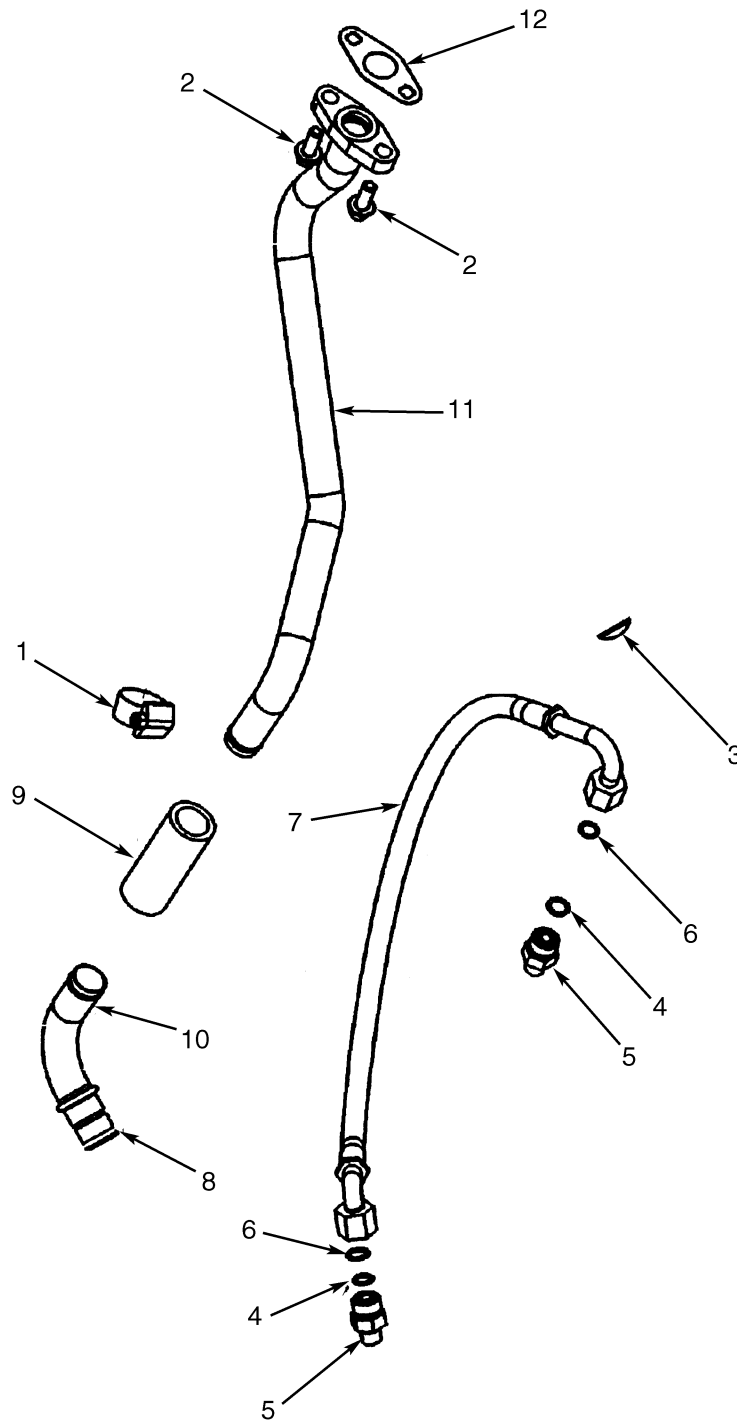
---

**FOOTNOTES:**

- a** S/N A214E01843Z ↔ S/N A214E01950A (FLT)      **d** S/N A214E02181C →  
**b** S/N A214E01849Z ↔ S/N A214E01950A (ECH)      **e** S/N A214E02280D →  
**c** S/N A214E01951A ↔ S/N A214E02180C



## TURBOCHARGER PLUMBING (FIGURE 2-70) TIER II ENGINE



HP090913



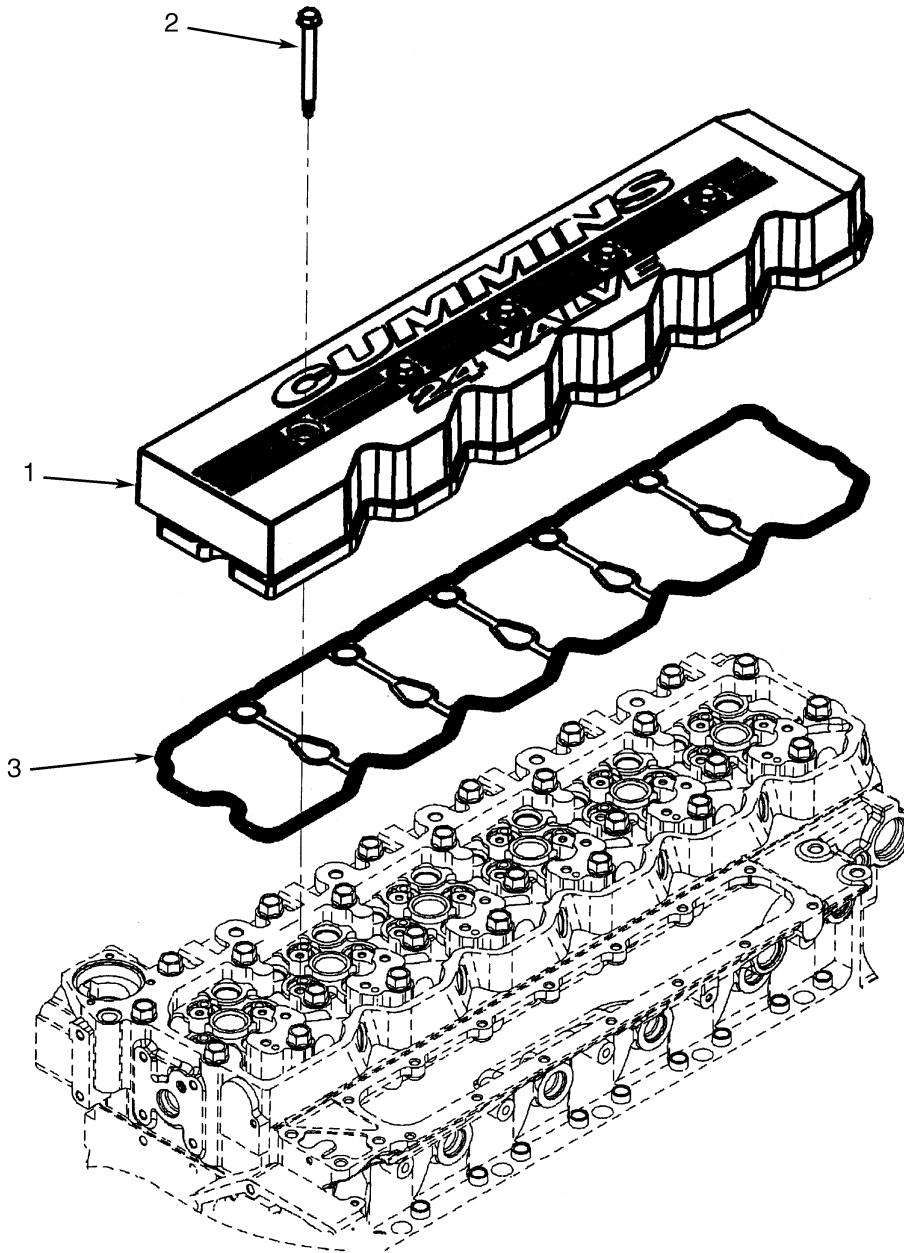
**TURBOCHARGER PLUMBING  
TIER II ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a b</b> 1499323	Engine Assy-Diesel .....	1
	<b>c</b> 1532627	Engine Assy-Diesel .....	1
	<b>d</b> 1607649	Engine Assy-Diesel .....	1
	<b>e</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1517268	Hose Clamp .....	2
2	1513769	Capscrew .....	2
3	1514339	Plug .....	1
4	1517069	O-Ring .....	2
5	<del>1521960</del> 1702184	Connector Assembly .....	1
5	1517069	O-Ring .....	1
5	1513430	O-Ring .....	1
5	.....	Connector .....	1
6	1513430	O-Ring .....	1
7	1521961	Hose .....	1
8	1517270	O-Ring .....	1
9	1517269	Hose .....	1
10	1521962	Tube .....	1
11	1521963	Fitting .....	1
12	1514565	Gasket (Oil Drain) .....	1
	1673901	Kit-Seal .....	1

**FOOTNOTES:**

- a** S/N A214E01843Z ↔ S/N A214E01950A (FLT)      **d** S/N A214E02181C →  
**b** S/N A214E01849Z ↔ S/N A214E01950A (ECH)      **e** S/N A214E02283D →  
**c** S/N A214E01951A ↔ S/N A214E02180C

## VALVE COVER (FIGURE 2-71) TIER II ENGINE



HP090914

ITEM	PART NO.	DESCRIPTION	QTY
a b	1499323	Engine Assy-Diesel .....	1
c	1532627	Engine Assy-Diesel .....	1
d	1607649	Engine Assy-Diesel .....	1
e	1633033	Engine Assy-Diesel (Certified) .....	1
1	1521965	Cover .....	1
2	1521966	Screw .....	5
3	1521967	Gasket .....	1

---

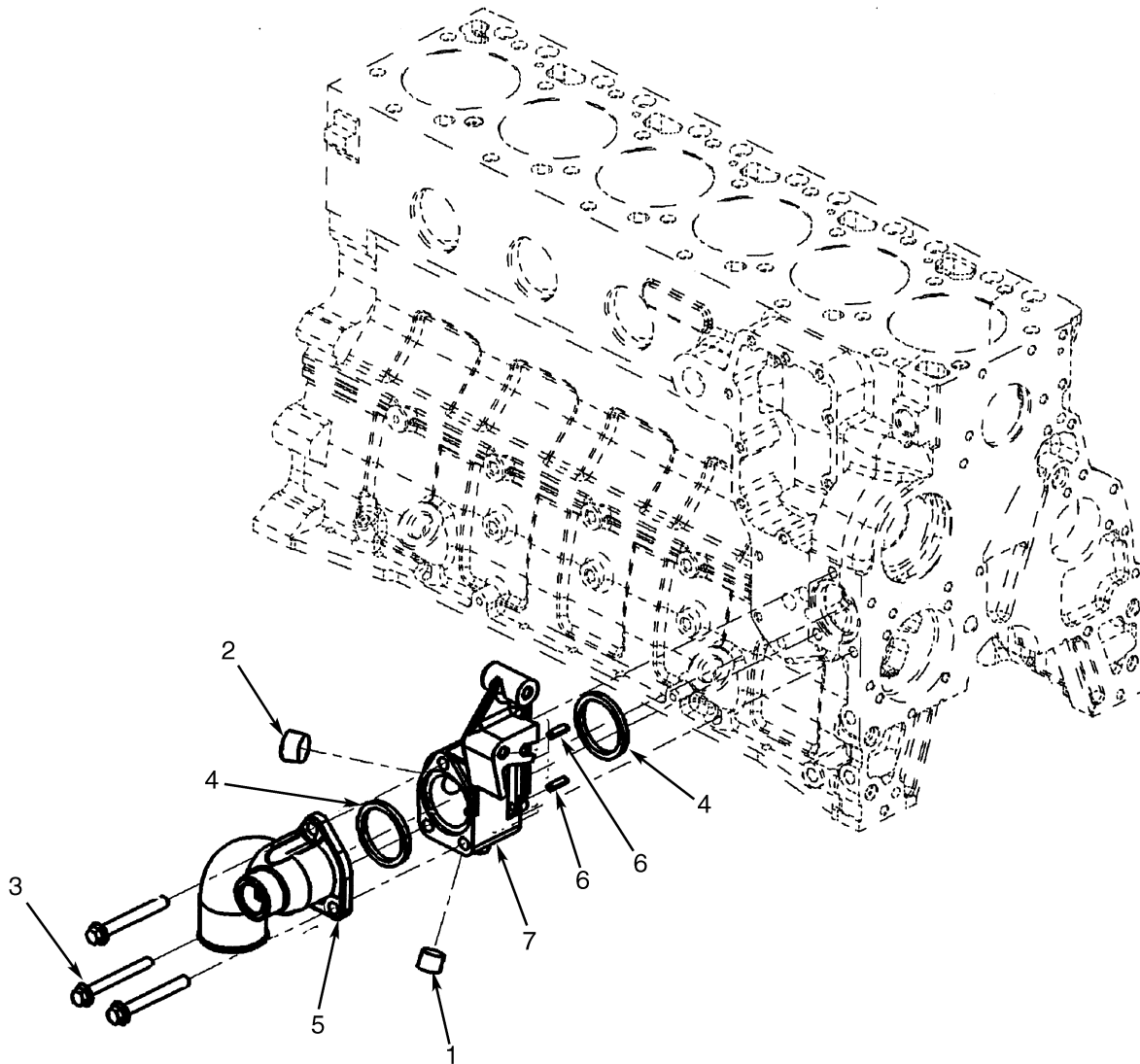
ITEM	PART NO.	DESCRIPTION	QTY
	1673901	Kit-Seal .....	1

---

**FOOTNOTES:**

- a S/N A214E01843Z ↔ S/N A214E01950A (FLT)
- b S/N A214E01849Z ↔ S/N A214E01950A (ECH)
- c S/N A214E01951A ↔ S/N A214E02180C
- d S/N A214E02181C →
- e S/N A214E02283D →

## WATER INLET CONNECTION (FIGURE 2-72) TIER II ENGINE



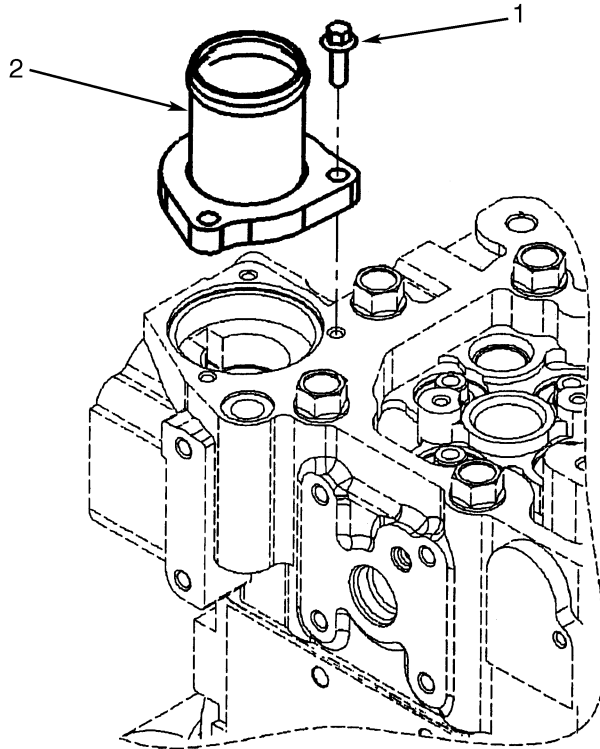
HP090915

ITEM	PART NO.	DESCRIPTION	QTY
a b	1499323	Engine Assy-Diesel .....	1
c	1532627	Engine Assy-Diesel .....	1
d	1607649	Engine Assy-Diesel .....	1
e	1633033	Engine Assy-Diesel (Certified) .....	1
1	1511952	Fitting .....	1
2	1512292	Plug .....	1
3	1521938	Capscrew .....	3
4	1512305	O-Ring .....	2
5	1521969	Water Inlet .....	1
6	1521971	Roll Pin .....	2
7	1521970	Water Inlet .....	1

**FOOTNOTES:**

- |          |   |          |                   |
|----------|---|----------|-------------------|
| <b>a</b> | S/N A214E01843Z ↔ S/N A214E01950A (FLT) | <b>d</b> | S/N A214E02181C → |
| <b>b</b> | S/N A214E01849Z ↔ S/N A214E01950A (ECH) | <b>e</b> | S/N A214E02283D → |
| <b>c</b> | S/N A214E01951A ↔ S/N A214E02180C       |          |                   |

## WATER OUTLET CONNECTION (FIGURE 2-73) TIER II ENGINE



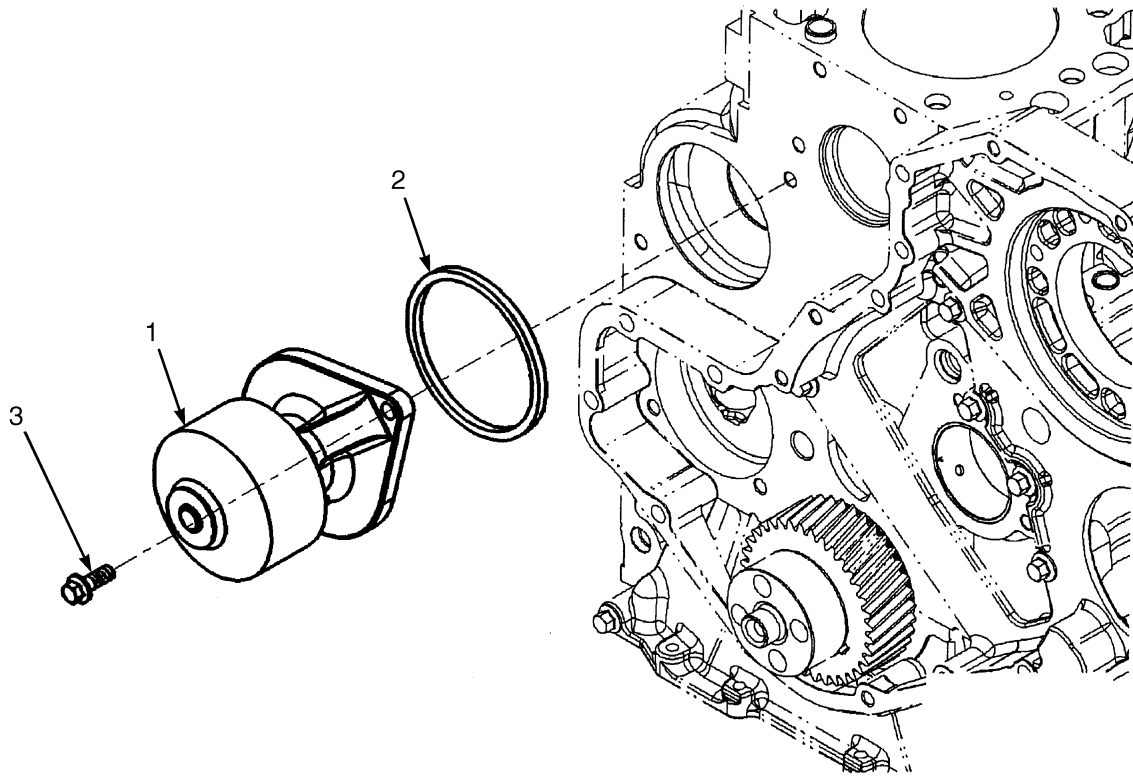
HP090916

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a c</b> 1499323	Engine Assy-Diesel .....	1
	<b>b</b> 1532627	Engine Assy-Diesel .....	1
	<b>d</b> 1607649	Engine Assy-Diesel .....	1
	<b>e</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1513792	Capscrew .....	3
2	1521973	Water Outlet .....	1

### FOOTNOTES:

- |  |                            |
|--|----------------------------|
| <b>a</b> S/N A214E01843Z ↔ S/N A214E01950A (FLT) | <b>d</b> S/N A214E02181C → |
| <b>b</b> S/N A214E01951A ↔ S/N A214E02180C       | <b>e</b> S/N A214E02283D → |
| <b>c</b> S/N A914E01849Z ↔ S/N A914E01950A (ECH) |                            |

**WATER PUMP (FIGURE 2-74)  
TIER II ENGINE**



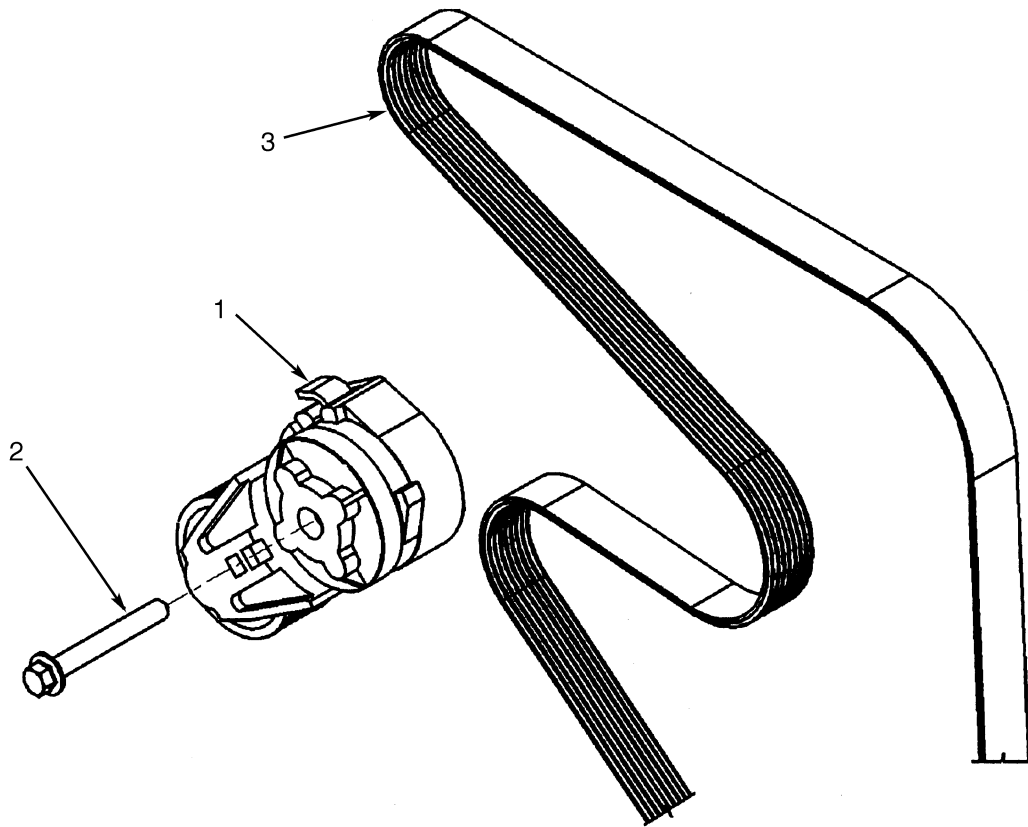
HP090917

ITEM	PART NO.	DESCRIPTION	QTY
a b	1499323	Engine Assy-Diesel .....	1
c	1532627	Engine Assy-Diesel .....	1
d	1607649	Engine Assy-Diesel .....	1
e	1633033	Engine Assy-Diesel (Certified) .....	1
1	1521975	Kit-Repair Water Pump (Includes Water Pump and Sealing Ring) .....	1
2	1512322	Sealing Ring .....	1
3	1512323	Screw .....	2

**FOOTNOTES:**

- |   |   |   |                   |
|---|---|---|-------------------|
| a | S/N A214E01843Z ↔ S/N A214E01950A (FLT) | d | S/N A214E02181C → |
| b | S/N A214E01849Z ↔ S/N A214E01950A (ECH) | e | S/N A214E02283D → |
| c | S/N A214E01951A ↔ S/N A214E02180C       |   |                   |

## TENSIONER (FIGURE 2-75) TIER II ENGINE



HP090918

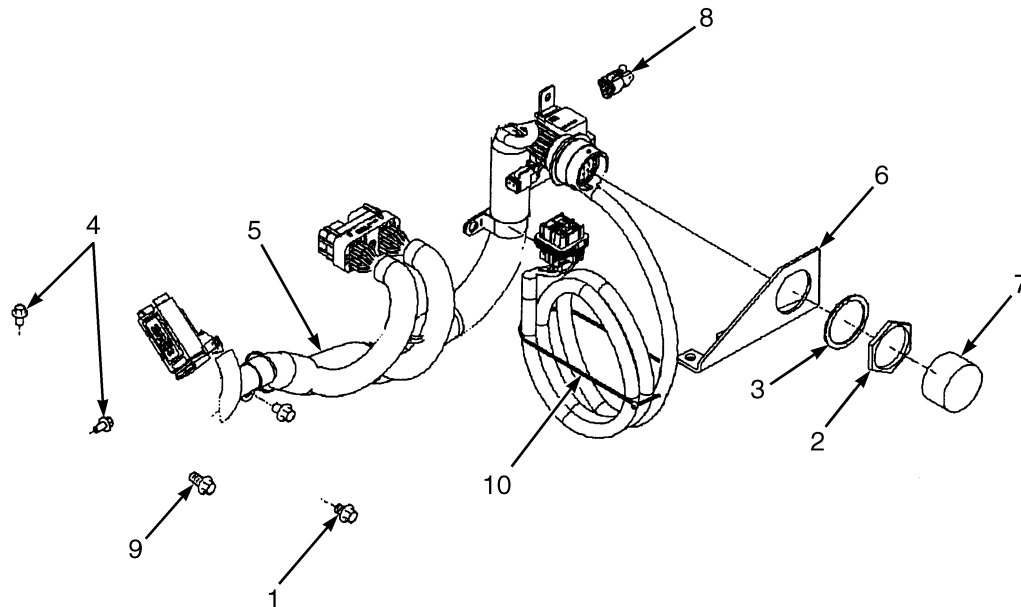
ITEM	PART NO.	DESCRIPTION	QTY
	<b>b c</b> 1499323	Engine Assy-Diesel .....	1
	<b>d</b> 1532627	Engine Assy-Diesel .....	1
	<b>f</b> 1607649	Engine Assy-Diesel .....	1
	<b>g</b> 1633033	Engine Assy-Diesel (Certified) .....	1
1	1673978	Belt Tensioner .....	1
2	1514360	Capscrew .....	1
3	<b>a</b> 1524616	V-Belt (For Cooling Fan, Water Pump and Alternator) .....	1
3	<b>e</b> 1584938	V-Belt (For Cooling Fan, Water Pump and Alternator) .....	1

### FOOTNOTES:

- |  |                            |
|--|----------------------------|
| <b>a</b> → S/N A214E01950A                       | <b>e</b> S/N A214E01951A → |
| <b>b</b> S/N A214E01843Z ↔ S/N A214E01950A (FLT) | <b>f</b> S/N A214E02181C → |
| <b>c</b> S/N A214E01849Z ↔ S/N A214E01950A (ECH) | <b>g</b> S/N A214E02283D → |
| <b>d</b> S/N A214E01951A ↔ S/N A214E02180C       |                            |



**WIRING ACCESSORIES (FIGURE 2-76)  
TIER II ENGINE**



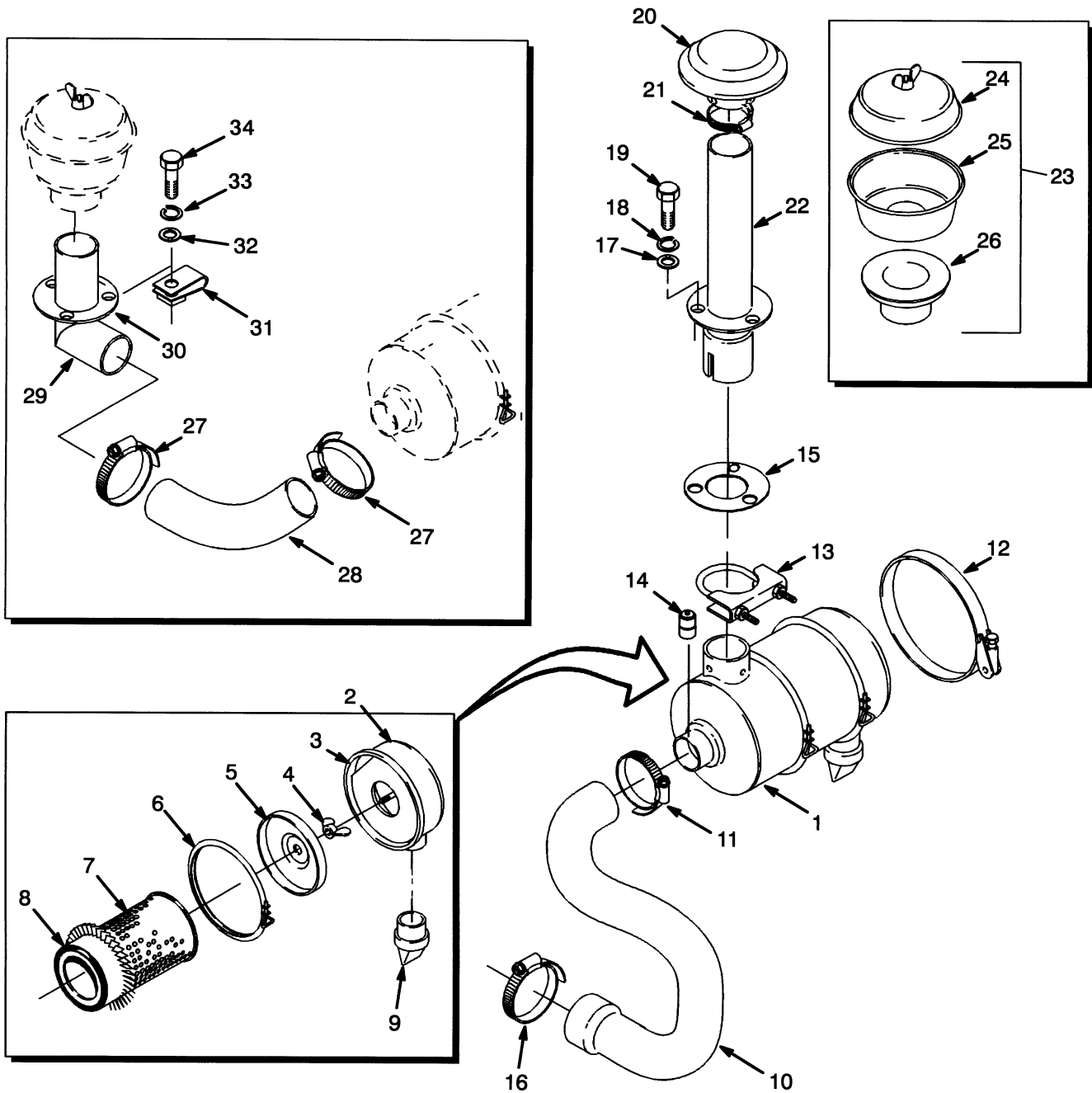
HP090919

ITEM	PART NO.	DESCRIPTION	QTY
a b	1499323	Engine Assy-Diesel .....	1
c	1532627	Engine Assy-Diesel .....	1
e	1607649	Engine Assy-Diesel .....	1
f	1633033	Engine Assy-Diesel (Certified) .....	1
1	1517266	Capscrew .....	5
2	1515694	Nut .....	1
3	1517299	Lockwasher .....	1
4	1512097	Capscrew .....	3
5	1553991	Wire Harness .....	1
6	1521980	Bracket .....	1
7	1521981	Cover (Protective) .....	1
8	1521982	Cover (Protective) .....	1
9	1513789	Capscrew .....	2
10	d 1584939	Strap Clamp .....	1

**FOOTNOTES:**

- |   |   |   |                   |
|---|---|---|-------------------|
| a | S/N A214E01843Z ↔ S/N A214E01950A (FLT) | d | S/N A214E01951A → |
| b | S/N A214E01849Z ↔ S/N A214E01950A (ECH) | e | S/N A214E02181C → |
| c | S/N A214E01951A ↔ S/N A214E02180C       | f | S/N A214E02283D → |

## AIR FILTER (FIGURE 2-77) TIER I ENGINE



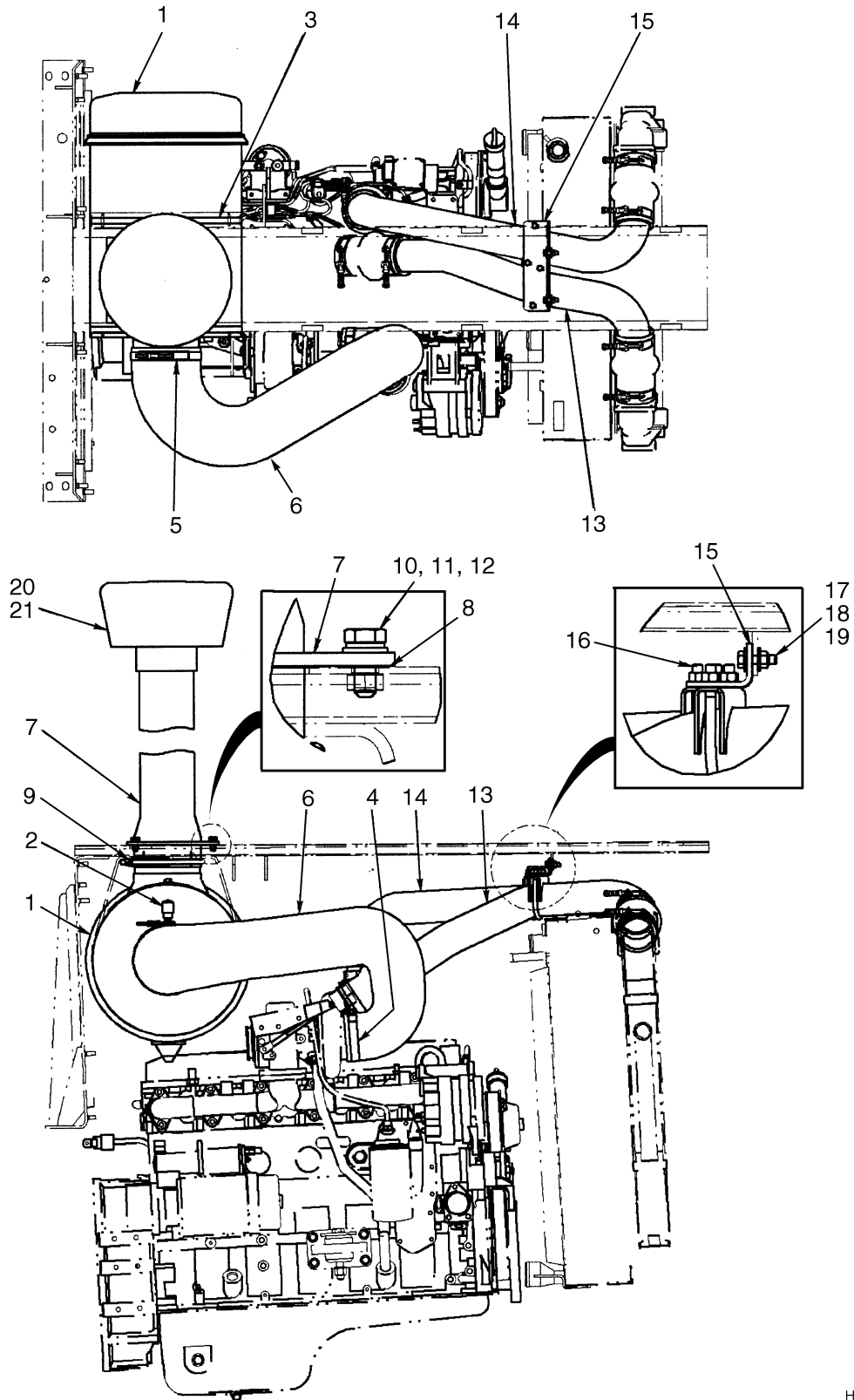
HP09041

**AIR FILTER  
TIER I ENGINE****KEY:****A: Empty Container Handler****B: Fork Lift Truck**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1373556	Air Filter .....	1	1
2	214339	Cap .....	1	1
3	151554	O-Ring .....	1	1
4	252793	Nut .....	1	1
5	168371	Baffle .....	1	1
6	151551	Clamp .....	1	1
7	1373551	Filter Element (Standard) .....	1	1
8	1373553	Filter Element .....	1	1
9	141276	Boot .....	1	1
10	1373285	Hose .....	..	1
10	1373448	Hose .....	1	..
11	<b>a</b> 1382393	Clamp .....	1	1
11	<b>b</b> 1507395	Clamp .....	1	1
12	1373446	Hose Clamp .....	1	1
13	1373437	Clamp .....	..	1
14	156478	Air Restriction Indicator .....	1	1
15	1301535	Shim .....	..	1
16	<b>a</b> 1390722	Clamp .....	1	1
16	<b>b</b> 1507394	Clamp .....	1	1
17	320159	Washer .....	..	3
18	<del>388049</del> 292682	Lockwasher .....	..	3
19	287854	Capscrew .....	..	3
20	145824	Hood (Without Pre-Filter) .....	1	1
21	227220	Clamp .....	..	1
22	1373292	Exhaust Pipe .....	..	1
23	196959	Pre-Cleaner (Bowl Type) .....	1	1
24	147983	Cover .....	1	1
25	147985	Body .....	1	1
26	214336	Sleeve .....	1	1
27	227221	Clamp .....	2	..
28	1373566	Hose .....	1	..
29	1373563	Adapter .....	1	..
30	1384676	Ring .....	1	..
31	1385535	Nut , Clip Nut .....	3	..
32	320158	Washer .....	3	..
33	292681	Lockwasher .....	3	..
34	136749	Screw .....	3	..

**FOOTNOTES:****a** → S/N A214E01807**b** S/N A214E01808 →

## AIR FILTER (FIGURE 2-78) FORK LIFT TRUCK — TIER II ENGINE (S/N A214E01843Z →)

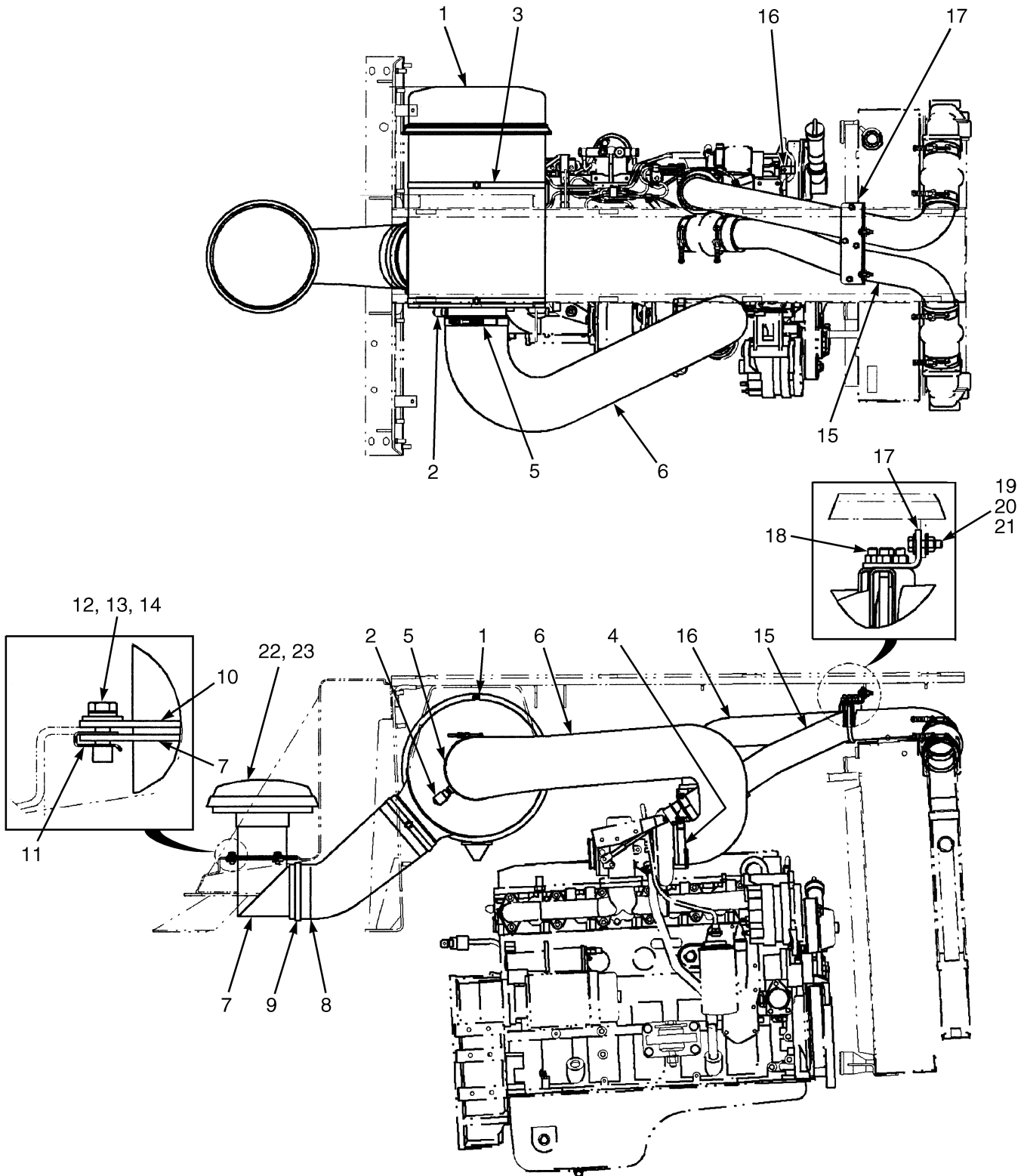


HP090867

**AIR FILTER**  
**FORK LIFT TRUCK – TIER II ENGINE (S/N A214E01843Z →)**

ITEM	PART NO.	DESCRIPTION	QTY
1	1373556	Air Filter (☞Figure 2-80).....	1
2	156478	Air Restriction Indicator .....	1
3	1373446	Hose Clamp .....	2
4	1512814	Clamp .....	1
5	1507395	Clamp .....	1
6	1373285	Hose .....	1
7	1373292	Exhaust Pipe .....	1
8	1301535	Shim .....	1
9	1373437	Clamp .....	1
10	287854	Capscrew .....	3
11	320159	Washer .....	3
12	<del>388049</del> 292682	Lockwasher .....	3
13	1507260	Tube .....	1
14	1507253	Tube .....	1
15	1511704	Bracket .....	1
16	321113	Clamp .....	2
17	320158	Washer .....	4
18	302400	Nut .....	2
19	176640	Bolt .....	2
20	145824	Hood .....	1
21	196959	Pre-Cleaner (Bowl Type) (☞Figure 2-81).....	1

## AIR FILTER (FIGURE 2-79) EMPTY CONTAINER HANDLER — TIER II ENGINE (S/N A214E01849Z →)

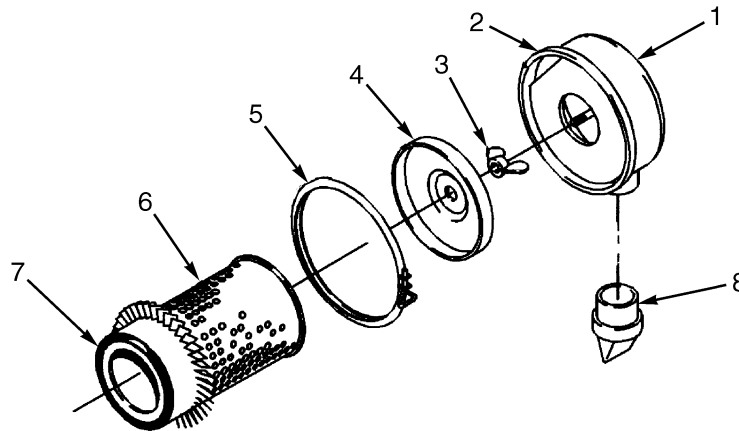


HP090864

**AIR FILTER**  
**EMPTY CONTAINER HANDLER – TIER II ENGINE (S/N A214E01849Z →)**

ITEM	PART NO.	DESCRIPTION	QTY
1	1373556	Air Filter (☞Figure 2-80).....	1
2	156478	Air Restriction Indicator .....	1
3	1373446	Hose Clamp .....	2
4	1512814	Clamp .....	1
5	1507395	Clamp .....	1
6	1373448	Hose .....	1
7	1373563	Adapter .....	1
8	1373566	Hose .....	1
9	227221	Clamp .....	2
10	1384676	Ring .....	1
11	1385535	Nut , Clip Nut .....	3
12	136749	Screw .....	3
13	292681	Lockwasher .....	3
14	320158	Washer .....	3
15	1507260	Tube .....	1
16	1507253	Tube .....	1
17	1511704	Bracket .....	1
18	321113	Clamp .....	2
19	320158	Washer .....	4
20	302400	Nut .....	2
21	176640	Bolt .....	2
22	145824	Hood .....	1
23	196959	Pre-Cleaner (Bowl Type) (☞Figure 2-81).....	1

## AIR FILTER ASSEMBLY (FIGURE 2-80)

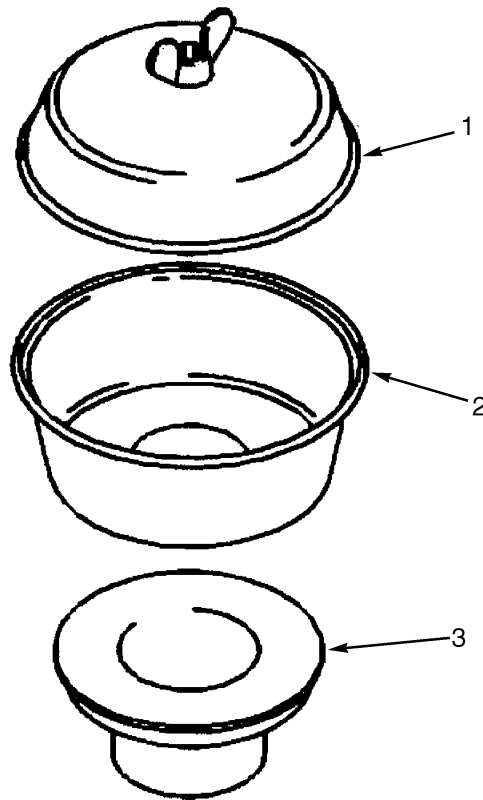


HP090865

ITEM	PART NO.	DESCRIPTION	QTY
	1373556	Air Filter .....	1
1	214339	Cap .....	1
2	151554	O-Ring .....	1
3	252793	Nut .....	1
4	168371	Baffle .....	1
5	151551	Clamp .....	1
6	1373552	Filter Element (Primary) .....	1
7	1373553	Filter Element (Safety) .....	1
8	141276	Boot .....	1



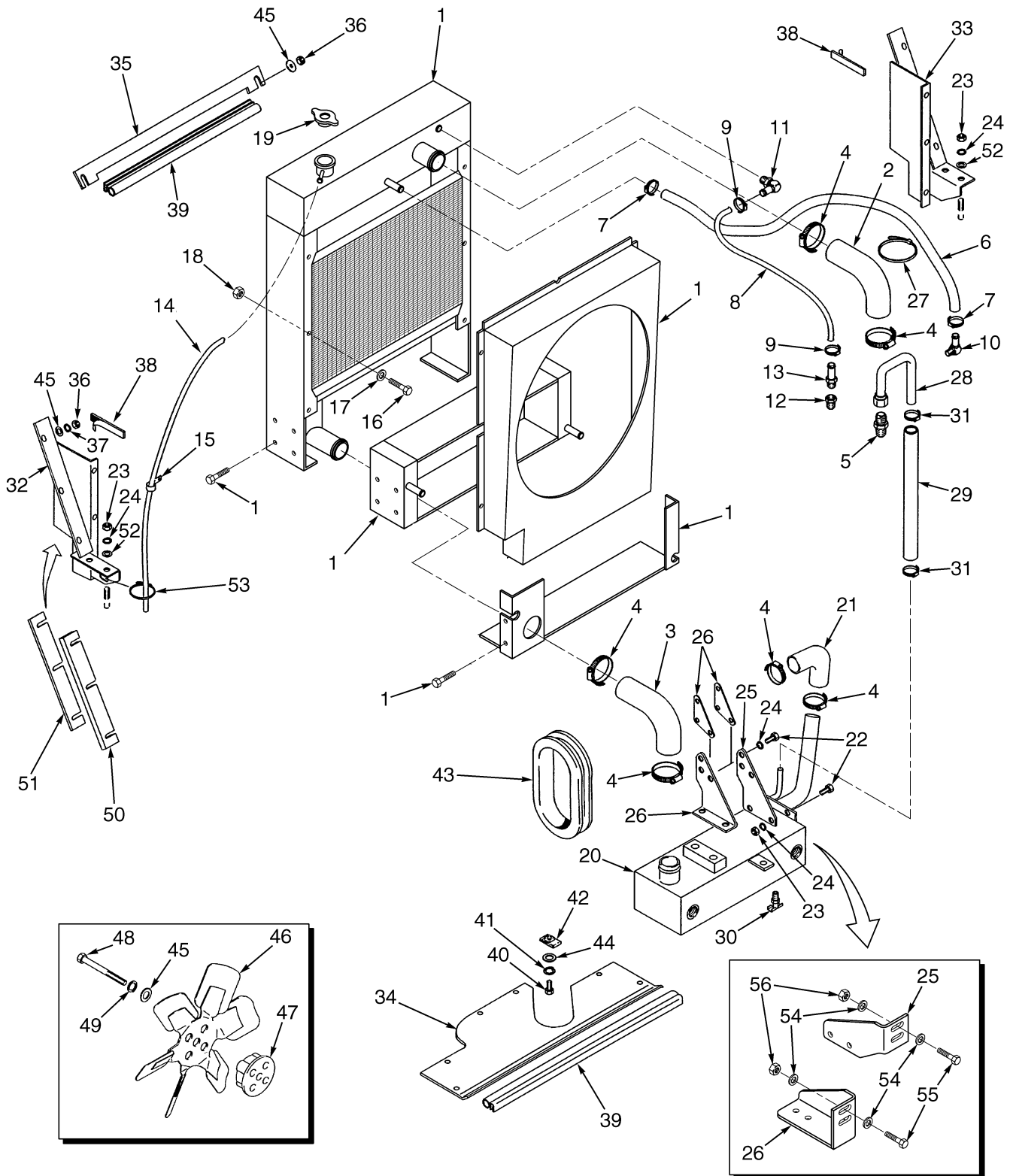
**PRE-CLEANER ASSEMBLY (FIGURE 2-81)**



HP090866

ITEM	PART NO.	DESCRIPTION	QTY
	196959	Pre-Cleaner (Bowl Type) .....	1
1	147983	Cover .....	1
2	147985	Body .....	1
3	214336	Sleeve .....	1

## COOLING (FIGURE 2-82) TIER I ENGINE



HP060003

**COOLING  
TIER I ENGINE****KEY:****A: Empty Container Handler****B: Fork Lift Truck**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1384681	Radiator .....	1	1
1	1393166	Oil cooler .....	1	1
1	1393157	Shroud .....	1	1
1	1393158	Bolt .....	16	16
1	1393159	Frame (Bottom) .....	1	1
2	1373452	Radiator Hose .....	1	1
3	1385561	Radiator Hose .....	1	1
4	112989	Hose Clamp .....	4	4
5	14682	Fitting .....	1	1
6	127238	Hose .....	1	1
7	130845	Clamp .....	4	4
8	323549	Hose .....	1	1
9	168718	Clamp .....	2	2
10	201800	Fitting .....	1	1
11	17215	Fitting .....	1	1
12	69815	Fitting .....	1	1
13	17215	Fitting .....	1	1
14	369801	Hose .....	1	1
15	118807	Clamp .....	3	2
16	287854	Capscrew .....	6	6
17	320159	Washer .....	8	8
18	<del>4586693</del> 136692	Nut .....	8	8
19	119055	Radiator Cap .....	1	1
20	1384682	Oil Cooler .....	1	1
21	1385560	Radiator Hose .....	1	1
22	<b>b</b> 132860	Capscrew .....	10	10
22	<b>d</b> 132860	Capscrew .....	4	4
23	<del>4318944</del> 216877	Nut .....	2	6
24	<b>b</b> 292683	Lockwasher .....	10	14
24	<b>d</b> 292683	Lockwasher .....	4	4
25	<b>b</b> 1385552	Bracket (LH) .....	1	1
25	<b>d</b> 1480334	Bracket (LH) .....	1	1
26	<b>a</b> 1384695	Bracket (RH) .....	1	1
26	<b>c</b> 1462536	Bracket (RH) .....	1	1
26	<b>b</b> 1462572	Spacer .....	2	2
26	<b>d</b> 1480333	Bracket .....	1	1
27	273775	Strap Clamp .....	1	1
28	1384536	Tube Assy .....	1	1
29	287136	Hose .....	1	1
30	12815	Drain Valve (Drain) .....	1	1
31	119236	Clamp .....	2	2
32	1393895	Bracket (LH) .....	1	1
32	1453780	Bracket (LH) .....	1	1

## COOLING TIER I ENGINE

**KEY:**

**A:** Empty Container Handler

**B:** Fork Lift Truck

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
33	1393894	Bracket (RH) .....	1	1
33	1453781	Bracket (RH) .....	1	1
34	1391900	Plate .....	1	..
35	1452941	Baffle .....	..	1
35	1453734	Baffle .....	1	..
36	<del>1586693</del> 136692	Nut .....	6	..
37	320159	Washer .....	6	..
38	1384691	Foam Tape .....	4	2
39	300088	Seal (Door) .....	AR	AR
40	136749	Screw .....	6	..
41	320157	Washer .....	6	..
42	1384661	Nut .....	6	..
43	1382850	Trim .....	2	..
44	292681	Lockwasher .....	6	..
45	<del>388049</del> 292682	Lockwasher .....	6	..
46	1367342	Fan (Puller Fan) .....	1	1
46	1385551	Fan (Pusher Fan) .....	..	1
47	1373269	Spacer (Pusher Fan) .....	..	1
47	1393844	Spacer (Puller Fan) .....	1	1
48	292517	Capscrew (Pusher Fan) .....	..	4
48	292524	Capscrew (Puller Fan) .....	4	4
49	296420	Washer .....	4	4
50	1453566	Spacer .....	AR	..
51	1453567	Spacer .....	AR	..
52	296423	Washer .....	..	4
53	137852	Strap Clamp .....	..	1
54	320159	Washer .....	8	8
55	292515	Capscrew .....	4	4
56	302401	Locknut .....	4	4
	1480453	Kit-Bracket .....	1	1

**FOOTNOTES:**

**a** → S/N A214E01615

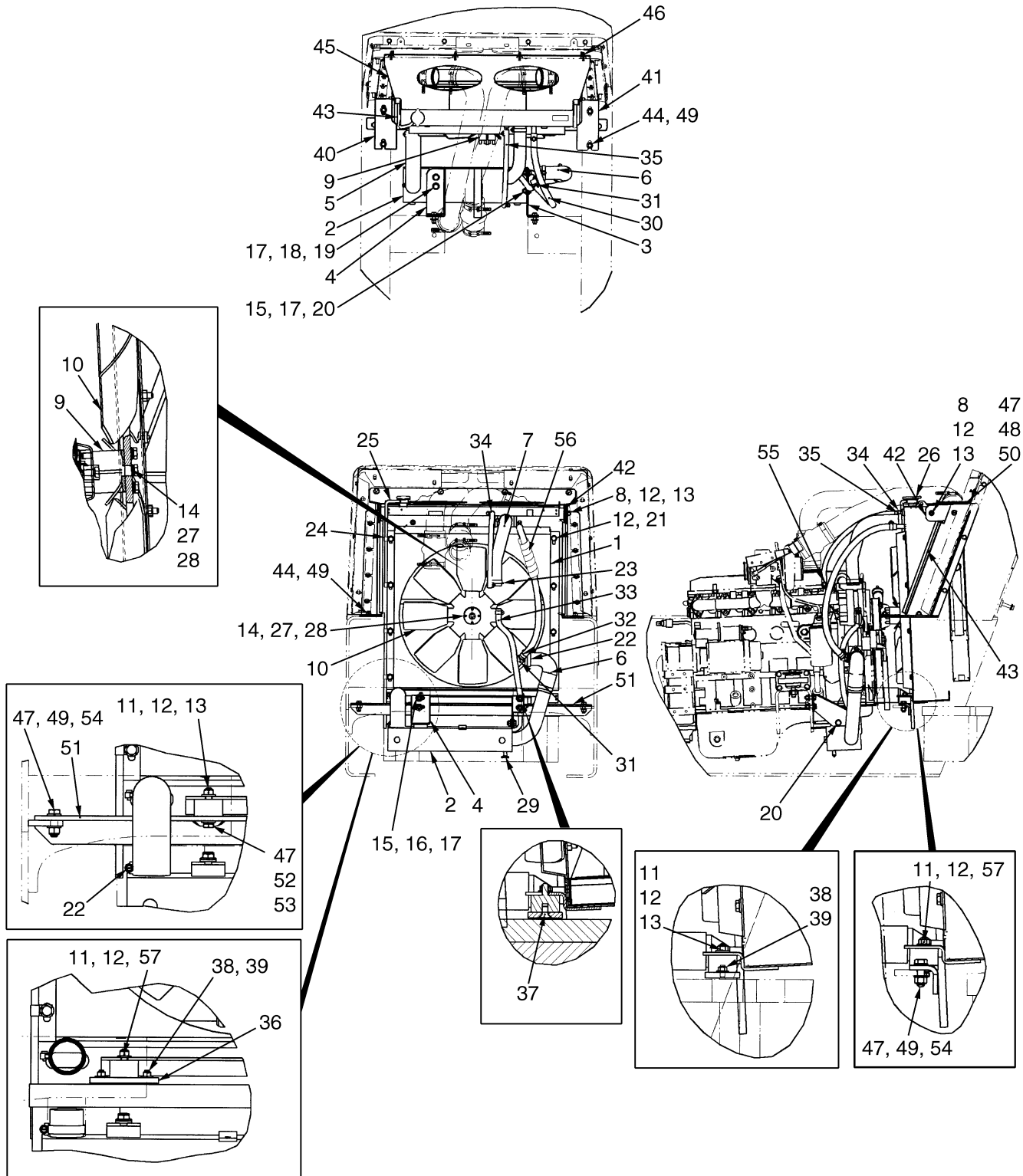
**b** → S/N A214E01721

**c** S/N A214E01616 ↔ S/N A214E01721

**d** S/N A214E01722 →



## COOLING (FIGURE 2-83) FORK LIFT TRUCK — TIER II ENGINE (S/N A214E01843Z →)



HP060012

**COOLING**  
**FORK LIFT TRUCK – TIER II ENGINE (S/N A214E01843Z →)**

ITEM	PART NO.	DESCRIPTION	QTY
1	1504860	Radiator .....	1
2	1384682	Oil Cooler .....	1
3	1480334	Bracket .....	1
4	1480333	Bracket .....	1
5	1507412	Radiator Hose .....	1
6	1516751	Radiator Hose .....	1
7	1507416	Radiator Hose .....	1
8	1509988	Isolator .....	1
9	1393844	Spacer .....	1
10	1510388	Fan (Puller) .....	1
11	1514238	Isolator .....	2
12	320160	Washer .....	12
13	302401	Locknut .....	4
14	<del>388049</del>		
	292682	Lockwasher .....	4
15	302402	Locknut .....	6
16	246001	Capscrew .....	4
17	320162	Washer .....	14
18	292683	Lockwasher .....	2
19	132860	Capscrew .....	2
20	292527	Capscrew .....	2
21	136985	Capscrew .....	8
22	112989	Hose Clamp .....	4
23	119236	Clamp .....	2
24	118807	Clamp .....	4
25	369801	Hose .....	1
26	119055	Radiator Cap .....	1
27	296420	Washer .....	4
28	292524	Capscrew .....	4
29	12815	Drain Valve (Drain) .....	1
30	114268	Hose .....	1
31	16163	Fitting .....	1
32	130845	Clamp .....	6
33	154594	Hose .....	1
34	17352	Fitting .....	1
35	164289	Hose .....	1
36	<b>a</b> 1514436	Plate .....	2
37	<b>a</b> 296238	Capscrew .....	2
38	<b>a</b> 320158	Washer .....	4
39	<b>a</b> 302400	Nut .....	4
40	1516870	Bracket .....	1
41	1516871	Bracket .....	1
42	1517485	Plate .....	2
43	1517563	Trim Seal .....	2
44	296423	Washer .....	4
45	1517566	Seal .....	1
46	1484308	Rivet .....	4
47	320160	Washer .....	4
48	302401	Locknut .....	2
49	302402	Locknut .....	4

## COOLING

### FORK LIFT TRUCK – TIER II ENGINE (S/N A214E01843Z →)

ITEM	PART NO.	DESCRIPTION	QTY
50	136985	Capscrew .....	2
51	<b>b</b> 1510553	Plate .....	1
52	<b>b</b> 388049		
	292682	Lockwasher .....	2
53	<b>b</b> 292514	Capscrew .....	2
54	<b>b</b> 246001	Capscrew .....	2
55	166857	Clamp .....	2
56	316596	Sleeve (Coil) .....	1
57	1460477	Nut .....	2

#### FOOTNOTES:

**a** H14.00-16.00XM

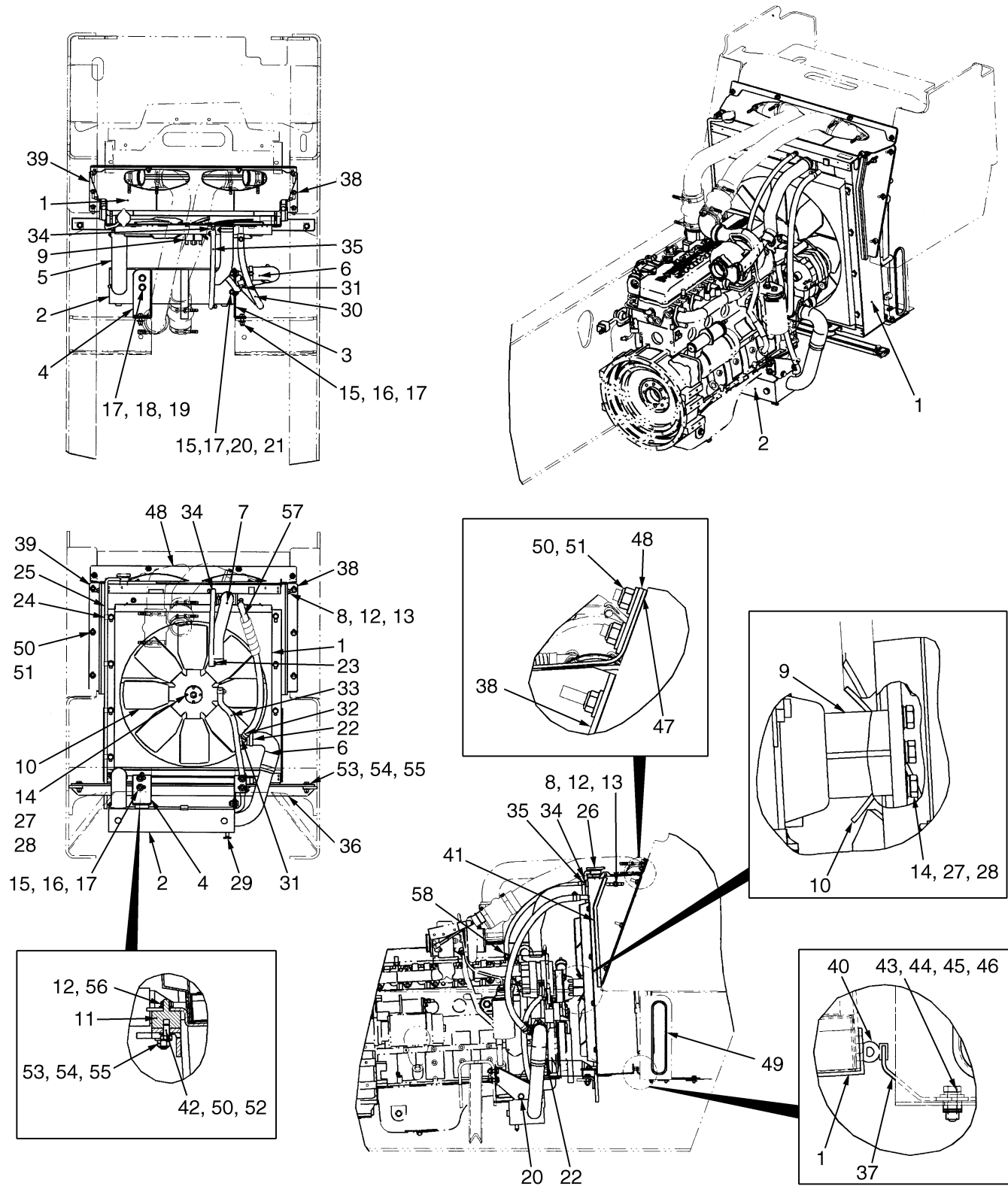
**b** H18.00-20.00XM



**NOTES**

Lined area for notes, consisting of multiple horizontal lines.

## COOLING (FIGURE 2-84) EMPTY CONTAINER HANDLER — TIER II ENGINE (S/N A214E01849Z →)



HP060013

**COOLING**  
**EMPTY CONTAINER HANDLER – TIER II ENGINE (S/N A214E01849Z →)**

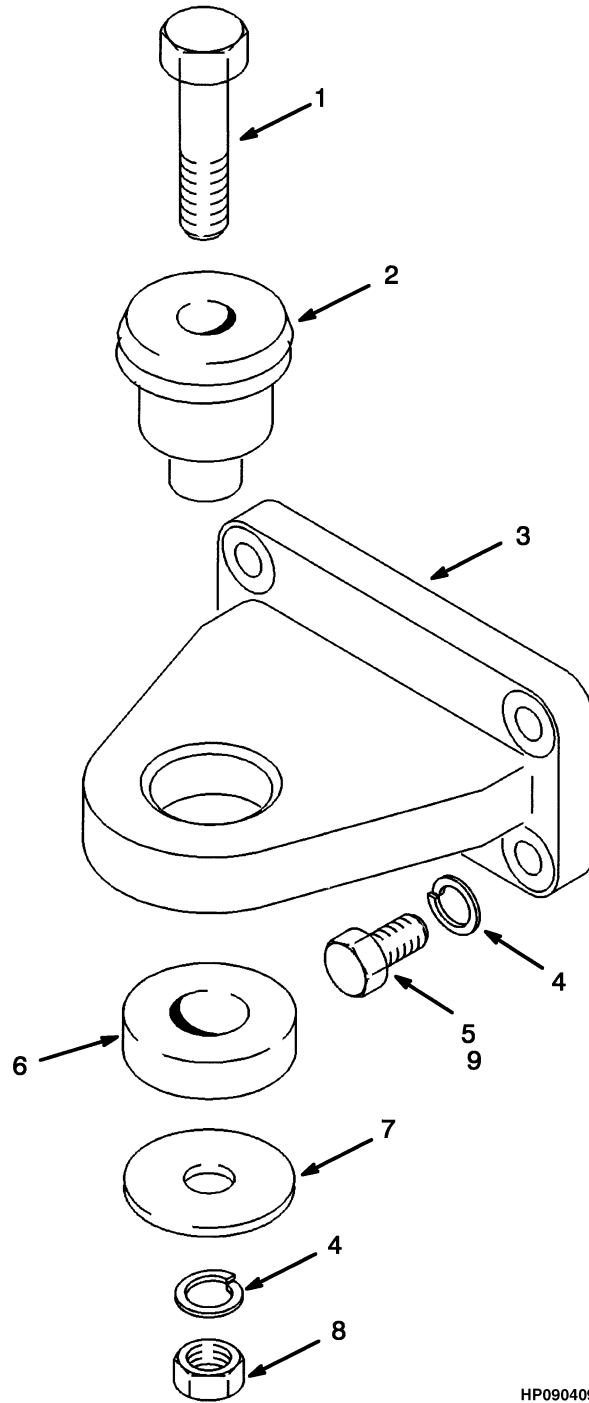
ITEM	PART NO.	DESCRIPTION	QTY
1	1504860	Radiator .....	1
2	1384682	Oil Cooler (Transmission) .....	1
3	1480334	Bracket .....	1
4	1480333	Bracket .....	1
5	1507412	Radiator Hose .....	1
6	1516751	Radiator Hose .....	1
7	1507416	Radiator Hose .....	1
8	1509988	Isolator .....	1
9	1393844	Spacer .....	1
10	1510388	Fan (Puller) .....	1
11	1514238	Isolator .....	2
12	320160	Washer .....	12
13	302401	Locknut .....	4
14	<del>388049</del> 292682	Lockwasher .....	4
15	302402	Locknut .....	6
16	246001	Capscrew .....	4
17	320162	Washer .....	14
18	292683	Lockwasher .....	2
19	132860	Capscrew .....	2
20	292527	Capscrew .....	2
21	136985	Capscrew .....	8
22	112989	Hose Clamp .....	4
23	119236	Clamp .....	2
24	118807	Clamp .....	4
25	369801	Hose .....	1
26	119055	Radiator Cap .....	1
27	296420	Washer .....	4
28	292524	Capscrew .....	4
29	12815	Drain Valve (Drain) .....	1
30	114268	Hose .....	1
31	16163	Fitting .....	1
32	130845	Clamp .....	6
33	154594	Hose .....	1
34	17352	Fitting .....	1
35	164289	Hose .....	1
36	1510553	Plate .....	1
37	1512466	Plate .....	1
38	1508583	Bracket (LH) .....	1
39	1508584	Bracket (RH) .....	1
40	1512467	Trim Seal .....	1
41	1517678	Trim Seal .....	2
42	292514	Capscrew .....	2
43	1384661	Nut .....	6
44	320158	Washer .....	6
45	292681	Lockwasher .....	6
46	136749	Screw .....	6
47	1517638	Seal .....	1
48	1517674	Plate .....	1
49	1517589	Edge Protector .....	2

**COOLING**  
**EMPTY CONTAINER HANDLER – TIER II ENGINE (S/N A214E01849Z →)**

<b>ITEM</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY</b>
50	320160	Washer .....	12
51	302401	Locknut .....	10
52	388049		
	292682	Lockwasher .....	2
53	302402	Locknut .....	2
54	246001	Capscrew .....	2
55	320162	Washer .....	4
56	1460477	Nut .....	2
57	316596	Sleeve (Coil) .....	1
58	166857	Clamp .....	2



## ENGINE MOUNT (FIGURE 2-85)

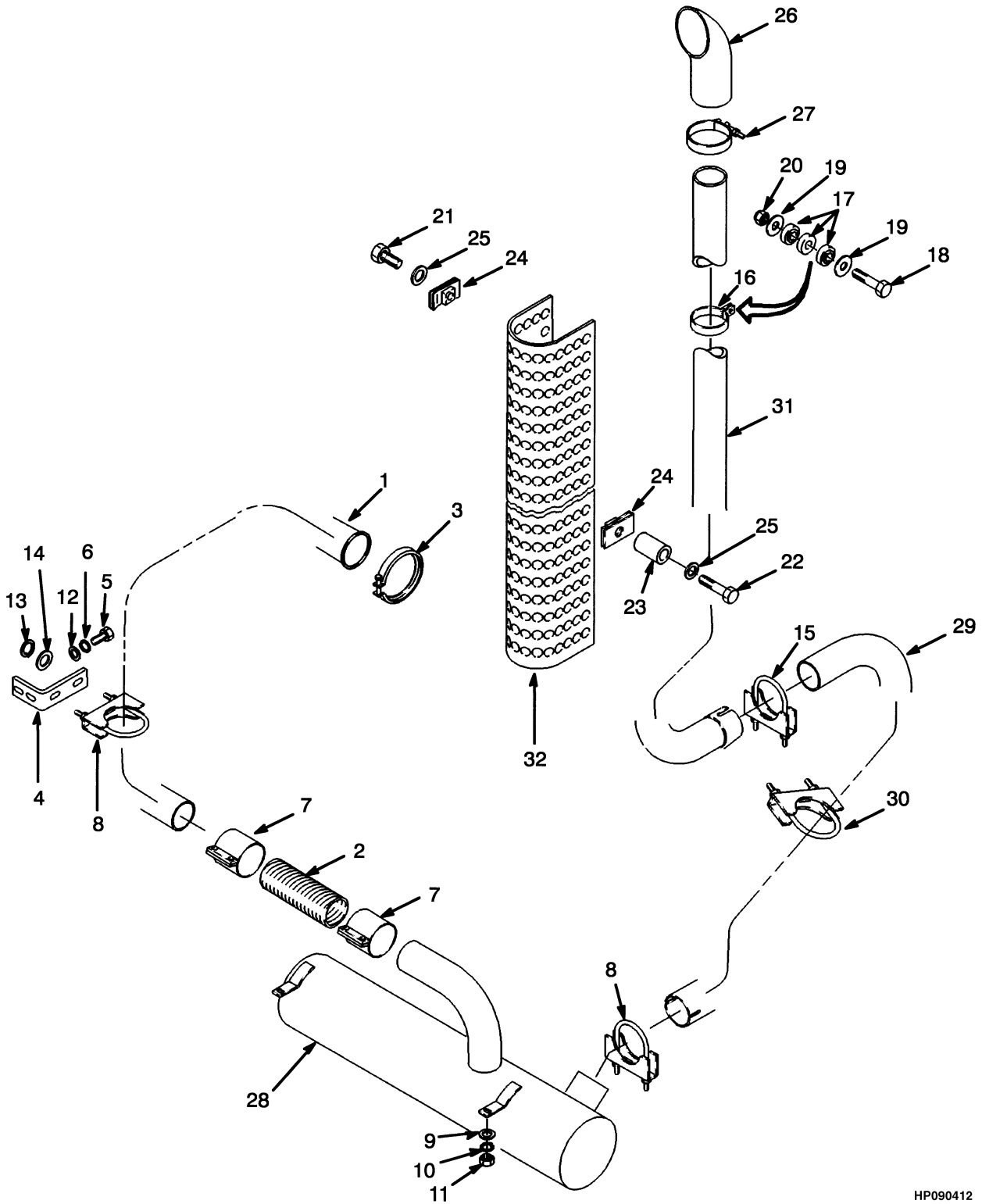


HP090409

**ENGINE MOUNT**

<b>ITEM</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY</b>
1	292572	Capscrew .....	2
2	1464454	Isolator .....	2
3	1373274	Mount .....	2
4	296422	Washer .....	8
5	1464456	Capscrew .....	8
6	1302938	Washer .....	2
7	296426	Washer .....	2
8	316828	Nut .....	2
9	383789	Thread Sealant .....	AR

## EXHAUST (FIGURE 2-86) EMPTY CONTAINER HANDLER — TIER I ENGINE



HP090412

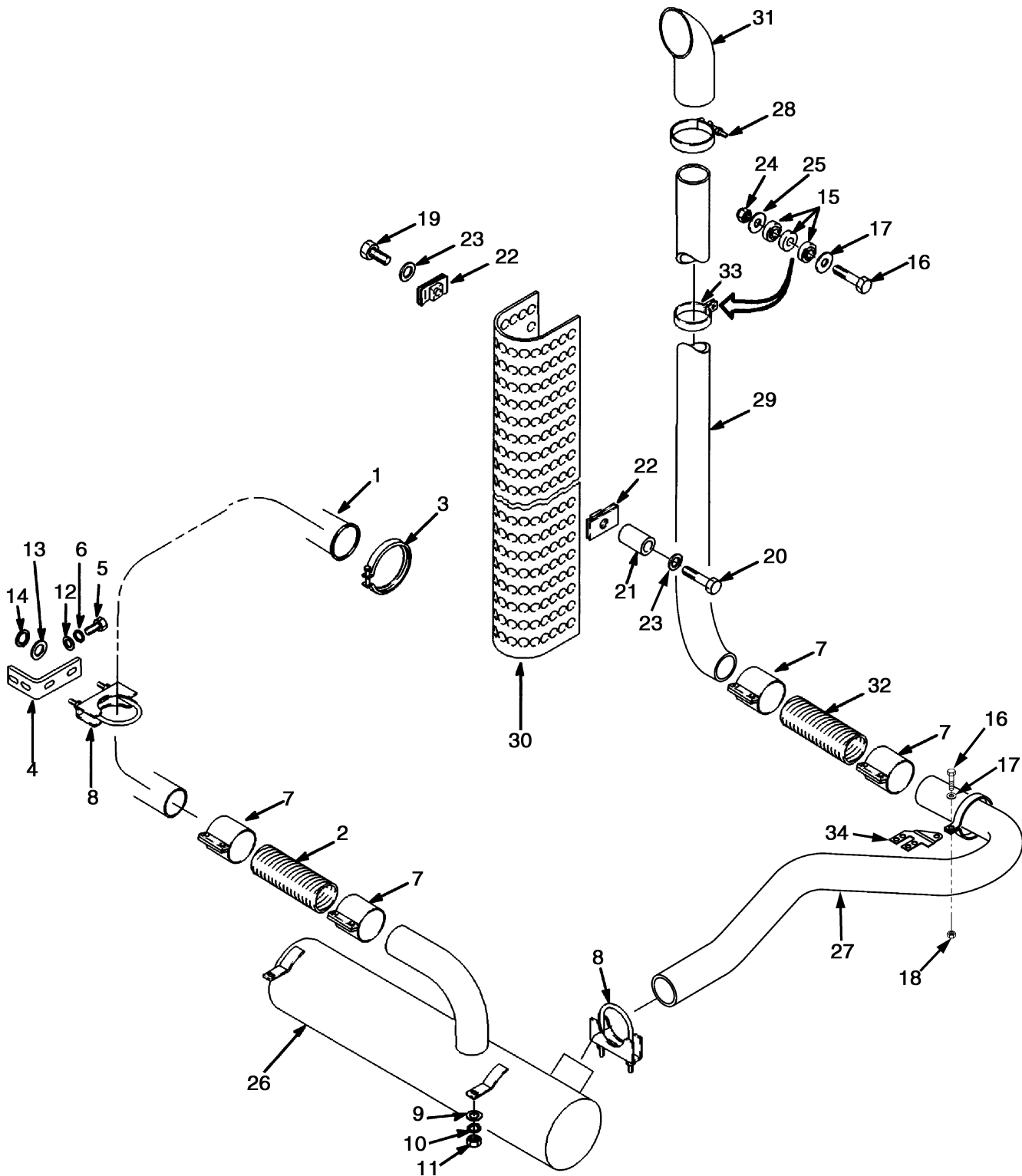


**EXHAUST**  
**EMPTY CONTAINER HANDLER – TIER I ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
1	1373438	Exhaust Pipe .....	1
2	1331909	Flex Tube .....	1
3	1373430	Clamp .....	1
4	1373436	Bracket .....	1
5	292526	Capscrew .....	2
6	292683	Lockwasher .....	2
7	1322010	Clamp .....	2
8	1391427	Clamp .....	2
9	<b>a</b> 320159	Washer .....	2
9	<b>b</b> 320160	Washer .....	2
10	<del>388049</del>		
	292682	Lockwasher .....	2
11	<del>1586693</del>		
	136692	Nut .....	2
12	320162	Washer .....	2
13	15134	Washer .....	2
14	15156	Lockwasher .....	2
15	132801	Clamp .....	1
16	1373431	Clamp .....	2
17	223216	Bushing .....	6
18	16376	Capscrew .....	2
19	15176	Washer .....	4
20	145641	Locknut (Prevailing Torque) .....	2
21	16374	Capscrew .....	2
22	16835	Capscrew .....	1
23	116091	Tube .....	1
24	376397	Retainer .....	3
25	18515	Washer .....	3
26	1384546	Tube .....	1
27	1384547	Clamp .....	1
28	<b>a</b> 1385547	Muffler .....	1
28	<b>b</b> 1462198	Muffler .....	1
29	1382389	Exhaust Pipe (Low) (5 High) .....	1
29	1458892	Exhaust Pipe (High) (6 High) .....	1
30	131878	Clamp .....	1
31	1373435	Exhaust Pipe .....	1
32	1382386	Shield .....	1

**FOOTNOTES:****a** → S/N A214E01672**b** S/N A214E01673 →

## EXHAUST (FIGURE 2-87) EMPTY CONTAINER HANDLER — TIER II ENGINE

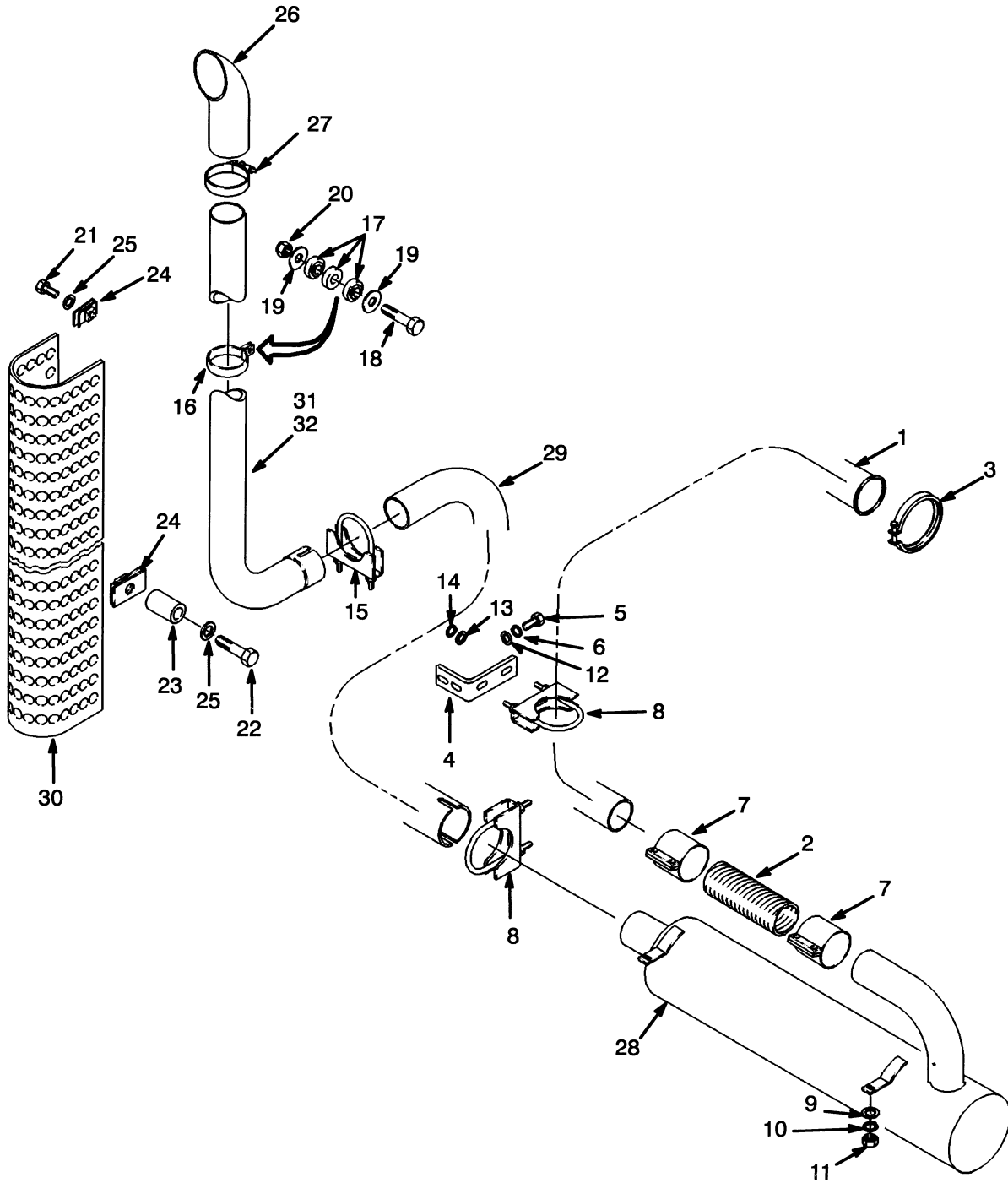


HP091025

**EXHAUST  
EMPTY CONTAINER HANDLER – TIER II ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
1	1526357	Exhaust Pipe .....	1
2	1331909	Flex Tube .....	1
3	1373430	Clamp .....	1
4	1373436	Bracket .....	1
5	292526	Capscrew .....	2
6	292683	Lockwasher .....	2
7	1322010	Clamp .....	4
8	1391427	Clamp .....	2
9	320160	Washer .....	2
10	<del>388049</del>		
	292682	Lockwasher .....	2
11	<del>1586693</del>		
	136692	Nut .....	2
12	320162	Washer .....	2
13	15134	Washer .....	2
14	15156	Lockwasher .....	2
15	223216	Bushing .....	4
16	197858	Screw .....	3
17	15134	Washer .....	3
18	145641	Locknut (Prevailing Torque) .....	3
19	16374	Capscrew .....	3
20	16835	Capscrew .....	1
21	116091	Tube .....	1
22	376397	Retainer .....	3
23	18515	Washer .....	3
24	15086	Nut .....	3
25	15134	Washer .....	2
26	1462198	Muffler .....	1
27	1527759	Exhaust Pipe .....	1
28	1528352	Clamp .....	1
29	1527760	Exhaust Pipe .....	1
30	1528236	Exhaust Shield .....	1
31	1527761	Tube .....	1
32	1532089	Flex Tube .....	1
33	1527763	Clamp .....	3
34	1532114	Bracket .....	1

## EXHAUST (FIGURE 2-88) FORK LIFT TRUCK



HP090413

**EXHAUST  
FORK LIFT TRUCK**

ITEM	PART NO.	DESCRIPTION	QTY
1	1373438	Exhaust Pipe .....	1
2	1331909	Flex Tube .....	1
3	1373430	Clamp .....	1
4	1373436	Bracket .....	1
5	292526	Capscrew .....	2
6	292683	Lockwasher .....	2
7	1322010	Clamp .....	2
8	1391427	Clamp .....	2
9	320159	Washer .....	2
10	<del>388049</del>		
	292682	Lockwasher .....	2
11	<del>1586693</del>		
	136692	Nut .....	2
12	320162	Washer .....	2
13	15134	Washer .....	2
14	15156	Lockwasher .....	2
15	132801	Clamp .....	1
16	1373431	Clamp .....	2
17	223216	Bushing .....	6
18	16376	Capscrew .....	2
19	15176	Washer .....	4
20	145641	Locknut (Prevailing Torque) .....	2
21	16374	Capscrew .....	1
22	16835	Capscrew .....	1
23	116091	Tube .....	1
24	376397	Retainer .....	3
25	18515	Washer .....	3
26	1455801	Tube (→ 3650 mm Lift Heights) .....	1
26	1384546	Tube (Lift Heights 4500 mm →) .....	1
27	1384547	Clamp .....	1
28	1385548	Muffler .....	1
29	1382358	Exhaust Pipe .....	1
30	1373293	Exhaust Shield .....	1
31	1382359	Exhaust Pipe (Non-Aspirated) .....	1
32	1382390	Pipe (Aspirated) .....	1



**3**

**FUEL SYSTEM**





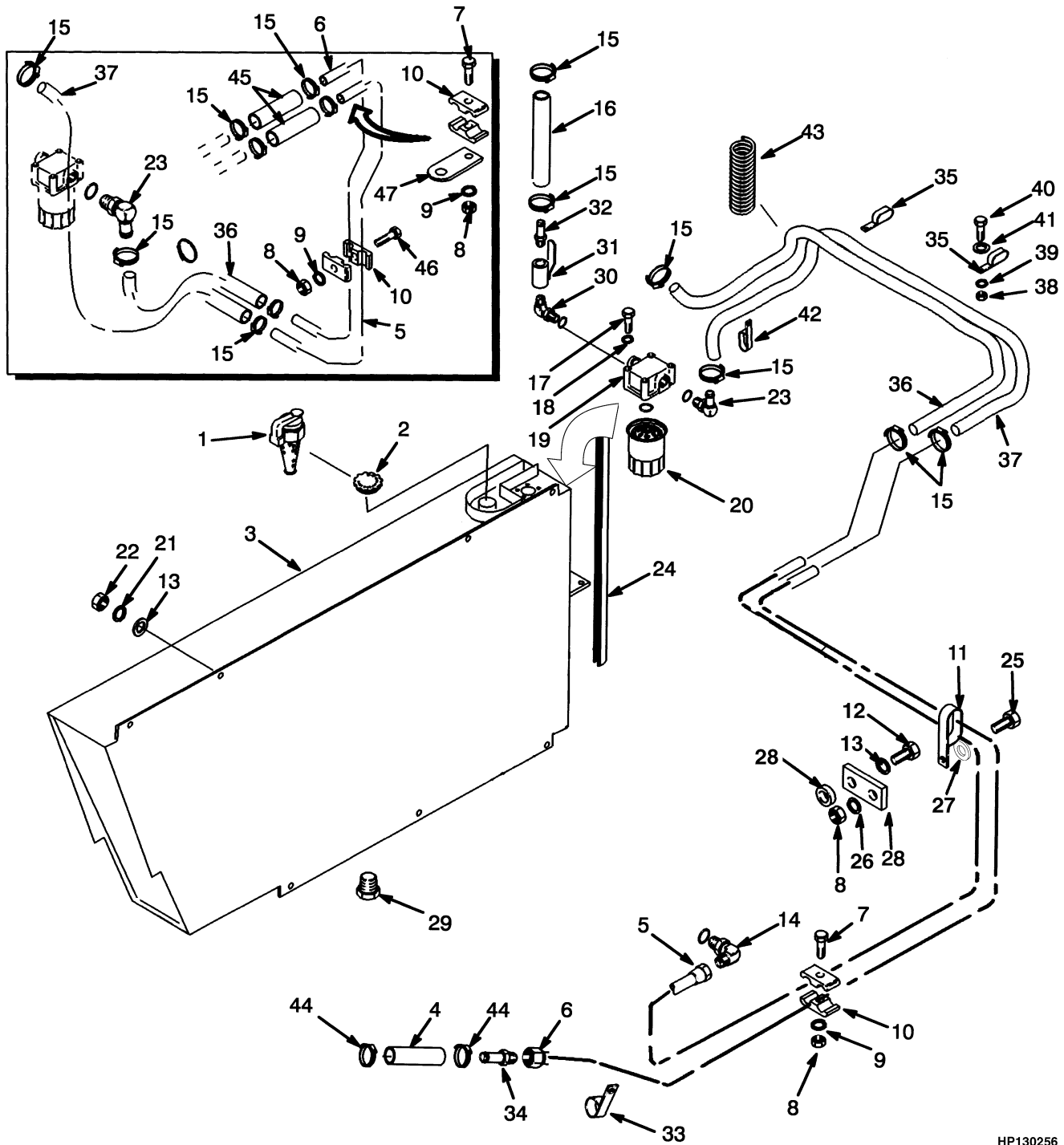
**SECTION 3  
FUEL SYSTEM**

---

<b>DESCRIPTION</b>	<b>PAGE</b>
ELECTRONIC FOOT PEDAL MOUNT	
TIER II ENGINE .....	3-12
FUEL SYSTEM	
TIER I ENGINE .....	3-2
TIER II ENGINE .....	3-6
THROTTLE	
TIER I ENGINE .....	3-8
THROTTLE PEDAL	
TIER I ENGINE (→ 11/2002) .....	3-14
TIER I ENGINE (12/2002 →) .....	3-16

---

## FUEL SYSTEM (FIGURE 3-1) TIER I ENGINE



HP130256

**FUEL SYSTEM  
TIER I ENGINE****KEY:****A: Empty Container Handler****B: Fork Lift Truck**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	63899	Fuel Cap (Locking) .....	1	1
1	311245	Gasket .....	1	1
2	298832	Fuel Cap .....	1	1
3	<b>b c</b> 1373412	Fuel Tank Wldmt .....	..	1
3	<b>d</b> 1489841	Fuel Tank Wldmt .....	..	1
3	<b>f</b> 1515423	Fuel Tank Wldmt .....	..	1
3	<b>b c</b> 1373413	Fuel Tank Wldmt .....	1	..
3	<b>d e</b> 816590	Fuel Tank Wldmt .....	1	..
3	<b>f</b> 1515424	Fuel Tank Wldmt .....	1	..
4	<b>a</b> 1391409	Hose .....	1	1
4	<b>g</b> 1459842	Hose .....	1	1
5	<b>a</b> 1373585	Tube (Supply) .....	..	1
5	1391403	Tube (Supply) .....	1	..
5	<b>g</b> 1459840	Tube (Supply) .....	..	1
6	<b>a</b> 1373586	Tube (Return) .....	..	1
6	<b>g</b> 1459841	Tube (Return) .....	..	1
6	<b>a</b> 1391428	Tube (Return) .....	1	..
6	<b>g</b> 1459839	Tube (Return) .....	1	..
7	292508	Capscrew .....	1	2
8	239503	Nut .....	2	4
9	320157	Washer .....	5	7
10	219302	Clamp .....	2	4
11	176910	Clamp .....	1	1
12	246001	Capscrew .....	4	4
13	292683	Lockwasher .....	5	5
14	42598	Fitting .....	1	1
15	166857	Clamp .....	6	10
16	919724	Hose .....	1	1
17	18535	Capscrew .....	4	4
18	15156	Lockwasher .....	4	4
19	1373415	Filter Head .....	1	1
20	1373416	Filter Element .....	1	1
21	320162	Washer .....	4	4
22	<del>1318914</del> 216877	Nut .....	4	4
23	1373684	Fitting .....	1	1
24	1382023	Seal .....	1	1
25	136681	Capscrew .....	1	1
26	292681	Lockwasher .....	1	1
27	296419	Washer .....	3	3
28	1373795	Plate .....	1	1
28	1373791	Spacer .....	1	1
29	14388	Fitting .....	1	1
29	1383897	Fitting (Optional) .....	1	1
30	1383897	Fitting .....	1	1

## FUEL SYSTEM TIER I ENGINE

**KEY:**

**A:** Empty Container Handler

**B:** Fork Lift Truck

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
31	1384669	Shutoff Valve .....	1	1
32	222473	Fitting .....	1	1
33	1479453	Clamp .....	1	1
34	1391408	Fitting .....	1	1
35	129684	Clamp .....	2	..
36	111056	Hose .....	1	..
36	1452699	Hose .....	..	1
37	<b>g</b> 1375232	Hose .....	..	1
37	141850	Hose .....	1	..
37	<b>a</b> 1452700	Hose .....	..	1
38	<del>1586693</del> 136692	Nut .....	1	..
39	<del>388049</del> 292682	Lockwasher .....	1	..
40	136985	Capscrew .....	1	..
41	320159	Washer .....	1	..
42	79377	Clamp .....	2	..
43	316596	Sleeve (Coil) .....	1	..
44	168718	Clamp .....	2	2
45	931586	Hose .....	..	2
46	136704	Capscrew .....	..	1
47	1452697	Bracket .....	..	1

**FOOTNOTES:**

**a** → S/N A214E01606

**b** → S/N A214E01745 (FLT)

**c** → S/N A214E01748 (ECH)

**d** S/N A214E01746 ↔ S/N A214E001821 (FLT)

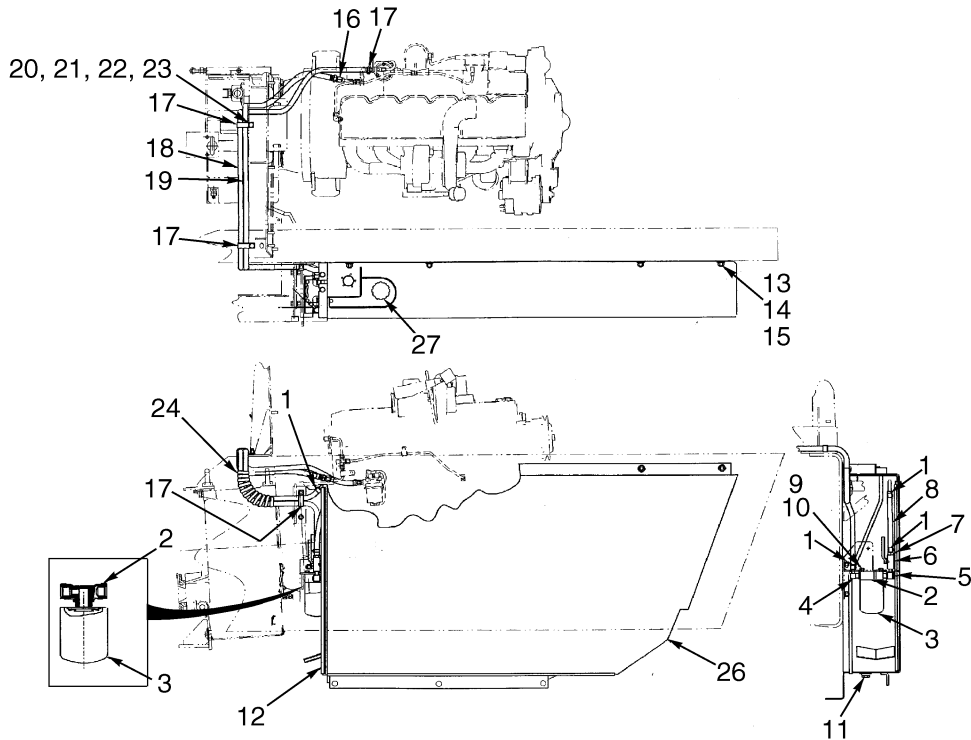
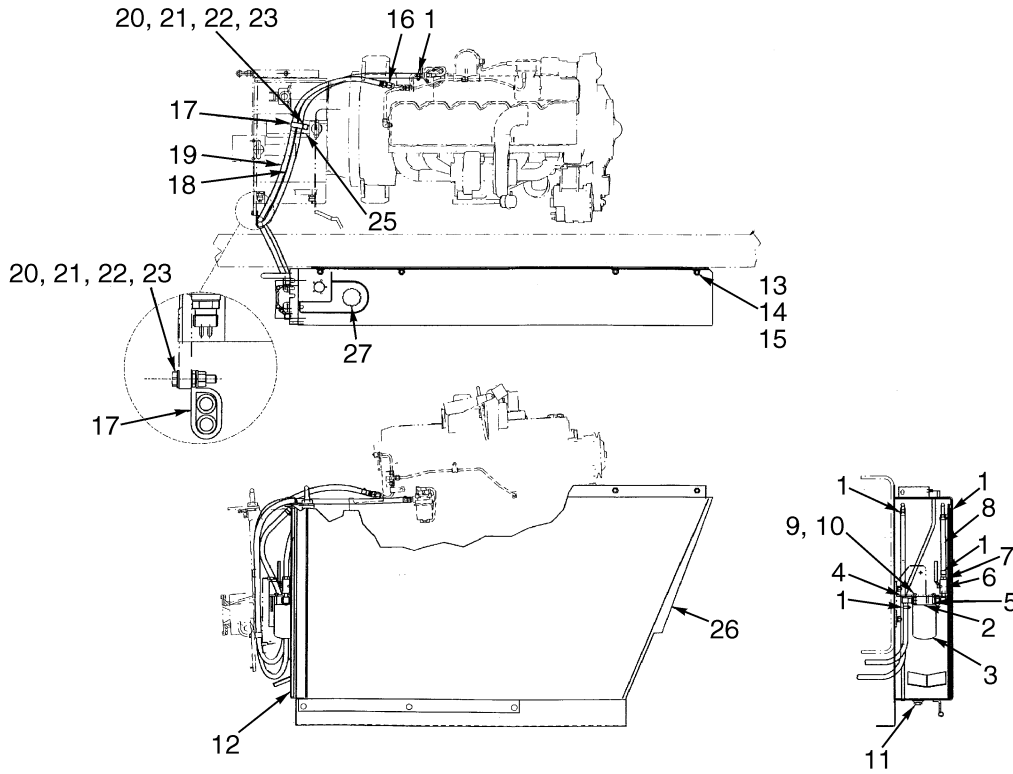
**e** S/N A214E01749 ↔ S/N A214E001821 (ECH)

**f** S/N A214E01822Z →

**g** S/N A214E01607 →



## FUEL SYSTEM (FIGURE 3-2) TIER II ENGINE



HP130169

**FUEL SYSTEM  
TIER II ENGINE**

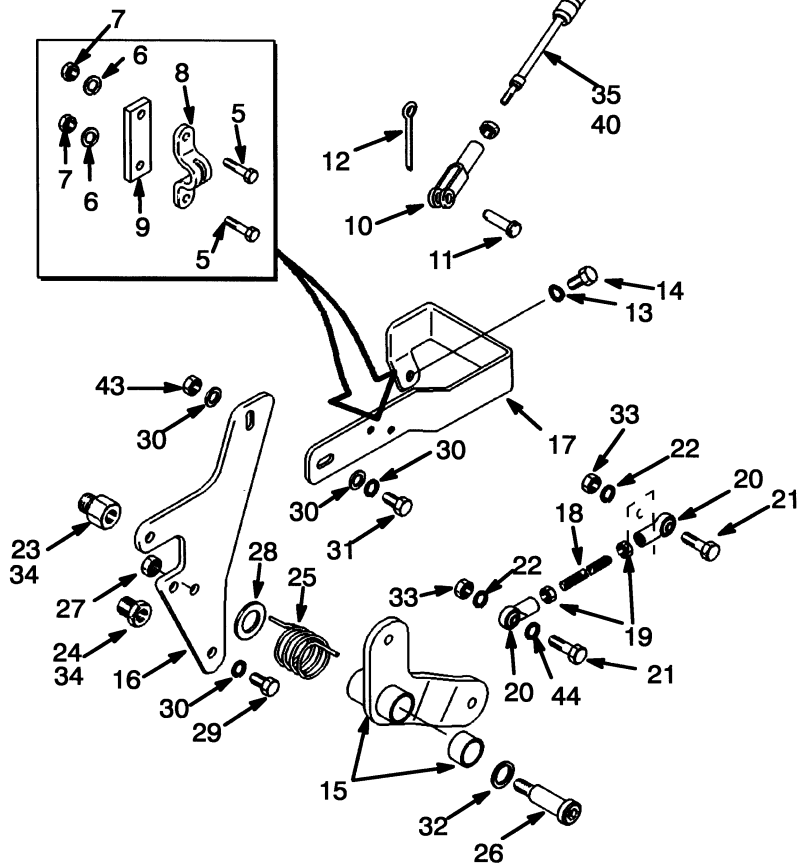
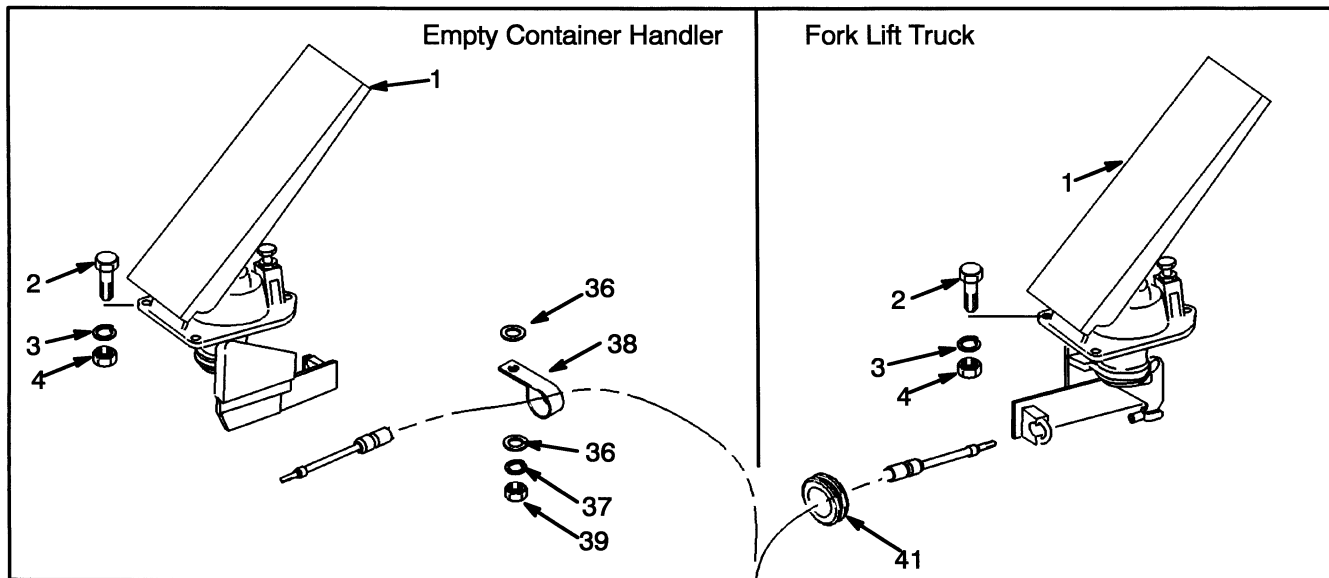
ITEM	PART NO.	DESCRIPTION	QTY
1	166857	Clamp .....	5
2	1373415	Filter Head .....	1
3	1373416	Filter Element .....	1
4	1373684	Fitting .....	1
5	1383897	Fitting .....	1
6	1384669	Shutoff Valve .....	1
7	222473	Fitting .....	1
8	919724	Hose .....	1
9	18535	Capscrew .....	4
10	15156	Lockwasher .....	4
11	14388	Fitting .....	1
12	1382023	Seal .....	1
13	292683	Lockwasher .....	4
14	320162	Washer .....	4
15	<del>1318914</del> 216877	Nut .....	4
16	1517544	Reducer (Reducer) .....	1
17	<b>a</b> 129684	Clamp .....	3
17	<b>b</b> 129684	Clamp .....	2
18	<b>a</b> 1531099	Hose Assy .....	1
18	<b>a</b> 1399115	Hose Assy .....	1
19	<b>b</b> 1508010	Hose Assy .....	1
19	<b>b</b> 1399106	Hose Assy .....	1
20	<b>a</b> <del>1586693</del> 136692	Nut .....	1
20	<b>b</b> <del>1586693</del> 136692	Nut .....	2
21	<b>a</b> <del>388049</del> 292682	Lockwasher .....	1
21	<b>b</b> <del>388049</del> 292682	Lockwasher .....	2
22	<b>a</b> 136985	Capscrew .....	1
22	<b>b</b> 136985	Capscrew .....	2
23	<b>a</b> 320159	Washer .....	1
23	<b>b</b> 320159	Washer .....	2
	<b>c</b> 316596	Sleeve (Coil) .....	2
	<b>c</b> 1452697	Bracket .....	1
	<b>c</b> 1336898	Trim (H16.00-18.00XM-12-EC) .....	1
26	1515424	Fuel Tank Wldmt (H18.00-20.00XM) .....	1
26	1515423	Fuel Tank Wldmt (H14.00-16.00XM) .....	1
26	1526193	Fuel Tank Wldmt (H16.00-18.00XM-12-EC) .....	1
27	298832	Fuel Cap .....	1

**FOOTNOTES:**

- a** Empty Container Handler  
**b** Fork Lift Truck

**c** Not Illustrated

## THROTTLE (FIGURE 3-3) TIER I ENGINE



HP130257



**THROTTLE  
TIER I ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
1	284847	Pedal Assy (☞Figure 3-5).....	1
2	18460	Capscrew .....	3
3	15154	Lockwasher .....	3
4	15054	Nut .....	3
5	220499	Screw .....	2
6	15152	Lockwasher .....	2
7	15002	Nut .....	2
8	392016	Clamp .....	1
9	314170	Shim .....	1
10	125	Rod End .....	1
11	126	Pin .....	1
12	15200	Cotter Pin .....	1
13	293782	Lockwasher .....	1
14	1373381	Capscrew .....	1
15	1391441	Lever .....	1
15	1391440	Lever .....	1
15	127611	Bushing .....	1
16	1474197	Plate .....	1
17	1391435	Bracket .....	1
18	1391445	Link .....	1
19	15024	Nut .....	2
20	1391439	Rod End .....	2
21	287816	Capscrew .....	2
22	292680	Washer .....	2
23	1391437	Insert .....	1
24	1391438	Insert .....	1
25	1391444	Spring .....	1
26	130443	Capscrew .....	1
27	145639	Locknut .....	1
28	1391448	Thrust Washer .....	1
29	136681	Capscrew .....	2
30	292681	Lockwasher .....	4
31	136749	Screw .....	1
32	221767	Washer .....	1
33	136687	Nut .....	2
34	251099	Loctite .....	AR
35	<b>a</b> 1391446	Throttle Cable .....	1
36	<b>a</b> 320156	Washer .....	4
37	<b>a</b> <del>1502095</del> 293779	Lockwasher .....	2
38	<b>a</b> 164488	Clamp .....	2
39	<b>a</b> 136687	Nut .....	2
40	<b>b</b> 1391447	Throttle Cable .....	1
41	<b>b</b> 1373685	Grommet .....	1
	<b>c</b> 320158	Washer .....	2
43	239503	Nut .....	1
44	320156	Washer .....	2

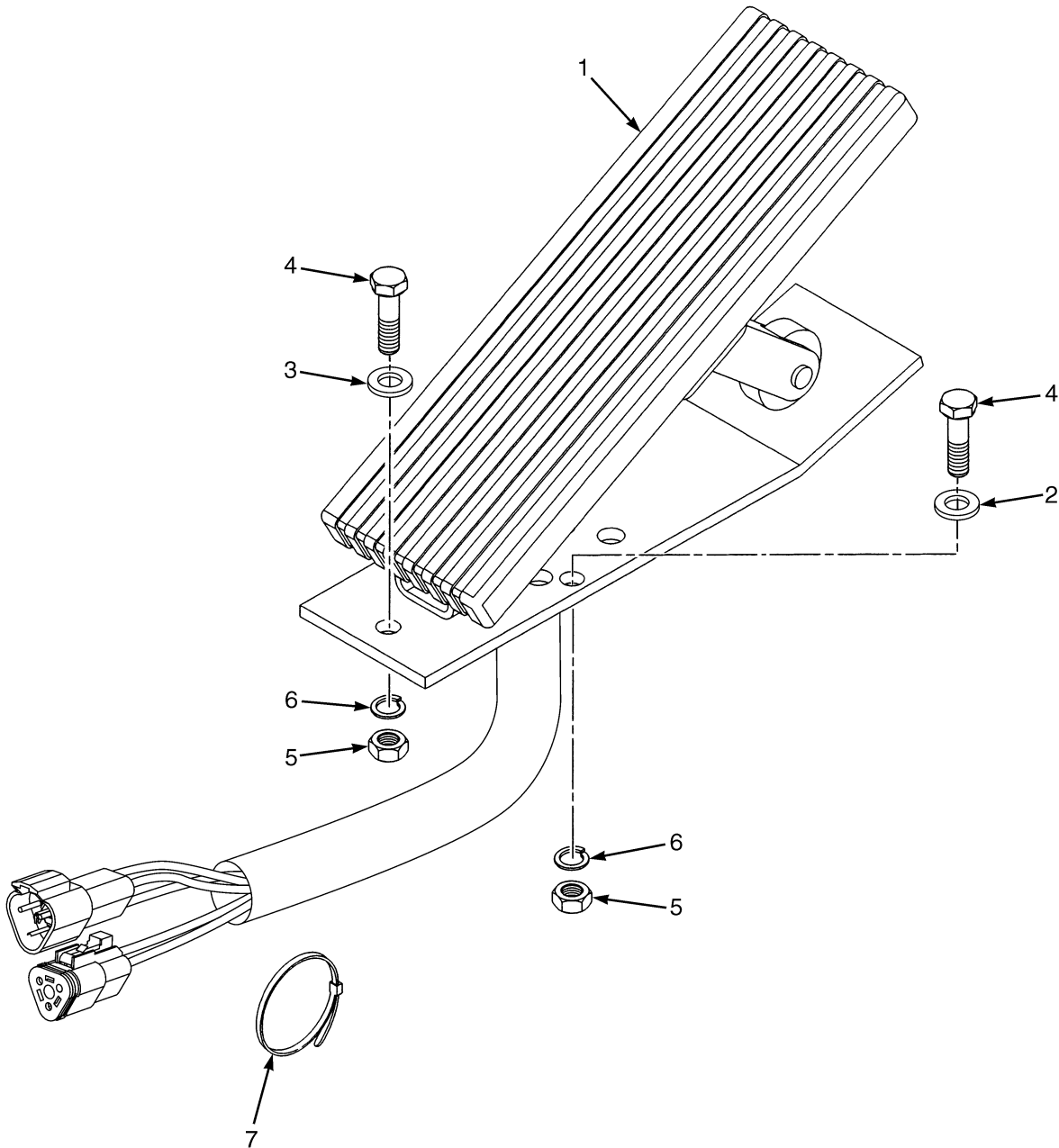
**FOOTNOTES:**

- a** Empty Container Handler
- b** Fork Lift Truck

**c** Not Illustrated



## ELECTRONIC FOOT PEDAL MOUNT (FIGURE 3-4) TIER II ENGINE

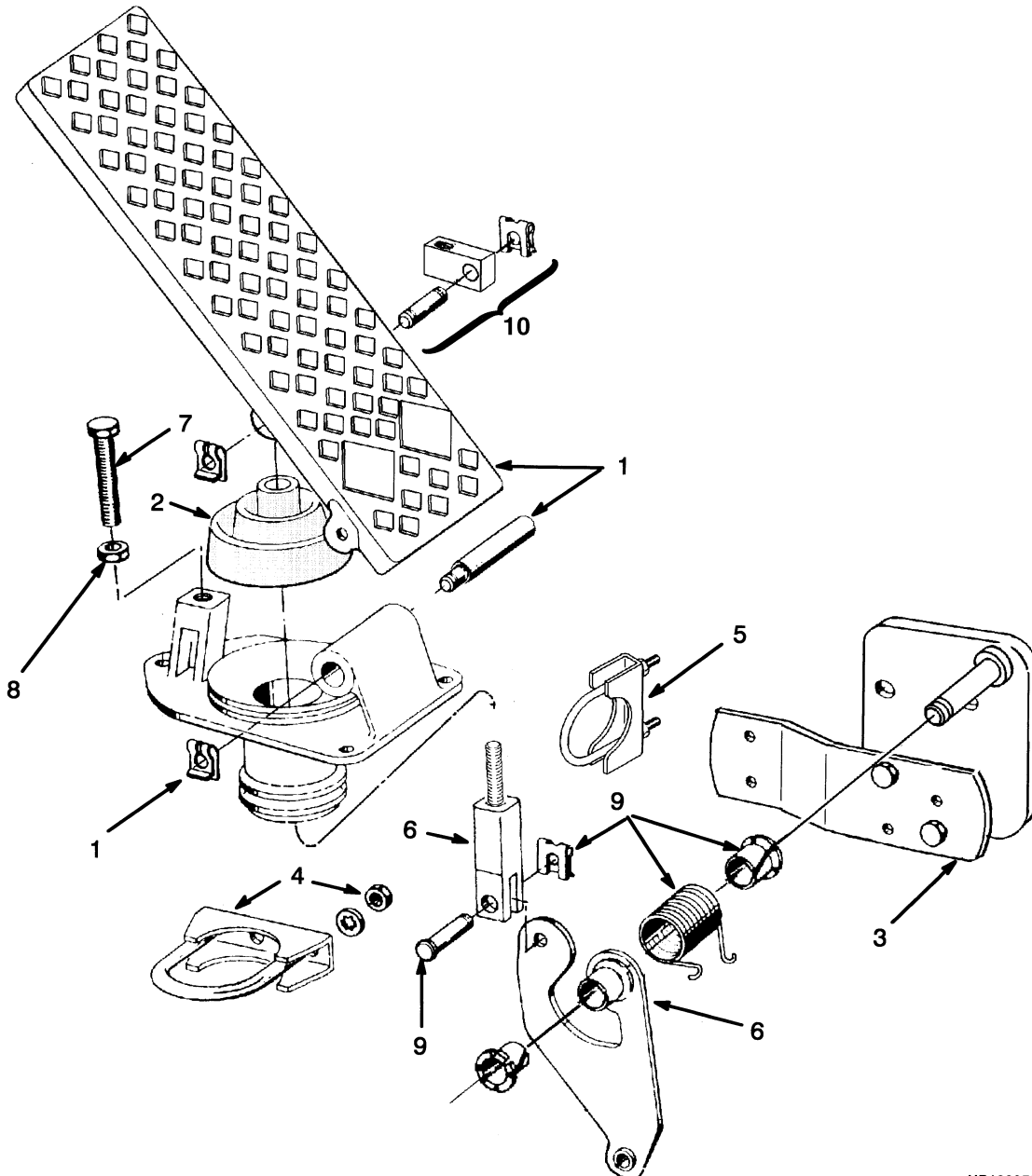


HP130264

**ELECTRONIC FOOT PEDAL MOUNT  
TIER II ENGINE**

<b>ITEM</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY</b>
1	4016302	Pedal (Electronic) .....	1
2	320157	Washer .....	2
3	320158	Washer .....	1
4	136749	Screw .....	3
5	239503	Nut .....	3
6	292681	Lockwasher .....	3
7	137852	Strap Clamp .....	3

## THROTTLE PEDAL (FIGURE 3-5) TIER I ENGINE (→ 11/2002)

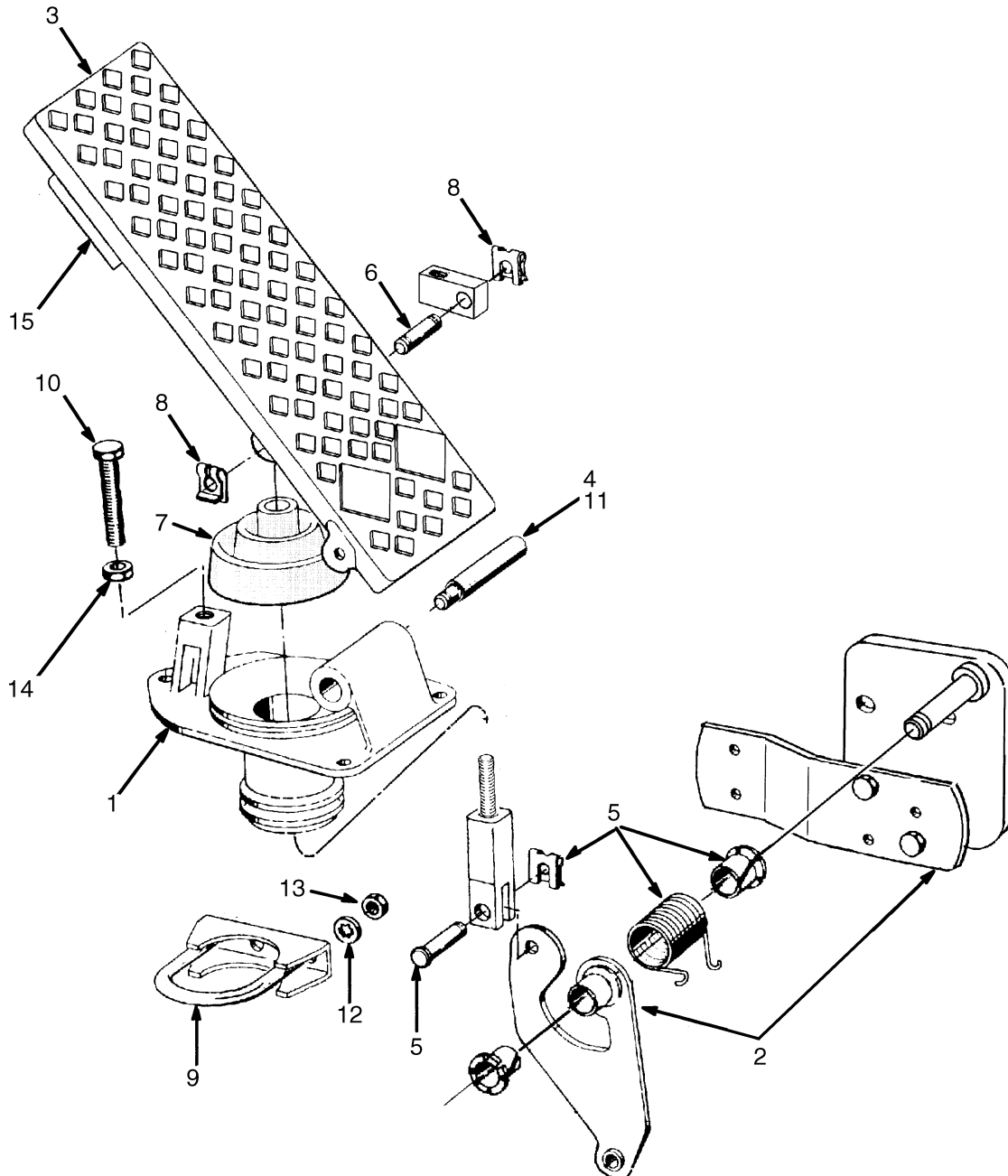


HP130258

**THROTTLE PEDAL**  
**TIER I ENGINE (→ 11/2002)**

ITEM	PART NO.	DESCRIPTION	QTY
1	284847	Pedal Assy .....	1
2	344247	Bellows .....	1
3	344245	Bracket .....	1
4	195769	Clamp .....	1
5	344246	Anchor .....	1
6	344244	Lever .....	1
7	1354812	Screw .....	1
8	1354813	Nut .....	1
9	344242	Kit-Bearing .....	1
10	345400	Clevis .....	1

## THROTTLE PEDAL (FIGURE 3-6) TIER I ENGINE (12/2020 →)



HP130310



**THROTTLE PEDAL**  
**TIER I ENGINE (12/2002 →)**

ITEM	PART NO.	DESCRIPTION	QTY
	284847	Pedal Assy .....	1
1	1533444	Base .....	1
2	1533445	Bracket .....	1
3	1533446	Pedal .....	1
4	1533447	Pin .....	1
5	1533448	Push Rod .....	1
6	1533449	Pin .....	1
7	1533450	Bellows .....	1
8	1533451	Clip .....	2
9	1533452	Capscrew .....	1
10	1533453	Capscrew .....	1
11	1533454	Bearing .....	2
12	1533455	Lockwasher .....	2
13	1533456	Locknut .....	2
14	1354813	Nut .....	1
15	1533458	Kit-Cable Clamp (Cable Clamp) .....	1







## SECTION 4 ELECTRICAL SYSTEM

DESCRIPTION	PAGE
<b>CONTROL PANEL</b>	
→ S/N A214E01806 .....	4-28
S/N A214E01807 → .....	4-30
<b>ELECTRICAL</b>	
CHASSIS (TIER II ENGINE) - PAGE 1 OF 4 .....	4-12
CHASSIS (TIER II ENGINE) - PAGE 2 OF 4 .....	4-14
CHASSIS (TIER II ENGINE) - PAGE 3 OF 4 .....	4-16
CHASSIS (TIER II ENGINE) - PAGE 4 OF 4 .....	4-20
CHASSIS TIER I ENGINE - PAGE 1 OF 3 .....	4-4
CHASSIS TIER I ENGINE - PAGE 2 OF 3 .....	4-6
CHASSIS TIER I ENGINE - PAGE 3 OF 3 .....	4-8
<b>INSTRUMENT PANEL</b>	
PAGE 1 OF 2 .....	4-22
PAGE 2 OF 2 .....	4-26
<b>LIGHT BAR AND MOUNT</b>	
TWISTLOCK MODULE - CAB .....	4-126
<b>LIGHT CONTROLS</b> .....	
<b>LIGHTS</b>	
EMPTY CONTAINER HANDLER .....	4-34
FORK LIFT TRUCK .....	4-38
ROTATING BEACON .....	4-42
<b>WIRE HARNESS</b>	
ATTACHMENT CONTROL - PAGE 1 OF 2 (→ S/N A214E01650) .....	4-44
ATTACHMENT CONTROL - PAGE 2 OF 2 (→ S/N A214E01650) .....	4-46
ATTACHMENT CONTROL (S/N A214E01651 ↔ S/N A214E01806) .....	4-48
ATTACHMENT CONTROL SWITCH (S/N A214E01807 →) .....	4-50
ATTACHMENT CONTROL SWITCH (S/N A214E02078B ↔ S/N A214E02193C) .....	4-52
ATTACHMENT CONTROL SWITCH (S/N A214E02194C →) .....	4-54
ATTACHMENT LIGHTS (S/N A214E01807 →) .....	4-56
CAB (→ S/N A214E01797) .....	4-58
CAB (S/N A214E01798 →) .....	4-60
CARRIAGE CONTROL SWITCH (S/N A214E01403 →) .....	4-62
CHASSIS - EMPTY CONTAINER HANDLER .....	4-64
CHASSIS - FORK LIFT TRUCK .....	4-66
ENGINE (→ S/N A214E01718) .....	4-68
ENGINE (S/N A214E01719 →) .....	4-70
ENGINE - TIER II .....	4-72
FRONT END EQUIPMENT - EMPTY CONTAINER HANDLER (→ S/N A214E01806) .....	4-74
FRONT END EQUIPMENT - EMPTY CONTAINER HANDLER (S/N A214E01807 ↔ S/N A214E02077B) .....	4-76
FRONT END EQUIPMENT (S/N A214B02078B →) .....	4-78
FRONT END EQUIPMENT - FORK LIFT TRUCK .....	4-80
FRONT LIGHTS .....	4-81
HYDRAULIC - EMPTY CONTAINER HANDLER (→ S/N A214E01806) .....	4-82
HYDRAULIC - EMPTY CONTAINER HANDLER (S/N A214E01807 →) .....	4-84
HYDRAULIC - FORK LIFT TRUCK (→ S/N A214E01806Y) .....	4-86
HYDRAULIC - FORK LIFT TRUCK (S/N A214E01807Y →) .....	4-88
HYDRAULIC OIL COOLER .....	4-124
MODULE (→ S/N A214E01797) .....	4-89

**SECTION 4  
ELECTRICAL SYSTEM**

<b>DESCRIPTION</b>	<b>PAGE</b>
MODULE (S/N A214E01798 →) .....	4-90
OPERATOR COMPARTMENT (TIER I) - PAGE 1 OF 2 .....	4-92
OPERATOR COMPARTMENT (TIER I) - PAGE 2 OF 2 .....	4-94
OPERATOR COMPARTMENT (TIER II) - PAGE 1 OF 2 (S/N A214E01843Z → (FLT)) (S/N A214E01849Z → (ECH)) .....	4-96
OPERATOR COMPARTMENT (TIER II) - PAGE 2 OF 2 (S/N A214E01843Z → (FLT)) (S/N A214E01849Z → (ECH)) .....	4-98
OPERATOR COMPARTMENT TO MAST LIGHT JUMPER - FORK LIFT TRUCK .....	4-100
REAR LIGHT .....	4-101
ROTATING BEACON .....	4-102
SELECTOR VALVE .....	4-122
STEERING POD .....	4-104
SWITCH - WARNING .....	4-107
SWITCH LIGHTS .....	4-106
TRANSMISSION .....	4-108
TRANSMISSION (→ S/N A214E01615) .....	4-110
TRANSMISSION (S/N A214E01616 ↔ S/N A214E002194C) .....	4-112
TRANSMISSION (S/N A214E02194C →) .....	4-114
TURN SIGNAL .....	4-116
WINDSHIELD WASHER .....	4-117
WORK LIGHTS .....	4-118
WORK LIGHTS - EMPTY CONTAINER HANDLER .....	4-119
WORK LIGHTS - FORK LIFT TRUCK .....	4-120
WORK LIGHTS EXTENSION - FORK LIFT TRUCK .....	4-121

**NOTES**

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

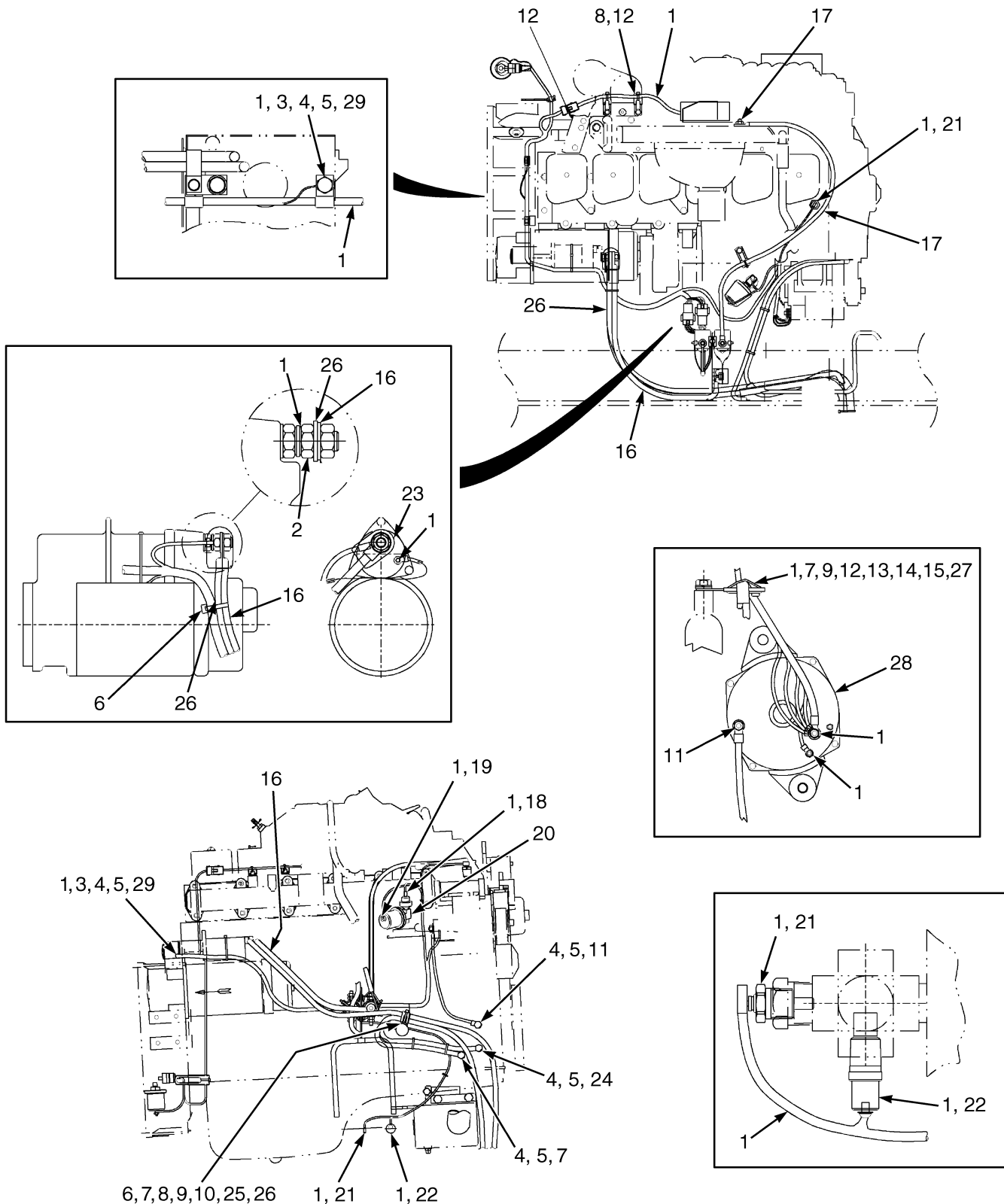
---

---

---

---

## ELECTRICAL (FIGURE 4-1) CHASSIS TIER I ENGINE — PAGE 1 OF 3



BP080693



**ELECTRICAL**  
**CHASSIS TIER I ENGINE – PAGE 1 OF 3**

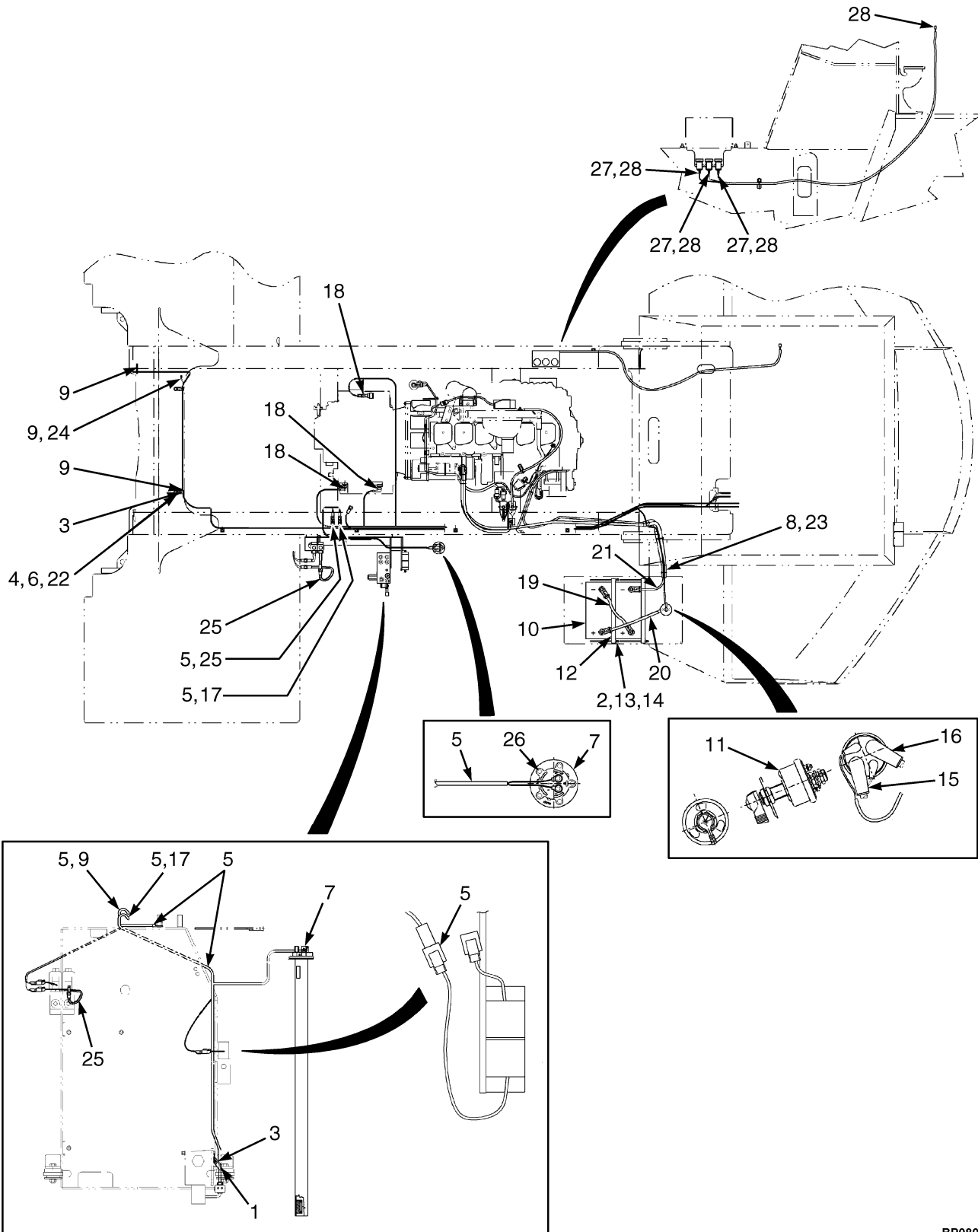
ITEM	PART NO.	DESCRIPTION	QTY
1	<b>c</b> 1382838	Wire Harness (☞ Figure 4-28).....	1
1	<b>d</b> 1473974	Wire Harness (☞ Figure 4-29).....	1
2	15011	Nut .....	1
3	154208	Clamp .....	2
4	292526	Capscrew .....	1
5	292683	Lockwasher .....	1
6	397676	Strap Clamp .....	2
7	816441	Battery Cable .....	1
8	<b>a</b> 1356947	Strap , Bracket .....	3
8	<b>b</b> 1356947	Strap , Bracket .....	9
9	<b>b</b> 320159	Washer .....	10
9	<b>a</b> 320159	Washer .....	5
10	<b>b</b> 302401	Locknut .....	10
10	<b>a</b> 302401	Locknut .....	5
11	1393785	Wire .....	1
12	137852	Strap Clamp .....	AR
13	1350914	Strap (Bracket) .....	2
14	292513	Capscrew .....	1
15	<del>388049</del> 292682	Lockwasher .....	1
16	1391863	Battery Cable .....	1
17	1391865	Battery Cable .....	1
18	190252	Pressure Switch .....	1
19	1393788	Pressure Sender .....	1
20	16186	Fitting .....	1
21	1319190	Temperature Sender .....	2
22	114662	Switch .....	1
23	370009	Boot .....	1
24	<b>a</b> 1393777	Battery Cable .....	1
25	<b>b</b> 1393792	Battery Cable .....	1
26	1382020	Battery Cable .....	1
27	275498	Conduit .....	AR
28	1512001	Alternator .....	1
29	1373791	Spacer .....	2

**FOOTNOTES:**

**a** Empty Container Handler  
**b** Fork Lift Truck

**c** → 11/2003  
**d** 11/2003 →

## ELECTRICAL (FIGURE 4-2) CHASSIS TIER I ENGINE — PAGE 2 OF 3



BP080694

**ELECTRICAL**  
**CHASSIS TIER I ENGINE – PAGE 2 OF 3**

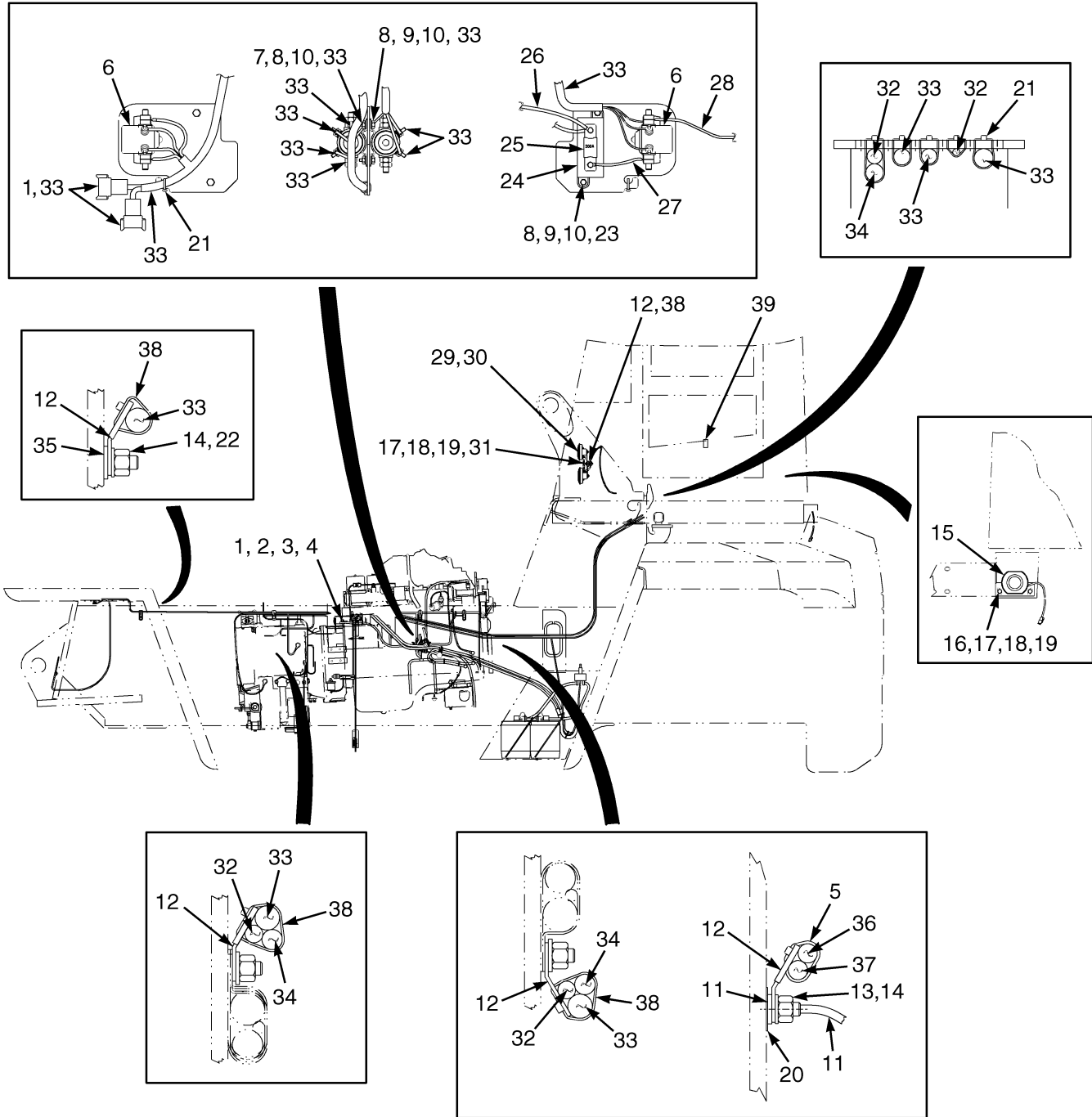
ITEM	PART NO.	DESCRIPTION	QTY
1	397676	Strap Clamp .....	2
2	320156	Washer .....	10
3	<b>a</b> 1356947	Strap , Bracket .....	3
3	<b>b</b> 1356947	Strap , Bracket .....	9
4	<b>b</b> 302401	Locknut .....	10
4	<b>a</b> 302401	Locknut .....	5
5	<b>a c</b> 1464299	Wire Harness (Hydraulic) (☞Figure 4-36).....	1
5	<b>a d</b> 1504298	Wire Harness (Hydraulic) (☞Figure 4-32).....	1
5	<b>b c</b> 1383834	Wire Harness (Hydraulic) (☞Figure 4-38).....	1
5	<b>b d</b> 1525240	Wire Harness (Hydraulic) .....	1
6	320159	Washer .....	1
7	1393778	Fuel Sender .....	1
8	175899	Tape .....	AR
9	<b>a c</b> 1384479	Wire Harness (Front End Equipment) (☞Figure 4-31).....	1
9	<b>a d</b> 1495795	Wire Harness (Front End Equipment) (☞Figure 4-32).....	1
9	<b>b</b> 1393786	Wire Harness (Front End Equipment) (☞Figure 4-34).....	1
10	1373606	Start Battery Wet .....	2
11	1324518	Switch (Disconnect) .....	1
12	286767	Battery Hold Down .....	2
13	309124	Battery Hold Down .....	4
14	302399	Nut .....	4
15	190383	Boot .....	2
16	204223	Boot .....	2
17	<b>a</b> 1383838	Wire Harness (Chassis) (☞Figure 4-26).....	1
17	<b>b</b> 1385505	Wire Harness (Chassis) (☞Figure 4-27).....	1
18	<b>a</b> 1383832	Wire Harness (Transmission) (☞Figure 4-52).....	1
18	<b>b</b> 1383833	Wire Harness (Transmission) (☞Figure 4-52).....	1
19	<b>a</b> 1393775	Battery Cable .....	1
19	<b>b</b> 1393790	Battery Cable .....	1
20	<b>a</b> 1393776	Battery Cable .....	1
20	<b>b</b> 1393791	Battery Cable .....	1
21	<b>a</b> 1393777	Battery Cable .....	1
21	<b>b</b> 1393792	Battery Cable .....	1
21	1382020	Battery Cable .....	1
23	275496	Conduit .....	AR
24	1345023	Strap .....	1
25	1510220	Wire Harness .....	1
26	16704	Screw .....	5
27	1311268	Wire Harness .....	1
28	1384602	Wire Harness .....	1
29	<b>a</b> 320161	Washer .....	3
29	<b>b</b> 320161	Washer .....	9

**FOOTNOTES:**

**a** Empty Container Handler  
**b** Fork Lift Truck

**c** → S/N A214E01806Y  
**d** S/N A214E01807Y →

## ELECTRICAL (FIGURE 4-3) CHASSIS TIER I ENGINE — PAGE 3 OF 3



BP080695

**ELECTRICAL**  
**CHASSIS TIER I ENGINE – PAGE 3 OF 3**

ITEM	PART NO.	DESCRIPTION	QTY
1	<b>c</b> 1382838	Wire Harness (☞Figure 4-28).....	1
1	<b>e</b> 1473974	Wire Harness (☞Figure 4-29).....	1
2	154208	Clamp .....	2
3	292526	Capscrew .....	1
4	292683	Lockwasher .....	1
5	397676	Strap Clamp .....	2
6	1307121	Switch (Magnetic, 24V) .....	2
7	292501	Capscrew .....	2
8	320156	Washer .....	10
9	292680	Washer .....	4
10	136687	Nut .....	4
11	816441	Battery Cable .....	1
12	<b>a</b> 1356947	Strap , Bracket .....	3
12	<b>b</b> 1356947	Strap , Bracket .....	9
13	<b>b</b> 320159	Washer .....	10
13	<b>a</b> 320159	Washer .....	5
14	<b>b</b> 302401	Locknut .....	10
14	<b>a</b> 302401	Locknut .....	5
15	1367282	Back-Up Alarm .....	1
16	136681	Capscrew .....	2
17	320157	Washer .....	6
18	292681	Lockwasher .....	3
19	239503	Nut .....	3
20	296408	Lockwasher .....	1
21	137852	Strap Clamp .....	AR
22	320159	Washer .....	1
23	302048	Screw .....	2
24	1385519	Fuse Holder .....	1
25	1385504	Fuse (200 Amp) .....	1
26	1391863	Battery Cable .....	1
27	1391864	Power Cable .....	1
28	1391865	Battery Cable .....	1
29	1451327	Horn (24 Volt) (335Hz) .....	1
30	1451328	Horn (24 Volt) (400Hz) .....	1
31	176640	Bolt .....	1
32	<b>a d</b> 1384479	Wire Harness (Front End Equipment) (☞Figure 4-31).....	1
32	<b>a f</b> 1495795	Wire Harness (Front End Equipment) (☞Figure 4-32).....	1
32	<b>b</b> 1393786	Wire Harness (Front End Equipment) (☞Figure 4-34).....	1
33	<b>a</b> 1383838	Wire Harness (Chassis) (☞Figure 4-26).....	1
33	<b>b</b> 1385505	Wire Harness (Chassis) (☞Figure 4-27).....	1
34	<b>a</b> 1383832	Wire Harness (Transmission) (☞Figure 4-52).....	1
34	<b>b</b> 1383833	Wire Harness (Transmission) (☞Figure 4-52).....	1
35	<b>a</b> 320161	Washer .....	3
35	<b>b</b> 320161	Washer .....	9
36	<b>a</b> 1393777	Battery Cable .....	1
36	<b>b</b> 1393792	Battery Cable .....	1
37	1382020	Battery Cable .....	1
38	137852	Strap Clamp .....	1
39	1384602	Wire Harness .....	1

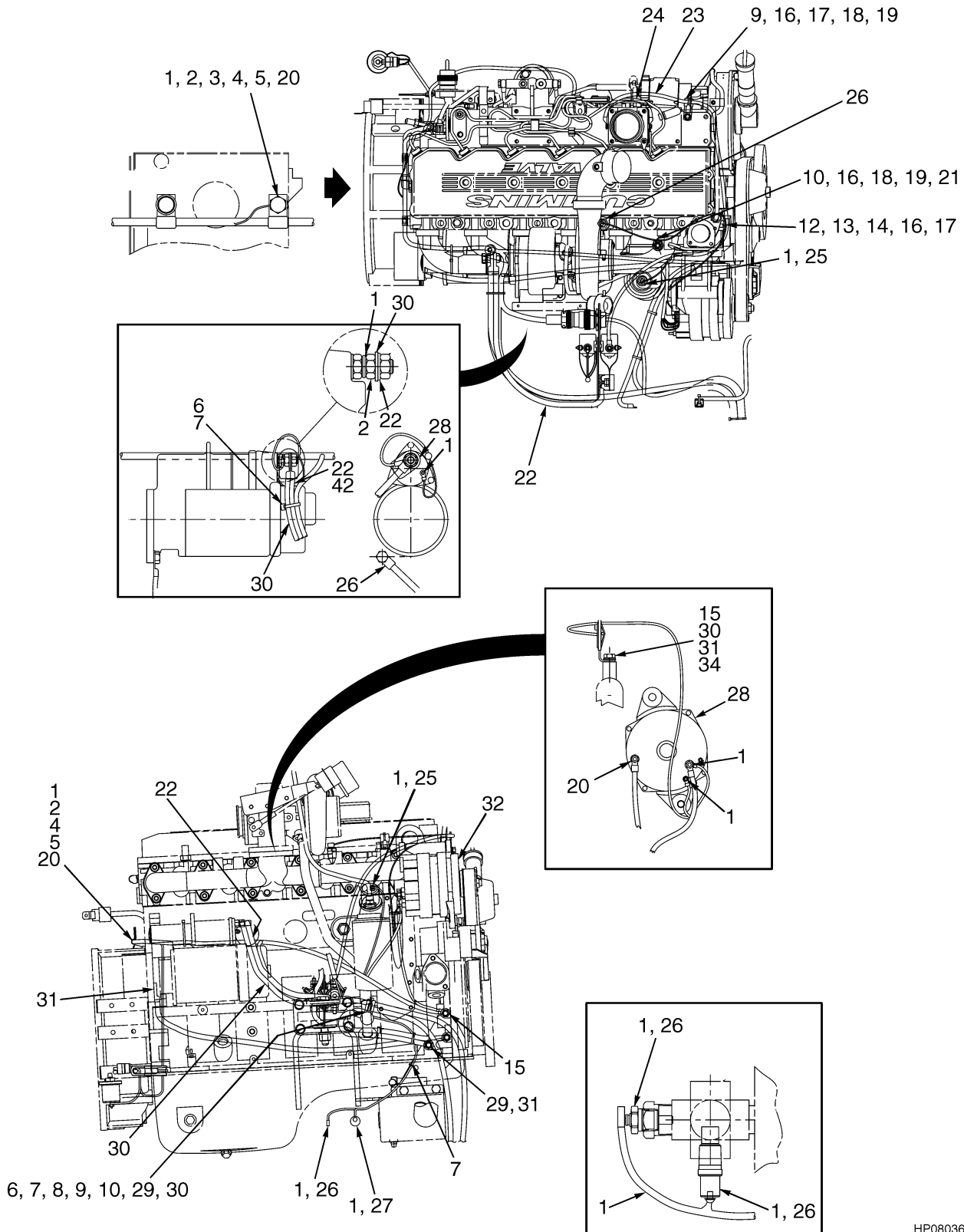
**FOOTNOTES:**

**a** Empty Container Handler  
**b** Fork Lift Truck  
**c** → 11/2003

**d** → S/N A214E01806Y  
**e** 11/2003 →  
**f** S/N A214E01807Y →



## ELECTRICAL (FIGURE 4-4) CHASSIS (TIER II ENGINE) — PAGE 1 OF 4



HP080363

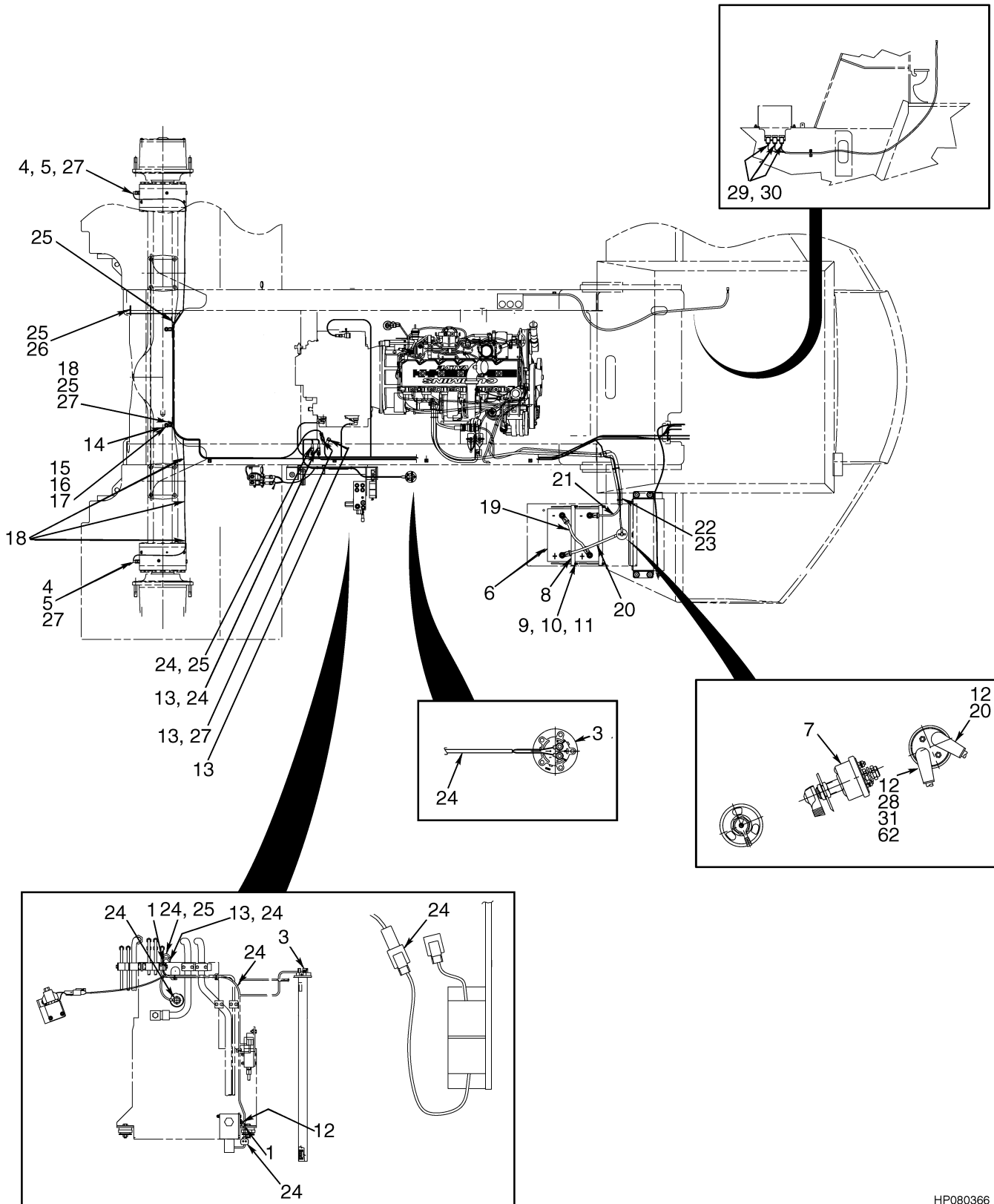


**ELECTRICAL**  
**CHASSIS (TIER II ENGINE) – PAGE 1 OF 4**

ITEM	PART NO.	DESCRIPTION	QTY
1	<b>a</b> 1531383	Wire Harness (Engine) (☞ Figure 4-30).....	1
1	<b>b</b> 1537659	Wire Harness (Engine) (☞ Figure 4-30).....	1
1	<b>c</b> 1607648	Wire Harness (Engine) (☞ Figure 4-30).....	1
2	<b>a</b> 15011	Nut (☞ Figure 4-30).....	1
3	298132	Clamp .....	2
4	292526	Capscrew .....	2
5	292683	Lockwasher .....	2
6	397676	Strap Clamp .....	7
7	816441	Battery Cable .....	1
8	1356947	Strap , Bracket .....	1
9	320159	Washer .....	4
10	302401	Locknut .....	1
11	1499053	Wire Harness (Radiator Coolant Level Switch) .....	1
12	136681	Capscrew .....	3
13	320157	Washer .....	5
14	292681	Lockwasher .....	3
15	1619795	Wire .....	1
16	137852	Strap Clamp .....	AR
17	1350914	Strap (Bracket) .....	4
18	292513	Capscrew .....	3
19	<del>388049</del> 292682	Lockwasher .....	3
20	1373791	Spacer .....	2
21	1362277	Strap .....	3
22	<b>a</b> 1391863	Battery Cable .....	1
22	<b>b</b> 1538099	Battery Cable .....	1
23	1507212	Wire Harness (Switch To Grid Heater) .....	1
24	1508986	Wire Harness (Grid Heater To Grid Heater) .....	1
25	1393788	Pressure Sender .....	1
26	1319190	Temperature Sender (Engine Coolant) .....	1
26	1319190	Temperature Sender (Transmission Oil) .....	1
27	114662	Switch (Transmission) .....	1
28	370009	Boot .....	1
29	1520495	Battery Cable .....	1
30	<b>a</b> 1520499	Battery Cable .....	1
30	<b>b</b> 1538100	Battery Cable .....	1
31	1521153	Battery Cable .....	1
32	<del>1588820</del> 1649349	Alternator .....	1

**FOOTNOTES:****a** → S/N A214E01950A**c** S/N A214E02181C →**b** S/N A214E01951A ↔ S/N A214E02180C

## ELECTRICAL (FIGURE 4-5) CHASSIS (TIER II ENGINE) — PAGE 2 OF 4



HP080366

**ELECTRICAL**  
**CHASSIS (TIER II ENGINE) – PAGE 2 OF 4**

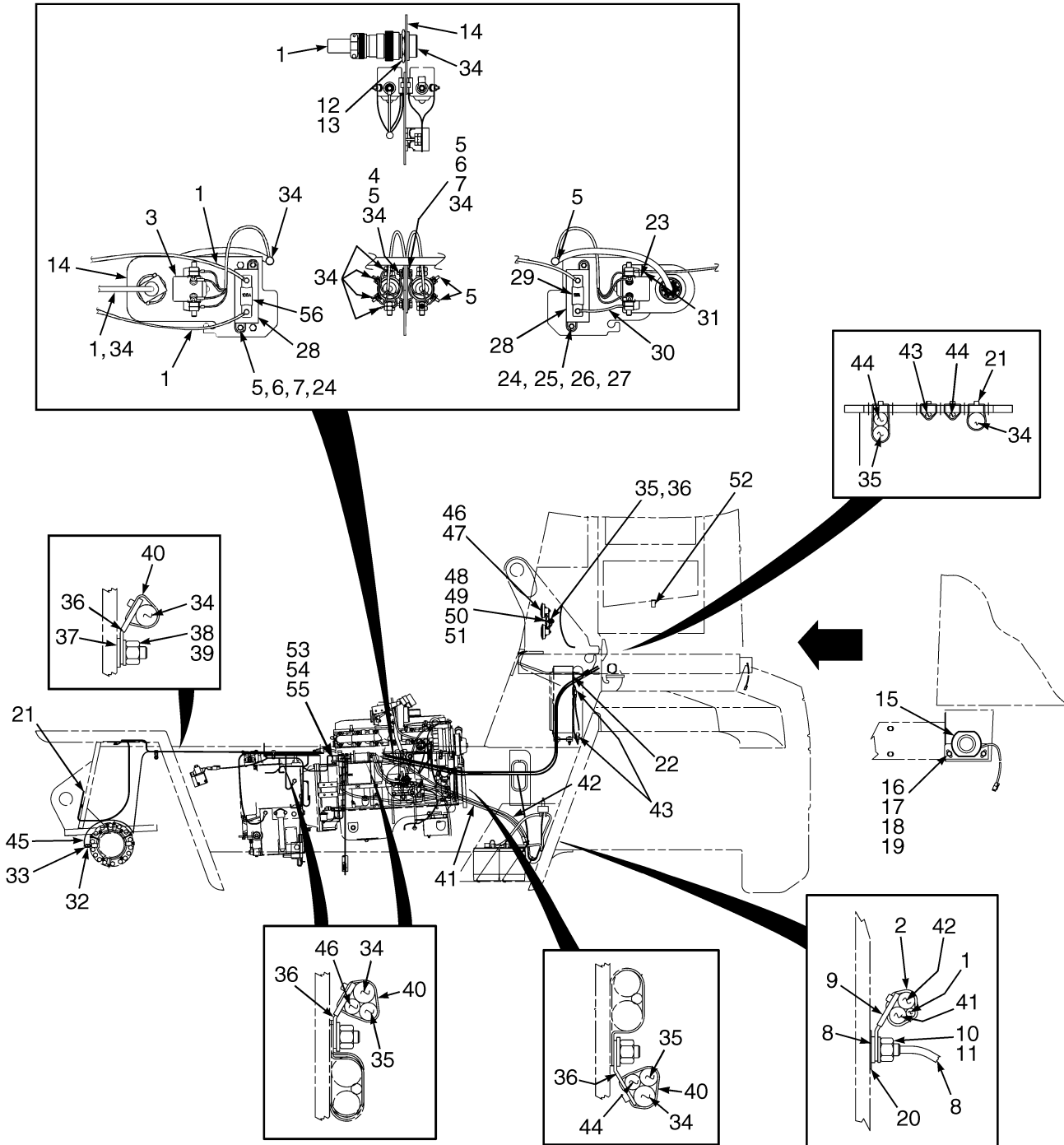
ITEM	PART NO.	DESCRIPTION	QTY
1	397676	Strap Clamp .....	3
2	1356947	Strap , Bracket .....	1
3	1393778	Fuel Sender .....	1
4	1521310	Adapter .....	2
5	2043634	Switch (Temperature) .....	1
6	1373606	Start Battery Wet .....	2
7	1324518	Switch (Disconnect) .....	1
8	286767	Battery Hold Down .....	2
9	309124	Battery Hold Down .....	4
10	302399	Nut .....	4
11	320156	Washer .....	4
12	204223	Boot .....	2
13	<b>a</b> 1518111	Wire Harness (Chassis) .....	1
13	<b>b</b> 1519026	Wire Harness (Chassis) .....	1
14	<b>a</b> 1356947	Strap , Bracket .....	7
14	<b>b</b> 1356947	Strap , Bracket .....	12
15	<b>a</b> 320161	Washer .....	3
15	<b>b</b> 320161	Washer .....	9
16	<b>a</b> 320159	Washer .....	4
16	<b>b</b> 320159	Washer .....	9
17	<b>a</b> 302401	Locknut .....	4
17	<b>b</b> 302401	Locknut .....	9
18	137852	Strap Clamp .....	AR
19	1520493	Battery Cable .....	1
20	1520494	Battery Cable .....	1
21	1520495	Battery Cable .....	1
22	275496	Conduit .....	AR
23	175899	Tape .....	AR
24	<b>a</b> 1504298	Wire Harness (Hydraulic Compartment) .....	1
24	<b>b</b> 1525240	Wire Harness (Hydraulic Compartment) (☞Figure 4-39).....	1
25	<b>a d</b> 1495795	Wire Harness (Front End) (☞Figure 4-32).....	1
25	<b>a f</b> 1573932	Wire Harness (Front End) (☞Figure 4-33).....	1
26	<b>a</b> 1345023	Strap .....	1
27	<b>a</b> 1521392	Wire Harness (Brake Temperature Switch) .....	1
27	<b>b</b> 1521391	Wire Harness (Brake Temperature Switch) .....	1
28	1451327	Horn (335 dBA) .....	1
28	1451328	Horn (400 dBA) .....	1
29	1311268	Wire Harness .....	1
30	1384602	Wire Harness .....	1
31	<b>c</b> 1517928	Wire Harness (Engine) (☞Figure 4-30).....	1
31	<b>e</b> 1537659	Wire Harness (Engine) (☞Figure 4-30).....	1
31	<b>g</b> 1607648	Wire Harness (Engine) (☞Figure 4-30).....	1
32	1510220	Wire Harness .....	1

**FOOTNOTES:**

**a** Empty Container Handler  
**b** Fork Lift Truck  
**c** → S/N A214E01950A  
**d** → S/N A214E02077B

**e** S/N A214E01951A ↔ S/N A214E02180C  
**f** S/N A214E02078B →  
**g** S/N A214E02181C →

## ELECTRICAL (FIGURE 4-6) CHASSIS (TIER II ENGINE) — PAGE 3 OF 4



HP080367

**ELECTRICAL**  
**CHASSIS (TIER II ENGINE) – PAGE 3 OF 4**

ITEM	PART NO.	DESCRIPTION	QTY
1	<b>c</b> 1531383	Wire Harness (Engine) (☞ Figure 4-30).....	1
1	<b>e</b> 1537659	Wire Harness (Engine) (☞ Figure 4-30).....	1
1	<b>g</b> 1607648	Wire Harness (Engine) (☞ Figure 4-30).....	1
2	397676	Strap Clamp .....	3
3	1307121	Switch (Magnetic, 24V) .....	1
4	287816	Capscrew .....	2
5	320156	Washer .....	6
6	292680	Washer .....	4
7	136687	Nut .....	4
8	816441	Battery Cable .....	1
9	1356947	Strap , Bracket .....	1
10	320159	Washer .....	4
11	302401	Locknut .....	1
12	1484685	Locknut .....	1
13	1484686	Washer (Spring) .....	1
14	1519013	Plate .....	1
15	1367282	Back-Up Alarm .....	1
16	136681	Capscrew .....	3
17	320157	Washer .....	5
18	292681	Lockwasher .....	3
19	239503	Nut .....	2
20	296408	Lockwasher .....	1
21	137852	Strap Clamp .....	AR
22	132131	Clamp .....	2
23	1307121	Switch (Magnetic, 24V) .....	1
24	302048	Screw .....	4
25	320156	Washer .....	2
26	292680	Washer .....	2
27	136687	Nut .....	2
28	1385519	Fuse Holder .....	2
29	1508300	Fuse (125 Amp) .....	1
30	1391864	Power Cable .....	1
31	1507212	Wire Harness (Switch To Grid Heater) .....	1
32	1521310	Adapter .....	2
33	2043634	Switch (Temperature) .....	1
34	<b>a</b> 1518111	Wire Harness (Chassis) .....	1
34	<b>b</b> 1519026	Wire Harness (Chassis) .....	1
35	<b>a</b> 1383832	Wire Harness .....	1
35	<b>b</b> 1383833	Wire Harness .....	1
36	<b>a</b> 1356947	Strap , Bracket .....	7
36	<b>b</b> 1356947	Strap , Bracket .....	12
37	<b>a</b> 320161	Washer .....	3
37	<b>b</b> 320161	Washer .....	9
38	<b>a</b> 320159	Washer .....	4
38	<b>b</b> 320159	Washer .....	9
39	<b>a</b> 302401	Locknut .....	4
39	<b>b</b> 302401	Locknut .....	9
40	137852	Strap Clamp .....	AR
41	1520495	Battery Cable .....	1
42	1520499	Battery Cable .....	1

## ELECTRICAL CHASSIS (TIER II ENGINE) – PAGE 3 OF 4

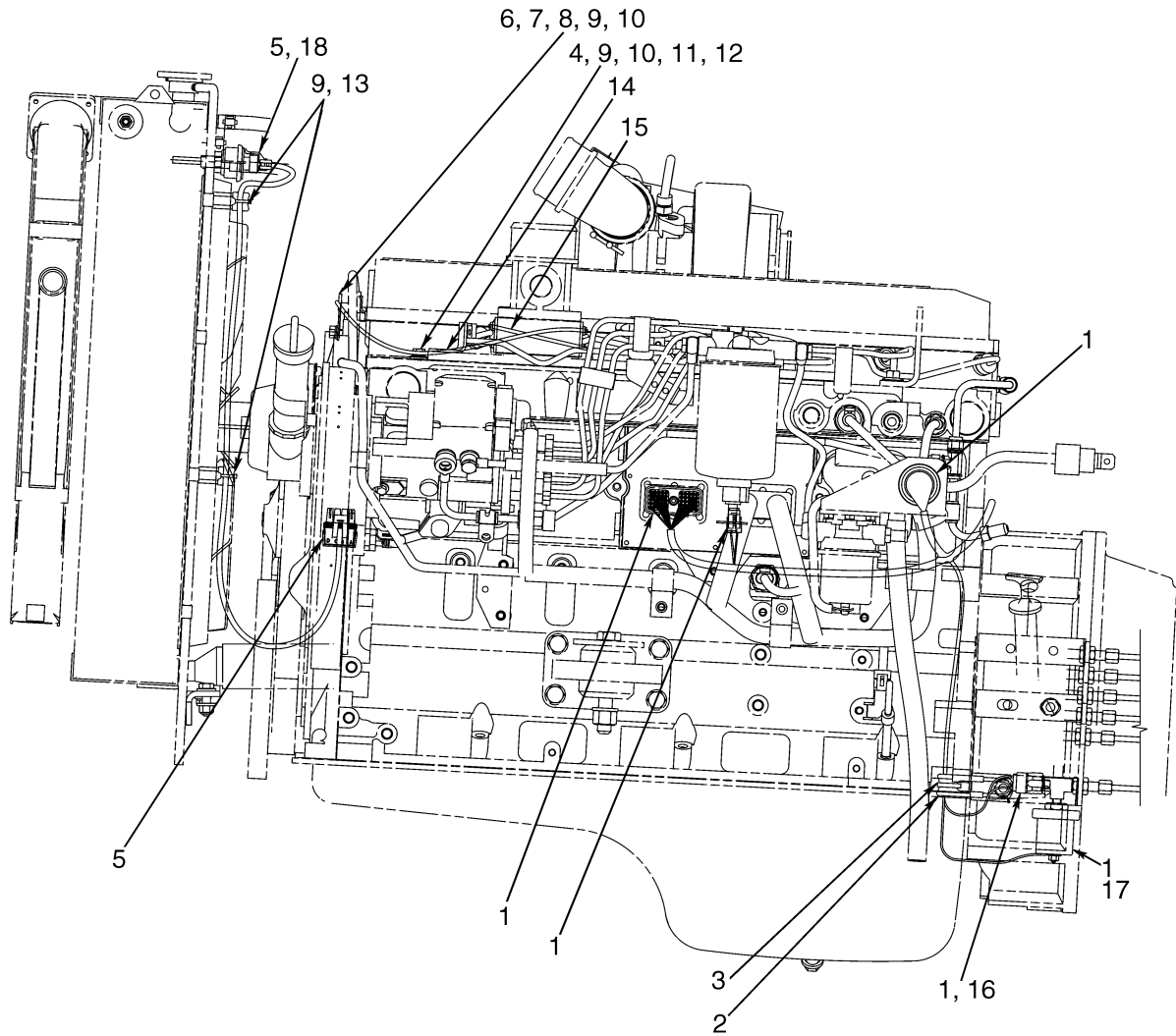
ITEM	PART NO.	DESCRIPTION	QTY
43	<b>a</b> 1519129	Wire Harness (Hydraulic Oil Cooler) (☞Figure 4-63).....	1
43	<b>b</b> 1520540	Wire Harness (Hydraulic Oil Cooler) (☞Figure 4-63).....	1
44	<b>a d</b> 1495795	Wire Harness (Front End) (☞Figure 4-32).....	1
44	<b>a f</b> 1573932	Wire Harness (Front End) (☞Figure 4-33).....	1
45	<b>a</b> 1521392	Wire Harness (Brake Temperature Switch) .....	1
45	<b>b</b> 1521391	Wire Harness (Brake Temperature Switch) .....	1
46	1480320	Alternator .....	1
47	1451328	Horn (400 dBA) .....	1
47	1451327	Horn (335 dBA) .....	1
48	292681	Lockwasher .....	1
49	176640	Bolt .....	1
50	239503	Nut .....	1
51	320157	Washer .....	2
52	1384602	Wire Harness .....	1
53	246001	Capscrew .....	2
54	298132	Clamp .....	2
55	292683	Lockwasher .....	2
56	1529581	Fuse (100 Amp) .....	1

**FOOTNOTES:**

- |          |                         |          |                                   |
|----------|-------------------------|----------|-----------------------------------|
| <b>a</b> | Empty Container Handler | <b>e</b> | S/N A214E01951A ↔ S/N A214E02180C |
| <b>b</b> | Fork Lift Truck         | <b>f</b> | S/N A214E02078B →                 |
| <b>c</b> | → S/N A214E01950A       | <b>g</b> | S/N A214E02181C →                 |
| <b>d</b> | → S/N A214E02077B       |          |                                   |



## ELECTRICAL (FIGURE 4-7) CHASSIS (TIER II ENGINE) — PAGE 4 OF 4



HP080368

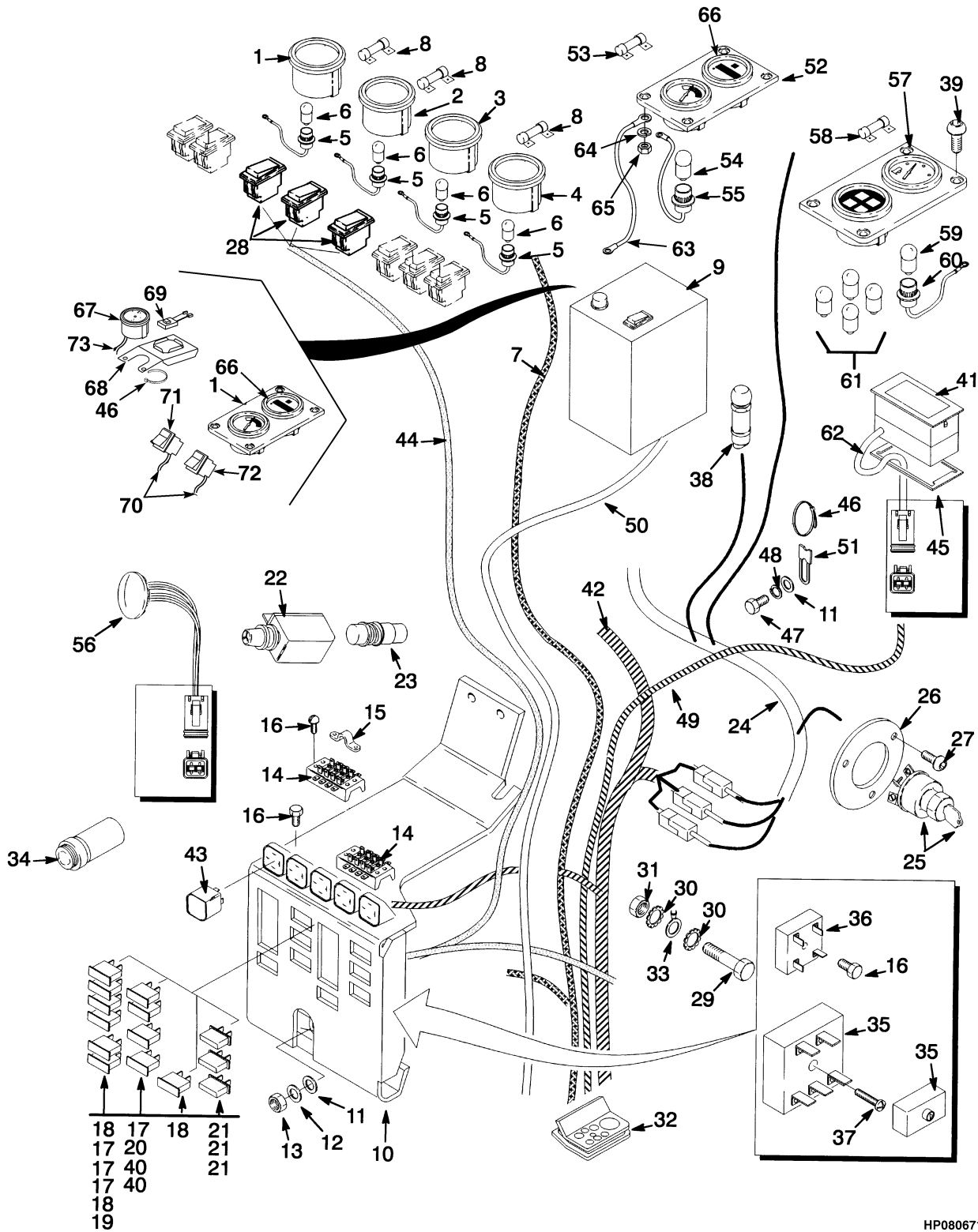


**ELECTRICAL**  
**CHASSIS (TIER II ENGINE) – PAGE 4 OF 4**

ITEM	PART NO.	DESCRIPTION	QTY
1	<b>a</b> 1531383	Wire Harness (Engine) (☞ Figure 4-30).....	1
1	<b>b</b> 1537659	Wire Harness (Engine) (☞ Figure 4-30).....	1
1	<b>c</b> 1607648	Wire Harness (Engine) (☞ Figure 4-30).....	1
2	1350911	Strap .....	1
3	397676	Strap Clamp .....	3
4	320159	Washer .....	4
5	1499053	Wire Harness .....	1
6	136681	Capscrew .....	3
7	320157	Washer .....	5
8	292681	Lockwasher .....	3
9	137852	Strap Clamp .....	AR
10	1350914	Strap (Bracket) .....	4
11	292513	Capscrew .....	3
12	<del>388049</del> 292682	Lockwasher .....	3
13	1362277	Strap .....	3
14	1507212	Wire Harness (Switch To Grid Heater) .....	1
15	1508986	Wire Harness (Grid Heater To Grid Heater) .....	1
16	1323146	Pressure Switch (Transmission Oil) .....	1
17	1483645	Sensor , Pressure (Transmission Oil) .....	1
18	<del>1476852</del> 4142389	Switch (Coolant Level) .....	1

**FOOTNOTES:****a** → S/N A214E01950A**c** S/N A214E02181C →**b** S/N A214E01951A ↔ S/N A214E02180C

## INSTRUMENT PANEL (FIGURE 4-8) PAGE 1 OF 2



HP080671

**INSTRUMENT PANEL**  
**PAGE 1 OF 2**

ITEM	PART NO.	DESCRIPTION	QTY
1	169781	Temperature Gauge (Transmission Oil) .....	1
2	1487908	Oil Pressure Gauge (Transmission Oil) .....	1
3	1310688	Gauge (Volt Meter) .....	1
4	169759	Oil Pressure Gauge (Engine Oil) .....	1
5	169785	Wire (Light) .....	4
6	1310692	Bulb (24 Volt) .....	4
7	1336796	Wire Harness (Gauge) (Tier I Engine) .....	1
7	1514947	Wire Harness (Gauge) (Tier II Engine) .....	1
8	1307110	Resistor .....	3
9	.....	Control Panel (Attachment) (☞ Figure 4-10, ☞ Figure 4-11).....	1
10	1383846	Fuse Panel .....	1
11	320157	Washer .....	3
12	320156	Washer .....	2
13	136687	Nut .....	2
14	1301296	Terminal Block .....	2
15	1301704	Jumper .....	2
16	1301284	Screw .....	7
17	370647	Fuse (10 Amp) .....	4
	<b>a</b> 381846	Fuse Holder .....	1
18	370646	Fuse (5 Amp) .....	3
19	370648	Fuse (20 Amp) .....	1
20	1310630	Fuse (15 Amp) .....	1
21	<b>c</b> 1301282	Breaker (5 Amp) .....	3
21	<b>g</b> 1499598	Breaker (5 Amp) .....	3
22	1307694	Alarm (Air Pressure Alarm) .....	1
23	1315872	Lamp (Tier I Engine) .....	1
23	1315872	Lamp (Tier II Engine) .....	2
23	134810	Terminal .....	2
23	1377187	Lens .....	1
23	1377189	Bulb .....	1
23	181045	Connector Body .....	2
24	1385517	Wire Harness (Steering Pod) (Tier I Engine) (☞ Figure 4-49).....	1
24	1518935	Wire Harness (Steering Pod) (Tier II Engine) (☞ Figure 4-49).....	1
25	379902	Ignition Switch .....	1
25	186304	Key .....	2
26	1301739	Plate .....	1
27	379650	Screw .....	3
28	1301613	Switch (Cab Wiper/Washer) .....	3
29	136749	Screw .....	1
30	296380	Washer .....	3
31	239503	Nut .....	2
32	1301640	Seal .....	1
33	1345720	Wire .....	1
34	1393781	Warning Buzzer , Slow Pulse .....	1
35	<b>e</b> 1393779	Timer .....	1
35	1385516	Potentiometer .....	1
35	<b>j</b> 1608893	Timer .....	1
36	1301224	Diode Block .....	1
37	227176	Screw .....	1
38	370776	Switch (Momentary) .....	1

## INSTRUMENT PANEL PAGE 1 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
39	1330574	Screw .....	8
40	1300057	Fuse (7.5 Amp) .....	2
41	1553817	Display .....	1
42	1383845	Wire Harness (Operator Compartment) (Tier I Engine) (☞Figure 4-42).....	1
42	<b>e</b> 1518275	Wire Harness (Operator Compartment) (Tier II Engine) (☞Figure 4-44).....	1
42	<b>j</b> 1609035	Wire Harness (Operator Compartment) (Tier II Engine) (☞Figure 4-44).....	1
43	1307687	Relay (24 Volt) (Horn) (Tier I Engine) .....	4
43	1307687	Relay (24 Volt) (Horn) (Tier II Engine) .....	5
44	1383844	Wire Harness (Cab) (☞Figure 4-23).....	1
44	1499350	Wire Harness (Cab) (☞Figure 4-24).....	1
45	1393784	Retainer .....	1
46	137852	Strap Clamp .....	AR
47	287805	Capscrew .....	1
48	292681	Lockwasher .....	1
49	<b>b</b> 1383830	Wire Harness (Transmission) (☞Figure 4-53).....	1
49	<b>f</b> 1457954	Wire Harness (Transmission) (☞Figure 4-54).....	1
49	<b>j</b> 1606670	Wire Harness (Transmission) (☞Figure 4-55).....	1
50	<b>d</b> 1383863	Wire Harness (Attachment Control) (☞Figure 4-17).....	1
50	<b>h</b> 1494384	Wire Harness (Attachment Control Switch) (☞Figure 4-19).....	1
50	<b>i</b> 1574088	Wire Harness (Attachment Control Switch) (☞Figure 4-20).....	1
50	<b>j</b> 1607978	Wire Harness (Attachment Control Switch) (☞Figure 4-21).....	1
51	1356947	Strap , Bracket .....	1
52	1307684	Instrument Cluster (LH) (Includes Hourmeter and Water Temperature gauge) .....	1
52	370471	Instrument Cluster .....	1
53	1307110	Resistor .....	1
54	1310692	Bulb (24 Volt) .....	1
55	169785	Wire .....	1
56	1383831	Switch (Park Brake) .....	1
57	1507210	Instrument Cluster (Tier II Engine RH) .....	1
57	1507359	Instrument Cluster (Diesel) (Tier II Engine) .....	1
57	1307682	Bulb (Tier II Engine) .....	8
57	1307683	Instrument Cluster (RH) (Tier I Engine) .....	1
57	1301645	Instrument Cluster (Tier I Engine) .....	1
58	1307110	Resistor (Tier I Engine) .....	1
59	1310692	Bulb (24 Volt) (Tier I Engine) .....	1
60	169785	Wire (Tier I Engine) .....	1
60	169784	Socket (Tier I Engine) .....	1
60	206027	E-Ring (Tier I Engine) .....	1
61	1307682	Bulb .....	4
62	1553819	Wire Harness (Dash Display) .....	1
63	1311403	Wire (Horn Ground) .....	1
64	16743	Lockwasher .....	1
65	15049	Nut .....	1
66	1480539	Hourmeter .....	1
67	169775	Fuel Gauge (Tier II Engine) .....	1
68	1479105	Bracket (Tier II Engine) .....	1
69	1479227	Switch (Tier II Engine) .....	1
70	1495149	Wire Harness (Diagnosis) (Tier II Engine) .....	1
71	1527404	Switch (Tier II Engine) .....	1

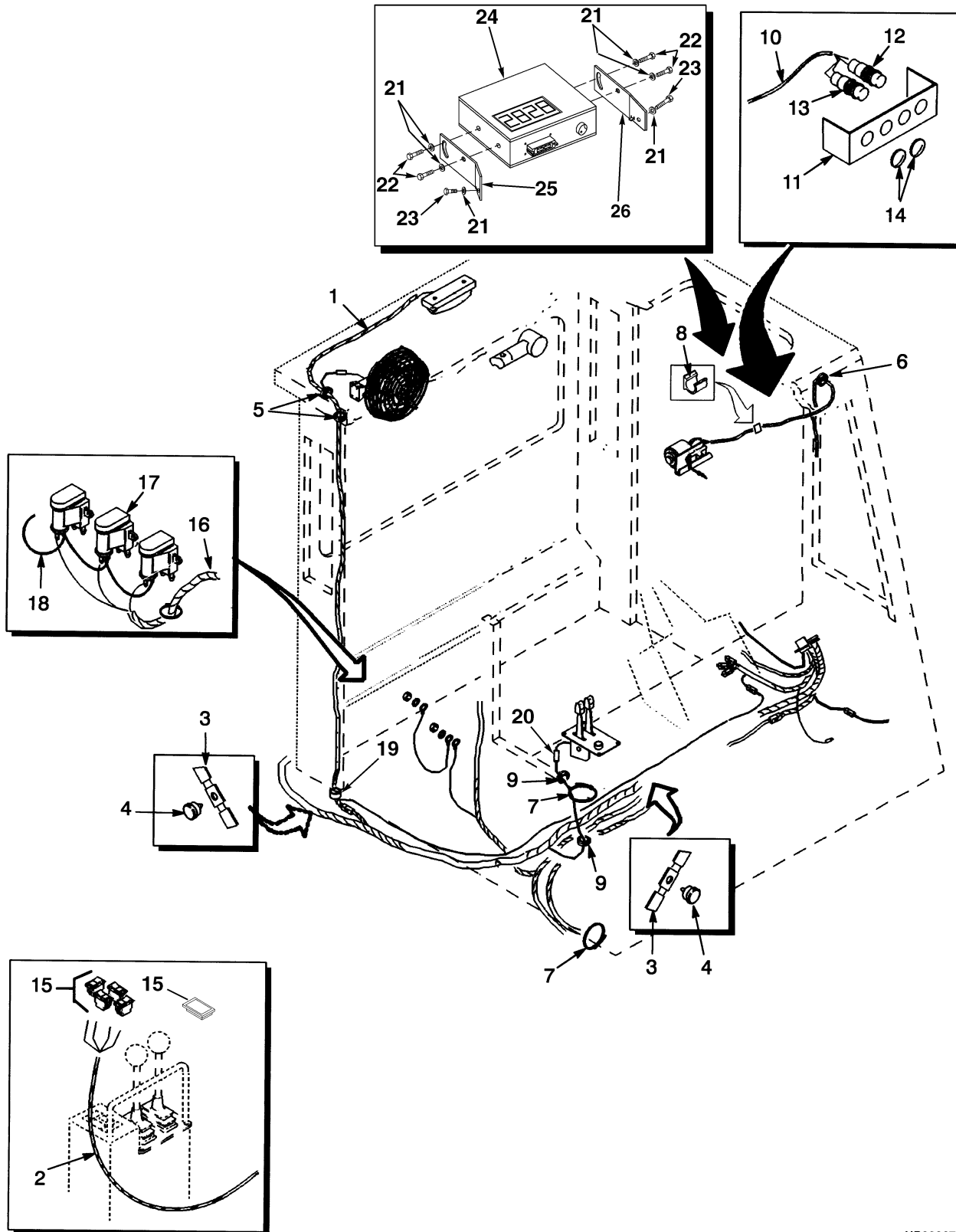
**INSTRUMENT PANEL**  
**PAGE 1 OF 2**

<b>ITEM</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY</b>
72	1316527	Switch (Tier II Engine) .....	1
73	1514948	Wire Harness (Gauge) (Tier II Engine) .....	1

**FOOTNOTES:**

<b>a</b>	Not Illustrated	<b>f</b>	S/N A214E01616 →
<b>b</b>	→ S/N A214E01615	<b>g</b>	S/N A214E01798 →
<b>c</b>	→ S/N A214E01797	<b>h</b>	S/N A214E01807Y →
<b>d</b>	→ S/N A214E01806Y	<b>i</b>	S/N A214E02078B →
<b>e</b>	→ S/N A214E02193C	<b>j</b>	S/N A214E02194C →

## INSTRUMENT PANEL (FIGURE 4-9) PAGE 2 OF 2



HP080672

**INSTRUMENT PANEL**  
**PAGE 2 OF 2**

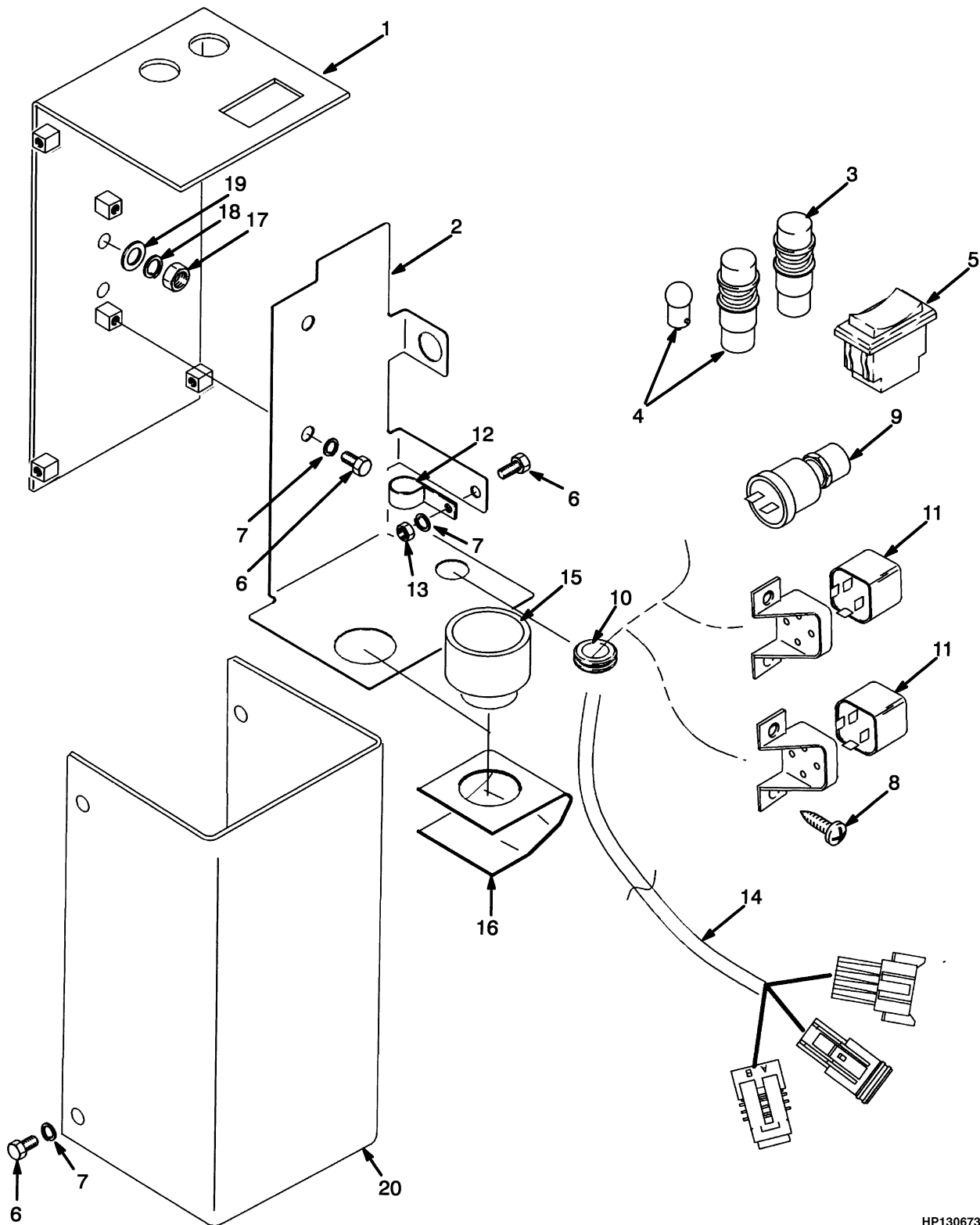
ITEM	PART NO.	DESCRIPTION	QTY
1	<b>b</b> 1385514	Wire Harness (Module) (☞Figure 4-40).....	1
1	<b>d</b> 1499351	Wire Harness (Module) (☞Figure 4-41).....	1
2	1383841	Wire Harness (Carriage Control Switch) (☞Figure 4-25).....	1
3	1301593	Clamp .....	11
4	340044	Gripnail .....	11
5	102990	Grommet .....	2
6	164658	Grommet .....	1
7	137852	Strap Clamp .....	2
8	279740	Clamp .....	3
9	1300757	Grommet .....	2
10	<b>c</b> 1385510	Wire Harness (Auxiliary Indicator Lights) .....	1
10	<b>e</b> 1534455	Wire Harness (Attachment Lights) (☞Figure 4-22).....	1
11	<b>e</b> 1385508	Bracket .....	1
12	<b>a</b> 1382840	Lamp (Green) .....	1
12	<b>a</b> 1382843	Bulb .....	1
13	<b>a</b> 1382842	Lamp (Amber) .....	1
13	<b>a</b> 1382843	Bulb .....	1
14	<b>e</b> 339528	Plug .....	2
15	1316527	Switch .....	4
15	1306924	Switch .....	1
15	1310625	Lens .....	1
15	376949	Cover (For Unused Switch Locations) .....	AR
16	1384602	Wire Harness (Windshield Washer) (☞Figure 4-57).....	1
17	1316593	Pump (24 Volt) (☞Figure 1-16).....	3
18	1311268	Wire Harness (Windshield Washer Ground) .....	1
19	1301424	Bushing .....	2
20	181046	Connector Body .....	2
21	320156	Washer .....	6
22	292500	Capscrew .....	4
23	16073	Screw .....	2
24	1506674	Control Box (Twistlock) .....	1
24	1554156	Key Set (Override Key) .....	1
25	1506665	Plate .....	1
26	1506666	Plate .....	1

**FOOTNOTES:**

**a** → S/N A214E01650W  
**b** → S/N A214E01797Y  
**c** → S/N A214E01806

**d** S/N A214E01798Y →  
**e** S/N A214E01807 →

## CONTROL PANEL (FIGURE 4-10) (→ S/N A214E01806)



HP130673

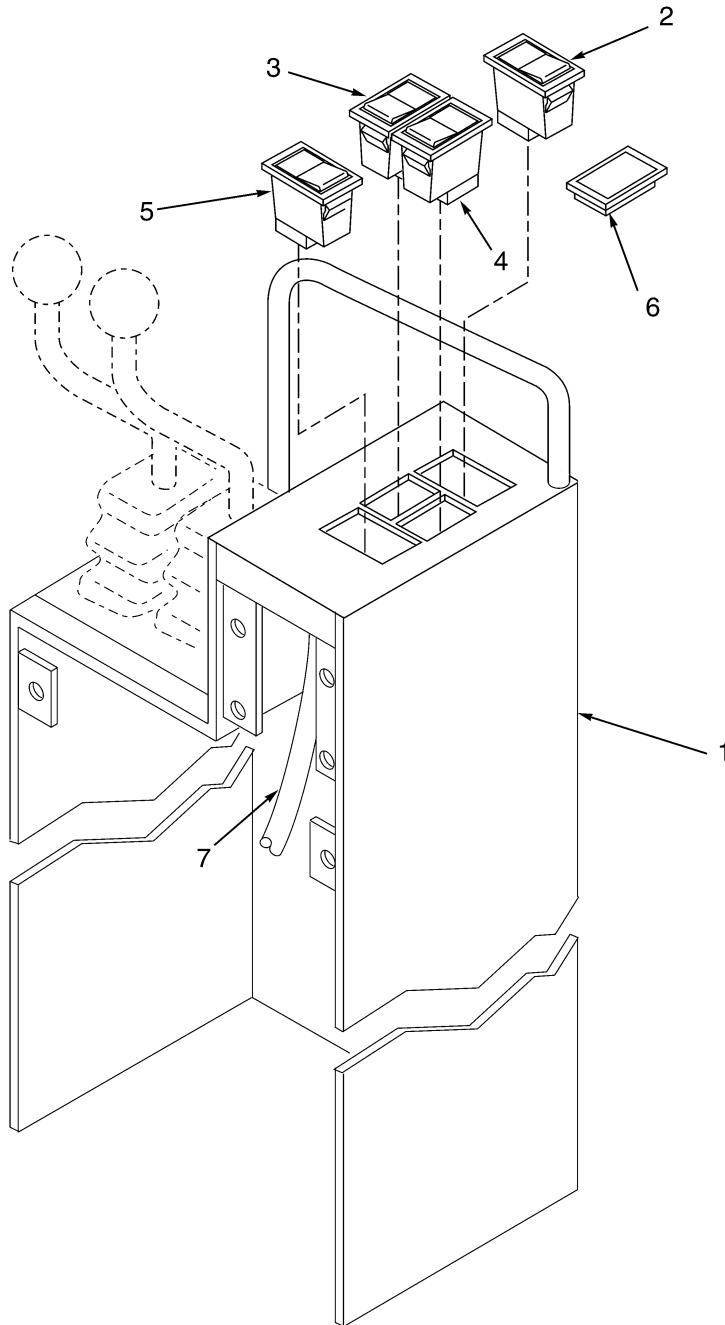


**CONTROL PANEL**  
(→ S/N A214E01806)

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a</b> 1381998	Control .....	1
	<b>b</b> 1464284	Control .....	1
1	1384476	Bracket Wldmt .....	1
2	1323854	Plate .....	1
3	1382842	Lamp (Amber) .....	1
3	1382843	Bulb .....	1
4	1382840	Lamp (Green) .....	1
4	1382843	Bulb .....	1
5	1316527	Switch .....	1
5	1520356	Switch .....	1
5	1310625	Lens .....	1
6	287817	Capscrew .....	3
7	292680	Washer .....	3
8	227096	Screw .....	4
9	370776	Switch (Momentary) .....	1
10	1152816	Grommet .....	1
11	1307687	Relay (24 Volt) (Horn) .....	2
12	132131	Clamp .....	1
13	136687	Nut .....	1
14	<b>a</b> 1382874	Wire Harness (Attachment Control) .....	1
14	<b>b</b> 1464283	Wire Harness (Attachment Control) .....	1
15	1361205	Alarm .....	1
16	1361207	Deflector .....	1
17	239503	Nut .....	2
18	292681	Lockwasher .....	2
19	296418	Washer .....	2
20	1323852	Cover .....	1

**FOOTNOTES:****a** → S/N A214E01650**b** S/N A214E01651 →

## CONTROL PANEL (FIGURE 4-11) (S/N A214E01807 →)



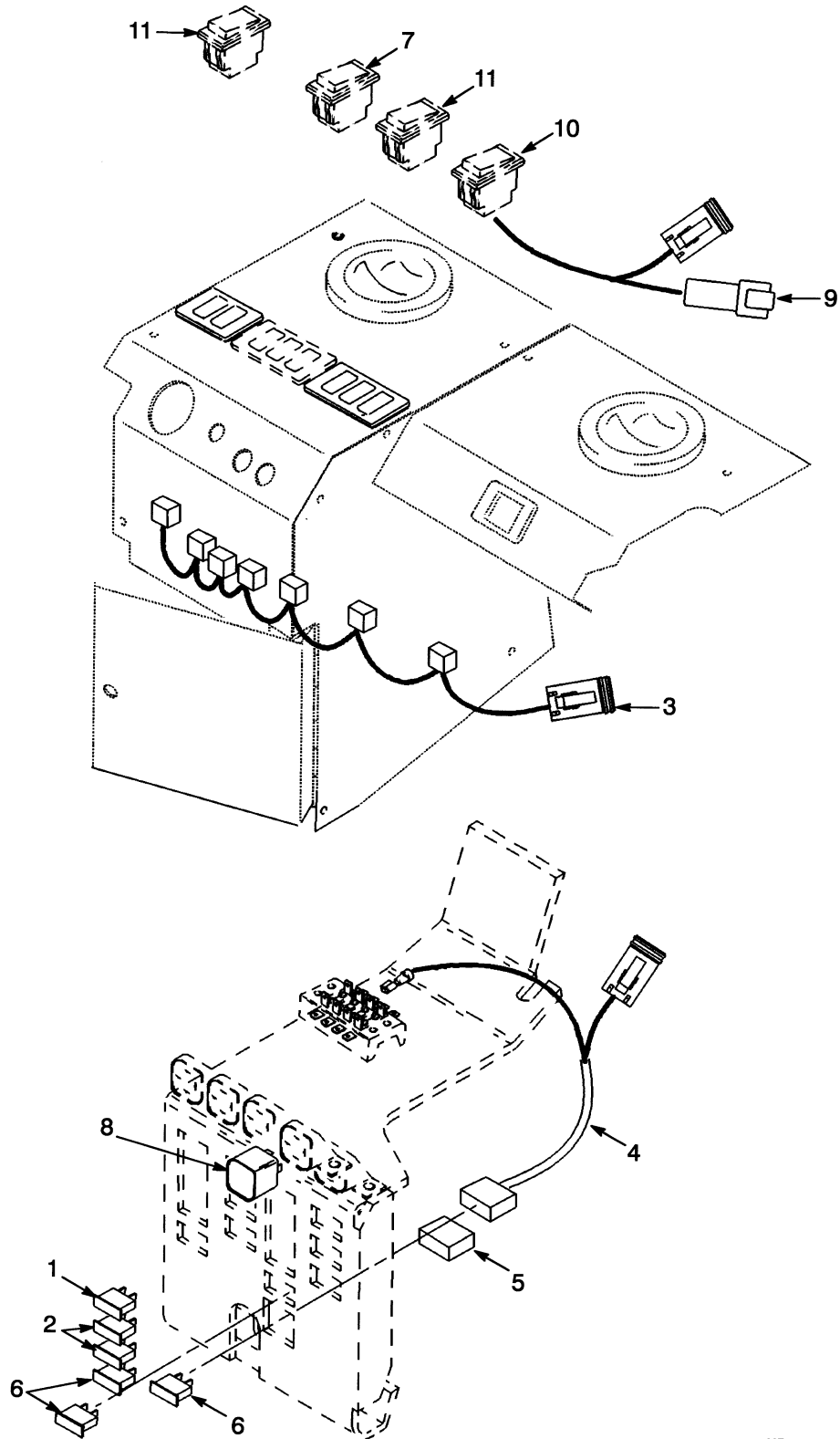
HP081228

**CONTROL PANEL**  
(S/N A214E01807 →)**KEY:****A: Attachment With Twist Locks****B: Attachment Without Twist Locks****C: Carriage Control**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
1	1454177	Housing (☞Figure 9-11, ☞Figure 9-12).....	1	1	1
2	1316527	Switch .....	1	1	..
3	1316527	Switch .....	1	..	1
4	1316527	Switch .....	..	..	1
5	1316527	Switch .....	1	1	1
6	376949	Cover (Used Where No Switch Installed) .....	1	2	1
7	1383841	Wire Harness (Carriage Control Switch) (☞Figure 4-25).....	..	..	1
7	<b>a</b> 1494384	Wire Harness (Attachment Control Switch) (☞Figure 4-19).....	1	1	..
7	<b>b</b> 1574088	Wire Harness (Attachment Control Switch) (☞Figure 4-20).....	1	1	..
7	<b>c</b> 1607978	Wire Harness (Attachment Control Switch) (☞Figure 4-21).....	1	1	..

**FOOTNOTES:****a** → S/N A214E02077B**c** S/N A214E02194C →**b** S/N A214E02078B →

## LIGHT CONTROLS (FIGURE 4-12)

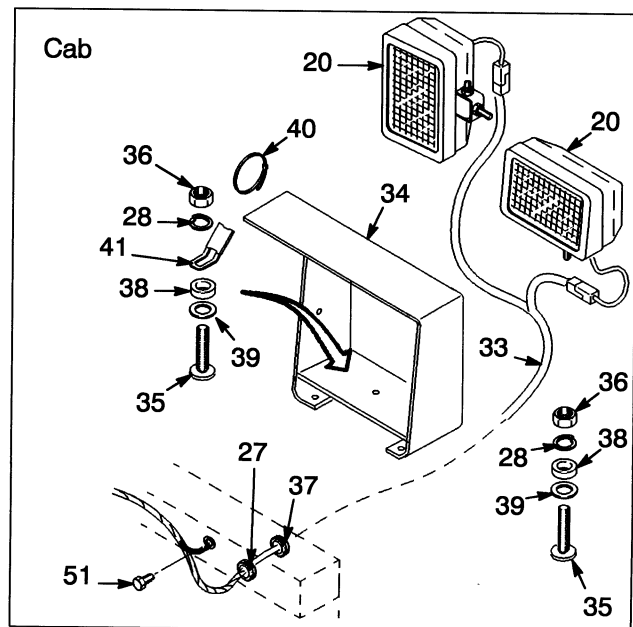
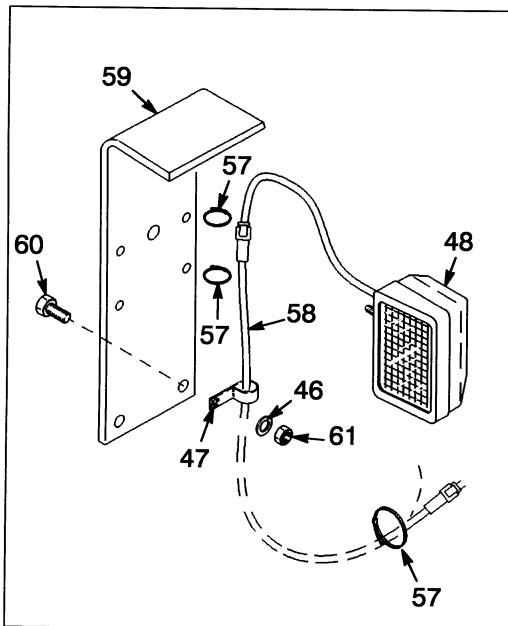
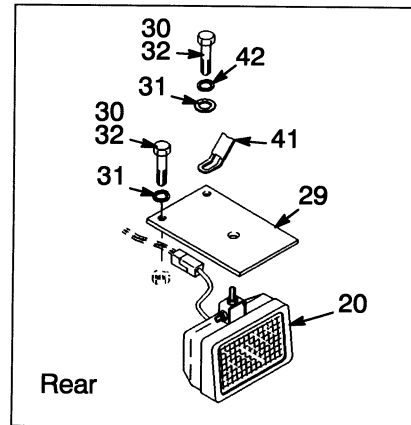
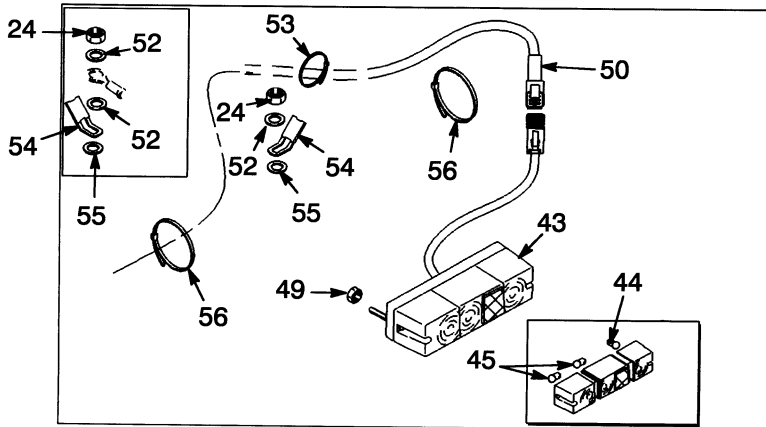
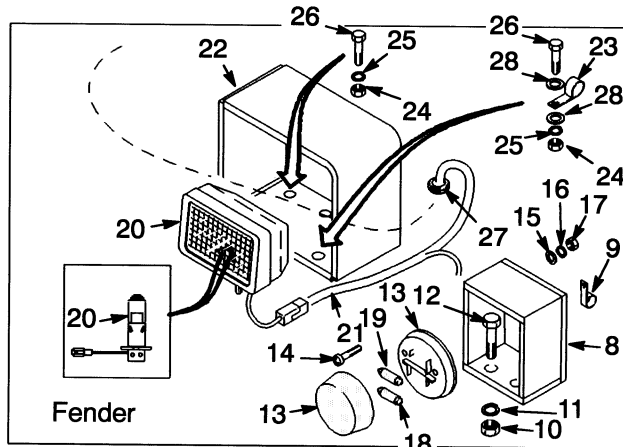
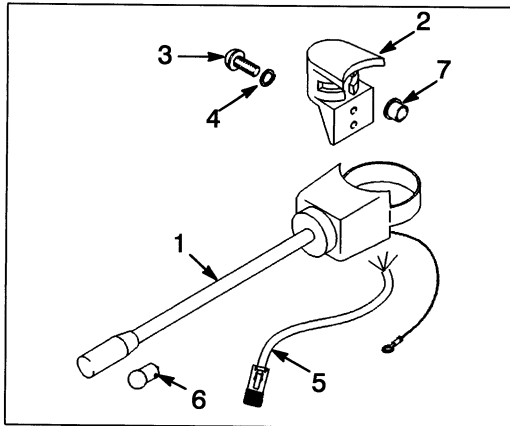


HP130676

**LIGHT CONTROLS**

ITEM	PART NO.	DESCRIPTION	QTY
1	370648	Fuse (20 Amp) .....	1
2	1310630	Fuse (15 Amp) .....	2
3	1336790	Wire Harness (Switch Lights) (☞Figure 4-50).....	1
4	1385513	Wire Harness (Rotating Beacon) (☞Figure 4-48).....	1
5	381846	Fuse Holder .....	1
6	370647	Fuse (10 Amp) .....	3
7	1301619	Switch .....	1
7	1310627	Switch .....	1
7	1301157	Lens (Green) (Work Light) .....	1
8	2003859	Flasher .....	1
9	1384495	Wire Harness (Warning Switch) (☞Figure 4-51).....	1
10	1452310	Switch (Hazard Warning) .....	1
10	1331560	Switch .....	1
10	1452308	Lens .....	1
11	1301617	Switch (Work Lights) .....	2
11	1310627	Switch .....	1
11	1301156	Lens (Green) (Light) .....	1

## LIGHTS (FIGURE 4-13) EMPTY CONTAINER HANDLER



HP130674

**LIGHTS**  
**EMPTY CONTAINER HANDLER**

ITEM	PART NO.	DESCRIPTION	QTY
1	815914	Switch (Turn Signal) .....	1
2	1360660	Mount .....	1
3	369242	Capscrew .....	2
4	379675	Washer .....	2
5	1336789	Wire Harness (Turn Signal) (☞Figure 4-56).....	1
6	1310641	Bulb (24 Volt) .....	1
7	286901	Bushing .....	1
8	374021	Bracket Wldmt .....	2
9	18905	Clamp .....	2
10	239503	Nut .....	4
11	292681	Lockwasher .....	4
12	176640	Bolt .....	4
13	373091	Turn Signal Light .....	2
13	378070	Lens .....	1
14	302036	Screw .....	4
15	197067	Washer .....	4
16	292679	Washer .....	4
17	292668	Nut .....	4
18	384014	Bulb .....	2
19	1310638	Bulb .....	2
20	1382867	Head/Work Light (Halogen, sealed beam type) (24 Volt) .....	2
20	1476614	Work Light (24 Volt) .....	1
20	1383998	Head/Work Light (Sealed Beam) .....	1
20	1330409	Connector .....	1
20	1330414	Connector (Secondary Lock) .....	1
20	1363885	Terminal (Pin) .....	2
21	1384616	Wire Harness (Front Lights) (☞Figure 4-35).....	1
22	816442	Bracket Wldmt .....	2
23	164488	Clamp .....	2
24	<del>1586693</del>		
	136692	Nut .....	6
25	<del>388049</del>		
	292682	Lockwasher .....	4
26	287860	Capscrew .....	4
27	102990	Grommet .....	4
28	320159	Washer .....	8
29	353379	Plate .....	2
30	132861	Capscrew .....	4
31	292681	Lockwasher .....	4
32	358674	Sealant .....	AR
33	1384606	Wire Harness (Work Lights) (☞Figure 4-58).....	1
34	1331591	Bracket Wldmt (RH) .....	1
34	1331592	Bracket Wldmt (LH) .....	1
35	1326071	Stud .....	6
36	302401	Locknut .....	6
37	216735	Grommet .....	2
38	1300165	Spacer .....	6
39	320162	Washer .....	6
40	137852	Strap Clamp .....	4
41	1356947	Strap , Bracket .....	4

## LIGHTS EMPTY CONTAINER HANDLER

ITEM	PART NO.	DESCRIPTION	QTY
42	320158	Washer .....	2
43	1479898	Rear Light Assembly .....	2
43	1491816	Rear Light .....	1
43	1491810	Strap Clamp .....	1
43	1491814	Wire Harness .....	1
44	1491811		
	345355	Bulb .....	3
45	1491813		
	887334	Bulb .....	1
46	<b>a</b> 292683	Lockwasher .....	4
47	<b>a</b> 154208	Clamp .....	2
48	<b>a</b> 1382867	Head/Work Light (Halogen, sealed beam type) .....	2
49	316833	Nut .....	4
50	1384605	Wire Harness (Rear Light) (☞Figure 4-47).....	1
51	136681	Capscrew .....	1
52	320159	Washer .....	3
53	137852	Strap Clamp .....	2
54	1356947	Strap , Bracket .....	2
55	320161	Washer .....	2
56	129563	Strap Clamp .....	AR
57	137852	Strap Clamp .....	AR
58	<b>a</b> 1452319	Wire Harness (Work Lights) (☞Figure 4-59).....	1
59	<b>a</b> 1331593	Bracket .....	2
60	<b>a</b> 292529	Capscrew .....	4
61	<b>a</b> 1318914		
	216877	Nut .....	4

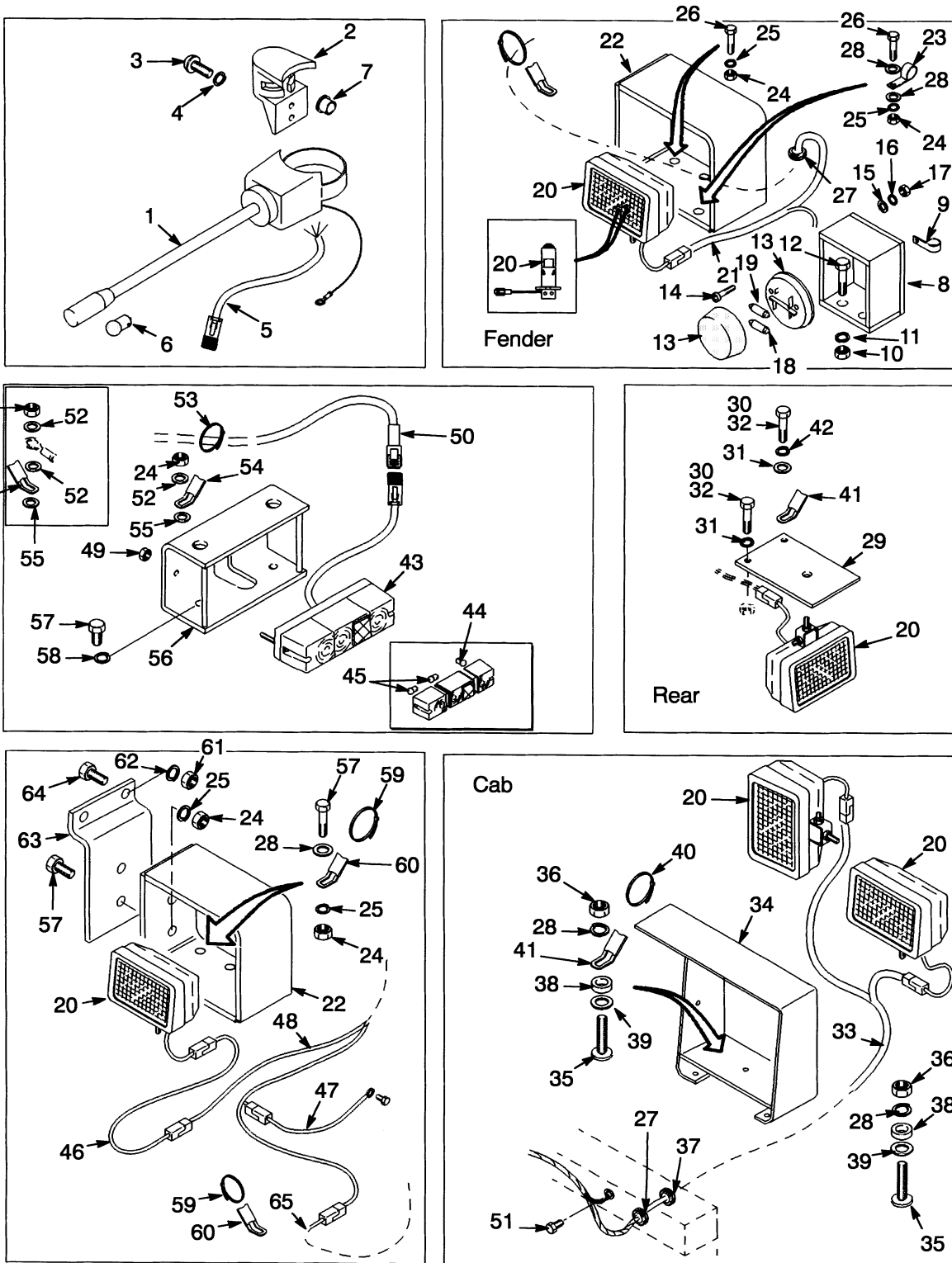
**FOOTNOTES:**

**a** → 9/2003





## LIGHTS (FIGURE 4-14) FORK LIFT TRUCK



HP130675

**LIGHTS**  
**FORK LIFT TRUCK**

ITEM	PART NO.	DESCRIPTION	QTY
1	815914	Switch (Turn Signal) .....	1
2	1360660	Mount .....	1
3	369242	Capscrew .....	2
4	379675	Washer .....	2
5	1336789	Wire Harness (Turn Signal) (☞Figure 4-56).....	1
6	1310641	Bulb (24 Volt) .....	1
7	286901	Bushing .....	1
8	374021	Bracket Wldmt .....	2
9	18905	Clamp .....	2
10	239503	Nut .....	4
11	292681	Lockwasher .....	4
12	176640	Bolt .....	4
13	373091	Turn Signal Light .....	2
13	378070	Lens .....	1
14	302036	Screw .....	4
15	197067	Washer .....	4
16	292679	Washer .....	4
17	292668	Nut .....	4
18	384014	Bulb .....	2
19	1310638	Bulb .....	2
20	1382867	Head/Work Light (Halogen, sealed beam type) (24 Volt) .....	10
20	1476614	Work Light (24 Volt) .....	1
20	1383998	Head/Work Light (Sealed Beam) .....	1
20	1330409	Connector .....	1
20	1330414	Connector (Secondary Lock) .....	1
20	1363885	Terminal (Pin) .....	2
21	1384616	Wire Harness (Front Lights) (☞Figure 4-35).....	1
22	816442	Bracket Wldmt .....	4
23	164488	Clamp .....	2
24	<del>1586693</del>		
	136692	Nut .....	12
25	<del>388049</del>		
	292682	Lockwasher .....	10
26	287860	Capscrew .....	4
27	102990	Grommet .....	4
28	320159	Washer .....	10
29	353379	Plate .....	2
30	132861	Capscrew .....	4
31	292681	Lockwasher .....	4
32	358674	Sealant .....	AR
33	1384606	Wire Harness (Work Lights) (☞Figure 4-58).....	1
34	1331591	Bracket Wldmt (RH) .....	1
34	1331592	Bracket Wldmt (LH) .....	1
35	1326071	Stud .....	6
36	302401	Locknut .....	6
37	216735	Grommet .....	2
38	1300165	Spacer .....	6
39	320162	Washer .....	6
40	137852	Strap Clamp .....	4
41	1356947	Strap , Bracket .....	4

## LIGHTS FORK LIFT TRUCK

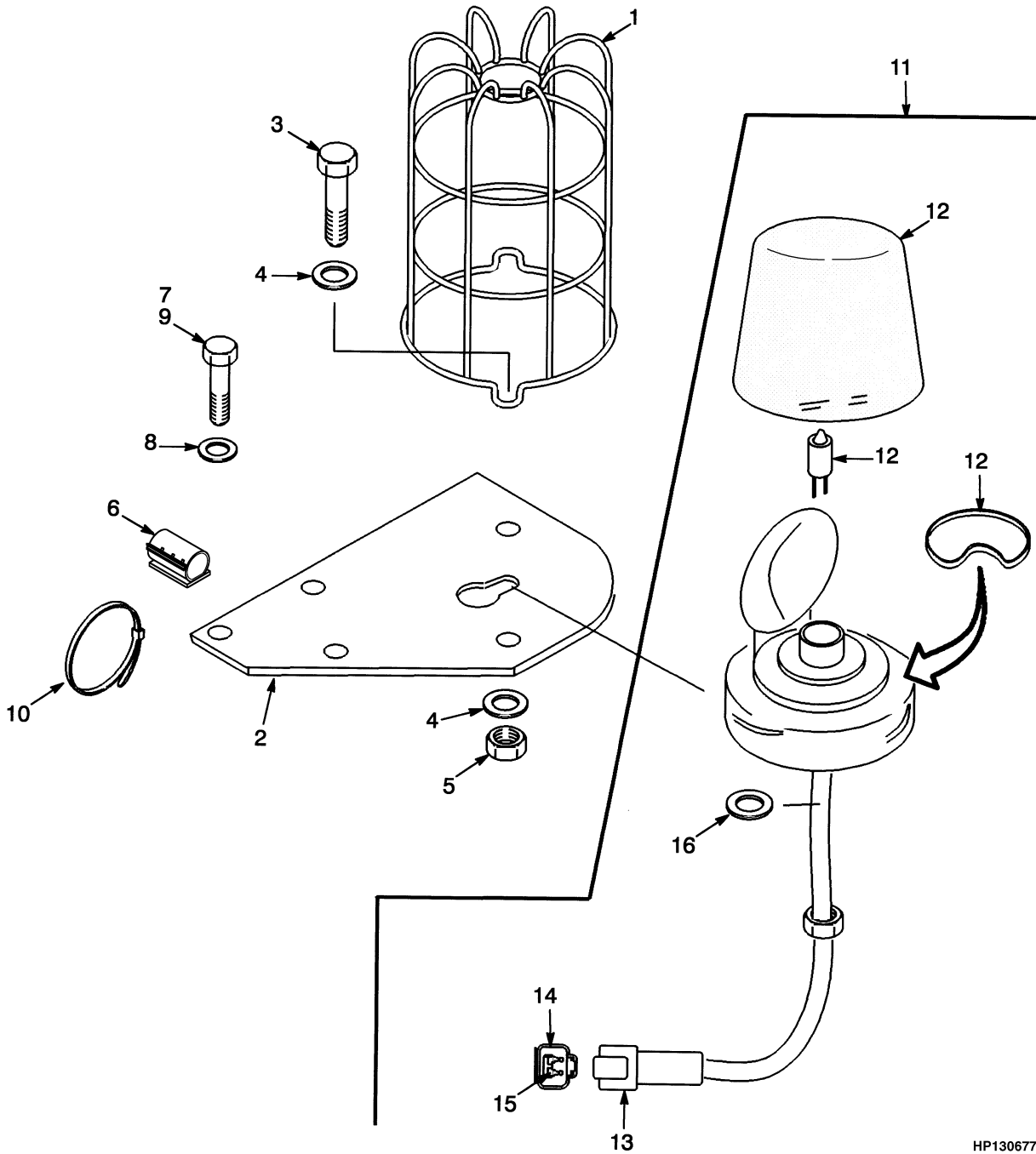
ITEM	PART NO.	DESCRIPTION	QTY
42	320158	Washer .....	2
43	1479898	Rear Light Assembly .....	2
43	1491816	Rear Light (Clear) .....	1
43	1491810	Strap Clamp (Red) .....	1
43	1491814	Wire Harness (Amber) .....	1
44	1491811		
	345355	Bulb .....	3
45	1491813		
	887334	Bulb .....	1
46	<b>a</b> 1452315	Wire Harness (RH) (Work Light Extension) (☞Figure 4-61).....	1
46	<b>b</b> 1452316	Wire Harness (RH) (Work Light Extension) (☞Figure 4-61).....	1
47	<b>c</b> 1452324	Wire Harness (Jumper) (☞Figure 4-46).....	1
48	1452323	Wire Harness (Work Lights) (☞Figure 4-60).....	1
49	316833	Nut .....	4
50	1384605	Wire Harness (Rear Light) (☞Figure 4-47).....	1
51	136681	Capscrew .....	1
52	320159	Washer .....	3
53	137852	Strap Clamp .....	2
54	1356947	Strap , Bracket .....	2
55	320161	Washer .....	2
56	1545532	Bracket .....	2
57	287854	Capscrew .....	10
58	388049		
	292682	Lockwasher .....	4
59	137852	Strap Clamp .....	AR
60	1356947	Strap , Bracket .....	AR
61	1318914		
	216877	Nut .....	4
62	292683	Lockwasher .....	4
63	<b>d</b> 1311425	Bracket .....	2
63	<b>e</b> 1460312	Bracket .....	2
64	4048814		
	292528	Capscrew .....	4
65	1452552	Wire Harness (LH) (Work Lights Extension) (☞Figure 4-61).....	1

### FOOTNOTES:

- |          |                            |          |                  |
|----------|----------------------------|----------|------------------|
| <b>a</b> | 2900 mm thru 5300 mm Lift  | <b>d</b> | → S/N A577E02363 |
| <b>b</b> | 6100 mm thru 6900 mm Lift  | <b>e</b> | S/N A577E02364 → |
| <b>c</b> | Without Front Drive Lights |          |                  |



## LIGHTS (FIGURE 4-15) ROTATING BEACON

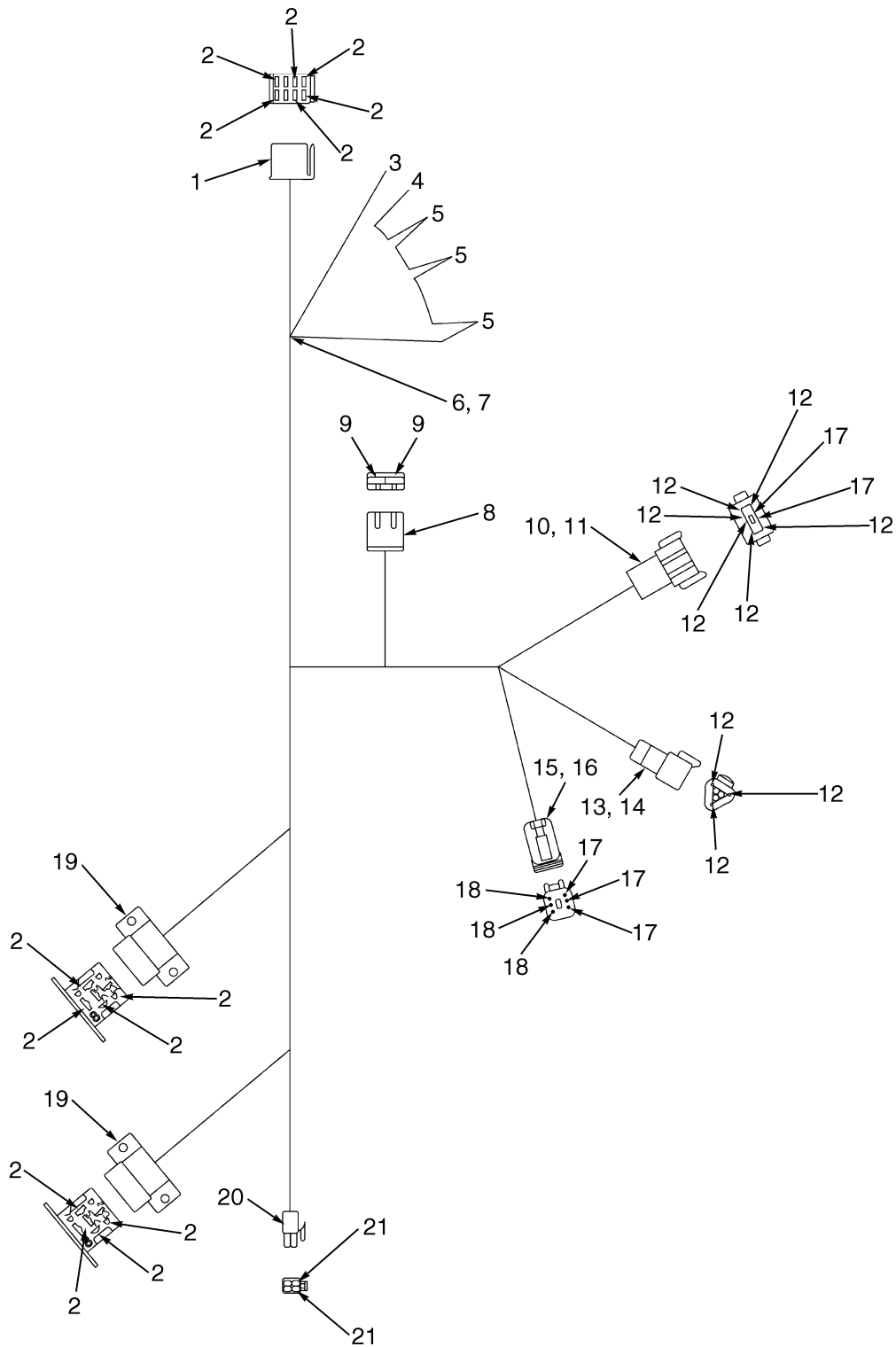


HP130677

**LIGHTS  
ROTATING BEACON**

ITEM	PART NO.	DESCRIPTION	QTY
1	250095	Guard .....	1
2	1385512	Plate .....	1
3	302049	Screw .....	2
4	320156	Washer .....	4
5	302399	Nut .....	2
6	1301727	Clamp .....	1
7	176640	Bolt .....	2
8	292681	Lockwasher .....	2
9	280472	Sealant .....	AR
9	358674	Sealant (Optional) .....	AR
10	137852	Strap Clamp .....	1
11	1385523	Rotating Beacon .....	1
12	1385521	Rotating Beacon .....	1
12	.....	Lens .....	1
12	.....	Belt .....	1
12	1453564	Bulb (24 Volt) .....	1
13	1385513	Wire Harness .....	1
13	1330419	Connector .....	1
14	1330424	Connector (Secondary Lock) .....	1
15	1330438	Terminal (Socket) .....	2
16	320162	Washer .....	1

## WIRE HARNESS (FIGURE 4-16) ATTACHMENT CONTROL — PAGE 1 OF 2 (→ S/N A214E01650)



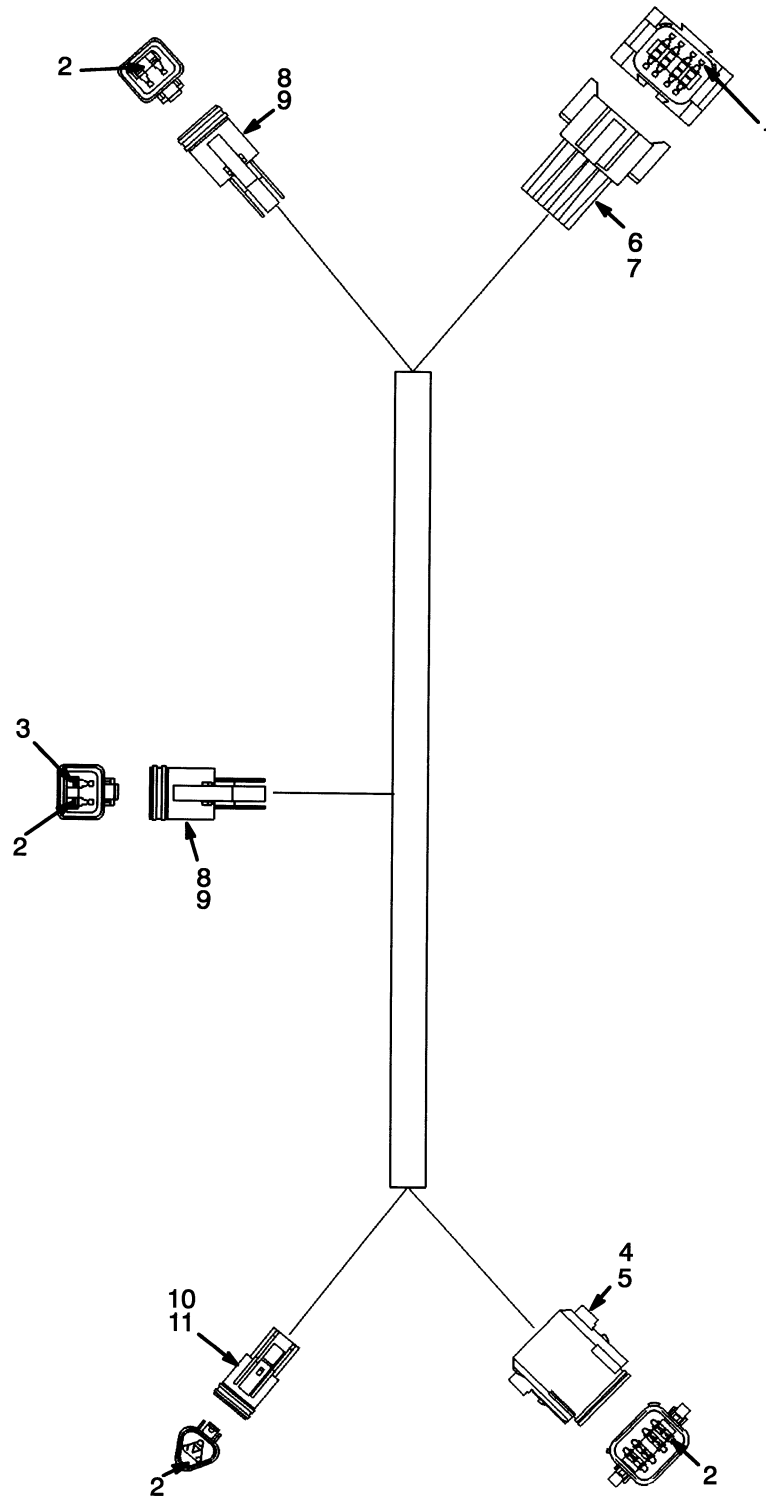
HP081235



**WIRE HARNESS**  
**ATTACHMENT CONTROL – PAGE 1 OF 2 (→ S/N A214E01650)**

ITEM	PART NO.	DESCRIPTION	QTY
	1382874	Wire Harness .....	1
1	1301154	Housing .....	1
2	1331233	Terminal .....	14
3	380121	Terminal .....	1
4	325789	Terminal .....	1
5	378451	Fitting .....	3
6	181046	Connector Body .....	1
7	134811	Terminal .....	1
8	346330	Connector Body .....	1
9	370730	Terminal .....	2
10	1330413	Connector (8 Pin) .....	1
11	1330418	Connector (DT REC 8-Pin) .....	1
12	1330437	Terminal (Pin) .....	9
13	1330410	Connector (DT REC 3-Pin) .....	1
14	1330415	Connector (Secondary Lock) .....	1
15	1330422	Connector .....	1
16	1330428	Connector (Secondary Lock) .....	1
17	1330439	Plug .....	5
18	1330438	Terminal (Socket) .....	3
19	1301229	Connector .....	2
20	1361208	Connector .....	1
21	1361209	Socket .....	2

## WIRE HARNESS (FIGURE 4-17) ATTACHMENT CONTROL — PAGE 2 OF 2 (→ S/N A214E01650)

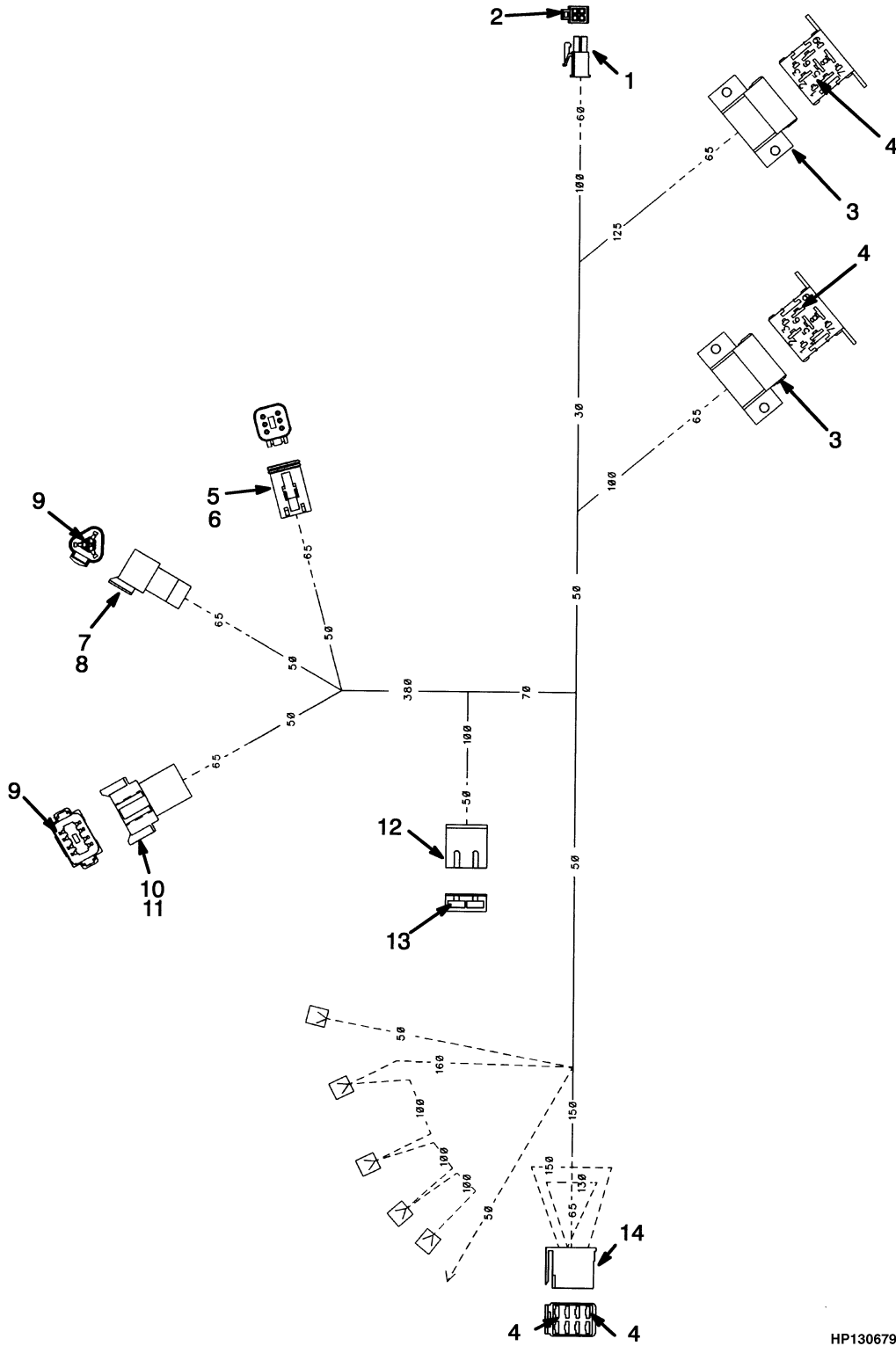


HP130678

**WIRE HARNESS**  
**ATTACHMENT CONTROL – PAGE 2 OF 2 (→ S/N A214E01650)**

ITEM	PART NO.	DESCRIPTION	QTY
	1383863	Wire Harness .....	1
1	1330437	Terminal (Pin) .....	8
2	1330438	Terminal (Socket) .....	14
3	1330439	Plug .....	1
4	1330423	Connector (8 Socket) .....	1
5	1330429	Connector (Secondary Lock) .....	1
6	1330413	Connector (8 Pin) .....	1
7	1330418	Connector (DT REC 8-Pin) .....	1
8	1330419	Connector .....	2
9	1330424	Connector (Secondary Lock) .....	2
10	1330420	Connector .....	1
11	1330426	Connector (Secondary Lock) .....	1

## WIRE HARNESS (FIGURE 4-18) ATTACHMENT CONTROL (S/N A214E01651 ↔ S/N A214E01806)

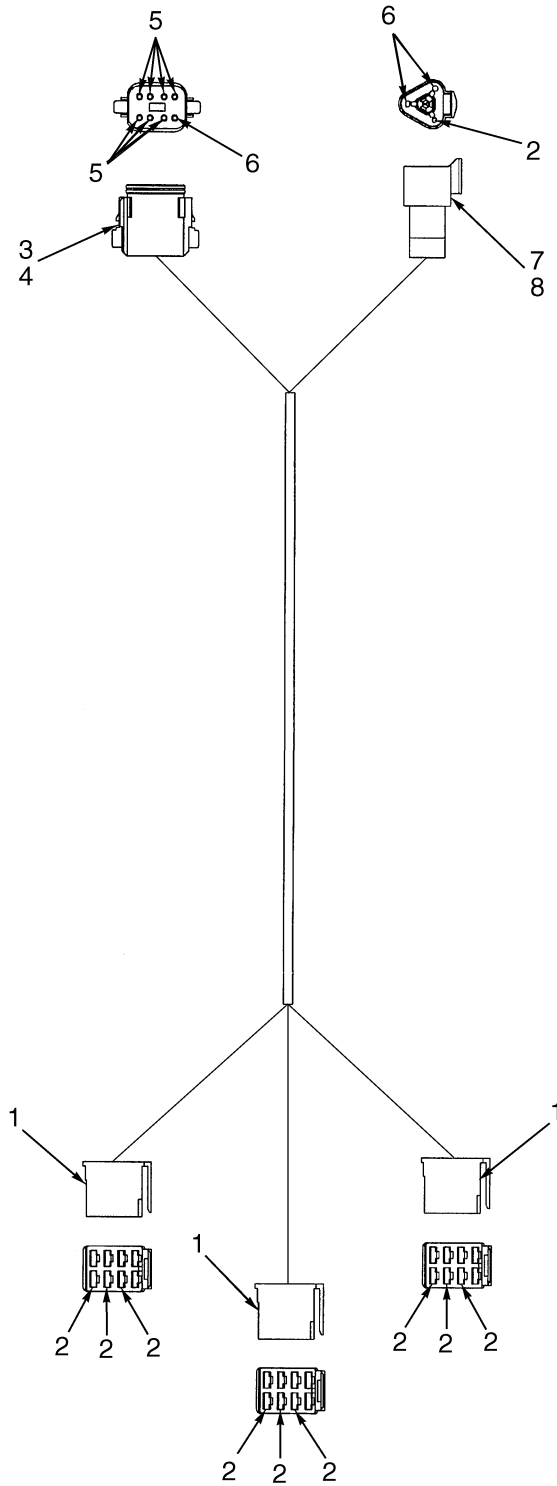


HP130679

**WIRE HARNESS**  
**ATTACHMENT CONTROL (S/N A214E01651 ↔ S/N A214E01806)**

ITEM	PART NO.	DESCRIPTION	QTY
	1464283	Wire Harness .....	1
1	1361208	Connector .....	1
2	1331209	Converter (LPG) .....	2
3	1301229	Connector .....	2
4	1331233	Terminal .....	14
5	1330422	Connector .....	1
6	1330428	Connector (Secondary Lock) .....	1
7	1330410	Connector (DT REC 3-Pin) .....	1
8	1330415	Connector (Secondary Lock) .....	1
9	1330437	Terminal (Pin) .....	12
10	1330413	Connector (8 Pin) .....	1
11	1330418	Connector (DT REC 8-Pin) .....	1
12	346330	Connector Body .....	1
13	370790	Fitting .....	2
14	1301154	Housing .....	1

**WIRE HARNESS (FIGURE 4-19)**  
**ATTACHMENT CONTROL SWITCH (S/N A214E01807 →)**

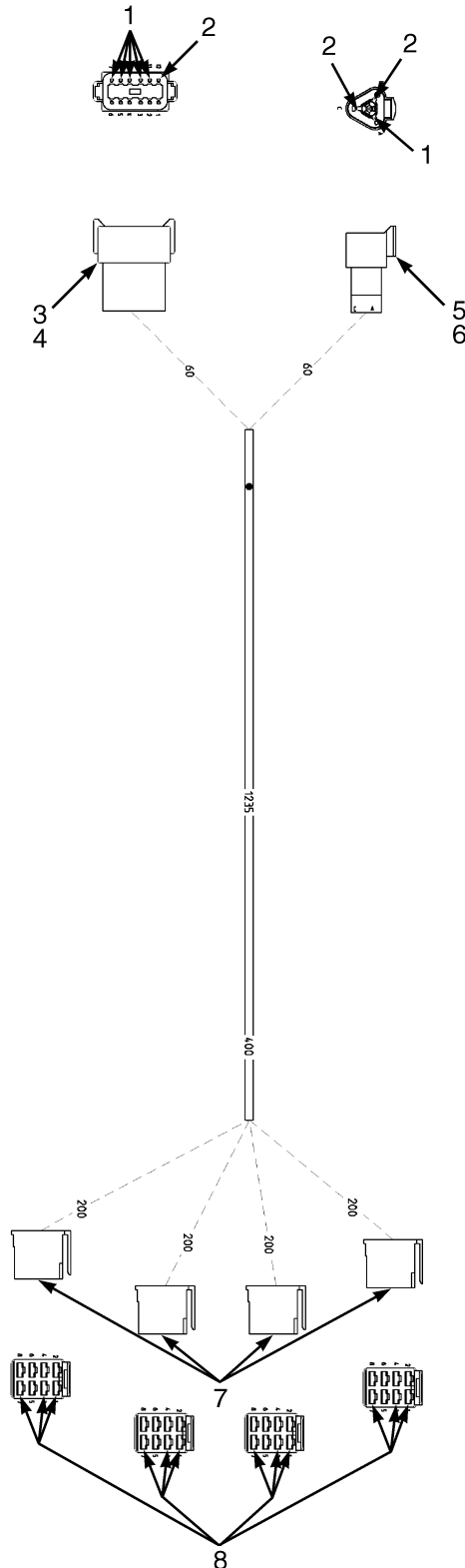


HP081231

**WIRE HARNESS**  
**ATTACHMENT CONTROL SWITCH (S/N A214E01807 →)**

ITEM	PART NO.	DESCRIPTION	QTY
	1494384	Wire Harness .....	1
1	1301154	Housing (Attachments) .....	8
2	1331233	Terminal .....	14
3	1330423	Connector (8 Socket) (Front End) .....	1
4	1330429	Connector (Secondary Lock) .....	1
5	1363886	Terminal (Socket) .....	1
6	1330439	Plug .....	1
7	1330410	Connector (DT REC 3-Pin) (Chassis) .....	1
8	1330415	Connector (Secondary Lock) .....	2

## WIRE HARNESS (FIGURE 4-20) ATTACHMENT CONTROL SWITCH (S/N A214E02078B ↔ S/N A214E02193C)



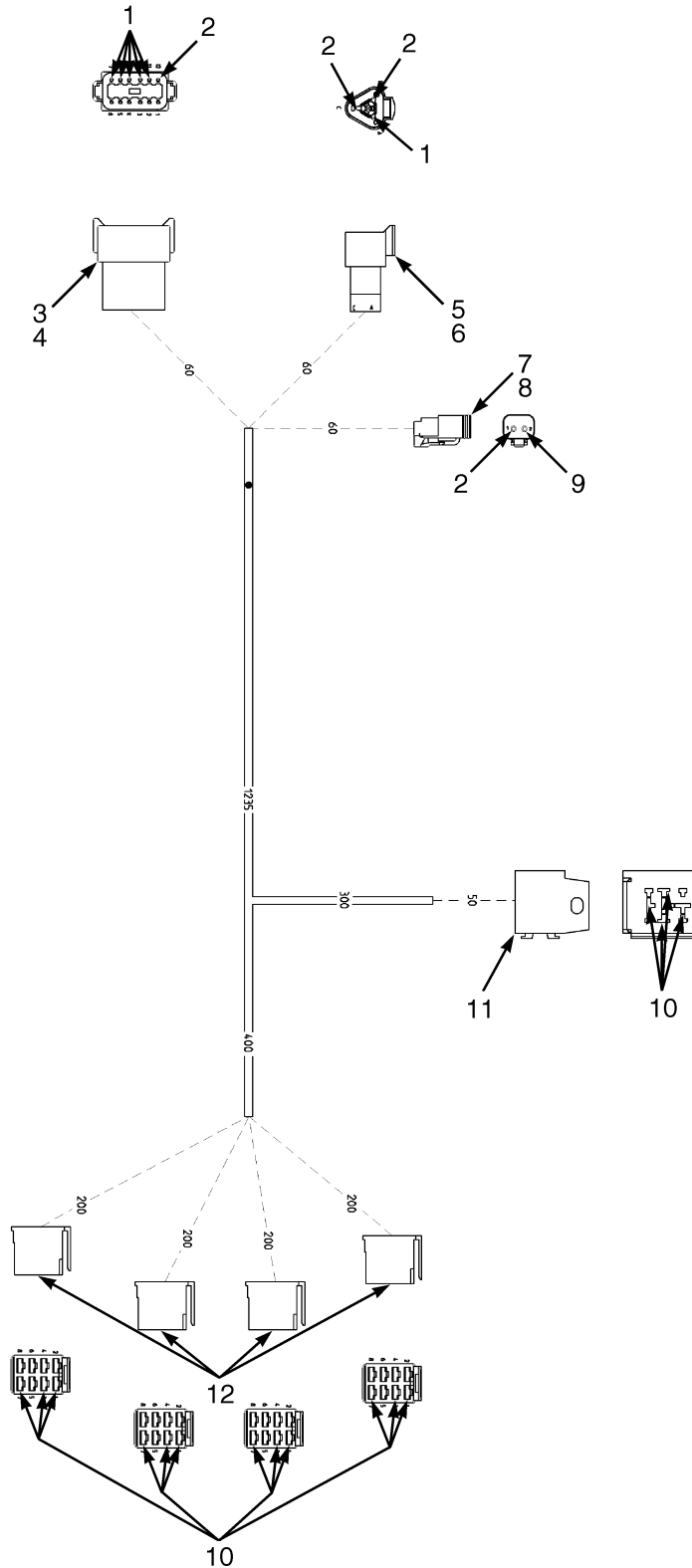
HP081707



**WIRE HARNESS**  
**ATTACHMENT CONTROL SWITCH (S/N A214E02078B ↔ S/N A214E02193C)**

ITEM	PART NO.	DESCRIPTION	QTY
	1574088	Wire Harness .....	1
1	1363885	Terminal (Pin) .....	9
2	1330439	Plug .....	5
3	1352602	Connector (12 Pin) .....	1
4	1352603	Secondary Lock .....	1
5	1330410	Connector (DT REC 3-Pin) .....	1
6	1330415	Connector (Secondary Lock) .....	1
7	1301154	Housing .....	4
8	1331233	Terminal .....	12

## WIRE HARNESS (FIGURE 4-21) ATTACHMENT CONTROL SWITCH (S/N A214E02194C →)

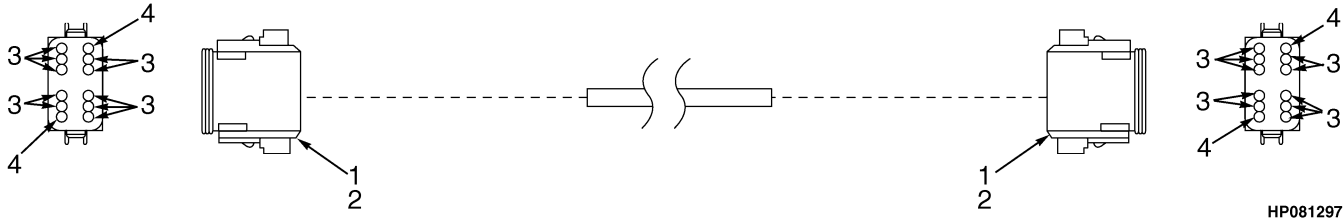


HP081685

**WIRE HARNESS**  
**ATTACHMENT CONTROL SWITCH (S/N A214E02194C →)**

ITEM	PART NO.	DESCRIPTION	QTY
	1607978	Wire Harness .....	1
1	1363885	Terminal (Pin) .....	13
2	1330439	Plug .....	4
3	1352602	Connector (12 Pin) .....	1
4	1352603	Secondary Lock .....	1
5	1330410	Connector (DT REC 3-Pin) .....	1
6	1330415	Connector (Secondary Lock) .....	1
7	1330419	Connector .....	1
8	1330424	Connector (Secondary Lock) .....	1
9	1330438	Terminal (Socket) .....	2
10	1331233	Terminal .....	16
11	1347224	Socket -Relay .....	1
12	1330424	Connector (Secondary Lock) .....	1

## WIRE HARNESS (FIGURE 4-22) ATTACHMENT LIGHTS (S/N A214E01807 →)

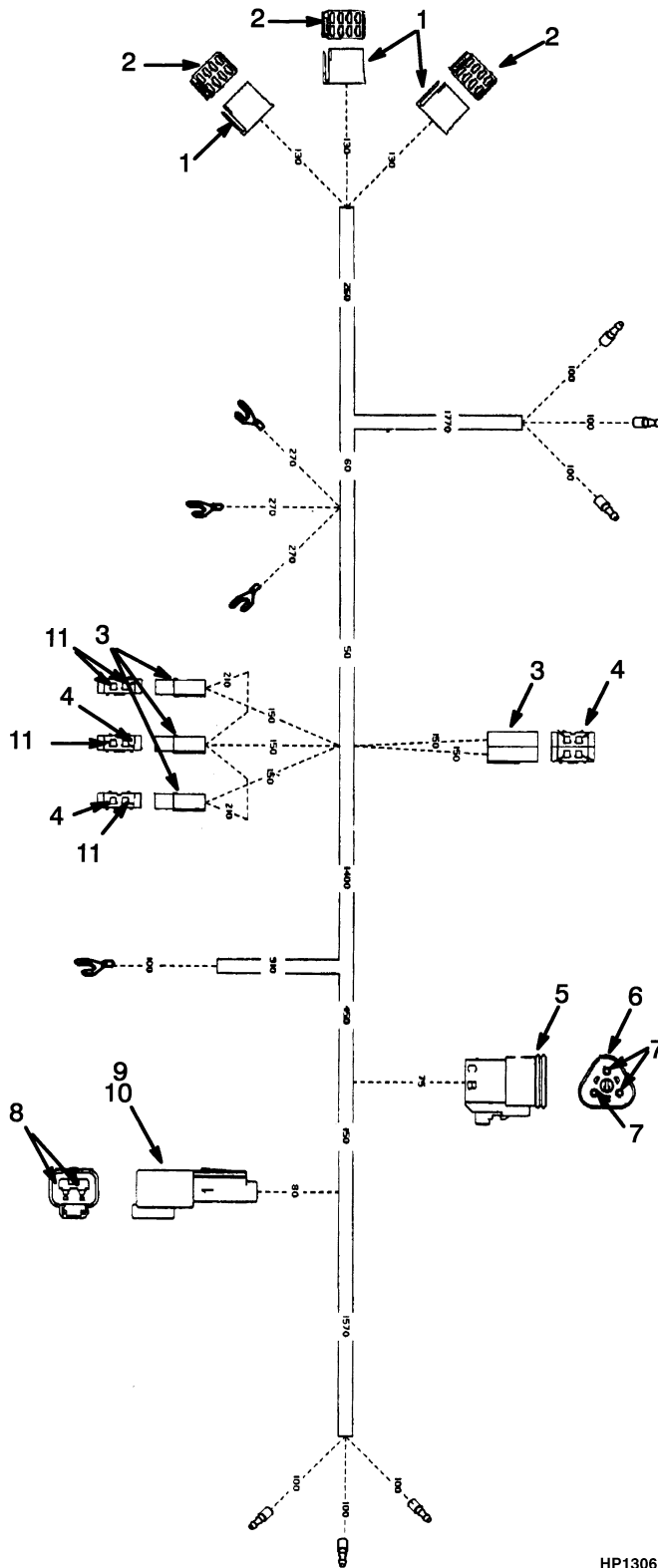


HP081297

ITEM	PART NO.	DESCRIPTION	QTY
	1494294	Wire Harness .....	1
1	1351068	Connector .....	2
2	1351069	Secondary Lock .....	2
3	1363886	Terminal (Socket) .....	20
4	1330439	Plug .....	4



## WIRE HARNESS (FIGURE 4-23) CAB (→ S/N A214E01797)

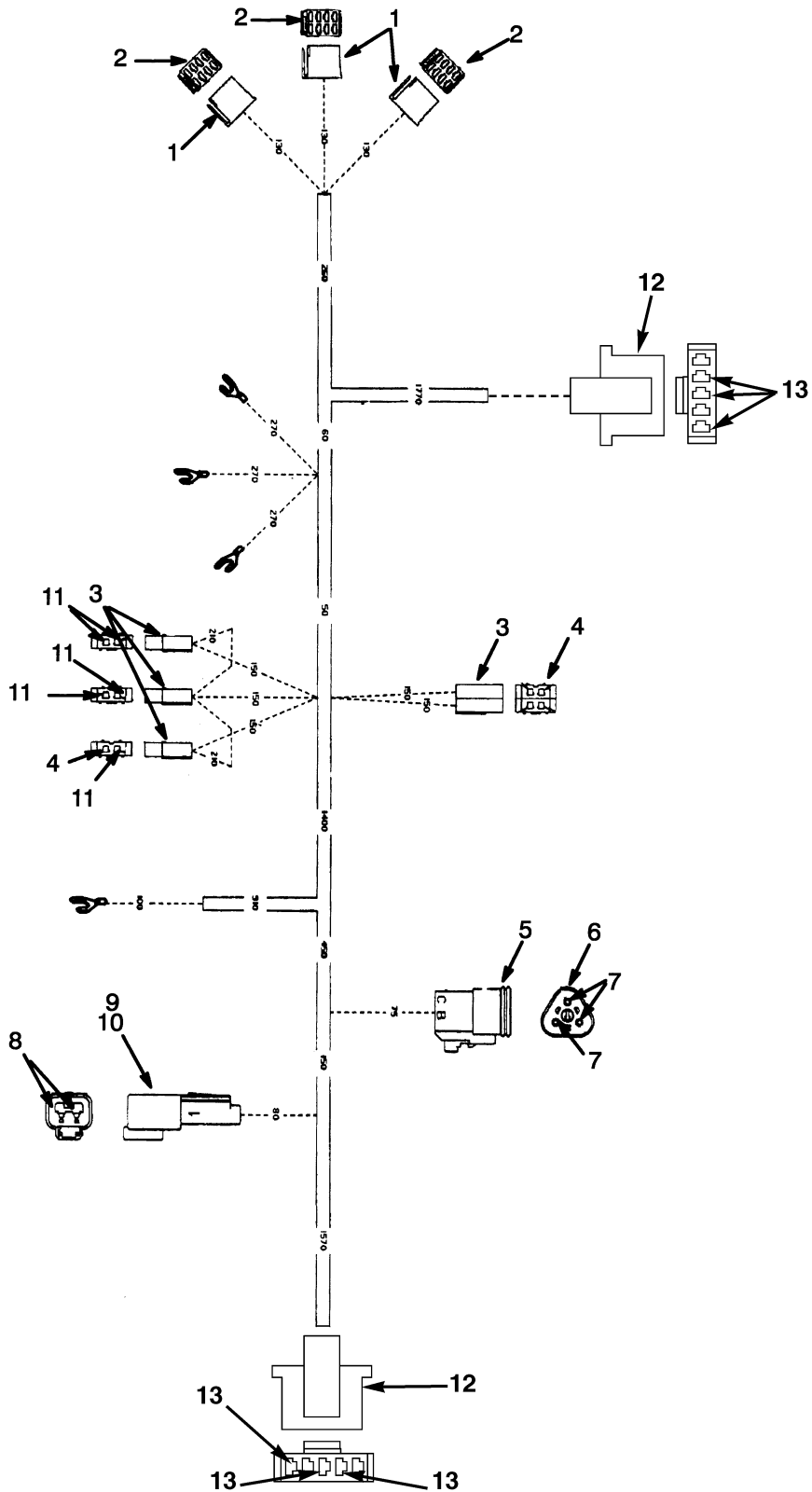


HP130680

**WIRE HARNESS**  
**CAB (→ S/N A214E01797)**

ITEM	PART NO.	DESCRIPTION	QTY
	1383844	Wire Harness .....	1
1	1301154	Housing .....	3
2	1331233	Terminal .....	11
3	381846	Fuse Holder .....	5
4	381847	Terminal .....	6
5	1330420	Connector .....	1
6	1330424	Connector (Secondary Lock) .....	1
7	1330438	Terminal (Socket) .....	3
8	1330437	Terminal (Pin) .....	2
9	1330409	Connector .....	1
10	1330414	Connector (Secondary Lock) .....	1
11	1300231	Terminal .....	4

## WIRE HARNESS (FIGURE 4-24) CAB (S/N A214E01798 →)



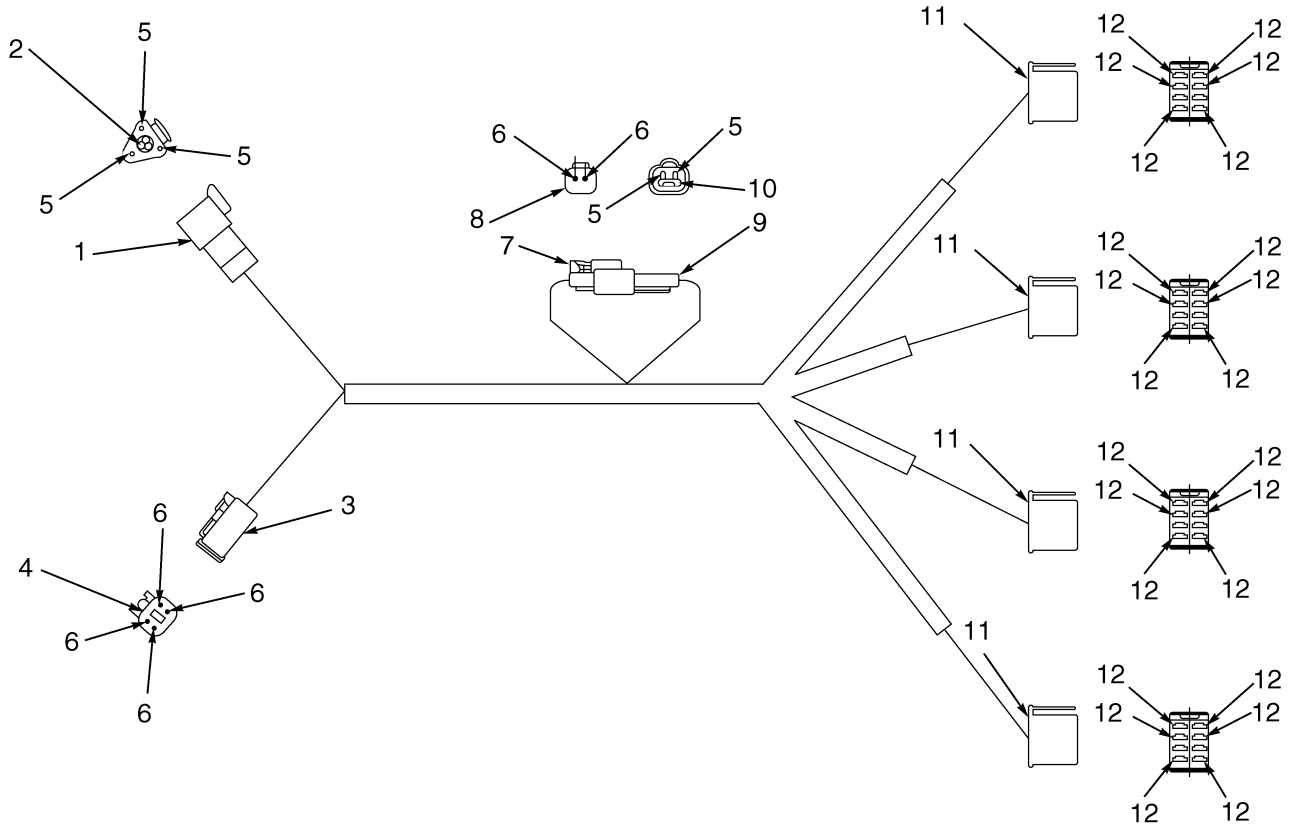
HP081229



**WIRE HARNESS**  
**CAB (S/N A214E01798 →)**

ITEM	PART NO.	DESCRIPTION	QTY
	1499350	Wire Harness .....	1
1	1301154	Housing .....	3
2	1331233	Terminal .....	12
3	381846	Fuse Holder .....	5
4	381847	Terminal .....	6
5	1330420	Connector .....	1
6	1330426	Connector (Secondary Lock) .....	1
7	1363886	Terminal (Socket) .....	3
8	1363885	Terminal (Pin) .....	2
9	1330411	Connector .....	1
10	1330416	Connector (Secondary Lock) .....	1
11	1300231	Terminal .....	5
12	1499072	Connector Body .....	2
13	1499073	Terminal .....	6

## WIRE HARNESS (FIGURE 4-25) CARRIAGE CONTROL SWITCH (S/N A214E01403 →)

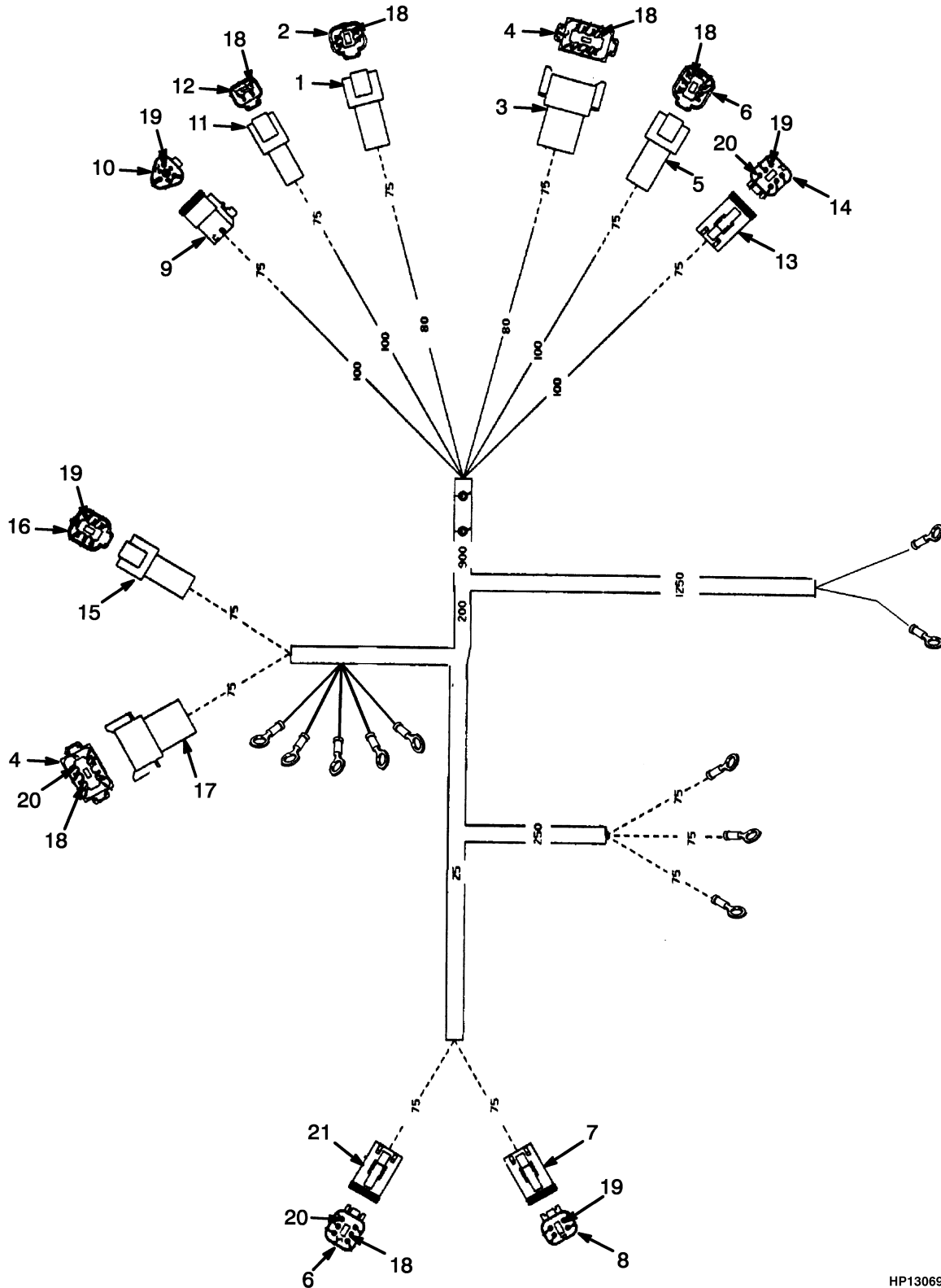


HP081234

**WIRE HARNESS**  
**CARRIAGE CONTROL SWITCH (S/N A214E01403 →)**

ITEM	PART NO.	DESCRIPTION	QTY
	1383841	Wire Harness .....	1
1	1330410	Connector (DT REC 3-Pin) .....	1
2	1330415	Connector (Secondary Lock) .....	1
3	1330421	Connector (4 Soc) .....	1
4	1330427	Connector (Secondary Lock) .....	1
5	1330437	Terminal (Pin) .....	5
6	1330438	Terminal (Socket) .....	6
7	1330419	Connector .....	1
8	1330424	Connector (Secondary Lock) .....	1
9	1330409	Connector .....	1
10	1330414	Connector (Secondary Lock) .....	1
11	1301154	Housing .....	4
12	1331233	Terminal .....	24

**WIRE HARNESS (FIGURE 4-26)  
CHASSIS — EMPTY CONTAINER HANDLER**

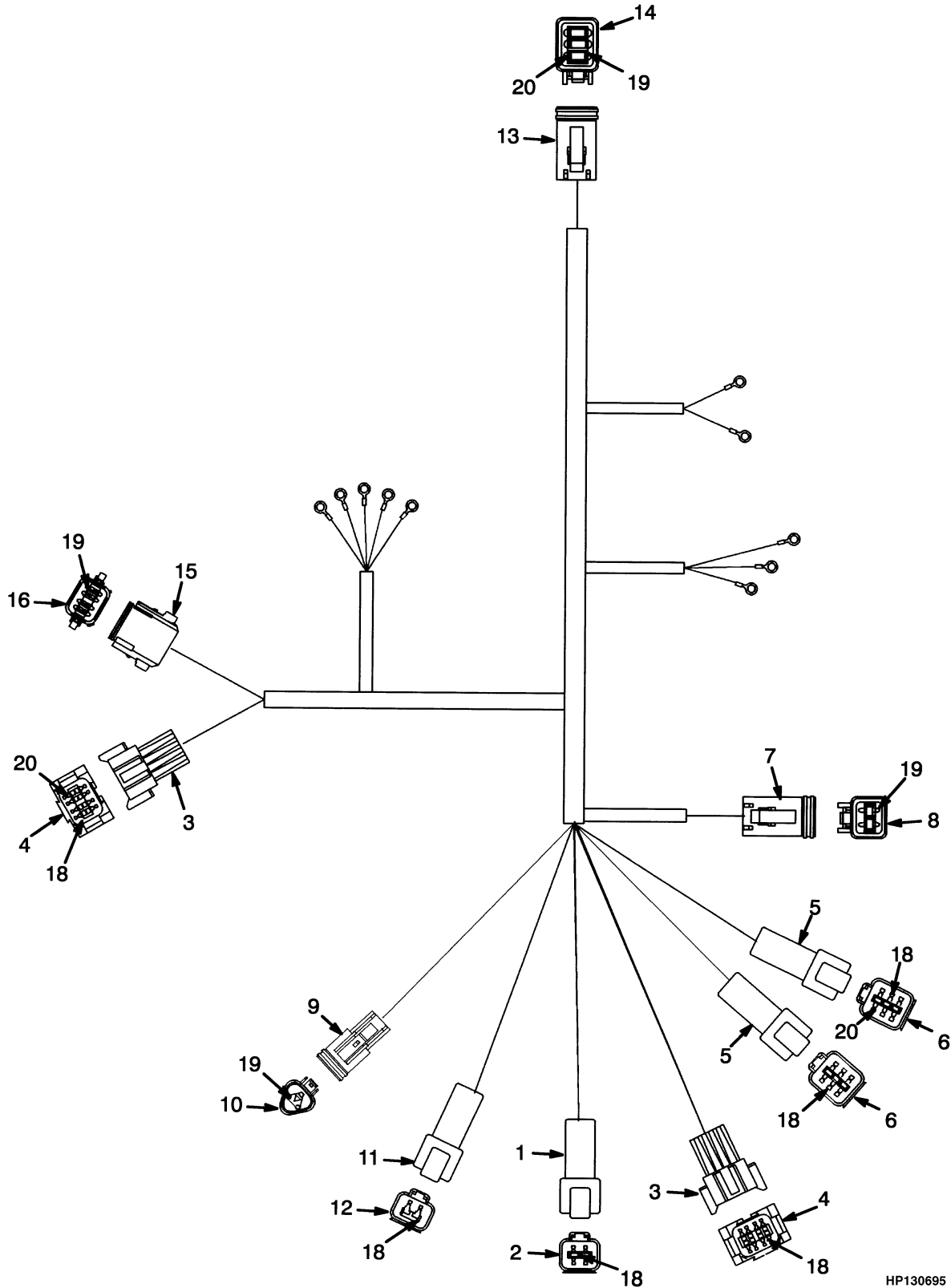


HP130694

**WIRE HARNESS**  
**CHASSIS – EMPTY CONTAINER HANDLER**

ITEM	PART NO.	DESCRIPTION	QTY
	1383838	Wire Harness (Chassis) .....	1
1	1330411	Connector (Gauge Wire Harness) .....	1
2	1330416	Connector (Secondary Lock) .....	1
3	1330413	Connector (8 Pin) (Operator Compartment Harness) .....	1
4	1330418	Connector (DT REC 8-Pin) .....	2
5	1330412	Connector (Operator Compartment Harness) .....	1
6	1330417	Connector (Secondary Lock) .....	2
7	1330421	Connector (4 Soc) (Hydraulic Compartment Harness) .....	1
8	1330427	Connector (Secondary Lock) .....	1
9	1330420	Connector (Switch Wire Harness) .....	1
10	1330426	Connector (Secondary Lock) .....	1
11	1330409	Connector (Attachment Control Harness) .....	1
12	1330414	Connector (Secondary Lock) .....	1
13	1330422	Connector (Operator Compartment Harness) .....	1
14	1330428	Connector (Secondary Lock) .....	1
15	1330423	Connector (8 Socket) (Engine Wire Harness) .....	1
16	1330429	Connector (Secondary Lock) .....	1
17	1330413	Connector (8 Pin) (Engine Wire Harness) .....	1
18	1330437	Terminal (Pin) .....	32
19	1330438	Terminal (Socket) .....	20
20	1330439	Plug .....	3
21	1330412	Connector (Front Light Wire Harness) .....	1

**WIRE HARNESS (FIGURE 4-27)  
CHASSIS — FORK LIFT TRUCK**

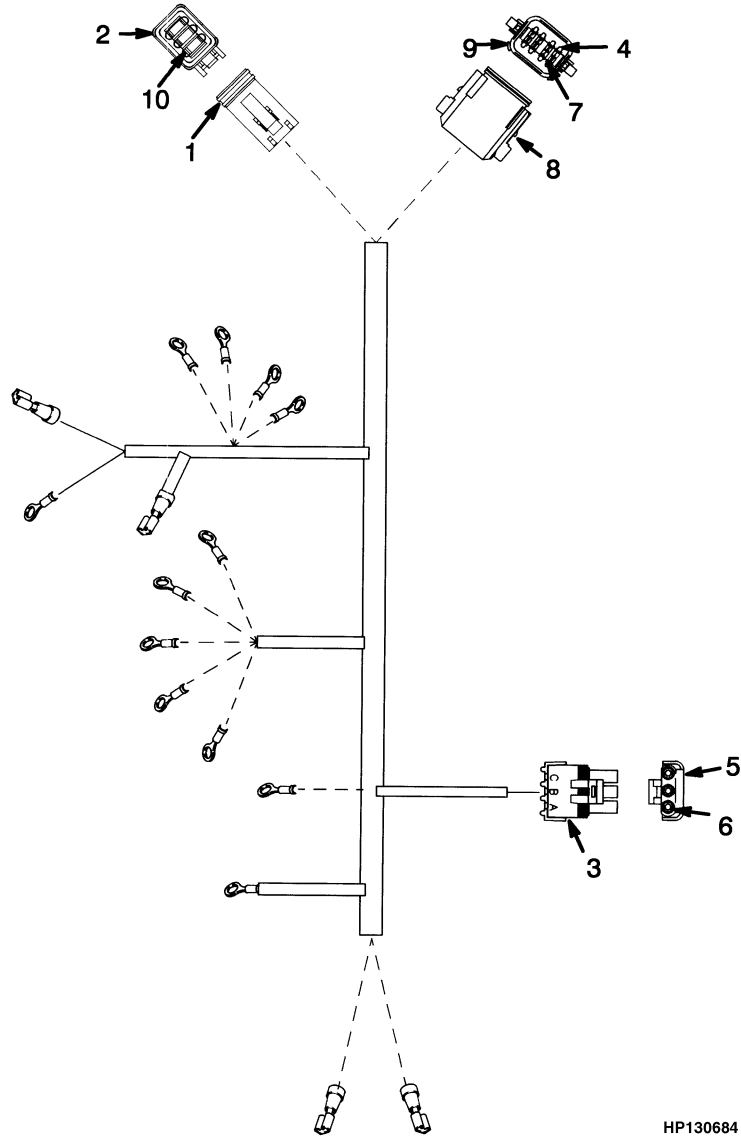


HP130695

**WIRE HARNESS  
CHASSIS – FORK LIFT TRUCK**

ITEM	PART NO.	DESCRIPTION	QTY
	1385505	Wire Harness (Chassis) .....	1
1	1330411	Connector (Gauge Wire Harness) .....	1
2	1330416	Connector (Secondary Lock) .....	1
3	1330413	Connector (8 Pin) (Operator Compartment Harness) .....	1
4	1330418	Connector (DT REC 8-Pin) .....	2
5	1330412	Connector (Operator Compartment Harness) .....	2
6	1330417	Connector (Secondary Lock) .....	2
7	1330421	Connector (4 Soc) (Hydraulic Compartment Harness) .....	1
8	1330427	Connector (Secondary Lock) .....	1
9	1330420	Connector (Switch Wire Harness) .....	1
10	1330426	Connector (Secondary Lock) .....	1
11	1330409	Connector (Attachment Control Harness) .....	1
12	1330414	Connector (Secondary Lock) .....	1
13	1330422	Connector (Rear Light) .....	1
14	1330428	Connector (Secondary Lock) .....	1
15	1330423	Connector (8 Socket) (Engine Wire Harness) .....	1
16	1330429	Connector (Secondary Lock) .....	1
17	1330413	Connector (8 Pin) (Engine Wire Harness) .....	1
18	1330437	Terminal (Pin) .....	32
19	1330438	Terminal (Socket) .....	20
20	1330439	Plug .....	3

## WIRE HARNESS (FIGURE 4-28) ENGINE (→ S/N A214E01718)



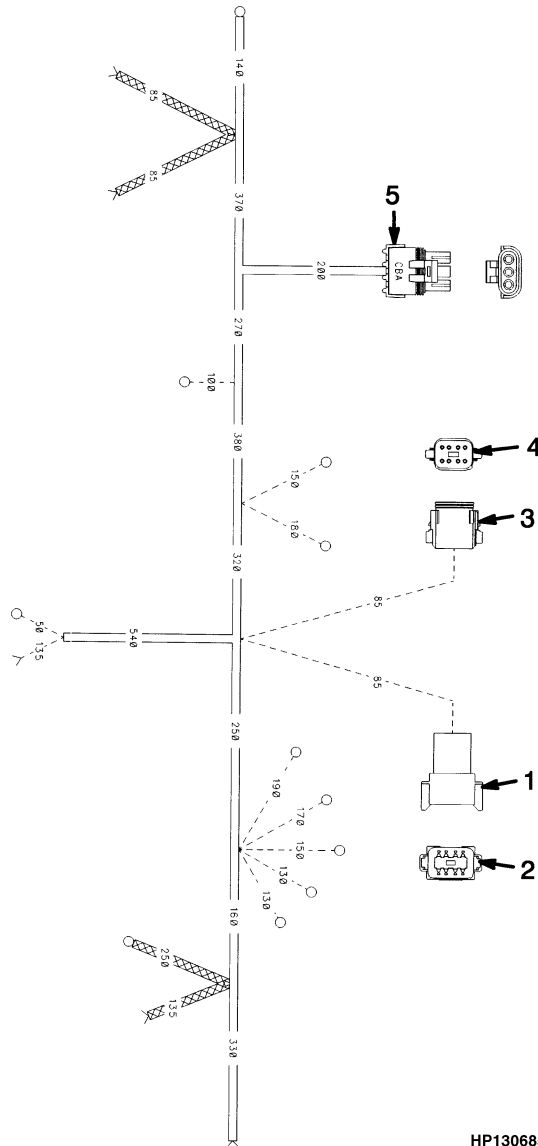
HP130684



**WIRE HARNESS**  
**ENGINE (→ S/N A214E01718)**

ITEM	PART NO.	DESCRIPTION	QTY
	1382838	Wire Harness .....	1
1	1330413	Connector (8 Pin) (Chassis Wire Harness) .....	1
2	1330418	Connector (DT REC 8-Pin) .....	1
3	1323577	Connector (Chassis Wire Harness) .....	1
4	1330438	Terminal (Socket) .....	7
5	1336173	Terminal .....	3
6	1323579	Seal .....	3
7	1330439	Plug .....	1
8	1330423	Connector (8 Socket) .....	1
9	1330429	Connector (Secondary Lock) .....	1
10	1330437	Terminal (Pin) .....	8

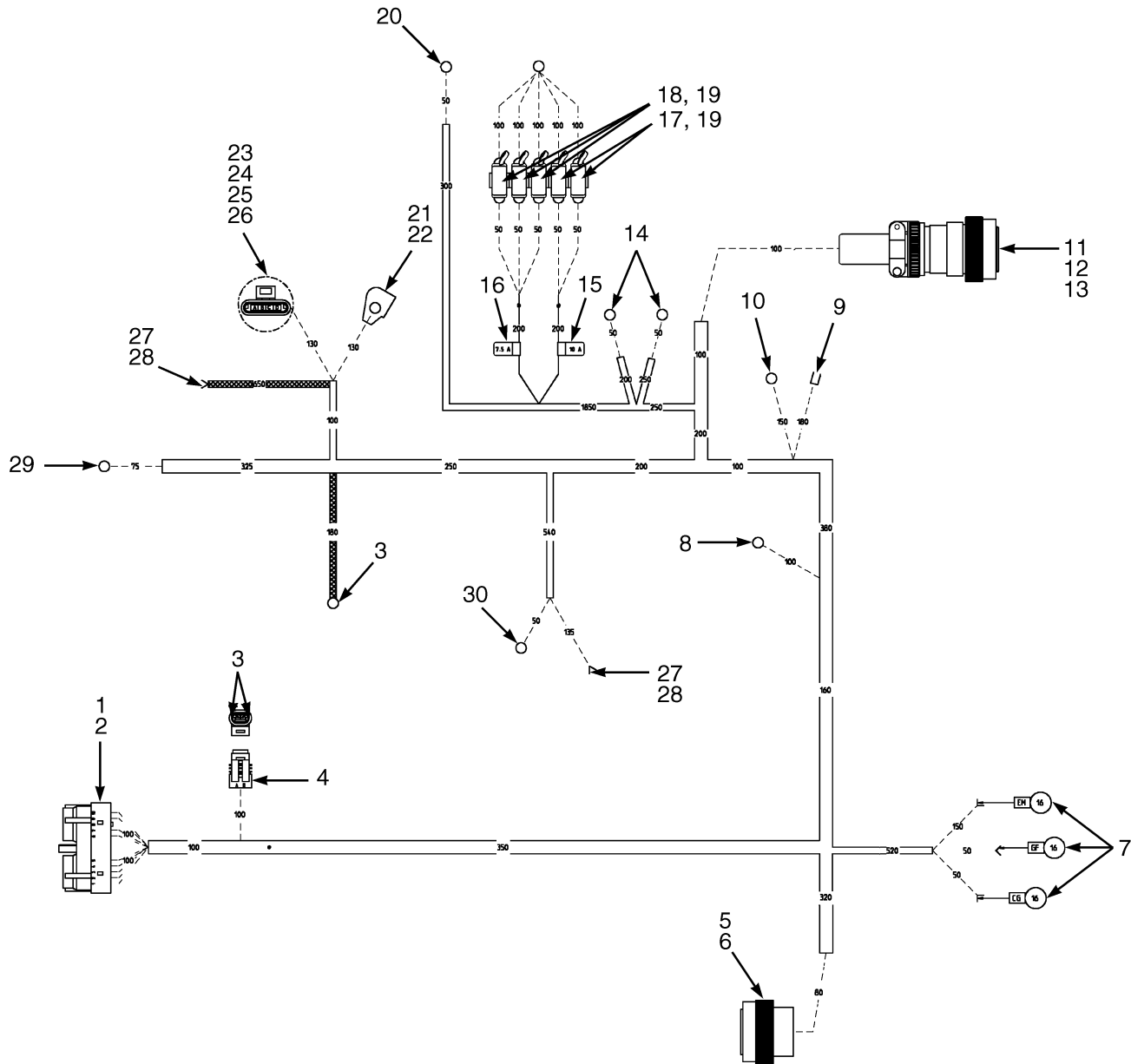
**WIRE HARNESS (FIGURE 4-29)**  
**ENGINE (S/N A214E01719 →)**



**WIRE HARNESS**  
**ENGINE (S/N A214E01719 →)**

<b>ITEM</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY</b>
	1473974	Wire Harness .....	1
1	1330413	Connector (8 Pin) .....	1
2	1330418	Connector (DT REC 8-Pin) .....	1
3	1330423	Connector (8 Socket) .....	1
4	1330429	Connector (Secondary Lock) .....	1
5	1323577	Connector .....	1

## WIRE HARNESS (FIGURE 4-30) ENGINE — TIER II



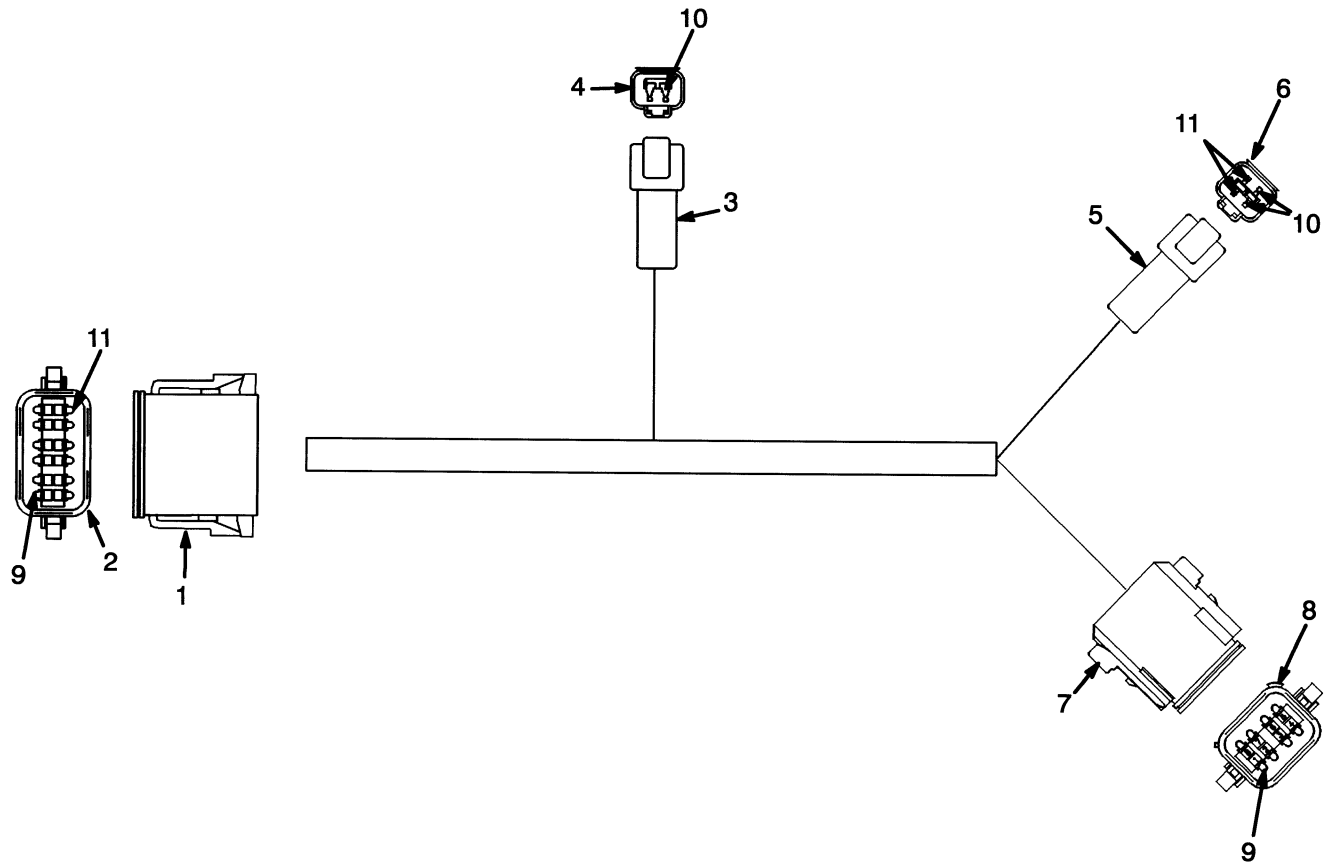
HP081687

**WIRE HARNESS  
ENGINE – TIER II**

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a</b> 1531383	Wire Harness (Engine) .....	1
	<b>b</b> 1537659	Wire Harness (Engine) .....	1
	<b>d</b> 1607648	Wire Harness (Engine) .....	1
1	1503633	Connector .....	1
2	1507725	Terminal .....	16
3	<b>a</b> 1323576	Terminal .....	2
3	<b>c</b> 1354237	Terminal .....	2
4	1323586	Connector .....	1
5	1503634	Connector .....	1
6	1363886	Terminal (Socket) .....	11
7	325789	Terminal .....	3
8	160245	E-Ring .....	1
9	148626	E-Spade .....	1
10	148616	E-Ring .....	2
11	1495142	Plug .....	1
12	1330438	Terminal (Socket) .....	23
13	1518112	Terminal (Socket) .....	6
14	806426	E-Ring .....	2
15	1519577	Label (Fuse) .....	1
16	1519576	Label (Fuse) .....	1
17	370647	Fuse (10 Amp) .....	2
18	1300057	Fuse (7.5 Amp) .....	3
19	1480432	Fuse Holder .....	5
20	806427	E-Ring .....	1
21	157065	Boot .....	1
22	806425	E-Ring .....	1
23	<b>d</b> 1501919	Connector .....	1
24	<b>d</b> 1482663	Connector .....	1
25	<b>d</b> 1482668	Plug (Cavity Plug) .....	3
26	<b>d</b> 1330356	Seal .....	1
27	370730	Terminal .....	2
28	1301720	Connector Body .....	2
29	148617	E-Ring .....	1
30	129887	E-Ring .....	2

**FOOTNOTES:****a** → S/N A214E01950A**b** S/N A214E01951A ↔ S/N A214E02180C**c** S/N A214E01951A →**d** S/N A214E02181C →

## WIRE HARNESS (FIGURE 4-31) FRONT END EQUIPMENT — EMPTY CONTAINER HANDLER (→ S/N A214E01806)



HP130692

ITEM	PART NO.	DESCRIPTION	QTY
	1384479	Wire Harness .....	1
1	1351068	Connector (Front End Equipment) .....	1
2	1351069	Secondary Lock .....	1
3	1330409	Connector (Light Harness Front) .....	1
4	1330414	Connector (Secondary Lock) .....	1
5	1330411	Connector (Switch Harness) .....	1
6	1330416	Connector (Secondary Lock) .....	1
7	1330423	Connector (8 Socket) (Attachment Control) .....	1
8	1330429	Connector (Secondary Lock) .....	1
9	1330438	Terminal (Socket) .....	20
10	1330437	Terminal (Pin) .....	6
11	1330439	Plug .....	3

**NOTES**

---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



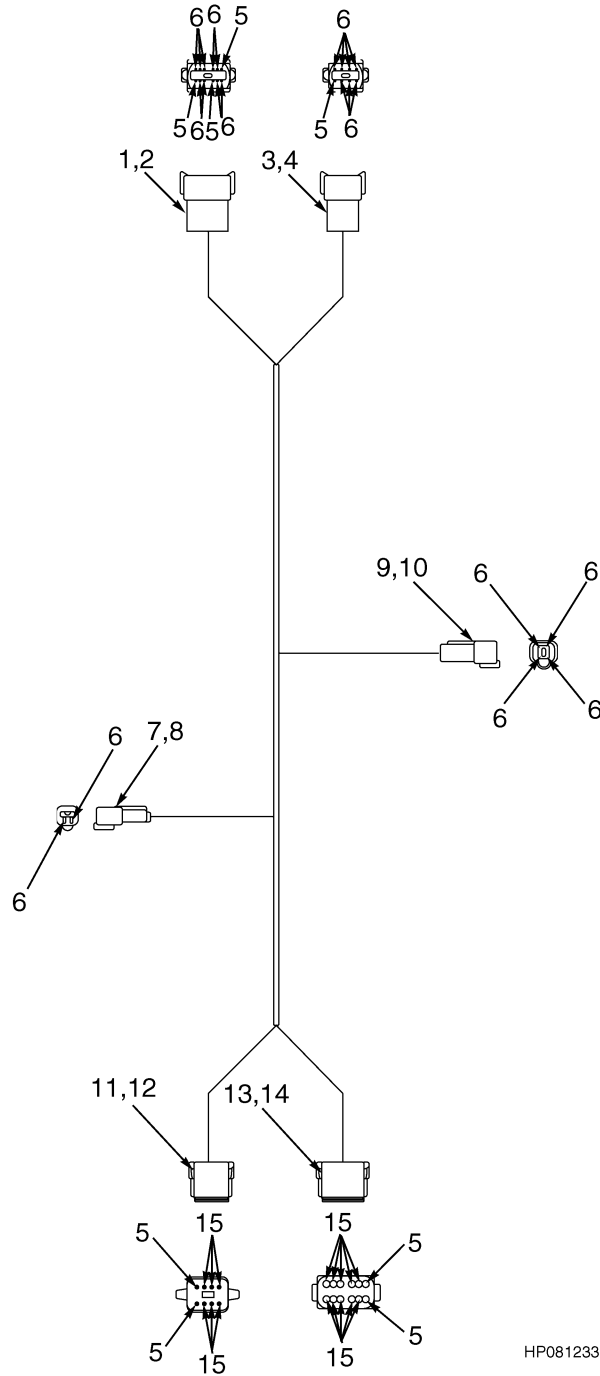
---



---

## WIRE HARNESS (FIGURE 4-32)

FRONT END EQUIPMENT — EMPTY CONTAINER HANDLER (S/N A214E01807 ↔ S/N A214E02077B)



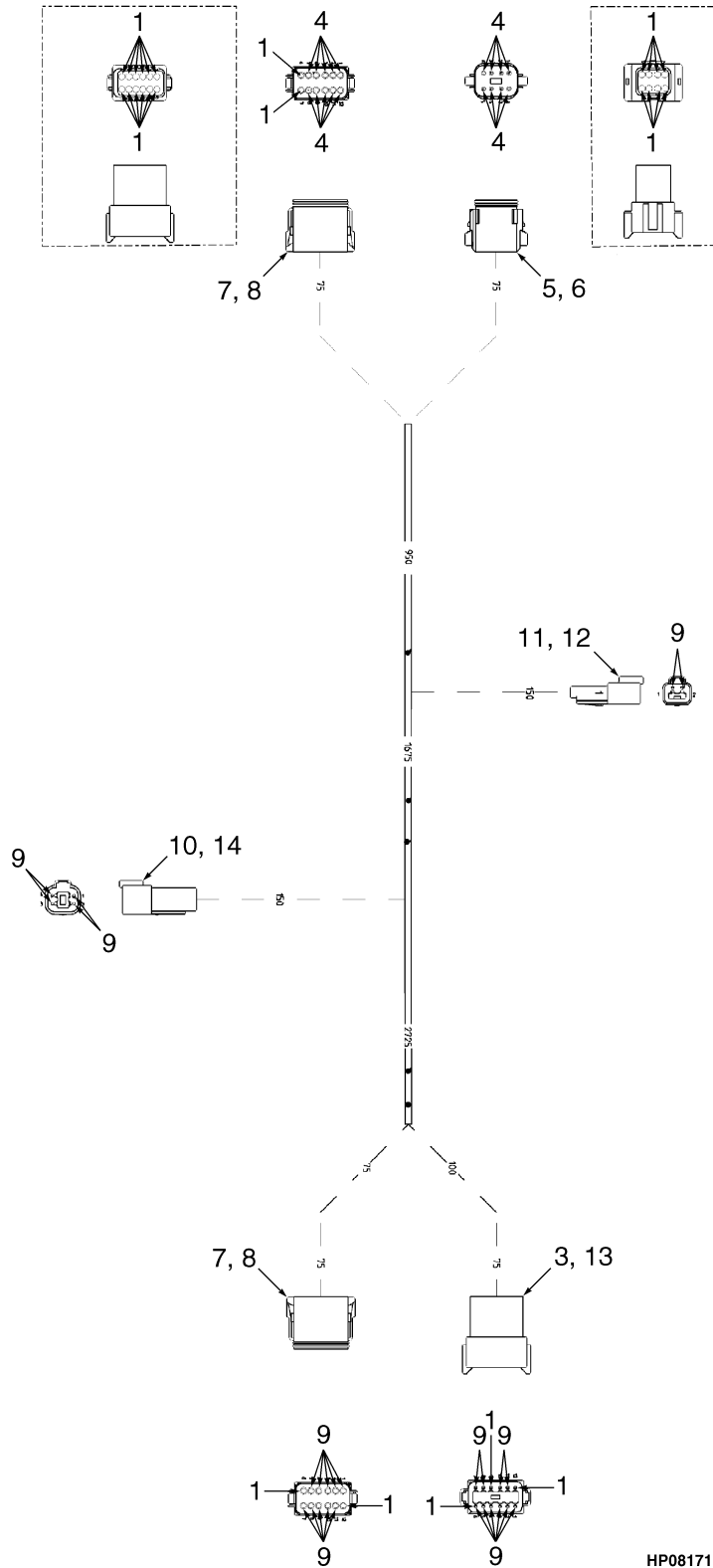
HP081233



**WIRE HARNESS****FRONT END EQUIPMENT – EMPTY CONTAINER HANDLER (S/N A214E01807 ↔ S/N A214E02077B)**

ITEM	PART NO.	DESCRIPTION	QTY
	1495795	Wire Harness .....	1
1	1352602	Connector (12 Pin) .....	1
2	1352603	Secondary Lock .....	1
3	1330413	Connector (8 Pin) .....	1
4	1330418	Connector (DT REC 8-Pin) .....	1
5	1330439	Plug .....	8
6	1363885	Terminal (Pin) .....	22
7	1330409	Connector .....	1
8	1330414	Connector (Secondary Lock) .....	1
9	1330411	Connector .....	1
10	1330416	Connector (Secondary Lock) .....	1
11	1330423	Connector (8 Socket) .....	1
12	1330429	Connector (Secondary Lock) .....	1
13	1351068	Connector .....	1
14	1351069	Secondary Lock .....	1
15	1363886	Terminal (Socket) .....	16

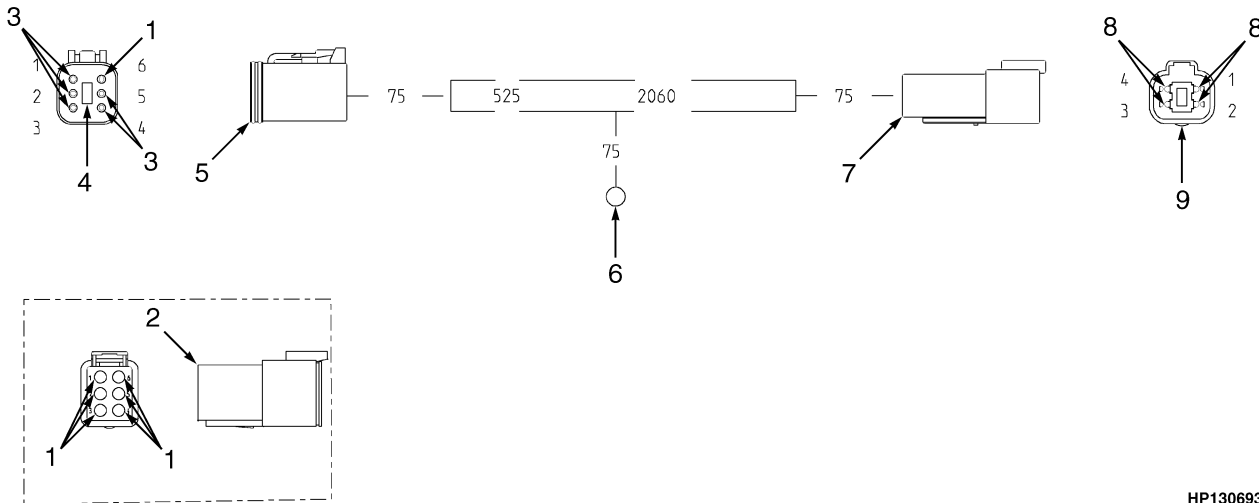
## WIRE HARNESS (FIGURE 4-33) FRONT END EQUIPMENT (S/N A214B02078B →)



**WIRE HARNESS**  
**FRONT END EQUIPMENT (S/N A214B02078B →)**

ITEM	PART NO.	DESCRIPTION	QTY
	1573932	Wire Harness (Front End) .....	1
1	1330439	Plug .....	27
2	1330413	Connector (8 Pin) (Dust) .....	1
3	1352602	Connector (12 Pin) .....	2
4	1363886	Terminal (Socket) .....	28
5	1330423	Connector (8 Socket) .....	1
6	1330429	Connector (Secondary Lock) .....	1
7	1351068	Connector .....	2
8	1351069	Secondary Lock .....	2
9	1363885	Terminal (Pin) .....	15
10	1330411	Connector .....	1
11	1330414	Connector (Secondary Lock) .....	1
12	1330409	Connector .....	1
13	1352603	Secondary Lock .....	1
14	1330416	Connector (Secondary Lock) .....	1

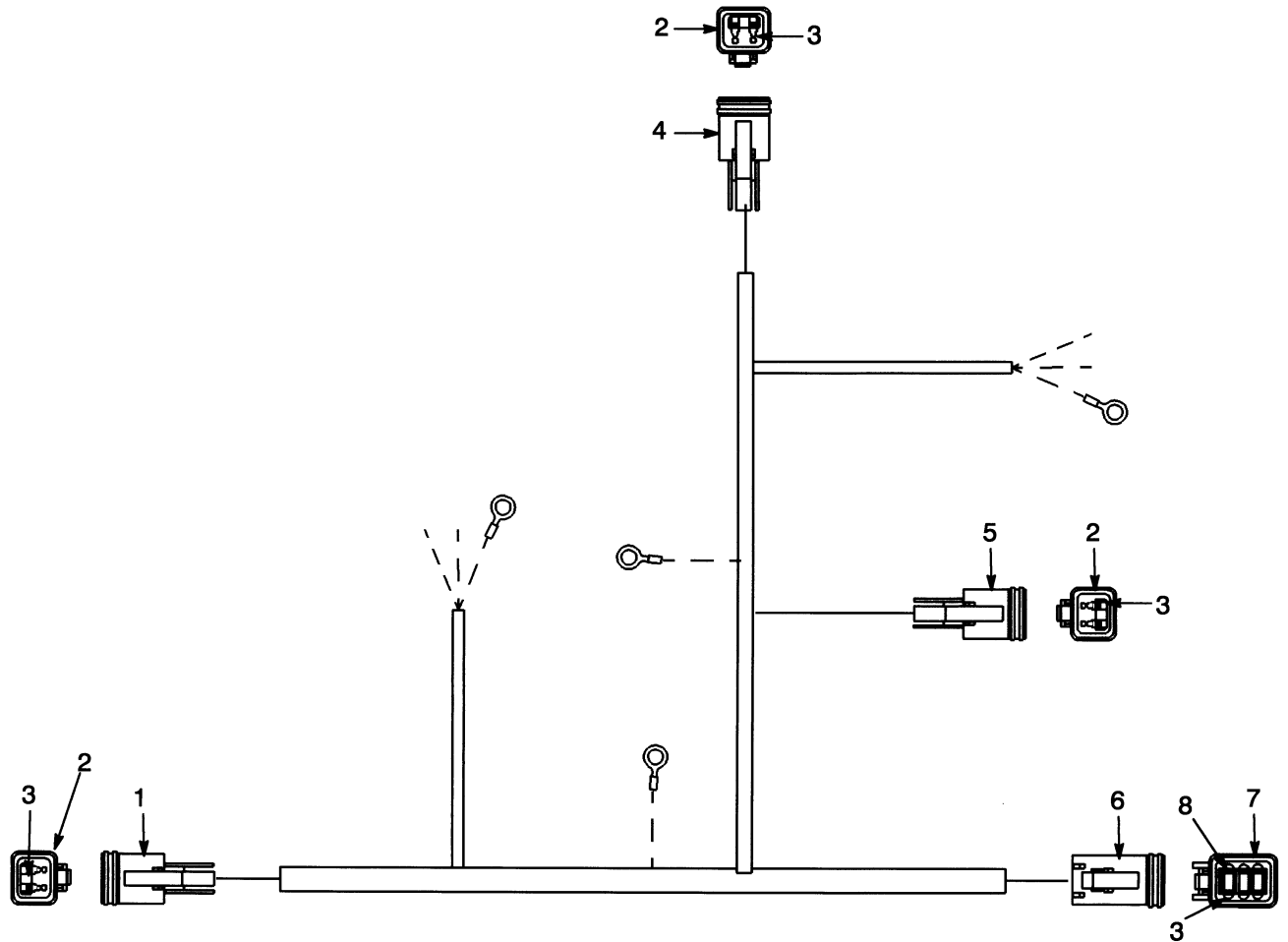
## WIRE HARNESS (FIGURE 4-34) FRONT END EQUIPMENT — FORK LIFT TRUCK



HP130693

ITEM	PART NO.	DESCRIPTION	QTY
	1393786	Wire Harness .....	1
1	1330439	Plug .....	7
2	1330412	Connector (Dust) .....	1
3	1330438	Terminal (Socket) .....	5
4	1330428	Connector (Secondary Lock) .....	1
5	1330422	Connector .....	1
6	148607	E-Ring .....	1
7	1330411	Connector .....	1
8	1330437	Terminal (Pin) .....	4
9	1330416	Connector (Secondary Lock) .....	1

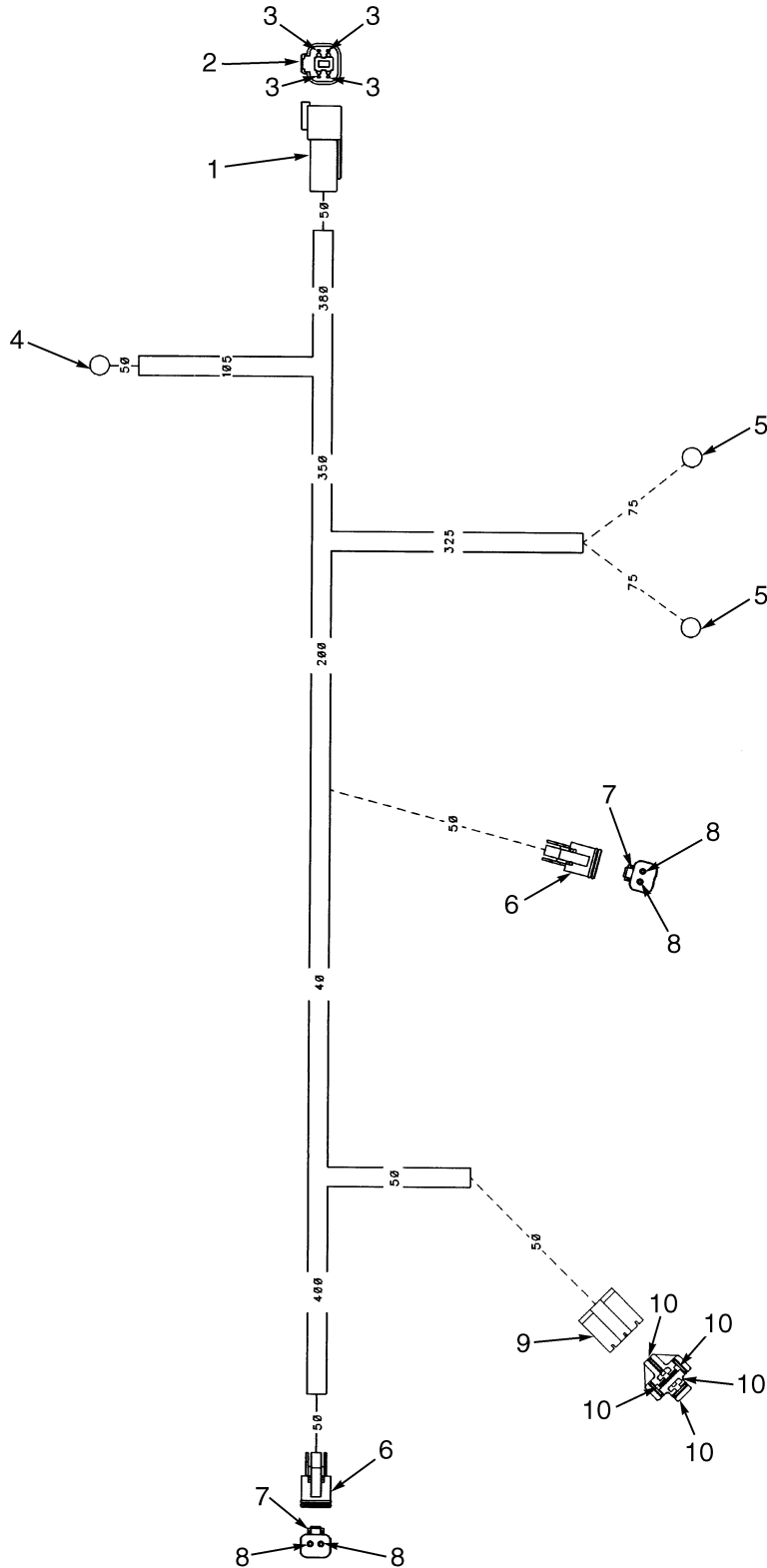
**WIRE HARNESS (FIGURE 4-35)  
FRONT LIGHTS**



HP130698

ITEM	PART NO.	DESCRIPTION	QTY
	1384616	Wire Harness .....	1
1	1330419	Connector (LH) (Front Drive Lights) .....	1
2	1330424	Connector (Secondary Lock) .....	3
3	1330438	Terminal (Socket) .....	11
4	1330419	Connector (RH) (Front Drive Light) .....	1
5	1330419	Connector (Front End Equipment Harness) .....	1
6	1330422	Connector (Chassis Wire Harness) .....	1
7	1330428	Connector (Secondary Lock) .....	1
8	1330439	Plug .....	1

## WIRE HARNESS (FIGURE 4-36) HYDRAULIC — EMPTY CONTAINER HANDLER (→ S/N A214E01806)

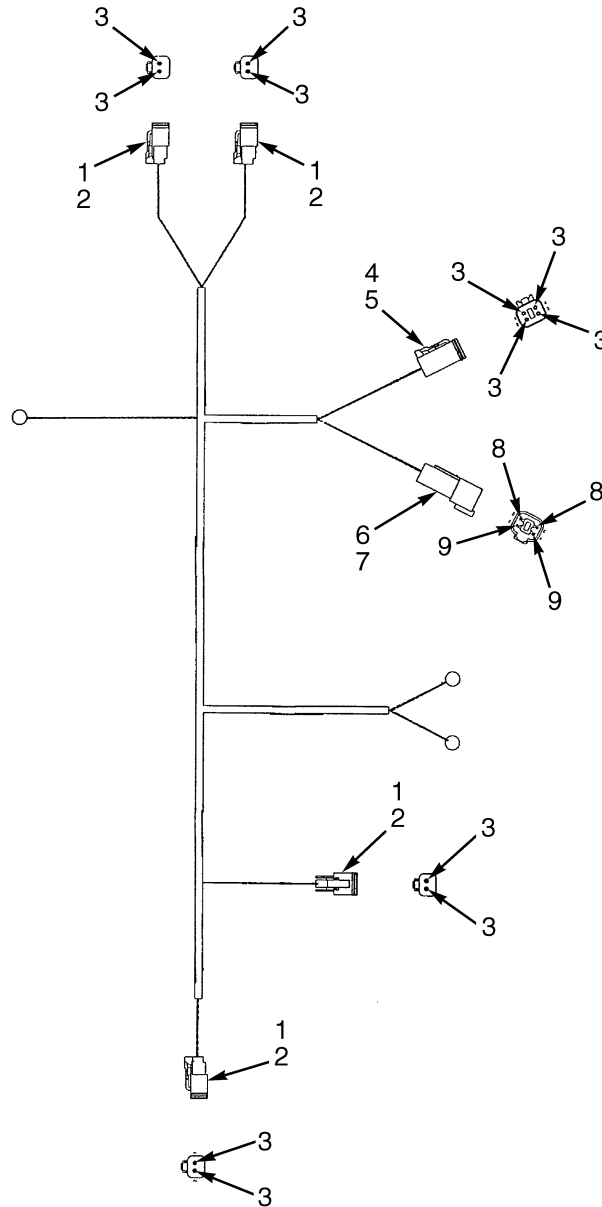


HP130689

**WIRE HARNESS**  
**HYDRAULIC – EMPTY CONTAINER HANDLER (→ S/N A214E01806)**

ITEM	PART NO.	DESCRIPTION	QTY
	1464299	Wire Harness .....	1
1	1330411	Connector (Chassis Wire Harness) .....	1
2	1330416	Connector (Secondary Lock) .....	1
3	1363885	Terminal (Pin) .....	4
4	148612	E-Ring .....	1
5	129887	E-Ring .....	2
6	1330419	Connector (Park Brake Valve) .....	2
7	1330424	Connector (Secondary Lock) .....	2
8	1363886	Terminal (Socket) .....	4
9	1301228	Connector Body .....	1
10	1331233	Terminal .....	5

## WIRE HARNESS (FIGURE 4-37) HYDRAULIC — EMPTY CONTAINER HANDLER (S/N A214E01807 →)



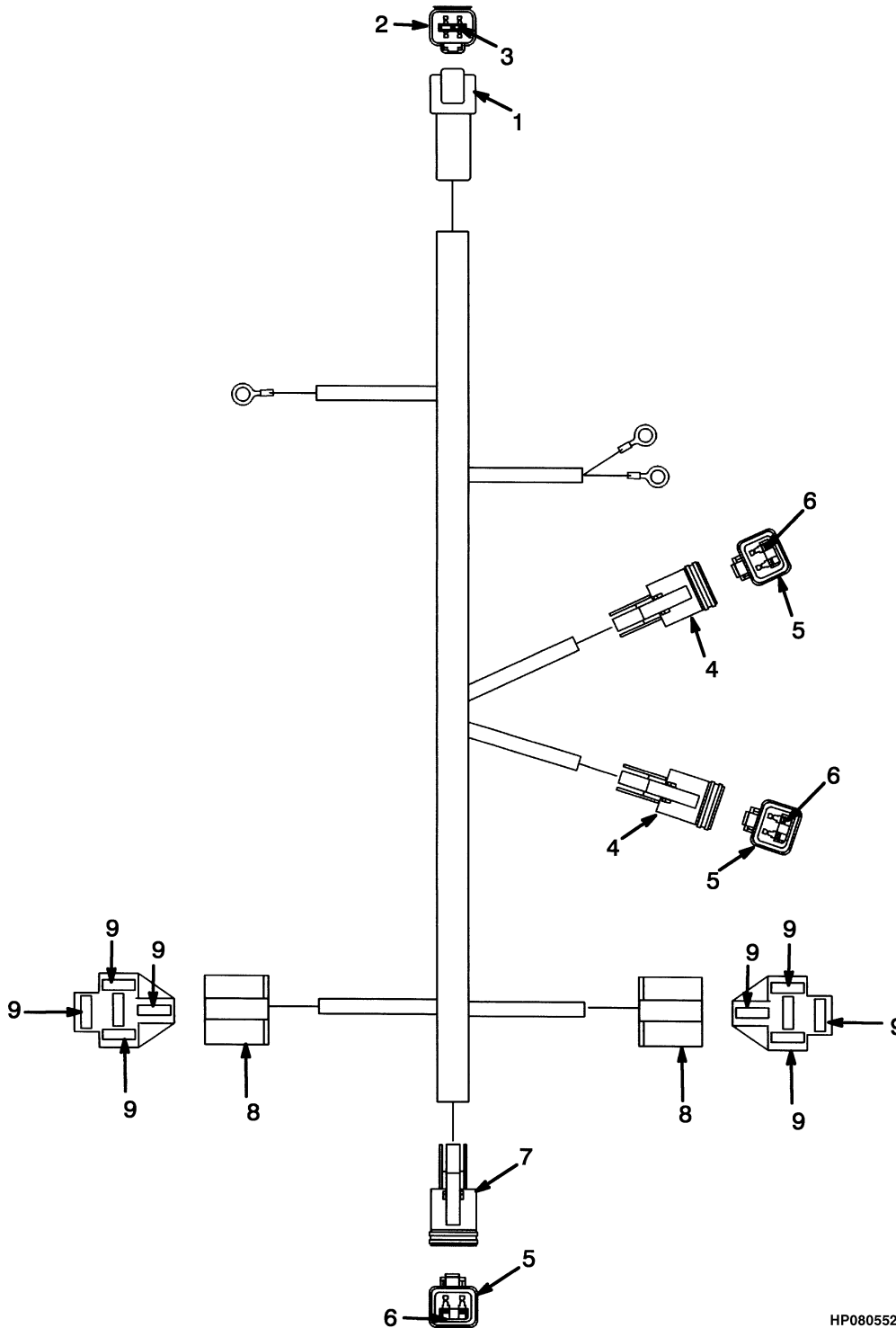
HP081232



**WIRE HARNESS**  
**HYDRAULIC – EMPTY CONTAINER HANDLER (S/N A214E01807 →)**

ITEM	PART NO.	DESCRIPTION	QTY
	1504298	Wire Harness .....	1
1	1330419	Connector .....	4
2	1330424	Connector (Secondary Lock) .....	4
3	1363886	Terminal (Socket) .....	12
4	1330421	Connector (4 Soc) .....	1
5	1330427	Connector (Secondary Lock) .....	1
6	1330411	Connector .....	1
7	1330416	Connector (Secondary Lock) .....	1
8	1363885	Terminal (Pin) .....	2
9	1330439	Plug .....	2

## WIRE HARNESS (FIGURE 4-38) HYDRAULIC — FORK LIFT TRUCK (→ S/N A214E01806Y)

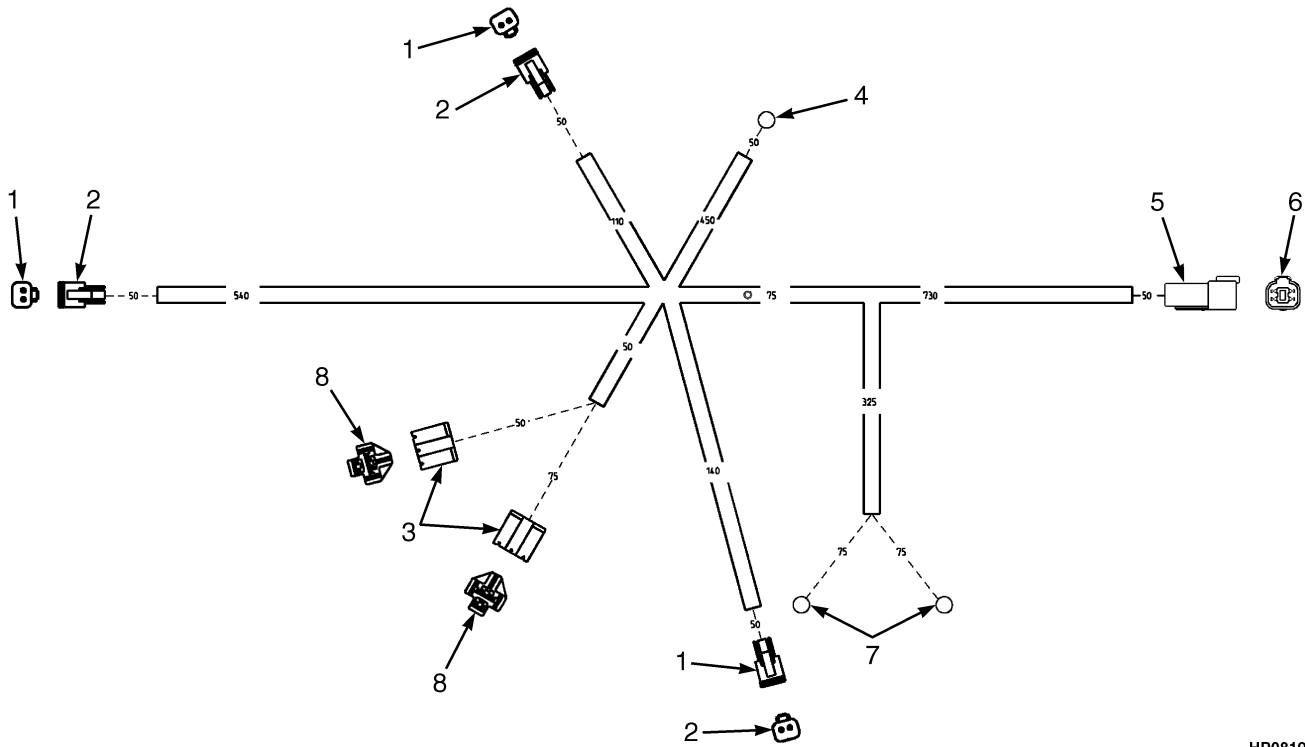


HP080552

**WIRE HARNESS**  
**HYDRAULIC – FORK LIFT TRUCK (→ S/N A214E01806Y)**

ITEM	PART NO.	DESCRIPTION	QTY
	1383834	Wire Harness .....	1
1	1330411	Connector (Chassis Wire Harness) .....	1
2	1330416	Connector (Secondary Lock) .....	1
3	1330437	Terminal (Pin) .....	4
4	1330419	Connector .....	2
5	1330424	Connector (Secondary Lock) .....	3
6	1330438	Terminal (Socket) .....	6
7	1330419	Connector (Park Brake Valve) .....	1
8	1301228	Connector Body .....	2
9	1331233	Terminal .....	8

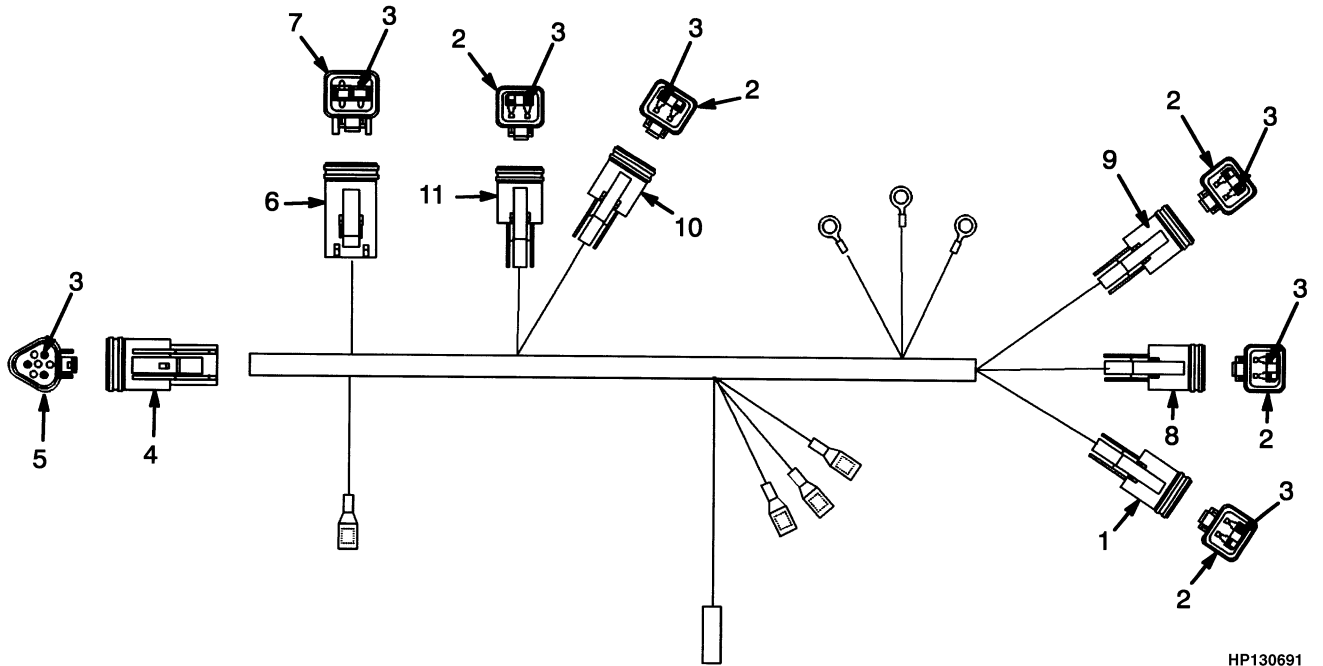
## WIRE HARNESS (FIGURE 4-39) HYDRAULIC — FORK LIFT TRUCK (S/N A214E01807Y →)



HP081996

ITEM	PART NO.	DESCRIPTION	QTY
	1525240	Wire Harness .....	1
1	1363886	Terminal (Socket) .....	6
2	1330419	Connector .....	3
2	1330424	Connector (Secondary Lock) .....	3
3	1301228	Connector Body .....	2
4	148612	E-Ring .....	1
5	1330411	Connector .....	1
5	1330416	Connector (Secondary Lock) .....	1
6	1363885	Terminal (Pin) .....	4
7	129887	E-Ring .....	2
8	1331233	Terminal .....	8

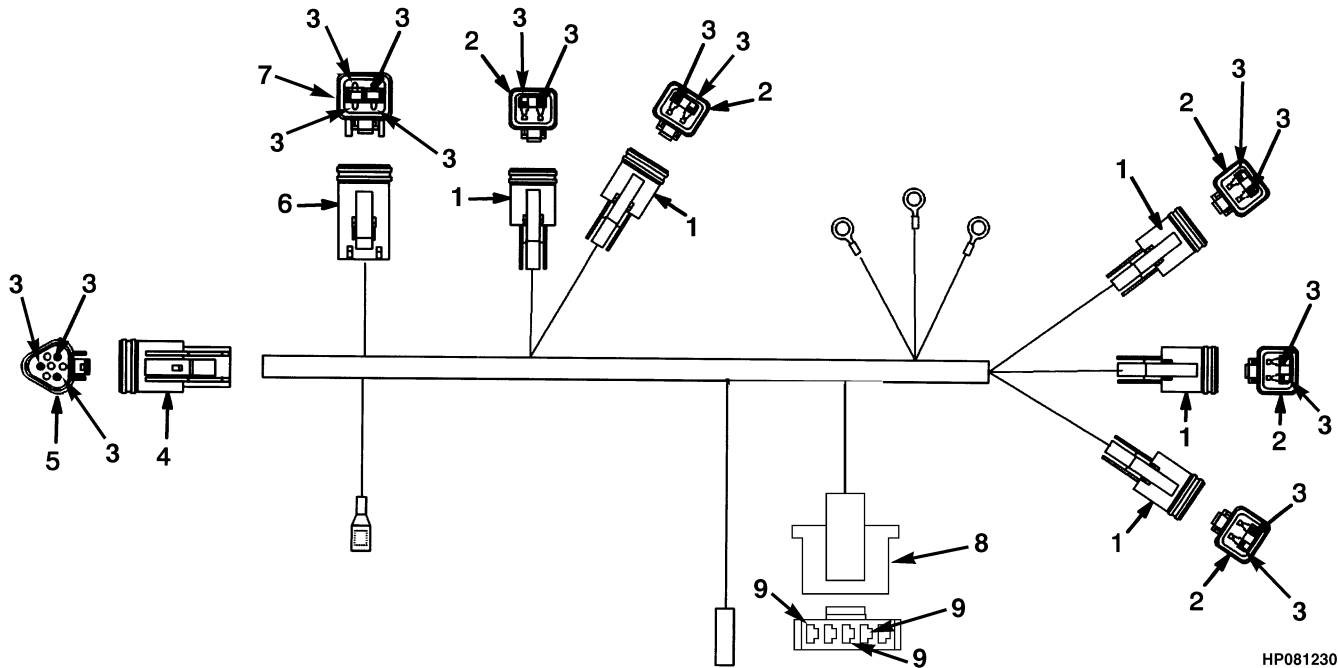
**WIRE HARNESS (FIGURE 4-40)**  
**MODULE (→ S/N A214E01797)**



HP130691

ITEM	PART NO.	DESCRIPTION	QTY
	1385514	Wire Harness .....	1
1	1330419	Connector (Strobe Light) .....	1
2	1330424	Connector (Secondary Lock) .....	5
3	1330438	Terminal (Socket) .....	17
4	1330420	Connector (Operator Compartment Harness) .....	1
5	1330426	Connector (Secondary Lock) .....	1
6	1330421	Connector (4 Soc) (Cab Wire Harness) .....	1
7	1330427	Connector (Secondary Lock) .....	1
8	1330419	Connector (LH) (Work Lights) .....	1
9	1330419	Connector (LH) (Rear Drive Lights) .....	1
10	1330419	Connector (RH) (Rear Drive Light) .....	1
11	1330419	Connector (RH) (Work Light) .....	1

## WIRE HARNESS (FIGURE 4-41) MODULE (S/N A214E01798 →)

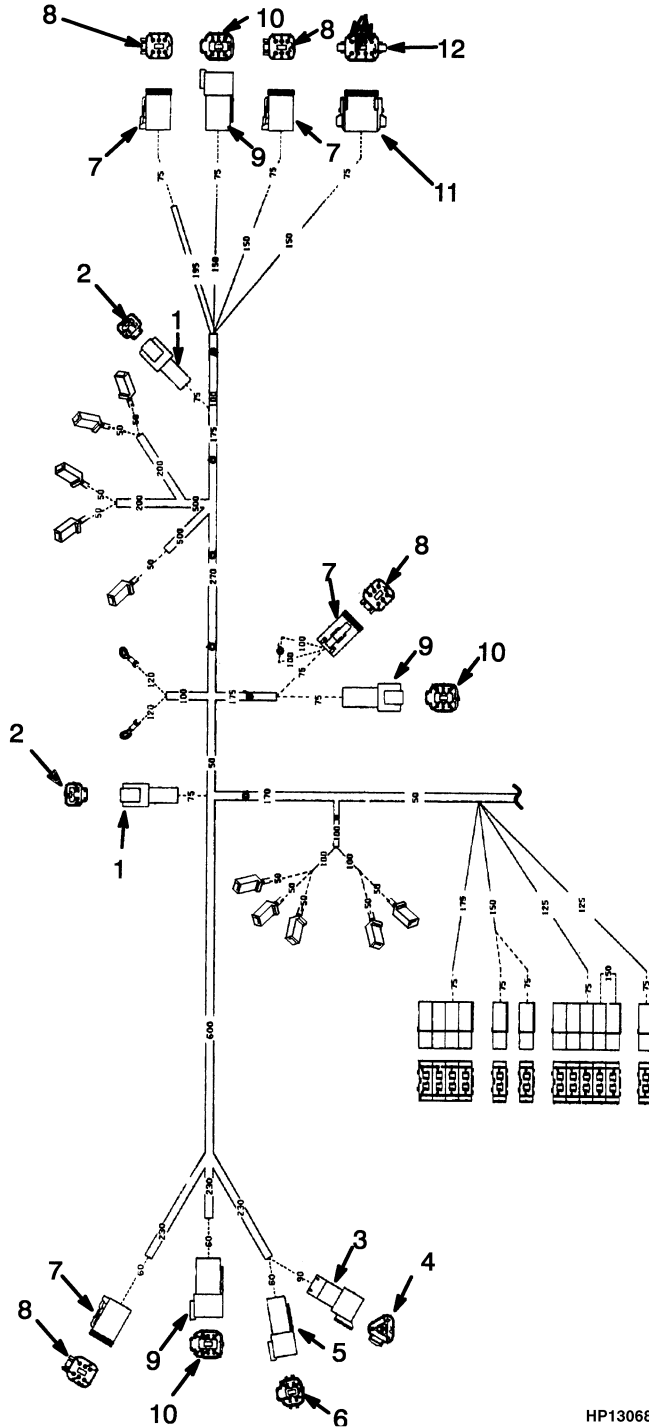


HP081230

ITEM	PART NO.	DESCRIPTION	QTY
	1499351	Wire Harness .....	1
1	1330419	Connector .....	5
2	1330424	Connector (Secondary Lock) .....	5
3	1363886	Terminal (Socket) .....	7
4	1330420	Connector .....	1
5	1330426	Connector (Secondary Lock) .....	1
6	1330421	Connector (4 Soc) .....	1
7	1330427	Connector (Secondary Lock) .....	1
8	1499072	Connector Body .....	1
9	1499073	Terminal .....	1



## WIRE HARNESS (FIGURE 4-42) OPERATOR COMPARTMENT (TIER I) — PAGE 1 OF 2

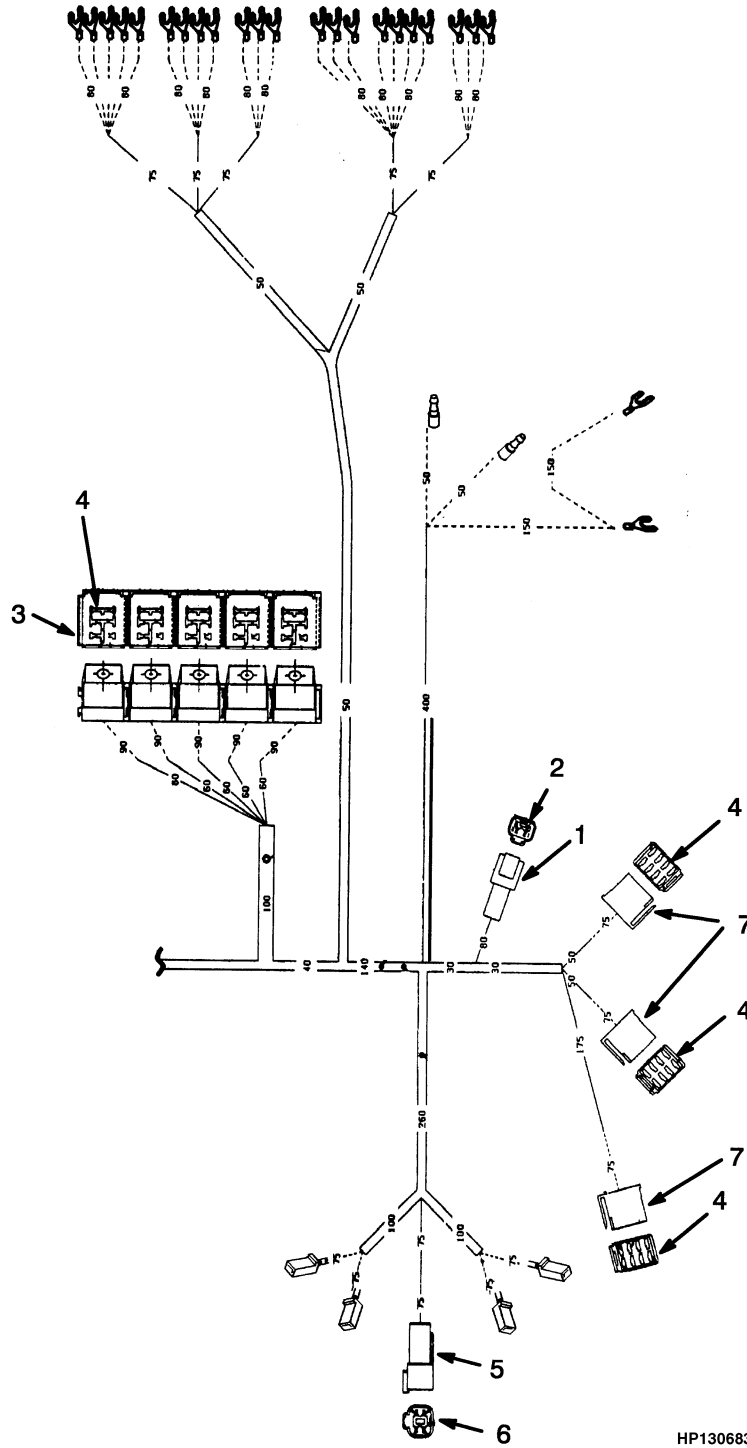




**WIRE HARNESS**  
**OPERATOR COMPARTMENT (TIER I) – PAGE 1 OF 2**

<b>ITEM</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY</b>
	1383845	Wire Harness (Tier I Engine) .....	1
1	1330409	Connector .....	3
2	1330414	Connector (Secondary Lock) .....	3
3	1330410	Connector (DT REC 3-Pin) .....	1
4	1330415	Connector (Secondary Lock) .....	1
5	1330411	Connector .....	2
6	1330416	Connector (Secondary Lock) .....	2
7	1330422	Connector .....	4
8	1330428	Connector (Secondary Lock) .....	4
9	1330412	Connector .....	3
10	1330417	Connector (Secondary Lock) .....	3
11	1330423	Connector (8 Socket) .....	1
12	1330429	Connector (Secondary Lock) .....	1

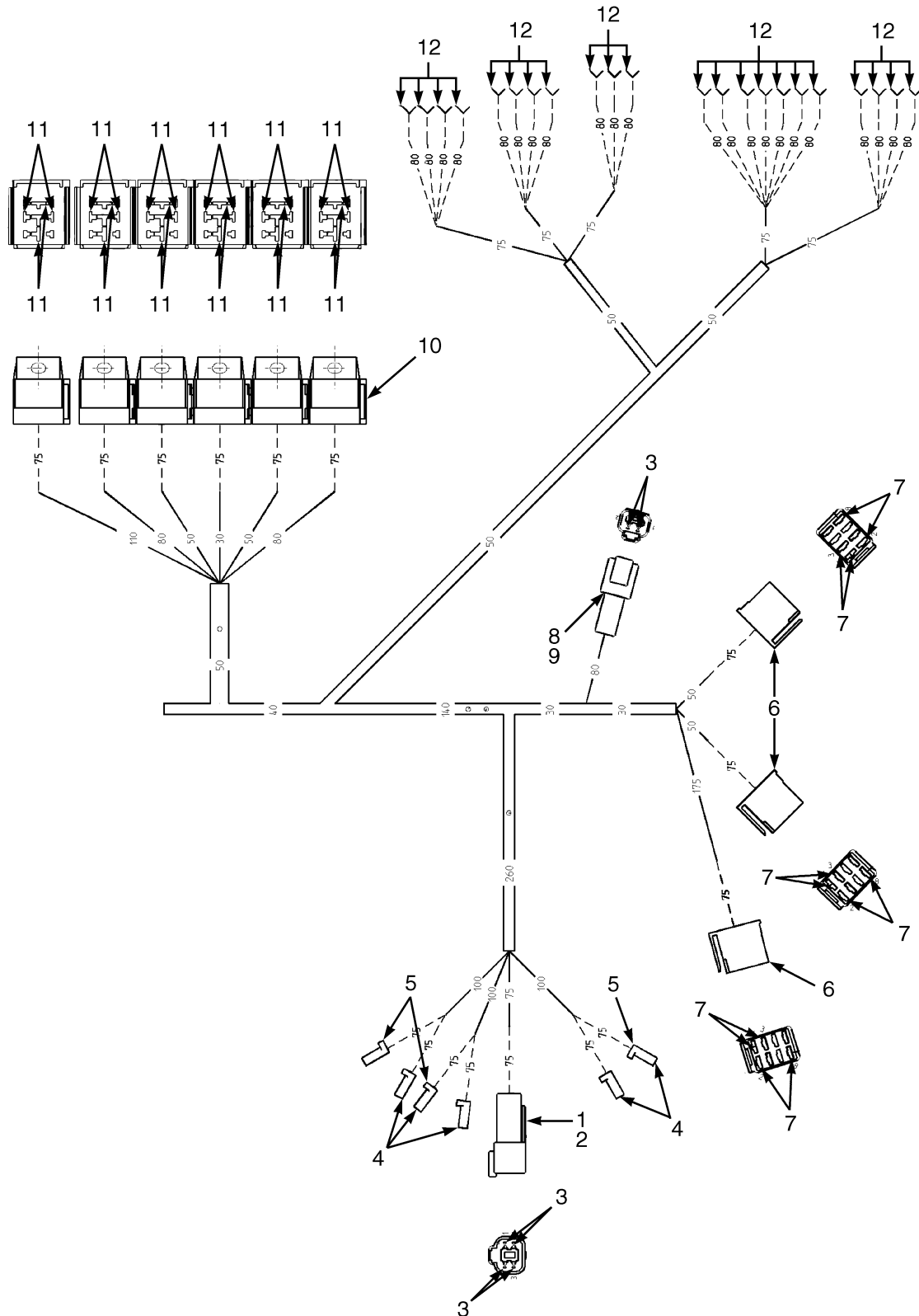
**WIRE HARNESS (FIGURE 4-43)  
OPERATOR COMPARTMENT (TIER I) — PAGE 2 OF 2**



**WIRE HARNESS**  
**OPERATOR COMPARTMENT (TIER I) – PAGE 2 OF 2**

ITEM	PART NO.	DESCRIPTION	QTY
	1383845	Wire Harness (Tier I Engine) .....	1
1	1330409	Connector .....	3
2	1330414	Connector (Secondary Lock) .....	3
3	1347224	Socket -Relay .....	3
4	1331233	Terminal .....	4
5	1330411	Connector .....	1
6	1330416	Connector (Secondary Lock) .....	1
7	1301154	Housing .....	3

**WIRE HARNESS (FIGURE 4-44)**  
**OPERATOR COMPARTMENT (TIER II) — PAGE 1 OF 2 (S/N A214E01843Z → (FLT))**  
**(S/N A214E01849Z → (ECH))**

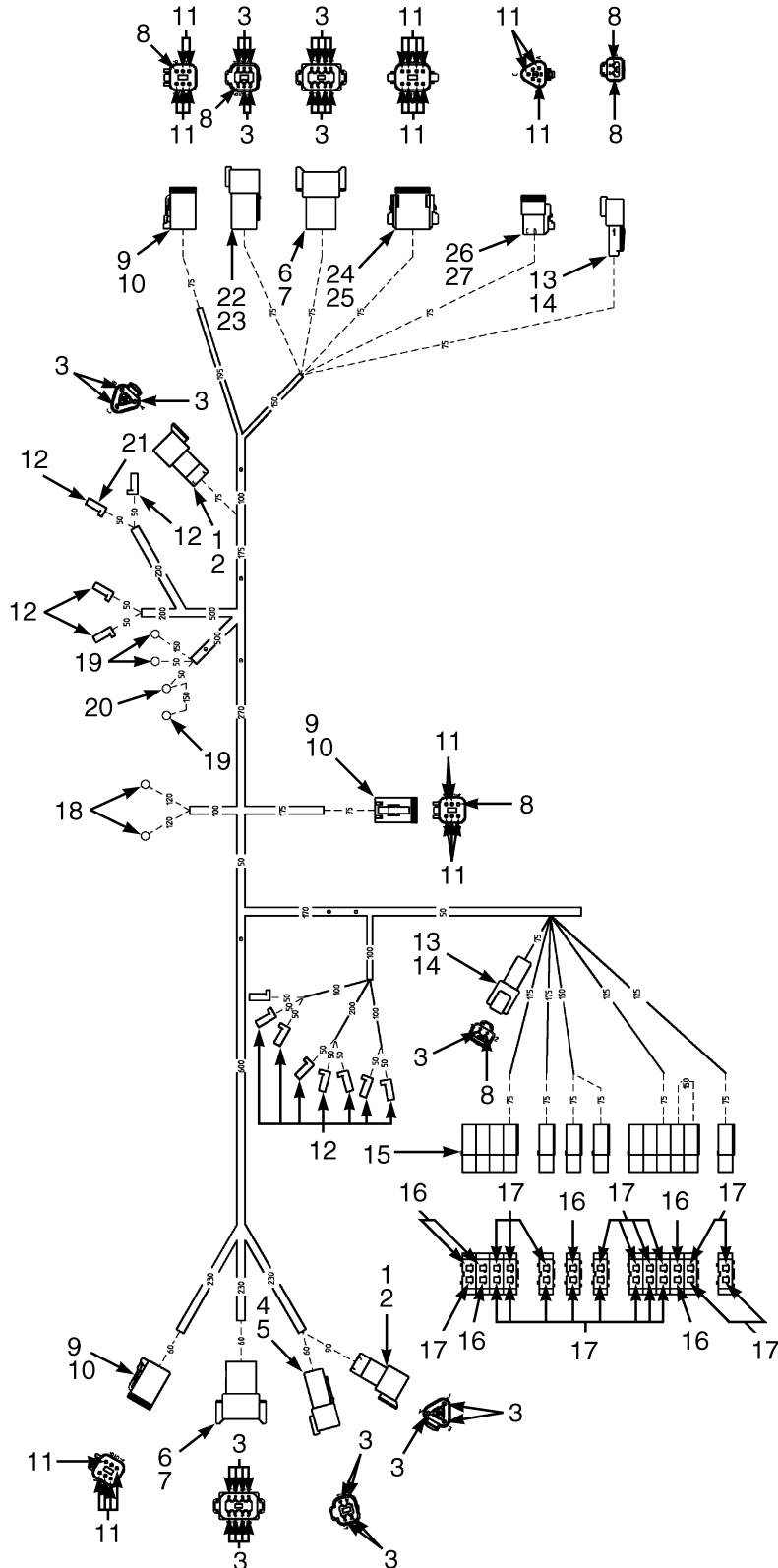


**WIRE HARNESS**  
**OPERATOR COMPARTMENT (TIER II) – PAGE 1 OF 2 (S/N A214E01843Z → (FLT))**  
**(S/N A214E01849Z → (ECH))**

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a</b> 1518275	Wire Harness .....	1
	<b>b</b> 1609035	Wire Harness .....	1
1	1330410	Connector (DT REC 3-Pin) .....	2
2	1330415	Connector (Secondary Lock) .....	2
3	1330437	Terminal (Pin) .....	32
4	1330411	Connector .....	1
5	1330416	Connector (Secondary Lock) .....	1
6	1330413	Connector (8 Pin) .....	2
7	1330418	Connector (DT REC 8-Pin) .....	2
8	1330439	Plug .....	6
9	1330422	Connector .....	3
10	1330428	Connector (Secondary Lock) .....	3
11	1330438	Terminal (Socket) .....	27
12	134812	Terminal .....	10
13	1330409	Connector .....	2
14	1330414	Connector (Secondary Lock) .....	2
15	381846	Fuse Holder .....	13
16	1300231	Terminal .....	16
17	381847	Terminal .....	20
18	129886	E-Ring .....	2
19	148605	Ring Terminal .....	3
20	148609	E-Ring .....	1
21	181046	Connector Body .....	12
22	1330412	Connector .....	1
23	1330417	Connector (Secondary Lock) .....	1
24	1330423	Connector (8 Socket) .....	1
25	1330429	Connector (Secondary Lock) .....	1
26	1330420	Connector .....	1
27	1330426	Connector (Secondary Lock) .....	1

**FOOTNOTES:****a** → S/N A214E02193C**b** S/N A214E02194C →

**WIRE HARNESS (FIGURE 4-45)**  
**OPERATOR COMPARTMENT (TIER II) — PAGE 2 OF 2 (S/N A214E01843Z → (FLT))**  
**(S/N A214E01849Z → (ECH))**



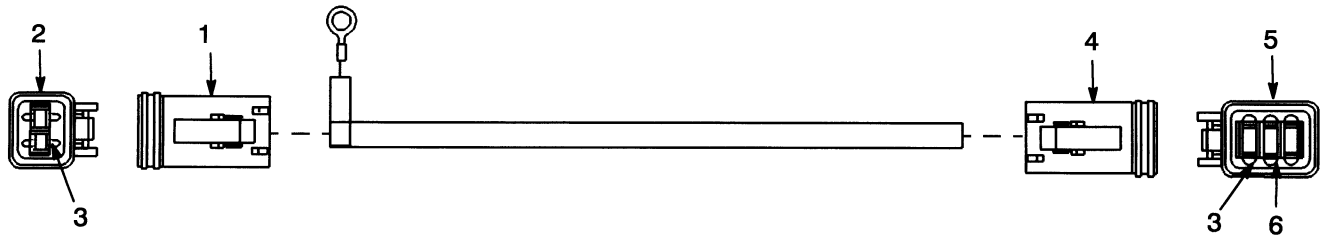
HP081684

**WIRE HARNESS**  
**OPERATOR COMPARTMENT (TIER II) – PAGE 2 OF 2 (S/N A214E01843Z → (FLT))**  
**(S/N A214E01849Z → (ECH))**

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a</b> 1518275	Wire Harness .....	1
	<b>b</b> 1609035	Wire Harness .....	1
1	1330411	Connector .....	1
2	1330416	Connector (Secondary Lock) .....	1
3	1330437	Terminal (Pin) .....	6
4	134812	Terminal .....	5
5	181046	Connector Body .....	6
6	1301154	Housing .....	3
7	1331233	Terminal .....	13
8	1330409	Connector .....	1
9	1330414	Connector (Secondary Lock) .....	1
10	<b>a</b> 1347224	Socket -Relay .....	6
10	<b>b</b> 1347224	Socket -Relay .....	5
11	1331233	Terminal .....	25
12	148648	Terminal .....	22

**FOOTNOTES:****a** → S/N A214E02193C**b** S/N A214E02194C →

## WIRE HARNESS (FIGURE 4-46) OPERATOR COMPARTMENT TO MAST LIGHT JUMPER — FORK LIFT TRUCK

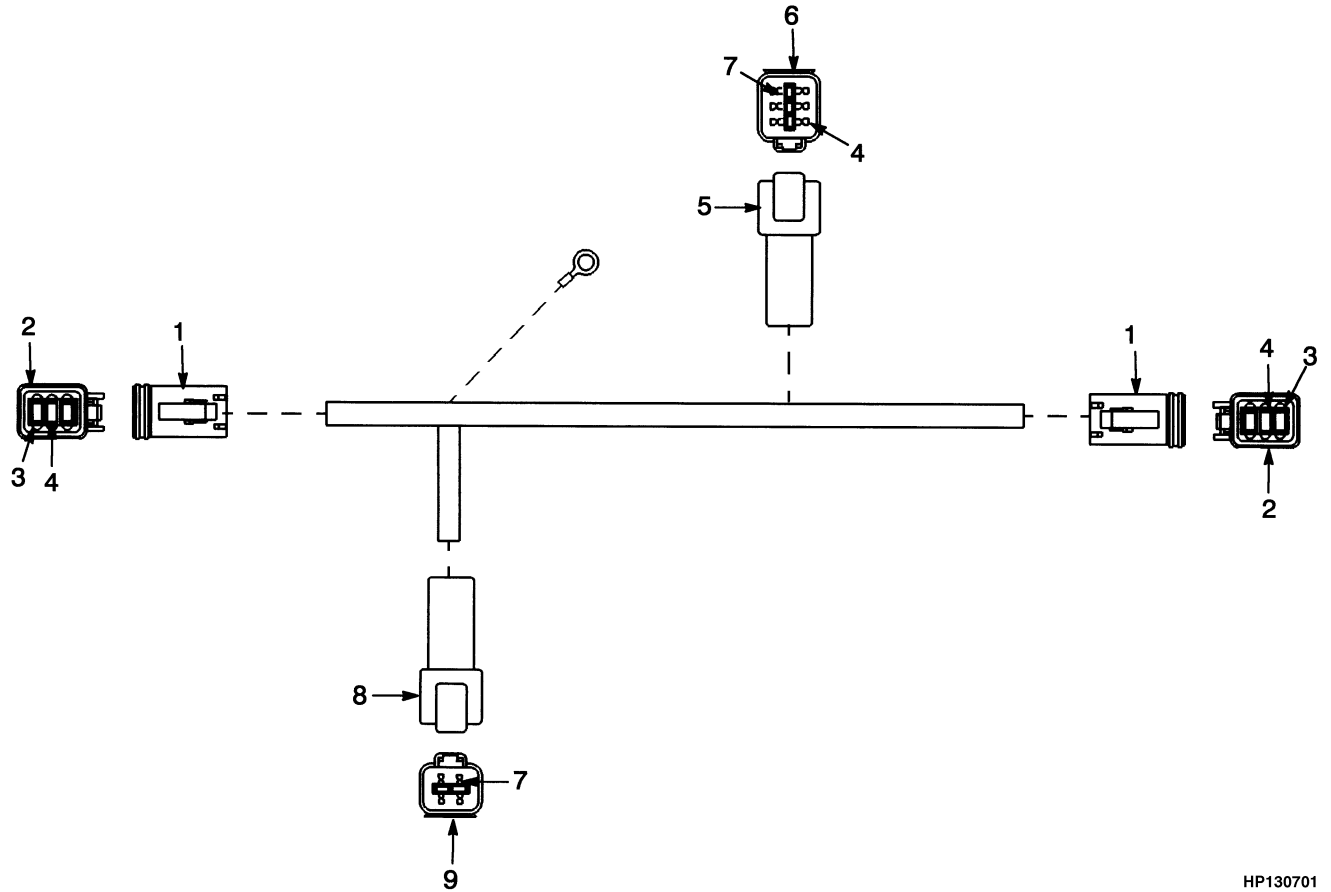


HP130703

ITEM	PART NO.	DESCRIPTION	QTY
	1452324	Wire Harness .....	1
1	1330419	Connector .....	1
2	1330424	Connector (Secondary Lock) .....	1
3	1330438	Terminal (Socket) .....	3
4	1330422	Connector .....	1
5	1330428	Connector (Secondary Lock) .....	1
6	1330439	Plug .....	5



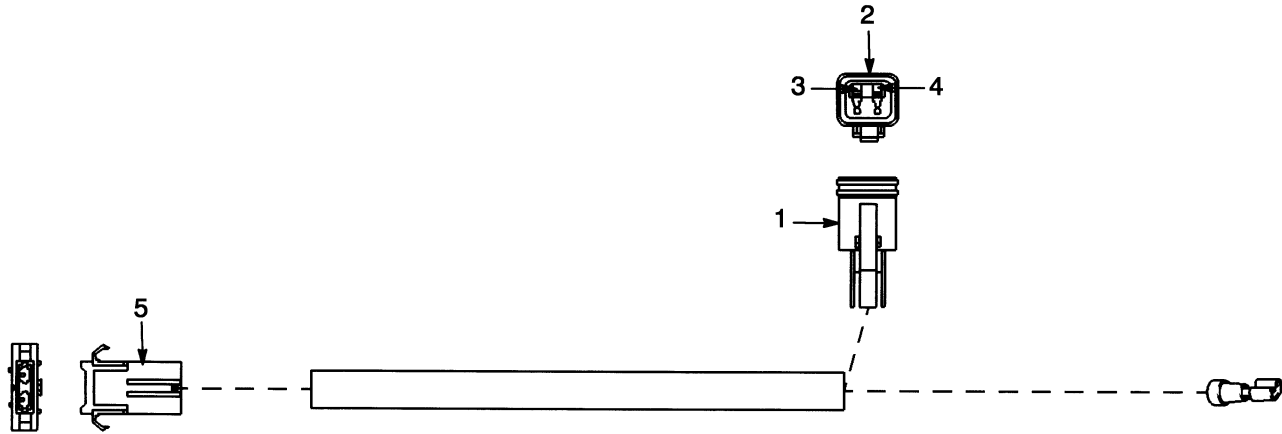
**WIRE HARNESS (FIGURE 4-47)  
REAR LIGHT**



HP130701

ITEM	PART NO.	DESCRIPTION	QTY
	1384605	Wire Harness .....	1
1	1330422	Connector (Brake/Back-Up Light) .....	2
2	1330429	Connector (Secondary Lock) .....	2
3	1330438	Terminal (Socket) .....	10
4	1330439	Plug .....	3
5	1330412	Connector (Operator Compartment Harness) .....	1
6	1330417	Connector (Secondary Lock) .....	1
7	1330437	Terminal (Pin) .....	7
8	1330409	Connector (Back-Up Alarm) .....	1
9	1330414	Connector (Secondary Lock) .....	1

## WIRE HARNESS (FIGURE 4-48) ROTATING BEACON

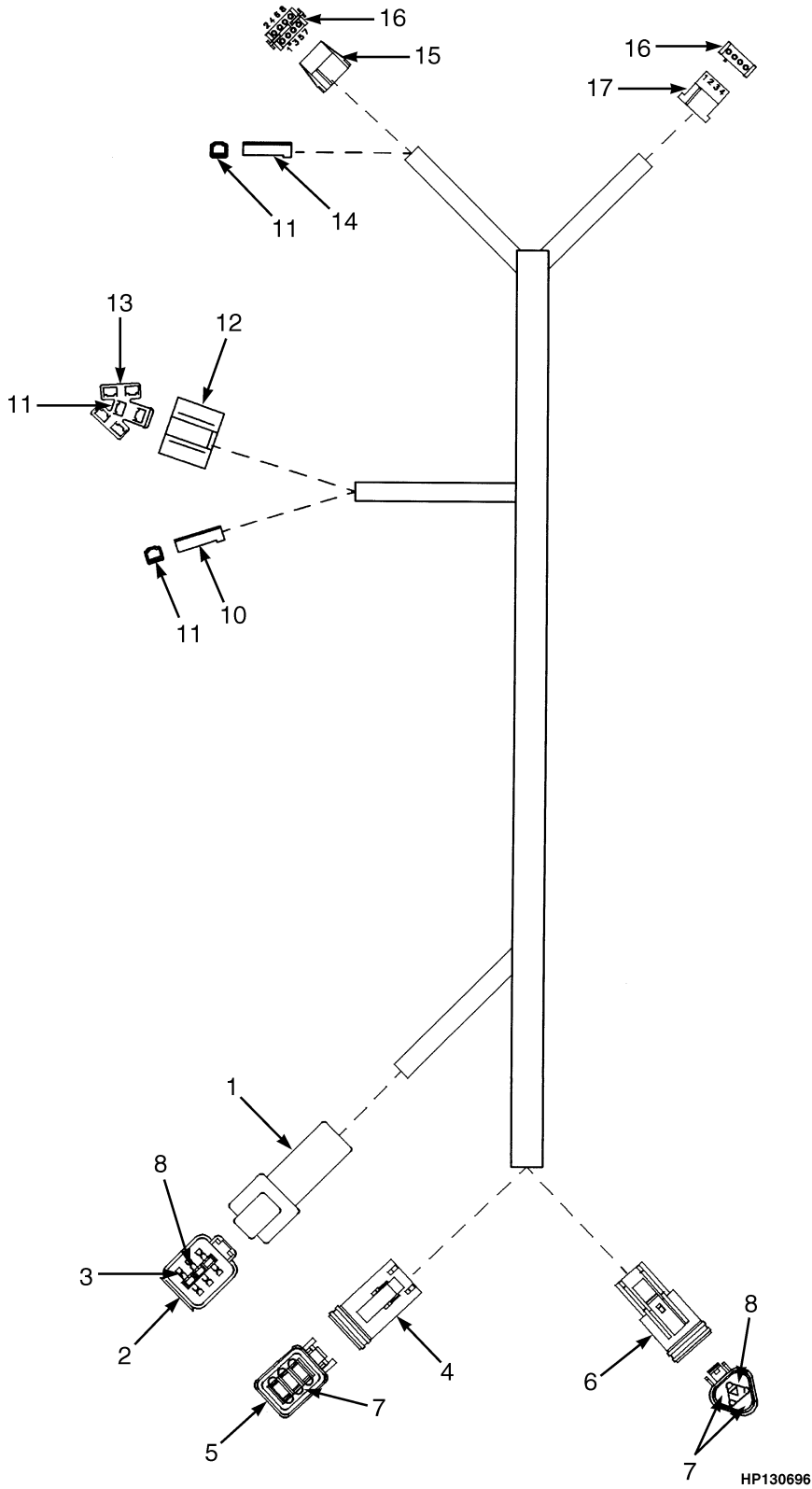


HP130705

ITEM	PART NO.	DESCRIPTION	QTY
	1385513	Wire Harness .....	1
1	1330419	Connector .....	1
2	1330424	Connector (Secondary Lock) .....	1
3	1330438	Terminal (Socket) .....	1
4	1330439	Plug .....	1
5	381846	Fuse Holder .....	1



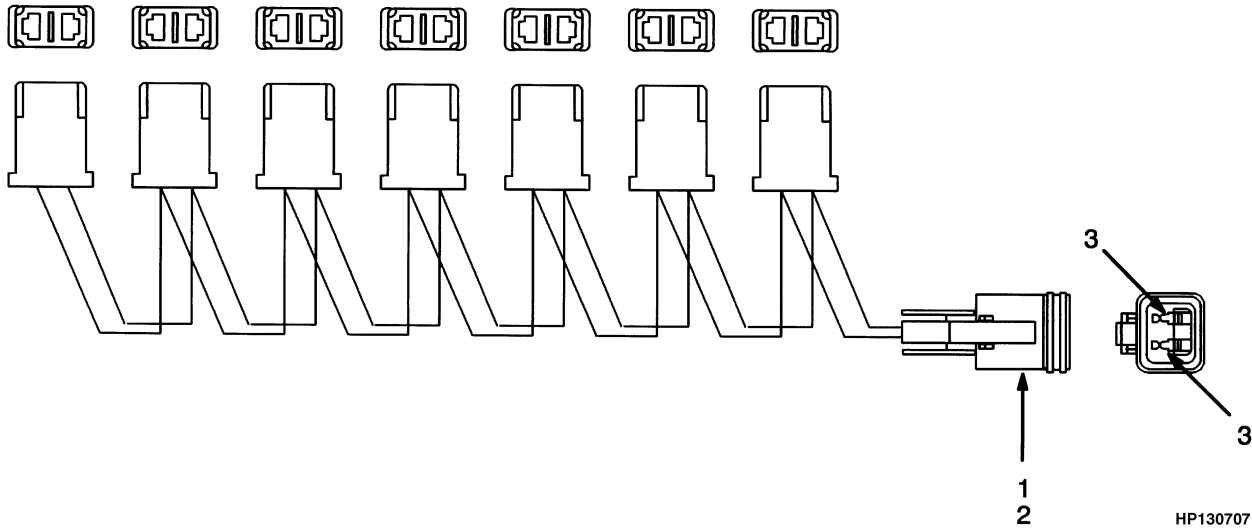
## WIRE HARNESS (FIGURE 4-49) STEERING POD



**WIRE HARNESS  
STEERING POD****KEY:****A: Tier I Engine****B: Tier II Engine**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1385517	Wire Harness .....	1	..
	1518935	Wire Harness .....	..	1
1	1330412	Connector (Operator Compartment Harness) .....	1	1
2	1330417	Connector (Secondary Lock) .....	1	1
3	1330437	Terminal (Pin) .....	5	..
3	1363885	Terminal (Pin) .....	..	6
4	1330422	Connector (Operator Compartment Harness) .....	1	..
4	1330423	Connector (8 Socket) .....	..	1
5	1330428	Connector (Secondary Lock) .....	1	..
5	1330429	Connector (Secondary Lock) .....	..	1
6	1330420	Connector (Operator Compartment Harness) .....	1	1
7	1330438	Terminal (Socket) .....	8	..
7	1363886	Terminal (Socket) .....	..	10
8	1330439	Plug .....	2	2
9	1330426	Connector (Secondary Lock) .....	1	1
10	181046	Connector Body .....	1	1
11	134812	Terminal .....	5	3
12	370728	Connector Body .....	1	1
13	1322673	Terminal .....	..	2
14	129889	Connector Body .....	1	1
15	370727	Connector Body .....	1	1
16	367968	Socket .....	11	11
17	367960	Socket .....	1	1

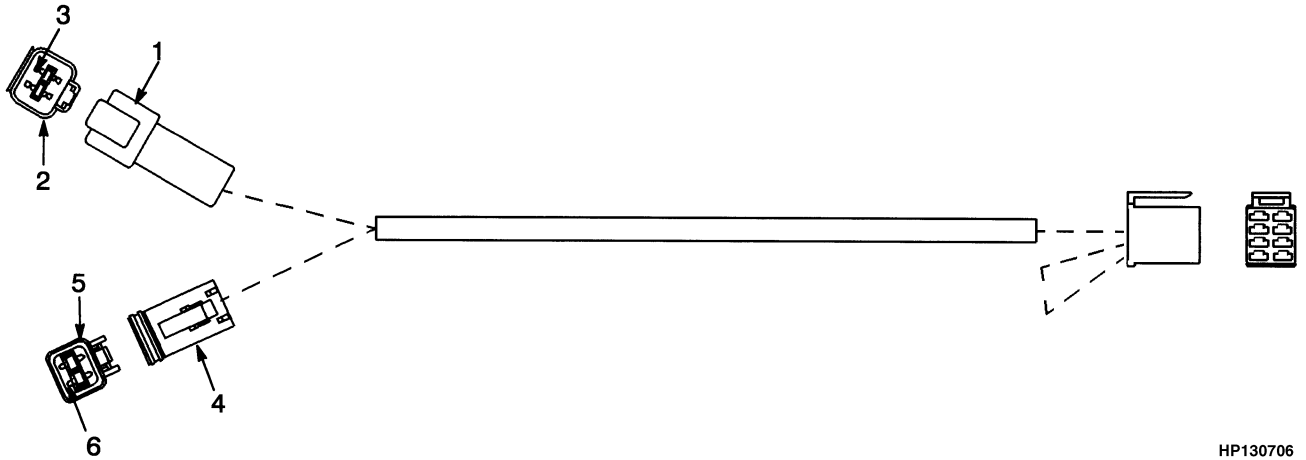
## WIRE HARNESS (FIGURE 4-50) SWITCH LIGHTS



HP130707

ITEM	PART NO.	DESCRIPTION	QTY
	1336790	Wire Harness .....	1
1	1330419	Connector .....	1
2	1330424	Connector (Secondary Lock) .....	1
3	1330438	Terminal (Socket) .....	2

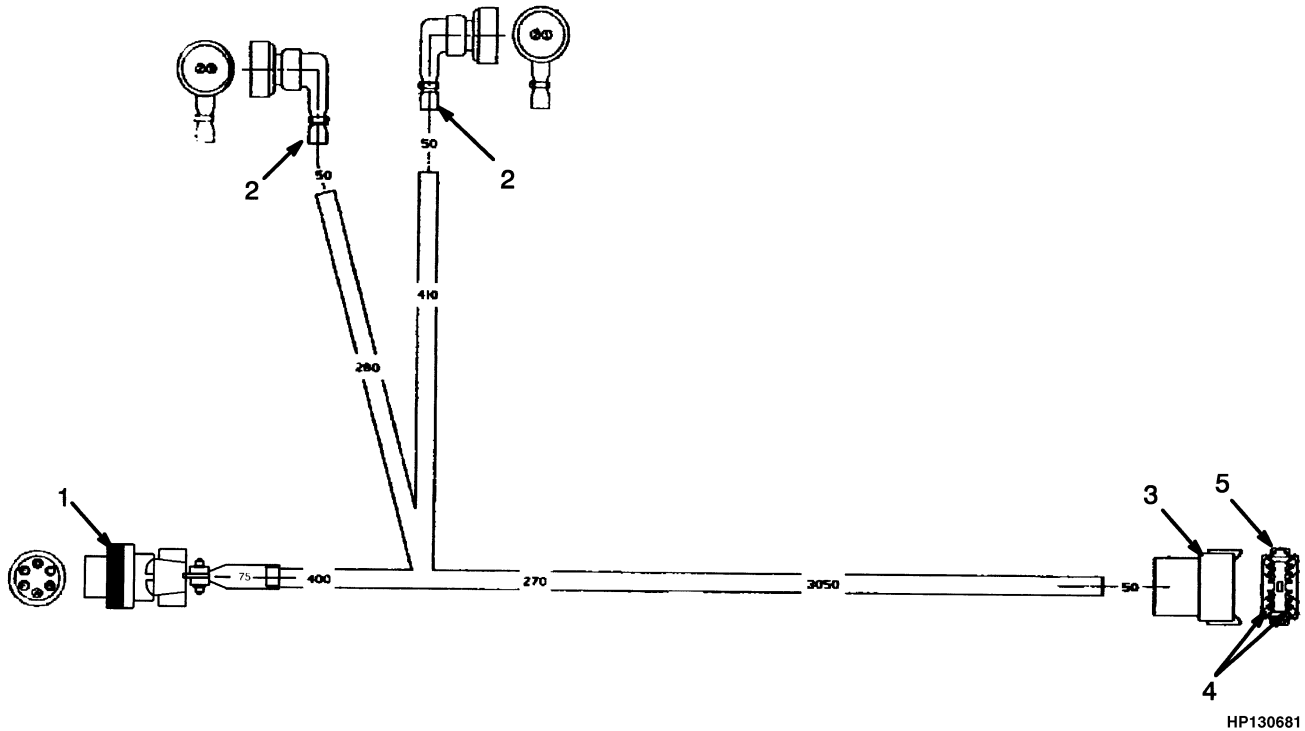
**WIRE HARNESS (FIGURE 4-51)  
SWITCH — WARNING**



HP130706

ITEM	PART NO.	DESCRIPTION	QTY
	1384495	Wire Harness .....	1
1	1330411	Connector .....	1
2	1330416	Connector (Secondary Lock) .....	1
3	1330437	Terminal (Pin) .....	4
4	1330421	Connector (4 Soc) .....	1
5	1330427	Connector (Secondary Lock) .....	1
6	1330438	Terminal (Socket) .....	4

## WIRE HARNESS (FIGURE 4-52) TRANSMISSION



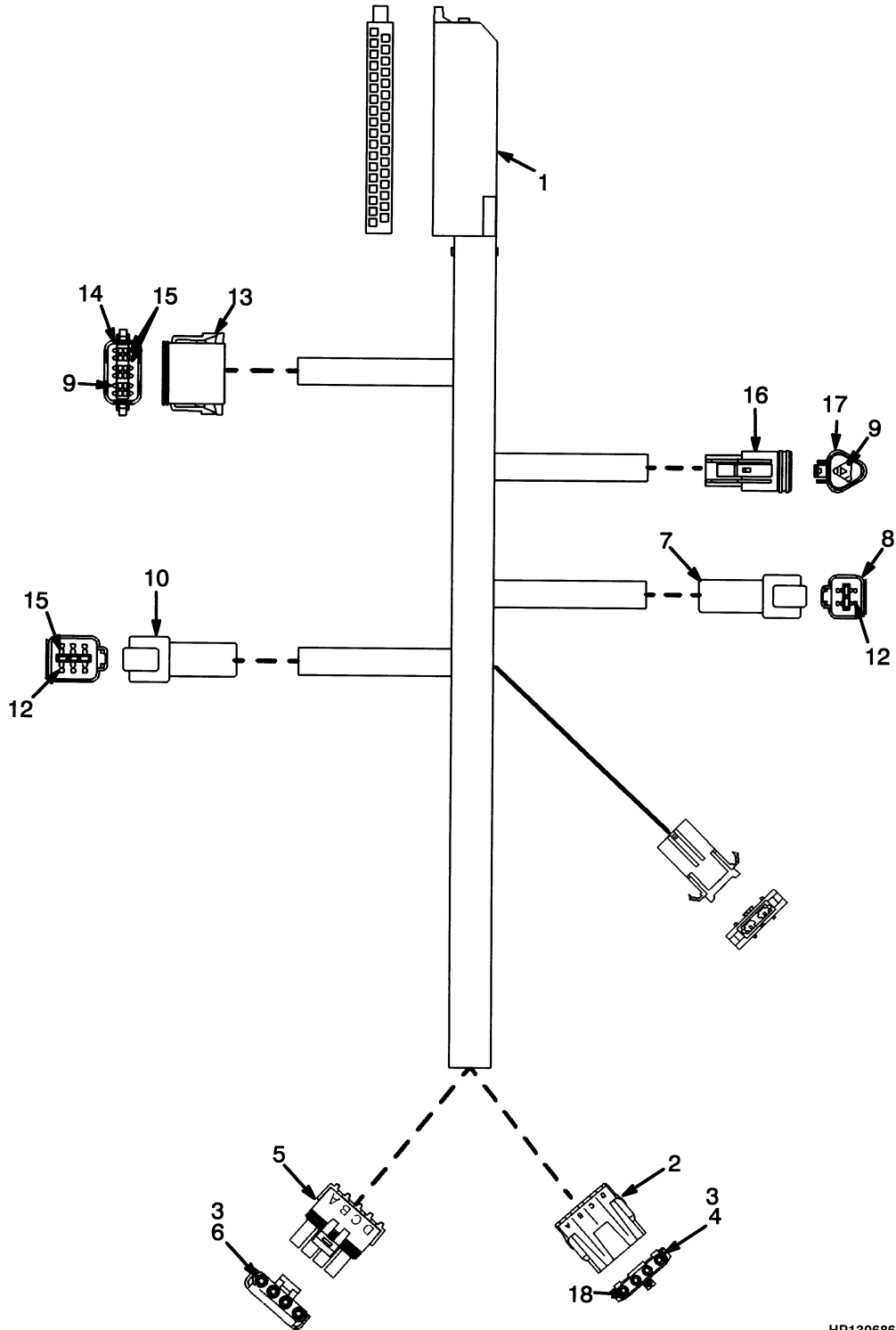
**KEY:**  
**A:** Empty Container Handler  
**B:** Fork Lift Truck

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1383832	Wire Harness .....	1	..
	1383833	Wire Harness .....	..	1
1	380109	Connector .....	1	1
2	1383810	Kit-Connector .....	2	2
3	1352602	Connector (12 Pin) .....	1	1
4	1330437	Terminal (Pin) .....	10	10
5	1352603	Secondary Lock .....	1	1





## WIRE HARNESS (FIGURE 4-53) TRANSMISSION (→ S/N A214E01615)

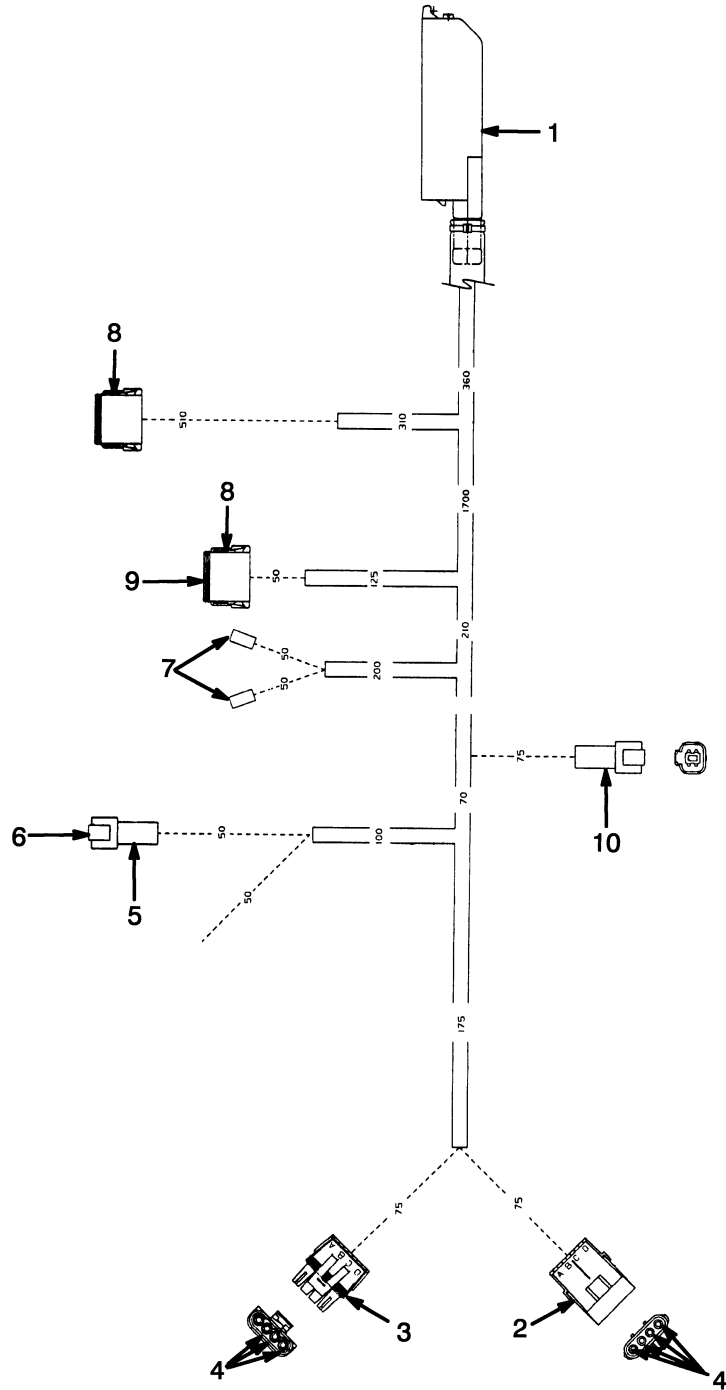


HP130686

**WIRE HARNESS**  
**TRANSMISSION (→ S/N A214E01615)**

ITEM	PART NO.	DESCRIPTION	QTY
	1383830	Wire Harness .....	1
1	1383808	Kit-Connector .....	1
2	1383803	Connector .....	1
3	1323579	Seal .....	7
4	1334999	Terminal .....	3
5	1383804	Connector .....	1
6	1336173	Terminal .....	4
7	1330411	Connector .....	1
8	1330416	Connector (Secondary Lock) .....	1
9	1330438	Terminal (Socket) .....	13
10	1330412	Connector .....	1
11	1330417	Connector (Secondary Lock) .....	1
12	1330437	Terminal (Pin) .....	9
13	1351068	Connector .....	1
14	1351069	Secondary Lock .....	1
15	1330439	Plug .....	3
16	1330420	Connector .....	1
17	1330426	Connector (Secondary Lock) .....	1
18	1327164	Terminator .....	1

**WIRE HARNESS (FIGURE 4-54)**  
**TRANSMISSION (S/N A214E01616 ↔ S/N A214E002194C)**

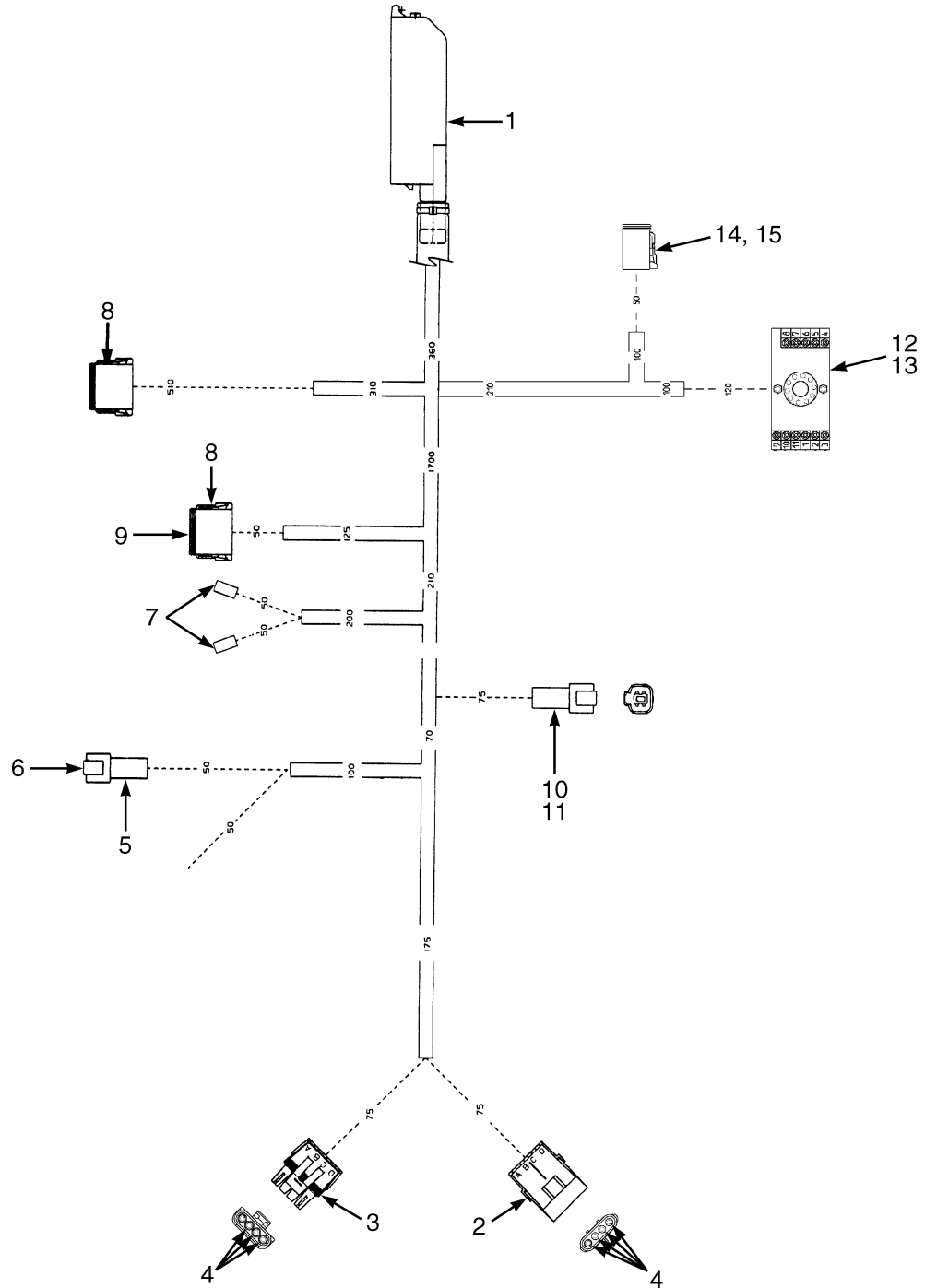


HP130687

**WIRE HARNESS**  
**TRANSMISSION (S/N A214E01616 ↔ S/N A214E002194C)**

ITEM	PART NO.	DESCRIPTION	QTY
	1457954	Wire Harness .....	1
1	1383808	Kit-Connector .....	1
2	1383803	Connector .....	1
3	1383804	Connector .....	1
4	1323579	Seal .....	7
5	1330412	Connector .....	1
6	1330417	Connector (Secondary Lock) .....	1
7	134812	Terminal .....	2
8	1351068	Connector .....	2
9	1351069	Secondary Lock .....	1
10	1330411	Connector .....	1

## WIRE HARNESS (FIGURE 4-55) TRANSMISSION (S/N A214E02194C →)

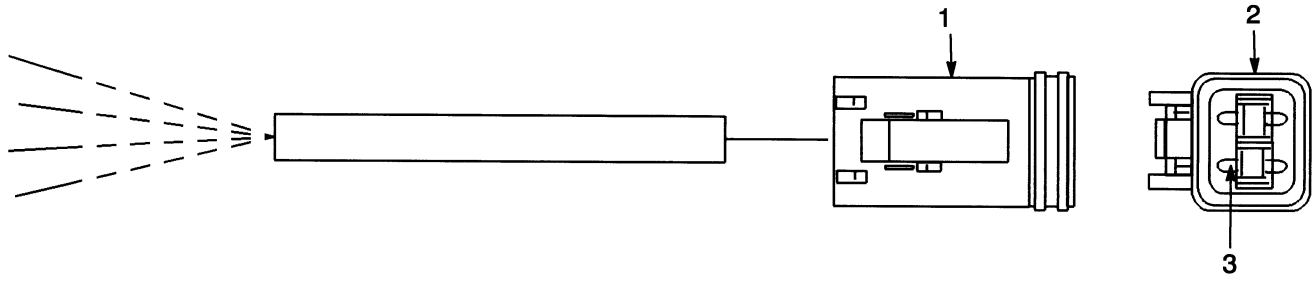


HP081682

**WIRE HARNESS**  
**TRANSMISSION (S/N A214E02194C →)**

ITEM	PART NO.	DESCRIPTION	QTY
	1606670	Wire Harness .....	1
1	1383808	Kit-Connector (Kit) .....	1
2	1383803	Connector .....	1
3	1383804	Connector .....	1
4	1323579	Seal .....	7
5	1330412	Connector .....	1
6	1330417	Connector (Secondary Lock) .....	1
7	325789	Terminal .....	2
8	1351068	Connector .....	2
9	1351069	Secondary Lock .....	1
10	1330411	Connector .....	1
11	1330416	Connector (Secondary Lock) .....	1
12	1608860	Socket (Relay) .....	1
13	833772	Terminal .....	9
14	1330422	Connector .....	1
15	1330428	Connector (Secondary Lock) .....	1

## WIRE HARNESS (FIGURE 4-56) TURN SIGNAL

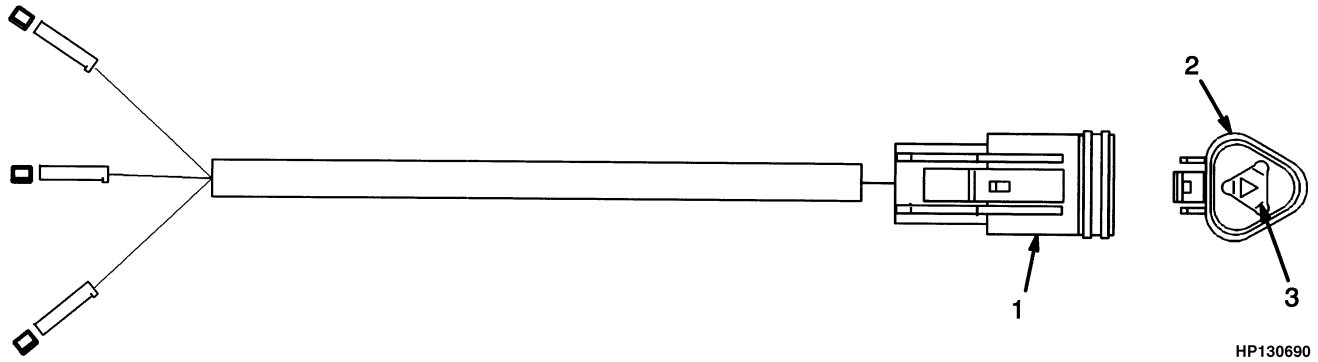


HP130697

ITEM	PART NO.	DESCRIPTION	QTY
	1336789	Wire Harness (Turn Signal) .....	1
1	1330421	Connector (4 Soc) .....	1
2	1330427	Connector (Secondary Lock) .....	1
3	1330438	Terminal (Socket) .....	4



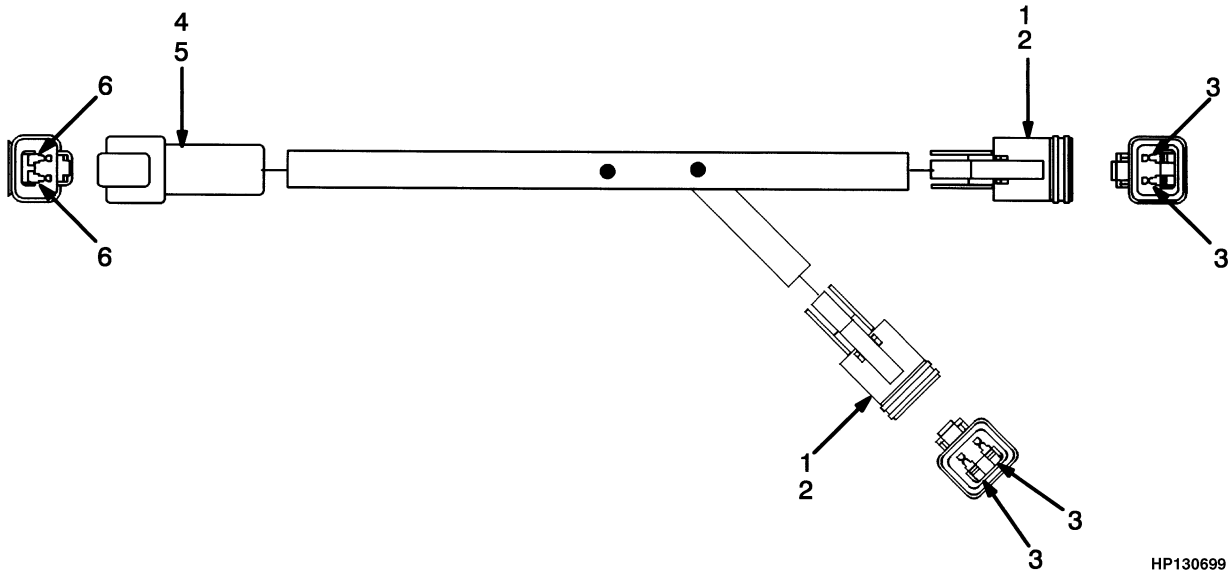
**WIRE HARNESS (FIGURE 4-57)  
WINDSHIELD WASHER**



HP130690

ITEM	PART NO.	DESCRIPTION	QTY
	1384602	Wire Harness .....	1
1	1330410	Connector (DT REC 3-Pin) (Cab Wire Harness) .....	1
2	1330415	Connector (Secondary Lock) .....	1
3	1330437	Terminal (Pin) .....	3

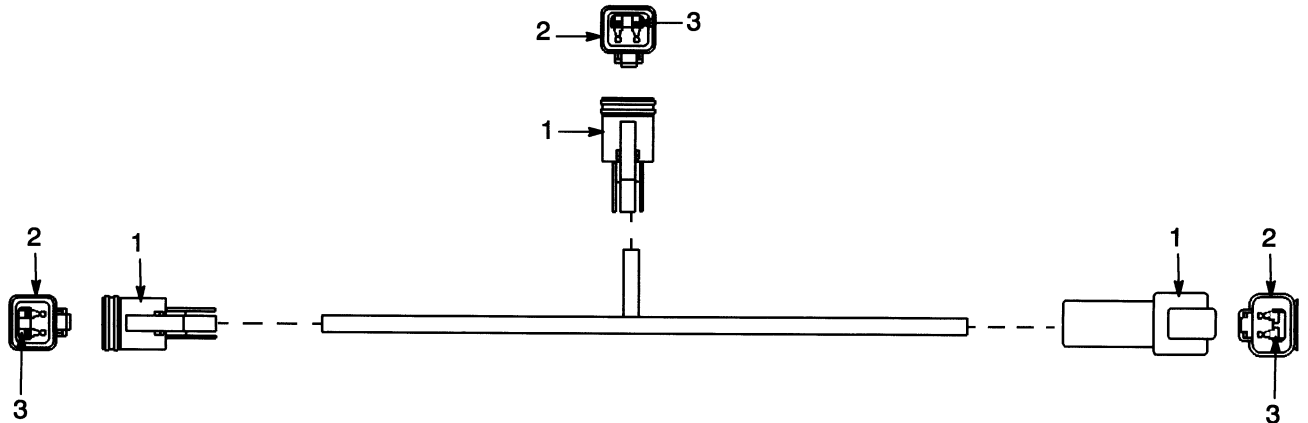
## WIRE HARNESS (FIGURE 4-58) WORK LIGHTS



HP130699

ITEM	PART NO.	DESCRIPTION	QTY
	1384606	Wire Harness .....	1
1	1330419	Connector (Work Lights) .....	2
2	1330424	Connector (Secondary Lock) .....	2
3	1330438	Terminal (Socket) .....	4
4	1330409	Connector .....	1
5	1330414	Connector (Secondary Lock) .....	1
6	1330437	Terminal (Pin) .....	2

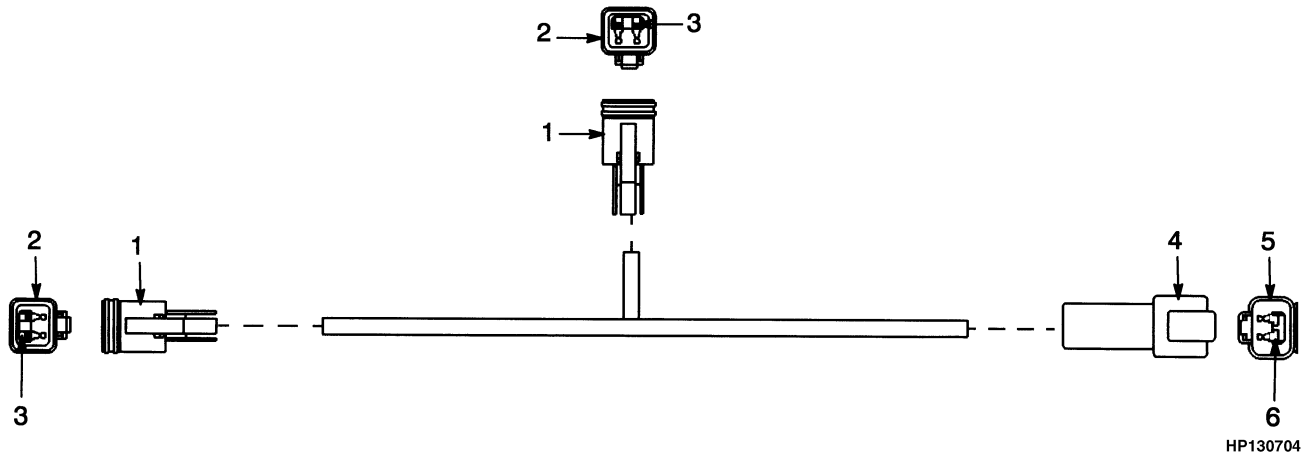
**WIRE HARNESS (FIGURE 4-59)  
WORK LIGHTS — EMPTY CONTAINER HANDLER**



HP130700

ITEM	PART NO.	DESCRIPTION	QTY
	1452319	Wire Harness .....	1
1	1330419	Connector .....	3
2	1330424	Connector (Secondary Lock) .....	3
3	1330438	Terminal (Socket) .....	6

## WIRE HARNESS (FIGURE 4-60) WORK LIGHTS — FORK LIFT TRUCK



ITEM	PART NO.	DESCRIPTION	QTY
	1452323	Wire Harness .....	1
1	1330419	Connector .....	2
2	1330424	Connector (Secondary Lock) .....	2
3	1330438	Terminal (Socket) .....	4
4	1330409	Connector .....	1
5	1330414	Connector (Secondary Lock) .....	1
6	1330437	Terminal (Pin) .....	2

**WIRE HARNESS (FIGURE 4-61)  
WORK LIGHTS EXTENSION — FORK LIFT TRUCK**



HP130702

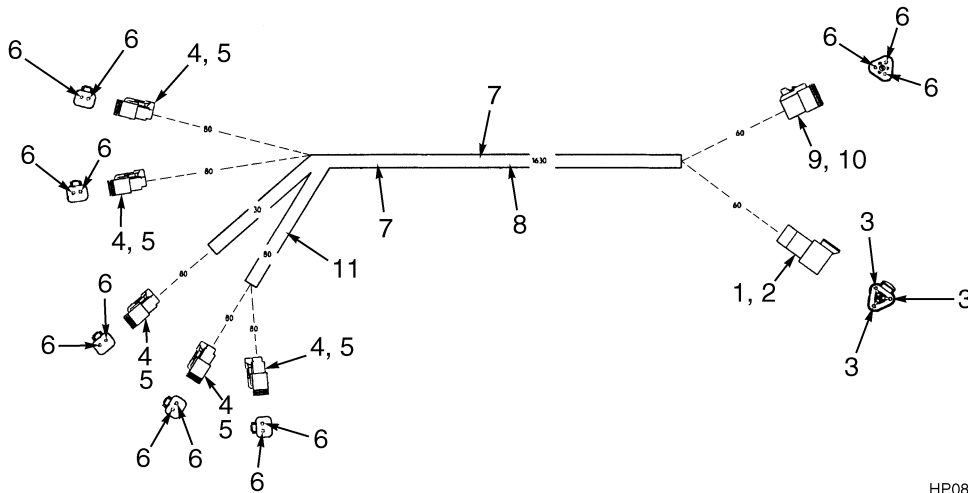
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a</b> 1452315	Wire Harness (RH) .....	1
	<b>b</b> 1452316	Wire Harness (RH) .....	1
	1452552	Wire Harness (LH) .....	1
1	1330409	Connector .....	1
2	1330414	Connector (Secondary Lock) .....	1
3	1330437	Terminal (Pin) .....	2
4	1330419	Connector .....	1
5	1330424	Connector (Secondary Lock) .....	1
6	1330438	Terminal (Socket) .....	2

**FOOTNOTES:**

**a** 2900 mm thru 5300 mm Lift

**b** 6100 mm thru 6900 mm Lift

## WIRE HARNESS (FIGURE 4-62) SELECTOR VALVE

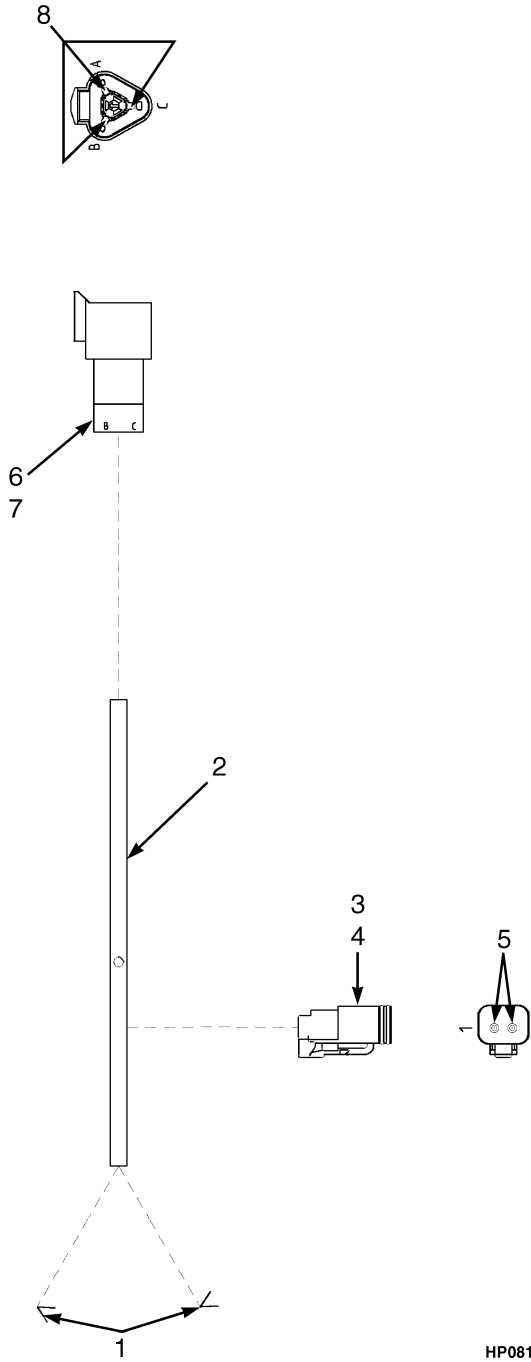


HP081364

ITEM	PART NO.	DESCRIPTION	QTY
	1455636	Wire Harness (Selector Valve) .....	1
1	1330410	Connector (DT REC 3-Pin) .....	1
2	1330415	Connector (Secondary Lock) .....	1
3	1330437	Terminal (Pin) .....	3
4	1330419	Connector .....	5
5	1330424	Connector (Secondary Lock) .....	5
6	1330438	Terminal (Socket) .....	13
7	1345027	Splice .....	2
8	381919	Braiding .....	AR
9	1330420	Connector .....	1
10	1330426	Connector (Secondary Lock) .....	1
11	1345026	Splice .....	1



**WIRE HARNESS (FIGURE 4-63)  
HYDRAULIC OIL COOLER**



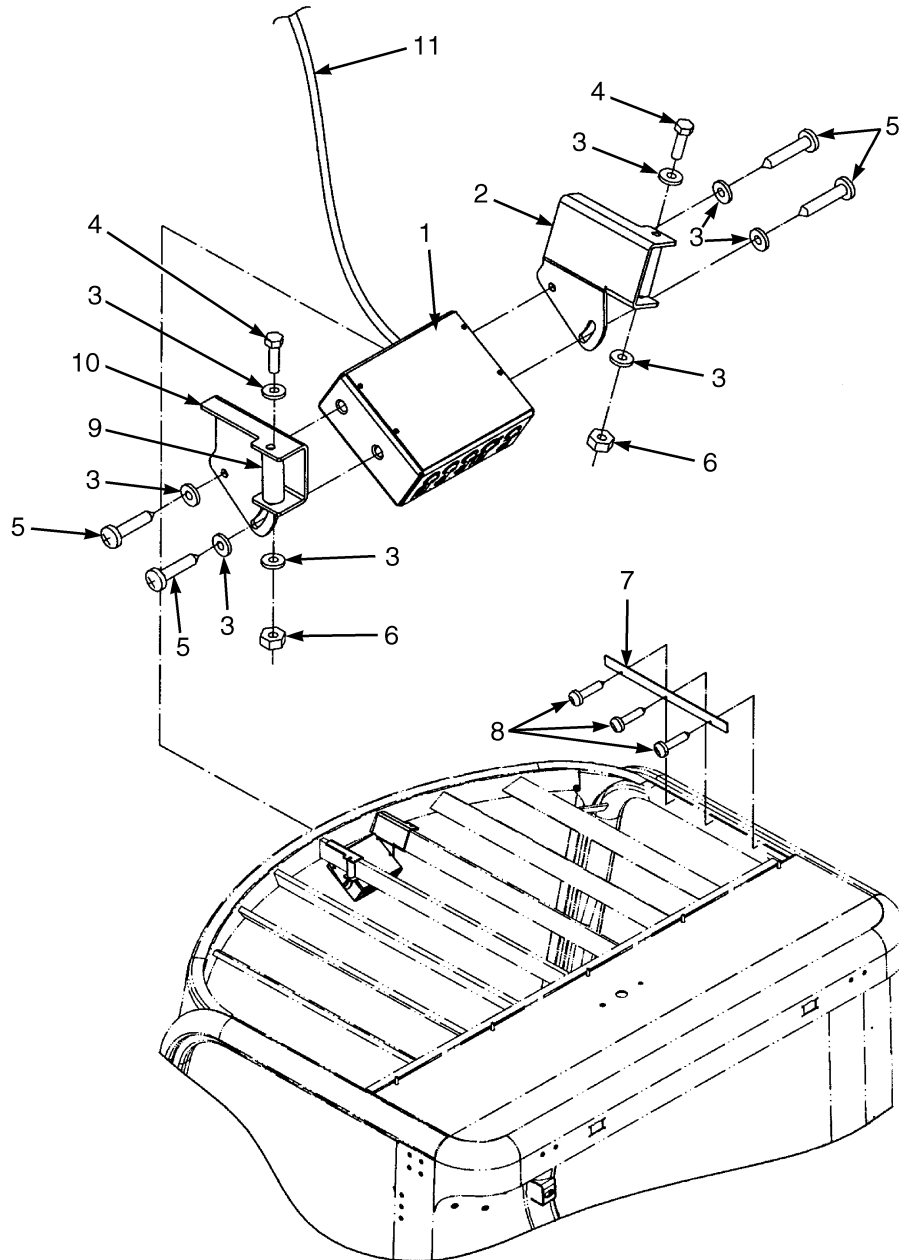
HP081542



**WIRE HARNESS  
HYDRAULIC OIL COOLER**

<b>ITEM</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY</b>
	1519129	Wire Harness (Hydraulic Oil Cooler) (Empty Container Handler) .....	1
	1520540	Wire Harness (Hydraulic Oil Cooler) (Fork Lift Truck) .....	1
1	367540	Terminal (Female) .....	1
2	381919	Braiding .....	AR
3	1330419	Connector .....	1
4	1330424	Connector (Secondary Lock) .....	1
5	1363886	Terminal (Socket) .....	2
6	1330410	Connector (DT REC 3-Pin) .....	1
7	1330415	Connector (Secondary Lock) .....	1
8	1363885	Terminal (Pin) .....	3

## LIGHT BAR AND MOUNT (FIGURE 4-64) TWISTLOCK MODULE — CAB



HP081494

**LIGHT BAR AND MOUNT  
TWISTLOCK MODULE – CAB**

ITEM	PART NO.	DESCRIPTION	QTY
1	1506674	Control Box (Twistlock) .....	1
1	1554156	Key Set (Override Key) .....	1
2	1506672	Bracket (RH) .....	1
3	1506738	Washer .....	8
4	1506669	Screw .....	2
5	1506668	Screw .....	4
6	1506670	Nut .....	2
7	1506667	Plate .....	1
8	1468319	Screw .....	3
9	1506671	Plate .....	2
10	1506673	Bracket (LH) .....	1
11	<del>1571805</del> 4027971	Wire Harness (Twist Module) .....	1



**5**

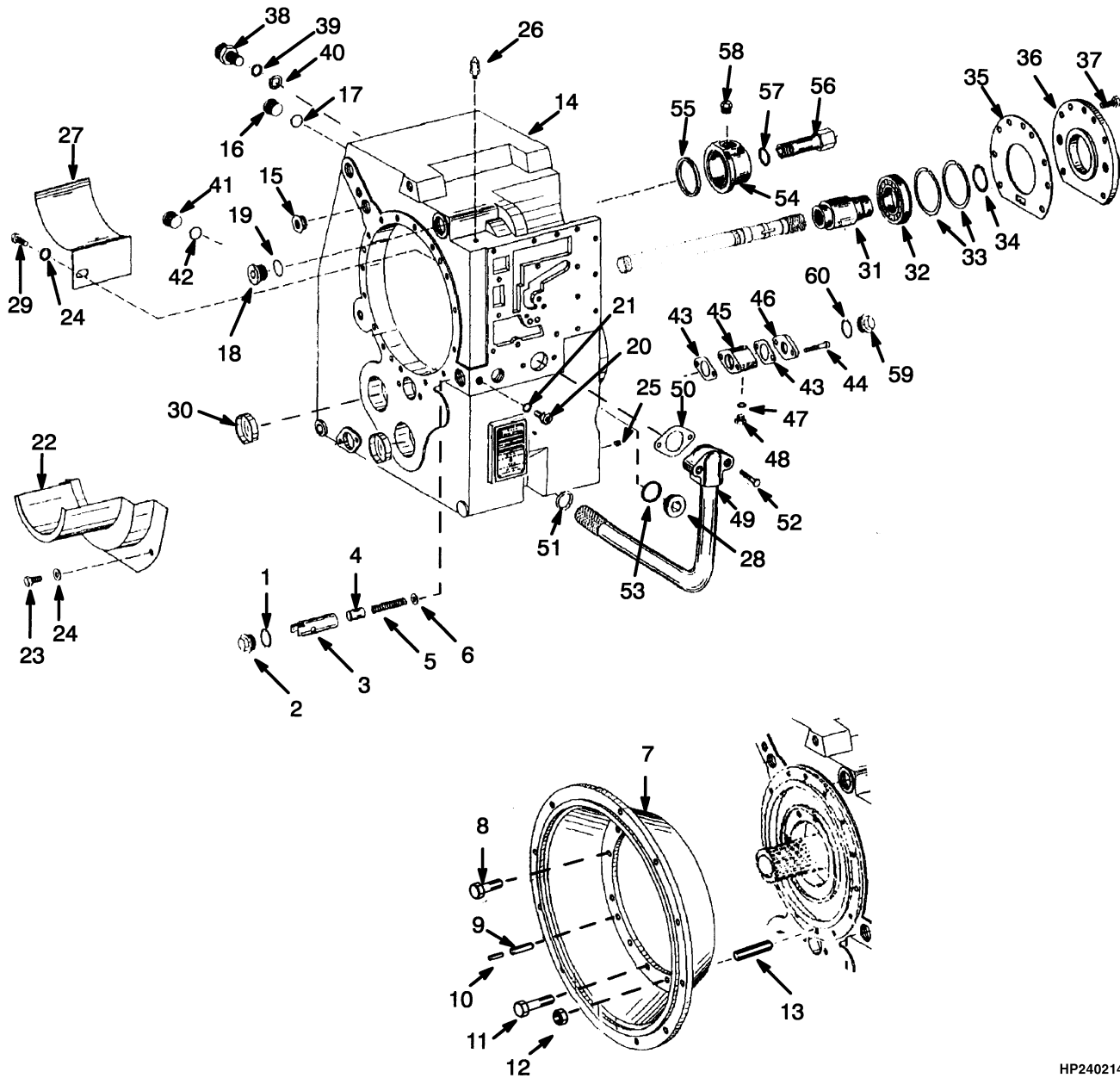
**TRANSMISSION**



**SECTION 5  
TRANSMISSION**

DESCRIPTION	PAGE
TRANSMISSION	
CLUTCH PACK - FORWARD AND SECOND GEAR - PAGE 2 OF 3 .....	5-32
CLUTCH PACK - REVERSE AND FIRST GEAR - PAGE 1 OF 3 .....	5-28
CLUTCH PACK - THIRD GEAR - PAGE 3 OF 3 .....	5-36
CONTROL VALVE (→ S/N A214E01615) .....	5-20
CONTROL VALVE (S/N A214E01616 →) .....	5-24
CONTROL VALVE ATTACHING PARTS .....	5-18
INCHING PEDAL (→ S/N A214E01615) .....	5-42
INCHING VALVE (→ S/N A214E01615) .....	5-46
INPUT SHAFT .....	5-14
SHIFT LEVER .....	5-40
TORQUE CONVERTER .....	5-17
TRANSMISSION ATTACHING PARTS .....	5-2
OIL FILTER .....	5-8
TRANSMISSION HYDRAULIC LINES	
→ S/N A214E01615 .....	5-10
S/N A214E01616 → .....	5-12
TRANSMISSION MOUNT AND ATTACHING PARTS .....	5-6

## TRANSMISSION ATTACHING PARTS (FIGURE 5-1)



HP240214



**TRANSMISSION ATTACHING PARTS**

ITEM	PART NO.	DESCRIPTION	QTY
	<b>b</b> 1372980	Transmission Assy .....	1
	<b>c</b> 1459006	Transmission Assy .....	1
1	1390797	O-Ring .....	1
2	382818	Plug .....	1
3	1391015	Sleeve .....	1
4	1391016	Piston .....	1
5	1391017	Spring .....	1
6	1391018	Washer .....	1
7	1390069	Housing .....	1
8	1390070	Screw .....	12
9	1390071	Cotter Pin .....	2
10	1390072	Cotter Pin .....	2
11	1390080	Screw .....	2
12	<del>1586693</del> 136692	Nut .....	2
13	<b>b</b> 1390081	Stud .....	2
13	<b>c</b> 1467063	Stud .....	2
14	1390792	Housing .....	1
15	1390793	Bushing .....	1
16	<del>1580334</del> 1390794	Plug .....	1
17	1390795	O-Ring .....	1
18	1390796	Plug .....	1
19	1390797	O-Ring .....	1
20	1390798	Temperature Sender .....	1
21	1390799	O-Ring .....	1
22	1390800	Cover Plate .....	1
23	1390801	Screw .....	3
24	<b>b</b> 1390802	Washer .....	3
24	<b>c</b> 1467065	Washer .....	3
25	382810	Setscrew .....	2
26	1390805	Breather .....	1
27	1390806	Screen .....	1
28	1391022	Plug .....	1
29	1390809	Bolt .....	2
30	1390810	Cap .....	2
31	1390946	Driver .....	1
32	1390947	Ball Bearing .....	1
33	1390948	Snap Ring .....	2
34	1390949	Retaining Ring .....	1
35	1390950	Gasket .....	1
36	1390951	Flange .....	1
37	287854	Capscrew .....	7
38	382828	Sensor (Speed) .....	2
39	<b>c</b> 1391020	Sealing Ring .....	1
39	<b>b</b> 1391020	Sealing Ring .....	1
40	<b>b</b> 1390968	O-Ring .....	1
40	<b>c</b> 1391020	Sealing Ring .....	1
41	1391011	Plug .....	1
42	383413	Shim (1,422 mm) .....	1
42	<b>a</b> 383413	Shim (1,422 mm) .....	1

## TRANSMISSION ATTACHING PARTS

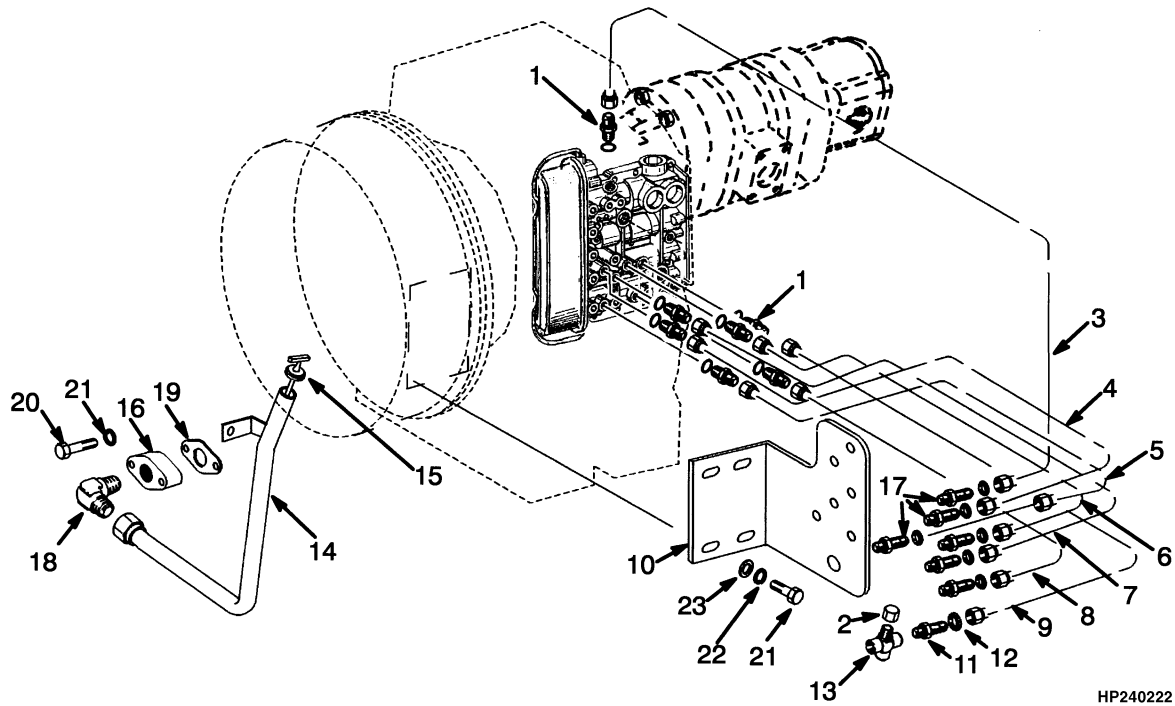
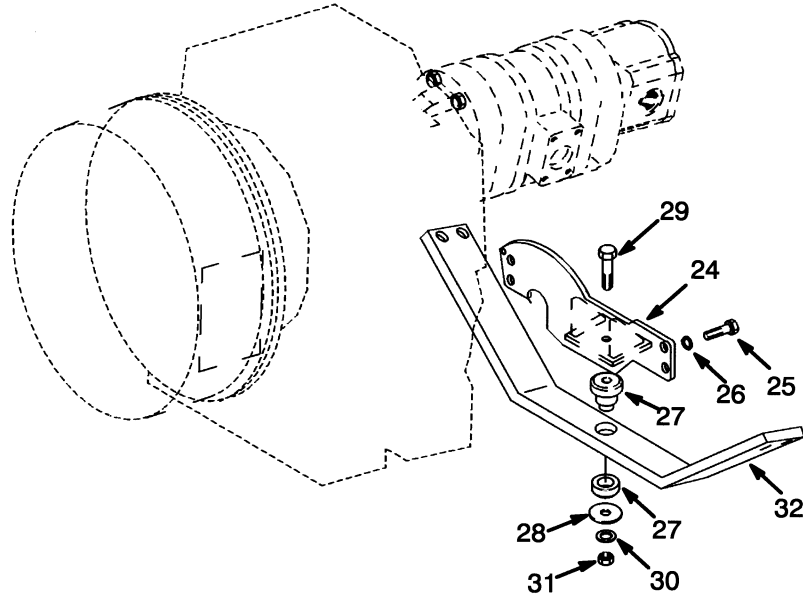
ITEM	PART NO.	DESCRIPTION	QTY
42	a 383414	Shim (1,194 mm) .....	1
42	a 383415	Shim (0,991 mm) .....	1
42	a 383416	Shim (2,007 mm) .....	1
42	a 383417	Shim (0,508 mm) .....	1
42	a 383418	Shim (0,305 mm) .....	1
42	a 383419	Shim (0,203 mm) .....	1
42	a 383420	Shim (1,600 mm) .....	1
42	a 383421	Shim (1,803 mm) .....	1
43	1391025	Gasket .....	1
44	c 1466971	Screw .....	2
44	b 292510	Capscrew .....	1
45	b 1391030	Filler Neck .....	1
46	b 1391031	Plate .....	1
46	c 1466969	Cover Plate .....	1
47	b 382779	Sealing Ring .....	1
48	b 1391029	Plug .....	1
49	1391032	Tube .....	1
50	1391033	Gasket .....	1
51	1391034	O-Ring .....	1
52	1391035	Screw .....	2
53	1391021	O-Ring .....	1
54	c 1466961	End Cover .....	1
55	c 1466962	Gasket .....	1
56	c 1466963	Screw .....	1
57	c 1466965	O-Ring .....	1
58	c 1470294	Plug .....	1
58	1390797	O-Ring .....	1
58	382818	Plug (Alternate Part) .....	1
59	c 1466972	Plug (Oil Drain) .....	1
60	c 1466973	Sealing Ring .....	1

**FOOTNOTES:**

- a Optional
- b → S/N A214E01615
- c S/N A214E01616 →



## TRANSMISSION MOUNT AND ATTACHING PARTS (FIGURE 5-2)



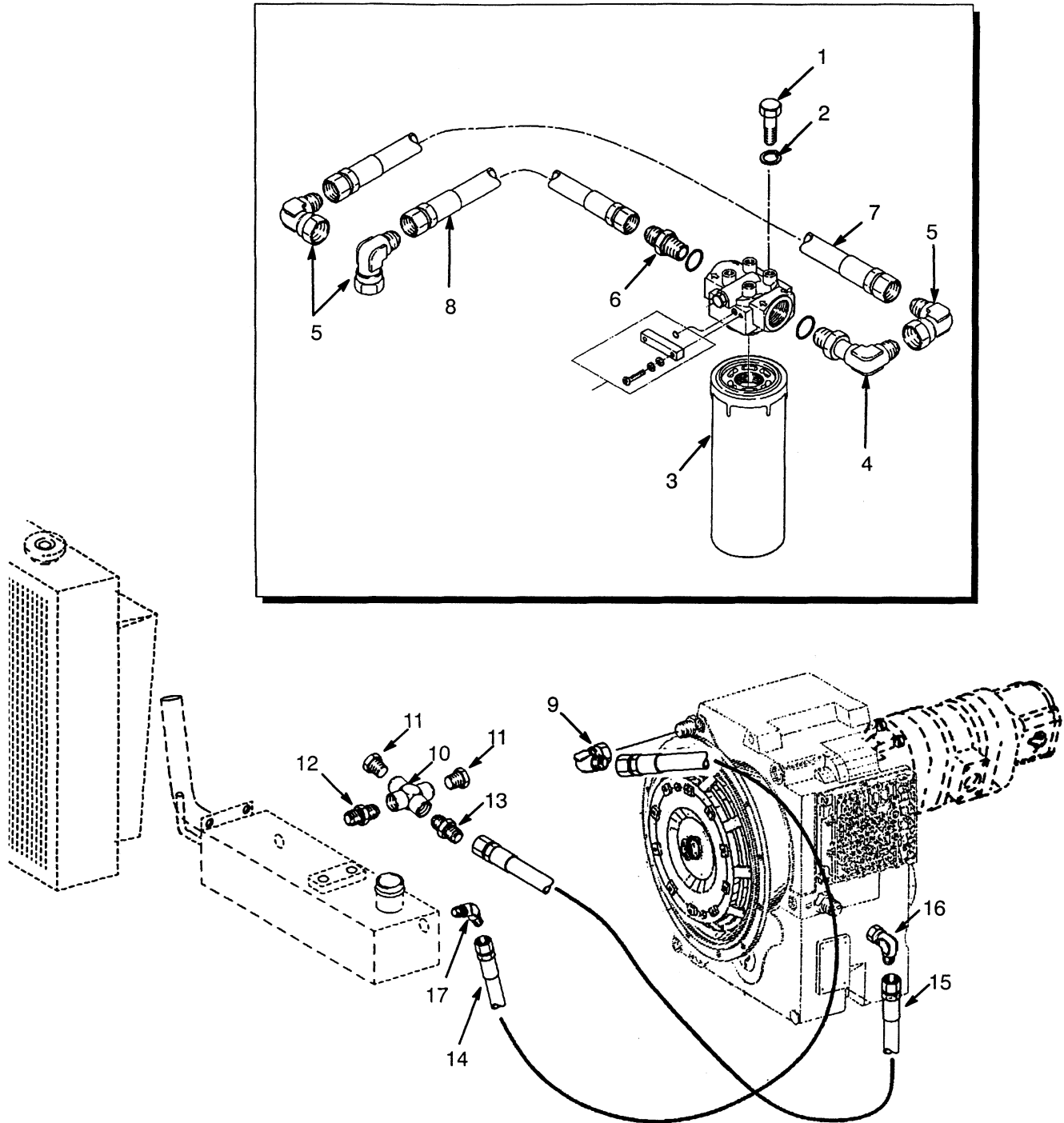
HP240222

**TRANSMISSION MOUNT AND ATTACHING PARTS**

ITEM	PART NO.	DESCRIPTION	QTY
1	1371383	Fitting .....	7
2	16923	Nut .....	7
3	1390625	Tube Assy .....	1
4	1390626	Tube Assy .....	1
5	1390627	Tube Assy .....	1
6	1390628	Tube Assy .....	1
7	1390629	Tube Assy .....	1
8	1390630	Tube Assy .....	1
9	1390631	Tube Assy .....	1
10	1390632	Bracket .....	1
11	1390633	Fitting .....	1
12	14758	Fitting .....	1
13	1390634	Fitting .....	1
14	<b>a</b> 1390644	Tube (Dipstick) .....	1
14	<b>b</b> 1457993	Tube Assy (Dipstick) .....	1
15	<b>a</b> 1390636	Dipstick .....	1
15	<b>b</b> 1458018	Dipstick .....	1
16	1390637	Flange .....	1
17	16445	Fitting .....	6
18	14512	Fitting .....	1
19	<del>4068285</del> 1390641	Gasket .....	1
20	292509	Capscrew .....	2
21	292681	Lockwasher .....	2
22	320161	Washer .....	2
23	292683	Lockwasher .....	2
24	1373280	Bracket .....	1
25	292580	Capscrew .....	4
26	292687	Lockwasher .....	4
27	<b>a</b> 1373270	Isolator .....	1
27	<b>b</b> 1464454	Isolator .....	1
28	1302938	Washer .....	1
29	292573	Capscrew .....	1
30	296426	Washer .....	1
31	316828	Nut .....	5
32	1381953	Mount .....	1

**FOOTNOTES:****a** → S/N A214E01606**b** S/N A214E01607 →

## TRANSMISSION ATTACHING PARTS (FIGURE 5-3) OIL FILTER

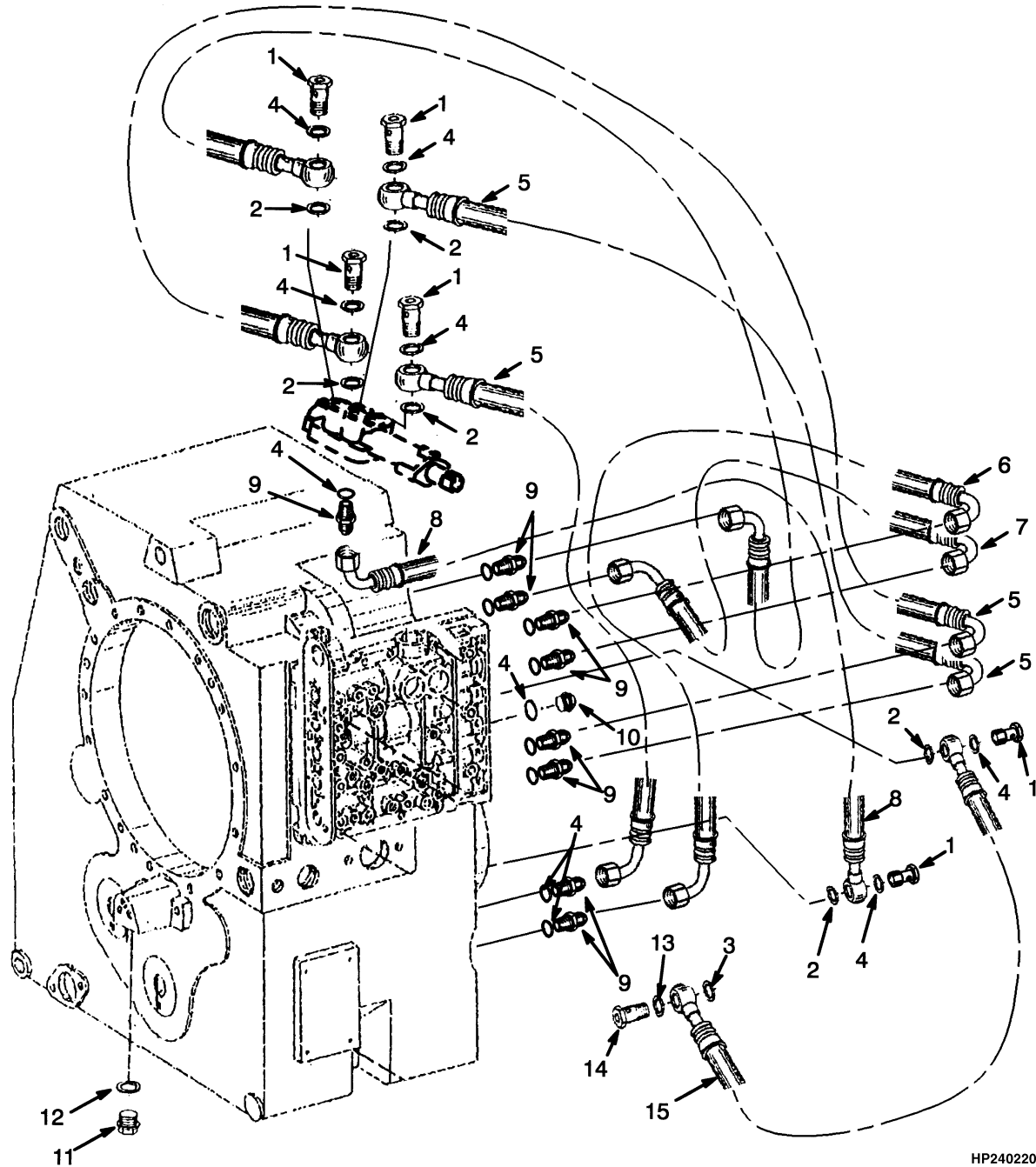


HP240219

**TRANSMISSION ATTACHING PARTS  
OIL FILTER**

ITEM	PART NO.	DESCRIPTION	QTY
1	292514	Capscrew .....	4
2	388049		
	292682	Lockwasher .....	4
3	1373788	Oil Filter .....	1
3	1377183	Head .....	1
3	2043981	Filter Element (Screw-On Filter) .....	1
4	222415	Fitting .....	1
4	16487	O-Ring .....	1
5	16992	Fitting .....	3
6	16544	Connector .....	1
6	16487	O-Ring .....	1
7	1382749	Hose Assy .....	1
8	1382743	Hose Assy .....	1
9	16992	Fitting .....	2
10	12874	Fitting .....	1
11	12845	Fitting .....	2
12	12833	Fitting .....	1
13	14685	Fitting .....	1
14	1382859	Hose Assy .....	1
15	1382854	Hose Assy .....	1
16	17042	Fitting .....	1
17	14555	Fitting .....	1

## TRANSMISSION HYDRAULIC LINES (FIGURE 5-4) (→ S/N A214E01615)



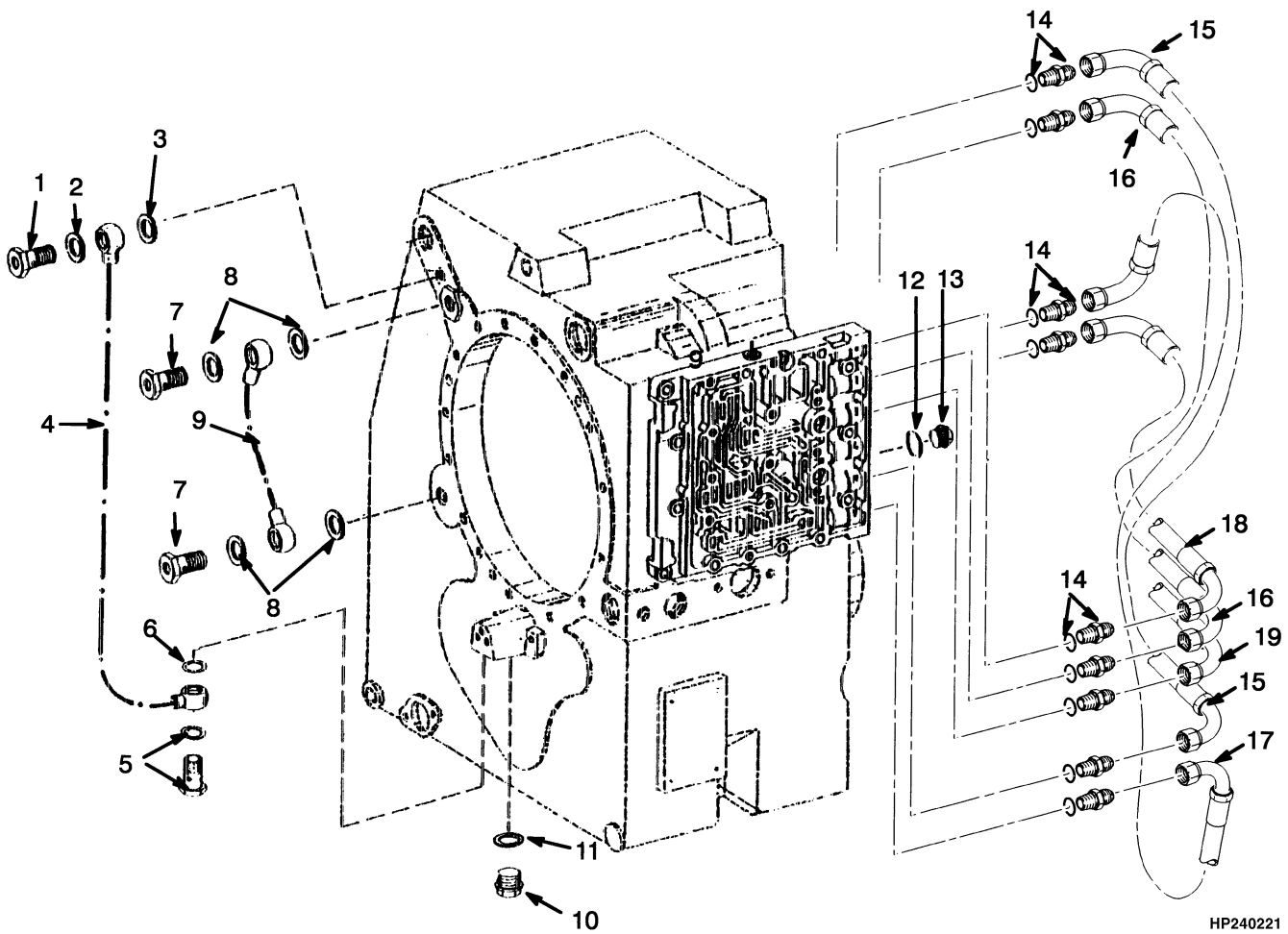
HP240220



**TRANSMISSION HYDRAULIC LINES**  
(→ S/N A214E01615)

ITEM	PART NO.	DESCRIPTION	QTY
1	1391036	Screw .....	5
2	1391037	O-Ring .....	6
3	1391038	O-Ring .....	1
4	1391039	O-Ring .....	16
5	1391040	Pipe .....	4
6	382846	Pipe .....	1
7	1391042	Pipe .....	1
8	382847	Pipe .....	1
9	382848	Sleeve .....	8
10	1391045	Plug .....	1
11	1391044	Plug .....	1
12	382796	Sealing Ring .....	1
13	1390799	O-Ring .....	1
14	1391046	Screw .....	1
15	1391043	Pipe .....	1

## TRANSMISSION HYDRAULIC LINES (FIGURE 5-5) (S/N A214E01616 →)



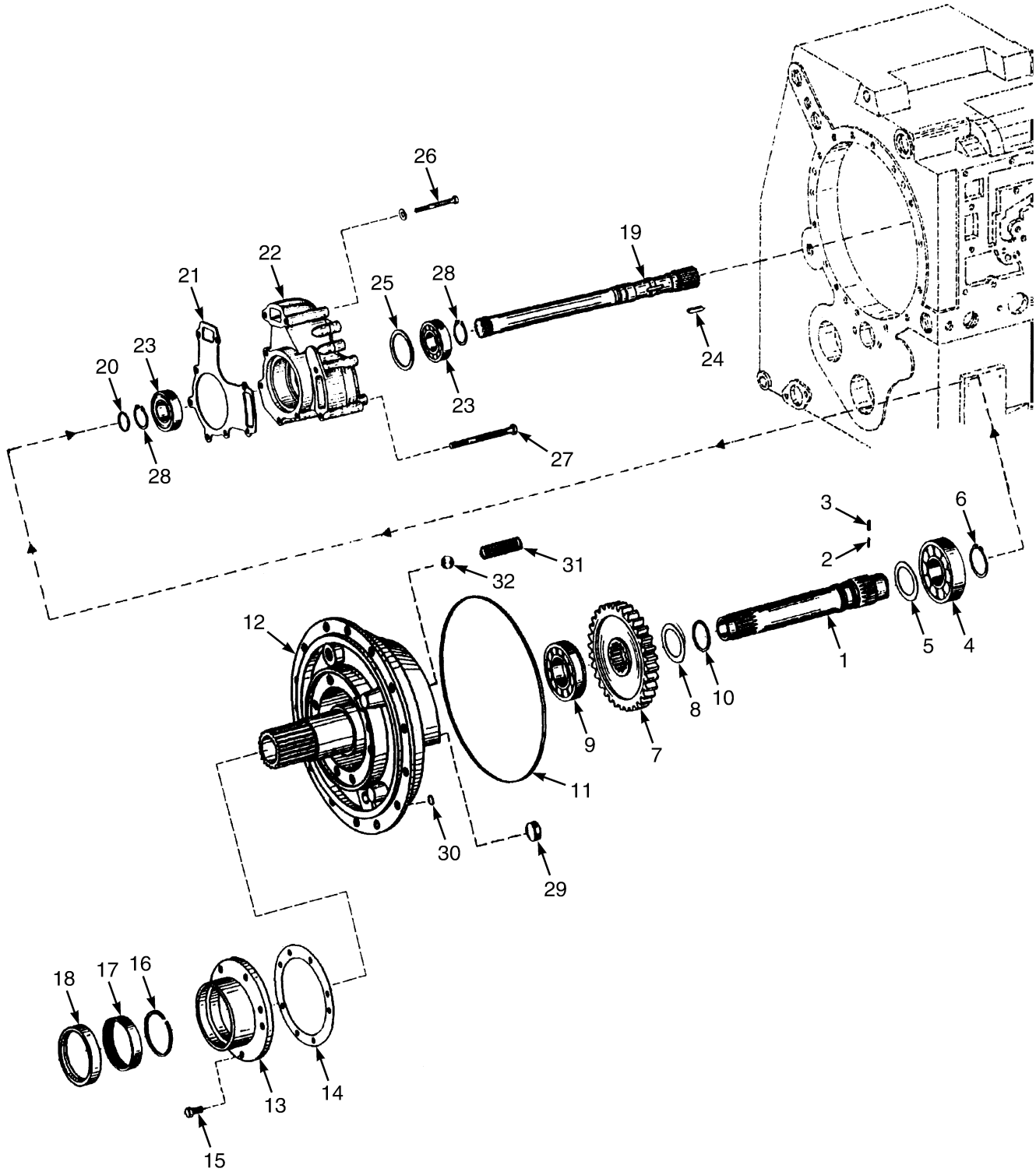
HP240221

**TRANSMISSION HYDRAULIC LINES**  
(S/N A214E01616 →)

ITEM	PART NO.	DESCRIPTION	QTY
1	1391036	Screw .....	1
2	1391039	O-Ring .....	3
3	1391037	O-Ring .....	3
4	1467034	Pipe .....	1
5	1391046	Screw .....	2
6	1391038	O-Ring .....	2
7	1466974	Screw .....	3
8	382845	Sealing Ring .....	4
9	1508513	Pipe .....	1
10	382795	Plug .....	1
11	1390799	O-Ring .....	1
12	1391039	O-Ring .....	3
13	1466975	Plug .....	1
14	382848	Sleeve .....	9
15	1459848	Pipe .....	1
16	382846	Pipe .....	1
17	1391042	Pipe .....	1
18	1391042	Pipe .....	1
19	1391043	Pipe .....	1
	<b>a</b> 1508512	Sleeve (Protecting) .....	1

**FOOTNOTES:****a** Not Illustrated

## TRANSMISSION (FIGURE 5-6) INPUT SHAFT



HP240215

**TRANSMISSION  
INPUT SHAFT**

ITEM	PART NO.	DESCRIPTION	QTY
	<b>b</b> 1372980	Transmission Assy .....	1
	<b>c</b> 1459006	Transmission Assy .....	1
1	1390084	Shaft .....	1
2	1390085	Pin .....	1
3	1390086	Pin .....	1
4	1390087	Ball Bearing .....	1
5	1392405	Shim (0,305 mm) .....	1
5	<b>a</b> 1392404	Shim (0,508 mm) .....	1
5	<b>a</b> 1392406	Shim (0,610 mm) .....	1
5	<b>a</b> 1392403	Shim (0,711 mm) .....	1
5	<b>a</b> 1392408	Shim (0,787 mm) .....	1
5	<b>a</b> 1392402	Shim (0,889 mm) .....	1
5	<b>a</b> 1392407	Shim (0,991 mm) .....	1
5	<b>a</b> 1392409	Shim (1,092 mm) .....	1
5	<b>a</b> 1392410	Shim (1,194 mm) .....	1
5	<b>a</b> 1392411	Shim (1,194 mm) .....	1
5	<b>a</b> 1392412	Shim (1,397 mm) .....	1
6	1390089	Retaining Ring .....	1
7	1390090	Gear .....	1
8	1390091	Washer .....	1
9	1338881	Bearing .....	1
10	1390093	Piston Ring .....	1
11	1390094	O-Ring .....	1
12	1390095	Flange .....	1
13	1390096	Cover .....	1
14	1390097	Gasket .....	1
15	1390098	Screw .....	8
16	1390099	Piston Ring .....	1
17	1390776	Sleeve .....	1
18	1390777	Seal .....	1
19	1390778	Shaft .....	1
20	1390779	Piston Ring .....	1
21	1390780	Gasket .....	1
22	1390781	Gear Pump .....	1
23	1390782	Ball Bearing .....	1
24	1390783	Fitting .....	1
25	1385074	Washer (0,102 mm) .....	1
25	1385073	Washer (0,203 mm) .....	1
25	1390785	Washer (0,305 mm) .....	1
25	1385072	Washer (0,406 mm) .....	1
25	1385071	Washer (0,508 mm) .....	1
25	1385070	Washer (0,610 mm) .....	1
25	1385069	Washer (0,711 mm) .....	1
25	1390784	Washer (0,787 mm) .....	1
25	1385068	Washer (0,889 mm) .....	1
25	1385067	Washer (0,991 mm) .....	1
26	<b>b</b> 1390786	Screw .....	4
26	<b>c</b> 1467064	Screw .....	4
27	1390787	Screw .....	4
28	1390788	Retaining Ring .....	2

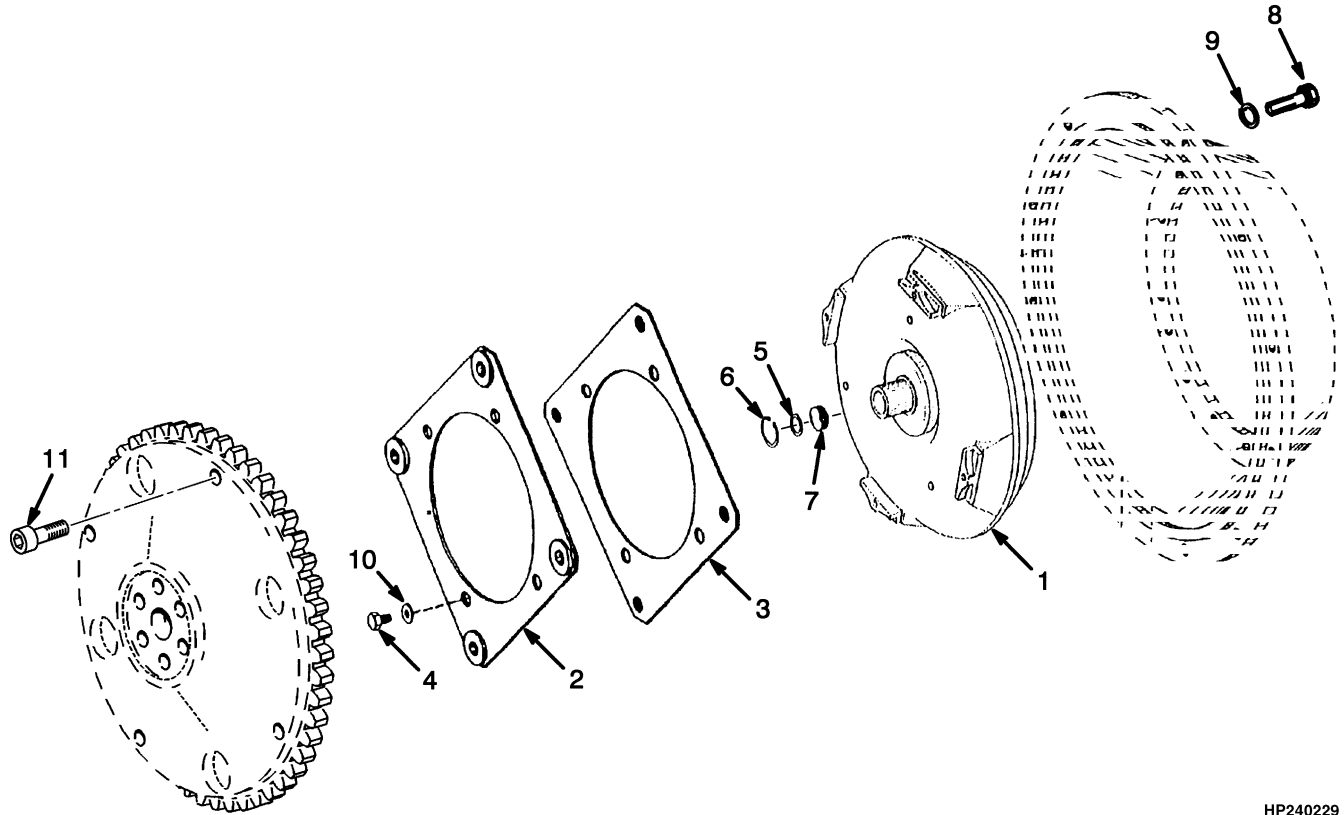
## TRANSMISSION INPUT SHAFT

ITEM	PART NO.	DESCRIPTION	QTY
29	1390789	Cap .....	2
30	1390790	O-Ring .....	3
31	1391014	Spring .....	1
32	382784	Ball .....	1

### FOOTNOTES:

- a** Optional
- b** → S/N A214E01615
- c** S/N A214E01616 →

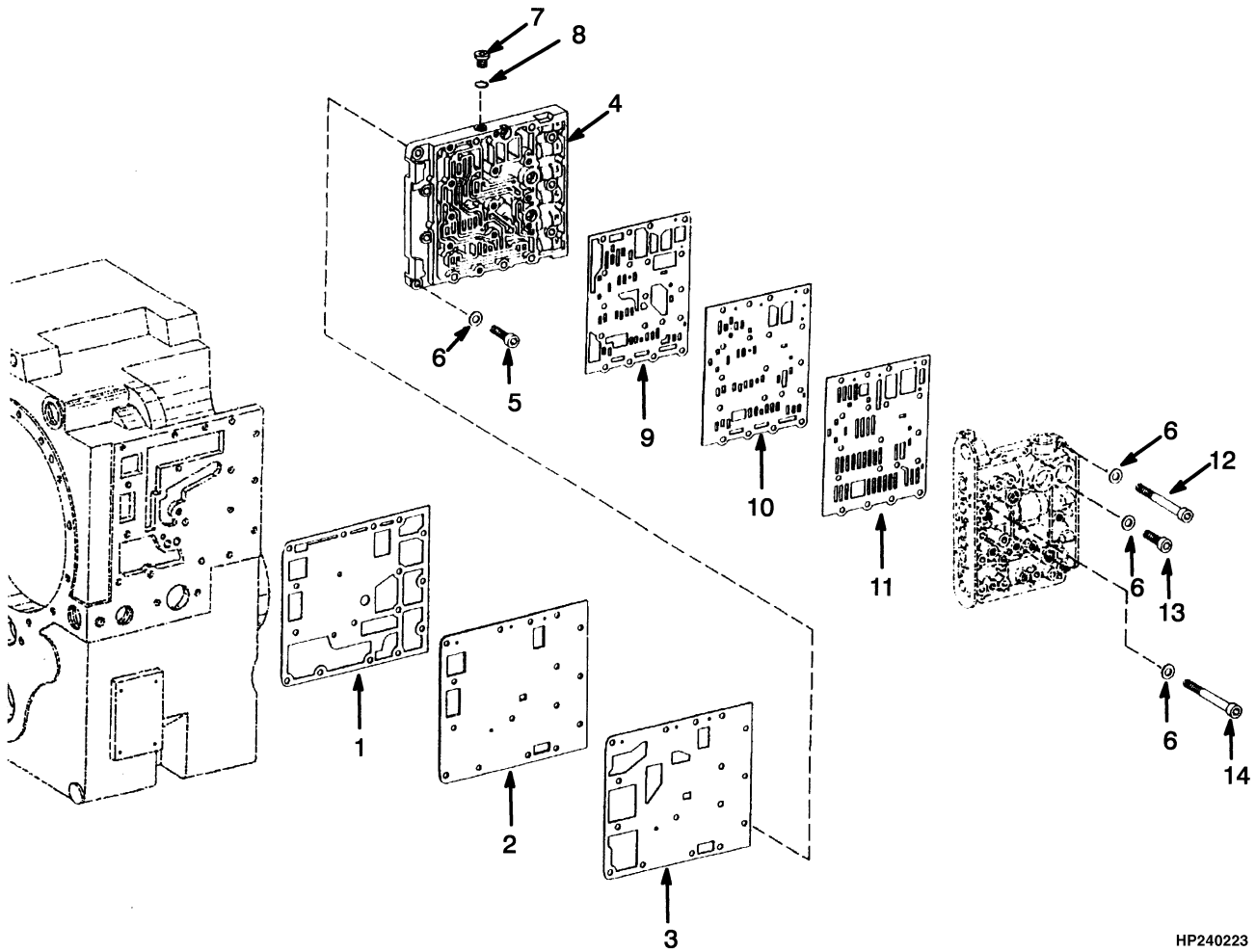
**TRANSMISSION (FIGURE 5-7)  
TORQUE CONVERTER**



HP240229

ITEM	PART NO.	DESCRIPTION	QTY
1	1390083	Converter .....	1
2	1390073	Diaphragm .....	1
2	1495254	Setscrew .....	1
3	1390074	Diaphragm .....	1
4	1390075	Capscrew .....	4
5	1390078	O-Ring .....	1
6	1390079	Retaining Ring .....	1
7	1390077	Washer .....	2
8	136985	Capscrew .....	12
9	388049	Lockwasher .....	12
10	1390076	Washer .....	4
11	296027	Capscrew .....	4

## TRANSMISSION (FIGURE 5-8) CONTROL VALVE ATTACHING PARTS



HP240223

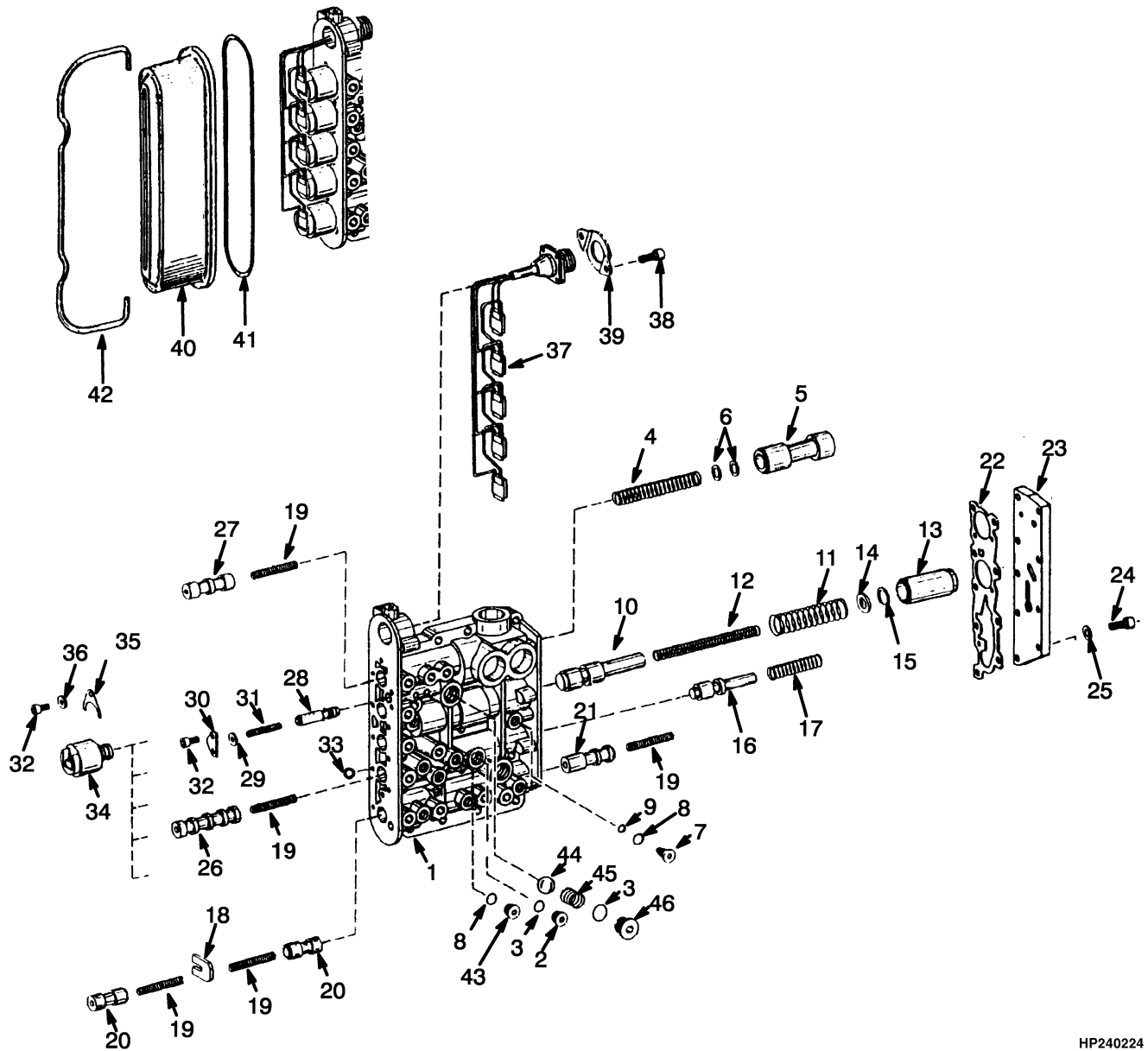


**TRANSMISSION  
CONTROL VALVE ATTACHING PARTS**

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a</b> 1372980	Transmission Assy .....	1
	<b>b</b> 1459006	Transmission Assy .....	1
1	1390953	Gasket .....	1
2	<b>a</b> 1390954	Cover Plate .....	1
2	<b>b</b> 1466944	Cover Plate .....	1
3	1390955	Gasket .....	1
4	1390956	Plate .....	1
5	1390957	Screw .....	11
6	1390958	Washer .....	28
7	1390900	Plug .....	1
8	1390901	O-Ring .....	1
9	1390959	Gasket .....	1
10	1390960	Plate .....	1
11	1390961	Gasket .....	1
12	1500212	Capscrew .....	5
13	1500213	Capscrew .....	11
14	1500214	Capscrew .....	1

**FOOTNOTES:****a** → S/N A214E01615**b** S/N A214E01616 →

## TRANSMISSION (FIGURE 5-9) CONTROL VALVE (→ S/N A214E01615)



HP240224

**TRANSMISSION**  
**CONTROL VALVE (→ S/N A214E01615)**

ITEM	PART NO.	DESCRIPTION	QTY
	1372980	Transmission Assy .....	1
1	1390966	Valve Block .....	1
2	1390967	Sleeve .....	1
3	1390968	O-Ring .....	3
4	1390969	Spring .....	1
5	1390970	Piston .....	1
6	1318005	Shim .....	2
7	1390971	Fitting (0,610 mm) .....	1
7	<b>a</b> 1390973	Fitting (0,660 mm) .....	1
7	<b>a</b> 1385058	Fitting (0,711 mm) .....	1
7	<b>a</b> 1385059	Fitting (0,762 mm) .....	1
7	<b>a</b> 1390972	Fitting (0,787 mm) .....	1
7	<b>a</b> 1390974	Fitting (0,838 mm) .....	1
7	<b>a</b> 1393125	Fitting (0,889 mm) .....	1
7	<b>a</b> 1393126	Fitting (0,940 mm) .....	1
8	1390901	O-Ring .....	9
9	1390975	O-Ring .....	1
10	1390976	Piston .....	1
11	1390977	Spring .....	1
12	1390978	Spring .....	1
13	1390979	Piston .....	1
14	1390985	Spring .....	1
15	1390981	Shim .....	1
15	<b>a</b> 1390982	Shim .....	1
15	<b>a</b> 1390983	Shim .....	1
16	1390984	Piston .....	1
17	1390985	Spring .....	1
18	1390986	Plate .....	1
19	1390987	Spring .....	5
20	1390988	Piston .....	2
21	1390989	Piston .....	1
22	1390990	Gasket .....	1
23	1390991	Cover .....	1
24	1390027	Capscrew .....	9
25	1390992	Washer .....	9
26	1390993	Piston .....	1
27	1390994	Piston .....	1
28	1390995	Pressure Valve .....	1
29	1390996	Ring .....	1
30	1390997	Plate .....	1
31	1390998	Spring .....	1
32	382912	Capscrew .....	7
33	1390999	Ball .....	10
34	1391001	Solenoid Valve .....	5
35	1391002	Plate .....	1
36	1391003	Washer .....	5
37	1391004	Wire Harness .....	1
38	1391005	Capscrew .....	2
39	1391006	Plate .....	1
40	1391007	Cover .....	1

## TRANSMISSION CONTROL VALVE (→ S/N A214E01615)

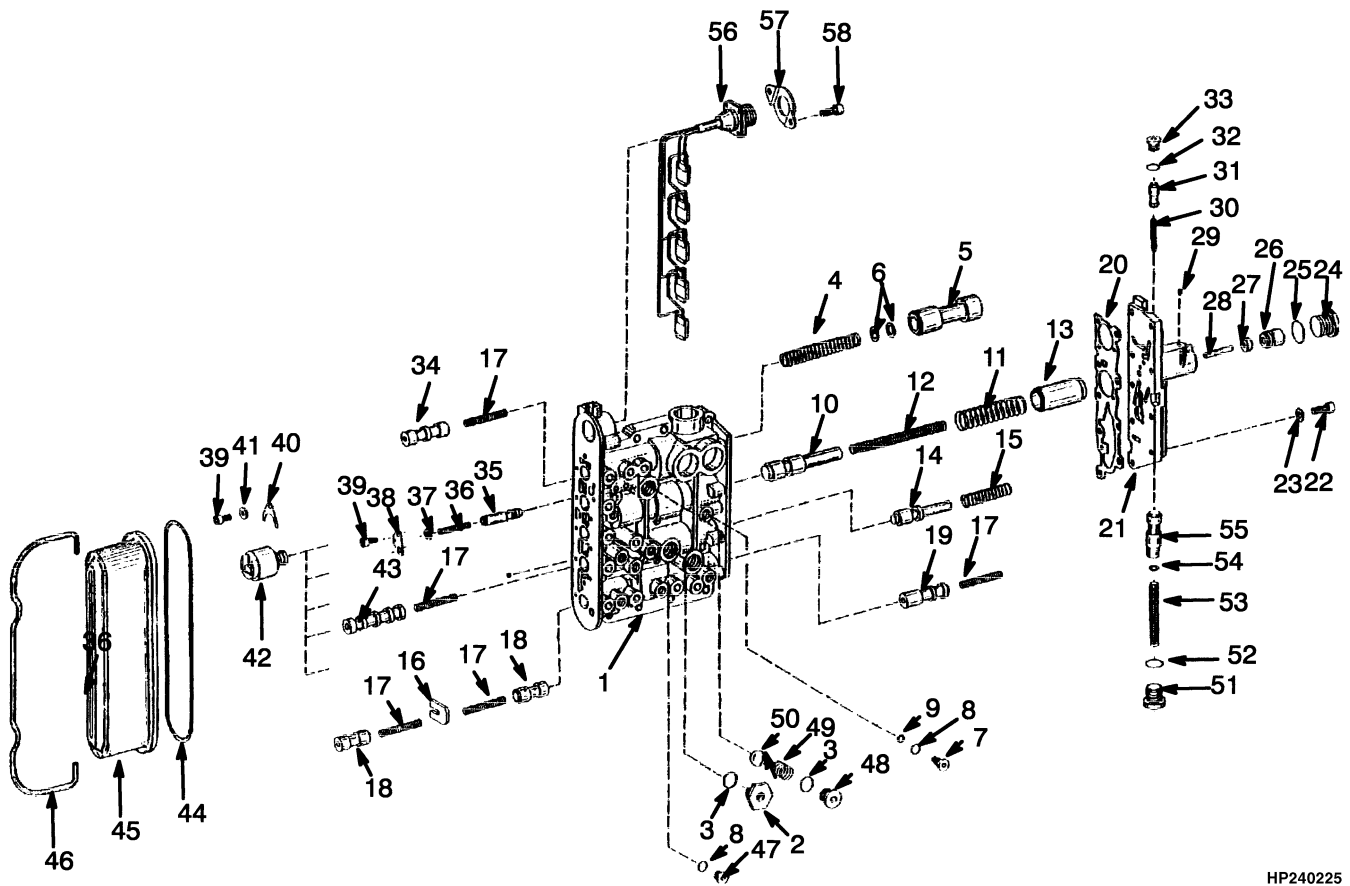
ITEM	PART NO.	DESCRIPTION	QTY
41	1391008	O-Ring .....	1
42	1391009	Bracket .....	1
43	1390900	Plug .....	8
44	1391010	Ball .....	2
45	385420	Spring .....	2
46	1391011	Plug .....	2

### FOOTNOTES:

- a Optional



## TRANSMISSION (FIGURE 5-10) CONTROL VALVE (S/N A214E01616 →)



HP240225

**TRANSMISSION**  
**CONTROL VALVE (S/N A214E01616 →)**

ITEM	PART NO.	DESCRIPTION	QTY
	1574227	Valve .....	1
1	1390966	Valve Block .....	1
2	1390967	Sleeve .....	1
3	1390968	O-Ring .....	3
4	1390969	Spring .....	1
5	1475350	Piston .....	1
6	1318005	Shim (Ring) .....	2
7	1390971	Fitting (0,610 mm) .....	1
7	<b>b</b> 1390973	Fitting (0,660 mm) .....	1
7	<b>b</b> 1385058	Fitting (0,711 mm) .....	1
7	<b>b</b> 1385059	Fitting (0,762 mm) .....	1
7	<b>b</b> 1390972	Fitting (0,787 mm) .....	1
7	<b>b</b> 1390974	Fitting (0,838 mm) .....	1
7	<b>b</b> 1393125	Fitting (0,889 mm) .....	1
7	<b>b</b> 1393126	Fitting (0,940 mm) .....	1
8	1390901	O-Ring .....	9
9	1390975	O-Ring .....	1
10	1390976	Piston .....	1
10	1466945	Seal .....	1
11	1390977	Spring .....	1
	<b>a</b> 1391022	Plug .....	1
12	1390978	Spring .....	1
13	1390979	Piston .....	1
14	1390984	Piston .....	1
15	1390985	Spring .....	1
16	1390986	Plate .....	1
17	1390987	Spring .....	5
18	1390988	Piston .....	2
19	1390989	Piston .....	1
20	1390990	Gasket .....	1
21	1466947	Housing .....	1
22	1390027	Capscrew .....	9
23	1390992	Washer .....	9
24	<del>1580334</del>		
	1390794	Plug .....	1
25	1390975	O-Ring .....	1
26	1467000	Piston (20,5 mm) .....	1
26	<b>b</b> 1467001	Piston (21,5 mm) .....	1
26	<b>b</b> 1467002	Piston (21 mm) .....	1
27	1466949	Shim (2,007 mm) .....	1
27	<b>b</b> 1466950	Shim (2,997 mm) .....	1
27	<b>b</b> 1466951	Shim (3,988 mm) .....	1
27	<b>b</b> 1466952	Shim (5,994 mm) .....	1
27	<b>b</b> 1466953	Shim (8,001 mm) .....	1
28	1466948	Roller .....	1
29	1390999	Ball .....	5
30	1466955	Spring .....	1
31	1466954	Piston .....	1
32	1466957	O-Ring .....	1
33	1466956	Plug .....	1

**TRANSMISSION**  
**CONTROL VALVE (S/N A214E01616 →)**

ITEM	PART NO.	DESCRIPTION	QTY
34	1390994	Piston .....	1
35	1390995	Pressure Valve .....	1
36	1390998	Spring .....	1
37	1390996	Ring .....	1
38	1390997	Plate .....	1
39	382912	Capscrew .....	7
40	1391002	Plate .....	5
41	1391003	Washer .....	5
42	1391001	Solenoid Valve .....	5
43	1390993	Piston .....	1
44	1391008	O-Ring .....	1
45	1391007	Cover .....	1
46	1391009	Bracket .....	1
47	1390900	Plug .....	8
48	1391011	Plug .....	2
49	385420	Spring .....	8
50	1391010	Ball .....	2
51	.....	Plug .....	1
52	.....	O-Ring .....	1
53	1466960	Spring .....	1
54	1466959	Shim (0,508 mm) .....	10
55	1466958	Piston .....	1
56	1391004	Wire Harness .....	1
57	1391006	Plate .....	1
58	1391005	Capscrew .....	2

**FOOTNOTES:**

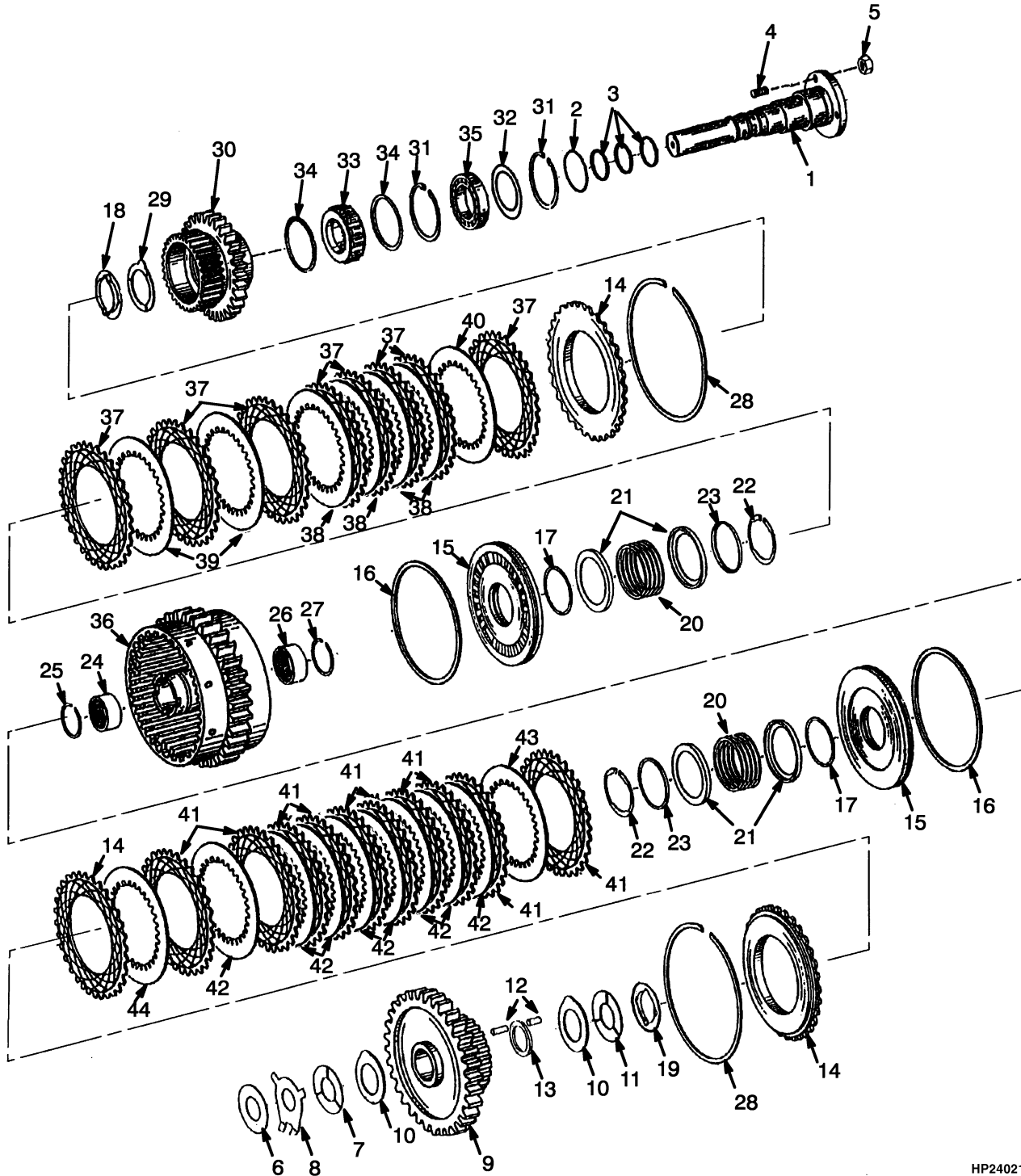
**a** Not Illustrated

**b** Optional





## TRANSMISSION (FIGURE 5-11) CLUTCH PACK - REVERSE AND FIRST GEAR — PAGE 1 OF 3



HP240216

**TRANSMISSION**  
**CLUTCH PACK - REVERSE AND FIRST GEAR – PAGE 1 OF 3**

ITEM	PART NO.	DESCRIPTION	QTY
	<b>b</b> 1372980	Transmission Assy .....	1
	<b>c</b> 1459006	Transmission Assy .....	1
1	1390812	Axle .....	1
2	1390813	O-Ring .....	1
3	1390814	Piston Ring .....	3
4	1390815	Stud .....	2
5	239503	Nut .....	2
6	1390816	Shim (0,406 mm) .....	1
6	<b>a</b> 1390817	Shim (0,991 mm) .....	1
6	<b>a</b> 1392413	Shim (0,610 mm) .....	1
6	<b>a</b> 1392414	Shim (0,787 mm) .....	1
6	<b>a</b> 1392415	Shim (1,194 mm) .....	1
6	<b>a</b> 1392416	Shim (1,600 mm) .....	1
6	<b>a</b> 1392416	Shim (1,600 mm) .....	1
6	<b>a</b> 1392417	Shim (1,803 mm) .....	1
6	<b>a</b> 1392418	Shim (2,007 mm) .....	1
6	<b>a</b> 1392419	Shim (2,21 mm) .....	1
6	<b>a</b> 1392420	Shim (2,388 mm) .....	1
6	<b>a</b> 1392421	Shim (2,591 mm) .....	1
6	<b>a</b> 1392422	Shim (2,794 mm) .....	1
7	1390818	Thrust Washer .....	1
8	1390819	Thrust Washer .....	1
9	1390820	Gear .....	1
10	1390821	Thrust Washer .....	2
11	1390822	Thrust Washer .....	1
12	1390823	Roller Set .....	1
13	1390824	Washer .....	1
14	1390825	Shim .....	2
15	1390826	Piston .....	1
16	1390827	Seal .....	2
17	1390830	Seal .....	2
18	1390828	Thrust Washer .....	1
19	1390829	Thrust Plate .....	1
20	1390831	Spring .....	2
21	1390832	Wear Ring .....	4
22	1390833	Ring .....	2
23	1390834	Wear Ring .....	4
24	1390835	Sleeve .....	1
25	1390836	Snap Ring .....	1
26	1390837	Sleeve .....	1
27	1390838	Snap Ring .....	2
28	<b>a</b> 1385054	Snap Ring (2,311 mm) .....	2
28	<b>a</b> 1385055	Snap Ring (2,388 mm) .....	2
28	<b>a</b> 1385056	Snap Ring (2,21 mm) .....	2
28	<b>a</b> 1385057	Snap Ring (2,108 mm) .....	2
28	1390839	Snap Ring (2,489 mm) .....	2
29	1390840	Thrust Washer .....	1
30	1390841	Gear .....	1
31	1390842	Retaining Ring .....	2
32	1390843	Shim (0.30 mm) .....	1

## TRANSMISSION CLUTCH PACK - REVERSE AND FIRST GEAR – PAGE 1 OF 3

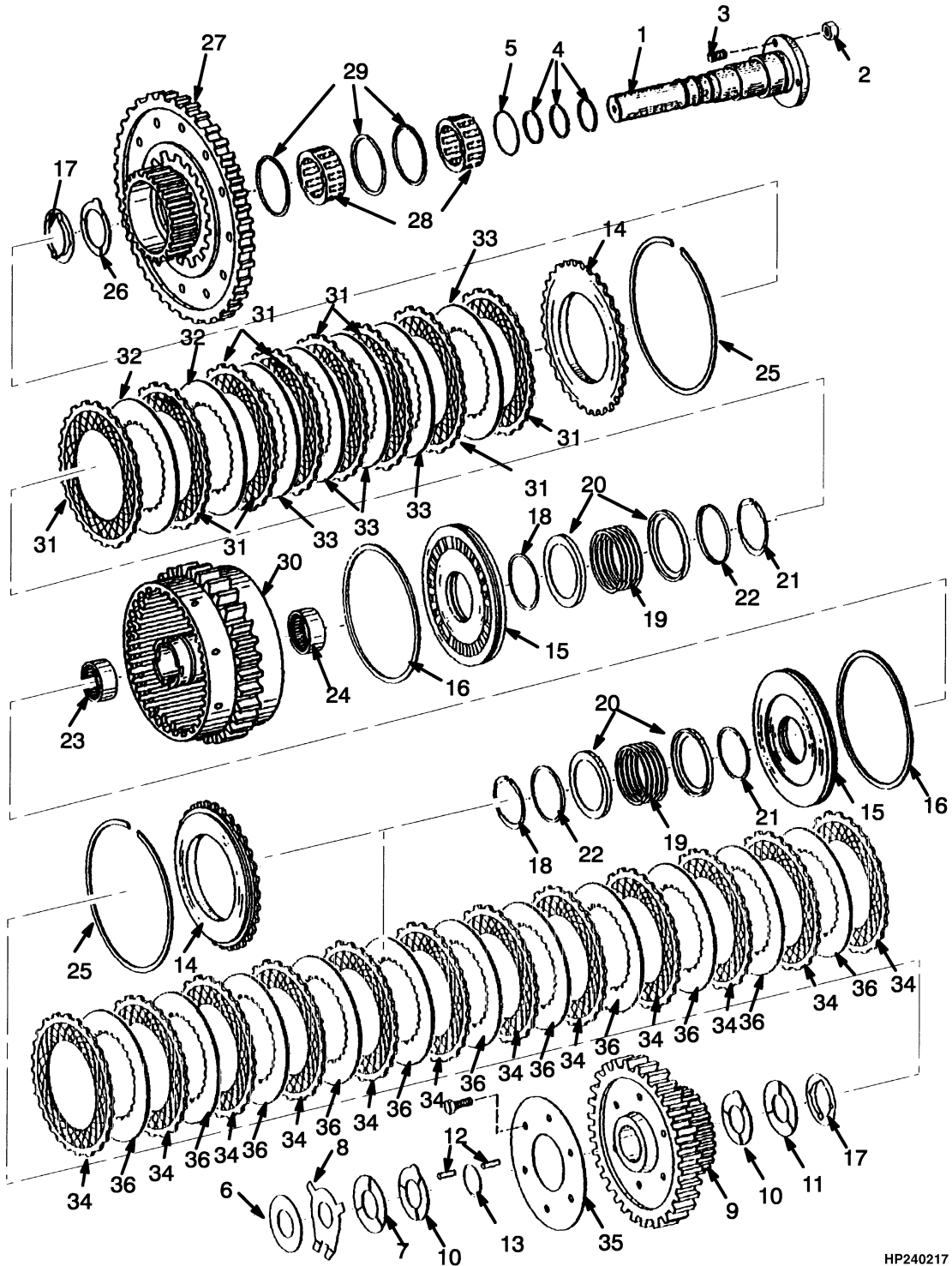
ITEM	PART NO.	DESCRIPTION	QTY
32	<b>a</b> 1390844	Shim .....	1
32	<b>a</b> 1390846	Shim .....	1
32	<b>a</b> 1390847	Shim .....	1
32	<b>a</b> 1390848	Shim .....	1
32	<b>a</b> 382689	Shim (0.50 mm) .....	1
33	1390849	Needle Cage .....	1
34	1390850	Ring .....	2
35	1390852	Ball Bearing .....	1
36	1390853	Disk Carrier .....	1
37	1390854	Friction Disk (Outer) .....	8
38	1390855	Separator Plate (Inner) .....	4
39	1390856	Separator Plate (Inner) .....	2
40	1390856	Separator Plate (Inner) .....	1
41	<b>c</b> 1390854	Friction Disk (Outer) .....	12
41	<b>b</b> 1392401	Friction Disk (Outer) .....	12
42	1390855	Separator Plate (Inner) .....	9
42	1390855	Separator Plate (Inner) .....	9
43	1390856	Separator Plate (Inner) .....	1
44	1390855	Separator Plate (Inner) .....	1

**FOOTNOTES:**

- a** Optional
- b** → S/N A214E01615
- c** S/N A214E01616 →



## TRANSMISSION (FIGURE 5-12) CLUTCH PACK - FORWARD AND SECOND GEAR — PAGE 2 OF 3



HP240217

**TRANSMISSION**  
**CLUTCH PACK - FORWARD AND SECOND GEAR – PAGE 2 OF 3**

ITEM	PART NO.	DESCRIPTION	QTY
	<b>b</b> 1372980	Transmission Assy .....	1
	<b>c</b> 1459006	Transmission Assy .....	1
1	1390857	Axle .....	1
2	239503	Nut .....	2
3	1390815	Stud .....	2
4	1390814	Piston Ring .....	3
5	1390813	O-Ring .....	1
6	1390816	Shim (0,406 mm) .....	1
6	<b>a</b> 1390817	Shim (0,991 mm) .....	1
6	<b>a</b> 1390864	Shim (1,397 mm) .....	1
6	<b>a</b> 1392413	Shim (0,610 mm) .....	1
6	<b>a</b> 1392414	Shim (0,787 mm) .....	1
6	<b>a</b> 1392415	Shim (1,194 mm) .....	1
6	<b>a</b> 1392416	Shim (1,600 mm) .....	1
6	<b>a</b> 1392417	Shim (1,803 mm) .....	1
6	<b>a</b> 1392418	Shim (2,007 mm) .....	1
6	<b>a</b> 1392419	Shim (2,21 mm) .....	1
6	<b>a</b> 1392420	Shim (2,388 mm) .....	1
6	<b>a</b> 1392421	Shim (2,591 mm) .....	1
6	<b>a</b> 1392422	Shim (2,794 mm) .....	1
7	1390818	Thrust Washer .....	1
8	1390819	Thrust Washer .....	1
9	1390820	Gear .....	1
10	1390821	Thrust Washer .....	2
11	1390822	Thrust Washer .....	1
12	1390823	Roller Set .....	1
13	1390824	Washer .....	1
14	1390825	Shim .....	2
15	1390826	Piston .....	2
16	1390827	Seal .....	2
17	1390828	Thrust Washer .....	1
18	1390830	Seal .....	2
19	1390831	Spring .....	2
20	1390832	Wear Ring .....	4
21	1390833	Ring .....	2
22	1390834	Wear Ring .....	2
23	1390835	Sleeve .....	2
24	1390837	Sleeve .....	2
25	<b>a</b> 1385054	Snap Ring (2,311 mm) .....	2
25	<b>a</b> 1385055	Snap Ring (2,388 mm) .....	2
25	<b>a</b> 1385056	Snap Ring (2,21 mm) .....	2
25	<b>a</b> 1385057	Snap Ring (2,108 mm) .....	2
25	1390839	Snap Ring (2,489 mm) .....	2
26	1390840	Thrust Washer .....	1
27	1390889	Gear .....	1
28	1390890	Needle Cage .....	1
29	1390850	Ring .....	3
30	1390892	Disk Carrier .....	1
31	1390854	Friction Disk (External) .....	8
32	1390856	Separator Plate (Internal) .....	2

## TRANSMISSION

### CLUTCH PACK - FORWARD AND SECOND GEAR – PAGE 2 OF 3

ITEM	PART NO.	DESCRIPTION	QTY
33	1390855	Separator Plate (Internal) .....	5
34	<b>c</b> 1390854	Friction Disk (External) .....	12
34	<b>b</b> 1392401	Friction Disk (External) .....	12
35	1390829	Thrust Plate .....	2
36	1390855	Separator Plate (Internal) .....	10

#### FOOTNOTES:

**a** Optional

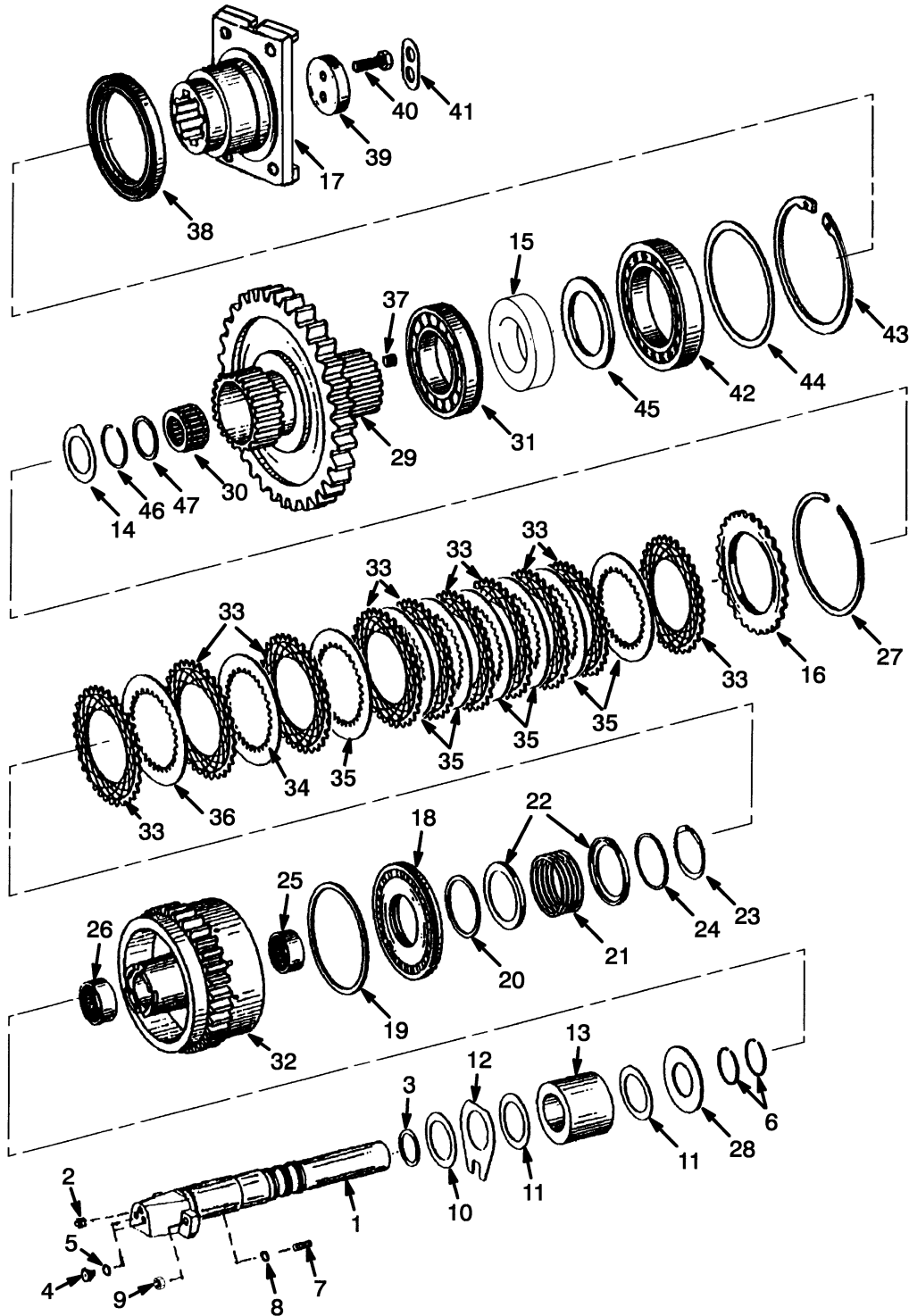
**c** S/N A214E01616 →

**b** → S/N A214E01615





## TRANSMISSION (FIGURE 5-13) CLUTCH PACK - THIRD GEAR — PAGE 3 OF 3



HP240218

**TRANSMISSION**  
**CLUTCH PACK - THIRD GEAR – PAGE 3 OF 3**

ITEM	PART NO.	DESCRIPTION	QTY
	<b>b</b> 1372980	Transmission Assy .....	1
	<b>c</b> 1459006	Transmission Assy .....	1
1	1390897	Axle .....	1
2	1390898	Ball .....	1
3	1390899	O-Ring .....	1
4	1390900	Plug .....	2
5	1390901	O-Ring .....	2
6	1390814	Piston Ring .....	2
7	1390815	Stud .....	2
8	1390904	O-Ring .....	2
9	1390905	Nut .....	2
10	1390906	Shim (0,203 mm) .....	1
10	<b>a</b> 1390907	Shim (0,610 mm) .....	1
10	<b>a</b> 1390908	Shim (0,991 mm) .....	1
10	<b>a</b> 1392423	Shim (0,406 mm) .....	1
10	<b>a</b> 1392424	Shim (0,787 mm) .....	1
10	<b>a</b> 1392425	Shim (1,194 mm) .....	1
10	<b>a</b> 1392426	Shim (1,397 mm) .....	1
10	<b>a</b> 1392427	Shim (1,600 mm) .....	1
10	<b>a</b> 1392428	Shim (1,803 mm) .....	1
10	<b>a</b> 1392429	Shim (2,007 mm) .....	1
10	<b>a</b> 1392430	Shim (2,21 mm) .....	1
10	<b>a</b> 1392431	Shim (2,388 mm) .....	1
11	1390909	Thrust Washer .....	3
12	1390910	Thrust Washer .....	1
13	1390911	Bushing .....	1
14	1390912	Thrust Washer .....	1
15	1391023	Bushing .....	1
16	1390914	Shim .....	1
17	1390915	Flange (Output) .....	1
18	1599700	Piston .....	1
19	1390917	Seal .....	1
20	1390830	Seal .....	1
21	1390831	Spring .....	1
22	1390832	Wear Ring .....	2
23	1390833	Ring .....	1
24	1390834	Wear Ring .....	1
25	1390835	Sleeve .....	1
26	1390921	Sleeve .....	1
27	1390922	Snap Ring (2.25 mm) .....	1
27	<b>a</b> 1390924	Snap Ring (2,489 mm) .....	1
27	<b>a</b> 1392432	Snap Ring (2,311 mm) .....	1
27	<b>a</b> 1392433	Snap Ring (2.40 mm) .....	1
27	<b>a</b> 1392434	Snap Ring (2,438 mm) .....	1
28	<b>a</b> 1392435	Snap Ring (2,184 mm) .....	1
28	<b>a</b> 1392436	Snap Ring (2,159 mm) .....	1
28	<b>a</b> 1392437	Snap Ring (2.10 mm) .....	1
29	<b>b</b> 1390925	Gear .....	1
29	<b>c</b> 1466943	Gear .....	1
30	1390926	Needle Cage .....	1

**TRANSMISSION**  
**CLUTCH PACK - THIRD GEAR – PAGE 3 OF 3**

ITEM	PART NO.	DESCRIPTION	QTY
31	1390927	Bearing .....	1
32	1390928	Disk Carrier .....	1
33	1390929	Friction Disk (Outer) .....	10
34	1390930	Friction Disk (Inner) .....	1
35	1390931	Friction Disk (Inner) .....	7
36	1390932	Friction Disk (Inner) .....	2
37	1390933	Screw .....	2
38	1390934	Seal .....	1
39	1390935	Plate .....	1
40	1390936	Capscrew .....	2
41	1390937	Washer .....	1
42	1390938	Ball Bearing .....	1
43	1390939	Retaining Ring .....	1
44	1390940	Washer (1,25 mm) .....	1
44	<b>a</b> 1390941	Washer (0,80 mm) .....	1
44	<b>a</b> 1390942	Washer (1,10 mm) .....	1
44	<b>a</b> 1392438	Washer (0,991 mm) .....	1
44	<b>a</b> 1392439	Shim (0,889 mm) .....	1
45	1390943	Ring .....	1
46	382815	Snap Ring .....	1
47	1390944	Washer .....	1

**FOOTNOTES:**

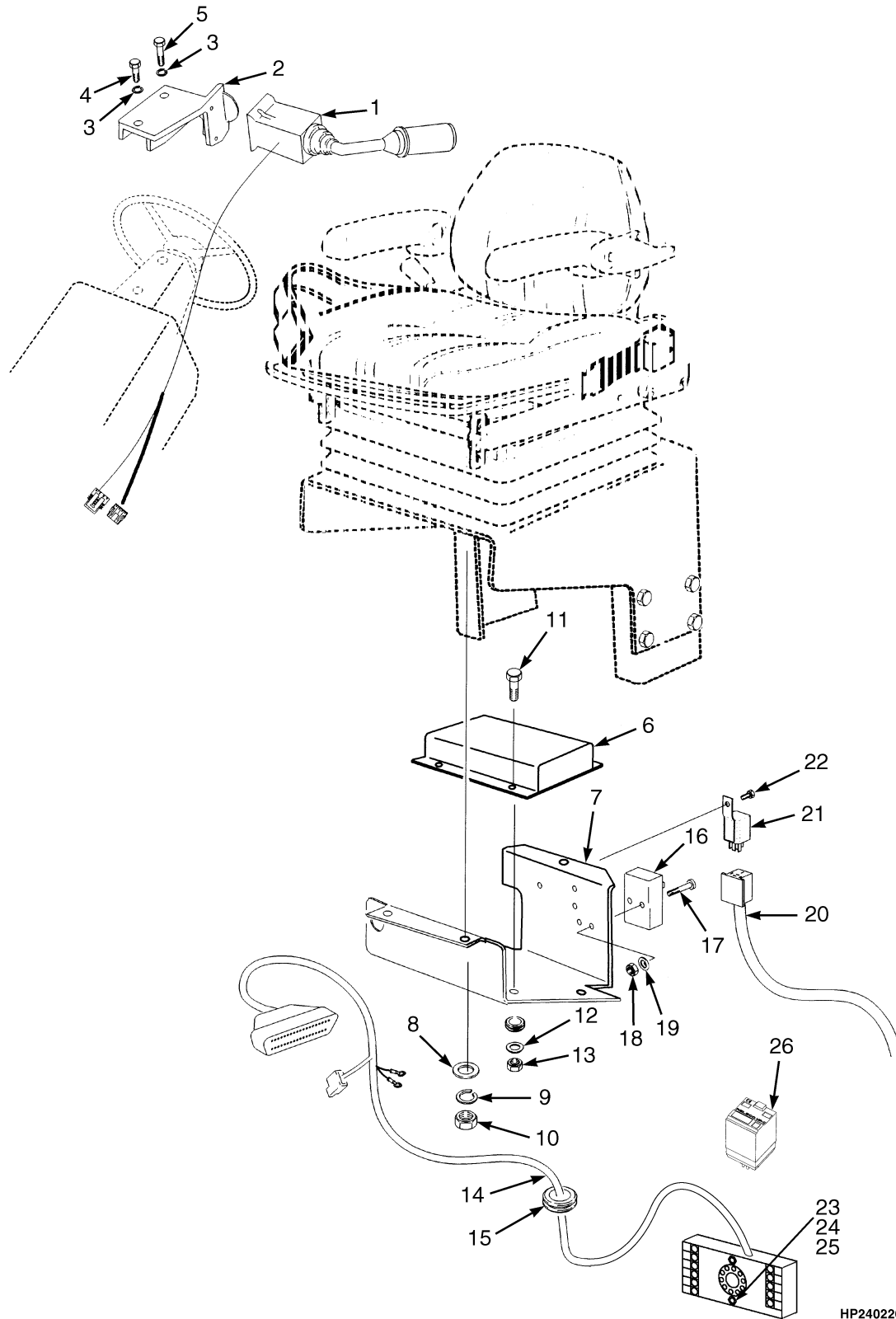
**a** Optional

**c** S/N A214E01616 →

**b** → S/N A214E01615



## TRANSMISSION (FIGURE 5-14) SHIFT LEVER



HP240226

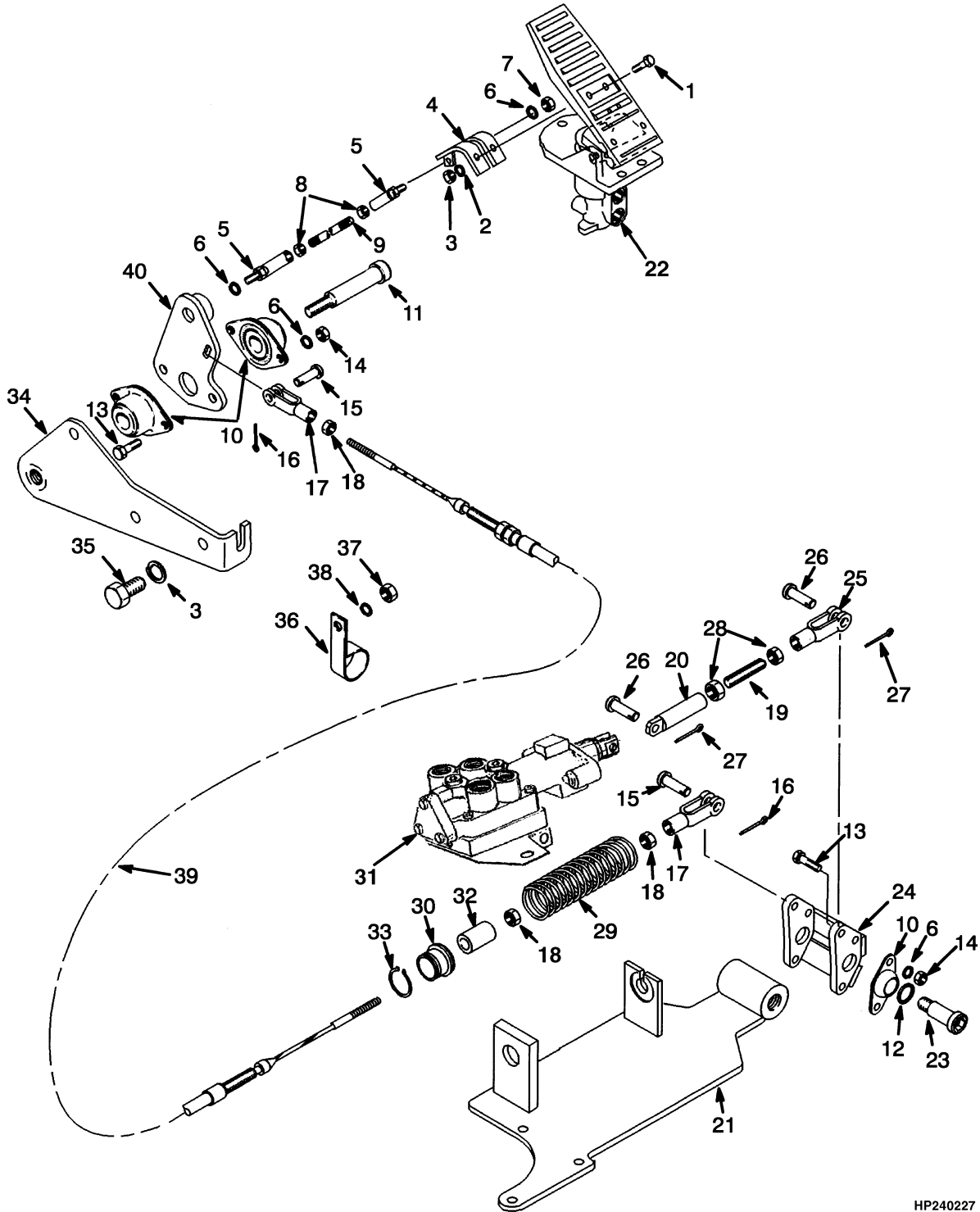
**TRANSMISSION  
SHIFT LEVER**

ITEM	PART NO.	DESCRIPTION	QTY
1	<b>c</b> 1452639	Gear Selector .....	1
1	<b>f</b> 1458578	Gear Selector .....	1
1	1452640	Label (Gear Selector) .....	1
2	1382868	Bracket .....	1
3	292681	Lockwasher .....	2
4	136749	Screw .....	1
5	176640	Bolt .....	1
6	<b>c</b> 1372982	Control Unit .....	1
6	<b>e</b> 1459108	Control Unit .....	1
6	<b>g</b> 1488459	Control Unit .....	1
7	1465413	Plate .....	1
8	320156	Washer .....	3
9	292680	Washer .....	1
10	136687	Nut .....	3
11	302244	Capscrew .....	3
12	292679	Washer .....	3
13	292668	Nut .....	3
14	<b>c</b> 1383830	Wire Harness (☞ Figure 4-53).....	1
14	<b>d</b> 1457954	Wire Harness (☞ Figure 4-54).....	1
14	<b>h</b> 1606670	Wire Harness .....	1
15	303493	Grommet .....	1
16	<b>f</b> 1457201	Controller .....	1
17	<b>f</b> 16724	Screw .....	2
18	<b>f</b> 15052	Nut .....	2
19	<b>f</b> 197067	Washer .....	2
20	<b>a</b> 1384601	Wire Harness (Seat Switch) .....	1
20	<b>b</b> 1465377	Wire Harness (Seat Switch) .....	1
21	<b>b</b> 1307687	Relay (24 Volt) .....	1
22	<b>b</b> 1301177	Screw .....	2
23	302233	Capscrew .....	2
24	292665	Nut .....	2
25	292676	Lockwasher .....	2
26	1608859	Relay (24 Volt) .....	1

**FOOTNOTES:**

- |  |   |
|--|---|
| <b>a</b> KAB Seat                          | <b>e</b> S/N A214E01616 ↔ S/N A214E01765 (14-16XM FLT: 1765, 16-18 ECH: 1768, 18-20XM FLT: 1779)  |
| <b>b</b> Optional Grammer Seat             | <b>f</b> S/N A214E01616 →   |
| <b>c</b> → S/N A214E01615                  | <b>g</b> S/N A214E01765 → (14-16XM FLT: 1766, 16-18 ECH: 1769, 18-20XM FLT: 1780) (14-16XM FLT: 1765, 16-18XM ECH: 1769, 18-20XM FLT: 1780) |
| <b>d</b> S/N A214E01616 ↔ S/N A214E002193C | <b>h</b> S/N A214E02194C →  |

## TRANSMISSION (FIGURE 5-15) INCHING PEDAL (→ S/N A214E01615)



HP240227



**TRANSMISSION**  
**INCHING PEDAL (→ S/N A214E01615)****KEY:****A: Empty Container Handler****B: Fork Lift Truck**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	296166	Capscrew .....	2	2
2	292681	Lockwasher .....	8	8
3	239503	Nut .....	8	8
4	1382828	Bracket Wldmt .....	1	1
5	139012	Ball Joint .....	2	2
6	15154	Lockwasher .....	8	..
7	15004	Nut .....	1	1
8	15024	Nut .....	2	2
9	1391417	Link .....	1	1
10	313860	Flange .....	4	4
11	340213	Capscrew .....	1	1
12	320161	Washer .....	3	3
13	221420	Capscrew .....	6	6
14	221703	Nut .....	6	6
15	126	Pin .....	2	2
16	<del>4492228</del>			
	15201	Cotter Pin .....	2	2
17	314809	Rod End .....	2	2
18	15002	Nut .....	2	2
19	388783	Link .....	1	1
20	1369138	Rod End .....	1	1
21	1382642	Plate Wldmt .....	1	1
22	1453633	Pedal Assy .....	1	1
23	167053	Capscrew .....	2	2
24	1382647	Crank .....	1	1
25	138	Rod End .....	1	1
26	139	Pin .....	2	2
27	15212	Cotter Pin .....	2	2
28	15025	Nut .....	2	2
29	1384537	Spring .....	1	1
29	1327747	Spring Guide .....	1	1
30	1327746	Bushing .....	1	1
31	1391603	Inching Valve (☞ Figure 5-16).....	1	1
32	1327748	Sleeve .....	1	1
33	213100	Snap Ring .....	1	1
34	1385570	Bracket Wldmt .....	1	1
35	293614	Capscrew .....	3	3
36	154208	Clamp .....	3	..
37	<del>4586693</del>			
	136692	Nut .....	3	..
38	<del>388049</del>			
	292682	Lockwasher .....	..	3
38	320159	Washer .....	3	..
39	1382735	Cable Assy .....	..	1
39	1382736	Cable Assy .....	1	..

**TRANSMISSION**  
**INCHING PEDAL (→ S/N A214E01615)**

**KEY:**

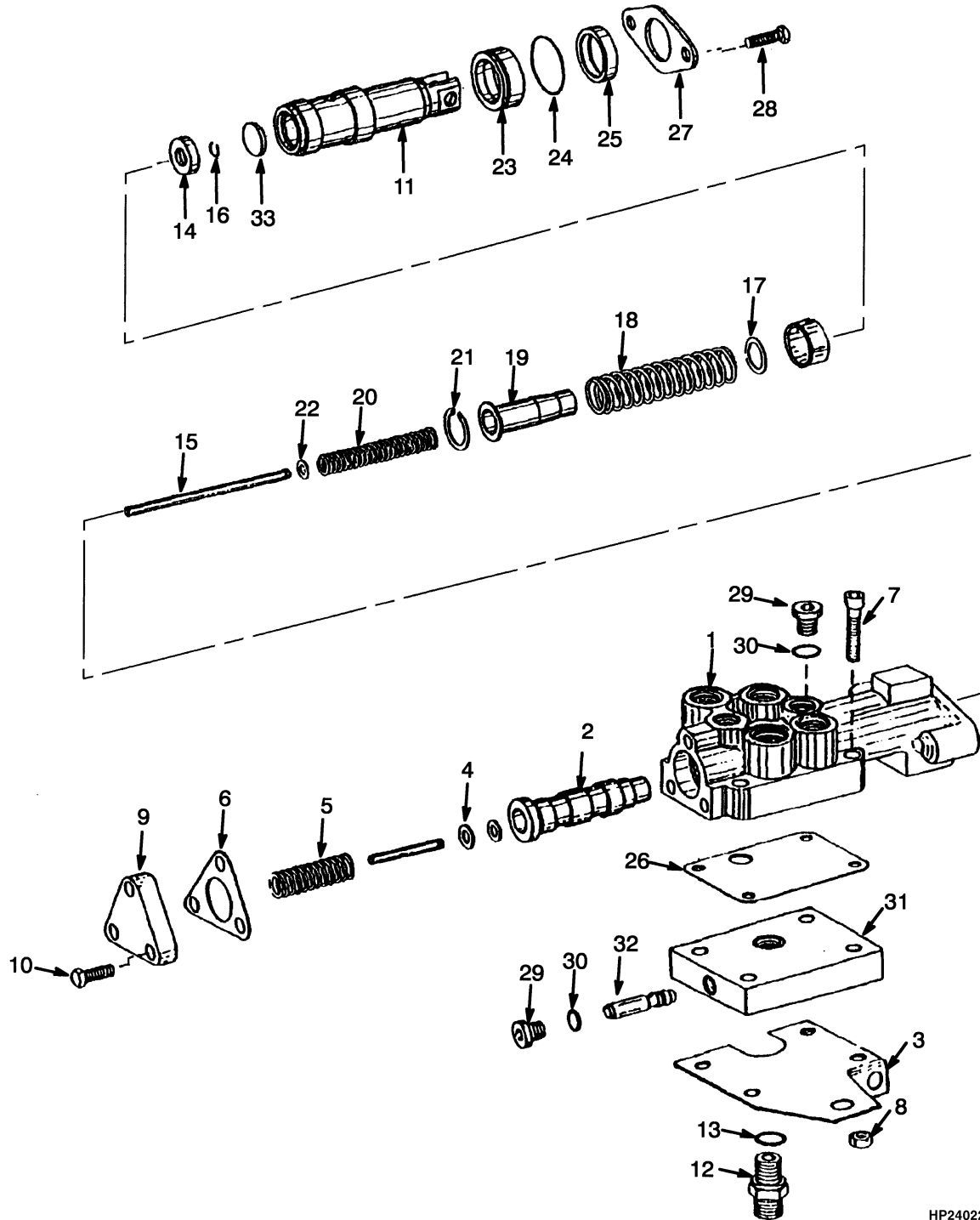
**A:** Empty Container Handler

**B:** Fork Lift Truck

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
40	1384540	Plate Wldmt .....	1	1



## TRANSMISSION (FIGURE 5-16) INCHING VALVE (→ S/N A214E01615)



HP240228

**TRANSMISSION**  
**INCHING VALVE (→ S/N A214E01615)**

ITEM	PART NO.	DESCRIPTION	QTY
	1391603	Inching Valve .....	1
1	1392443	Valve Block .....	1
2	1392444	Piston .....	1
3	1392445	Plate .....	1
4	1318002	Shim .....	1
4	a 1392447	Shim (1,092 mm) .....	1
4	a 1392448	Shim (1,194 mm) .....	1
4	a 1392449	Shim (1,397 mm) .....	1
4	a 1317998	Shim (1,600 mm) .....	1
4	a 1392451	Shim (1,803 mm) .....	1
5	1392452	Spring .....	1
6	1392453	Gasket .....	1
7	1392454	Capscrew .....	4
8	1392455	Nut .....	4
9	1392456	Cover .....	1
10	287851	Capscrew .....	1
11	1392458	Piston .....	1
12	382848	Sleeve .....	1
13	1392460	Washer .....	1
14	1392461	Washer .....	1
15	1392462	Pin .....	1
16	1392463	Retaining Ring .....	1
17	1390982	Shim .....	1
17	a 1392465	Shim (1,194 mm) .....	1
18	1392467	Spring .....	1
19	1392468	Sleeve .....	1
20	1392470	Spring .....	1
21	1392471	Retainer .....	1
22	a 1392475	Shim (0,102 mm) .....	1
22	a 1392474	Shim (0,203 mm) .....	1
22	1392473	Shim (0,305 mm) .....	1
22	1392472	Shim (0,508 mm) .....	1
22	1392476	Shim (0,991 mm) .....	1
22	a 1392447	Shim (1,092 mm) .....	1
22	a 1392477	Shim (1,194 mm) .....	1
23	1392479	Stop .....	1
24	1392480	O-Ring .....	1
25	1392481	Seal .....	1
26	1392482	Gasket .....	2
27	1392484	Plate .....	1
28	1390801	Screw .....	2
29	1390900	Plug .....	3
30	1390901	O-Ring .....	3
31	1392488	Plate .....	1
32	1392489	Piston .....	1
33	382845	Sealing Ring .....	1

**FOOTNOTES:****a** Optional



**6**

**DRIVE AXLE**



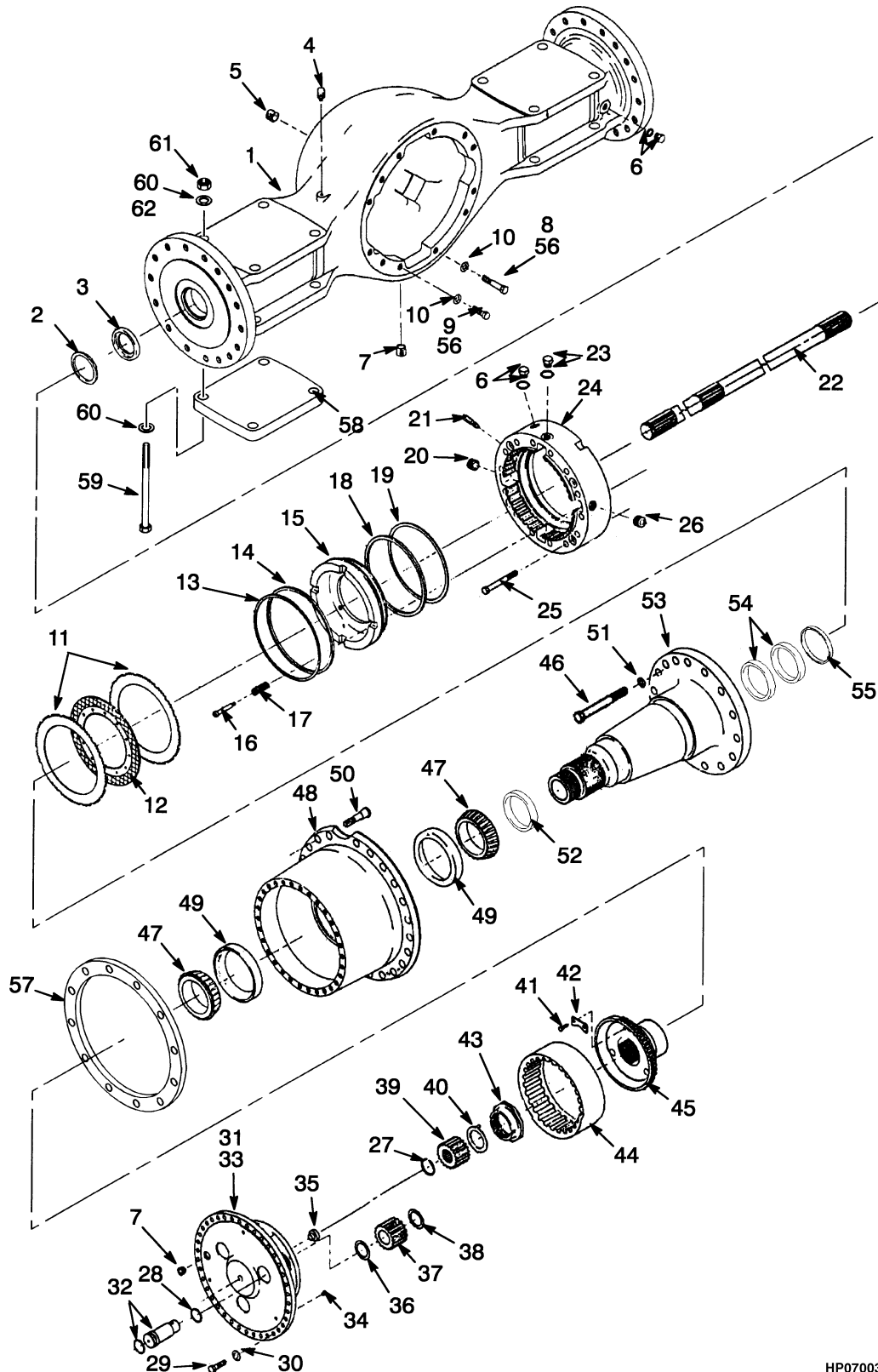


**SECTION 6  
DRIVE AXLE**

DESCRIPTION	PAGE
<b>BRAKE ASSEMBLY</b>	
DISC (→ S/N A214E01995B (H14.00-16.00XM FLT)) (S/N A214E02034A → (H18.00-20.00XM FLT)) (S/N A214E02001B → (H14.00-16.00XM ECH)) .....	6-20
<b>DIFFERENTIAL ASSEMBLY</b>	
→ S/N A214E02033A (H18.00-20.00XM FLT) → S/N A214E02000B (H14.00-16.00XM ECH)	
→ S/N A214E01994B (H14.00-16.00XM FLT) .....	6-10
S/N A214E02034B → (H18.00-20.00XM FLT) S/N A214E02001B → (H14.00-16.00XM ECH)	
S/N A214E01995B → (H14.00-16.00XM FLT) .....	6-14
<b>DRIVE AXLE</b>	
→ S/N A214E01994B (H14.00-16.00XM FLT) → S/N A214E02000B (H14.00-16.00XM ECH)	
→ S/N A214E02033A (H18.00-20.00XM FLT) .....	6-2
S/N A214E02034A → (H18.00-20.00XM FLT) S/N A214E01995B → (H14.00-16.00XM FLT)	
S/N A214E02001B → (H14.00-16.00XM ECH) .....	6-6
<b>DRIVE SHAFT</b> .....	6-22
<b>PARK BRAKE</b>	
→ S/N A214E01994B (H14.00-16.00XM FLT) → S/N A214E02000B (H14.00-16.00XM ECH)	
→ S/N A214E02033B (H18.00-20.00XM FLT) .....	6-18

## DRIVE AXLE (FIGURE 6-1)

(→ S/N A214E01994B (H14.00-16.00XM FLT)) (→ S/N A214E02000B (H14.00-16.00XM ECH))  
(→ S/N A214E02033A (H18.00-20.00XM FLT))



HP070034

**DRIVE AXLE**

(→ S/N A214E01994B (H14.00-16.00XM FLT)) (→ S/N A214E02000B (H14.00-16.00XM ECH))  
(→ S/N A214E02033A (H18.00-20.00XM FLT))

**KEY:****A: Fork Lift Truck (H18.00-20.00)****B: Empty Container Handler****C: Fork Lift Truck (H14.00-16.00)**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
	<b>i</b> 1488357	Drive Axle .....	..	..	1
	<b>c</b> 1393845	Drive Axle .....	..	..	1
	<b>l</b> 1478758	Drive Axle .....	..	..	1
	<b>d</b> 1463599	Drive Axle .....	..	1	..
	<b>m</b> 1478759	Drive Axle .....	..	1	..
	<b>j</b> 1488360	Drive Axle .....	..	1	..
	<b>e</b> 1325791	Drive Axle .....	1	..	..
	<b>k</b> 1488359	Drive Axle .....	1	..	..
	<b>o</b> 1496796	Drive Axle .....	1	..	..
	<b>o</b> 1496795	Drive Axle .....	..	..	1
	<b>o</b> 1496797	Drive Axle .....	..	1	..
1	1382912	Housing .....	1	..	..
1	1452534	Housing .....	..	1	..
1	1453487	Housing .....	..	..	1
2	<b>u</b> 1482752	Bushing .....	..	2	..
3	1382913	Oil Seal .....	4	2	4
4	<b>b</b> 1613651	Breather .....	..	1	..
4	200445	Breather .....	1	1	1
5	15316	Fitting .....	1	..	1
6	1382915	Plug .....	2	2	2
6	1382916	O-Ring .....	1	1	1
7	<b>f</b> 1452535	Plug .....	..	2	..
7	<b>p r</b> 321293	Plug .....	3	3	3
8	1380784	Stud (Long) .....	4	4	4
8	<b>f</b> 329420	Capscrew .....	4	..	..
9	<b>f</b> 1347588	Capscrew .....	8	..	..
9	214195	Bolt (Short) .....	8	8	8
10	86007	Washer .....	12	12	12
11	<b>f h</b> 1382885	Separator Plate .....	22	22	22
11	<b>p r</b> 1382885	Separator Plate .....	26	26	26
11	<b>p r</b> 1499566	Brake Disk .....	2	2	2
12	<b>f h</b> 1452826	Friction Disk .....	20	20	20
12	<b>p r</b> 1452826	Friction Disk .....	14	14	14
13	1382890	Back-Up Ring (Outer) .....	2	2	2
14	1382888	Quad Ring (Outer) .....	2	2	2
15	1382887	Piston .....	2	2	2
16	1382893	Capscrew .....	8	8	8
17	1382894	Spring .....	8	8	8
18	1382889	Quad Ring (Inner) .....	2	2	2
19	1382891	Back-Up Ring (Inner) .....	2	2	2
20	1382897	Drain Plug .....	2	2	2
21	1382896	Bleeder Screw .....	2	2	2
22	1453488	Axle Shaft (RH) .....	..	..	1

## DRIVE AXLE

(→ S/N A214E01994B (H14.00-16.00XM FLT)) (→ S/N A214E02000B (H14.00-16.00XM ECH))  
(→ S/N A214E02033A (H18.00-20.00XM FLT))

**KEY:**

**A:** Fork Lift Truck (H18.00-20.00)

**B:** Empty Container Handler

**C:** Fork Lift Truck (H14.00-16.00)

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
22	1453489	Axle Shaft (LH) .....	..	..	1
22	1454959	Shaft (RH) .....	1	..	..
22	1454960	Shaft (LH) .....	1	..	..
22	1455997	Axle Shaft (LH) .....	..	1	..
22	1455998	Axle Shaft (RH) .....	..	1	..
23	<b>b</b> 1382901	Plug .....	4	4	4
23	<b>u</b> 1473840	Plug .....	4	4	4
23	1382902	O-Ring .....	1	1	1
24	1382884	Housing .....	2	2	2
25	1382895	Capscrew .....	8	8	8
26	1382898	Plug .....	2	2	2
26	<b>u</b> 15315	Fitting .....	..	2	..
27	208107	Snap Ring .....	2	2	2
28	<b>u</b> 1473838	Snap Ring .....	..	3	..
28	<b>o</b> 208107	Snap Ring .....	..	3	..
28	<b>p r</b> 1499594	Snap Ring .....	3	..	3
29	<b>b</b> 1346600	Capscrew .....	60	60	60
29	<b>u</b> 1473839	Capscrew .....	60	60	60
30	88587	Washer .....	60	60	60
31	1450863	Spider .....	2	2	2
32	1450865	Shaft .....	3	3	3
32	39383	O-Ring .....	1	1	1
33	1450864	Spider .....	1	1	1
34	273969	Button (Thrust) .....	3	3	3
35	1303551	Button (Thrust) .....	1	1	1
36	97638	Washer .....	3	3	3
37	1382570	Gear .....	3	3	3
38	1450867	Thrust Washer .....	3	3	3
39	1382571	Gear .....	2	2	2
40	1382572	Thrust Washer .....	2	2	2
41	<b>f h</b> 1316326	Screw .....	4	4	4
41	<b>p r</b> 1499563	Capscrew .....	4	4	4
42	<b>f h</b> 1309912	Lock .....	2	2	2
43	<b>f h</b> 268915	Nut .....	2	2	2
43	<b>p r</b> 1499564	Nut .....	2	2	2
44	1450868	Gear .....	2	2	2
45	1382574	Hub .....	2	2	2
46	1382880	Capscrew .....	32	32	32
47	97623	Bearing Cone .....	4	4	4
48	1382875	Hub .....	2	2	2
49	97626	Bearing Cup .....	2	2	2
50	1511548	Wheel Stud .....	24	24	24
51	132451	Washer .....	32	32	32

**DRIVE AXLE**

(→ S/N A214E01994B (H14.00-16.00XM FLT)) (→ S/N A214E02000B (H14.00-16.00XM ECH))  
(→ S/N A214E02033A (H18.00-20.00XM FLT))

**KEY:****A:** Fork Lift Truck (H18.00-20.00)**B:** Empty Container Handler**C:** Fork Lift Truck (H14.00-16.00)

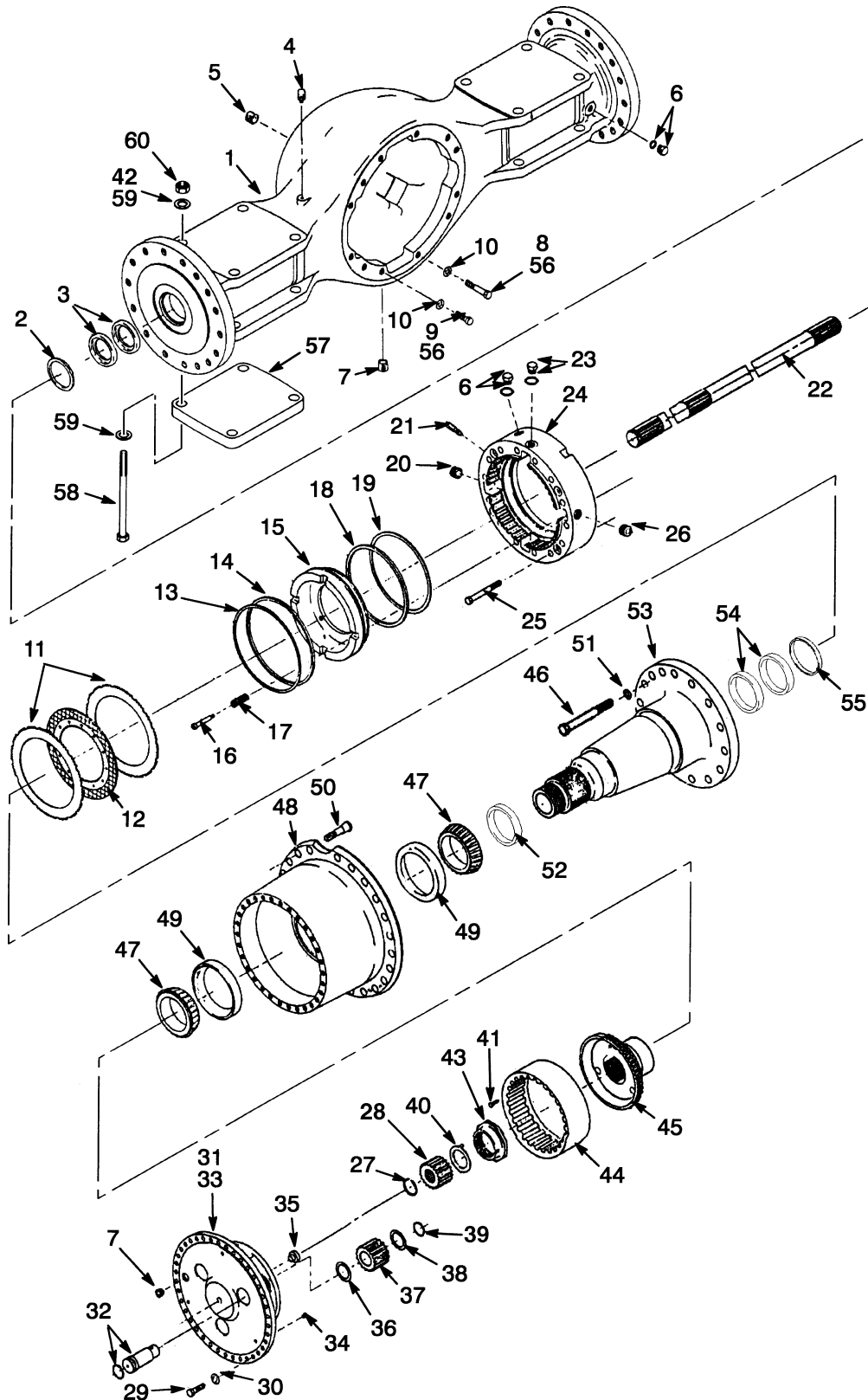
ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
52	199598	Oil Seal .....	2	2	2
53	<b>f h</b> 1382877	Spindle .....	2	2	2
53	<b>p r</b> 1499562	Spindle .....	2	2	2
54	1382913	Oil Seal .....	2	2	2
55	1382879	Spacer .....	1	1	1
56	358099	Nut .....	12	12	12
57	816552	Support Ring .....	..	2	..
58	<b>t</b> 1463254	Mounting Plate .....	..	2	..
59	1323889	Capscrew .....	8	..	8
59	<b>a</b> 1373440	Capscrew .....	..	8	..
59	<b>t</b> 1463253	Capscrew .....	..	8	..
59	<b>n</b> 1564722	Capscrew .....	..	8	..
60	221780	Washer .....	16	8	16
61	221720	Nut .....	8	..	8
61	221721	Nut .....	..	8	..
62	<b>t</b> 1463483	Washer .....	..	8	..
62	<b>a</b> 177953	Lockwasher .....	..	8	..

**FOOTNOTES:**

<b>a</b>	→ S/N A214E01624	<b>l</b>	S/N A214E01726 ↔ S/N A214E01768
<b>b</b>	→ S/N A214E01634	<b>m</b>	S/N A214E01737 ↔ S/N A214E01766
<b>c</b>	→ S/N A214E01725	<b>n</b>	S/N A214E01759 →
<b>d</b>	→ S/N A214E01736	<b>o</b>	S/N A214E01808 →
<b>e</b>	→ S/N A214E01779	<b>p</b>	S/N A214E01809 → (H14.00-16.00XM)
<b>f</b>	→ S/N A214E01808	<b>q</b>	S/N A214E01809 → (H18.00-20.00XM)
<b>g</b>	→ S/N A214E01808 (H18.00-20.00XM)	<b>r</b>	S/N A214E01810 → (H14.00-16.00XM)
<b>h</b>	→ S/N A214E01809 (H14.00-16.00XM)	<b>s</b>	S/N A214E01810 → (H18.00-20.00XM)
<b>i</b>	S/N A214E01766 ↔ S/N A214E01809	<b>t</b>	S/N A214E01625 →
<b>j</b>	S/N A214E01769 ↔ S/N A214E01808	<b>u</b>	S/N A214E01635 →
<b>k</b>	S/N A214E01780 ↔ S/N A214E01808		

## DRIVE AXLE (FIGURE 6-2)

(S/N A214E02034A → (H18.00-20.00XM FLT)) (S/N A214E01995B → (H14.00-16.00XM FLT))  
(S/N A214E02001B → (H14.00-16.00XM ECH))



**DRIVE AXLE**(S/N A214E02034A → (H18.00-20.00XM FLT)) (S/N A214E01995B → (H14.00-16.00XM FLT))  
(S/N A214E02001B → (H14.00-16.00XM ECH))**KEY:****A: Fork Lift Truck (H18.00-20.00)****B: Empty Container Handler****C: Fork Lift Truck (H14.00-16.00)**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
	1538766	Drive Axle .....	1	..	..
	1539016	Drive Axle .....	..	1	..
	1538765	Drive Axle .....	..	..	1
1	1382912	Housing .....	1	..	..
1	1554742	Drive Axle Housing .....	..	1	..
1	1453487	Housing .....	..	..	1
2	1482752	Bushing .....	2	2	2
3	1382913	Oil Seal .....	4	4	4
4	1613651	Breather .....	1	1	..
4	200445	Breather .....	..	1	1
5	15316	Fitting .....	1	1	1
6	1382915	Plug .....	6	6	6
6	1382916	O-Ring .....	1	1	1
7	321293	Plug .....	3	3	3
8	1380784	Stud (Long) .....	4	4	4
9	214195	Bolt (Short) .....	8	8	8
10	86007	Washer .....	12	12	12
11	1382885	Separator Plate .....	26	26	26
11	1499566	Brake Disk .....	2	2	2
12	1452826	Friction Disk .....	14	14	14
13	1382890	Back-Up Ring (Outer) .....	2	2	2
14	1382888	Quad Ring (Outer) .....	2	2	2
15	1382887	Piston .....	2	2	2
16	1382893	Capscrew .....	8	8	8
17	1382894	Spring .....	8	8	8
18	1382889	Quad Ring (Inner) .....	2	2	2
19	1382891	Back-Up Ring (Inner) .....	2	2	2
20	1382897	Drain Plug .....	2	2	2
21	1382896	Bleeder Screw .....	2	2	2
22	1453488	Axle Shaft (RH) .....	..	..	1
22	1453489	Axle Shaft (LH) .....	..	..	1
22	1454959	Shaft (RH) .....	1	..	..
22	1454960	Shaft (LH) .....	1	..	..
22	1455997	Axle Shaft (LH) .....	..	1	..
22	1455998	Axle Shaft (RH) .....	..	1	..
23	1473840	Plug .....	4	4	4
23	1382902	O-Ring .....	1	1	1
24	1382884	Housing .....	2	2	2
25	1382895	Capscrew .....	8	8	8
26	15315	Fitting .....	2	2	2
27	208107	Snap Ring .....	2	2	2
28	1382571	Gear .....	2	2	2
29	1473839	Capscrew .....	60	60	60

## DRIVE AXLE

(S/N A214E02034A → (H18.00-20.00XM FLT)) (S/N A214E01995B → (H14.00-16.00XM FLT))  
(S/N A214E02001B → (H14.00-16.00XM ECH))

**KEY:**

- A:** Fork Lift Truck (H18.00-20.00)
- B:** Empty Container Handler
- C:** Fork Lift Truck (H14.00-16.00)

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
30	88587	Washer .....	60	60	60
31	1450863	Spider .....	2	2	2
32	1450865	Shaft .....	3	3	3
32	39383	O-Ring .....	1	1	1
33	1450864	Spider .....	1	1	1
34	273969	Button (Thrust) .....	3	3	3
35	1303551	Button (Thrust) .....	1	1	1
36	97638	Washer .....	3	3	3
37	1382570	Gear .....	3	3	3
38	1450867	Thrust Washer .....	3	3	3
39	1499594	Snap Ring .....	3	3	3
40	1382572	Thrust Washer .....	2	2	2
41	1547980	Screw .....	2	2	2
42	1463483	Washer .....	..	8	..
43	1499564	Nut .....	2	2	2
44	1450868	Gear .....	2	2	2
45	1382574	Hub .....	2	2	2
46	1382880	Capscrew .....	32	32	32
47	97623	Bearing Cone .....	4	4	4
48	1547982	Hub .....	2	2	2
49	97626	Bearing Cup .....	2	2	2
50	1511548	Wheel Stud .....	..	24	..
50	1382876	Wheel Stud (Wheel) .....	24	..	24
50	376026	Wheel Nut .....	24	24	24
51	132451	Washer .....	32	32	32
52	199598	Oil Seal .....	2	2	2
53	1499562	Spindle .....	2	2	2
54	<b>a</b> 1382913	Oil Seal .....	8	8	8
55	1382879	Spacer .....	2	2	2
56	358099	Nut .....	12	12	12
57	1463254	Mounting Plate .....	..	2	..
58	1564722	Capscrew .....	..	8	..
59	221780	Washer .....	16	8	16
60	221720	Nut .....	8	..	8
60	221721	Nut .....	..	8	..

**FOOTNOTES:**

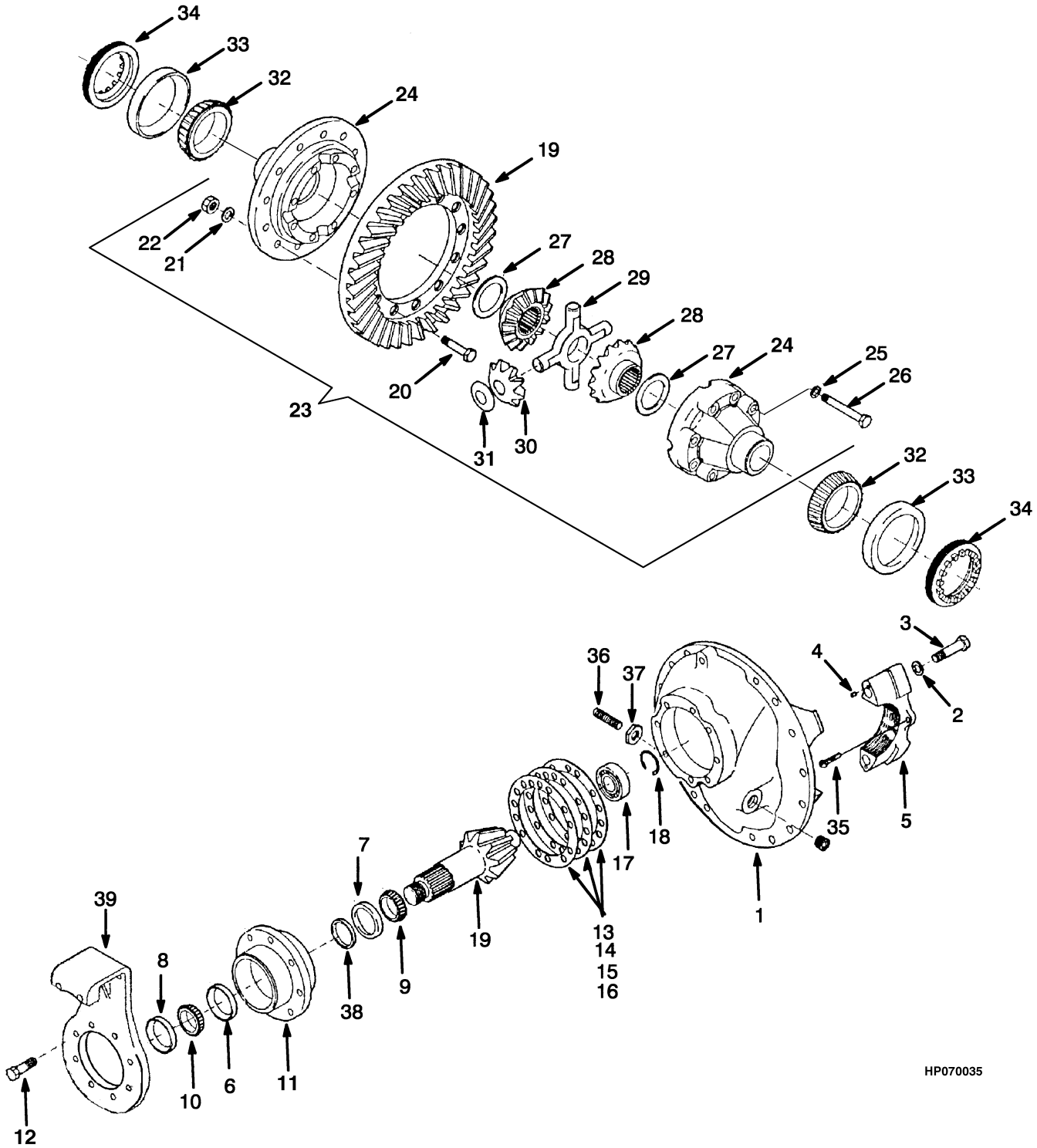
- a** Only 4 needed if purchased individually





## DIFFERENTIAL ASSEMBLY (FIGURE 6-3)

(→ S/N A214E02033A (H18.00-20.00XM FLT)) (→ S/N A214E02000B (H14.00-16.00XM ECH))  
(→ S/N A214E01994B (H14.00-16.00XM FLT))



HP070035

**DIFFERENTIAL ASSEMBLY**

(→ S/N A214E02033A (H18.00-20.00XM FLT)) (→ S/N A214E02000B (H14.00-16.00XM ECH))  
(→ S/N A214E01994B (H14.00-16.00XM FLT))

**KEY:****A: Fork Lift Truck (H18.00-20.00)****B: Empty Container Handler****C: Fork Lift Truck (H14.00-16.00)**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
1	1380798	Carrier .....	1	1	1
2	1347770	Washer .....	4	4	4
3	293716	Capscrew .....	4	4	4
4	1380777	Ball .....	2	2	2
5	1502129	Bearing Cap .....	2	2	2
6	200972	Bearing Cup , Tapered Roller .....	1	1	1
7	30062	Bearing Cup .....	1	1	1
8	1642099	Oil Seal .....	1	1	1
9	1347774	Bearing Cone (Inner) .....	1	1	1
10	1347812	Bearing Cone (Outer) .....	1	1	1
11	<b>b</b> 1347772	Pinion (Cage Assembly) .....	1	1	1
11	<b>c</b> 1499559	Cage .....	1	1	1
12	293654	Capscrew .....	8	8	8
13	1347814	Shim .....	1	1	1
14	1347815	Shim .....	2	2	2
15	1347816	Shim .....	3	3	3
16	1347817	Shim .....	1	1	1
17	296844	Bearing .....	1	1	1
18	240683	Snap Ring .....	1	1	1
19	1450858	Gear Set .....	1	..	..
19	<del>1452505</del>				
	1489411	Bevel Gear Assembly .....	..	1	1
20	1347822	Bolt and Capscrew .....	12	12	12
21	125428	Washer .....	12	12	12
22	1374550	Nut .....	12	12	12
23	4025002	Case .....	1	1	1
24	<del>1489410</del>				
	1590043	Case .....	1	1	1
24	.....	Case Half (LH) .....	1	1	1
24	.....	Case Half (RH) .....	1	1	1
25	1450861	Washer .....	16	16	16
26	1347831	Capscrew .....	16	16	16
27	<del>1379752</del>				
	1380797	Thrust Washer .....	2	2	2
28	1382908	Gear .....	2	2	2
29	<del>1502130</del>				
	1374558	Spider .....	1	1	1
30	1382910	Pinion .....	4	4	4
31	200982	Washer .....	4	4	4
32	1475421	Bearing Cone Set .....	2	2	2
33	1475420	Bearing Cup Set .....	2	2	2
34	1347839	Ring Bearing Set .....	2	2	2
35	86008	Cotter Pin .....	2	2	2

## DIFFERENTIAL ASSEMBLY

(→ S/N A214E02033A (H18.00-20.00XM FLT)) (→ S/N A214E02000B (H14.00-16.00XM ECH))  
(→ S/N A214E01994B (H14.00-16.00XM FLT))

**KEY:**

- A:** Fork Lift Truck (H18.00-20.00)
- B:** Empty Container Handler
- C:** Fork Lift Truck (H14.00-16.00)

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
36	1374097	Screw .....	1	1	1
37	1312616	Locknut .....	1	1	1
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
39	1489407	Adapter (Brake) .....	1	1	1
	<b>a</b> 1547978	Yoke .....	1	1	1
	1374099	Kit-Hardware .....	1	1	1
	1393171	Kit-Differential .....	1	1	1
	1347800	Kit-Spacer .....	1	1	1
	1347813	Kit-Shim .....	1	1	1

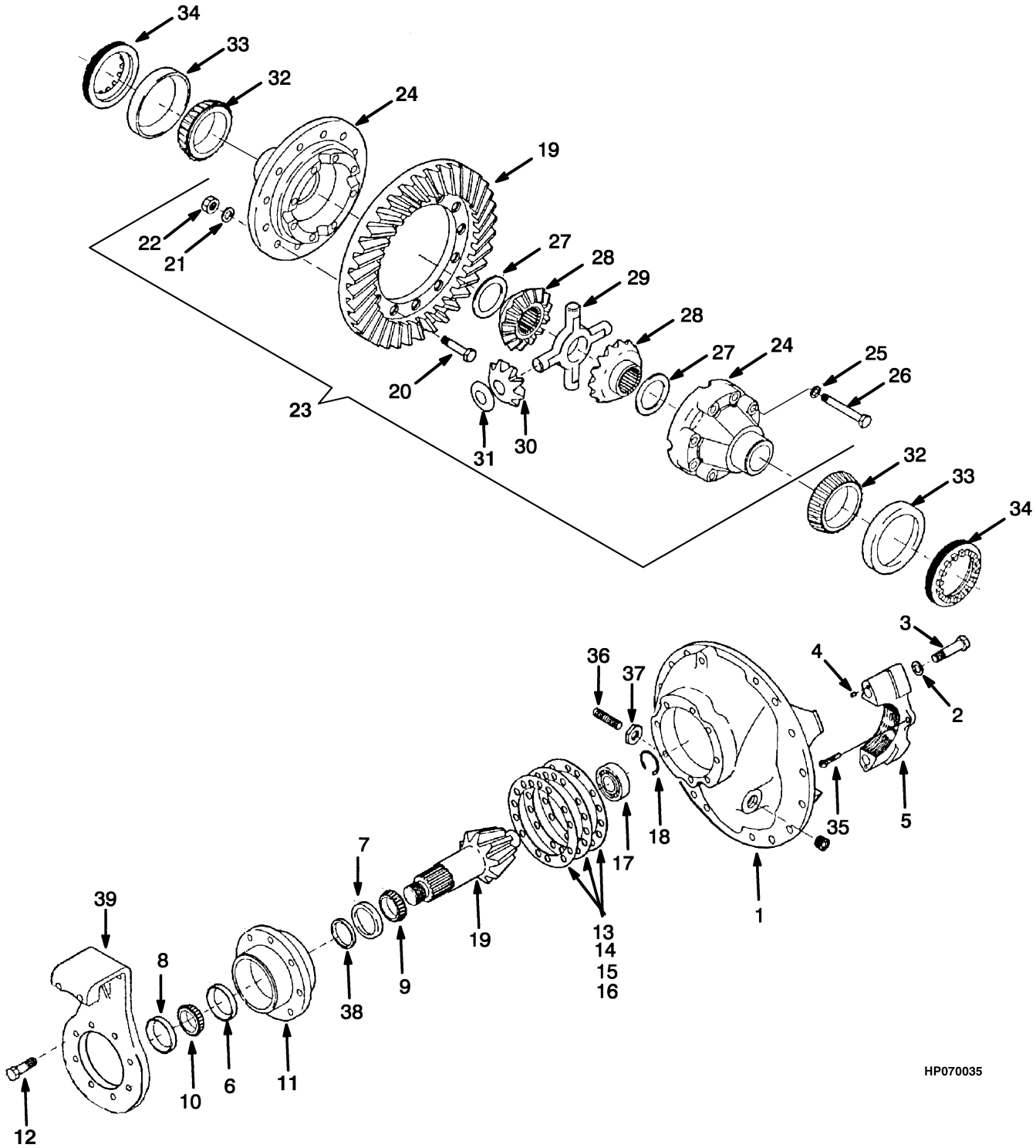
**FOOTNOTES:**

- a** Not Illustrated
- b** → S/N A214E01809 (14.00-16.00XM FLT: 1809, 18.00-20.00XM FLT: 1808, ECH: Pending)
- c** S/N A214E01810 → (14.00-16.00XM FLT: 1810, 18.00-20.00XM FLT: 1809, ECH: Pending)



## DIFFERENTIAL ASSEMBLY (FIGURE 6-4)

(S/N A214E02034B → (H18.00-20.00XM FLT)) (S/N A214E02001B → (H14.00-16.00XM ECH))  
(S/N A214E01995B → (H14.00-16.00XM FLT))



HP070035

**DIFFERENTIAL ASSEMBLY**(S/N A214E02034B → (H18.00-20.00XM FLT)) (S/N A214E02001B → (H14.00-16.00XM ECH))  
(S/N A214E01995B → (H14.00-16.00XM FLT))**KEY:****A: Fork Lift Truck (H18.00-20.00)****B: Empty Container Handler****C: Fork Lift Truck (H14.00-16.00)**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
1	1380798	Carrier .....	1	1	1
2	1347770	Washer .....	4	4	4
3	293716	Capscrew .....	4	4	4
4	1380777	Ball .....	2	2	2
5	1502129	Bearing Cap .....	2	2	2
6	200972	Bearing Cup , Tapered Roller .....	1	1	1
7	30062	Bearing Cup .....	1	1	1
8	1642099	Oil Seal .....	1	1	1
9	1347774	Bearing Cone (Inner) .....	1	1	1
10	1347812	Bearing Cone (Outer) .....	1	1	1
11	1347772	Pinion (Cage Assembly) .....	1	1	1
12	1566125	Capscrew .....	8	8	8
13	1347814	Shim .....	1	1	1
14	1347815	Shim .....	2	2	2
15	1347816	Shim .....	3	3	3
16	1347817	Shim .....	1	1	1
17	296844	Bearing .....	1	1	1
18	240683	Snap Ring .....	1	1	1
19	1590041	Bevel Gear .....	1	..	..
19	<del>1452505</del> 1489411	Bevel Gear Assembly .....	..	1	1
20	1347822	Bolt and Capscrew .....	12	12	12
21	125428	Washer .....	12	12	12
22	1374550	Nut .....	12	12	12
23	<del>1590042</del> 1643396	Differential Housing Case Assembly .....	1	1	1
24	<del>1489410</del> 1590043	Case .....	1	1	1
24	.....	Case Half (LH) .....	1	1	1
24	.....	Case Half (RH) .....	1	1	1
25	1450861	Washer .....	16	16	16
26	1347831	Capscrew .....	16	16	16
27	<del>1379752</del> 1380797	Thrust Washer .....	2	2	2
27	1642103	Thrust Washer (Alternate Part) .....	2	2	2
28	.....	Gear .....	2	2	2
29	<del>1502130</del> 1374558	Spider .....	1	1	1
30	.....	Pinion .....	4	4	4
31	200982	Washer .....	4	4	4
31	1642104	Thrust Washer (Alternate Part) .....	4	4	4
32	1475421	Bearing Cone Set .....	2	2	2
33	1475420	Bearing Cup Set .....	2	2	2

## DIFFERENTIAL ASSEMBLY

(S/N A214E02034B → (H18.00-20.00XM FLT)) (S/N A214E02001B → (H14.00-16.00XM ECH))  
(S/N A214E01995B → (H14.00-16.00XM FLT))

**KEY:**

- A: Fork Lift Truck (H18.00-20.00)
- B: Empty Container Handler
- C: Fork Lift Truck (H14.00-16.00)

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
34	1347839	Ring Bearing Set .....	2	2	2
35	1566126	Cotter Pin .....	2	2	2
36	1374097	Screw .....	1	1	1
37	1312616	Locknut .....	1	1	1
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
38	.....	Spacer .....	2	2	2
39	1489407	Adapter (Brake) .....	1	1	1
	<b>a</b> 1547978	Yoke .....	1	1	1
	1374099	Kit-Hardware .....	1	1	1
	1380796	Kit-Differential .....	1	1	1
	1642102	Kit-Differential (Alternate Part) .....	1	1	1
	1347800	Kit-Spacer .....	1	1	1
	1347813	Kit-Shim .....	1	1	1

**FOOTNOTES:**

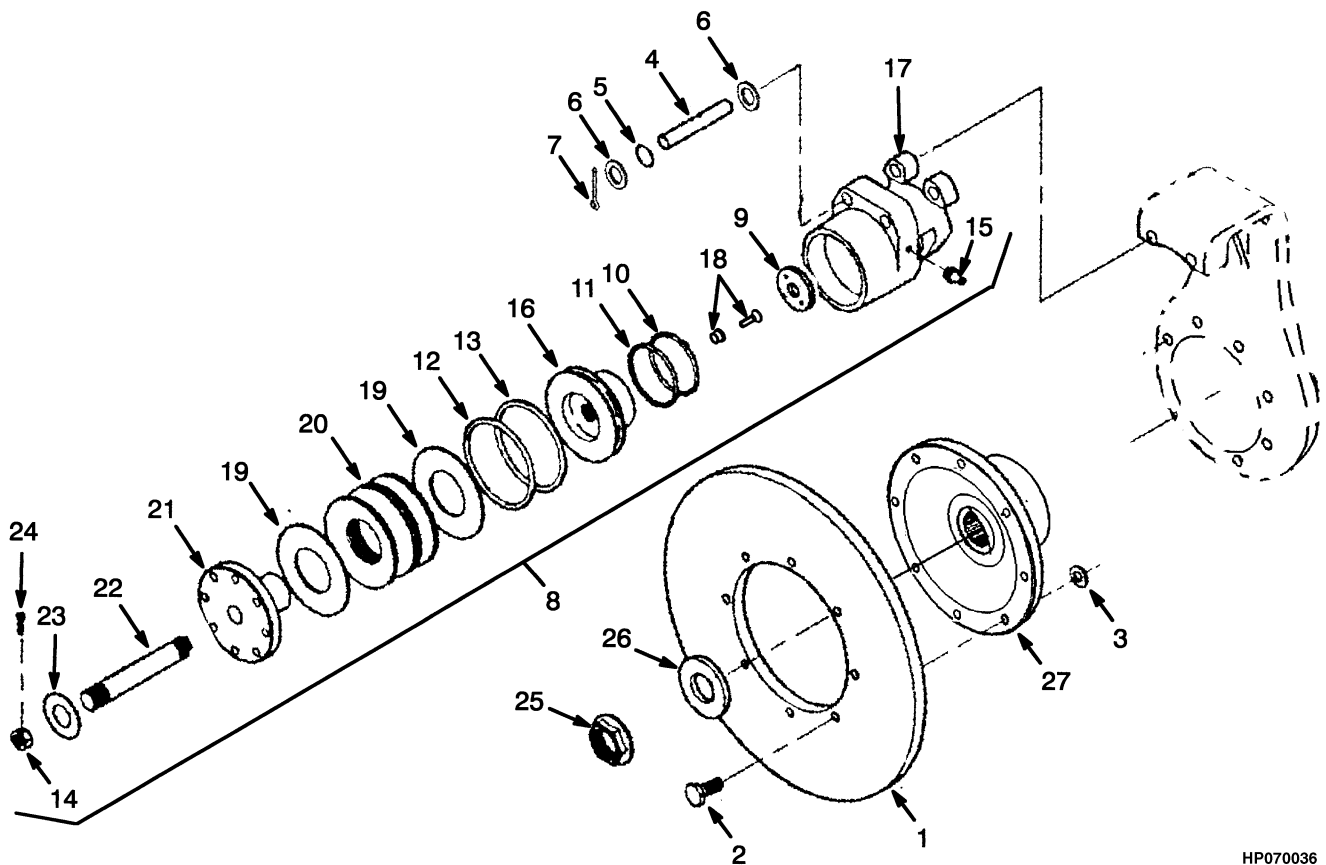
- a** Not Illustrated





## PARK BRAKE (FIGURE 6-5)

(→ S/N A214E01994B (H14.00-16.00XM FLT)) (→ S/N A214E02000B (H14.00-16.00XM ECH))  
(→ S/N A214E02033B (H18.00-20.00XM FLT))



HP070036

**PARK BRAKE**

(→ S/N A214E01994B (H14.00-16.00XM FLT)) (→ S/N A214E02000B (H14.00-16.00XM ECH))

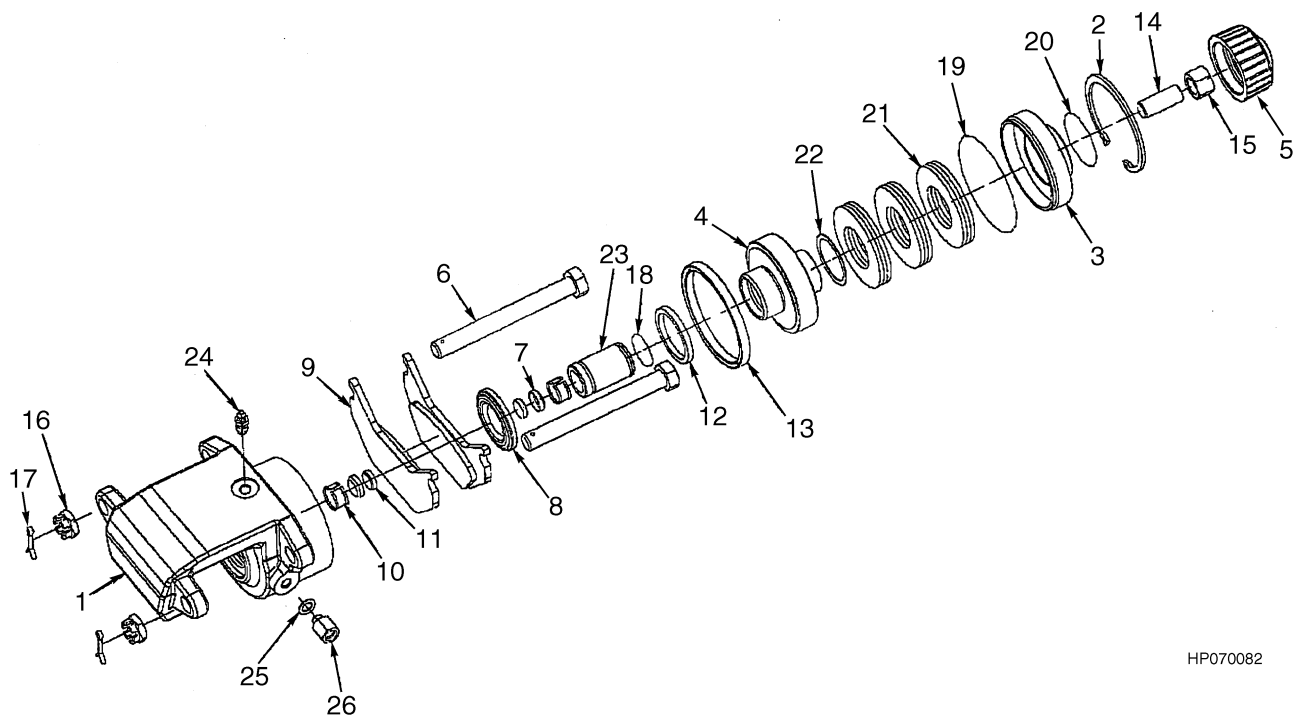
(→ S/N A214E02033B (H18.00-20.00XM FLT))

ITEM	PART NO.	DESCRIPTION	QTY
1	1382918	Brake Disk .....	1
2	<b>b</b> 1473826	Capscrew .....	8
2	<b>a</b> 16815	Capscrew .....	8
3	<b>a</b> 221767	Washer .....	8
4	1332801	Pin .....	2
5	1332805	O-Ring .....	4
6	1379726	Washer .....	4
7	1355346	Pin .....	4
8	1452500	Parking Brake .....	1
9	1339121	Brake Lining .....	2
10	1339119	Back-Up Ring .....	1
11	.....	O-Ring .....	1
12	1339115	Back-Up Ring .....	1
13	1339116	O-Ring .....	1
14	1343145	Nut .....	1
15	<del>1309120</del>		
	4164255	Bleeder Screw .....	1
16	1382922	Piston .....	1
17	.....	Housing .....	1
18	1379750	Retainer .....	2
19	1339113	Spring Washer .....	2
20	1339114	Spring .....	8
21	1382924	Cap .....	1
22	1382950	Stud .....	1
23	1312090	Washer .....	1
24	<del>2056815</del>		
	15224	Cotter Pin .....	1
25	1357734	Locknut .....	1
26	1312083	Washer .....	1
27	<b>a</b> 1382920	Yoke (Input) .....	1
27	<b>b</b> 1473823	Yoke (Input) .....	1
	1357735	Kit-Seal .....	1
	1452504	Kit-Repair Brake .....	1
	1452503	Kit-Brake .....	1

**FOOTNOTES:****a** → S/N A214E01634**b** S/N A214E01635 →

## BRAKE ASSEMBLY (FIGURE 6-6)

DISC (→ S/N A214E01995B (H14.00-16.00XM FLT)) (S/N A214E02034A → (H18.00-20.00XM FLT))  
(S/N A214E02001B → (H14.00-16.00XM ECH))



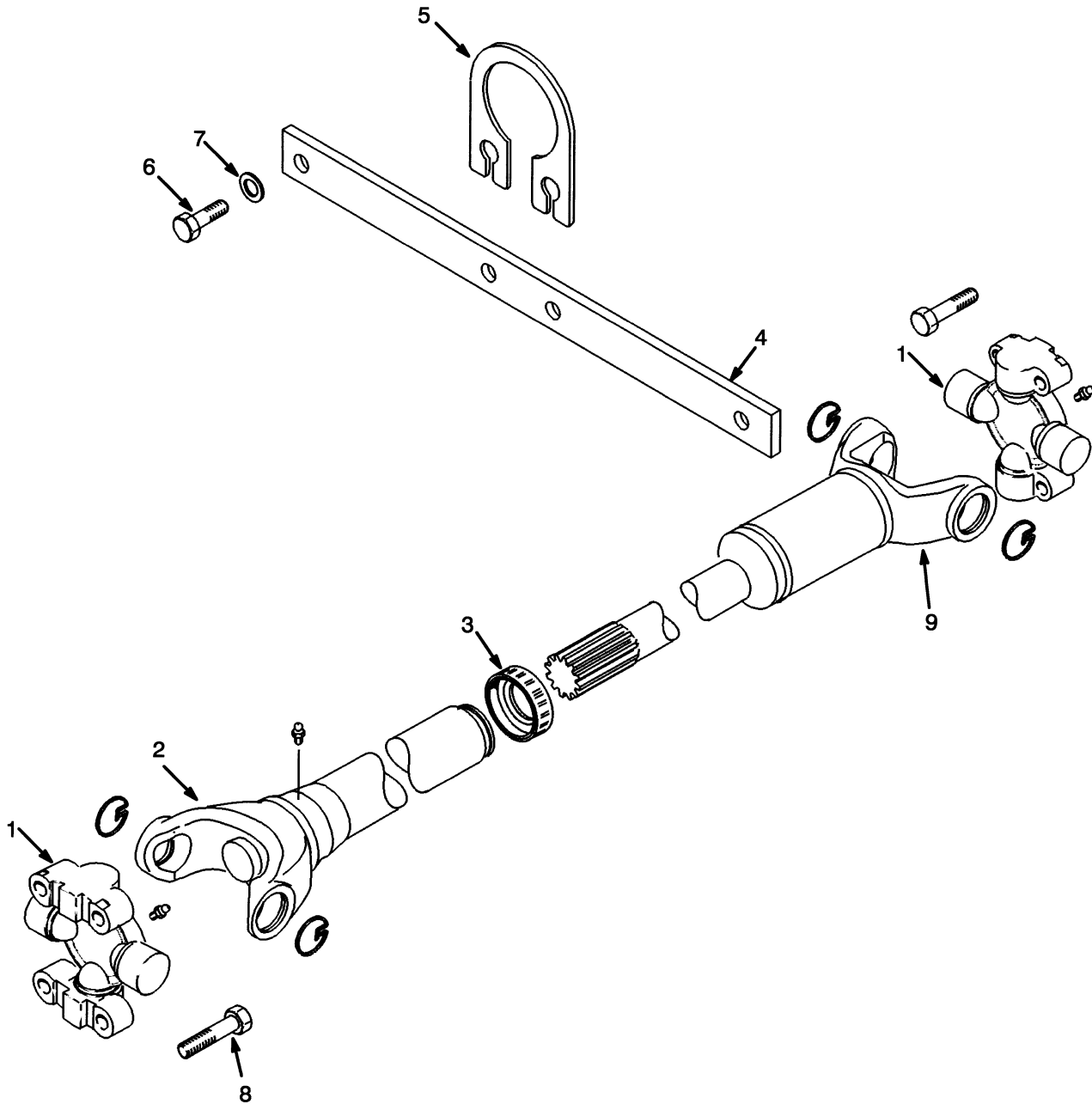
HP070082

**BRAKE ASSEMBLY**

**DISC (→ S/N A214E01995B (H14.00-16.00XM FLT)) (S/N A214E02034A → (H18.00-20.00XM FLT))  
(S/N A214E02001B → (H14.00-16.00XM ECH))**

ITEM	PART NO.	DESCRIPTION	QTY
	1561604	Brake Assembly (Park Brake) .....	1
1	1495623	Housing .....	1
2	1495624	Retaining Ring .....	1
3	1495625	Piston (Stop) .....	1
4	1495626	Piston .....	1
5	<del>4084334</del>		
	1495627	Cap .....	1
6	1495628	Bolt .....	2
7	1495629	Cup .....	2
8	1495630	Boot .....	1
9	1495631	Brake Lining .....	2
10	1495632	Sleeve (Friction) .....	2
11	1495633	Magnet .....	2
11	. . . . .	Retaining Ring .....	1
12	1495634	Seal (Cup) .....	1
13	1495635	Seal (Cup) .....	1
14	1495636	Setscrew .....	1
15	1495637	Locknut .....	1
16	1495638	Nut .....	2
17	1495639	Cotter Pin .....	2
18	1495640	O-Ring .....	1
19	1495641	O-Ring .....	1
20	1495642	O-Ring .....	1
21	1495643	Disk Spring .....	6
22	1495644	Wear Plate .....	1
23	1495645	Plunger Assembly .....	1
24	1495646	Bleeder Valve .....	1
25	1495647	Washer .....	1
26	1495648	Adapter .....	1
	1382918	Brake Disk .....	1
	1514331	Kit-Repair Parking Brake .....	1

## DRIVE SHAFT (FIGURE 6-7)



HP070037

**DRIVE SHAFT****KEY:****A: Empty Container Handler****B: Fork Lift Truck**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1373265	Shaft .....	..	1
	1373662	Shaft .....	1	..
1	1391055	Universal Joint .....	1	1
2	1391056	Yoke .....	1	1
3	1391057	Seal .....	1	1
4	1384620	Bar .....	1	1
5	1384621	Retainer .....	1	1
6	292562	Capscrew .....	4	4
7	320166	Washer .....	4	4
8	192544	Capscrew .....	8	8
9	.....	Yoke .....	1	1





7

**STEERING SYSTEM**



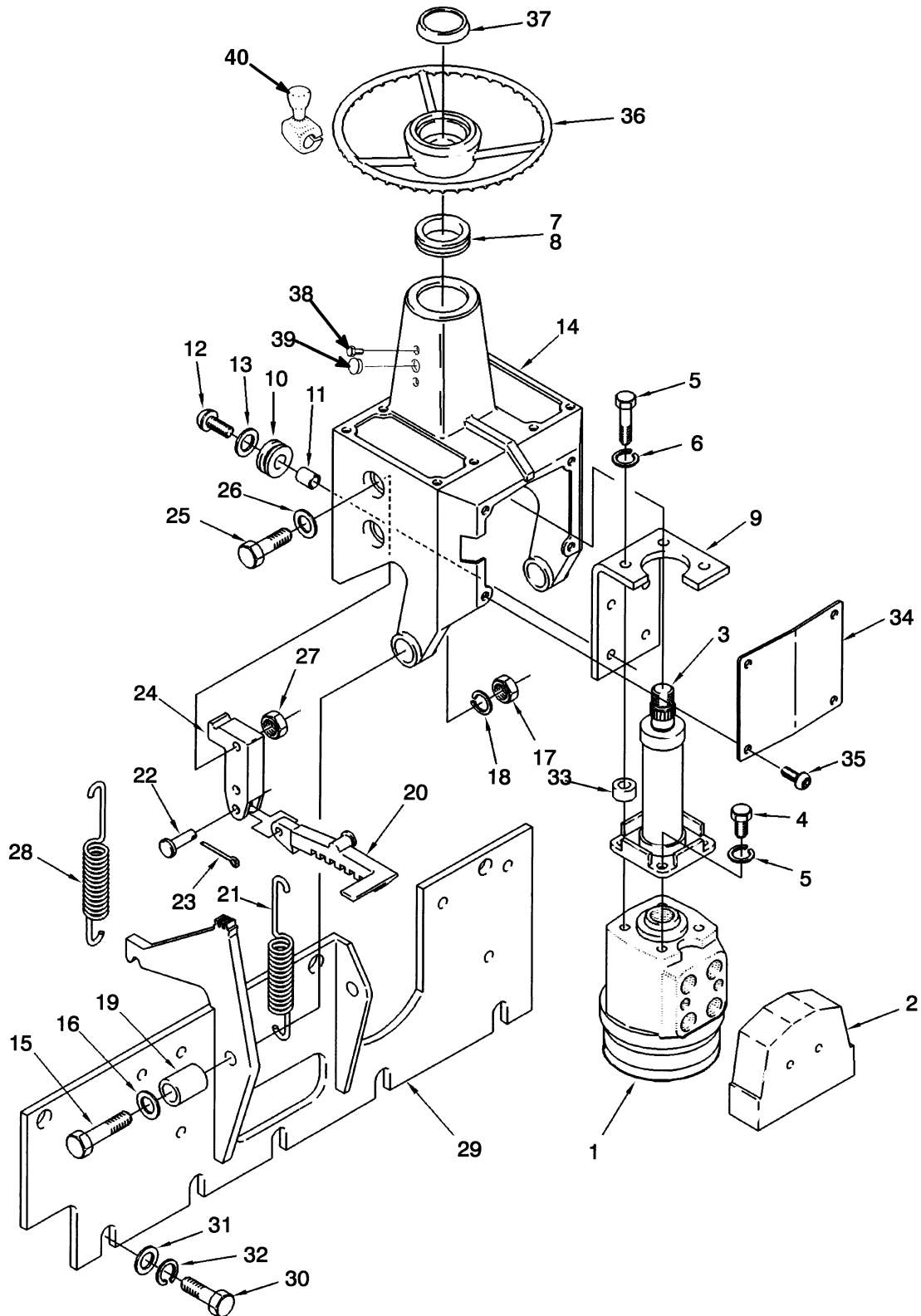
**SECTION 7  
STEERING SYSTEM**

---

<b>DESCRIPTION</b>	<b>PAGE</b>
STEERING AXLE .....	7-18
STEERING CONTROL	
BLOCK VALVE (→ 10/2003) .....	7-16
STEERING CYLINDER .....	7-10
OPTIONAL .....	7-12
STEERING HOUSING AND CONTROL UNIT .....	7-2
STEERING HYDRAULICS	
EMPTY CONTAINER HANDLER .....	7-6
FORK LIFT TRUCK .....	7-8
STEERING PUMP .....	7-14

---

## STEERING HOUSING AND CONTROL UNIT (FIGURE 7-1)



HP220463

**STEERING HOUSING AND CONTROL UNIT**

ITEM	PART NO.	DESCRIPTION	QTY
1	1524215	Steering Valve Assembly .....	1
1	1372990	Steering Pump Assembly (☞Figure 7-6).....	1
2	1524173	Valve Block .....	1
2	366066	Kit-Repair Valve .....	1
2	1462890	O-Ring .....	4
2	1462891	Screw .....	2
3	1301422	Steering Column .....	1
3	362816	Kit-Terminal .....	1
3	345423	Nut .....	1
4	16597	Capscrew .....	1
5	16815	Capscrew .....	3
6	<del>388049</del>		
	292682	Lockwasher .....	4
7	2005059	Grommet .....	1
8	362255	Grommet (Optional) .....	1
9	376504	Bracket .....	1
10	216735	Grommet .....	4
11	376505	Spacer .....	4
12	369242	Capscrew .....	4
13	1300117	Washer .....	4
14	376510	Cover .....	1
15	292529	Capscrew .....	2
16	379697	Washer .....	2
17	<del>1318914</del>		
	216877	Nut .....	2
18	293782	Lockwasher .....	2
19	376506	Spacer .....	2
20	324896	Latch .....	1
21	1301437	Spring .....	1
22	133683	Pin .....	1
23	15212	Cotter Pin .....	1
24	1301426	Bracket .....	1
25	<b>a</b> 379674	Capscrew .....	2
25	<b>b</b> 1326808	Capscrew .....	2
26	<b>a</b> 375629	Washer .....	2
26	<b>b</b> 296360	Washer .....	2
27	<b>a</b> 313828	Nut .....	2
27	<b>b</b> 329069	Nut .....	2
28	1301425	Spring .....	1
29	1325564	Plate .....	1
30	136681	Capscrew .....	8
31	320158	Washer .....	8
32	292681	Lockwasher .....	8
33	1300165	Spacer .....	3
34	1301676	Plate .....	1
35	1330574	Screw .....	4
36	1327895	Steering Wheel .....	1
37	371666	Horn Button .....	1
38	1307737	Fastener .....	1
39	1307736	Plug .....	1

## STEERING HOUSING AND CONTROL UNIT

ITEM	PART NO.	DESCRIPTION	QTY
40	895468	Wheelspinner .....	1

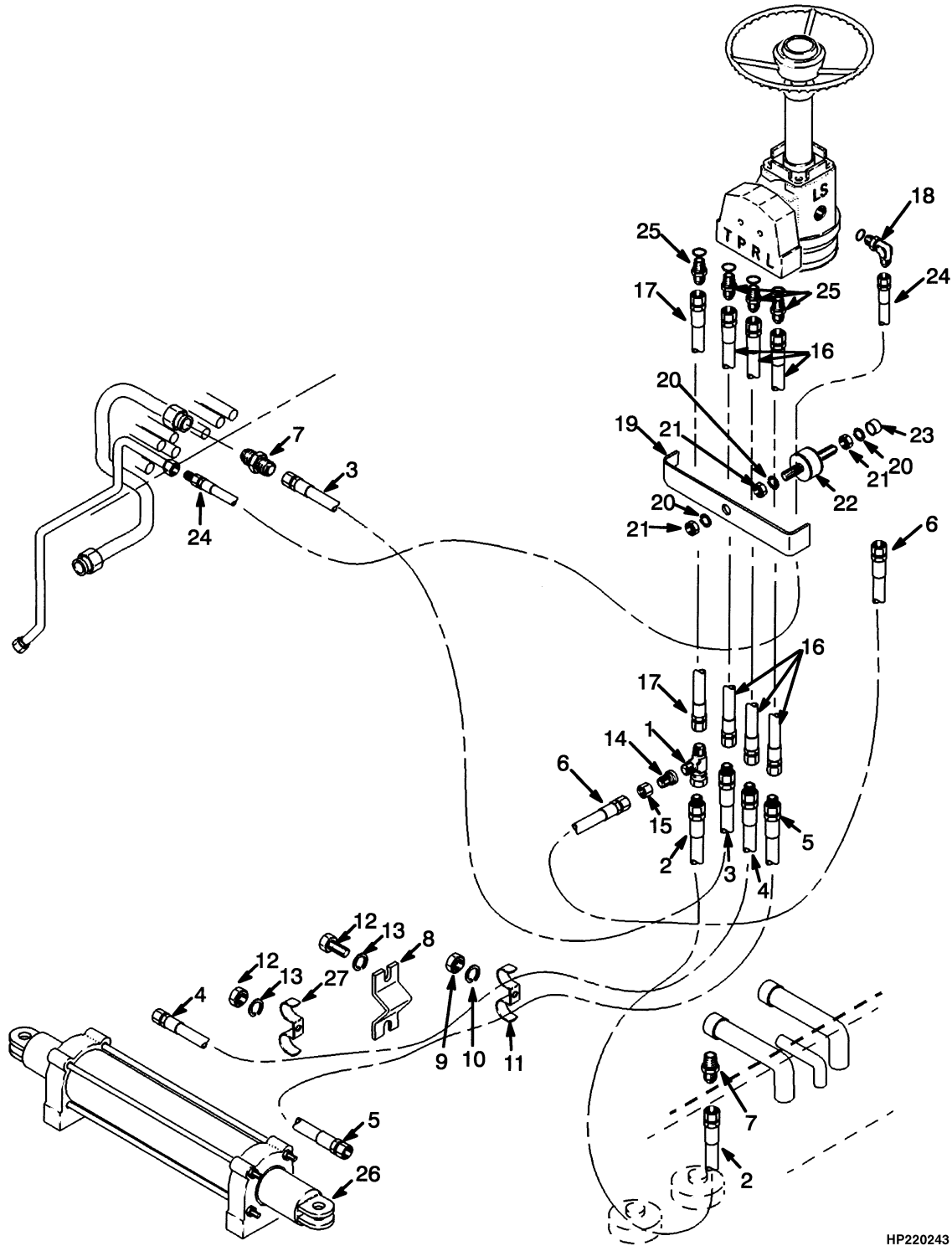
### FOOTNOTES:

**a** Empty Container Handler

**b** → S/N A214E01806



## STEERING HYDRAULICS (FIGURE 7-2) EMPTY CONTAINER HANDLER



HP220243

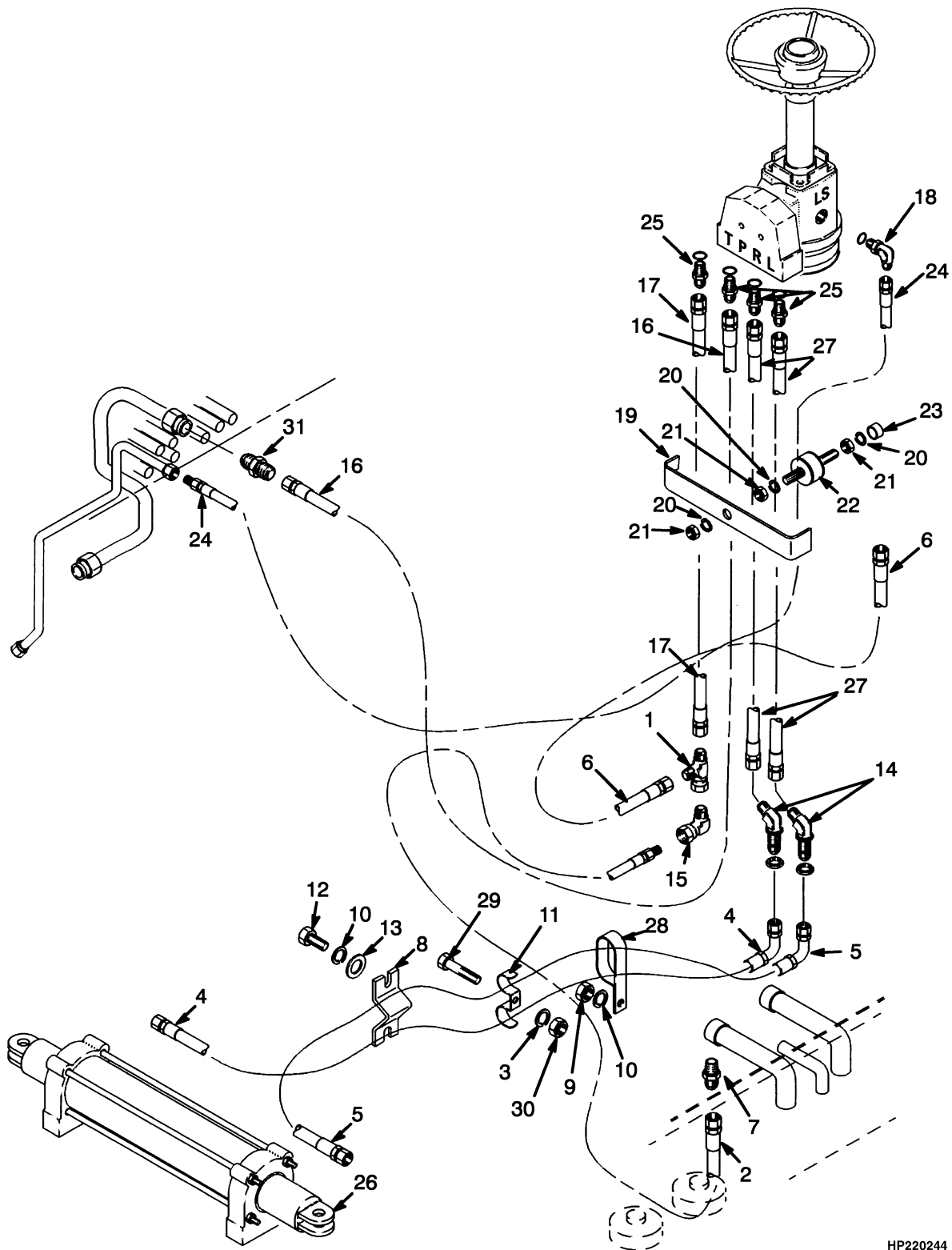


**STEERING HYDRAULICS  
EMPTY CONTAINER HANDLER**

ITEM	PART NO.	DESCRIPTION	QTY
1	<b>a</b> 17062	Fitting .....	1
1	<b>b</b> 222331	Fitting .....	1
2	<b>b</b> 1304709	Hose Assy .....	1
2	<b>a</b> 1382420	Hose Assy .....	1
3	1382421	Hose Assy .....	1
4	1383851	Hose Assy .....	1
5	1383852	Hose Assy .....	1
6	1383859	Hose Assy .....	1
7	17315	Fitting .....	2
8	1383854	Plate .....	1
9	<b>a</b> 302401	Locknut .....	2
9	<b>b</b> 302401	Locknut .....	5
10	<b>a</b> 320159	Washer .....	4
10	<b>b</b> 320159	Washer .....	7
11	398184	Clamp .....	4
12	287854	Capscrew .....	2
13	293781	Lockwasher .....	2
14	17218	Fitting .....	1
15	17319	Fitting .....	1
16	1382407	Hose Assy .....	3
17	1382723	Hose Assy .....	1
18	16556	Fitting (Elbow) .....	1
18	16481	O-Ring .....	1
19	1332941	Clamp .....	1
20	292681	Lockwasher .....	3
21	239503	Nut .....	3
22	1332940	Mount .....	1
23	1334491	Spacer .....	1
24	1382722	Hose Assy .....	1
25	16541	Fitting .....	4
25	16484	O-Ring .....	1
26	1385591	Steering Cylinder (☞Figure 7-4).....	1
27	1393743	Steering Cylinder (Optional) (☞Figure 7-5).....	1
27	<b>b</b> 251994	Clamp .....	3

**FOOTNOTES:****a** → S/N A214E01534**b** S/N A214E01535 →

## STEERING HYDRAULICS (FIGURE 7-3) FORK LIFT TRUCK



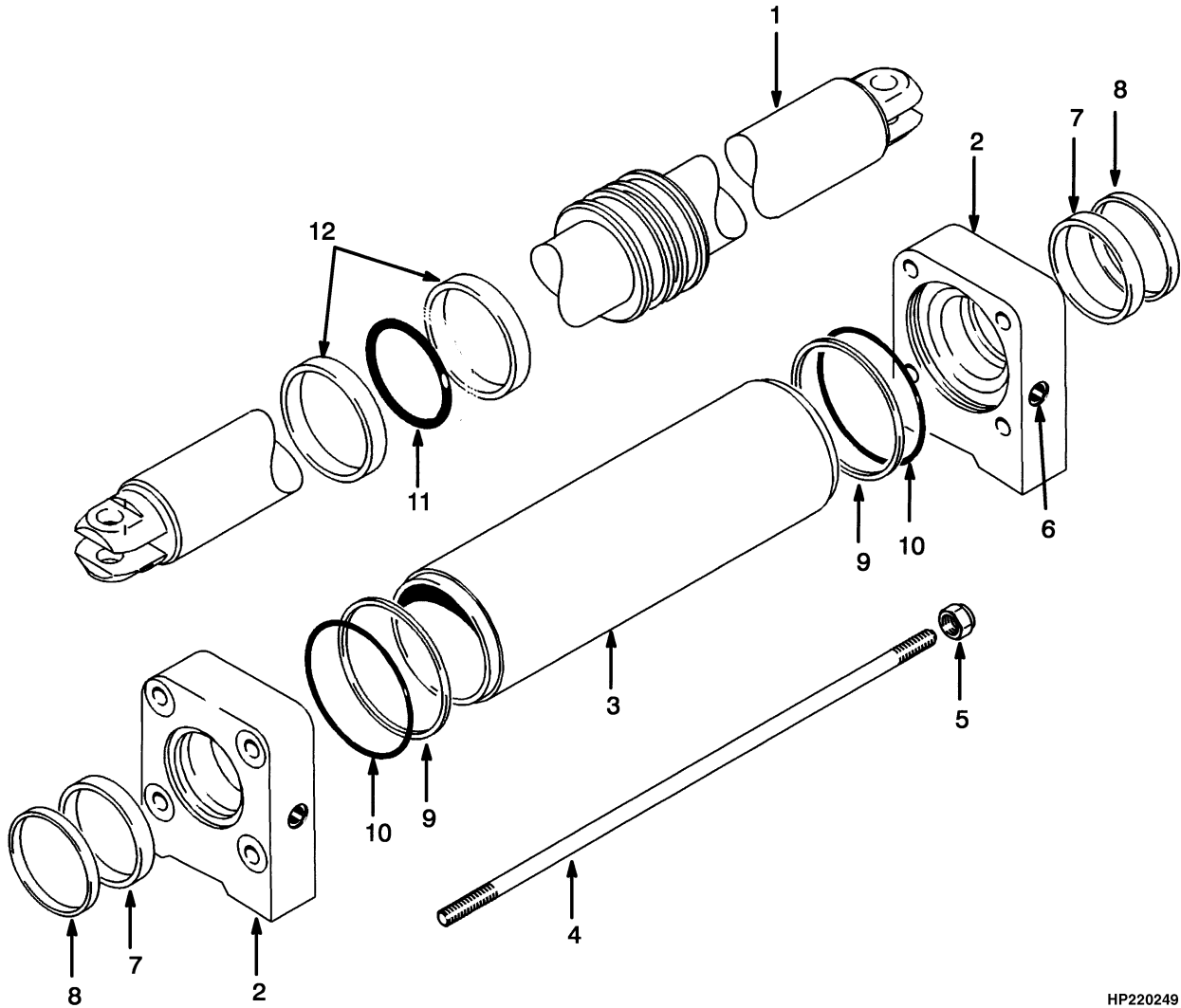
HP220244

**STEERING HYDRAULICS  
FORK LIFT TRUCK**

ITEM	PART NO.	DESCRIPTION	QTY
1	222331	Fitting .....	1
2	274885	Hose Assy .....	1
3	320161	Washer .....	2
4	1451969	Hose Assy (H14.00-16.00XM) .....	1
4	1451536	Hose Assy (H18.00-20.00XM) .....	1
5	1451968	Hose Assy (H14.00-16.00XM) .....	1
5	1451537	Hose Assy (H18.00-20.00XM) .....	1
6	1331025	Hose Assy .....	1
7	17309	Fitting .....	1
8	1383854	Plate .....	1
9	302401	Locknut .....	1
10	320159	Washer .....	3
11	198691	Clamp .....	2
12	287854	Capscrew .....	2
13	<del>388049</del> 292682	Lockwasher .....	2
14	16466	Fitting .....	2
15	16989	Fitting .....	1
16	<b>a</b> 1303432	Hose Assy .....	1
16	<b>b</b> 2051863	Hose Assy .....	1
17	1382723	Hose Assy .....	1
18	16556	Fitting (Elbow) .....	1
18	16481	O-Ring .....	1
19	1332941	Clamp .....	1
20	292681	Lockwasher .....	3
21	239503	Nut .....	3
22	1332940	Mount .....	1
23	1334491	Spacer .....	1
24	<b>a</b> 1451538	Hose Assy .....	1
24	<b>b</b> 2051864	Hose Assy .....	1
25	16541	Fitting .....	4
25	16484	O-Ring .....	1
26	1385590	Steering Cylinder (☞ Figure 7-4).....	1
26	1393742	Steering Cylinder (Optional) .....	1
27	299257	Hose Assy .....	2
28	251994	Clamp .....	2
29	<del>4048814</del> 292528	Capscrew .....	2
30	302402	Locknut .....	2
31	1384649	Fitting .....	1

**FOOTNOTES:****a** → S/N A214E01842Z**b** S/N A214E01843Z →

## STEERING CYLINDER (FIGURE 7-4)

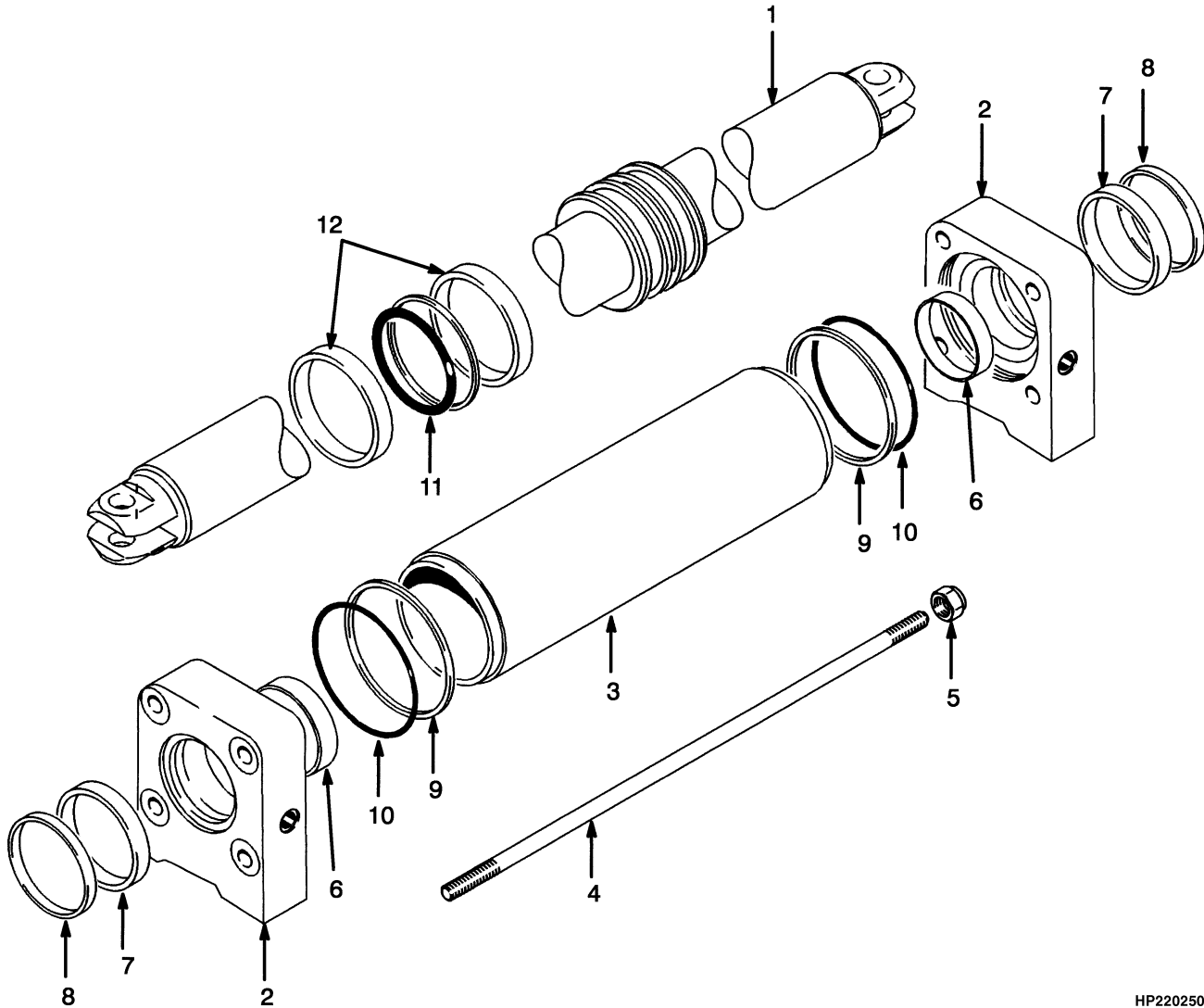


HP220249

**STEERING CYLINDER****KEY:****A: Empty Container Handler****B: Fork Lift Truck**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1385590	Steering Cylinder .....	..	1
	1385591	Steering Cylinder .....	1	..
1	1391213	Piston Rod .....	1	..
1	1391207	Piston Rod .....	..	1
2	1391208	Cylinder Head .....	2	2
3	1391209	Tube Wldmt-Cylinder .....	..	1
3	1391214	Tube Wldmt-Cylinder .....	1	..
4	1391215	Tie Rod .....	4	..
4	1391210	Tie Rod .....	..	4
5	1391211	Nut .....	8	8
6	1391212	Screw (Optional) .....	4	4
7	1385582	Rod Seal .....	2	2
8	1391407	Rod Wiper .....	2	2
9	1385583	Back-Up Ring .....	2	2
10	15894	O-Ring .....	2	2
11	1385587	Seal .....	1	1
12	1385586	Wear Ring .....	2	2
	1391406	Kit-Seal .....	1	1

## STEERING CYLINDER (FIGURE 7-5) OPTIONAL

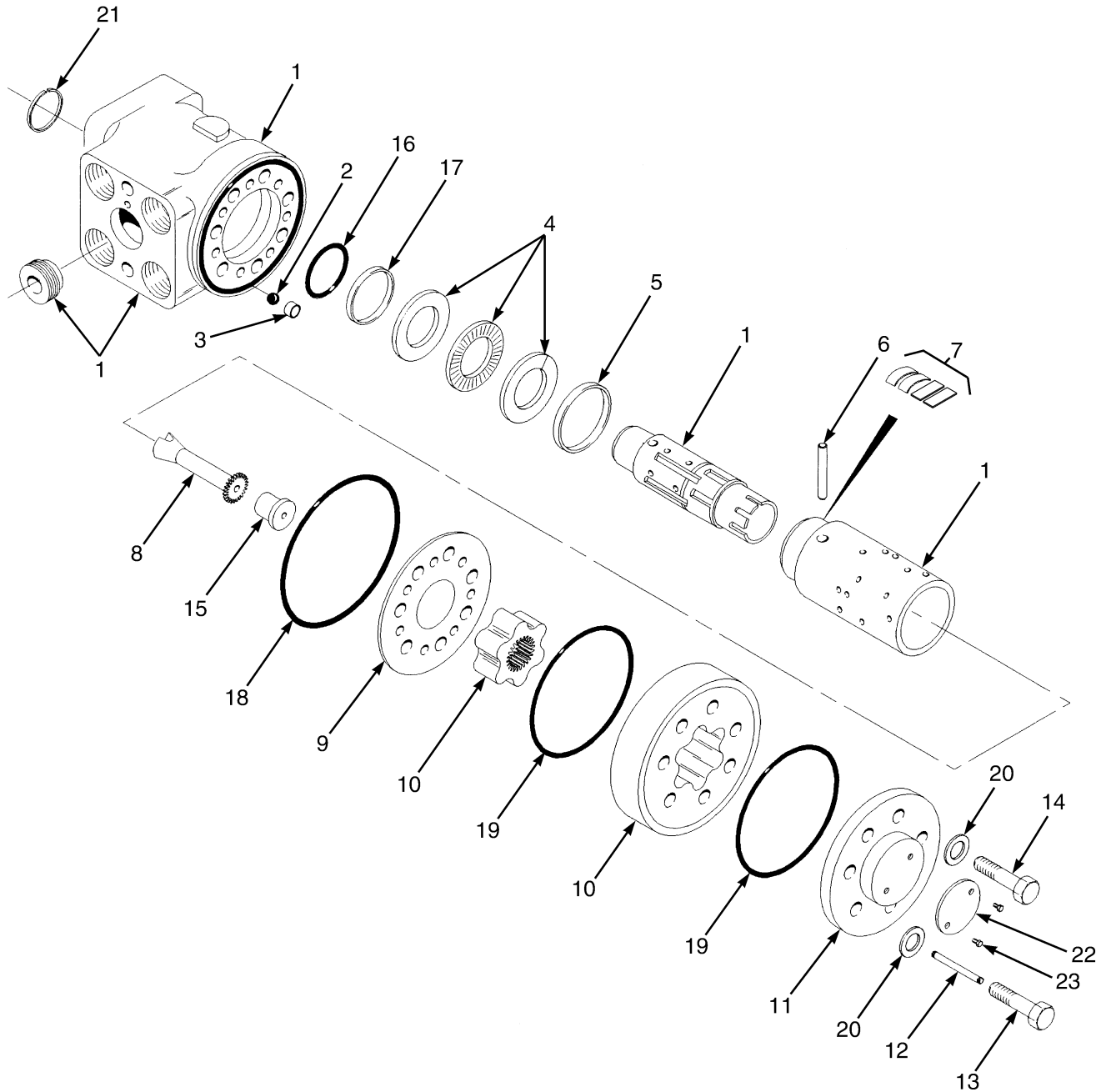


HP220250

**STEERING CYLINDER  
OPTIONAL****KEY:****A: Empty Container Handler****B: Fork Lift Truck**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1393742	Steering Cylinder .....	..	1
	1393743	Steering Cylinder .....	1	..
1	1453846	Rod Assy .....	1	..
1	1453850	Rod Assy .....	..	1
2	.....	End Cap .....	2	2
3	1453847	Tube Wldmt-Cylinder .....	1	..
3	1453851	Tube Wldmt-Cylinder .....	..	1
4	1453848	Tie Rod .....	1	..
4	1453852	Tie Rod .....	..	1
5	316829	Nut .....	8	8
6	1453849	Bearing .....	2	2
7	1385582	Rod Seal .....	2	2
8	1391407	Rod Wiper .....	2	2
9	1385583	Back-Up Ring .....	2	2
10	15894	O-Ring .....	2	2
11	1385587	Seal .....	1	1
12	1385586	Wear Ring .....	2	2
	1391406	Kit-Seal .....	2	2

## STEERING PUMP (FIGURE 7-6)



HP220246

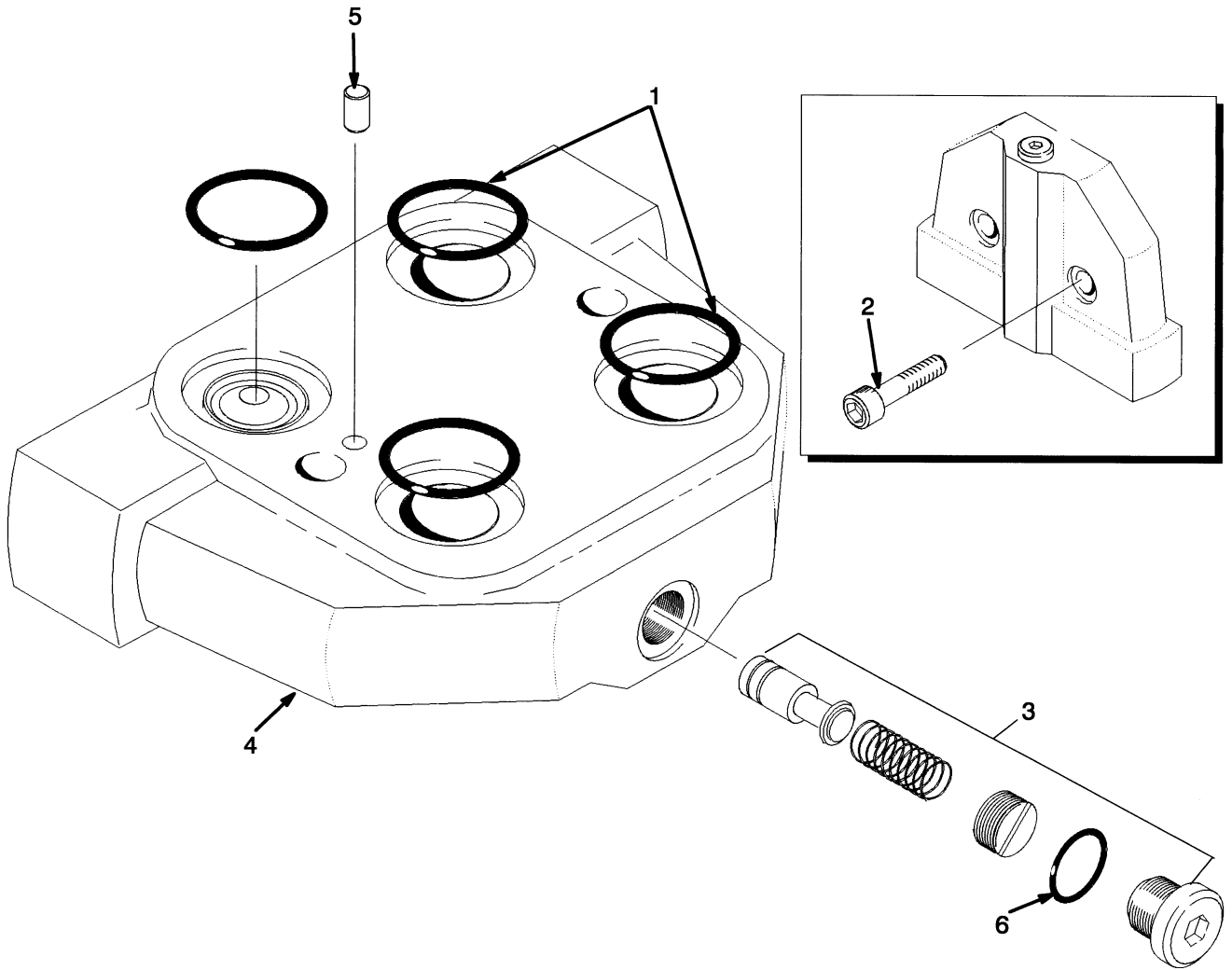


**STEERING PUMP**

ITEM	PART NO.	DESCRIPTION	QTY
	1372990	Steering Pump Assembly .....	1
1	.....	Housing .....	1
2	345408	Ball .....	1
3	345409	Bushing .....	1
4	345410	Bearing Set .....	1
5	345411	Ring .....	1
6	345412	Pin .....	1
7	1375018	Kit-Spring .....	1
8	1355326	Shaft .....	1
9	1357026	Plate .....	1
10	1382558	Gear Set .....	1
11	345424	End Cover .....	1
12	.....	Pin .....	1
13	1382559	Screw .....	1
14	1382560	Screw .....	6
15	1315781	Spacer .....	1
16	.....	O-Ring .....	1
17	.....	Ring .....	1
18	.....	O-Ring .....	1
19	.....	O-Ring .....	2
20	.....	Washer .....	7
21	.....	Ring .....	1
22	.....	Nameplate .....	1
23	.....	Screw .....	2
	<b>a</b> 371345	Screw .....	2
	<b>a</b> 1375021	Relief Valve .....	1
	<b>a</b> 1382561	Spring .....	1
	2032229	Kit-Seal .....	1

**FOOTNOTES:****a** Not Illustrated

## STEERING CONTROL (FIGURE 7-7) BLOCK VALVE (→ 10/2003)

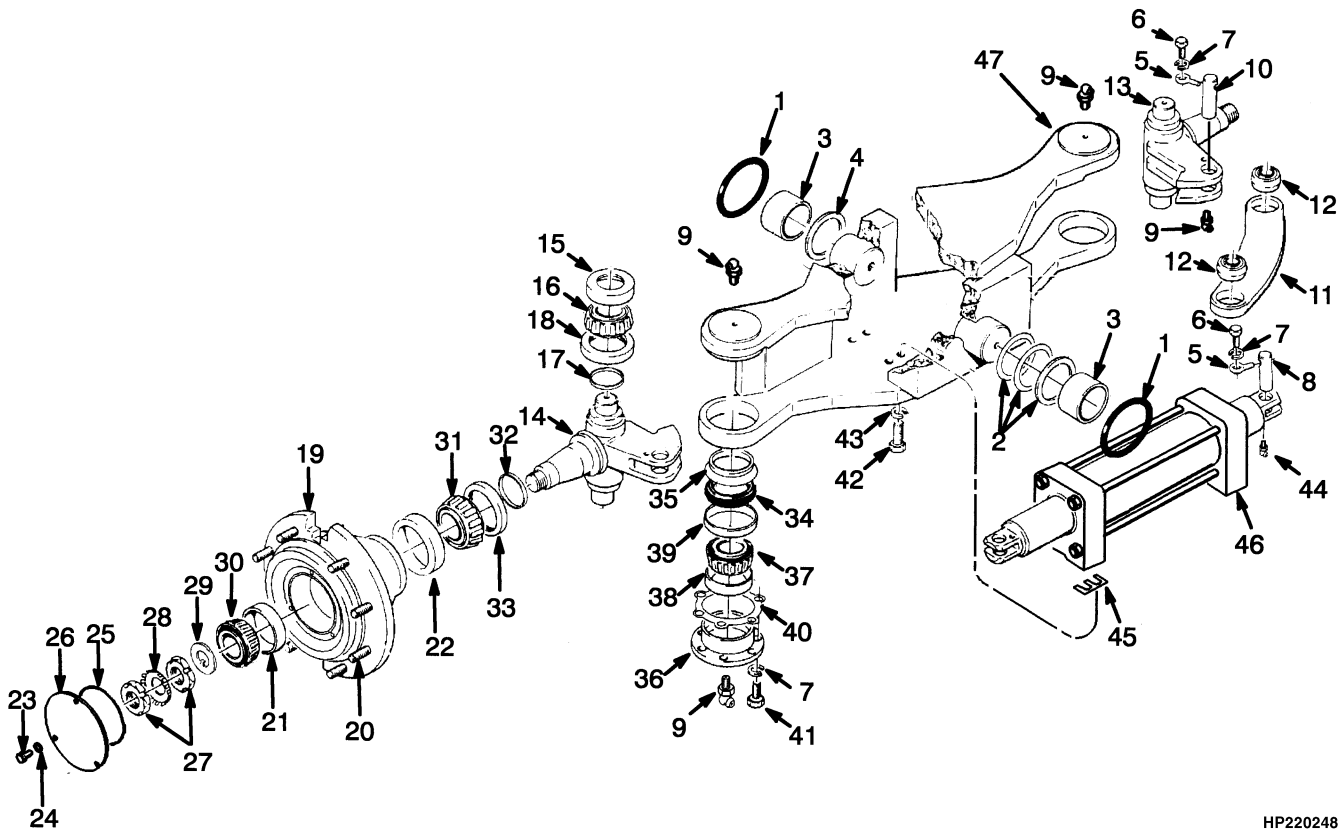


HP220247

**STEERING CONTROL  
BLOCK VALVE (→ 10/2003)**

ITEM	PART NO.	DESCRIPTION	QTY
	1311366	Valve Block .....	1
1	1462890	O-Ring .....	4
2	1462891	Screw .....	2
3	366063	Relief Valve .....	1
4	. . . . .	Housing .....	1
5	366064	Pin .....	1
6	366065	Seal .....	1
	366066	Kit-Repair Valve .....	1

## STEERING AXLE (FIGURE 7-8)



HP220248

**STEERING AXLE****KEY:****A: Empty Container Handler****B: Fork Lift Truck**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1385588	Steering Axle .....	..	1
	1385589	Steering Axle .....	1	..
1	1381940	Seal .....	1	1
2	159185	Shim .....	AR	AR
2	159186	Shim .....	AR	AR
3	1335871	Bushing .....	2	2
4	1335867	Thrust Washer .....	2	2
5	82270	Eyebolt .....	4	4
6	292527	Capscrew .....	4	4
7	292683	Lockwasher .....	16	16
8	1385595	Pin .....	2	2
9	13963	Grease Fitting .....	8	8
10	1385596	Pin .....	2	2
11	1385599	Tie Rod Assembly .....	2	2
11	192683	Bushing .....	2	2
12	1385576	Seal .....	8	8
13	<b>a</b> 1385592	Spindle (RH) .....	1	1
13	<b>c</b> 816508	Spindle (RH) .....	1	1
14	<b>a</b> 1385593	Spindle (LH) .....	1	1
14	<b>c</b> 816509	Spindle (LH) .....	1	1
15	79483	Bearing Cup (Tapered Roller) (136.53 mm) .....	2	2
16	1381932	Bearing Cone (Tapered Roller) (71.44 mm) .....	2	2
17	1373687	Seal (Grease) .....	4	4
18	1373689	Wear Sleeve .....	2	2
19	1325855	Hub .....	2	2
19	1325641	Wheel Hub .....	1	1
20	1373675	Wheel Stud .....	12	12
20	376026	Wheel Nut .....	12	12
21	30077	Bearing Cup .....	1	1
22	230389	Bearing Cup .....	1	1
23	136985	Capscrew .....	6	6
24	<del>388049</del>			
	292682	Lockwasher .....	6	6
25	90937	O-Ring .....	2	2
26	1325646	Plate .....	2	2
27	<b>b</b> 34056	Locknut .....	4	4
27	<b>d</b> 1554047	Nut .....	2	2
28	<b>b</b> 34055	Lockwasher .....	2	2
29	<b>b</b> 1520839	Washer .....	2	2
29	<b>d</b> 1554048	Washer .....	2	2
30	30151	Bearing Cone .....	2	2
31	230390	Bearing Cone .....	2	2
32	37103	Seal .....	2	2
33	<b>a</b> 1371398	Wear Sleeve .....	2	2
33	<b>c</b> 816504	Wear Sleeve .....	2	2
34	1373687	Seal (Grease) .....	2	2

## STEERING AXLE

**KEY:**

**A:** Empty Container Handler

**B:** Fork Lift Truck

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
35	1373688	Dust Seal .....	2	2
36	1385598	Bearing Cap Assembly .....	2	2
37	159180	Bearing Cone (Tapered Roller) (63.5 mm) .....	1	1
38	159179	Bearing Cup (Tapered Roller) (122.24 mm) .....	1	1
39	1373689	Wear Sleeve .....	1	1
40	95033	Shim (0,127 mm) .....	AR	AR
40	95034	Shim (0,508 mm) .....	AR	AR
40	95166	Shim (0,178 mm) .....	AR	AR
41	246001	Capscrew .....	12	12
42	274044	Capscrew .....	8	8
43	292689	Washer .....	8	8
44	16559	Fitting .....	2	2
44	16484	O-Ring .....	1	1
45	1382352	Shim .....	AR	AR
46	1385590	Steering Cylinder (☞Figure 7-4).....	..	1
46	1393743	Steering Cylinder (Optional) (☞Figure 7-5).....	1	..
46	1385591	Steering Cylinder (☞Figure 7-4).....	1	..
46	1393742	Steering Cylinder (Optional) (☞Figure 7-5).....	..	1
47	1391401	Steering Axle .....	1	..
47	<del>1391400</del> 4085579	Steering Axle .....	..	1

**FOOTNOTES:**

**a** → S/N A214E01667  
**b** → S/N A214E02112C

**c** S/N A214E01668 →  
**d** S/N A214E02113C →



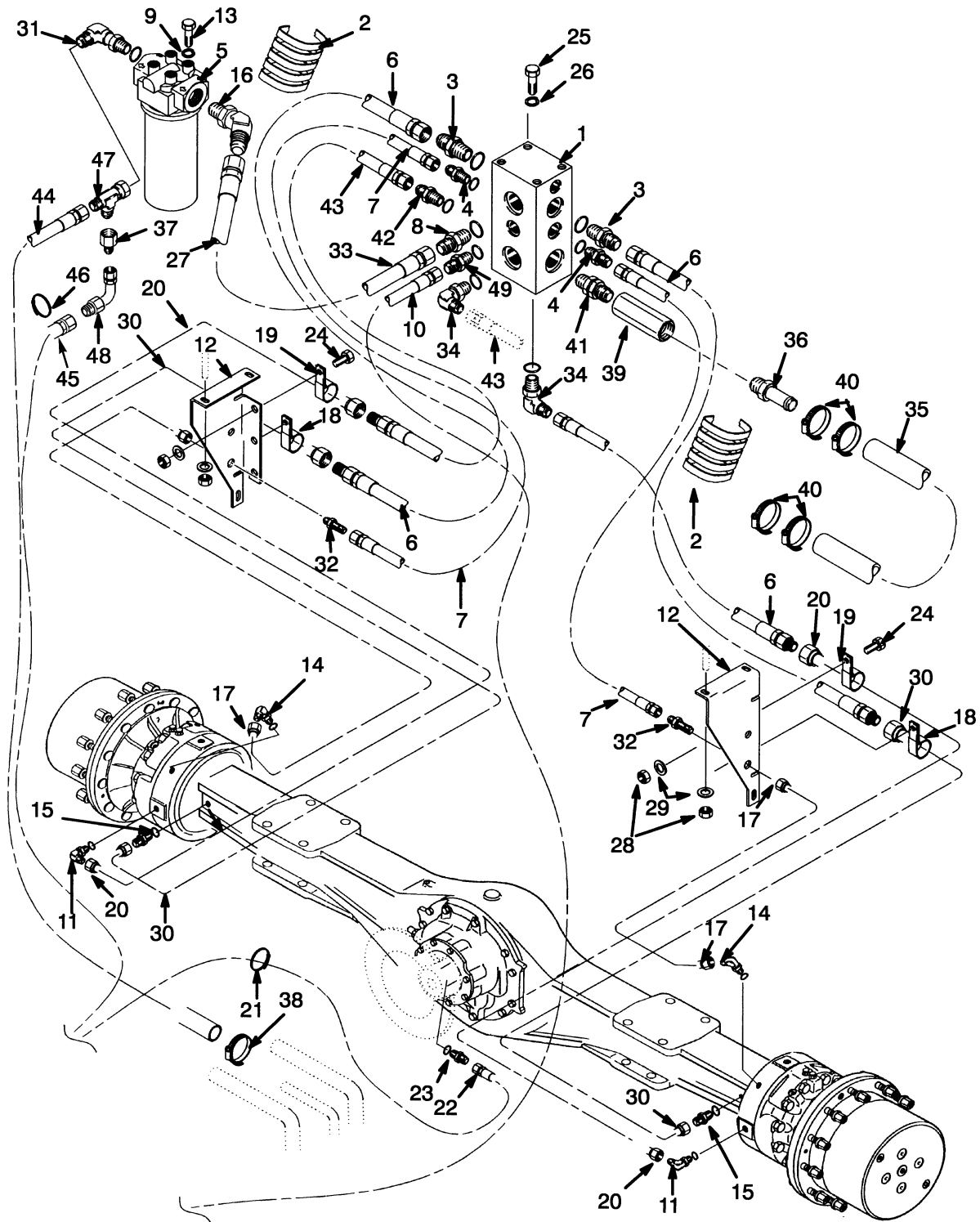




**SECTION 8  
BRAKE SYSTEM**

DESCRIPTION	PAGE
BRAKE CHECK VALVE	
EMPTY CONTAINER HANDLER (→ S/N A214E01572) .....	8-26
FORK LIFT TRUCK (→ S/N A214E01572) .....	8-28
BRAKE LINES	
EMPTY CONTAINER HANDLER .....	8-2
FORK LIFT TRUCK (→ S/N A214E01765Y) .....	8-6
FORK LIFT TRUCK (S/N A214E01766Y →) .....	8-10
BRAKE PEDAL LINKAGE	
EMPTY CONTAINER HANDLER .....	8-14
FORK LIFT TRUCK (→ S/N A214E01765Y) .....	8-18
FORK LIFT TRUCK (S/N A214E01766Y →) .....	8-22
BRAKE SYSTEM	
POWER BRAKE VALVE .....	8-30

## BRAKE LINES (FIGURE 8-1) EMPTY CONTAINER HANDLER



HP040222

**BRAKE LINES  
EMPTY CONTAINER HANDLER**

ITEM	PART NO.	DESCRIPTION	QTY
1	<b>a</b> 1459178	Manifold .....	1
1	<b>c</b> 1494906	Manifold .....	1
2	316596	Sleeve (Coil) .....	2
3	16542	Connector .....	2
3	16485	O-Ring .....	1
4	16540	Connector .....	2
4	16483	O-Ring .....	1
5	<b>a</b> 2043084	Hydraulic Filter .....	1
5	.....	Filter Head .....	1
5	2043981	Filter Element (Screw-On Filter) .....	1
6	1452935	Hose Assy .....	2
7	1383554	Hose Assy .....	2
8	<b>a</b> 142500	Fitting .....	1
8	<b>a</b> 1450764	.....	
	16486	O-Ring .....	1
8	<b>c</b> 16544	Connector .....	1
8	<b>c</b> 16487	O-Ring .....	1
9	<b>a</b> 388049	.....	
	292682	Lockwasher .....	4
10	1385567	Hose Assy .....	1
11	17197	Fitting .....	2
11	16484	O-Ring .....	1
12	1451440	Bracket (RH) .....	1
12	1451441	Bracket (LH) .....	1
13	<b>a</b> 292514	Capscrew .....	4
14	16558	Fitting .....	2
14	16483	O-Ring .....	1
15	154952	Fitting .....	2
15	16484	O-Ring .....	1
16	<b>a</b> 16571	Fitting .....	1
16	16487	O-Ring .....	1
17	1452938	Tube Assy (RH) .....	1
17	1452945	Tube (LH) .....	1
18	298132	Clamp .....	2
19	128408	Clamp .....	2
20	1452946	Tube Assy .....	2
21	<b>b</b> 129563	Strap Clamp .....	AR
21	<b>d</b> 173247	Clamp .....	1
22	<b>b</b> 1451456	Hose Assy .....	1
22	<b>d</b> 2055142	Hose Assy .....	1
23	239784	Fitting .....	1
23	16481	O-Ring .....	1
24	136985	Capscrew .....	4
25	136749	Screw .....	4
26	292681	Lockwasher .....	4
27	1385280	Hose Assy .....	1
28	302401	Locknut .....	8
29	320160	Washer .....	8
30	1452993	Tube (LH) .....	1
30	1452994	Tube Assy (RH) .....	1

## BRAKE LINES EMPTY CONTAINER HANDLER

ITEM	PART NO.	DESCRIPTION	QTY
31	<b>a</b> 222415	Fitting .....	1
31	16487	O-Ring .....	1
32	16447	Fitting .....	2
33	<b>a</b> 1385280	Hose Assy .....	1
34	16561	Elbow .....	2
34	<del>1450764</del> 16486	O-Ring .....	2
35	130336	Hose .....	1
36	78459	Fitting .....	1
36	16983	O-Ring .....	1
37	222369	Fitting .....	1
38	127045	Clamp (Hose) .....	1
39	816232	Check Valve .....	1
40	369804	Clamp .....	4
41	1459254	Fitting .....	1
42	16543	Connector .....	1
43	<b>c</b> 1452936	Hose Assy .....	2
44	1493240	Hose Assy .....	1
44	<b>a</b> 226352	Hose Assy .....	1
45	<b>a</b> 1460408	Hose Assy .....	1
45	<b>c</b> 1393740	Hose Assy .....	1
46	129563	Strap Clamp .....	AR
47	17066	Fitting .....	1
48	<b>c</b> 16882	Fitting .....	1
49	16541	Fitting .....	1
49	16484	O-Ring .....	1

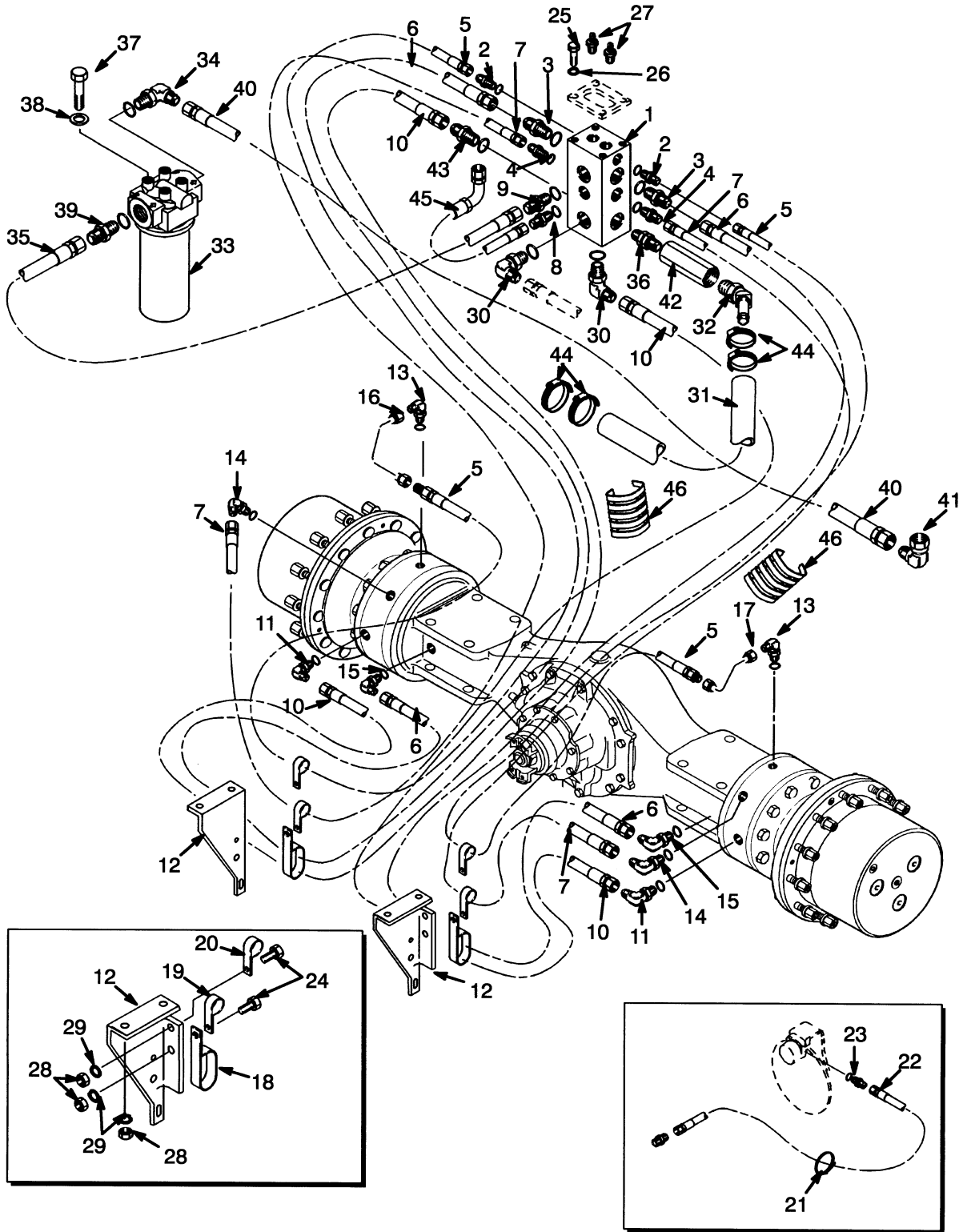
**FOOTNOTES:**

**a** → S/N A214E01804  
**b** → S/N A214E01842

**c** S/N A214E01805 →  
**d** S/N A214E01843 →



## BRAKE LINES (FIGURE 8-2) FORK LIFT TRUCK (→ S/N A214E01765Y)



HP040224

**BRAKE LINES**  
**FORK LIFT TRUCK (→ S/N A214E01765Y)**

ITEM	PART NO.	DESCRIPTION	QTY
1	<b>a</b> 1459178	Manifold .....	1
1	<b>b</b> 1494906	Manifold .....	1
2	16538	Connector .....	4
2	16481	O-Ring .....	1
3	16542	Connector .....	2
3	16485	O-Ring .....	1
4	16540	Connector .....	5
4	16483	O-Ring .....	1
5	1451449	Hose Assy .....	2
6	1451453	Hose Assy .....	2
7	350521	Hose Assy .....	2
8	16544	Connector .....	1
8	16487	O-Ring .....	1
9	16541	Fitting .....	1
9	16484	O-Ring .....	1
10	1451455	Hose Assy .....	2
11	16559	Fitting .....	2
11	16484	O-Ring .....	1
12	1451440	Bracket (RH) .....	1
12	1451441	Bracket (LH) .....	1
13	16556	Fitting (Elbow) .....	2
13	16481	O-Ring .....	1
14	16558	Fitting .....	3
14	16483	O-Ring .....	1
15	206150	Fitting .....	2
15	16484	O-Ring .....	1
16	1451444	Tube Assy .....	1
17	1451445	Tube Assy .....	1
18	212786	Clamp , Insulated .....	2
18	255578	Clamp .....	2
19	153069	Clamp .....	2
20	128408	Clamp .....	2
21	129563	Strap Clamp .....	AR
22	1451456	Hose Assy .....	1
23	239784	Fitting .....	1
23	16481	O-Ring .....	1
24	136985	Capscrew .....	4
25	136749	Screw .....	4
26	292681	Lockwasher .....	4
27	267262	Plug (Bleeder) .....	2
28	302401	Locknut .....	8
29	320160	Washer .....	8
30	16561	Elbow .....	2
30	<del>1450764</del> 16486	O-Ring .....	1
31	130336	Hose .....	1
32	201781	Fitting .....	1
32	16983	O-Ring .....	1
33	<b>a</b> 2043084	Hydraulic Filter .....	1
33	2043981	Filter Element (Screw-On Filter) .....	1

## BRAKE LINES FORK LIFT TRUCK (→ S/N A214E01765Y)

ITEM	PART NO.	DESCRIPTION	QTY
33	.....	Filter Head .....	1
34	<b>a</b> 16562	Fitting .....	1
34	16487	O-Ring .....	1
35	<b>b</b> 180979	Hose Assy .....	1
35	147449	Hose Assy .....	1
36	1459254	Fitting .....	1
37	<b>a</b> 292514	Capscrew .....	4
38	<b>a</b> 388049	Lockwasher .....	4
	292682	Fitting .....	1
39	<b>a</b> 83846	O-Ring .....	1
39	<b>a</b> 16487	Hose Assy .....	1
40	<b>a</b> 1451459	Hose Assy .....	1
40	147449	Fitting .....	1
41	16992	Check Valve .....	1
42	816232	Connector .....	1
43	<b>a</b> 16543	Connector .....	1
43	<b>b</b> 16544	O-Ring .....	1
43	<b>b</b> 16487	Clamp .....	4
44	369804	Hose Assy .....	1
45	1453070	Sleeve (Coil) .....	2
46	316596		

**FOOTNOTES:**

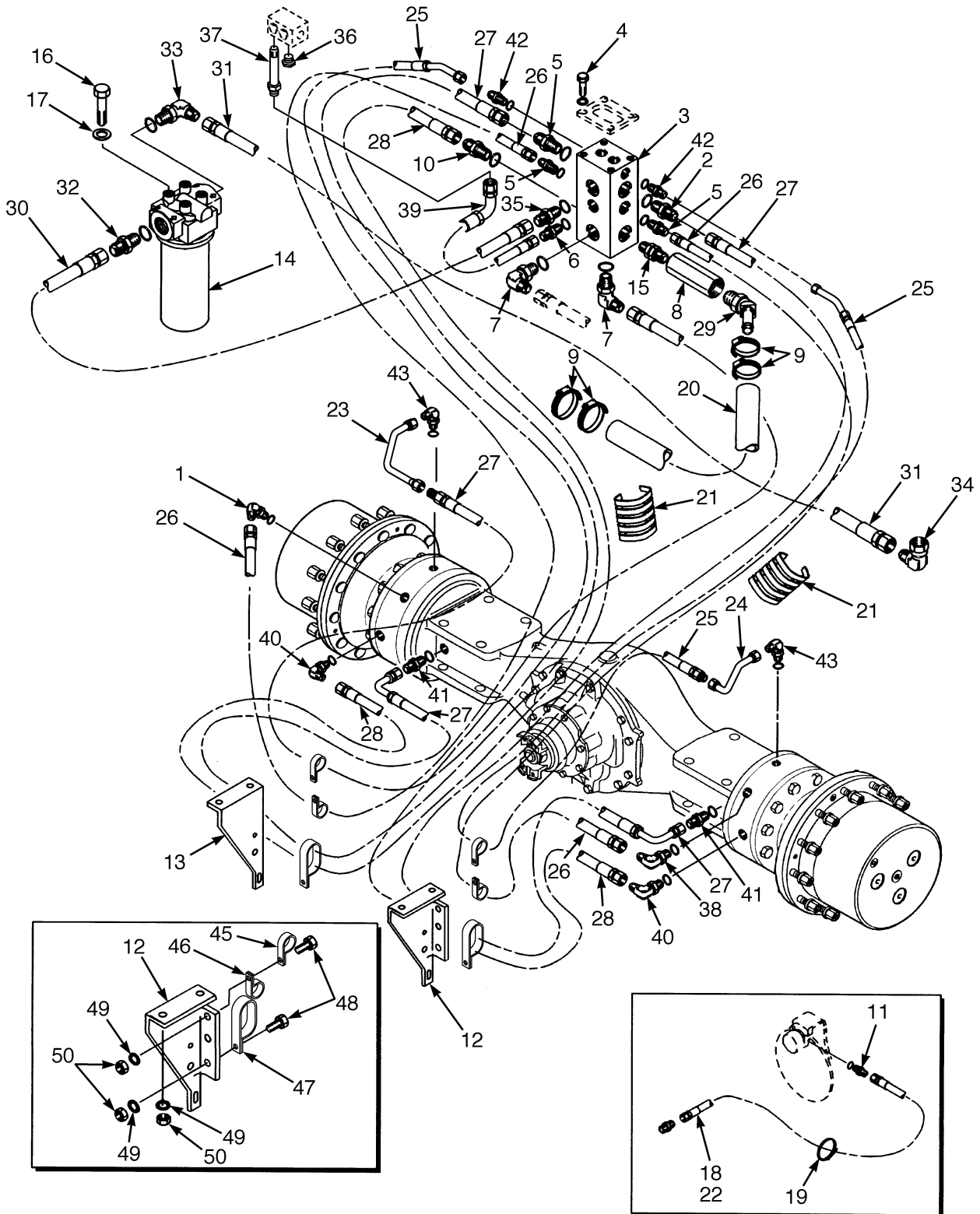
**a** → S/N A214E01804

**b** S/N A214E01805 →





## BRAKE LINES (FIGURE 8-3) FORK LIFT TRUCK (S/N A214E01766Y →)



HP040408

**BRAKE LINES**  
**FORK LIFT TRUCK (S/N A214E01766Y →)**

ITEM	PART NO.	DESCRIPTION	QTY
1	16558	Fitting .....	3
1	16483	O-Ring .....	1
2	16540	Connector .....	5
2	16483	O-Ring .....	1
3	<b>b</b> 1459178	Manifold .....	1
3	<b>d</b> 1494906	Manifold .....	1
4	267262	Plug (Bleeder) .....	2
5	142682	Fitting .....	2
5	16485	O-Ring .....	1
6	16541	Fitting .....	1
6	16484	O-Ring .....	1
7	16561	Elbow .....	2
7	<del>1450764</del>		
	16486	O-Ring .....	1
8	816232	Check Valve .....	1
9	369804	Clamp .....	4
10	16543	Connector .....	1
10	<del>1450764</del>		
	16486	O-Ring .....	1
11	239784	Fitting .....	1
11	16481	O-Ring .....	1
12	1451440	Bracket .....	1
13	1451441	Bracket .....	1
14	<b>b</b> 2043084	Hydraulic Filter .....	1
14	<b>b</b> 2043981	Filter Element (Screw-On Filter) .....	1
14	<b>b</b> . . . .	Filter Head .....	1
15	1459254	Fitting .....	1
16	<b>b</b> 292514	Capscrew .....	4
17	<b>b</b> <del>388049</del>		
	292682	Lockwasher .....	4
18	<b>c</b> 1451456	Hose Assy .....	1
18	<b>e</b> 2055142	Hose Assy .....	1
19	129563	Strap Clamp .....	AR
20	130336	Hose .....	1
21	316596	Sleeve (Coil) .....	2
22	1464794	Identification Band .....	2
23	1451444	Tube Assy .....	1
24	1451445	Tube Assy .....	1
25	1451449	Hose Assy .....	2
26	350521	Hose Assy .....	2
27	1451453	Hose Assy .....	2
28	1451455	Hose Assy .....	2
29	201781	Fitting .....	1
29	16983	O-Ring .....	1
30	<b>b</b> 180979	Hose Assy .....	1
30	<b>d</b> 147449	Hose Assy .....	1
31	<b>b</b> 1451459	Hose Assy .....	1
32	<b>b</b> 83846	Fitting .....	1
32	16487	O-Ring .....	1
33	<b>b</b> 16562	Fitting .....	1

## BRAKE LINES FORK LIFT TRUCK (S/N A214E01766Y →)

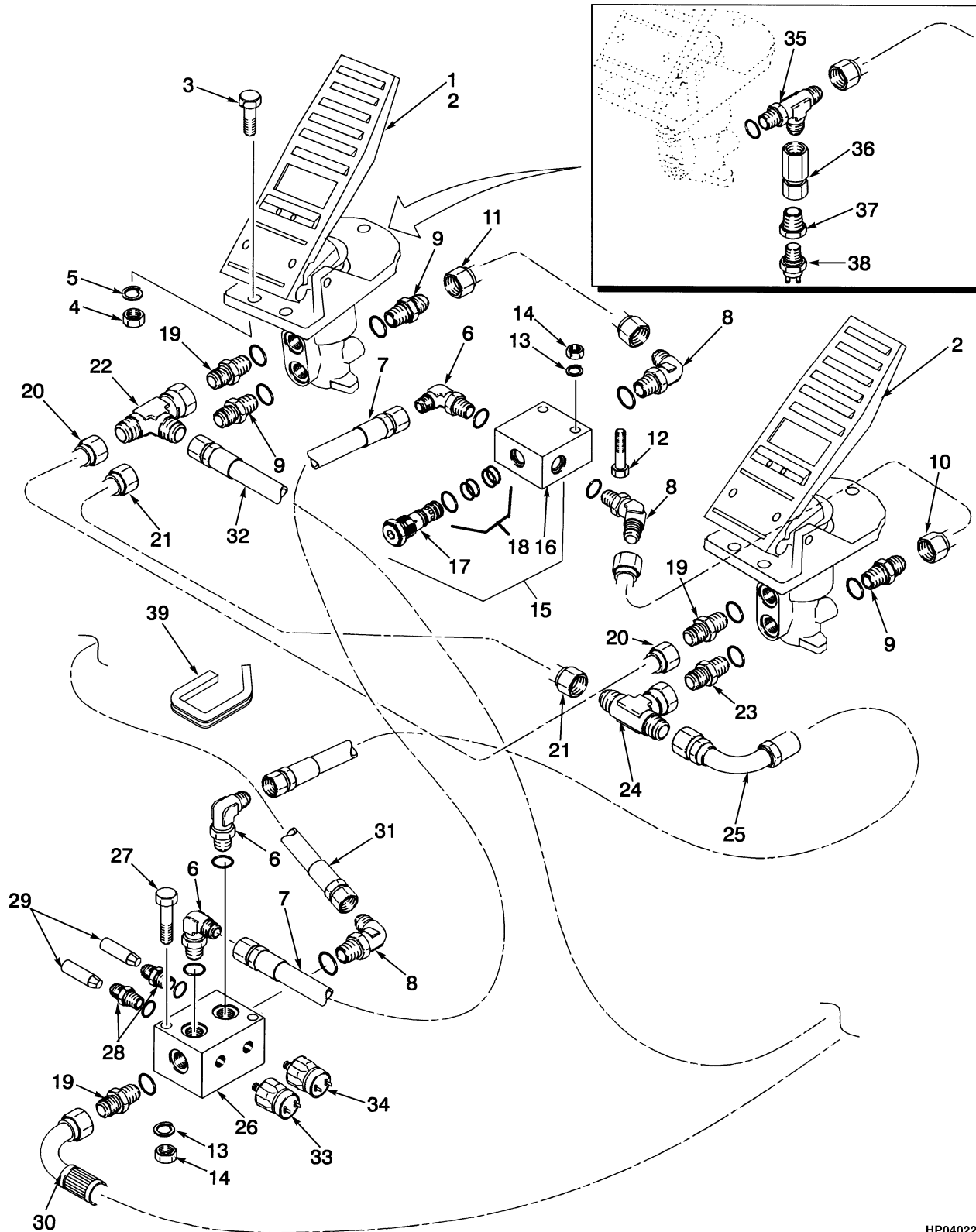
ITEM	PART NO.	DESCRIPTION	QTY
33	16487	O-Ring .....	1
34	16992	Fitting .....	1
35	<b>b</b> 16543	Connector .....	1
35	<del>1450764</del>		
	16486	O-Ring .....	1
35	<b>d</b> 16544	Connector .....	1
35	16487	O-Ring .....	1
36	14594	Plug .....	1
37	16549	Fitting .....	1
37	16483	O-Ring .....	1
38	16558	Fitting .....	1
38	16483	O-Ring .....	1
39	1453070	Hose Assy .....	1
40	16559	Fitting .....	2
40	16484	O-Ring .....	1
41	206150	Fitting .....	2
41	16484	O-Ring .....	1
42	16538	Connector .....	4
42	16481	O-Ring .....	4
43	16556	Fitting (Elbow) .....	2
43	16481	O-Ring .....	1
	<b>a</b> . . . . .	Fitting .....	2
45	128408	Clamp .....	2
46	153069	Clamp .....	2
47	255578	Clamp .....	2
48	136985	Capscrew .....	4
49	320160	Washer .....	8
50	302401	Locknut .....	8

**FOOTNOTES:**

- |          |                  |          |                  |
|----------|------------------|----------|------------------|
| <b>a</b> | Not Illustrated  | <b>d</b> | S/N A214E01805 → |
| <b>b</b> | → S/N A214E01804 | <b>e</b> | S/N A214E01843 → |
| <b>c</b> | → S/N A214E01842 |          |                  |



## BRAKE PEDAL LINKAGE (FIGURE 8-4) EMPTY CONTAINER HANDLER



HP040225

**BRAKE PEDAL LINKAGE  
EMPTY CONTAINER HANDLER**

ITEM	PART NO.	DESCRIPTION	QTY
1	1452593	Valve (Inching) .....	1
1	1345719	Valve (Inching) .....	1
2	1373604	Brake Valve (Brake) .....	1
2	1345719	Valve (Brake) .....	2
2	1488532	Brake Valve And Pedal (Inching) .....	2
3	176640	Bolt .....	6
4	302400	Nut .....	6
5	320158	Washer .....	6
6	16558	Fitting .....	3
6	16483	O-Ring .....	1
7	1375381	Hose Assy .....	1
8	16567	Fitting .....	3
8	16483	O-Ring .....	1
9	16540	Connector .....	3
9	16483	O-Ring .....	1
10	1384510	Tube Assy .....	1
11	<b>a</b> 1384511	Tube Assy .....	1
11	<b>e</b> 1459041	Tube Assy .....	1
12	292505	Capscrew .....	2
13	320156	Washer .....	4
14	302399	Nut .....	4
15	1330171	Shuttle Valve .....	1
16	1343161	Body .....	1
17	1343162	Cartridge .....	1
18	359756	Kit-Seal .....	1
19	131460	Fitting .....	3
19	16483	O-Ring .....	1
20	1385569	Tube Assy .....	1
21	1384509	Tube Assy .....	1
22	17062	Fitting .....	1
23	16549	Fitting .....	1
23	16483	O-Ring .....	1
24	17049	Fitting .....	1
25	1384513	Hose Assy .....	1
26	1384517	Manifold .....	1
27	292507	Capscrew .....	2
28	14591	Plug .....	2
28	16481	O-Ring .....	1
29	<b>a</b> 16923	Nut .....	2
29	<b>c</b> 816117	Quick Disconnect Fitting .....	2
30	1385567	Hose Assy .....	1
31	<b>b</b> 1384514	Hose Assy .....	1
31	<b>g</b> 2054689	Hose Assy .....	1
32	<b>a</b> 1384515	Hose Assy .....	1
32	<b>d</b> 145502	Hose Assy .....	1
32	<b>f</b> 1460408	Hose Assy .....	1
33	1332206	Pressure Switch (With Brake/Tail Lights) .....	1
33	14349	Fitting (Pipe Plug) (Without Brake/Tail Lights) .....	1
34	1382440	Pressure Switch .....	1
35	<b>e</b> 16969	T-Fitting .....	1

## BRAKE PEDAL LINKAGE EMPTY CONTAINER HANDLER

ITEM	PART NO.	DESCRIPTION	QTY
36	<b>e</b> 1385632	Fitting .....	1
37	<b>e</b> 12843	Fitting .....	1
38	1459042	Pressure Switch .....	1
38	1350955	Pressure Switch .....	1
39	1457097	Molding (Rubber) .....	2

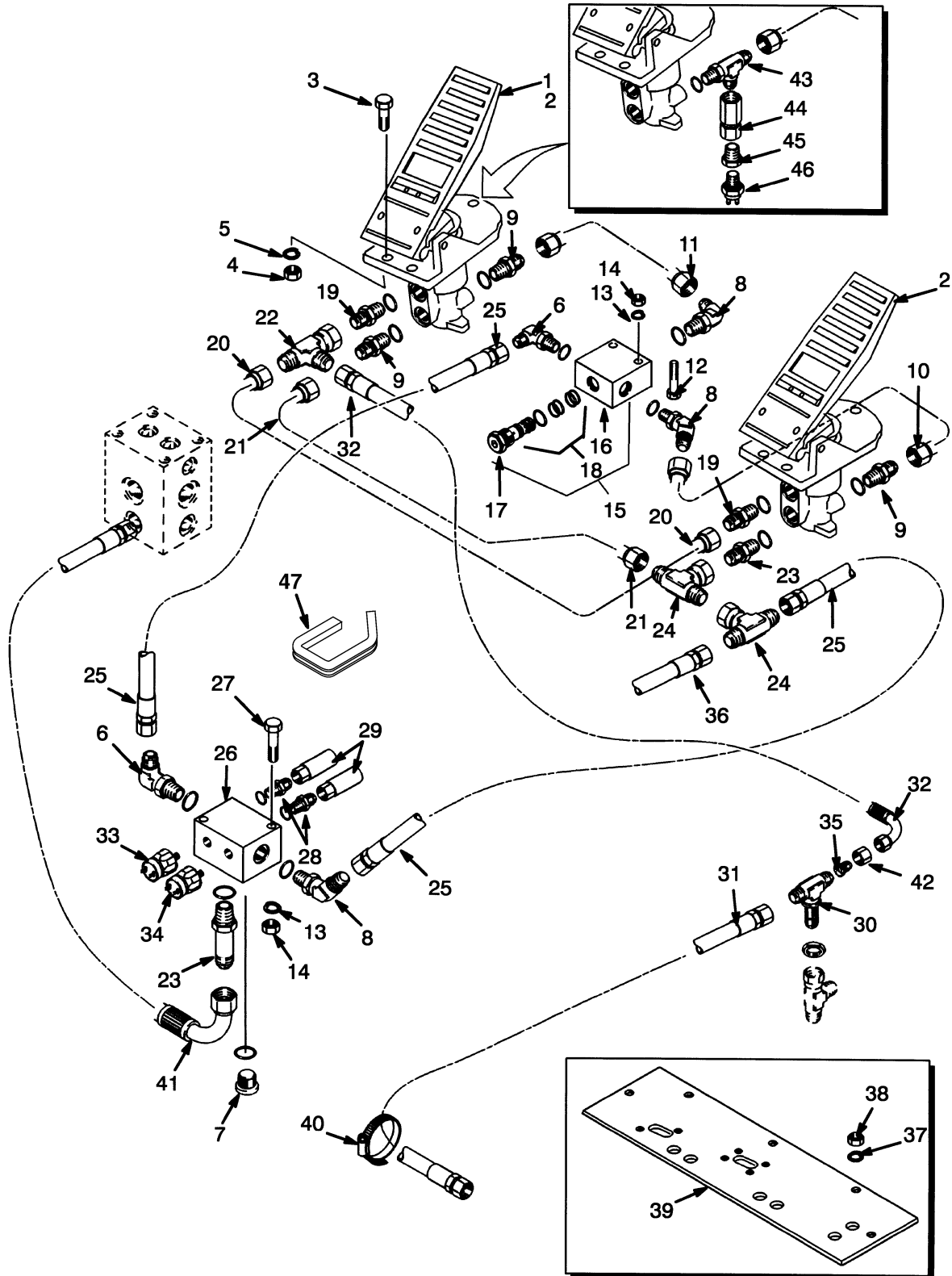
### FOOTNOTES:

- |          |                                  |          |                  |
|----------|----------------------------------|----------|------------------|
| <b>a</b> | → S/N A214E01615                 | <b>e</b> | S/N A214E01616 → |
| <b>b</b> | → S/N A214E01842                 | <b>f</b> | S/N A214E01769 → |
| <b>c</b> | S/N A214E01616 ↔ S/N A214E001805 | <b>g</b> | S/N A214E01843 → |
| <b>d</b> | S/N A214E01616 ↔ S/N A214E01768  |          |                  |





## BRAKE PEDAL LINKAGE (FIGURE 8-5) FORK LIFT TRUCK (→ S/N A214E01765Y)



HP040226

**BRAKE PEDAL LINKAGE**  
**FORK LIFT TRUCK (→ S/N A214E01765Y)**

ITEM	PART NO.	DESCRIPTION	QTY
1	<b>b</b> 1452593	Valve (Inching) (☞ Figure 8-9).....	1
1	1345719	Valve (Inching) (☞ Figure 8-9).....	1
2	<b>b</b> 1373604	Brake Valve (Brake) (☞ Figure 8-9).....	1
2	<b>d</b> 1345719	Valve (Brake) (☞ Figure 8-9).....	2
3	1488532	Brake Valve And Pedal (Inching) (Brake) (☞ Figure 8-9).....	2
3	176640	Bolt .....	6
4	302400	Nut .....	6
5	320158	Washer .....	6
6	16558	Fitting .....	2
6	16483	O-Ring .....	1
7	14594	Plug .....	1
7	16483	O-Ring .....	1
8	16567	Fitting .....	3
8	16483	O-Ring .....	1
9	16540	Connector .....	3
9	16483	O-Ring .....	1
10	1384510	Tube Assy .....	1
11	<b>b</b> 1384511	Tube Assy .....	1
11	<b>d</b> 1459041	Tube Assy .....	1
12	292505	Capscrew .....	2
13	320156	Washer .....	4
14	302399	Nut .....	4
15	1330171	Shuttle Valve .....	1
16	1343161	Body .....	1
17	1343162	Cartridge .....	1
18	359756	Kit-Seal .....	1
19	131460	Fitting .....	2
19	16483	O-Ring .....	1
20	1385569	Tube Assy .....	1
21	1384509	Tube Assy .....	1
22	17062	Fitting .....	1
23	16549	Fitting .....	2
23	16483	O-Ring .....	1
24	17049	Fitting .....	2
25	1375381	Hose Assy .....	2
26	1384517	Manifold .....	1
27	292507	Capscrew .....	2
28	16538	Connector .....	2
28	16481	O-Ring .....	1
29	816117	Quick Disconnect Fitting .....	2
30	<b>a</b> 16478	Fitting .....	1
30	<b>f</b> 17054	Fitting .....	1
31	1451921	Hose Assy .....	1
32	1451458	Hose Assy .....	1
33	1332206	Pressure Switch (With Brake/Tails Light) .....	1
33	14349	Fitting (Pipe Plug) (Without Brake/Tail Lights) .....	1
34	1382440	Pressure Switch (Low Pressure Warning) .....	1
35	222369	Fitting .....	1
36	1451461	Hose Assy .....	1
37	320160	Washer .....	5

**BRAKE PEDAL LINKAGE**  
**FORK LIFT TRUCK (→ S/N A214E01765Y)**

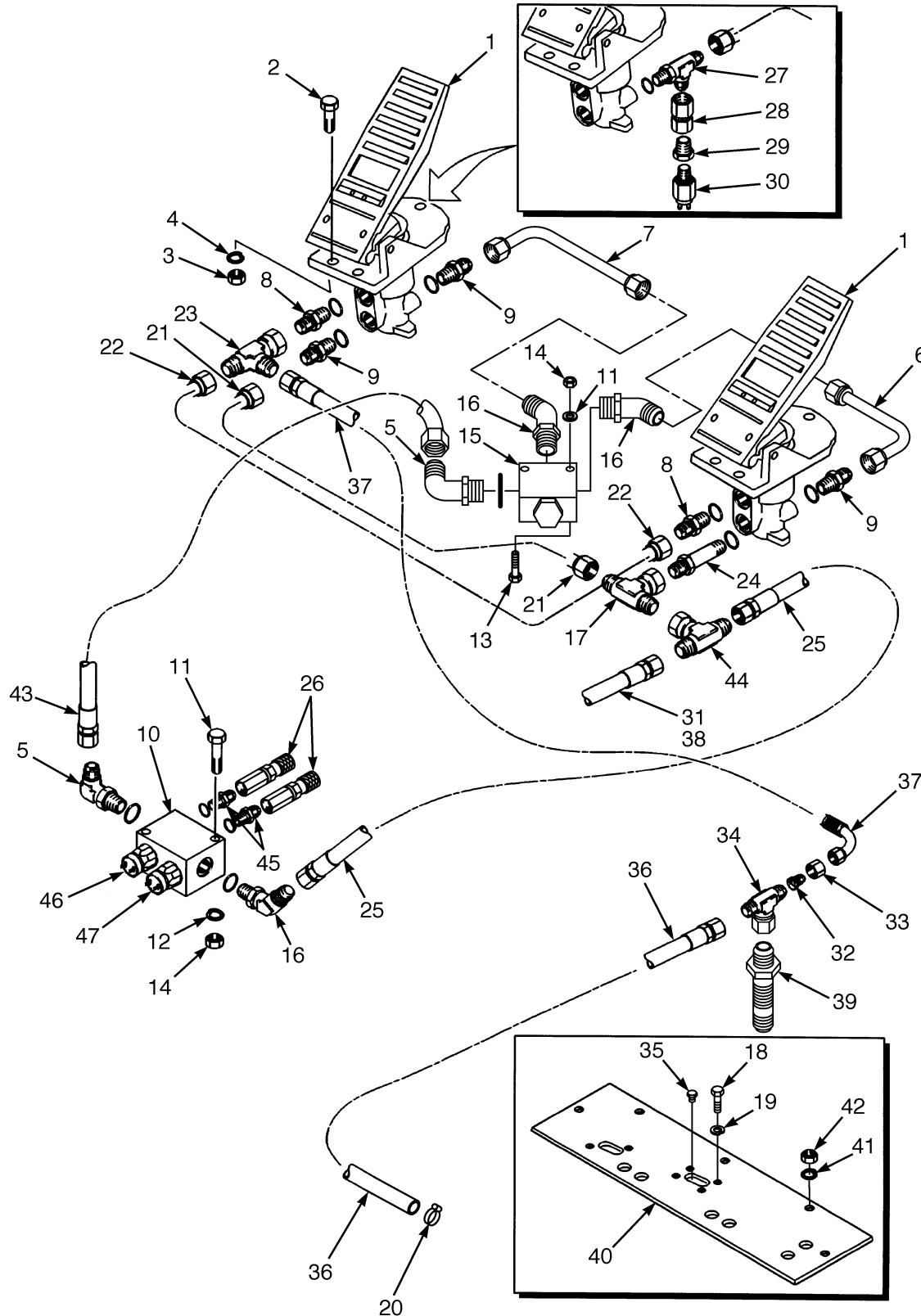
ITEM	PART NO.	DESCRIPTION	QTY
38	302401	Locknut .....	5
39	1451350	Plate .....	1
40	127045	Clamp (Hose) .....	1
41	1453070	Hose Assy .....	1
42	14494	Sleeve .....	1
43	<b>d</b> 16969	T-Fitting .....	1
44	<b>d</b> 1385632	Fitting .....	1
45	<b>d</b> 12843	Fitting .....	1
46	<b>c</b> 1459042	Pressure Switch .....	1
46	<b>e</b> 1350955	Pressure Switch .....	1
47	<b>e</b> 1457096	Molding (Rubber) .....	2

**FOOTNOTES:**

- |          |  |          |   |
|----------|--|----------|---|
| <b>a</b> | → S/N A214E01572   | <b>d</b> | S/N A214E01616 →  |
| <b>b</b> | → S/N A214E01615   | <b>e</b> | S/N A214E01766 → (14-16XM FLT: 1766,<br>16-18XM ECH: 1769, 18-20XM FLT: 1780) |
| <b>c</b> | S/N A214E01616 ↔ S/N A214E01765 (14-16XM<br>FLT:1765, 16-18XM ECH: 1768, 18-20XM FLT:<br>1799) | <b>f</b> | S/N A214E01573 →  |



## BRAKE PEDAL LINKAGE (FIGURE 8-6) FORK LIFT TRUCK (S/N A214E01766Y →)



HP040409

**BRAKE PEDAL LINKAGE**  
**FORK LIFT TRUCK (S/N A214E01766Y →)**

ITEM	PART NO.	DESCRIPTION	QTY
1	1488532	Brake Valve And Pedal (Inching) .....	2
2	176640	Bolt .....	6
3	302400	Nut .....	6
4	320158	Washer .....	6
5	16558	Fitting .....	3
5	16483	O-Ring .....	1
6	1384510	Tube Assy .....	1
7	1459041	Tube Assy .....	1
8	131460	Fitting .....	2
8	16483	O-Ring .....	1
9	16540	Connector .....	5
9	16483	O-Ring .....	1
10	1384517	Manifold .....	1
11	292507	Capscrew .....	2
12	320156	Washer .....	4
13	292505	Capscrew .....	2
14	302399	Nut .....	4
15	1330171	Shuttle Valve .....	1
16	16567	Fitting .....	3
16	16483	O-Ring .....	1
17	17049	Fitting .....	1
18	136749	Screw .....	4
19	292681	Lockwasher .....	4
20	127045	Clamp (Hose) .....	1
21	1384509	Tube Assy .....	1
22	1385569	Tube Assy .....	1
23	17062	Fitting .....	1
24	16549	Fitting .....	1
24	16483	O-Ring .....	1
25	1375381	Hose Assy .....	1
26	<b>a</b> 816117	Quick Disconnect Fitting .....	2
27	16969	T-Fitting .....	1
28	1385632	Fitting .....	1
29	12843	Fitting .....	1
30	1350955	Pressure Switch .....	1
31	1464623	Identification Band .....	2
32	222369	Fitting .....	1
33	14494	Sleeve .....	1
34	17054	Fitting .....	1
35	267262	Plug (Bleeder) .....	1
36	1451921	Hose Assy .....	1
37	1451458	Hose Assy .....	1
38	<b>b</b> 1451461	Hose Assy .....	1
38	<b>d</b> 2054633	Hose Assy .....	1
39	16452	Fitting .....	1
40	1451350	Plate .....	1
41	320160	Washer .....	5
42	302401	Locknut .....	5
43	1375381	Hose Assy .....	1
44	17049	Fitting .....	1

## BRAKE PEDAL LINKAGE FORK LIFT TRUCK (S/N A214E01766Y →)

ITEM	PART NO.	DESCRIPTION	QTY
45	<b>a</b> 16538	Connector .....	4
45	<b>c</b> 16538	Connector .....	2
45	16481	O-Ring .....	1
46	1332206	Pressure Switch (With Brake/Tail Lights) .....	1
47	1382440	Pressure Switch (Low Pressure Warning) .....	1

### FOOTNOTES:

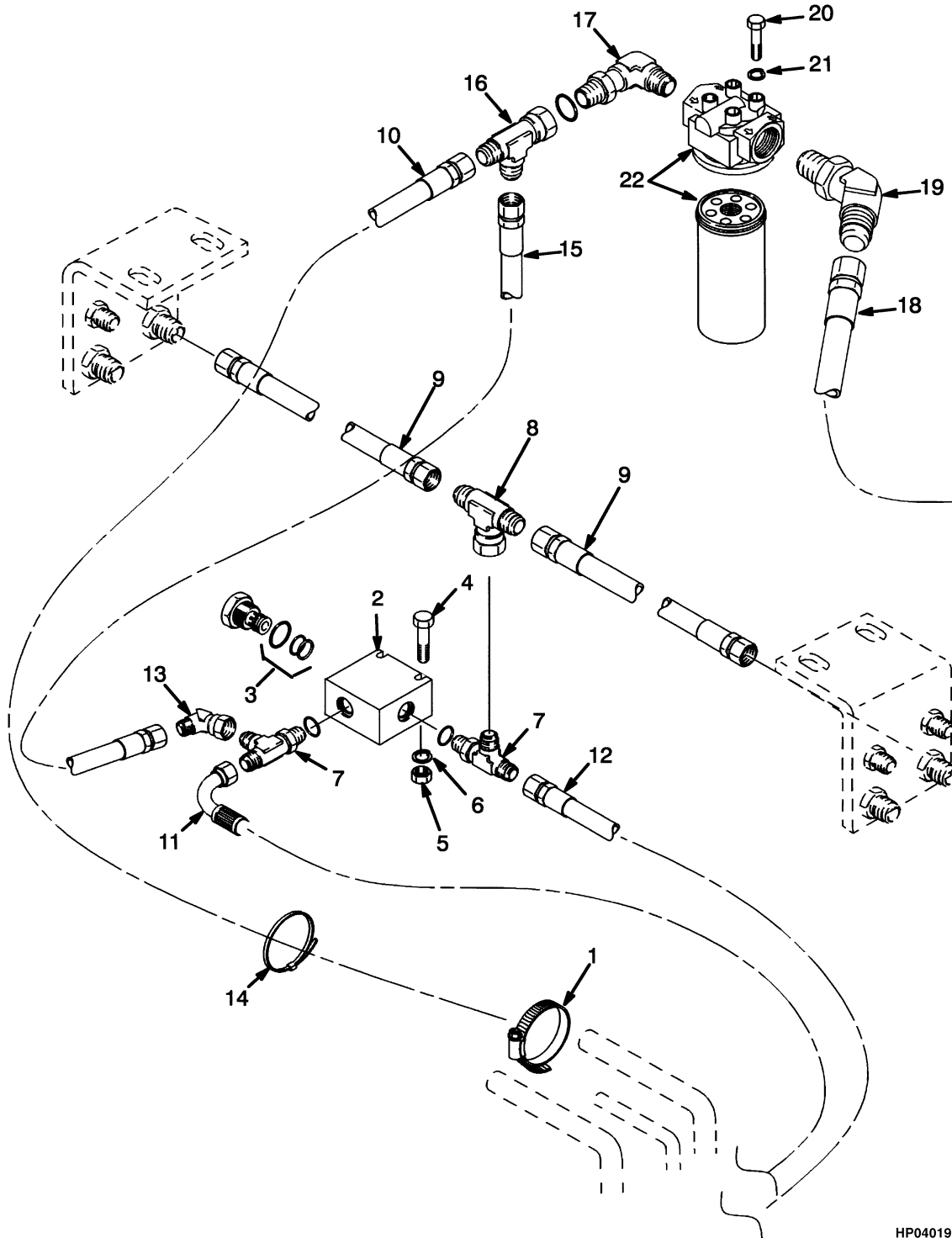
**a** → S/N A214E01806  
**b** → S/N A214E01842

**c** S/N A214E01807 →  
**d** S/N A214E01843 →





## BRAKE CHECK VALVE (FIGURE 8-7) EMPTY CONTAINER HANDLER (→ S/N A214E01572)

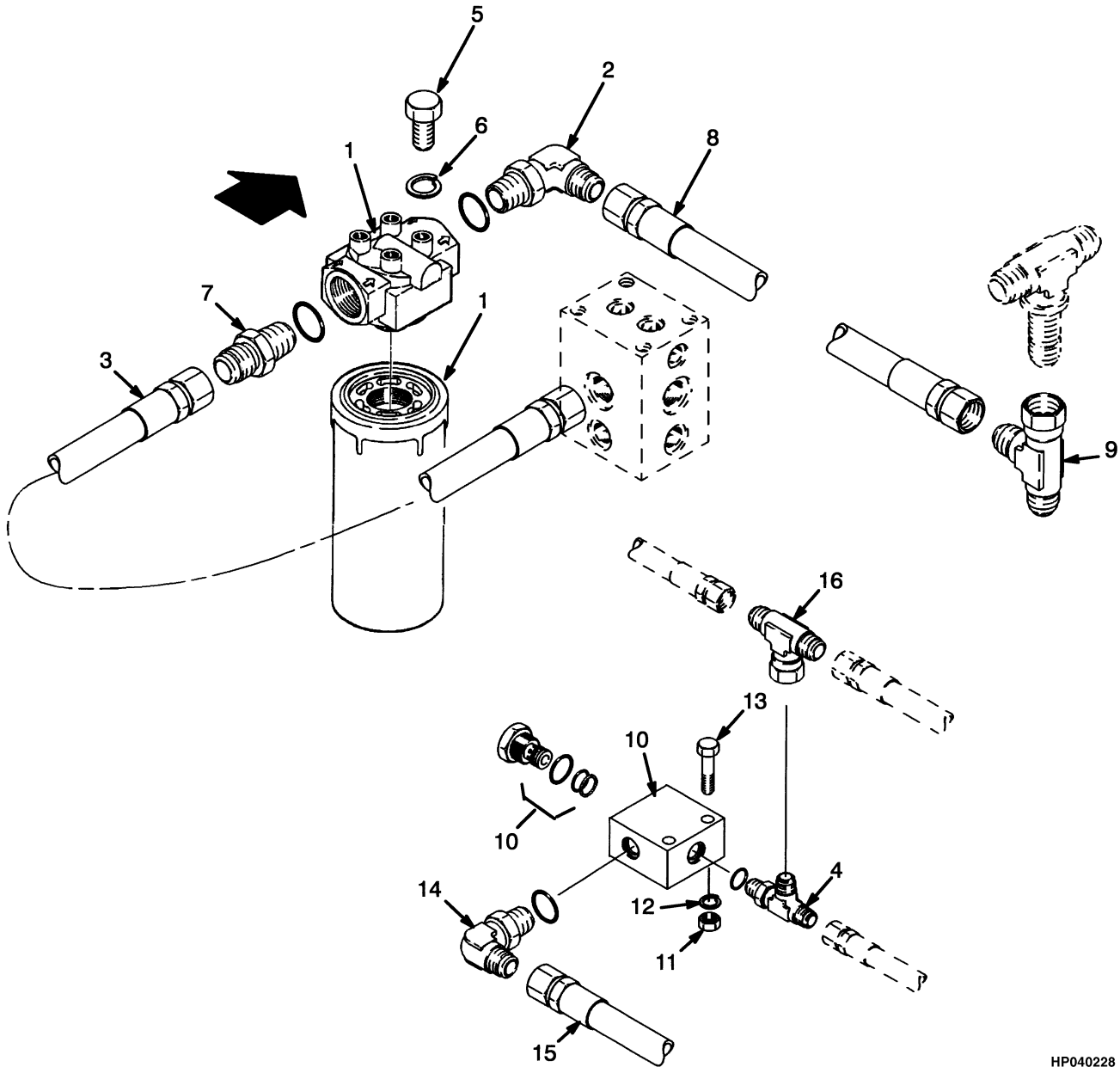


HP040191

**BRAKE CHECK VALVE**  
**EMPTY CONTAINER HANDLER (→ S/N A214E01572)**

ITEM	PART NO.	DESCRIPTION	QTY
1	127045	Clamp (Hose) .....	1
2	1373502	Check Valve .....	1
3	1384888	Kit-Seal .....	1
4	136704	Capscrew .....	2
5	302400	Nut .....	2
6	320158	Washer .....	2
7	222435	Fitting .....	2
7	<del>1450764</del> 16486	O-Ring .....	1
8	17052	Fitting .....	1
9	1452936	Hose Assy .....	2
10	226352	Hose Assy .....	1
11	1384515	Hose Assy .....	1
12	1382855	Hose Assy .....	1
13	17040	Fitting .....	1
14	129563	Strap Clamp .....	AR
15	147455	Hose Assy .....	1
16	17782	Fitting .....	1
17	222415	Fitting .....	1
17	16487	O-Ring .....	1
18	1385280	Hose Assy .....	1
19	16571	Fitting .....	1
19	16487	O-Ring .....	1
20	292514	Capscrew .....	4
21	<del>388049</del> 292682	Lockwasher .....	4
22	1451927	Filter .....	1

## BRAKE CHECK VALVE (FIGURE 8-8) FORK LIFT TRUCK (→ S/N A214E01572)

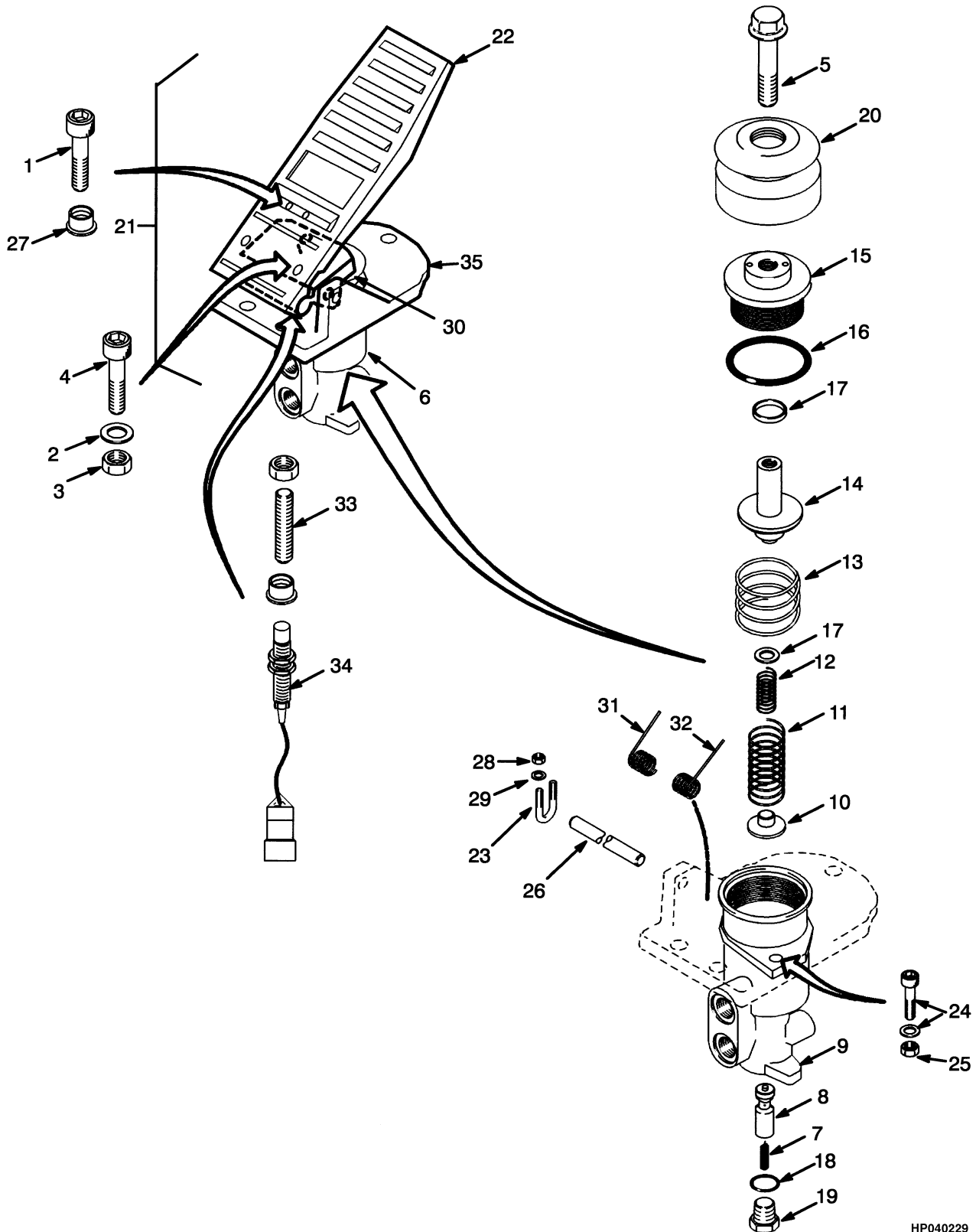


HP040228

**BRAKE CHECK VALVE**  
**FORK LIFT TRUCK (→ S/N A214E01572)**

ITEM	PART NO.	DESCRIPTION	QTY
1	1451927	Filter .....	1
1	.....	Filter Head .....	1
1	1382725	Element .....	1
2	16562	Fitting .....	1
2	16487	O-Ring .....	1
3	180979	Hose Assy .....	1
4	222435	Fitting .....	1
4	<del>1450764</del>		
	16486	O-Ring .....	1
5	292514	Capscrew .....	4
6	<del>388049</del>		
	292682	Lockwasher .....	4
7	83846	Fitting .....	1
7	16487	O-Ring .....	1
8	1451459	Hose Assy .....	1
9	17066	Fitting .....	1
10	1373502	Check Valve .....	1
10	1384888	Kit-Seal .....	1
11	302400	Nut .....	2
12	320158	Washer .....	2
13	136704	Capscrew .....	2
14	16561	Elbow .....	1
14	<del>1450764</del>		
	16486	O-Ring .....	1
15	1451924	Hose Assy .....	1
16	17052	Fitting .....	1

## BRAKE SYSTEM (FIGURE 8-9) POWER BRAKE VALVE



HP040229

**BRAKE SYSTEM  
POWER BRAKE VALVE****KEY:****A: Valve Assembly (Inching)****B: Valve Assembly (Brake)**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	<b>a</b> 1452593	Valve .....	1	..
	<b>f</b> 1345719	Valve .....	1	..
	<b>a</b> 1373604	Brake Valve .....	..	1
	<b>e f</b> 1345719	Valve .....	..	1
	<b>g h</b> 1488532	Brake Valve And Pedal (Inching) .....	..	1
1	.....	Bolt .....	2	2
2	.....	Washer .....	2	2
3	.....	Nut .....	2	2
4	.....	Screw .....	2	2
5	.....	Bolt .....	1	1
6	<b>c d</b> .....	Valve .....	1	1
6	<b>g h</b> 1493237	Hydraulic Control Valve .....	..	1
7	.....	Spring .....	1	1
8	.....	Spool .....	1	1
9	.....	Body .....	1	1
10	.....	Spring Seat .....	1	1
11	.....	Spring .....	1	1
11	<b>c d</b> 1493238	Spring (Secondary) .....	..	1
12	.....	Spring .....	1	1
12	<b>g h</b> 1493239	Spring (Staging) .....	..	1
13	.....	Spring .....	1	1
14	.....	Piston .....	1	1
15	.....	Guide .....	1	1
16	.....	Seal .....	1	1
17	.....	Shim (0,025 mm) .....	1	1
17	.....	Shim (0,010 mm) .....	1	1
17	.....	Shim (0,005 mm) .....	1	1
18	.....	O-Ring .....	1	1
19	.....	Plug .....	1	1
20	.....	Boot .....	1	1
21	1391729	Pedal Assy .....	..	1
21	<b>b</b> 1453633	Pedal Assy .....	1	..
22	.....	Pedal .....	1	1
23	.....	U-Bolt .....	2	2
24	.....	Screw and Washer .....	1	1
25	.....	Nut .....	1	1
26	.....	Pin .....	1	1
27	.....	Insert .....	3	3
28	.....	Nut .....	6	6
29	.....	Washer .....	6	6
30	.....	Cam .....	1	1
31	<b>b</b> 1391751	Spring .....	1	..
32	<b>b</b> 1391752	Spring .....	1	..
33	<b>b</b> 1453634	Screw .....	1	..
34	<b>b</b> 1453663	Switch .....	1	..

## BRAKE SYSTEM POWER BRAKE VALVE

**KEY:****A: Valve Assembly (Inching)****B: Valve Assembly (Brake)**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
35	1391741	Base .....	1	1
	1391745	Kit-Hardware .....	1	1
	1450390	Kit-Shim .....	..	1
	1391744	Kit-Seal .....	..	1

**FOOTNOTES:****a** → S/N A214E01591**b** → S/N A214E01615**c** → S/N A214E01765 (14-16 FLT)**d** → S/N A214E01768 (16-18 ECH)**e** S/N A214E01592 ↔ S/N A214E01765Y 14-16 FLT**f** S/N A214E01592 →**g** S/N A214E01766 → (14-16 FLT)**h** S/N A214E01769 → (16-18 FLT)



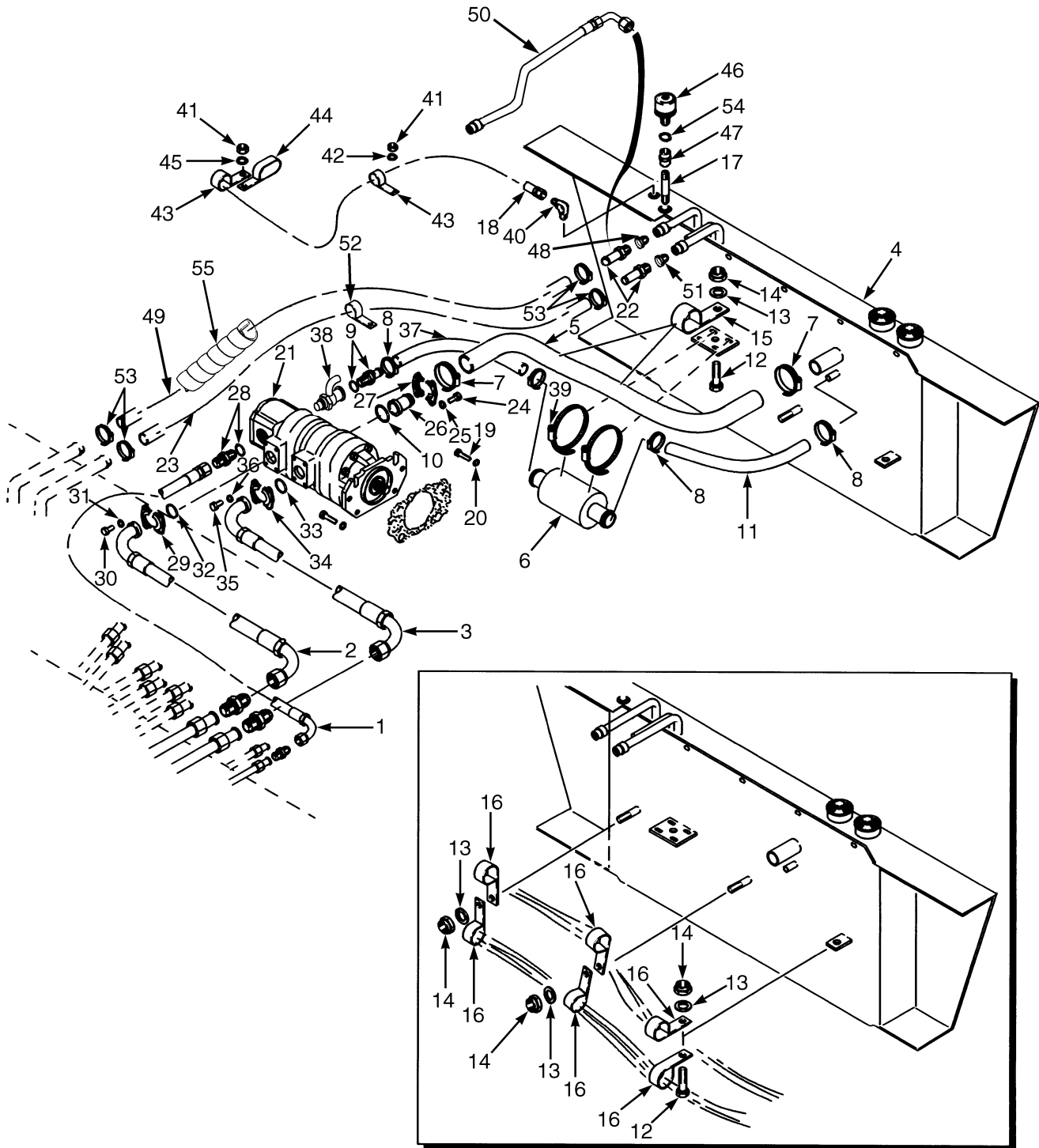




## SECTION 9 HYDRAULIC SYSTEM

DESCRIPTION	PAGE
<b>BRAKE COOLING SYSTEM</b>	
ACCUMULATOR .....	9-72
EMPTY CONTAINER HANDLER (→ S/N A214E01751) .....	9-64
EMPTY CONTAINER HANDLER (S/N A214E01752 →) .....	9-66
FORK LIFT TRUCK (→ S/N A214E01751) .....	9-68
FORKLIFT TRUCK (S/N A214E01752 →) .....	9-70
<b>HYDRAULIC</b>	
CONTROL VALVE - ATTACHING PARTS .....	9-40
CONTROL VALVE - MAIN .....	9-42
DIRECTIONAL CONTROL VALVE - EMPTY CONTAINER HANDLER .....	9-46
<b>HYDRAULIC CONTROL</b>	
→ S/N A214E01842Z .....	9-32
S/N A214E01843Z → .....	9-36
<b>HYDRAULIC LINES</b>	
AUXILIARY - FORK LIFT TRUCK .....	9-29
CONTROL VALVE (→ S/N A214E01806) .....	9-20
CONTROL VALVE (S/N A214E01807 →) .....	9-24
CONTROL VALVE .....	9-26
LIFT - FORK LIFT TRUCK .....	9-30
SUPPLY AND RETURN - EMPTY CONTAINER HANDLER .....	9-2
SUPPLY AND RETURN - FORK LIFT TRUCK (→ S/N A214E01842Z) .....	9-12
SUPPLY AND RETURN - FORK LIFT TRUCK (S/N A214E01843Z →) .....	9-16
<b>HYDRAULIC PILOT CONTROL SUPPLY VALVE</b>	
EMPTY CONTAINER HANDLER .....	9-54
<b>HYDRAULIC PILOT CONTROL VALVE</b>	
EMPTY CONTAINER HANDLER .....	9-52
<b>HYDRAULIC PUMP</b> .....	
9-58	
<b>HYDRAULIC RELIEF VALVE</b>	
TILT (→ S/N A214E02029B) .....	9-56
<b>HYDRAULIC SOLENOID VALVE</b>	
LIFT AND LOWERING INTERRUPT - EMPTY CONTAINER HANDLER (S/N A214E01752X →) .....	9-50
<b>HYDRAULIC SOLENOID VALVE ATTACHING PARTS</b>	
LIFT AND LOWERING INTERRUPT - EMPTY CONTAINER HANDLER (S/N A214E01752X →) .....	9-48
<b>HYDRAULIC SYSTEM</b>	
TILT CYLINDER - EMPTY CONTAINER HANDLER .....	9-74
TILT CYLINDER - FORK LIFT TRUCK .....	9-76
<b>HYDRAULIC TANK</b>	
→ S/N A214E01534 .....	9-60
S/N A214E01535 → .....	9-62
<b>OIL COOLER AND ATTACHING PARTS</b>	
EMPTY CONTAINER HANDLER - TIER II ENGINE .....	9-6
FORK LIFT TRUCK - TIER II ENGINE .....	9-8
<b>TILT CYLINDER</b>	
EMPTY CONTAINER HANDLER .....	9-78
FORK LIFT TRUCK .....	9-80

**HYDRAULIC LINES (FIGURE 9-1)  
SUPPLY AND RETURN — EMPTY CONTAINER HANDLER**



HP150490

**HYDRAULIC LINES**  
**SUPPLY AND RETURN – EMPTY CONTAINER HANDLER**

ITEM	PART NO.	DESCRIPTION	QTY
1	e 1382369	Hose Assy .....	1
1	i 1322079	Hose Assy .....	1
2	f 1464431	Hose Assy .....	1
2	g 2051855	Hose Assy .....	1
2	i 2054702	Hose Assy .....	1
3	d 1382368	Hose Assy .....	1
3	f 1464430	Hose Assy .....	1
3	g 2051854	Hose Assy .....	1
3	i 2054703	Hose Assy .....	1
4	a 1456475	Hyd Tank Wldmt .....	1
4	b 1519694	Hyd Tank Wldmt .....	1
4	b 1528536	Hyd Tank Wldmt .....	1
5	1455170	Hose Assy .....	1
6	1455411	Hydraulic Filter .....	1
7	115696	Hose Clamp .....	2
8	369804	Clamp .....	8
9	c 222464	Fitting .....	1
9	c 16487	O-Ring .....	1
10	15882	O-Ring .....	1
11	1455172	Hose .....	2
12	<del>4048814</del> 292528	Capscrew .....	2
13	320161	Washer .....	2
14	302402	Locknut .....	2
15	1391432	Clamp .....	2
16	1384699	Clamp .....	6
17	15382	Fitting .....	1
18	301250	Hose Assy .....	1
19	292544	Capscrew .....	2
20	292684	Lockwasher .....	2
21	1391499	Hydraulic Pump .....	1
22	e 144050	Fitting .....	2
22	i 141908	Fitting .....	2
23	980360	Hose .....	2
24	18602	Capscrew .....	4
25	15160	Washer .....	4
26	222533	Fitting Flange .....	1
27	222556	Fitting .....	2
28	16909	Fitting .....	1
28	16485	O-Ring .....	1
29	190757	Clamp (Split Half) .....	2
30	16815	Capscrew .....	4
31	15156	Lockwasher .....	4
32	199085	O-Ring .....	1
33	199917	O-Ring .....	1
34	17764	Clamp (Split Half) .....	2
35	18558	Capscrew .....	4
36	15157	Lockwasher .....	4
37	1455174	Hose .....	1
38	c 222494	Fitting .....	1

## HYDRAULIC LINES SUPPLY AND RETURN – EMPTY CONTAINER HANDLER

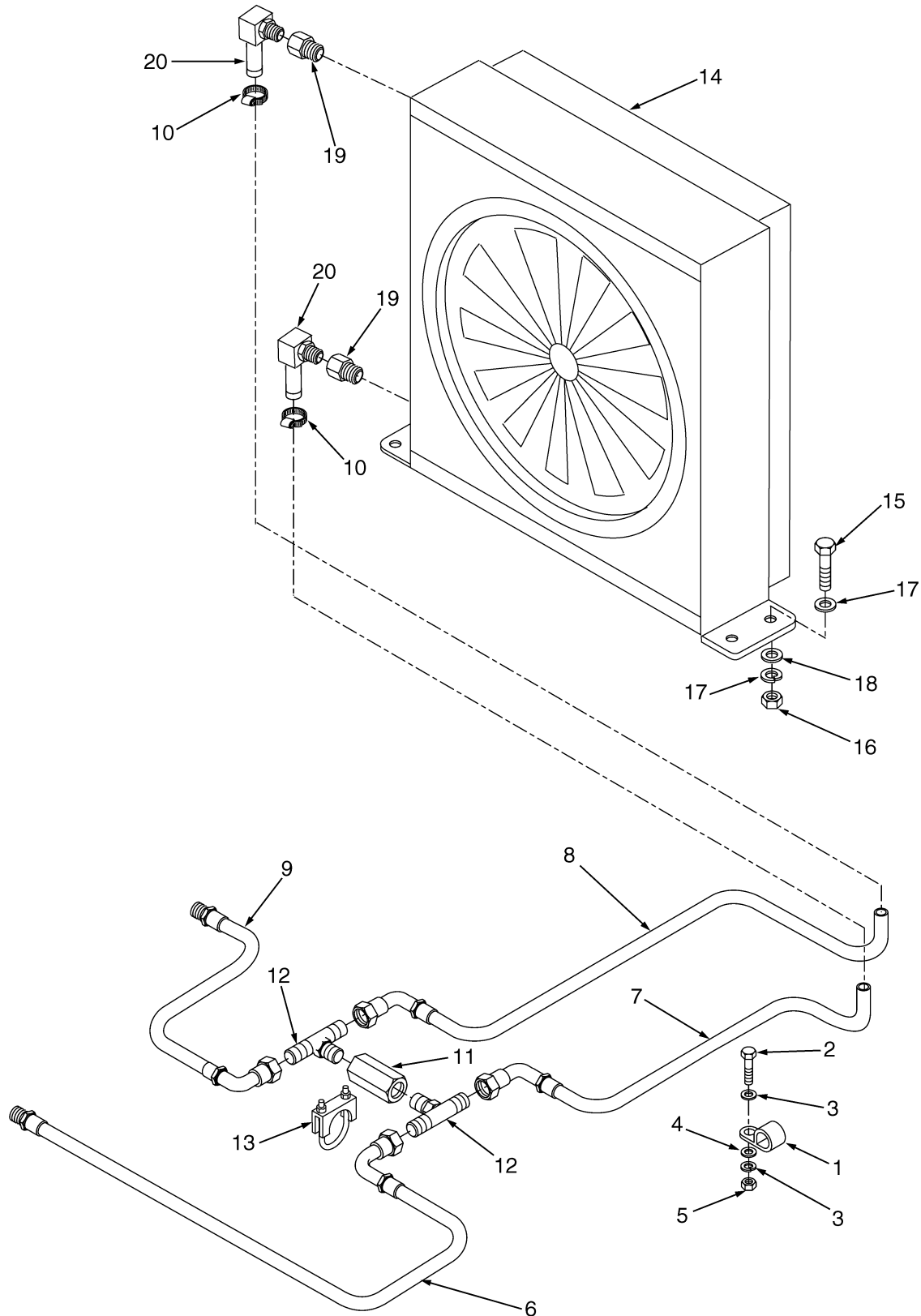
ITEM	PART NO.	DESCRIPTION	QTY
38	<b>k</b> 1459430	Fitting .....	1
39	227220	Clamp .....	2
40	17300	Fitting .....	1
41	302401	Locknut .....	4
42	320161	Washer .....	4
43	321487	Clamp .....	2
44	255578	Clamp .....	2
45	320159	Washer .....	4
46	<b>a</b> 353302	Breather .....	1
46	<b>b</b> 1475141	Breather .....	1
47	12829	Fitting .....	1
48	14676	Fitting .....	1
49	<b>e</b> 980938	Hose .....	1
49	<b>h</b> 1517325	Hose .....	1
49	<b>j</b> 139924	Hose .....	1
50	<b>e</b> 1516750	Hose .....	1
50	<b>i</b> 2054700	Hose Assy .....	1
51	112470	Fitting .....	1
52	339530	Clamp .....	1
53	<b>i</b> 127045	Clamp (Hose) .....	8
54	<b>i</b> 888333	Seal .....	1
55	316596	Sleeve (Coil) .....	1

**FOOTNOTES:**

- |  |  |
|--|--|
| <b>a</b> Tier I Engine                   | <b>g</b> S/N A214E01822 ↔ S/N A214E01842 |
| <b>b</b> Tier II Engine                  | <b>h</b> S/N A214E01843 ↔ S/N A214E01848 |
| <b>c</b> → S/N A214E01572                | <b>i</b> S/N A214E01843 →                |
| <b>d</b> → S/N A214E01658                | <b>j</b> S/N A214E01849 →                |
| <b>e</b> → S/N A214E01842                | <b>k</b> S/N A214E01573 →                |
| <b>f</b> S/N A214E01659 ↔ S/N A214E01821 |  |



## OIL COOLER AND ATTACHING PARTS (FIGURE 9-2) EMPTY CONTAINER HANDLER — TIER II ENGINE



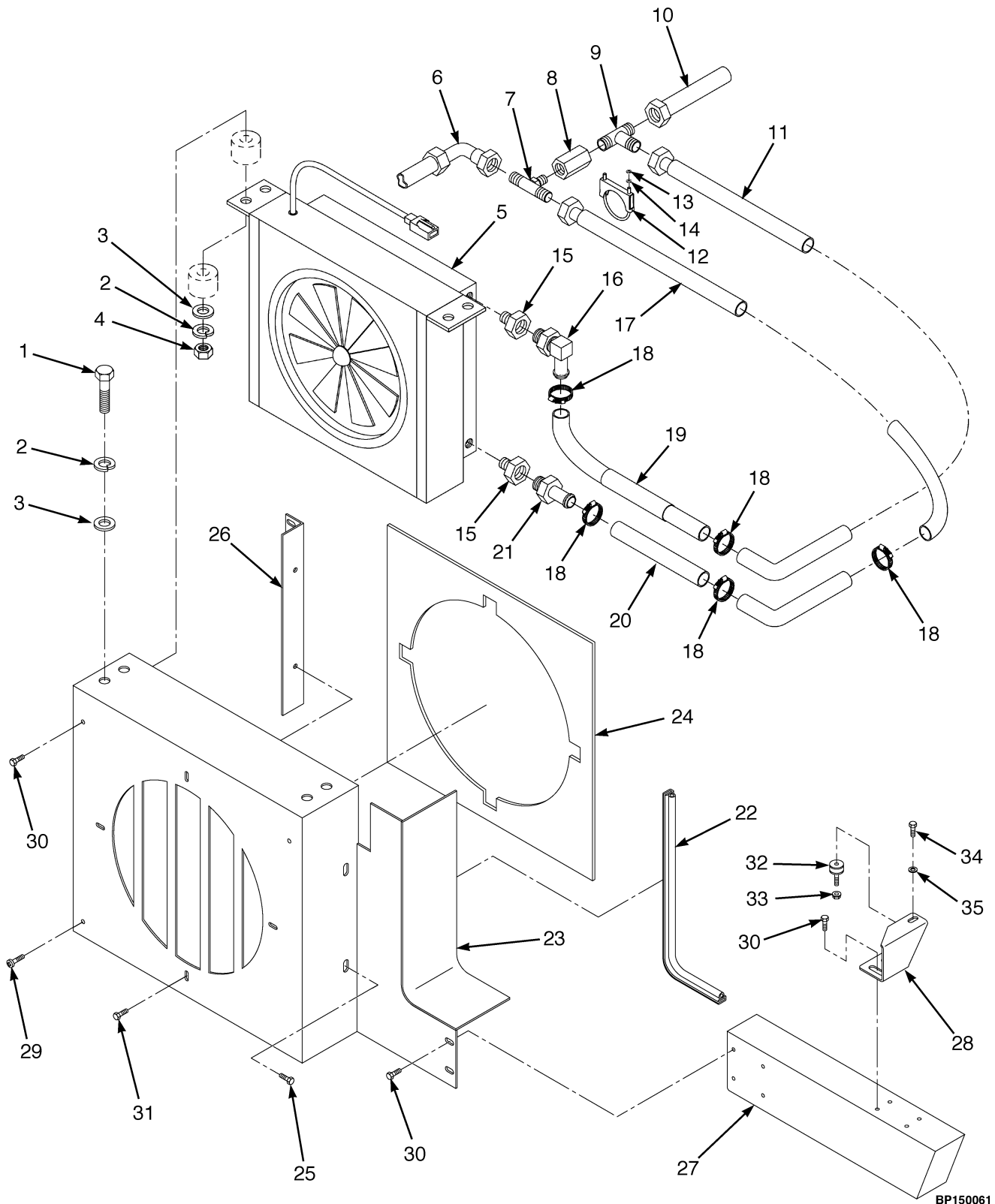
HP150190



**OIL COOLER AND ATTACHING PARTS  
EMPTY CONTAINER HANDLER – TIER II ENGINE**

ITEM	PART NO.	DESCRIPTION	QTY
1	298829	Clamp .....	3
2	136985	Capscrew .....	3
3	320160	Washer .....	6
4	<del>388049</del>		
	292682	Lockwasher .....	3
5	<del>1586693</del>		
	136692	Nut .....	3
6	1517972	Hose Assy .....	1
7	1517973	Hose Assy .....	1
8	1517974	Hose Assy .....	1
9	1517975	Hose Assy .....	1
10	127045	Clamp (Hose) .....	2
11	816232	Check Valve .....	1
12	16963	Fitting .....	2
13	30374	Clamp .....	1
14	1495139	Cooler .....	1
14	1384009	Core .....	1
14	1384010	Frame .....	1
14	1384011	Shroud .....	1
14	1384012	Fan .....	1
14	1384013	Switch (Thermo) .....	1
14	1384014	Rubber Cushion .....	2
15	292509	Capscrew .....	4
16	329069	Nut .....	4
17	320157	Washer .....	8
18	292681	Lockwasher .....	4
19	1517982	Fitting .....	2
20	112470	Fitting .....	2

## OIL COOLER AND ATTACHING PARTS (FIGURE 9-3) FORK LIFT TRUCK — TIER II ENGINE



BP150061

**OIL COOLER AND ATTACHING PARTS  
FORK LIFT TRUCK – TIER II ENGINE**

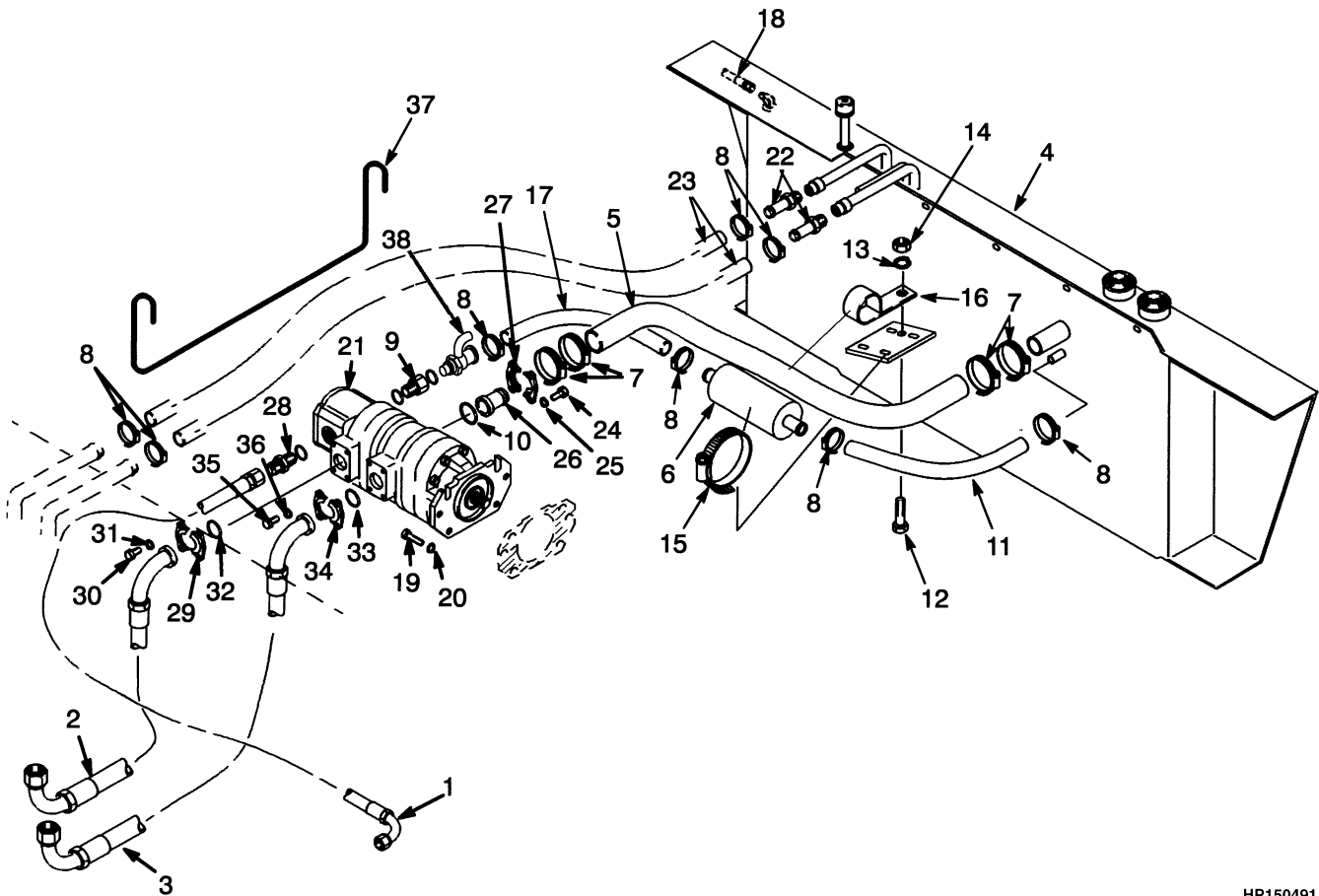
ITEM	PART NO.	DESCRIPTION	QTY
1	1518329	Capscrew .....	4
2	320157	Washer .....	4
3	292681	Lockwasher .....	4
4	302400	Nut .....	4
5	1495139	Cooler .....	1
5	886391	Heat Exchanger .....	1
5	1384009	Core .....	1
5	1384010	Frame .....	1
5	1384011	Shroud .....	1
5	1384012	Fan .....	1
5	1384013	Switch (Thermo) .....	1
5	1384014	Rubber Cushion .....	1
5	1330409	Connector .....	1
5	1330414	Connector (Secondary Lock) .....	1
5	1330437	Terminal (Pin) .....	2
6	1518316	Hose Assy .....	1
7	16963	Fitting .....	1
8	816232	Check Valve .....	1
9	16974	T-Fitting .....	1
10	1518317	Hose Assy .....	1
11	1518315	Hose Assy .....	1
12	30374	Clamp .....	1
13	18515	Washer .....	2
14	15155	Lockwasher .....	2
15	1517982	Fitting .....	2
16	112470	Fitting .....	1
17	1518179	Hose Assy .....	1
18	127045	Clamp (Hose) .....	12
19	246396	Hose .....	1
19	316596	Sleeve (Coil) .....	1
20	214421	Hose .....	1
21	88195	Fitting .....	1
22	a 1556891	Trim Seal .....	1
23	a 1556876	Cover .....	1
24	a 1556882	Liner .....	1
25	a 1510117	Capscrew .....	4
26	a 1556873	Bracket .....	2
27	a 1556879	Cover .....	1
28	a 1556888	Bracket .....	1
29	a 1479870	Screw (Stop) .....	2
30	a 1527880	Capscrew .....	10
31	a 1527878	Capscrew .....	4
32	a 353453	Mount .....	1
33	a 1382472		
	1502543	Nut .....	1
34	a 296164	Capscrew .....	1
35	a 320158	Washer .....	1

**FOOTNOTES:**

- a S/N A214E02063E →



## HYDRAULIC LINES (FIGURE 9-4) SUPPLY AND RETURN — FORK LIFT TRUCK (→ S/N A214E01842Z)



HP150491

**HYDRAULIC LINES**  
**SUPPLY AND RETURN – FORK LIFT TRUCK (→ S/N A214E01842Z)**

ITEM	PART NO.	DESCRIPTION	QTY
1	1451523	Hose Assy .....	1
2	<b>d</b> 1451524	Hose Assy .....	1
2	<b>f</b> 1474761	Hose Assy .....	1
3	<b>d</b> 1451525	Hose Assy .....	1
3	<b>f</b> 1474762	Hose Assy .....	1
4	<b>a</b> 1393841	Hyd Tank Wldmt (H14.00-16.00XM) (☞Figure 9-23).....	1
4	<b>b</b> 1518319	Hyd Tank Wldmt (H14.00-16.00XM) (☞Figure 9-23).....	1
4	<b>a</b> 1393825	Hyd Tank Wldmt (H18.00-20.00XM) (☞Figure 9-23).....	1
4	<b>b</b> 1518092	Hyd Tank Wldmt (H18.00-20.00XM) (☞Figure 9-23).....	1
5	1455169	Hose Assy .....	1
6	1455411	Hydraulic Filter .....	1
7	115696	Hose Clamp .....	4
8	369804	Clamp .....	8
9	<b>c</b> 222464	Fitting .....	1
9	<b>c</b> 16487	O-Ring .....	1
10	15882	O-Ring .....	1
11	1455172	Hose .....	1
12	292529	Capscrew .....	1
13	320161	Washer .....	1
14	302402	Locknut .....	1
15	227220	Clamp .....	2
16	1391432	Clamp .....	1
17	1455171	Hose .....	1
18	1453970	Hose Assy .....	1
19	292544	Capscrew .....	2
20	292684	Lockwasher .....	2
21	1391499	Hydraulic Pump (☞Figure 9-21).....	1
22	144050	Fitting .....	2
23	1451600	Hose .....	2
24	18602	Capscrew .....	4
25	15160	Washer .....	4
26	222556	Fitting .....	1
27	222533	Fitting Flange .....	2
28	16909	Fitting .....	1
28	16485	O-Ring .....	1
29	190757	Clamp (Split Half) .....	2
30	16815	Capscrew .....	4
31	15156	Lockwasher .....	4
32	199085	O-Ring .....	1
33	199917	O-Ring .....	1
34	17764	Clamp (Split Half) .....	2
35	18558	Capscrew .....	4
36	15157	Lockwasher .....	4
37	1451836	Bracket .....	1
38	<b>e</b> 1459430	Fitting .....	1
38	<b>c</b> 222494	Fitting .....	1
38	16983	O-Ring .....	1

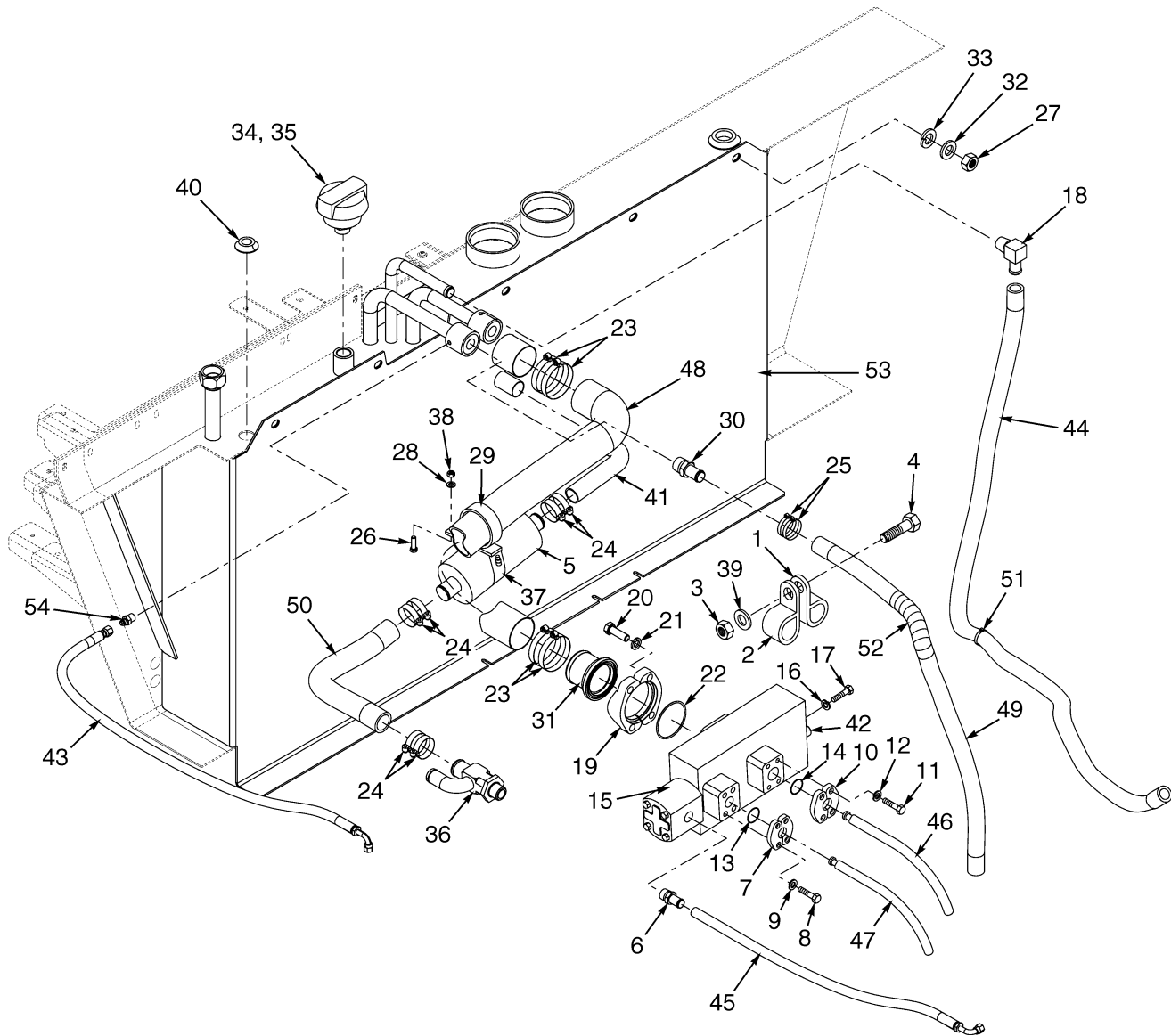
**FOOTNOTES:**

- |          |                  |          |                  |
|----------|------------------|----------|------------------|
| <b>a</b> | Tier I Engine    | <b>d</b> | → S/N A214E01658 |
| <b>b</b> | Tier II Engine   | <b>e</b> | S/N A214E01573 → |
| <b>c</b> | → S/N A214E01572 | <b>f</b> | S/N A214E01659 → |





## HYDRAULIC LINES (FIGURE 9-5) SUPPLY AND RETURN — FORK LIFT TRUCK (S/N A214E01843Z →)



HP150879

**HYDRAULIC LINES**  
**SUPPLY AND RETURN – FORK LIFT TRUCK (S/N A214E01843Z →)**

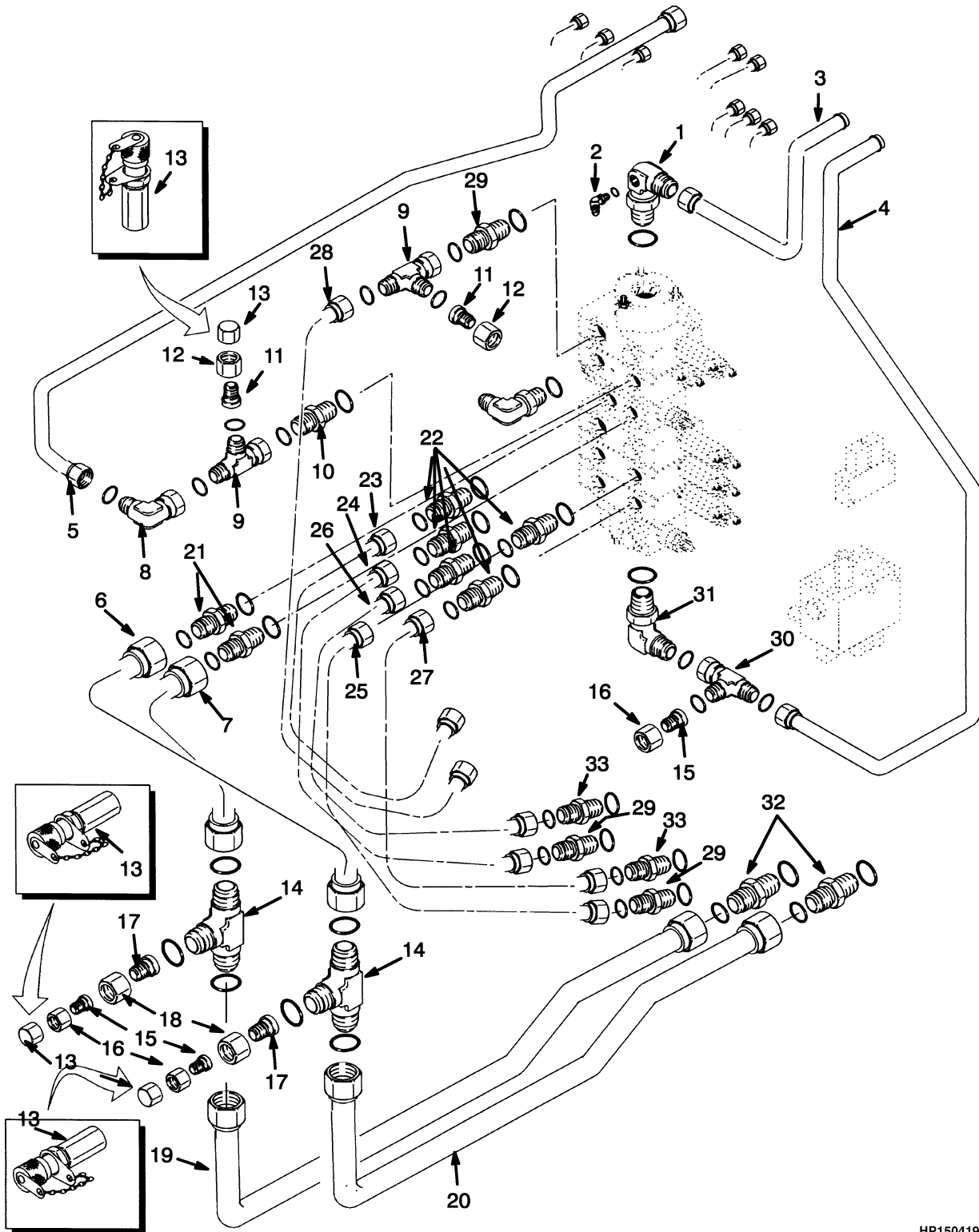
ITEM	PART NO.	DESCRIPTION	QTY
1	258590	Clamp .....	1
2	1384699	Clamp .....	1
3	302401	Locknut .....	1
4	287860	Capscrew .....	1
5	1455411	Hydraulic Filter .....	1
6	16909	Fitting .....	1
7	190757	Clamp (Split Half) .....	2
8	16815	Capscrew .....	4
9	15156	Lockwasher .....	4
10	17764	Clamp (Split Half) .....	2
11	18558	Capscrew .....	4
12	15157	Lockwasher .....	12
13	199085	O-Ring .....	1
14	199917	O-Ring .....	1
15	1391499	Hydraulic Pump .....	1
16	292684	Lockwasher .....	2
17	292544	Capscrew .....	2
18	112470	Fitting .....	1
19	222533	Fitting Flange .....	2
20	18602	Capscrew .....	4
21	15160	Washer .....	4
22	15882	O-Ring .....	1
23	115696	Hose Clamp .....	4
24	369804	Clamp .....	8
25	127045	Clamp (Hose) .....	8
26	<del>4048814</del> 292528	Capscrew .....	1
27	<del>1318914</del> 216877	Nut .....	5
28	320161	Washer .....	1
29	1391432	Clamp .....	1
30	141908	Fitting .....	1
31	222556	Fitting .....	1
32	320162	Washer .....	5
33	292683	Lockwasher .....	5
34	1475141	Breather .....	1
35	888333	Seal .....	1
36	1459430	Fitting .....	1
37	227220	Clamp .....	2
38	302402	Locknut .....	1
39	320160	Washer .....	2
40	17300	Fitting .....	1
41	1455172	Hose .....	1
42	264159	Adhesive .....	AR
43	2054636	Hose Assy .....	1
44	66883	Hose .....	1
45	2054646	Hose Assy .....	1
46	2051859	Hose Assy .....	1
47	2055143	Hose Assy .....	1
48	1455169	Hose Assy .....	1

**HYDRAULIC LINES**  
**SUPPLY AND RETURN – FORK LIFT TRUCK (S/N A214E01843Z →)**

<b>ITEM</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY</b>
49	139924	Hose .....	1
50	1455171	Hose .....	1
51	339530	Clamp .....	1
52	316596	Sleeve (Coil) .....	1
53	1528534	Hyd Tank Wldmt (H14.00-16.00XM) .....	1
53	1528535	Hyd Tank Wldmt (18.00-20.00XM) .....	1
54	14676	Fitting .....	1



## HYDRAULIC LINES (FIGURE 9-6) CONTROL VALVE (→ S/N A214E01806)



HP150419

**HYDRAULIC LINES**  
**CONTROL VALVE (→ S/N A214E01806)**

ITEM	PART NO.	DESCRIPTION	QTY
1	1384634	Fitting (Modified) .....	1
1	1331937	Fitting .....	1
2	16567	Fitting .....	1
2	16483	O-Ring .....	1
3	1373651	Tube Assy .....	1
4	1373652	Tube Assy .....	1
5	1393862	Tube .....	1
6	<b>b</b> 1373635	Tube Assy .....	1
6	<b>c</b> 1464430	Hose Assy .....	1
7	<b>b</b> 1373634	Tube Assy .....	1
7	<b>c</b> 1464431	Hose Assy .....	1
8	1373517	Fitting .....	1
8	1495114		
	252729	O-Ring .....	1
9	1373682	Fitting .....	2
9	1495114		
	252729	O-Ring .....	4
10	1373681	Fitting .....	1
10	1495114		
	252729	O-Ring .....	1
11	17779	Fitting .....	2
12	167261	Sleeve .....	2
13	<b>b</b> 16923	Nut .....	3
13	<b>c</b> 816117	Quick Disconnect Fitting .....	3
14	1373514	Fitting .....	2
14	280156	O-Ring .....	6
15	17777	Fitting .....	2
16	17319	Fitting .....	2
17	222369	Fitting .....	3
18	14494	Sleeve .....	3
19	<b>a</b> 1382365	Tube Assy .....	1
20	<b>a</b> 1382366	Tube Assy .....	1
21	<b>b</b> 1373680	Fitting .....	2
21	<b>c</b> 142500	Fitting .....	2
21	1450764		
	16486	O-Ring .....	1
22	1373516	Fitting .....	6
22	1495114		
	252729	O-Ring .....	6
23	1373629	Tube Assy .....	1
24	1373630	Tube Assy .....	1
25	1373631	Tube Assy .....	1
26	1373632	Tube Assy .....	1
27	1373633	Tube Assy .....	1
28	1373628	Tube Assy .....	1
29	1384649	Fitting .....	3
29	1495114		
	252729	O-Ring .....	1
29	1495113		
	265731	O-Ring .....	1

## HYDRAULIC LINES CONTROL VALVE (→ S/N A214E01806)

ITEM	PART NO.	DESCRIPTION	QTY
30	1337266	Fitting .....	1
30	280156	O-Ring .....	2
31	1331937	Fitting .....	1
31	280156	O-Ring .....	1
32	<b>a</b> 1336054	Fitting .....	2
32	280156	O-Ring .....	4
33	<b>a</b> 1373515	Fitting .....	2
33	1495114		
	252729	O-Ring .....	4

### FOOTNOTES:

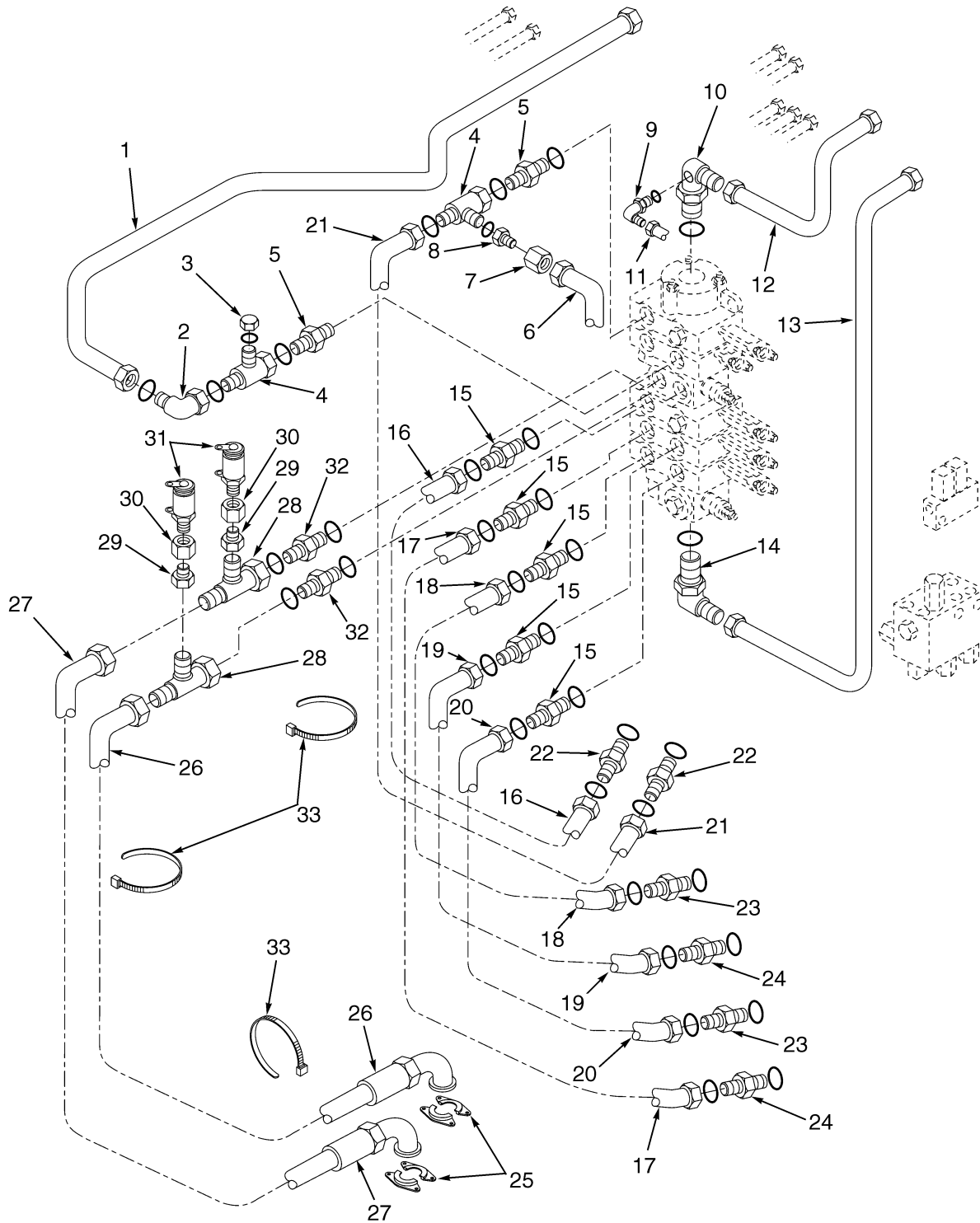
**a** Empty Container Handler  
**b** → S/N A214E01658

**c** S/N A214E01659 →





## HYDRAULIC LINES (FIGURE 9-7) CONTROL VALVE (S/N A214E01807 →)

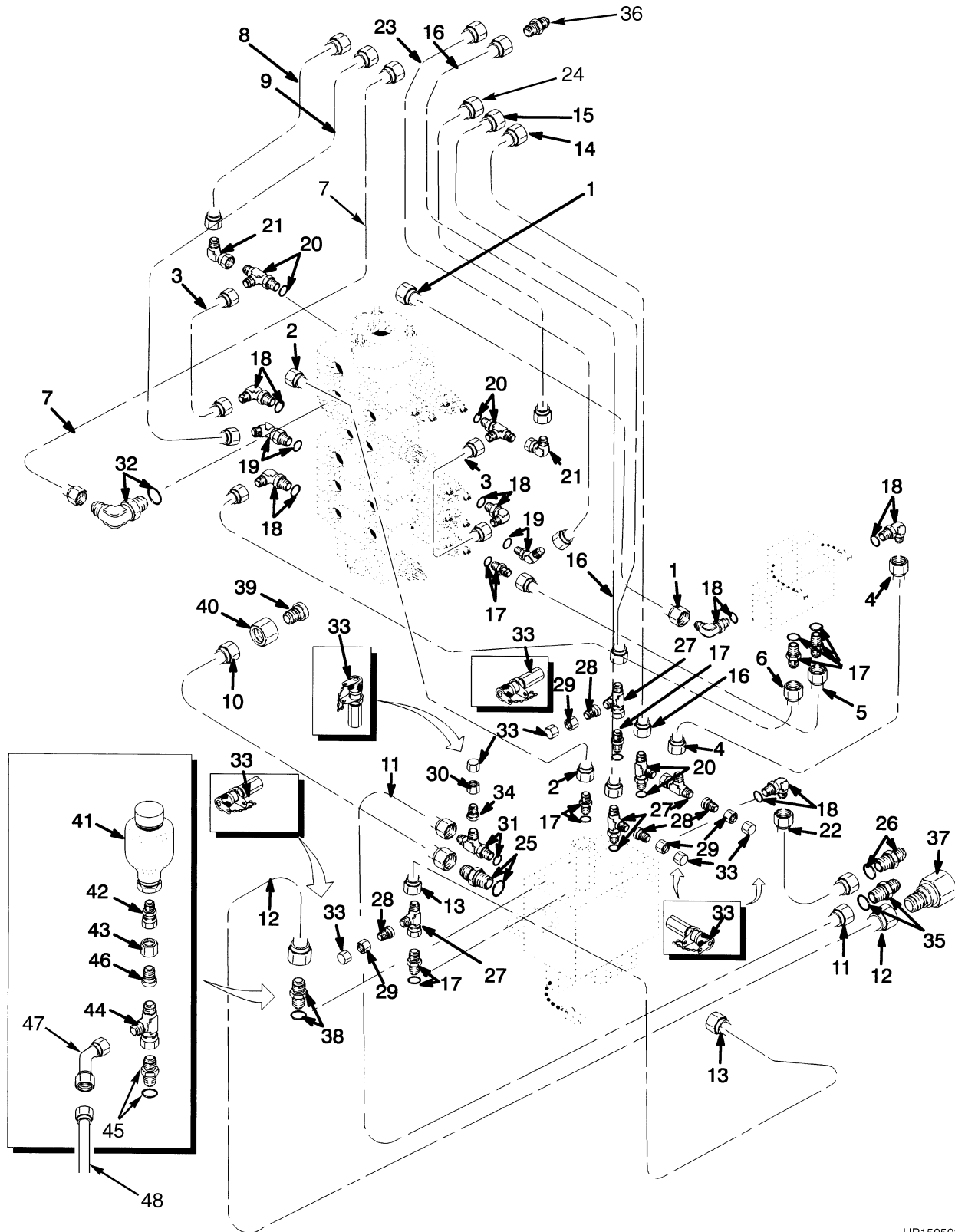


HP140003

**HYDRAULIC LINES**  
**CONTROL VALVE (S/N A214E01807 →)**

ITEM	PART NO.	DESCRIPTION	QTY
1	1393862	Tube .....	1
2	1373517	Fitting .....	1
3	16926	Nut .....	1
4	1373682	Fitting .....	2
5	1373681	Fitting .....	1
6	1464433	Hose Assy .....	1
7	167261	Sleeve .....	1
8	17780	Fitting .....	1
9	16567	Fitting (Fork Lift Truck) .....	1
9	16483	O-Ring .....	1
10	1384634	Fitting (Modified) .....	1
10	1331937	Fitting .....	1
10	.....	O-Ring .....	1
11	1393863	Tube (Fork Lift Truck) .....	1
12	1373651	Tube Assy .....	1
13	1497239	Tube Assy .....	1
14	1331937	Fitting .....	1
15	1373516	Fitting .....	6
16	1373629	Tube Assy .....	1
17	1373630	Tube Assy .....	1
18	1373632	Tube Assy .....	1
19	1373631	Tube Assy .....	1
20	1373633	Tube Assy .....	1
21	1373628	Tube Assy .....	1
22	1384503	Fitting .....	2
23	1384649	Fitting .....	2
24	1336054	Fitting .....	2
25	17764	Clamp (Split Half) .....	4
26	1464430	Hose Assy .....	1
26	1474761	Hose Assy .....	1
27	1464431	Hose Assy .....	1
27	1474762	Hose Assy .....	1
28	17066	Fitting .....	2
29	1496458	Adapter .....	2
30	14494	Sleeve .....	2
31	1473927	Quick Disconnect Fitting (For Hydraulic Pressure Test Port) .....	2
32	142500	Fitting .....	2
32	1450764		
	16486	O-Ring .....	1
33	397676	Strap Clamp .....	3

## HYDRAULIC LINES (FIGURE 9-8) CONTROL VALVE



HP150503

**HYDRAULIC LINES  
CONTROL VALVE**

ITEM	PART NO.	DESCRIPTION	QTY
1	1393863	Tube .....	1
2	<b>a</b> 1373646	Tube Assy .....	1
2	<b>j</b> 1464433	Hose Assy .....	1
3	1373650	Tube Assy .....	2
4	<b>d</b> 1373549	Tube Assy .....	1
4	<b>i</b> 1516078	Hose Assy .....	1
5	1390675	Hose Assy .....	1
5	16883	Fitting .....	1
6	1373639	Tube Assy .....	1
7	<b>d</b> 1373626	Tube Assy .....	1
7	<b>i</b> 1516050	Hose Assy .....	1
8	<b>d</b> 1373649	Tube Assy .....	1
8	<b>i</b> 1516044	Hose Assy .....	1
9	1373648	Tube Assy .....	1
10	<b>c</b> 1373637	Tube Assy .....	1
11	1373636	Tube Assy .....	1
12	<b>a</b> 1373627	Tube Assy .....	1
12	<b>e</b> 1464440	Hose Assy .....	1
13	<b>a</b> 1373638	Tube Assy .....	1
13	<b>j</b> 1464434	Hose Assy .....	2
14	<b>d</b> 1373640	Tube Assy .....	1
15	1373642	Tube Assy .....	1
16	<b>d</b> 1373641	Tube Assy .....	1
17	16540	Connector .....	7
17	16483	O-Ring .....	1
18	16558	Fitting .....	6
18	16483	O-Ring .....	1
19	16567	Fitting .....	2
19	16483	O-Ring .....	1
20	16969	T-Fitting .....	3
20	16483	O-Ring .....	1
21	16883	Fitting .....	2
22	1373647	Tube Assy .....	1
23	<b>d</b> 1373643	Tube Assy .....	1
24	<b>d</b> 1373644	Tube Assy .....	1
24	<b>i</b> 1516055	Hose Assy .....	1
25	<b>c</b> 16541	Fitting .....	2
25	16484	O-Ring .....	1
26	14691	Fitting .....	1
27	17061	Fitting .....	4
28	17776	Fitting .....	4
29	14489	Sleeve .....	4
30	17319	Fitting .....	1
30	16925	Fitting .....	1
31	16970	T-Fitting .....	1
31	16484	O-Ring .....	1
32	222400	Fitting .....	1
32	16485	O-Ring .....	1
33	<b>a</b> 16923	Nut .....	5
33	816117	Quick Disconnect Fitting .....	5

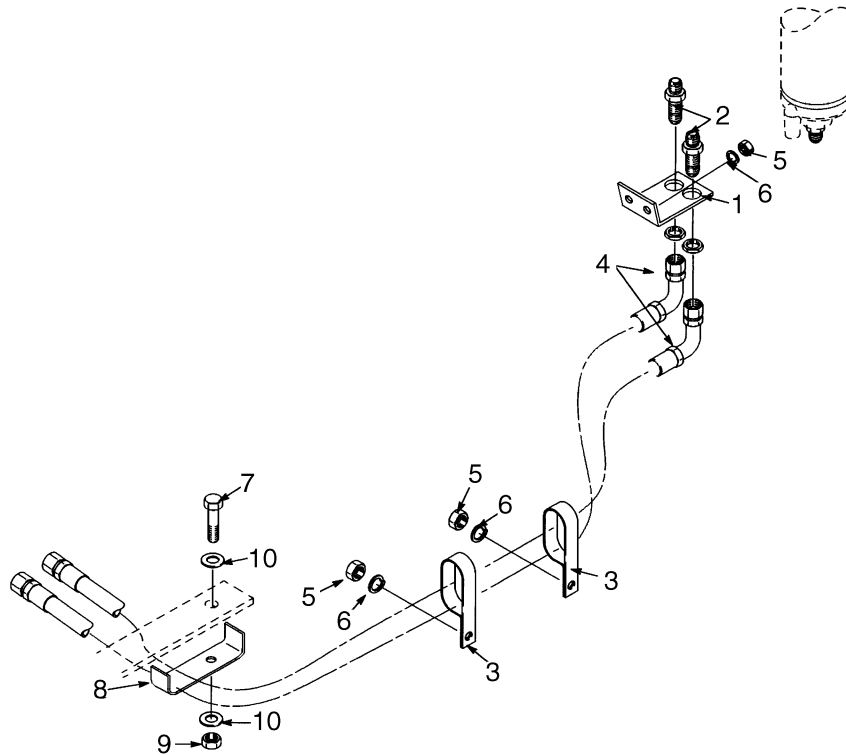
## HYDRAULIC LINES CONTROL VALVE

ITEM	PART NO.	DESCRIPTION	QTY
33	1473927	Quick Disconnect Fitting (For Hydraulic Pressure Test Port) .....	4
34	17777	Fitting .....	1
35	14692	Fitting .....	1
36	14691	Fitting .....	1
37	<b>b</b> 222517	Fitting .....	1
38	<b>e</b> 16745	Fitting .....	1
39	222369	Fitting .....	1
40	14494	Sleeve .....	1
40	16928	Nut .....	1
41	<b>g</b> 1460394	Accumulator .....	1
42	<b>g</b> 1460396	Fitting .....	1
43	<b>f</b> 17778	Fitting .....	1
43	<b>h</b> 17218	Fitting .....	1
44	<b>g</b> 17063	Fitting .....	1
45	<b>f</b> 206150	Fitting .....	1
45	<b>h</b> 16970	T-Fitting .....	1
45	16484	O-Ring .....	1
46	<b>f</b> 14491	Sleeve .....	1
46	<b>h</b> 17319	Fitting .....	1
47	1496453	Adapter .....	4
48	<b>h</b> 1484331	Hose Assy .....	1

### FOOTNOTES:

<b>a</b>	→ S/N A214E01658	<b>f</b>	S/N A214E01666 ↔ S/N A214E01751
<b>b</b>	→ S/N A214E01665	<b>g</b>	S/N A214E01666 →
<b>c</b>	→ S/N A214E01751	<b>h</b>	S/N A214E01752 →
<b>d</b>	→ S/N A214E01842Z	<b>i</b>	S/N A214E01843Z →
<b>e</b>	S/N A214E01659 ↔ S/N A214E01665	<b>j</b>	S/N A214E01659 →

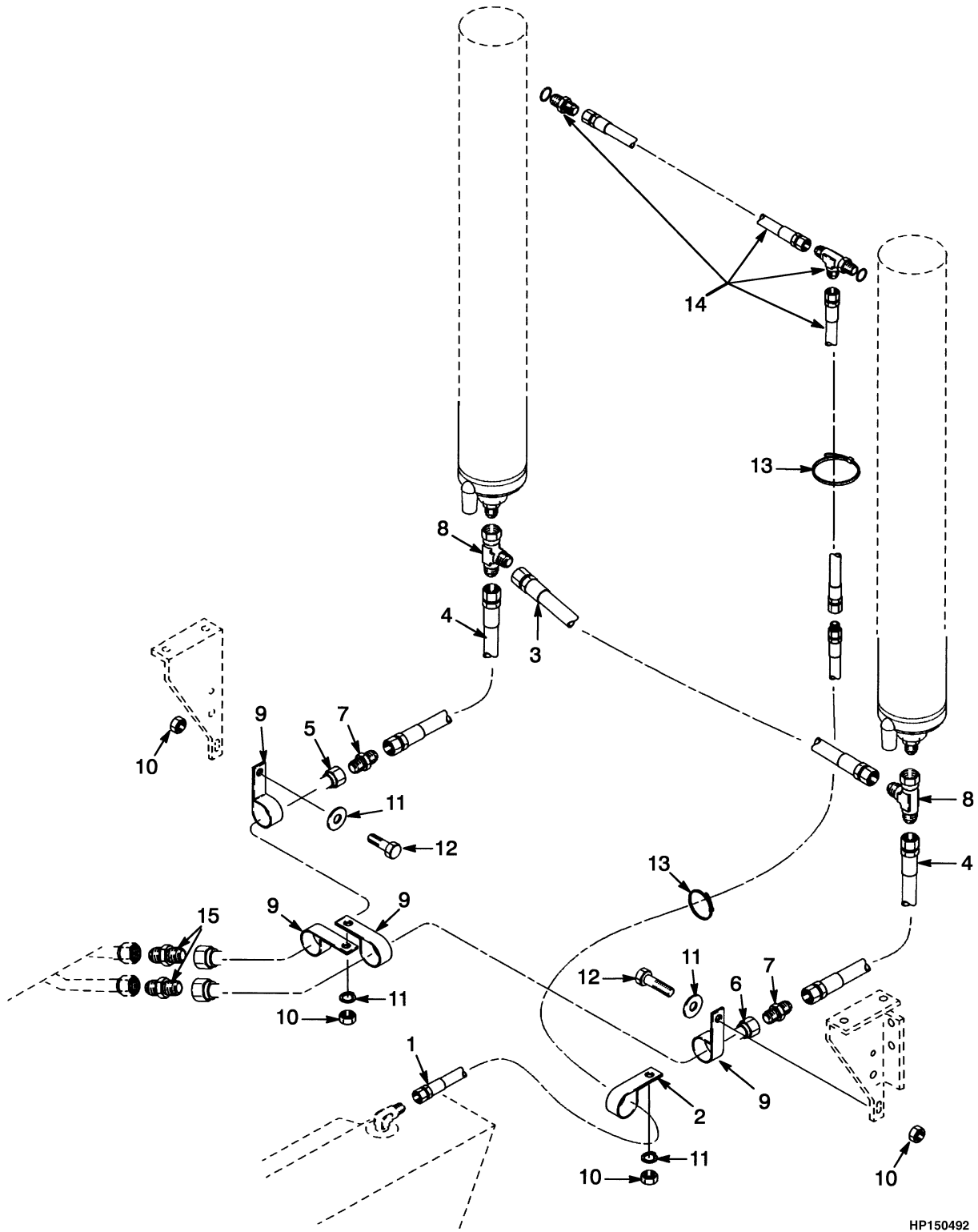
**HYDRAULIC LINES (FIGURE 9-9)  
AUXILIARY — FORK LIFT TRUCK**



HP150493

ITEM	PART NO.	DESCRIPTION	QTY
1	1384472	Plate .....	1
2	16449	Fitting .....	4
3	255578	Clamp .....	4
4	1452850	Hose Assy .....	2
5	302401	Locknut .....	4
6	320159	Washer .....	4
7	292507	Capscrew .....	1
8	1384527	Bracket .....	1
9	302399	Nut .....	1
10	320156	Washer .....	2

## HYDRAULIC LINES (FIGURE 9-10) LIFT — FORK LIFT TRUCK



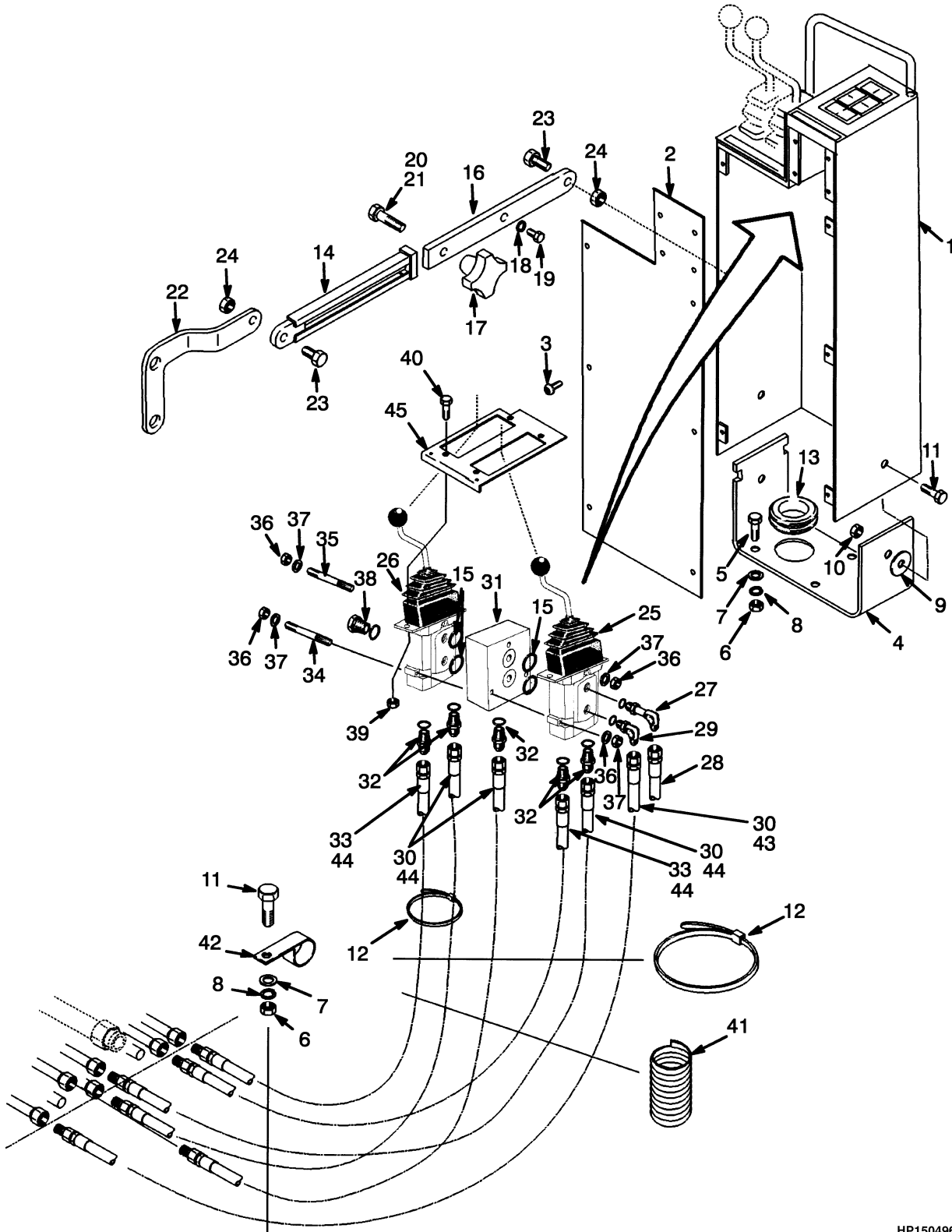
HP150492



**HYDRAULIC LINES  
LIFT – FORK LIFT TRUCK**

<b>ITEM</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY</b>
1	1453970	Hose Assy .....	1
2	321487	Clamp .....	1
3	1451819	Hose Assy .....	1
4	1451820	Hose Assy (H18.00XM) .....	2
4	816468	Hose Assy (H14-16XM) .....	2
5	1451821	Tube Assy .....	1
6	1451822	Tube Assy .....	1
7	1336054	Fitting .....	2
8	1337266	Fitting .....	2
9	1310611	Clamp .....	6
10	302401	Locknut .....	5
11	320161	Washer .....	5
12	287860	Capscrew .....	2
13	323864	Strap Clamp .....	3
14	.....	Main Lift .....	1
15	1384503	Fitting .....	2

## HYDRAULIC CONTROL (FIGURE 9-11) (→ S/N A214E01842Z)



HP150496

**HYDRAULIC CONTROL**  
(→ S/N A214E01842Z)

ITEM	PART NO.	DESCRIPTION	QTY
1	1454177	Housing .....	1
2	1454180	Plate .....	1
3	1301177	Screw .....	10
4	1307775	Bracket .....	1
5	<b>d</b> 136985	Capscrew .....	6
5	<b>c</b> 287854	Capscrew .....	4
6	<b>b</b> <del>1586693</del> 136692	Nut .....	4
6	<b>a</b> <del>1586693</del> 136692	Nut .....	8
7	<b>b</b> 320159	Washer .....	4
7	<b>a</b> 320159	Washer .....	8
8	<b>b</b> <del>388049</del> 292682	Lockwasher .....	4
8	<b>a</b> <del>388049</del> 292682	Lockwasher .....	8
9	334340	Washer .....	AR
10	316826	Nut .....	2
11	<b>a c</b> 136985	Capscrew .....	4
11	<b>a d</b> 287860	Capscrew .....	2
12	273775	Strap Clamp .....	2
13	1323052	Trim .....	1
14	1310710	Channel .....	1
15	39767	O-Ring .....	4
16	1352202	Plate .....	1
17	334325	Knob .....	1
18	18425	Lockwasher .....	1
19	18097	Capscrew .....	1
20	16334	Capscrew .....	1
21	264134	Loctite .....	AR
22	1350014	Bracket .....	1
23	16805	Capscrew .....	2
24	145641	Locknut (Prevailing Torque) .....	2
25	1373611	Pilot Valve (Pilot Control) (☞ Figure 9-18).....	1
26	1390642	Pilot Valve (Pilot Control) (☞ Figure 9-19).....	1
27	17222	Fitting .....	1
28	112886	Hose Assy .....	1
28	<b>a d</b> 1331025	Hose Assy .....	1
28	<b>a c</b> 1383859	Hose Assy .....	1
29	<b>b</b> 16558	Fitting .....	1
30	<b>a</b> 1393860	Hose Assy .....	4
31	1307772	Spacer .....	1
32	16540	Connector .....	4
33	<b>a</b> 1393859	Hose Assy .....	2
34	394101	Link .....	2
35	1355038	Link .....	1
36	15002	Nut .....	6
37	320155	Washer .....	AR
38	<del>1579809</del> 222443	Fitting .....	2

## HYDRAULIC CONTROL (→ S/N A214E01842Z)

ITEM	PART NO.	DESCRIPTION	QTY
39	330100	Nut .....	4
40	380292	Capscrew .....	4
41	316596	Sleeve (Coil) (Coil) .....	1
42	<b>a</b> 1384699	Clamp .....	2
43	<b>b c</b> 117860	Hose Assy .....	1
44	<b>b c</b> 73462	Hose Assy .....	5
45	1310715	Plate .....	1

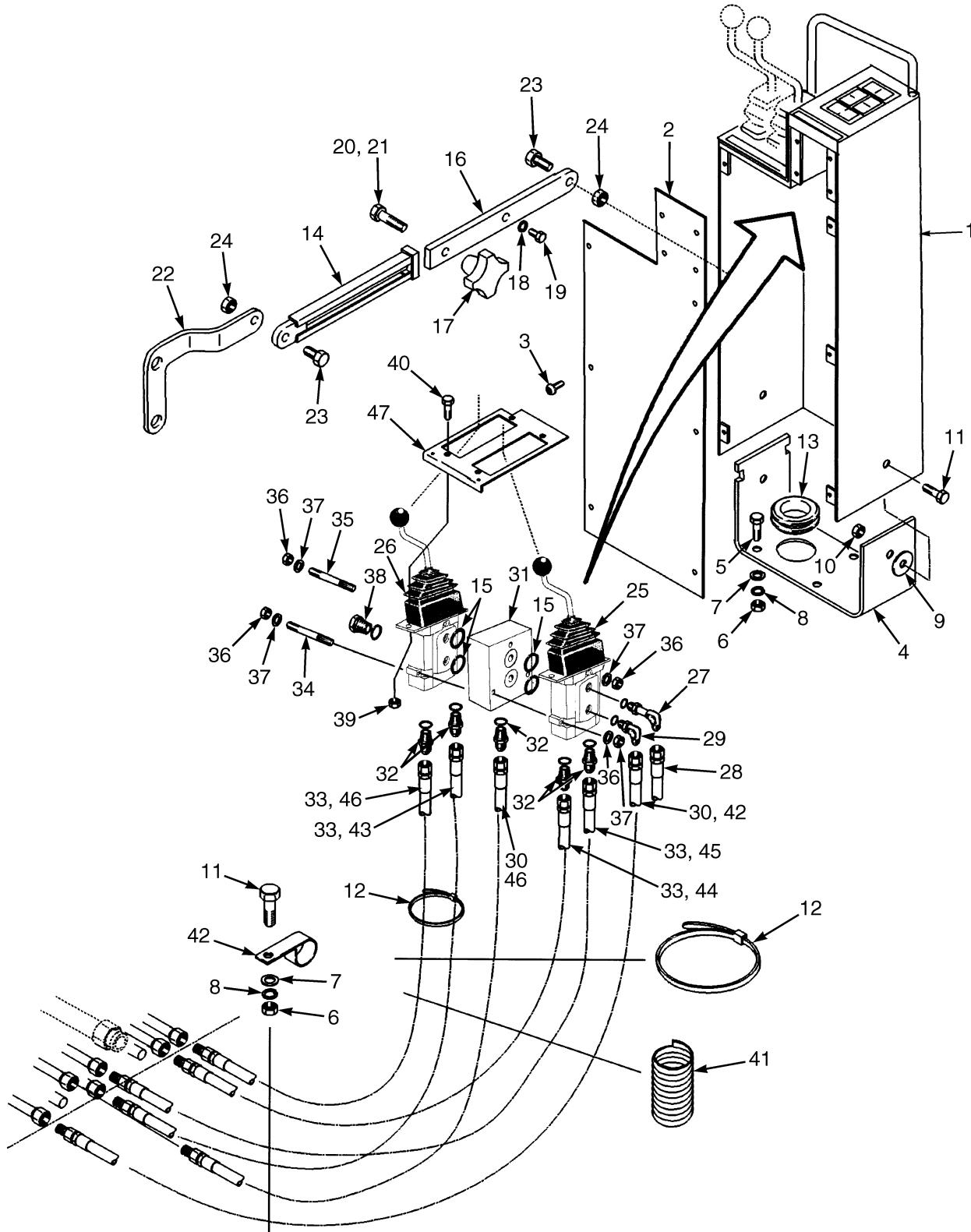
### FOOTNOTES:

**a** Empty Container Handler  
**b** Fork Lift Truck

**c** → S/N A214E01534  
**d** S/N A214E01535 →



## HYDRAULIC CONTROL (FIGURE 9-12) (S/N A214E01843Z →)



HP150878

**HYDRAULIC CONTROL**  
(S/N A214E01843Z →)**KEY:****A: Empty Container Handler****B: Fork Lift Truck**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1454177	Housing .....	1	1
2	1454180	Plate .....	1	1
3	1301177	Screw .....	10	10
4	1307775	Bracket .....	1	1
5	136985	Capscrew .....	6	6
6	<del>1586693</del> 136692	Nut .....	4	4
7	320159	Washer .....	4	4
8	<del>388049</del> 292682	Lockwasher .....	4	4
9	334340	Washer .....	AR	AR
10	316826	Nut .....	2	2
11	287860	Capscrew .....	2	2
12	273775	Strap Clamp .....	2	2
13	1323052	Trim .....	1	1
14	1310710	Channel .....	1	1
15	39767	O-Ring .....	4	4
16	1352202	Plate .....	1	1
17	334325	Knob .....	1	1
18	18425	Lockwasher .....	1	1
19	18097	Capscrew .....	1	1
20	16334	Capscrew .....	1	1
21	264134	Loctite .....	AR	AR
22	1350014	Bracket .....	1	1
23	16805	Capscrew .....	2	2
24	145641	Locknut (Prevailing Torque) .....	2	2
25	1373611	Pilot Valve (Operator Pilot) (☞ Figure 9-18).....	1	1
26	1390642	Pilot Valve (Operator Pilot) (☞ Figure 9-18).....	1	1
27	17222	Fitting .....	1	1
28	1331025	Hose Assy .....	1	1
29	16558	Fitting .....	1	1
30	2067172	Hose Assy .....	2	..
31	1307772	Spacer .....	1	1
32	16540	Connector .....	5	5
33	2054688	Hose Assy .....	4	..
34	394101	Link .....	2	2
35	1355038	Link .....	1	1
36	15002	Nut .....	6	6
37	320155	Washer .....	AR	AR
38	<del>1579809</del> 222443	Fitting .....	2	2
39	330100	Nut .....	4	4
40	380292	Capscrew .....	4	4
41	316596	Sleeve (Coil) (Coil) .....	1	1
42	2054634	Hose Assy .....	..	1

## HYDRAULIC CONTROL (S/N A214E01843Z →)

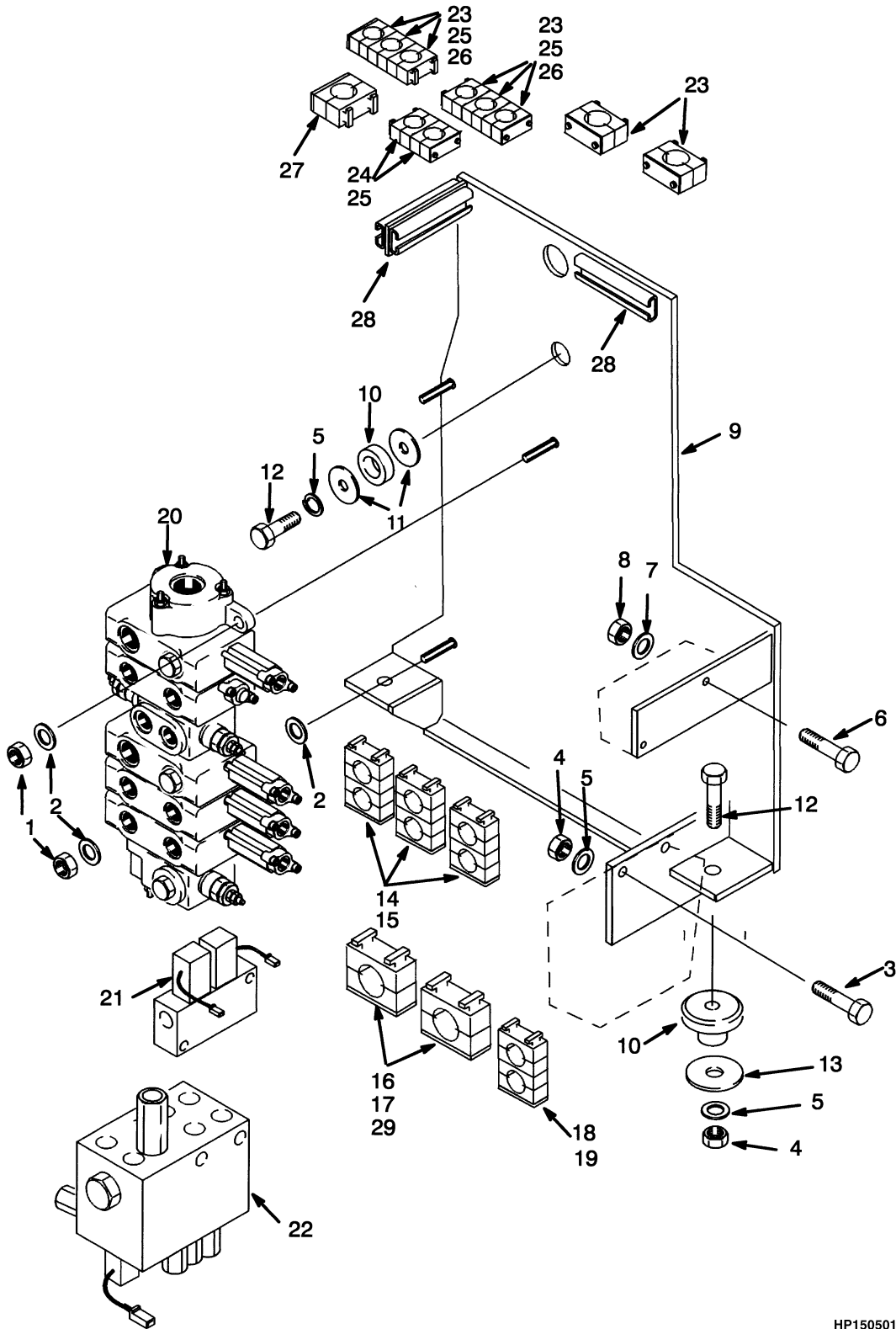
**KEY:****A:** Empty Container Handler**B:** Fork Lift Truck

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
43	2054630	Hose Assy .....	..	1
44	2054631	Hose Assy .....	..	1
45	1319620	Hose Assy .....	..	1
46	2054632	Hose Assy .....	..	2
47	1310715	Plate .....	1	1





## HYDRAULIC (FIGURE 9-13) CONTROL VALVE — ATTACHING PARTS



HP150501

**HYDRAULIC  
CONTROL VALVE – ATTACHING PARTS**

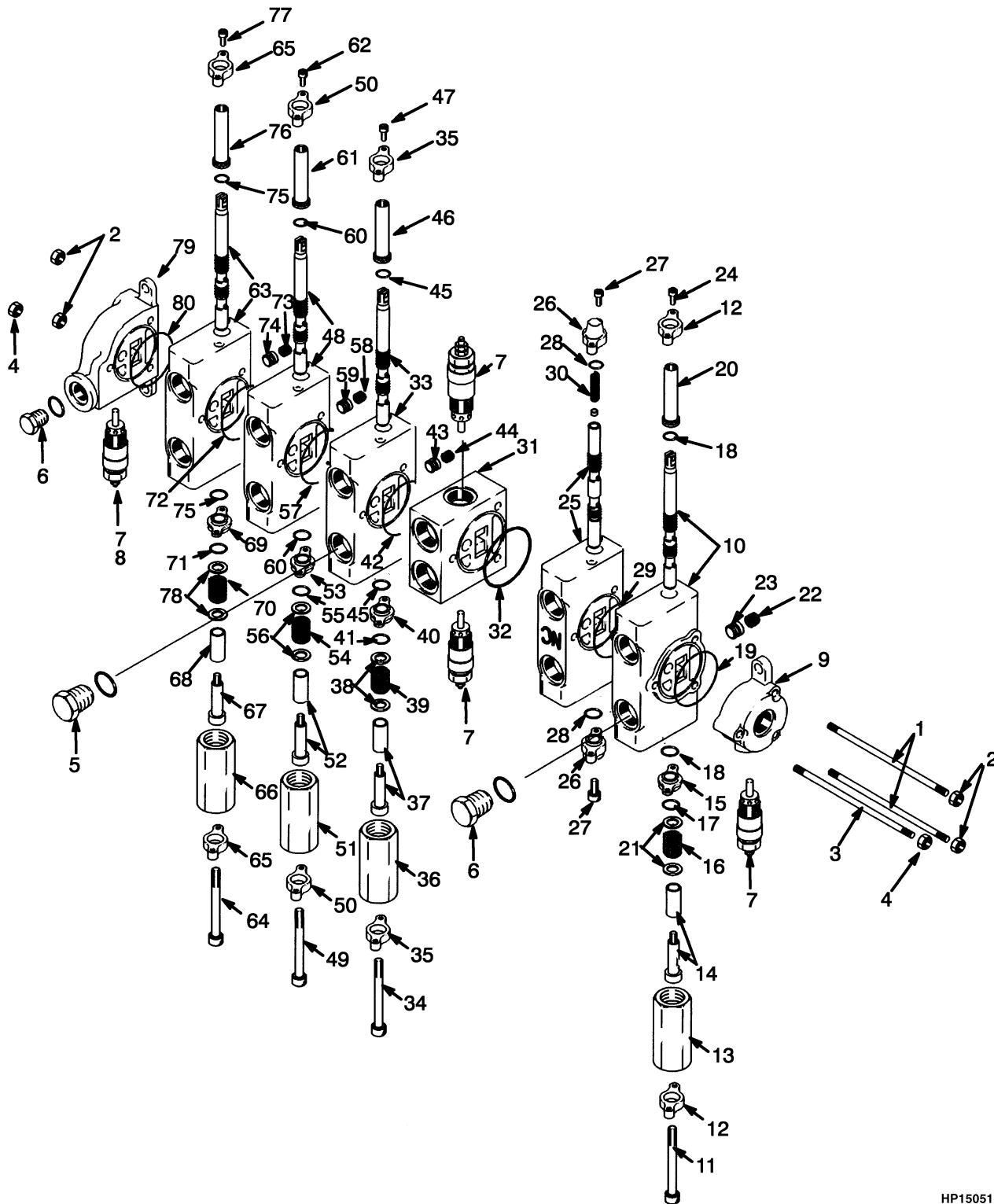
ITEM	PART NO.	DESCRIPTION	QTY
1	300937	Nut .....	2
2	296422	Washer .....	3
3	292525	Capscrew .....	2
4	316826	Nut .....	5
5	296420	Washer .....	6
6	292506	Capscrew .....	2
7	296417	Washer .....	2
8	313805	Nut .....	2
9	<b>c</b> 1452794	Mounting Plate .....	1
9	<b>f</b> 1515582	Mounting Plate .....	1
10	209067	Motor Mount .....	3
11	320177	Washer .....	1
12	292517	Capscrew .....	3
13	284521	Washer .....	3
14	1373505	Clamp .....	3
15	1373506	Clamp .....	3
16	1373507	Clamp (Empty Container Handler) .....	2
17	1339480	Clamp (Fork Lift Truck) .....	2
18	<b>a</b> 1373508	Clamp .....	1
18	<b>d</b> 1464615	Clamp .....	1
19	<b>a</b> 1373509	Clamp .....	1
19	<b>d</b> 1464617	Clamp .....	1
20	<b>b</b> 1372995	Valve (Main Control) (ECH) (☞ Figure 9-14).....	1
20	<b>e</b> 1474815	Valve (Main Control) (ECH) (☞ Figure 9-14).....	1
20	1479353	Valve (Main Control) (FLT) (☞ Figure 9-14).....	1
21	1373389	Valve (Directional Control) (☞ Figure 9-15).....	1
22	1487919	Pilot Valve (Pilot Supply) (☞ Figure 9-19).....	1
23	1339480	Clamp .....	2
24	1350862	Clamp .....	5
25	1373510	Clamp .....	3
26	1373511	Clamp .....	3
27	1331851	Clamp .....	1
28	<b>c</b> 1384635	Clamp .....	2
29	383789	Thread Sealant .....	AR

**FOOTNOTES:**

**a** → S/N A214E01658  
**b** → S/N A214E01717X  
**c** → S/N A214E01842Z

**d** S/N A214E01659 →  
**e** S/N A214E01718X →  
**f** S/N A214E01843Z →

## HYDRAULIC (FIGURE 9-14) CONTROL VALVE — MAIN



HP150511

**HYDRAULIC  
CONTROL VALVE – MAIN**

ITEM	PART NO.	DESCRIPTION	QTY
	<b>c</b> 1372995	Valve .....	1
	<b>a d</b> 1474815	Valve .....	1
	<b>b d</b> 1479353	Valve .....	1
1	1377238	Tie Rod .....	2
2	1320986	Nut .....	4
3	1377237	Tie Rod .....	1
4	1320983	Nut .....	2
5	199524	Plug .....	1
6	234888	Plug .....	2
7	1320979	Relief Valve .....	4
8	1321381	Kit-Seal .....	1
8	<del>1450764</del> 16486	O-Ring .....	2
9	1377229	Valve Section (Outlet) .....	1
9	.....	Housing .....	1
10	1377228	Valve Section (Primary Hoist Section) .....	1
10	.....	Housing .....	1
10	.....	Spool .....	1
10	.....	Spool .....	1
11	1377213	Screw .....	2
12	1377214	Retainer .....	2
13	1377215	Cap .....	1
14	1377216	Screw .....	1
14	1377217	Spacer .....	1
15	1377219	Retainer .....	1
16	<b>c</b> 1377218	Spring .....	1
16	<b>d</b> 1484316	Spring .....	1
17	16487	O-Ring .....	1
18	39767	O-Ring .....	2
19	1320982	O-Ring .....	1
20	1377220	Cap .....	1
21	1383924	Washer .....	2
22	1320994	Spring .....	1
23	1320998	Poppet .....	1
24	16328	Capscrew .....	2
25	1377236	Valve Section (Steering) .....	1
25	.....	Housing .....	1
25	.....	Spool .....	1
25	.....	Screw Set .....	1
26	1455594	Cap .....	2
27	1455595	Capscrew .....	4
28	1455596	O-Ring .....	2
29	1320982	O-Ring .....	1
30	1377232	Spring .....	1
31	1383923	Valve Section (Inlet) .....	1
31	.....	Housing .....	1
32	1320982	O-Ring .....	1
33	1377226	Valve Section (Secondary Hoist Section) .....	1
33	.....	Housing .....	1
33	.....	Spool .....	1

## HYDRAULIC CONTROL VALVE – MAIN

ITEM	PART NO.	DESCRIPTION	QTY
33	.....	Spool .....	1
34	1377213	Screw .....	2
35	1377214	Retainer .....	2
36	1377215	Cap .....	1
37	1377216	Screw .....	1
37	1377217	Spacer .....	1
38	1383924	Washer .....	2
39	<b>c</b> 1377218	Spring .....	1
39	<b>d</b> 1484315	Spring .....	1
40	1377219	Retainer .....	1
41	16487	O-Ring .....	1
42	1320982	O-Ring .....	1
43	1320998	Poppet .....	1
44	1320994	Spring .....	1
45	39767	O-Ring .....	2
46	1377220	Cap .....	1
47	16328	Capscrew .....	2
48	1377224	Valve Section (Tilt Section) .....	1
48	.....	Spool .....	1
48	.....	Housing .....	1
49	1377213	Screw .....	2
50	1377214	Retainer .....	2
51	1377215	Cap .....	1
52	1377216	Screw .....	1
52	1377217	Spacer .....	1
53	1377219	Retainer .....	1
54	<b>c</b> 1377218	Spring .....	1
54	<b>d</b> 1484315	Spring .....	1
55	16487	O-Ring .....	1
56	1383924	Washer .....	2
57	1320982	O-Ring .....	1
58	1320994	Spring .....	1
59	1320998	Poppet .....	1
60	39767	O-Ring .....	2
61	1377220	Cap .....	1
62	16328	Capscrew .....	2
63	<b>b</b> 1377212	Valve Section (Auxiliary Section) .....	1
63	<b>a d</b> 1484314	Valve Section .....	1
63	.....	Housing .....	1
63	.....	Spool .....	1
64	1377213	Screw .....	2
65	1377214	Retainer .....	2
66	1377215	Cap .....	1
67	1377216	Screw .....	1
68	1377217	Spacer .....	4
69	1377219	Retainer .....	1
70	<b>c</b> 1456875	Spring .....	1
70	<b>d</b> 1484316	Spring .....	1
71	16487	O-Ring .....	1
72	1320982	O-Ring .....	1

**HYDRAULIC  
CONTROL VALVE – MAIN**

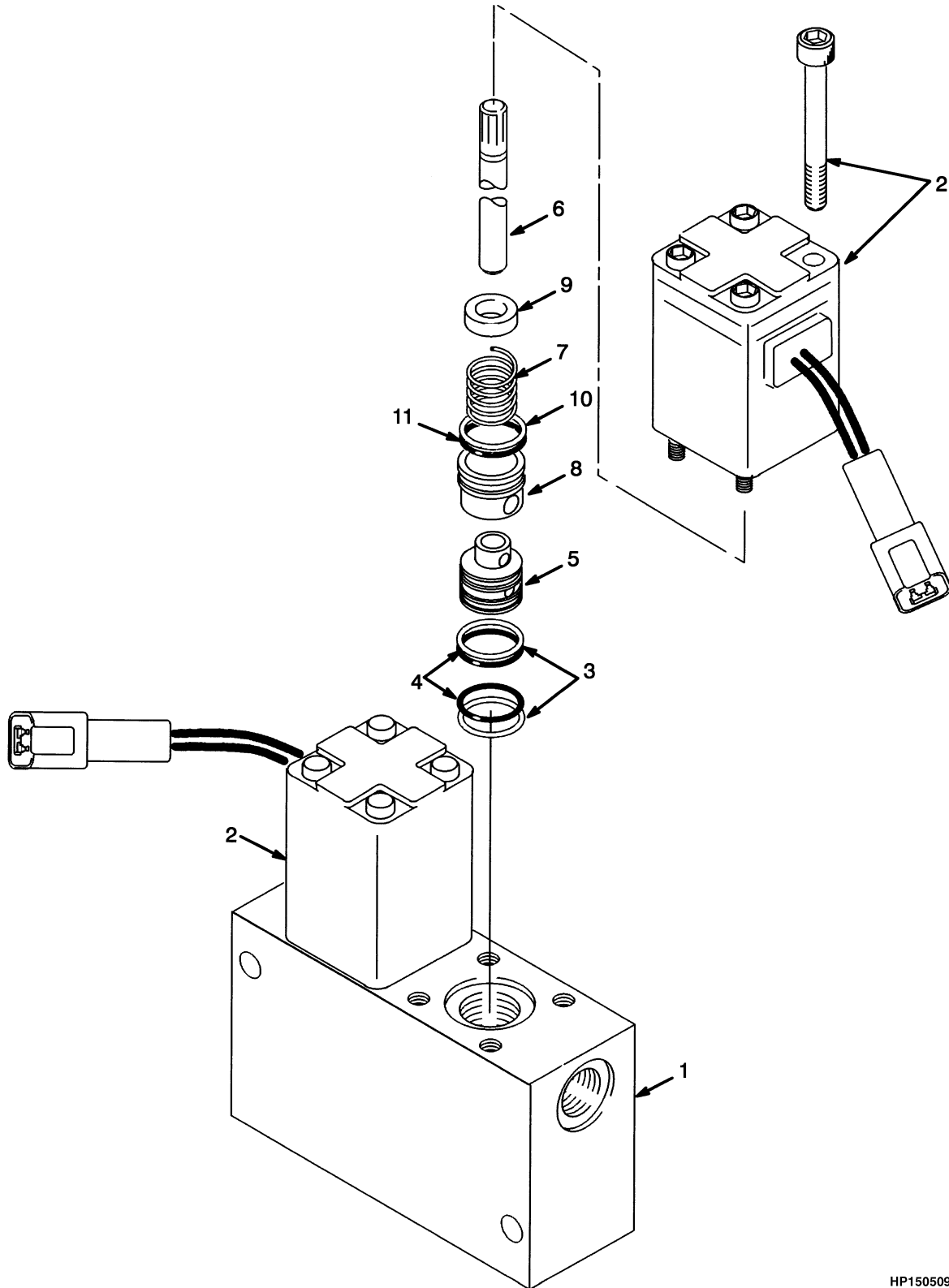
ITEM	PART NO.	DESCRIPTION	QTY
73	1320994	Spring .....	1
74	1320998	Poppet .....	1
75	39767	O-Ring .....	2
76	1377220	Cap .....	1
77	16328	Capscrew .....	2
78	1383924	Washer .....	2
79	1320980	Valve Section .....	1
79	.....	Housing .....	1
80	1320982	O-Ring .....	1

**FOOTNOTES:**

**a** Empty Container Handler  
**b** Fork Lift Truck

**c** → S/N A214E01717  
**d** S/N A214E01718 →

## HYDRAULIC (FIGURE 9-15) DIRECTIONAL CONTROL VALVE — EMPTY CONTAINER HANDLER



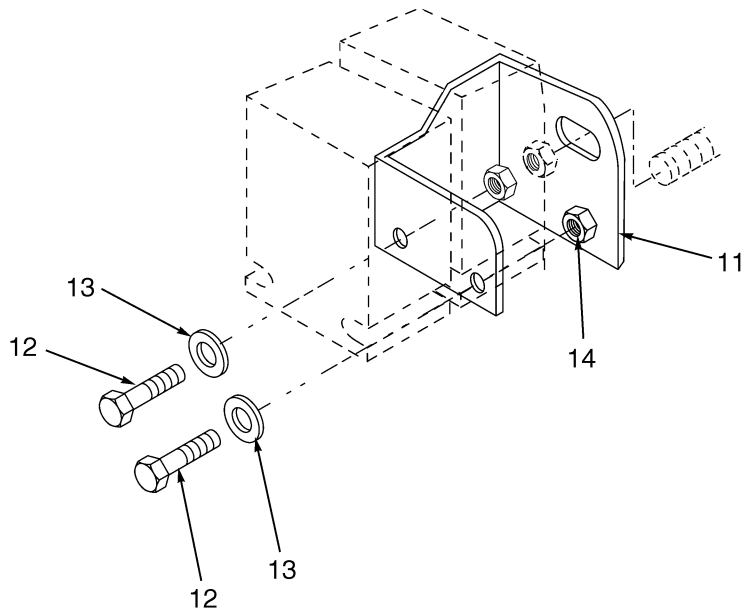
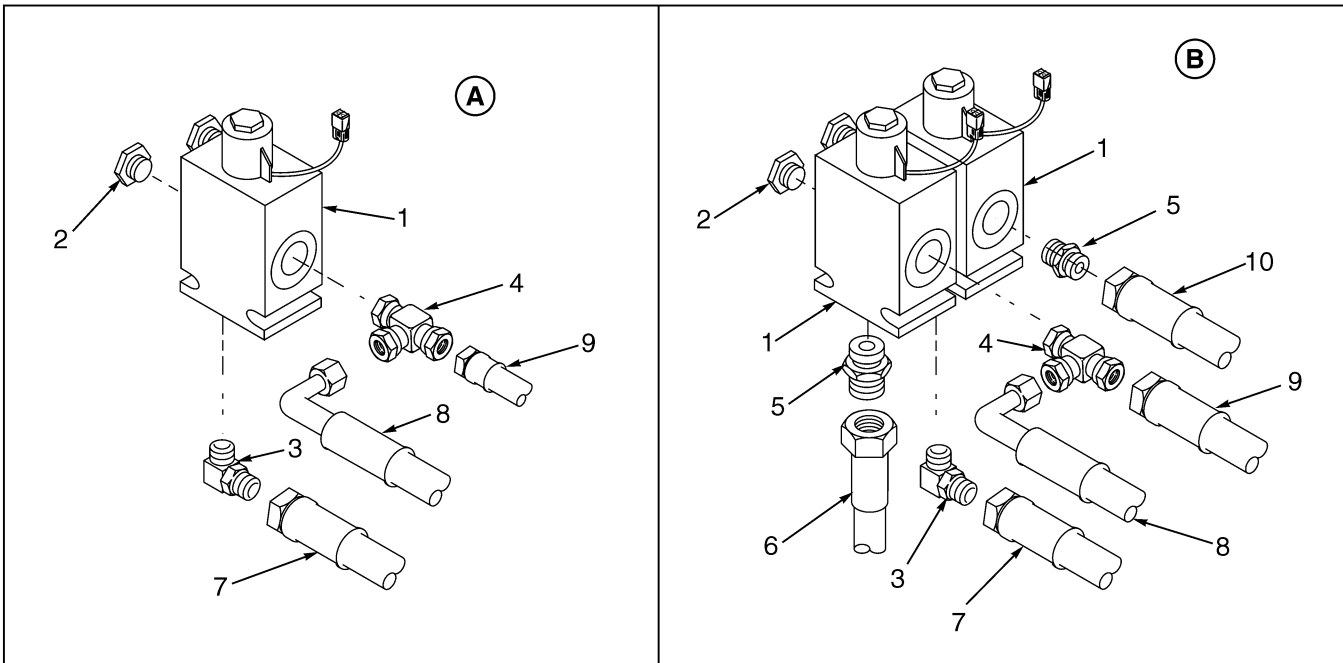
HP150509



**HYDRAULIC**  
**DIRECTIONAL CONTROL VALVE – EMPTY CONTAINER HANDLER**

ITEM	PART NO.	DESCRIPTION	QTY
	1373389	Valve .....	1
1	.....	Housing .....	1
2	1377209	Solenoid .....	2
3	18921	Back-Up Ring .....	4
4	266519	O-Ring .....	4
5	1377204	Body .....	2
6	1377205	Shuttle Valve .....	2
7	1377206	Spring .....	2
8	1377207	Spring .....	2
9	1377208	Spacer .....	2
10	1377202	Retaining Ring .....	2
11	1377203	O-Ring .....	2
	1456014	Kit-Seal .....	2

## HYDRAULIC SOLENOID VALVE ATTACHING PARTS (FIGURE 9-16) LIFT AND LOWERING INTERRUPT — EMPTY CONTAINER HANDLER (S/N A214E01752X →)



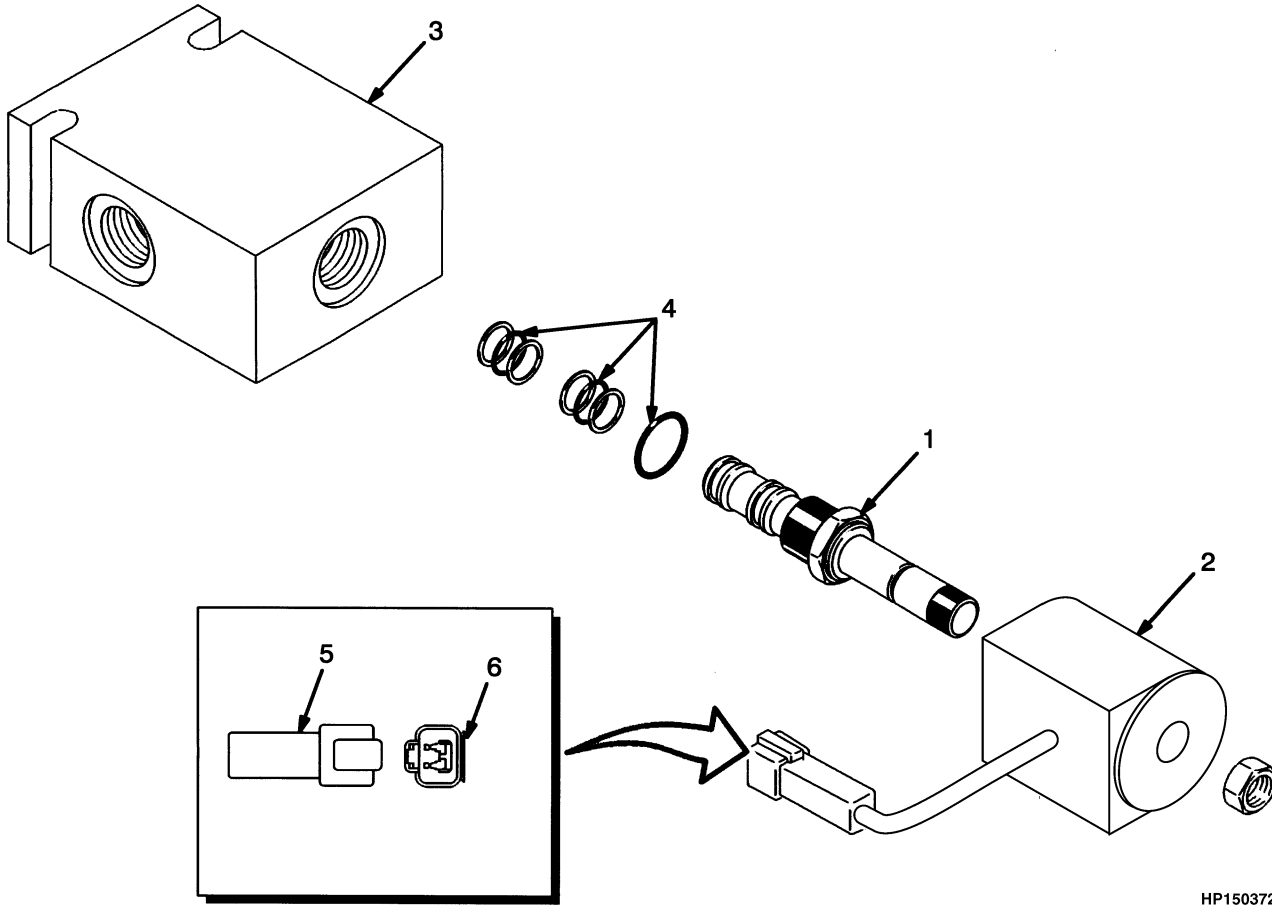
HP150857

**HYDRAULIC SOLENOID VALVE ATTACHING PARTS**  
**LIFT AND LOWERING INTERRUPT – EMPTY CONTAINER HANDLER (S/N A214E01752X →)**

**KEY:****A: Lowering Interrupt****B: Lift and Lowering Interrupt**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1383517	Solenoid Valve Assembly (Solenoid) (☞ Figure 9-17).....	1	2
2	4579809			
	222443	Fitting .....	1	2
3	16558	Fitting .....	1	1
4	16969	T-Fitting .....	1	1
5	16540	Connector .....	..	2
6	816694	Hose Assy .....	..	1
7	816691	Hose Assy .....	1	1
8	816690	Hose Assy .....	1	1
9	816692	Hose Assy .....	1	1
10	816693	Hose Assy .....	..	1
11	816597	Plate .....	1	1
12	18471	Capscrew .....	2	..
12	18480	Capscrew .....	..	2
13	15127	Washer .....	2	2
14	15054	Nut .....	2	2

**HYDRAULIC SOLENOID VALVE (FIGURE 9-17)**  
**LIFT AND LOWERING INTERRUPT — EMPTY CONTAINER HANDLER (S/N A214E01752X →)**

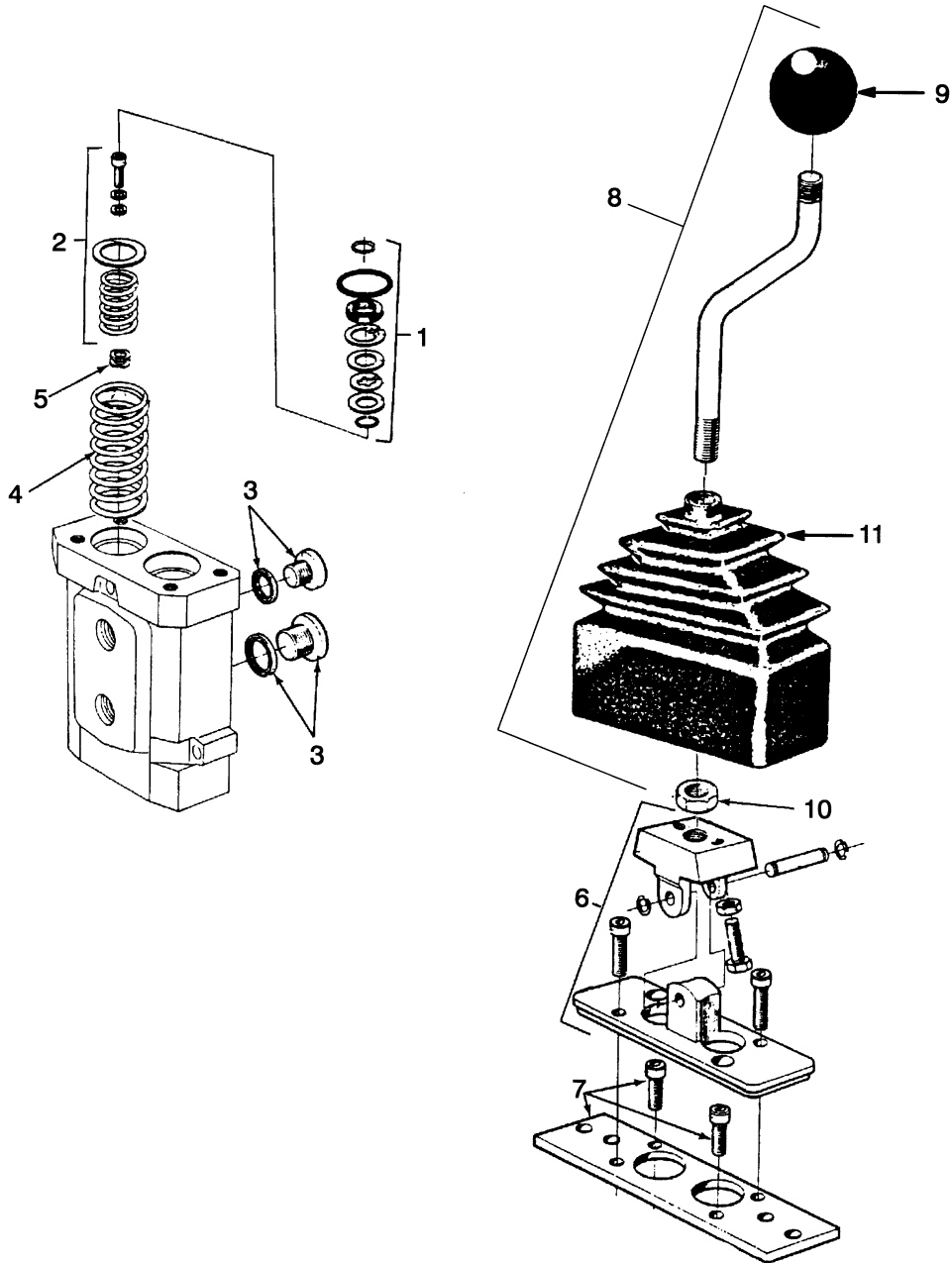


HP150372

ITEM	PART NO.	DESCRIPTION	QTY
	1383517	Solenoid Valve Assembly .....	1
1	1388379	Actuator .....	1
2	1388380	Coil .....	1
2	1330409	Connector .....	1
2	1330414	Connector (Secondary Lock) .....	1
3	1343161	Body .....	1
4	371172	Kit-Seal .....	1
5	1330409	Connector .....	1
6	1330414	Connector (Secondary Lock) .....	1



## HYDRAULIC PILOT CONTROL VALVE (FIGURE 9-18) EMPTY CONTAINER HANDLER

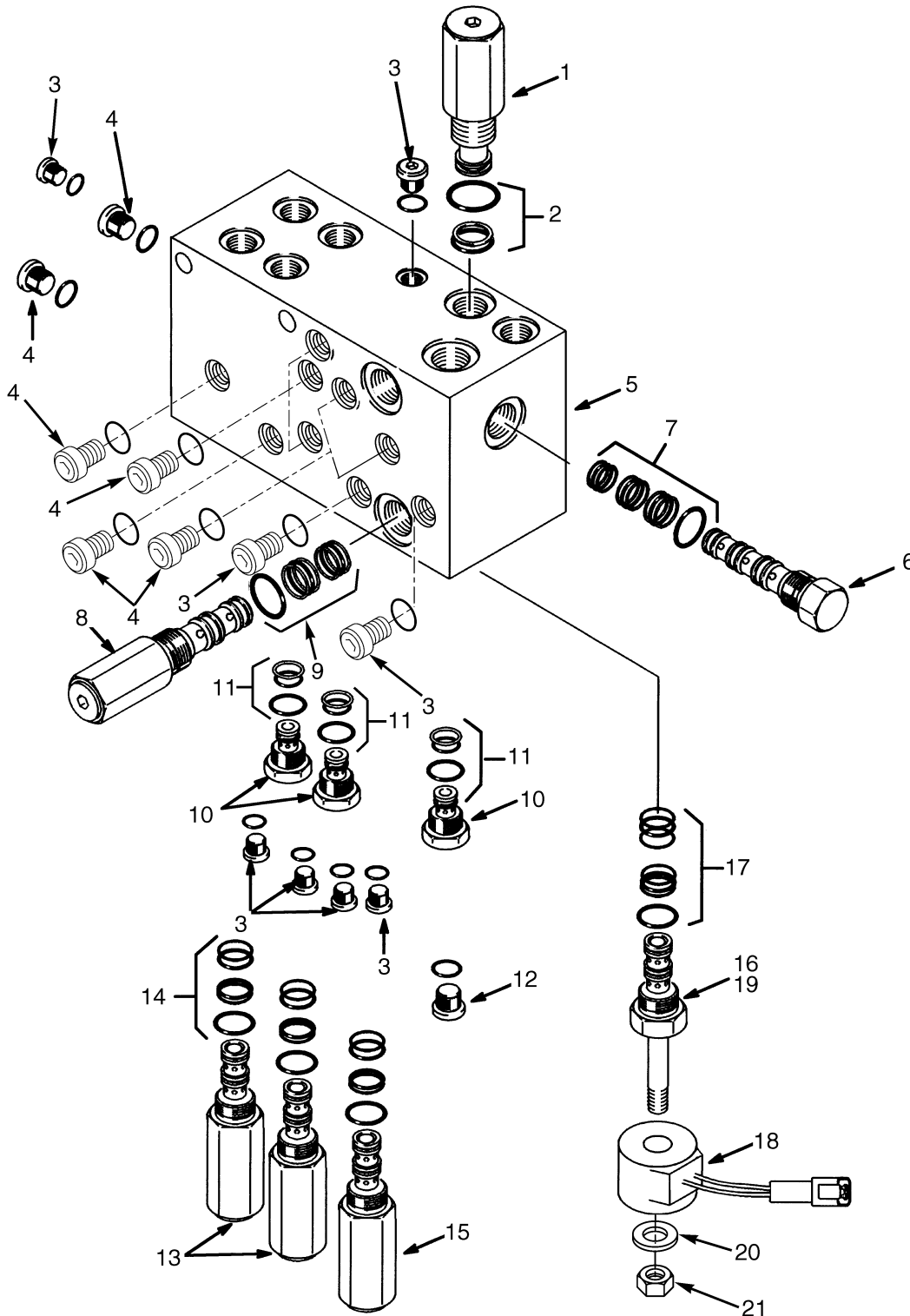


HP150508

**HYDRAULIC PILOT CONTROL VALVE  
EMPTY CONTAINER HANDLER****KEY:****A: Valve 1373611****B: Valve 1390642**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1373611	Pilot Valve .....	1	..
	1390642	Pilot Valve .....	..	1
1	1328548	Pin .....	2	2
1	1342701	Kit-Seal .....	1	1
2	1393424	Spring .....	2	..
2	1453623	Spring .....	..	1
2	1453624	Spring .....	..	1
3	1318045	Kit-Plug .....	1	1
4	1318025	Return Spring .....	2	2
5	1318026	Spacer .....	2	2
5	1318027	Spacer .....	2	2
6	1318047	Pressure Plate .....	1	1
7	1316395	Mounting Plate .....	1	1
8	1316397	Lever .....	1	1
9	345929	Knob .....	1	1
10	1316398	Nut .....	1	1
11	345735	Boot .....	1	1

## HYDRAULIC PILOT CONTROL SUPPLY VALVE (FIGURE 9-19) EMPTY CONTAINER HANDLER



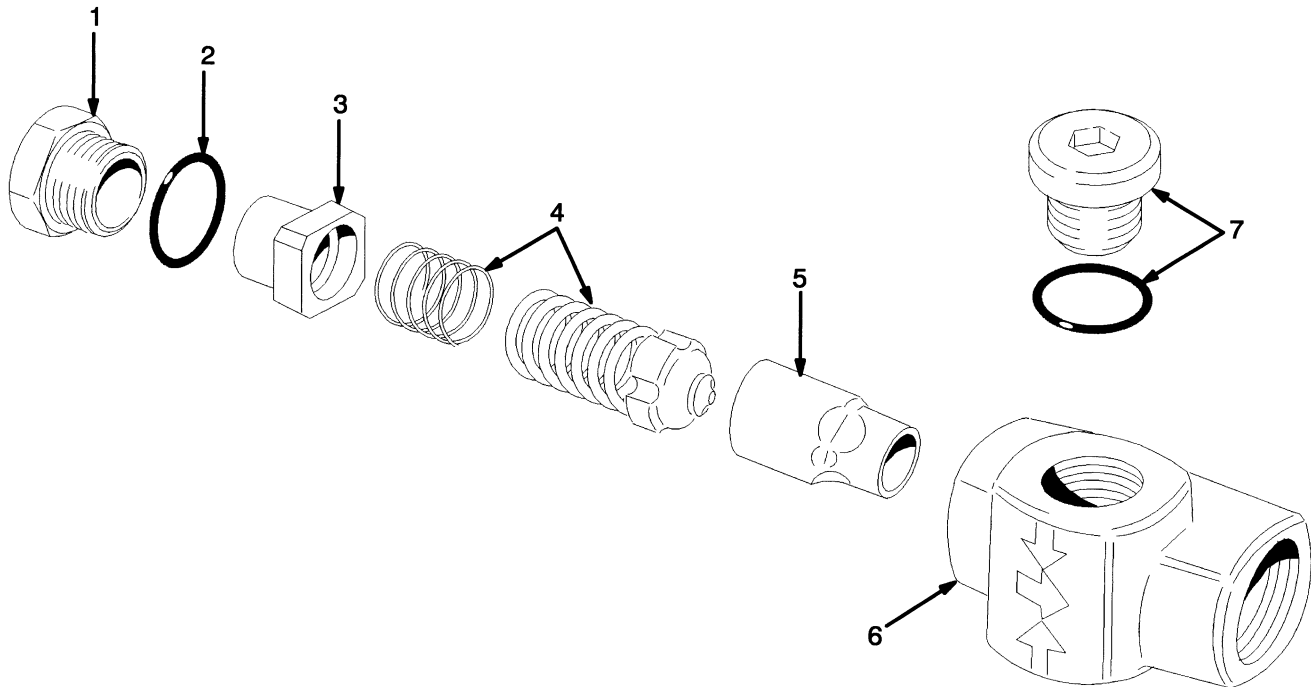
HP150858



**HYDRAULIC PILOT CONTROL SUPPLY VALVE  
EMPTY CONTAINER HANDLER**

ITEM	PART NO.	DESCRIPTION	QTY
	1487919	Pilot Valve (Pilot Supply) .....	1
1	1560027	Relief Valve .....	1
2	1560036	Kit-Seal .....	1
3	1491210	Plug (Expansion) .....	18
4	1453148	Plug .....	10
5	1491211	Body .....	1
6	1560028	Flow Valve .....	1
7	1560034	Kit-Seal .....	1
8	1560030	Valve (Pressure Reducing) .....	1
9	1502388	Kit-Seal .....	1
10	1560029	Check Valve .....	3
11	1560036	Kit-Seal .....	1
12	1453146	Plug .....	1
13	1560031	Pressure Valve .....	2
14	1502388	Kit-Seal .....	1
15	1560026	Valve (P/O Uploading) .....	1
15	1560035	Kit-Seal .....	1
16	1560025	Solenoid Valve .....	1
17	1560032	Kit-Seal .....	1
18	1455820	Coil .....	1
19	383789	Thread Sealant .....	AR
20	1491209	Washer (Serrated) .....	1
21	.....	Nut .....	1
22	323493	Plug (Not Illustrated) .....	1

## HYDRAULIC RELIEF VALVE (FIGURE 9-20) TILT (→ S/N A214E02029B)

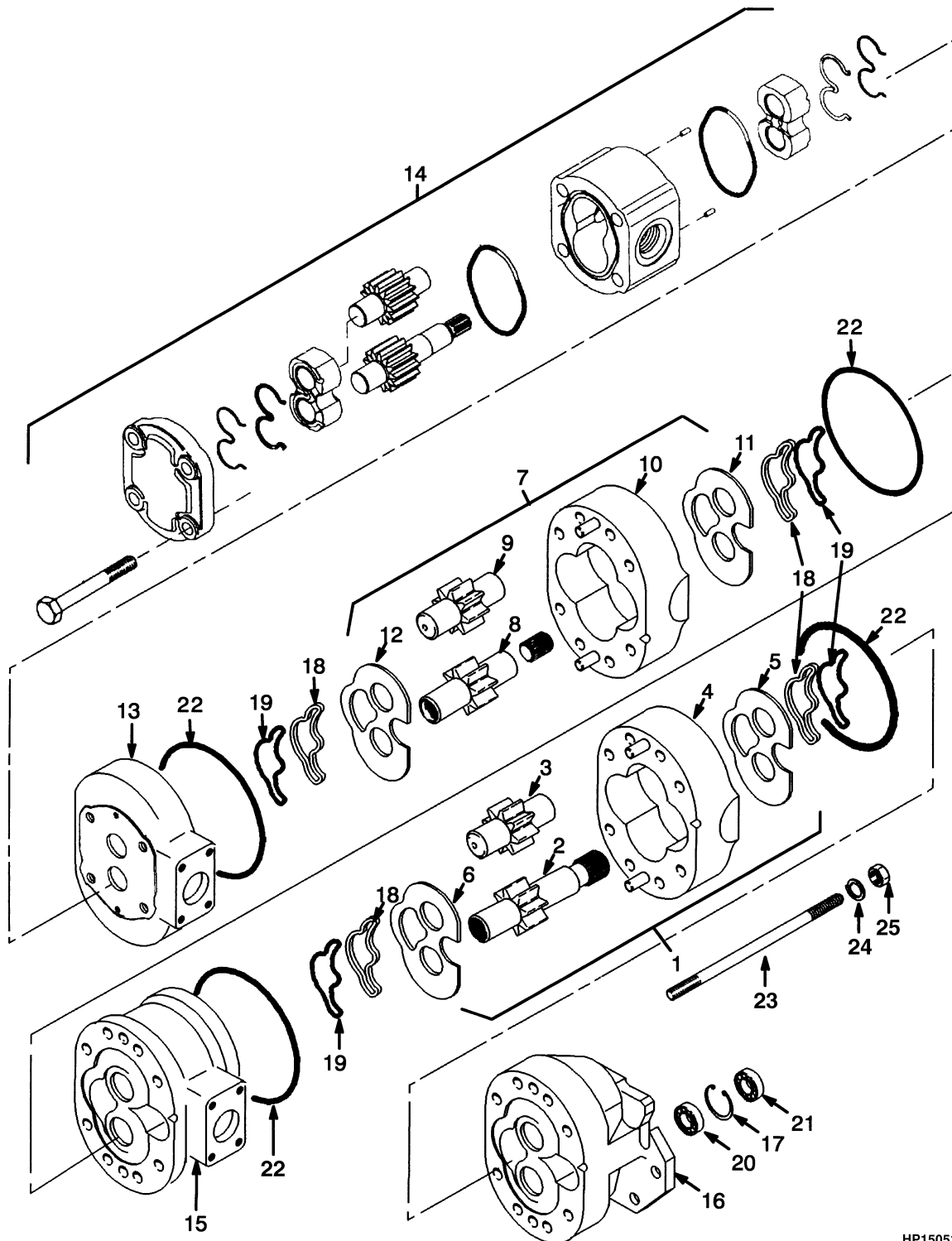


HP150499

ITEM	PART NO.	DESCRIPTION	QTY
	1346421	Relief Valve .....	4
1	1350997	Plug .....	1
2	1331081	O-Ring .....	1
3	1350710	Spacer .....	1
4	1350711	Cartridge .....	1
5	1350712	Housing .....	1
6	.....	Body .....	1
7	222444	Fitting .....	1
7	4450764	.....	1
	16486	O-Ring .....	1



## HYDRAULIC PUMP (FIGURE 9-21)

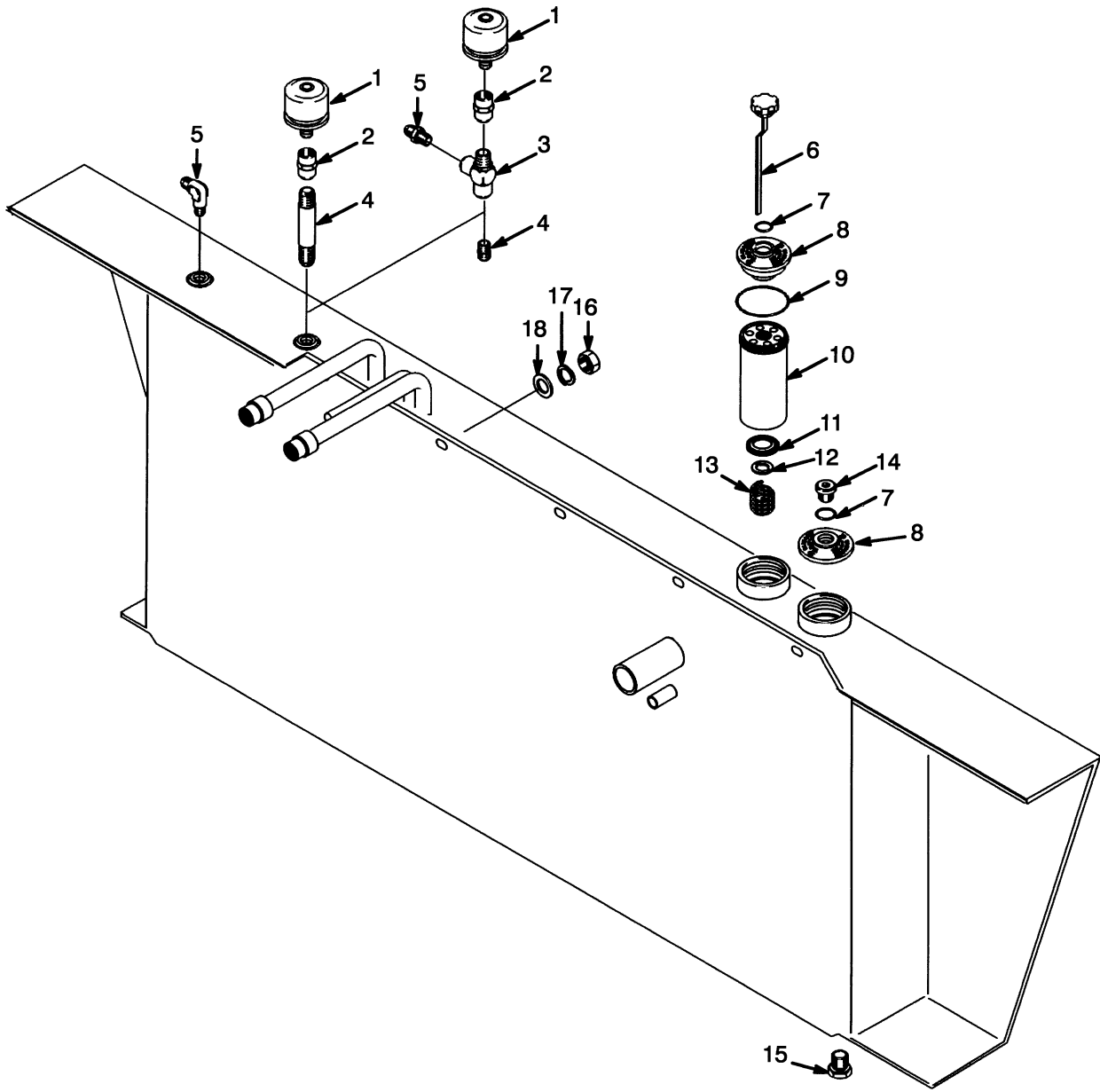


HP150513

**HYDRAULIC PUMP**

ITEM	PART NO.	DESCRIPTION	QTY
	1391499	Hydraulic Pump .....	1
1	.....	Front Section Kit .....	1
2	.....	Drive Gear .....	1
3	.....	Driven Gear .....	1
4	.....	Center Section .....	1
5	.....	Front Wear Plate .....	2
6	.....	Wear Plate (Rear) .....	1
7	.....	Second Section Kit .....	1
8	.....	Drive Gear .....	1
9	.....	Driven Gear .....	1
10	.....	Center Section .....	1
11	.....	Front Wear Plate .....	1
12	.....	Wear Plate (Rear) .....	1
13	.....	Port Section Kit .....	1
14	.....	W-Pump Kit .....	1
15	.....	Thru Drive Port Kit .....	1
16	.....	Front Cover Kit .....	1
17	1318619	Retaining Ring .....	1
18	.....	Seal .....	4
19	.....	Seal .....	4
20	.....	Seal .....	1
21	.....	Seal .....	1
22	.....	O-Ring .....	4
23	.....	Stud .....	8
24	1318621	Lockwasher .....	8
25	221714	Nut .....	8
	1456194	Kit-Seal .....	1
	1456200	Kit-Stud .....	1

## HYDRAULIC TANK (FIGURE 9-22) (→ S/N A214E01534)



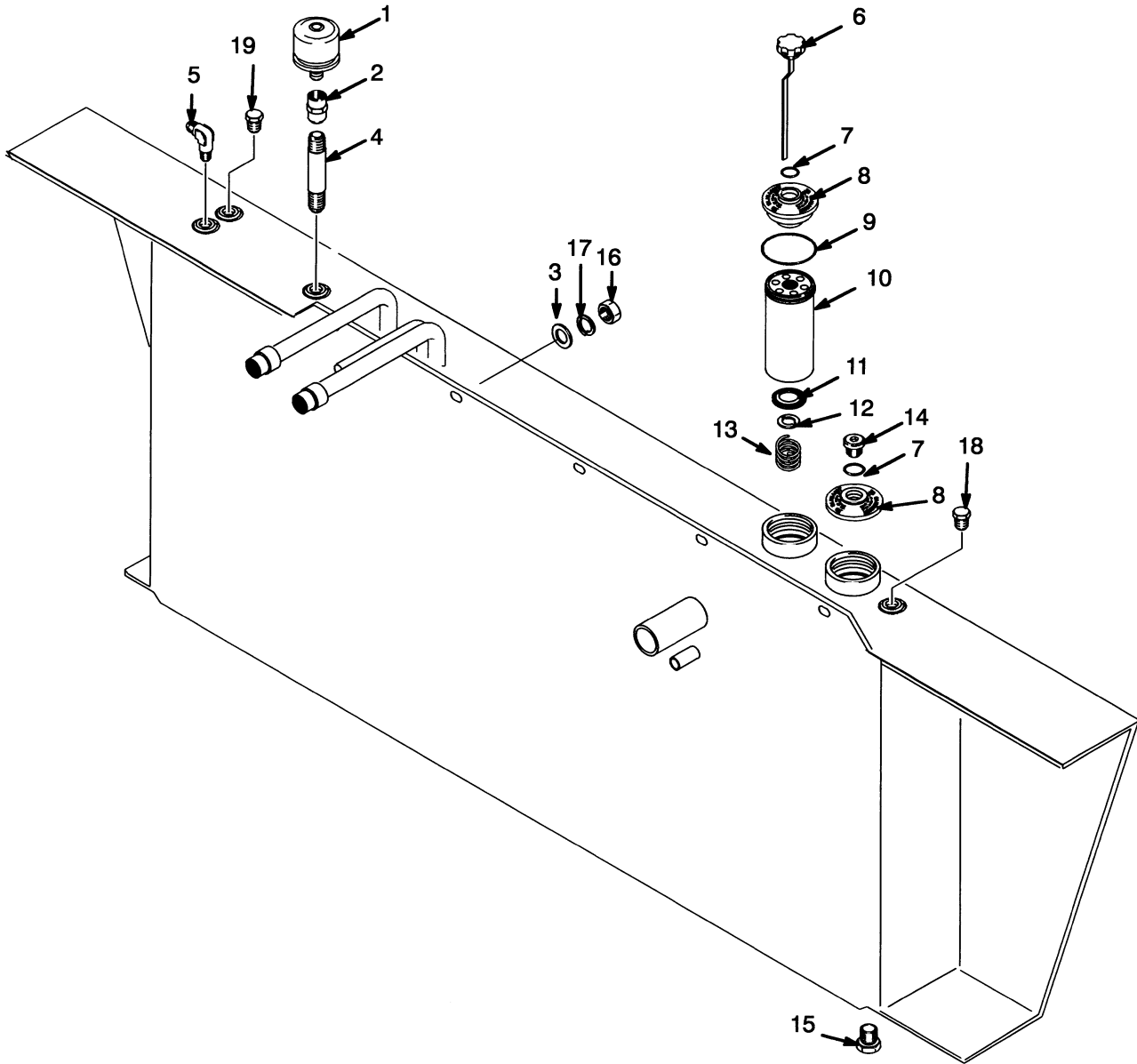
HP150494

**HYDRAULIC TANK**  
(→ S/N A214E01534)

ITEM	PART NO.	DESCRIPTION	QTY
	1381990	Hyd Tank Wldmt .....	1
1	353302	Breather .....	1
2	12829	Fitting .....	1
3	<b>a</b> 156696	Fitting .....	1
4	<b>b</b> 15382	Fitting .....	1
4	<b>a</b> 15384	Fitting .....	1
5	<b>b</b> 17300	Fitting .....	1
5	<b>a</b> 17345	Fitting .....	1
6	348368	Dipstick .....	1
7	16487	O-Ring .....	1
8	190787	Filter Head .....	2
9	39742	O-Ring .....	2
10	376066	Hydraulic Filter .....	2
11	181941	Seal .....	2
12	190785	Washer .....	2
13	190784	Spring .....	2
14	233683	Fitting .....	1
15	14388	Fitting .....	1
16	<del>1318914</del> 216877	Nut .....	5
17	320162	Washer .....	5
18	292683	Lockwasher .....	5

**FOOTNOTES:****a** Empty Container Handler**b** Fork Lift Truck

## HYDRAULIC TANK (FIGURE 9-23) (S/N A214E01535 →)



HP150495

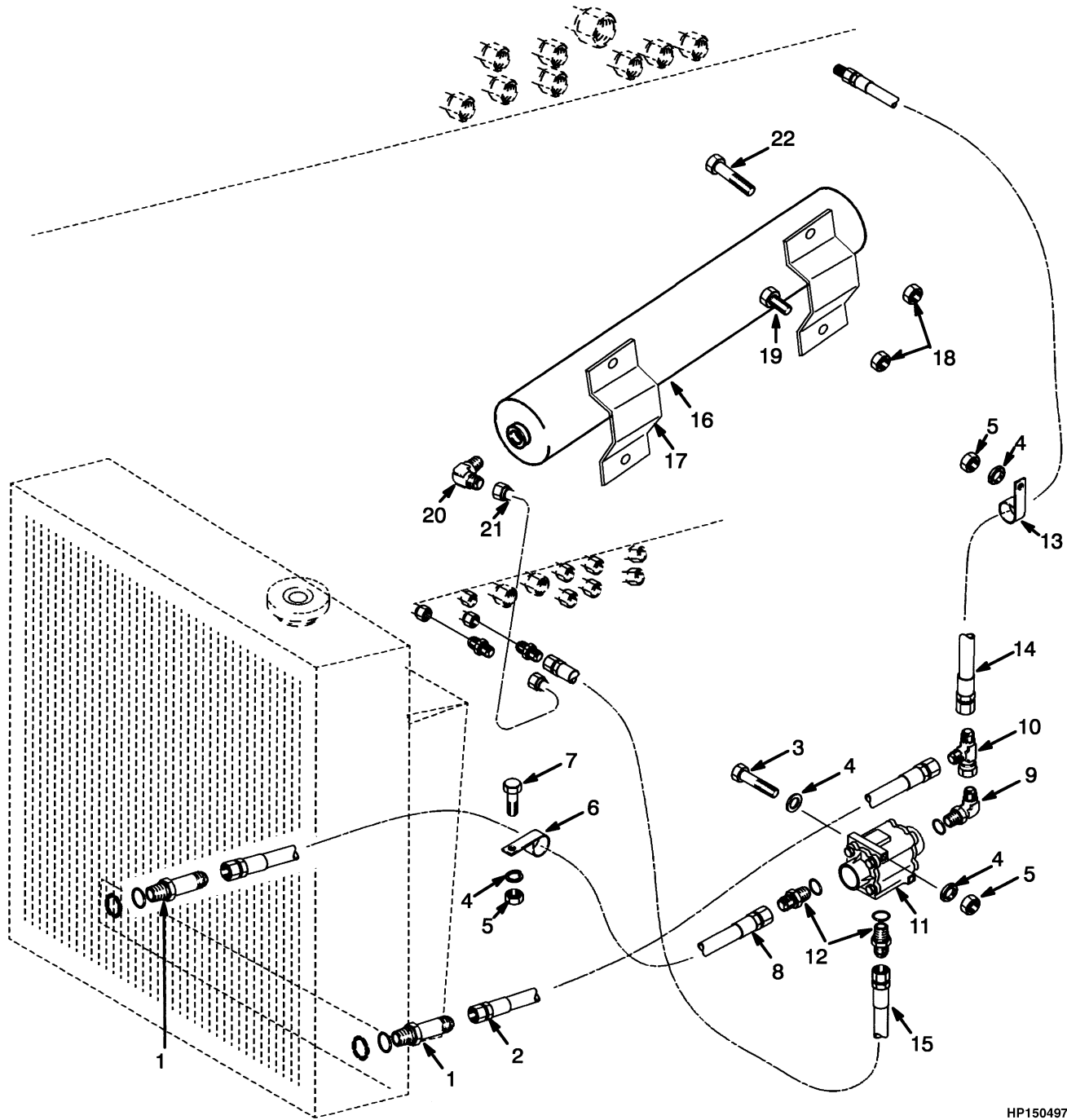


**HYDRAULIC TANK**  
(S/N A214E01535 →)**KEY:****A:** Empty Container Handler**B:** Fork Lift Truck

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	<b>b</b> 1456475	Hyd Tank Wldmt (H400H-EC5-H450H-EC6) .....	1	..
	<b>c</b> 1519694	Hyd Tank Wldmt (H400H-EC5-H450H-EC6) .....	1	..
	<b>a</b> 1528536	Hyd Tank Wldmt (H400H-EC5-H450H-EC6) .....	1	..
	<b>b</b> 1393841	Hyd Tank Wldmt (H360-400H) .....	..	1
	<b>a</b> 1560003	Hyd Tank Wldmt (H360-400H) .....	..	1
	<b>a</b> 1560002	Hyd Tank Wldmt (H450H) .....	..	1
1	<b>b</b> 353302	Breather .....	1	1
1	<b>a</b> 1475141	Breather .....	1	1
1	1494312	Filter Element .....	1	1
2	12829	Fitting .....	1	1
3	292683	Lockwasher .....	5	5
4	15382	Fitting .....	1	1
5	17300	Fitting .....	..	1
6	348368	Dipstick .....	1	1
7	16487	O-Ring .....	1	1
8	190787	Filter Head .....	2	2
9	39742	O-Ring .....	2	2
10	<b>e</b> 376066	Hydraulic Filter .....	2	2
10	<b>g</b> 2045122	Hydraulic Filter .....	2	2
11	181941	Seal .....	..	2
12	190785	Washer .....	..	2
13	190784	Spring .....	..	2
14	233683	Fitting .....	..	1
15	<b>d</b> 14388	Fitting .....	..	1
15	<b>f</b> 35503	Fitting .....	..	1
16	<del>1318914</del> 216877	Nut .....	5	5
17	320162	Washer .....	5	5
18	<b>d</b> 17637	Fitting .....	..	1
19	<b>f</b> 17636	Fitting .....	..	1

**FOOTNOTES:****a** Tier I And Tier II Engine**b** Tier I Engine**c** Tier II Engine**d** → 12/1998**e** → S/N A214E01804**f** 12/1998 →**g** S/N A214E01805 →

## BRAKE COOLING SYSTEM (FIGURE 9-24) EMPTY CONTAINER HANDLER (→ S/N A214E01751)



HP150497

**BRAKE COOLING SYSTEM**  
**EMPTY CONTAINER HANDLER (→ S/N A214E01751)**

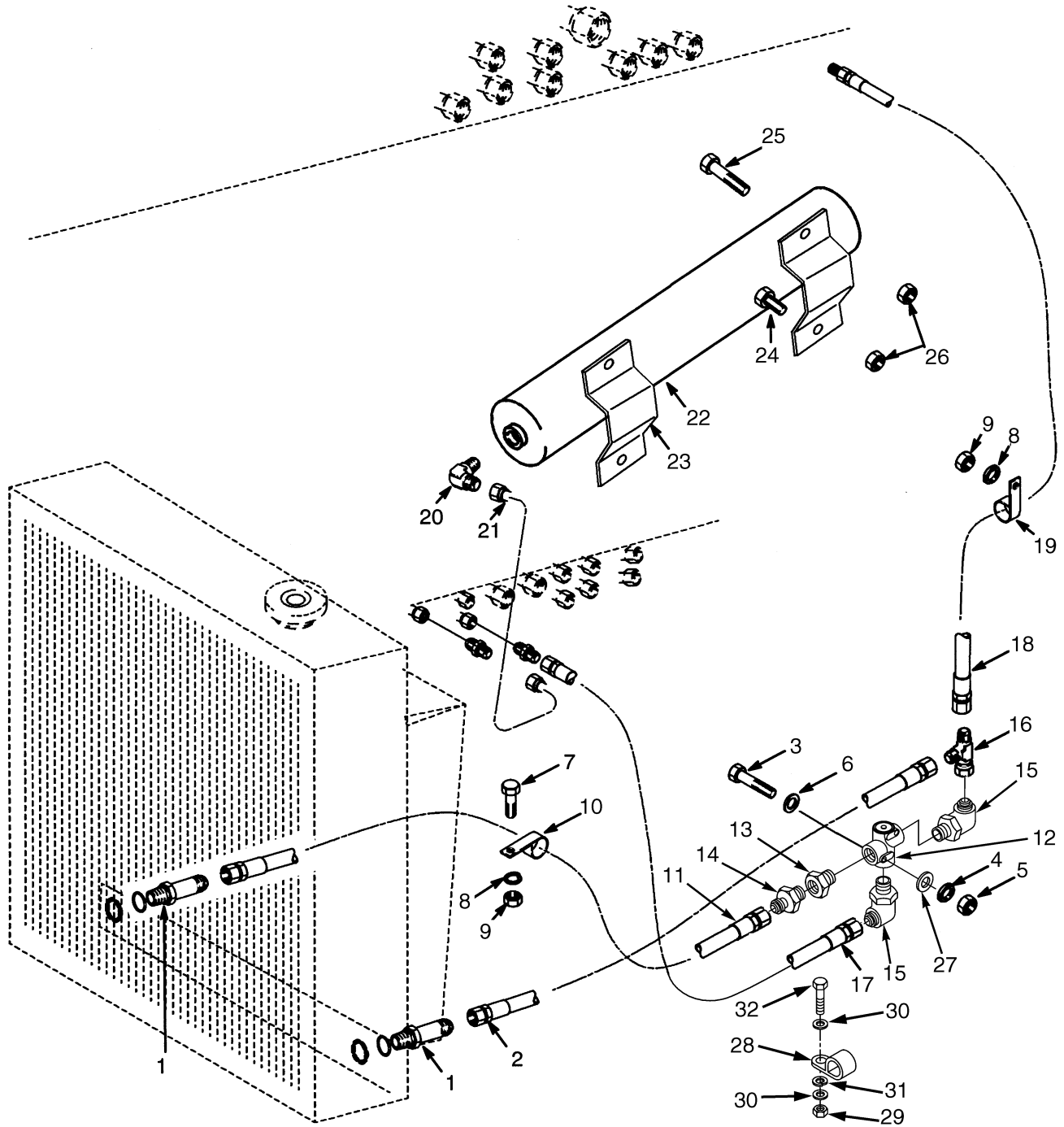
ITEM	PART NO.	DESCRIPTION	QTY
1	16551	Fitting .....	2
1	16485	O-Ring .....	1
2	1385558	Hose Assy .....	1
3	292525	Capscrew .....	2
4	<b>a</b> 320159	Washer .....	3
4	<b>d</b> 320159	Washer .....	6
5	<b>a</b> 302401	Locknut .....	3
5	<b>d</b> 302401	Locknut .....	4
6	<b>a</b> 255578	Clamp .....	1
6	<b>d</b> 398184	Clamp .....	1
7	287854	Capscrew .....	1
8	153049	Hose Assy .....	1
9	201776	Fitting .....	1
9	16487	O-Ring .....	1
10	17064	Fitting .....	1
11	1483912	Kit-Cooling .....	1
12	222383	Fitting .....	2
12	16487	O-Ring .....	1
13	1384699	Clamp .....	3
14	<b>b</b> 1382856	Hose Assy .....	1
14	<b>e</b> 95578	Hose Assy .....	1
15	<b>c</b> 1382855	Hose Assy .....	1
15	<b>f</b> 1468074	Hose Assy .....	1
16	1496496	Accumulator (☞ Figure 9-28).....	1
17	1376844	Bracket .....	2
18	302402	Locknut .....	4
19	<del>4048814</del> 292528	Capscrew .....	2
20	110174	Fitting .....	1
21	1382861	Tube Assy .....	1
22	292539	Capscrew .....	2

**FOOTNOTES:**

**a** → S/N A214E01534  
**b** → S/N A214E01572  
**c** → S/N A214E01665

**d** S/N A214E01535 →  
**e** S/N A214E01573 →  
**f** S/N A214E01666 →

## BRAKE COOLING SYSTEM (FIGURE 9-25) EMPTY CONTAINER HANDLER (S/N A214E01752 →)

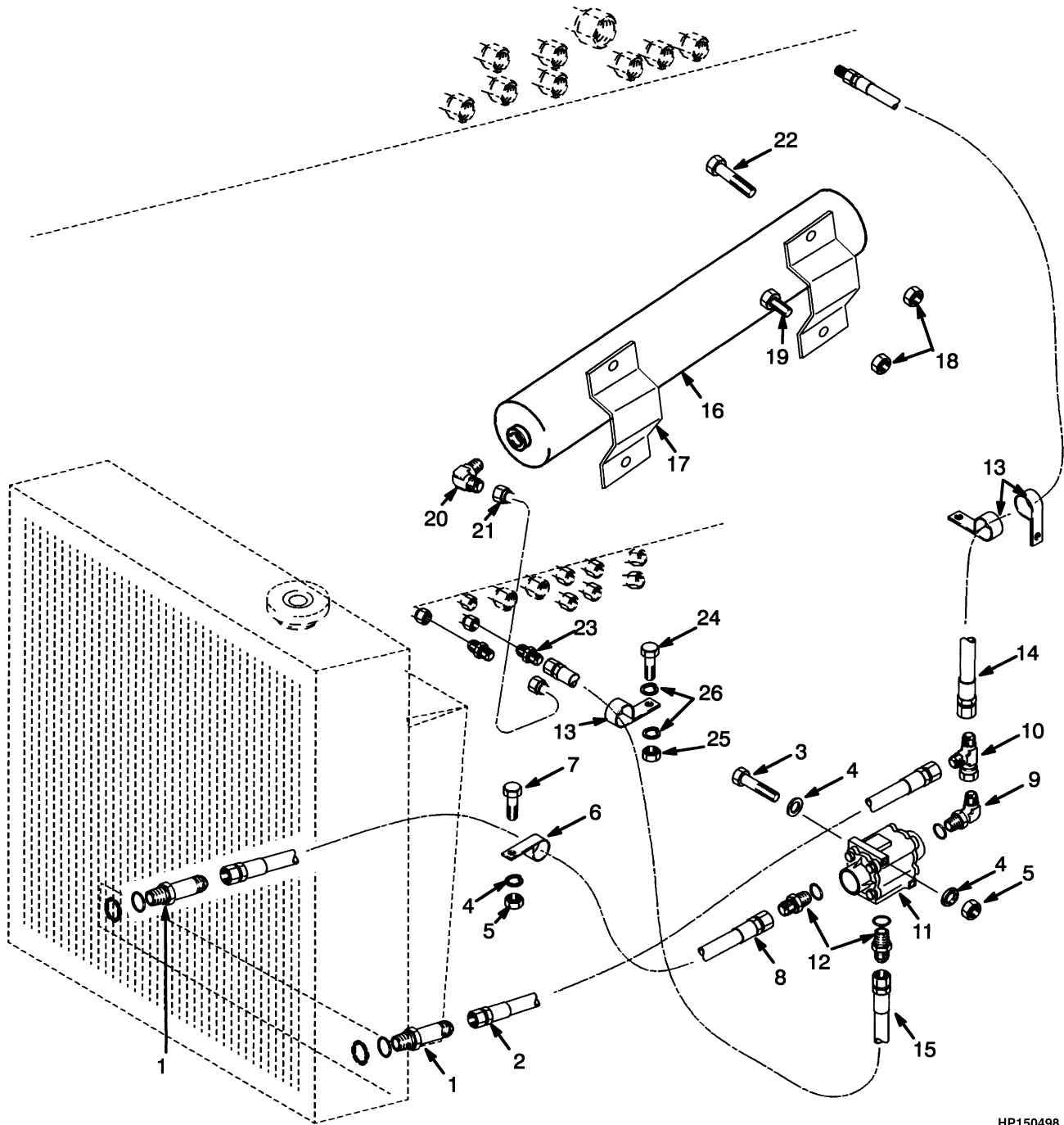


HP150805

**BRAKE COOLING SYSTEM**  
**EMPTY CONTAINER HANDLER (S/N A214E01752 →)**

ITEM	PART NO.	DESCRIPTION	QTY
1	16551	Fitting .....	2
2	1385558	Hose Assy .....	2
3	136750	Capscrew .....	2
4	292681	Lockwasher .....	2
5	239503	Nut .....	2
6	320157	Washer .....	2
7	287854	Capscrew .....	1
8	320159	Washer .....	3
9	302401	Locknut .....	3
10	398184	Clamp .....	1
11	153049	Hose Assy .....	1
12	1483901	By-Pass Valve (Thermo By-Pass) .....	1
13	1483903	Fitting .....	1
14	1483904	Fitting .....	1
15	1483902	Fitting .....	2
16	17064	Fitting .....	1
17	1484331	Hose Assy .....	1
18	95578	Hose Assy .....	1
19	1384699	Clamp .....	4
20	110174	Fitting .....	1
21	1382861	Tube Assy .....	1
22	1496496	Accumulator (☞ Figure 9-28).....	1
23	1376844	Bracket .....	2
24	<del>4048814</del> 292528	Capscrew .....	2
25	292539	Capscrew .....	2
26	302402	Locknut .....	4
27	1300165	Spacer .....	2
28	166285	Clamp .....	1
29	329069	Nut .....	1
30	320157	Washer .....	2
31	292681	Lockwasher .....	1
32	292508	Capscrew .....	1

## BRAKE COOLING SYSTEM (FIGURE 9-26) FORK LIFT TRUCK (→ S/N A214E01751)



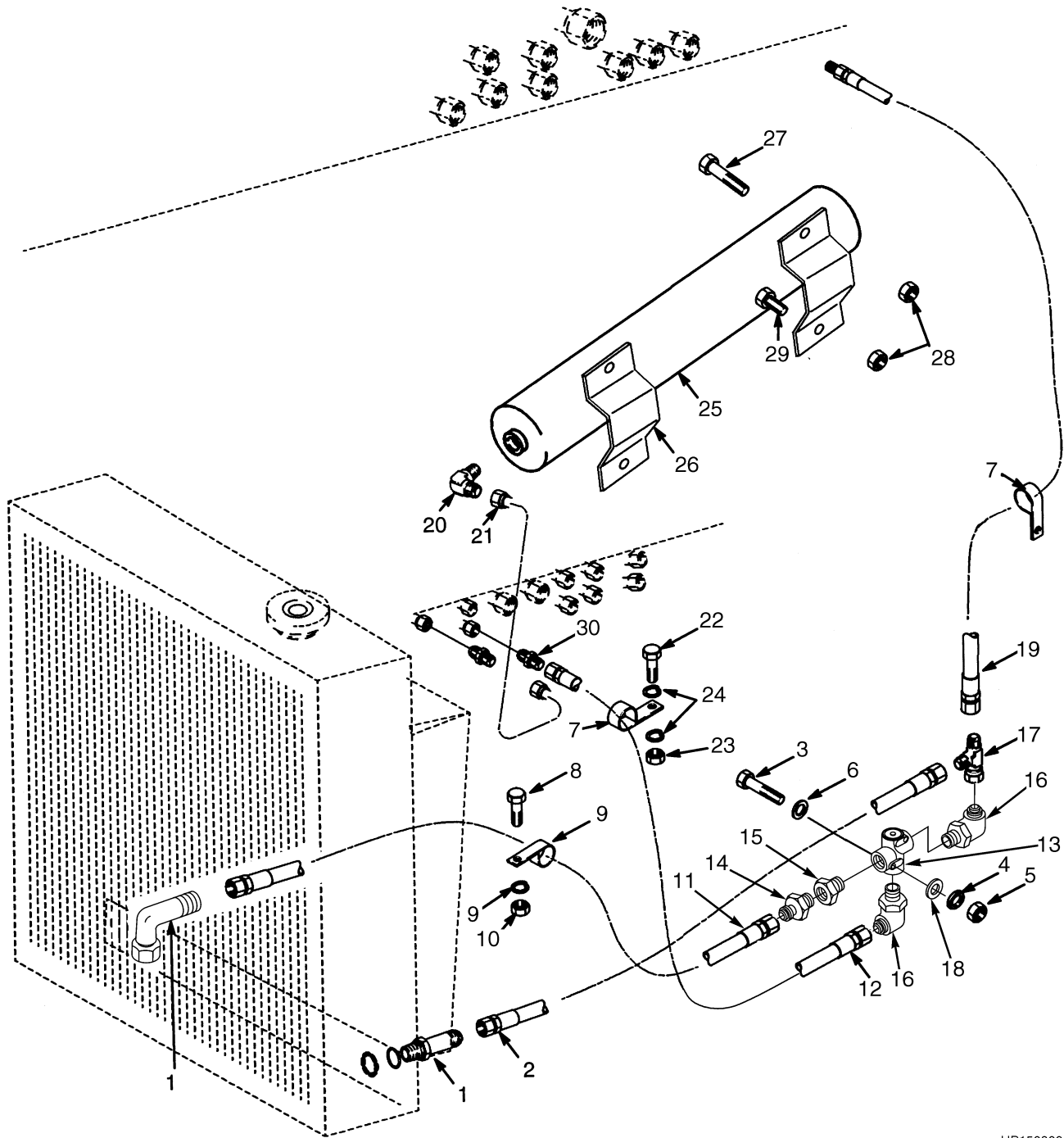
HP150498

**BRAKE COOLING SYSTEM**  
**FORK LIFT TRUCK (→ S/N A214E01751)**

ITEM	PART NO.	DESCRIPTION	QTY
1	16551	Fitting .....	2
1	16485	O-Ring .....	1
2	1385558	Hose Assy .....	1
3	292525	Capscrew .....	2
4	320159	Washer .....	3
5	302401	Locknut .....	3
6	398184	Clamp .....	1
7	287854	Capscrew .....	1
8	153049	Hose Assy .....	1
9	201776	Fitting .....	1
9	16487	O-Ring .....	1
10	17064	Fitting .....	1
11	1483912	Kit-Cooling .....	1
12	222383	Fitting .....	2
12	16487	O-Ring .....	1
13	166112	Clamp .....	2
14	<b>a</b> 1451532	Hose Assy .....	1
14	<b>c</b> 1460409	Hose Assy .....	1
15	<b>b</b> 1451533	Hose Assy .....	1
15	<b>d</b> 1468074	Hose Assy .....	1
16	1496496	Accumulator (☞ Figure 9-28).....	1
17	1376844	Bracket .....	2
18	302402	Locknut .....	4
19	<del>4048814</del> 292528	Capscrew .....	2
20	110174	Fitting .....	1
21	1382861	Tube Assy .....	1
22	292539	Capscrew .....	2
23	<b>b</b> 17039	Fitting .....	1
24	292502	Capscrew .....	1
25	136687	Nut .....	1
26	296418	Washer .....	2

**FOOTNOTES:****a** → S/N A214E01572**b** → S/N A214E01665**c** S/N A214E01573 →**d** S/N A214E01666 →

## BRAKE COOLING SYSTEM (FIGURE 9-27) FORKLIFT TRUCK (S/N A214E01752 →)



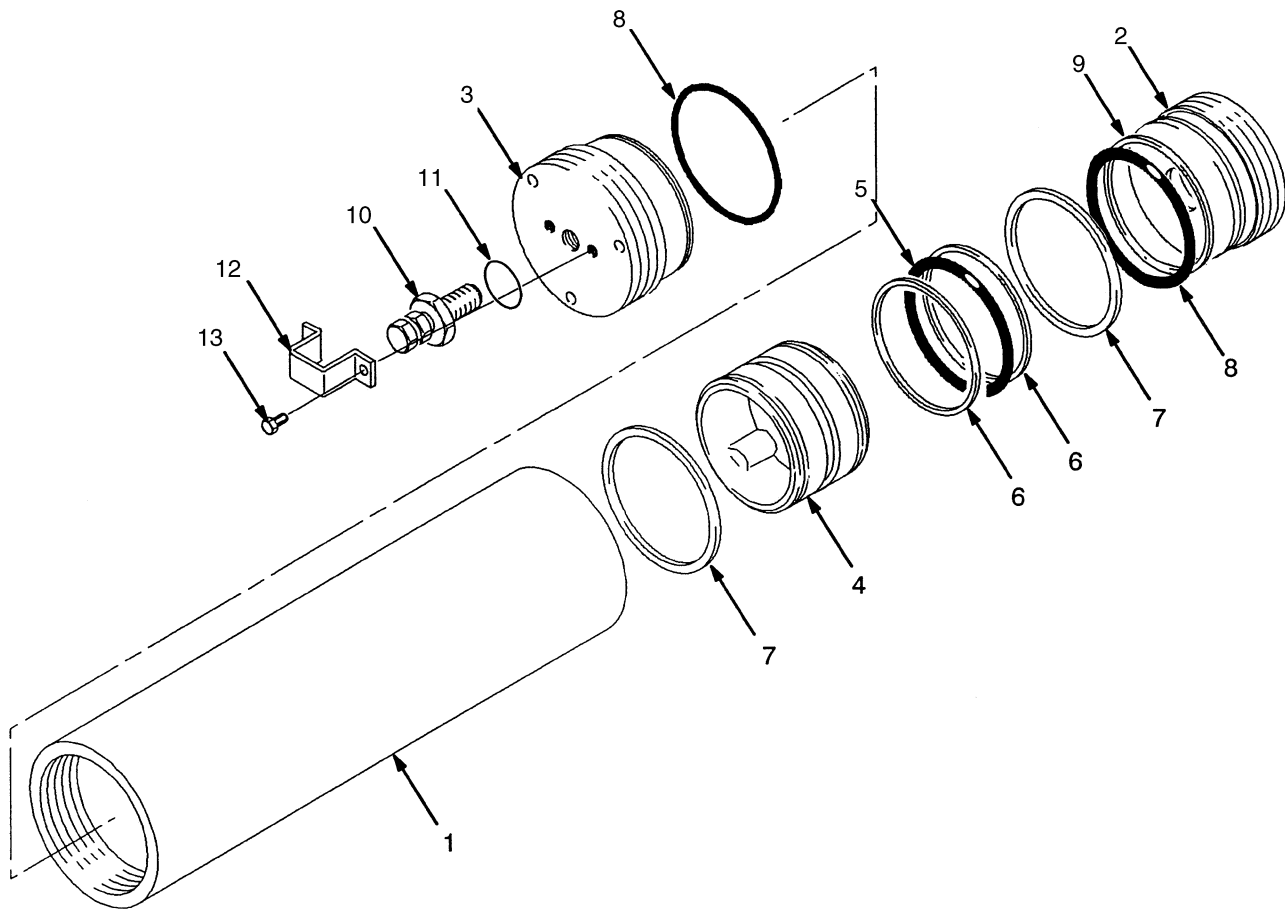
HP150806



**BRAKE COOLING SYSTEM**  
**FORKLIFT TRUCK (S/N A214E01752 →)**

ITEM	PART NO.	DESCRIPTION	QTY
1	16989	Fitting .....	1
2	1385558	Hose Assy .....	1
3	136750	Capscrew .....	2
4	320157	Washer .....	2
5	239503	Nut .....	2
6	292681	Lockwasher .....	2
7	398184	Clamp .....	4
8	287854	Capscrew .....	1
9	320159	Washer .....	4
10	302401	Locknut .....	4
11	153049	Hose Assy .....	1
12	1484331	Hose Assy .....	1
13	1483901	By-Pass Valve (Thermo By-Pass) .....	1
14	1483904	Fitting .....	1
15	1483903	Fitting .....	1
16	1483902	Fitting .....	2
17	17064	Fitting .....	1
18	1300165	Spacer .....	2
19	1460409	Hose Assy .....	1
20	110174	Fitting .....	1
21	1382861	Tube Assy .....	1
22	292502	Capscrew .....	1
23	136687	Nut .....	1
24	15127	Washer .....	2
25	1563795	Accumulator .....	1
25	1502879	Kit-Accumulator .....	1
26	1376844	Bracket .....	2
27	292539	Capscrew .....	2
28	302402	Locknut .....	4
29	<del>4048814</del>		
	292528	Capscrew .....	2
30	17039	Fitting .....	1

## BRAKE COOLING SYSTEM (FIGURE 9-28) ACCUMULATOR

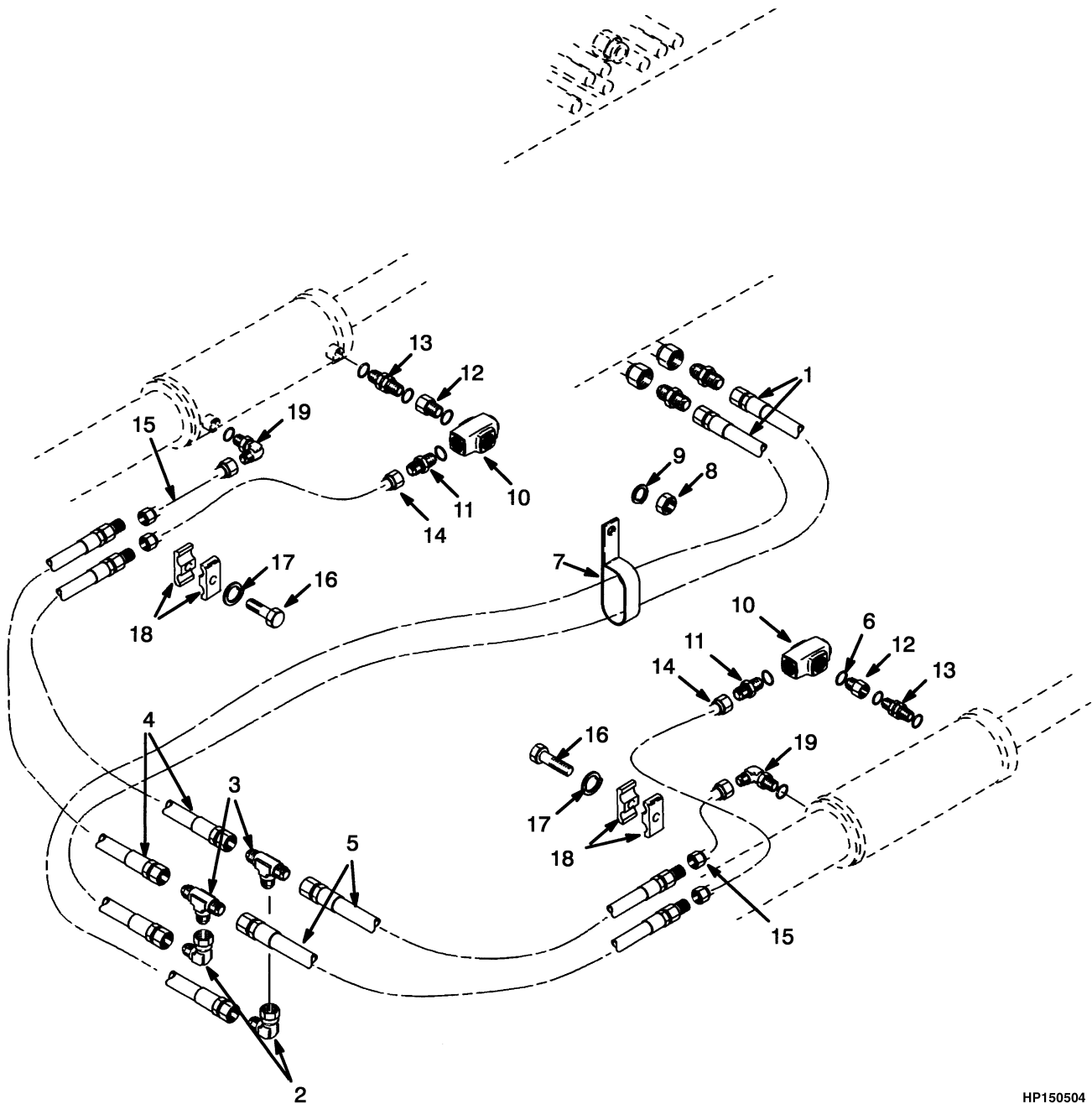


HP150807

ITEM	PART NO.	DESCRIPTION	QTY
	1496496	Accumulator .....	1
1	.....	Shell .....	1
2	.....	Hydraulic End Cap .....	1
3	.....	Gasoline End Cap .....	1
4	1502883	Piston .....	1
5	.....	O-Ring ("V") .....	1
6	.....	Back-Up Washer .....	2
7	1376933	Ring .....	2
8	.....	O-Ring .....	2
9	.....	Back-Up Washer .....	2
10	.....	Valve .....	1
11	.....	O-Ring .....	1
12	1376934	Protector .....	1
13	1502888	Screw .....	2
	1502879	Kit-Accumulator .....	1



## HYDRAULIC SYSTEM (FIGURE 9-29) TILT CYLINDER — EMPTY CONTAINER HANDLER



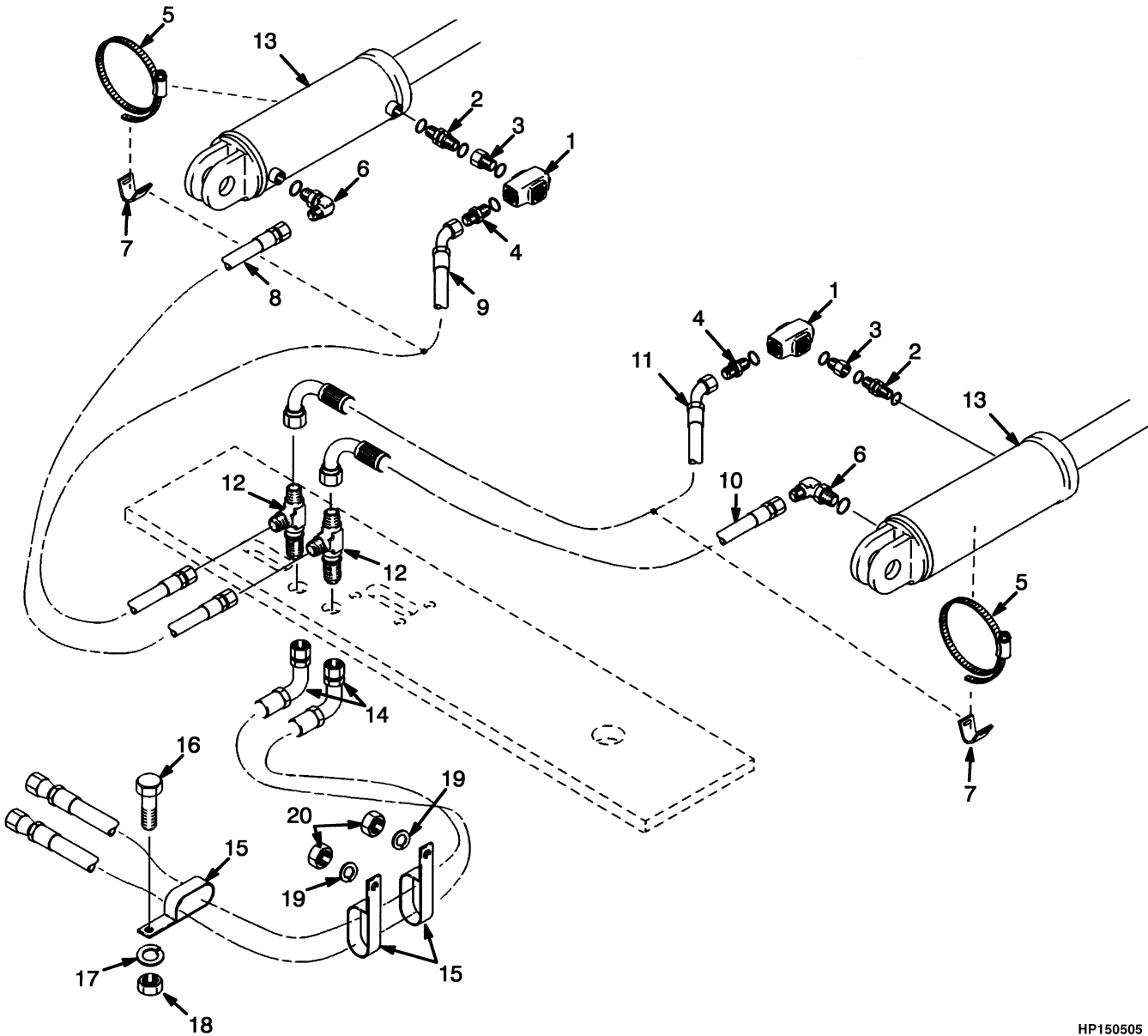
HP150504

**HYDRAULIC SYSTEM  
TILT CYLINDER – EMPTY CONTAINER HANDLER**

ITEM	PART NO.	DESCRIPTION	QTY
1	1384467	Hose Assy .....	2
2	16989	Fitting .....	2
3	16475	Fitting .....	2
4	1384468	Hose Assy .....	2
5	1384469	Hose Assy .....	2
6	15907	Lockwasher .....	4
7	251994	Clamp .....	2
8	302401	Locknut .....	2
9	320159	Washer .....	2
10	<b>b</b> 1346421	Relief Valve (☞ Figure 9-20).....	1
10	<b>c</b> 1564349	Relief Valve .....	1
11	16541	Fitting .....	2
11	16484	O-Ring .....	1
12	1336112	Fitting (O-Ring To O-Ring Adapter) .....	2
13	<b>a</b> 222456	Fitting .....	2
13	<del>1450764</del> 16486	O-Ring .....	1
14	1391851	Tube Assy .....	2
15	1391850	Tube .....	2
16	132861	Capscrew .....	4
17	292681	Lockwasher .....	4
18	1393802	Clamp .....	8
19	17167	Fitting .....	2
19	<del>1450764</del> 16486	O-Ring .....	1

**FOOTNOTES:****a** → 3/2004**c** S/N A214E02030B →**b** → S/N A214E02029B

## HYDRAULIC SYSTEM (FIGURE 9-30) TILT CYLINDER — FORK LIFT TRUCK



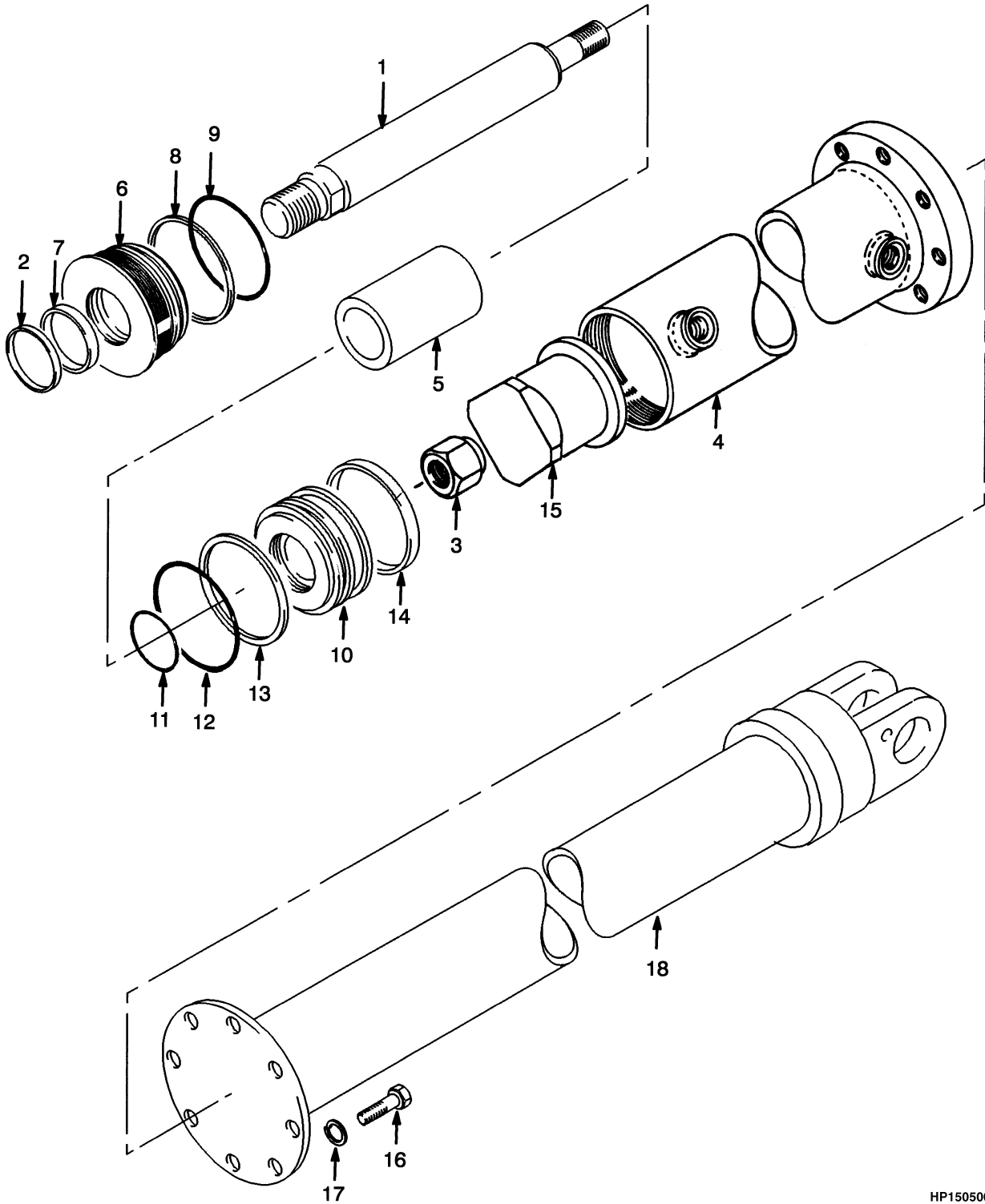
HP150505

**HYDRAULIC SYSTEM  
TILT CYLINDER – FORK LIFT TRUCK**

ITEM	PART NO.	DESCRIPTION	QTY
1	<b>b</b> 1346421	Relief Valve (☞ Figure 9-20).....	2
1	<b>c</b> 1564349	Relief Valve .....	2
2	1336112	Fitting (O-Ring To O-Ring Adapter) .....	2
3	<b>a</b> 222456	Fitting .....	2
3	<del>1450764</del> 16486	O-Ring .....	1
4	16541	Fitting .....	2
4	16484	O-Ring .....	1
5	227221	Clamp .....	2
6	16559	Fitting .....	2
6	16484	O-Ring .....	1
7	87911	Clamp .....	2
8	1450799	Hose Assy .....	1
9	1450798	Hose Assy .....	1
10	1450800	Hose Assy .....	1
11	1450801	Hose Assy .....	1
12	1455225	Fitting .....	2
13	1391462	Tilt Cylinder (H14XM-H16XM) (☞ Figure 9-32).....	2
13	1391463	Tilt Cylinder (H18XM) (☞ Figure 9-32).....	2
14	1451564	Hose Assy .....	2
15	251994	Clamp .....	3
16	292507	Capscrew .....	1
17	320156	Washer .....	1
18	302399	Nut .....	1
19	320159	Washer .....	2
20	302401	Locknut .....	2

**FOOTNOTES:****a** → 3/2004**b** → S/N A214E02029B**c** S/N A214E02030B →

## TILT CYLINDER (FIGURE 9-31) EMPTY CONTAINER HANDLER



HP150506

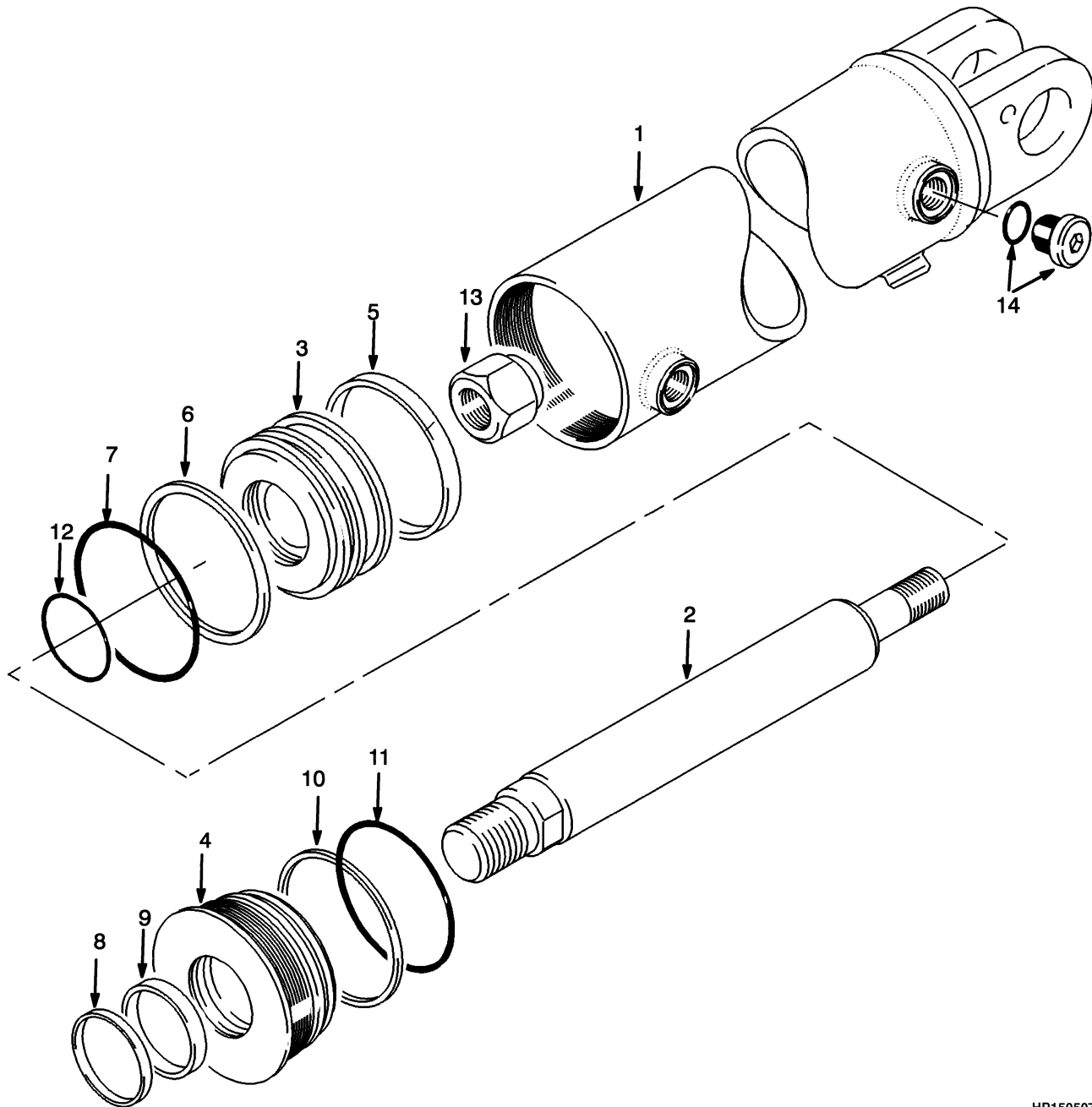


**TILT CYLINDER  
EMPTY CONTAINER HANDLER**

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a</b> 1391457	Tilt Cylinder .....	1
	<b>g</b> 1498532	Tilt Cylinder (3° Forward/4° Back) .....	1
1	<b>d</b> 1453124	Piston Rod .....	1
1	<b>g</b> 1498533	Piston Rod (3° Forward/4° Back) .....	1
2	<b>c</b> 816578	Rod Wiper .....	1
2	<b>f</b> 376186	Rod Wiper .....	1
3	221377	Locknut .....	1
4	<b>c</b> 1391461	Tube Wldmt-Cylinder .....	1
4	<b>f</b> 1470757	Tube Wldmt-Cylinder .....	1
5	<b>a</b> 1391460	Spacer .....	1
5	<b>d</b> 1453123	Spacer .....	1
5	<b>g</b> 1498530	Spacer (3° Forward/4° Back) .....	1
6	<b>c</b> 2013361	End Plug .....	1
6	<b>f</b> 1470765	Gland .....	1
7	<b>c</b> 816580	Rod Seal .....	1
7	<b>f</b> 358300	Rod Seal .....	1
8	<b>c</b> 146803	Back-Up Ring .....	1
8	<b>f</b> 1476882	Back-Up Ring .....	1
9	55289	O-Ring .....	1
10	387248	Piston .....	1
11	198518	O-Ring .....	1
12	15890	O-Ring .....	1
13	387246	Sealing Ring .....	1
14	387247	Wear Ring .....	1
15	<b>a</b> 1453110	Spacer .....	1
16	<b>b</b> 246001	Capscrew .....	16
16	<b>e</b> 293649	Capscrew .....	16
17	292683	Lockwasher .....	16
18	<b>b</b> 1391472	Tube .....	2
18	<b>e</b> 1459293	Tube .....	2
	387325	Kit-Seal .....	2
	1476917	Kit-Seal .....	2

**FOOTNOTES:****a** → 5/1997**b** → S/N A214E01576**c** → S/N A214E01724**d** 5/1997 →**e** S/N A214E01577 →**f** S/N A214E01725 →**g** S/N A214E01807 →

## TILT CYLINDER (FIGURE 9-32) FORK LIFT TRUCK



HP150507

**TILT CYLINDER  
FORK LIFT TRUCK****KEY:****A: H14.0XM-H16.00XM****B: H18.00XM**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	<b>a</b> 1391462	Tilt Cylinder .....	1	..
	1391463	Tilt Cylinder .....	..	1
	<b>b</b> 1458338	Cylinder Assy .....	1	..
1	<b>a</b> 1391464	Tube Wldmt-Cylinder .....	1	..
1	1391465	Tube Wldmt-Cylinder .....	..	1
1	<b>b</b> 1458337	Tube Wldmt-Cylinder .....	1	..
2	<b>a</b> 1391466	Piston Rod .....	1	..
2	1391467	Piston Rod .....	..	1
2	<b>b</b> 1458339	Piston Rod .....	1	..
3	370175	Piston .....	1	1
4	370176	End Plug .....	1	1
5	370196	Wear Ring .....	1	1
6	370197	Sealing Ring .....	1	1
7	90207	O-Ring .....	1	1
8	225334	Rod Wiper .....	1	1
9	309062	Rod Seal .....	1	1
10	53086	Back-Up Ring .....	1	1
11	15895	O-Ring .....	1	1
12	46388	O-Ring .....	1	1
13	1349793	Locknut .....	1	1
14	14595	Plug Assembly .....	2	..
14	16484	O-Ring .....	1	..
	1330134	Kit-Seal (High Temperature) .....	1	1
	1308786	Kit-Seal .....	1	1

**FOOTNOTES:****a** → S/N A214E01550**b** S/N A214E01551 →



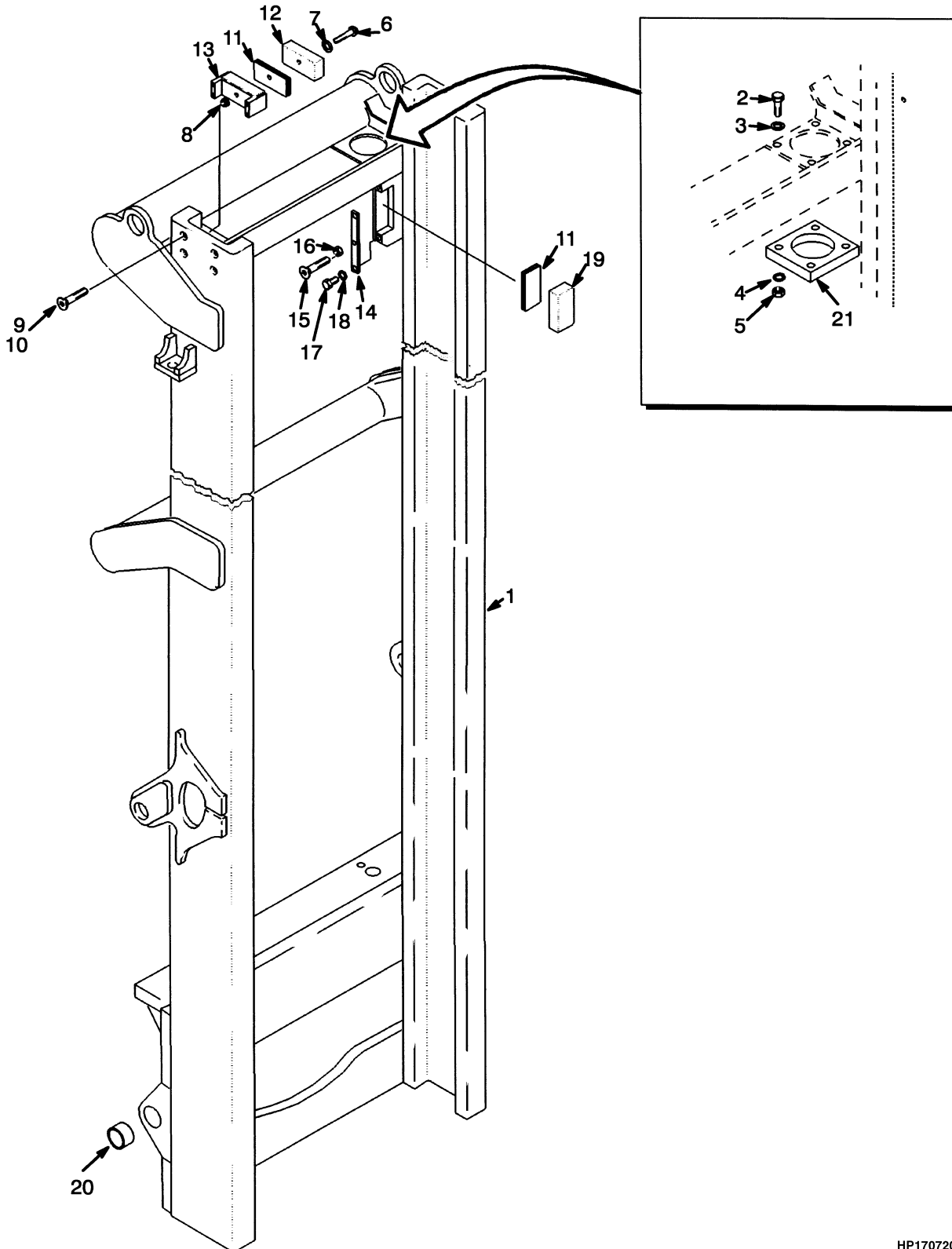




## SECTION 10 MAST-TWO STAGE VISTA

DESCRIPTION	PAGE
CARRIAGE	
HYDRAULIC SYSTEM - TWO STAGE VISTA .....	10-48
TWO STAGE VISTA .....	10-42
WITH QUICK DISCONNECT - TWO STAGE VISTA .....	10-44
FORK POSITIONER AND SIDE-SHIFT CYLINDER	
TWO STAGE VISTA .....	10-50
HEADER HOSE	
TWO STAGE VISTA .....	10-34
INNER MAST	
TWO STAGE VISTA .....	10-6
LIFT CYLINDER	
H14.00-16.00XM - TWO STAGE VISTA (→ 9/2004) .....	10-18
H14.00-16.00XM - TWO STAGE VISTA (9/2004 →) .....	10-22
H18.00-20.00XM - TWO STAGE VISTA (→ 9/2004) .....	10-26
H18.00-20.00XM - TWO STAGE VISTA (9/2004 →) .....	10-30
MAIN LIFT	
TWO STAGE VISTA - PAGE 1 OF 2 .....	10-10
TWO STAGE VISTA - PAGE 2 OF 2 .....	10-14
MAST INSTALLATION	
TWO STAGE VISTA .....	10-40
OUTER MAST	
TWO STAGE VISTA .....	10-2
SOLENOID VALVE	
TWO STAGE VISTA .....	10-52
WIRE HARNESS	
FRONT END EQUIPMENT - HEADER HOSES, MAST REAR .....	10-54
FRONT END EQUIPMENT - HEADER HOSES, MAST FRONT .....	10-56

**OUTER MAST (FIGURE 10-1)  
TWO STAGE VISTA**



HP170720



**OUTER MAST  
TWO STAGE VISTA****H14.00-16.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		2900 mm (114.2 in.)	3650 mm (143.7 in.)	4550 mm (179.1 in.)	5300 mm (208.7 in.)
		Mast Group Number	-	-	-
	Mast Assy	b1372870 c1458388	b1370078 c1458389	b1370079 c1458390	b1370080 c1458391
1	Outer Mast	b1372808 c1458378	b1372808 c1458378	b1372809 c1458380	b1372810 c1458381

**H14.00-16.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		6100 mm (240.2 in.)	6600 mm (259.8 in.)	6900 mm (271.7 in.)
		Mast Group Number	-	-
	Mast Assy	b1370081 c1458392	b1370082 c1458393	b1370083 c1458394
1	Outer Mast	b1372811 c1458382	b1372812 c1458383	b1372813 c1458384

**H18.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		2900 mm (114.2 in.)	3650 mm (143.7 in.)	4550 mm (179.1 in.)	5300 mm (208.7 in.)
		Mast Group Number	-	-	-
	Mast Assy	1372869	1370072	1370073	1370074
1	Outer Mast	1370084	1370084	1370085	1370086

**H18.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		6100 mm (240.2 in.)	6600 mm (259.8 in.)	6900 mm (271.7 in.)
		Mast Group Number	-	-
	Mast Assy	1370075	1370076	1370077
1	Outer Mast	1370087	1370088	1370089

## OUTER MAST TWO STAGE VISTA

### H20.00XM

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		2900 mm (114.2 in.)	3650 mm (143.7 in.)	4550 mm (179.1 in.)	5300 mm (208.7 in.)
		Mast Group Number	-	-	-
	Mast Assy	1373368	1373369	1373370	1373371
1	Outer Mast	1370084	1370084	1370085	1370086

### H20.00XM

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		6100 mm (240.2 in.)	6600 mm (259.8 in.)	6900 mm (271.7 in.)
		Mast Group Number	-	-
	Mast Assy	1373372	1373373	1373374
1	Outer Mast	1370087	1370088	1370089

ITEM	PART NO.	DESCRIPTION	QTY
	a . . . . .	Mast Assy .....	1
1	a . . . . .	Outer Mast .....	1
2	292531	Capscrew .....	8
3	320161	Washer .....	8
4	292683	Lockwasher .....	8
5	1318914		
	216877	Nut .....	8
6	1364272	Capscrew .....	4
7	320159	Washer .....	8
8	316836	Nut .....	4
9	296255	Capscrew .....	16
10	321197	Loctite .....	AR
11	1325797	Shim (1,52 mm) .....	AR
11	1325798	Shim (0,051 mm) .....	AR
11	1372962	Shim (3,05 mm) .....	AR
12	1325785	Bearing .....	4
13	1325795	Bracket Wldmt .....	4
14	1372958	Plate .....	2
15	302109	Setscrew .....	2
16	296128	Nut .....	2
17	287854	Capscrew .....	4
18	388049		
	292682	Lockwasher .....	4
19	1372961	Block .....	2
20	321177	Bushing .....	2
21	1391890	Retainer (H14.00-16.00XM) .....	1
21	1391889	Retainer (H18.00-20.00XM) .....	1

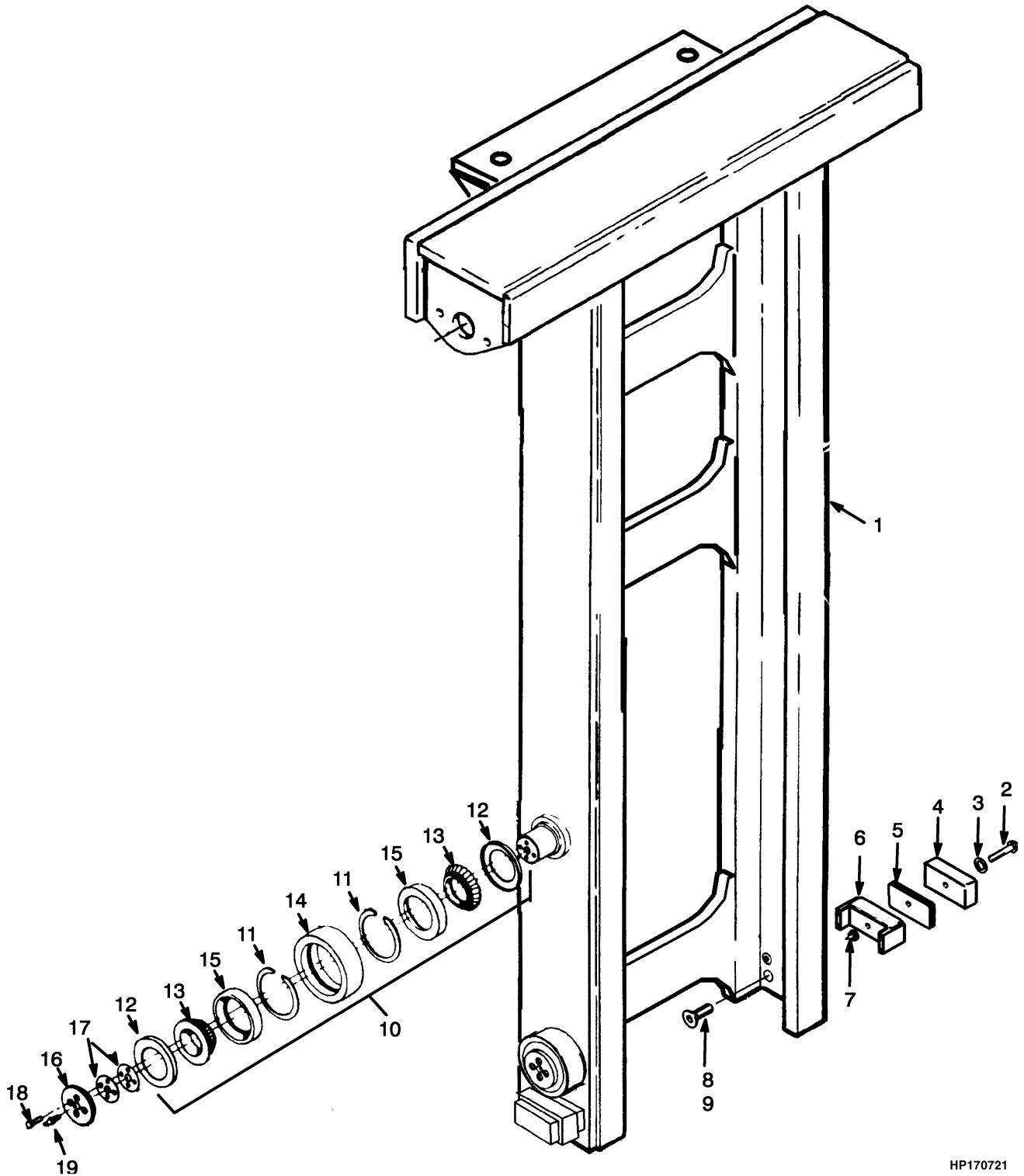
**FOOTNOTES:**

**a** Refer to Table

**b** → S/N A214E01550V

**c** S/N A214E01551V →

**INNER MAST (FIGURE 10-2)  
TWO STAGE VISTA**



HP170721

**INNER MAST  
TWO STAGE VISTA****H14.00-16.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		2900 mm (114.2 in.)	3650 mm (143.7 in.)	4550 mm (179.1 in.)	5300 mm (208.7 in.)
		Mast Group Number	-	-	-
	Mast Assy	b1372870 c1458388	b1370078 c1458389	b1370079 c1458390	b1370080 c1458391
1	Inner Mast	1372814	1372814	1372815	1372816

**H14.00-16.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		6100 mm (240.2 in.)	6600 mm (259.8 in.)	6900 mm (271.7 in.)
		Mast Group Number	-	-
	Mast Assy	b1370081 c1458392	b1370082 c1458393	b1370083 c1458394
1	Inner Mast	1372817	1372818	1372819

**H18.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		2900 mm (114.2 in.)	3650 mm (143.7 in.)	4550 mm (179.1 in.)	5300 mm (208.7 in.)
		Mast Group Number	-	-	-
	Mast Assy	1372869	1370072	1370073	1370074
1	Inner Mast	1373115	1373115	1373116	1373117

**H18.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		6100 mm (240.2 in.)	6600 mm (259.8 in.)	6900 mm (271.7 in.)
		Mast Group Number	-	-
	Mast Assy	1370075	1370076	1370077
1	Inner Mast	1373118	1373119	1373120

**INNER MAST  
TWO STAGE VISTA  
H20.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		2900 mm (114.2 in.)	3650 mm (143.7 in.)	4550 mm (179.1 in.)	5300 mm (208.7 in.)
		Mast Group Number	-	-	-
	Mast Assy	1373368	1373369	1373370	1373371
1	Inner Mast	1373115	1373115	1373116	1373117

**H20.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		6100 mm (240.2 in.)	6600 mm (259.8 in.)	6900 mm (271.7 in.)
		Mast Group Number	-	-
	Mast Assy	1373372	1373373	1373374
1	Inner Mast	1373118	1373119	1373120

ITEM	PART NO.	DESCRIPTION	QTY
	a . . . . .	Mast Assy .....	1
1	a . . . . .	Inner Mast .....	1
2	1364272	Capscrew .....	4
3	320159	Washer .....	4
4	1325785	Bearing .....	4
5	1325797	Shim (1,52 mm) .....	AR
5	1325798	Shim (0,051 mm) .....	AR
5	1372962	Shim (3,05 mm) .....	AR
6	1325795	Bracket Wldmt .....	4
7	316836	Nut .....	8
8	296255	Capscrew .....	8
9	321197	Loctite .....	AR
10	1325765	Load Roller Assembly .....	1
11	47478	Snap Ring .....	1
12	1325761	Shield .....	2
13	276228	Bearing Cone (Tapered Roller) (85 mm) .....	2
14	1325756	Roller .....	1
15	392197	Bearing Cup (Tapered Roller) (130 mm) .....	2
16	1325763	Shim .....	4
17	1325763	Shim .....	AR
17	1325764	Shim .....	AR
17	1373329	Shim .....	AR
18	132860	Capscrew .....	16
19	16001	Grease Fitting .....	4

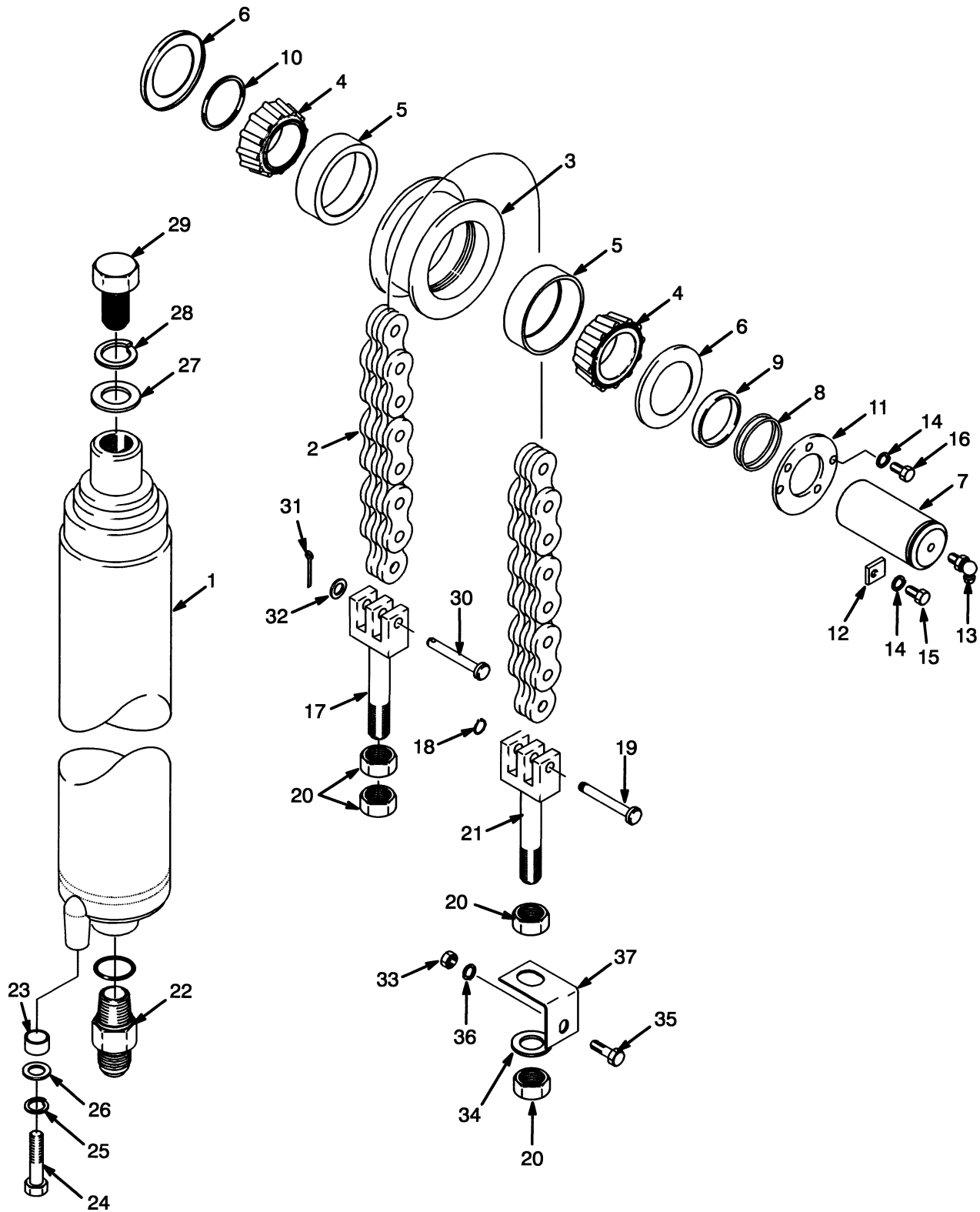
**FOOTNOTES:**

**a** Refer to Table

**b** → S/N A214E01550V

**c** S/N A214E01551V →

## MAIN LIFT (FIGURE 10-3) TWO STAGE VISTA — PAGE 1 OF 2



HP170856



**MAIN LIFT**  
**TWO STAGE VISTA – PAGE 1 OF 2****H14.00-16.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		2900 mm (114.2 in.)	3650 mm (143.7 in.)	4550 mm (179.1 in.)	5300 mm (208.7 in.)
		Mast Group Number	-	-	-
	Mast Assy	d1372870 e1458388	d1370078 e1458389	d1370079 e1458390	d1370080 e1458391
2	Chain	1373181	1373181	1373180	330009

**H14.00-16.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		6100 mm (240.2 in.)	6600 mm (259.8 in.)	6900 mm (271.7 in.)
		Mast Group Number	-	-
	Mast Assy	d1370081 e1458392	d1370082 e1458393	d1370083 e1458394
2	Chain	330010	330011	1373183

**H18.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		2900 mm (114.2 in.)	3650 mm (143.7 in.)	4550 mm (179.1 in.)	5300 mm (208.7 in.)
		Mast Group Number	-	-	-
	Mast Assy	1372869	1370072	1370073	1370074
2	Chain	330006	330006	1455468	1373358

**H18.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		6100 mm (240.2 in.)	6600 mm (259.8 in.)	6900 mm (271.7 in.)
		Mast Group Number	-	-
	Mast Assy	1370075	1370076	1370077
2	Chain	330010	1373359	1373360

**MAIN LIFT**  
**TWO STAGE VISTA – PAGE 1 OF 2**  
**H20.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		2900 mm (114.2 in.)	3650 mm (143.7 in.)	4550 mm (179.1 in.)	5300 mm (208.7 in.)
		Mast Group Number	-	-	-
	Mast Assy	1373368	1373369	1373370	1373371
2	Chain	1585370	1585370	1585352	1585371

**H20.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		6100 mm (240.2 in.)	6600 mm (259.8 in.)	6900 mm (271.7 in.)
		Mast Group Number	-	-
	Mast Assy	1373372	1373373	1373374
2	Chain	1585366	1585367	1585357

ITEM	PART NO.	DESCRIPTION	QTY
	<b>c</b> . . . . .	Mast Assy .....	1
1	. . . . .	Lift Cylinder (☞ Figure 10-5, ☞ Figure 10-6, ☞ Figure 10-7, ☞ Figure 10-8, ☞ Figure 10-9).....	2
2	<b>c</b> . . . . .	Chain .....	2
3	1382449	Chain Sheave .....	2
4	392198	Bearing Cone .....	4
5	392197	Bearing Cup (Tapered Roller) (130 mm) .....	4
6	1325761	Shield .....	4
7	1325766	Shaft .....	2
8	1325781	Shim .....	AR
8	1325782	Shim .....	AR
8	1325783	Shim .....	AR
9	1325767	Spacer .....	2
10	1325768	Spacer .....	2
11	1455951	Cover Plate .....	2
12	1325784	Retainer Plate .....	2
13	16015	Grease Fitting .....	2
14	292683	Lockwasher .....	10
15	292527	Capscrew .....	8
16	4048844		
	292528	Capscrew .....	2
17	1455432	Chain Anchor .....	2
18	1194251	Snap Ring .....	4
19	334886	Pin .....	2
20	136405	Nut .....	8
21	1459350	Chain Anchor .....	2
22	<b>b</b> 346971	Lowering Control Valve .....	1
22	<b>a</b> 376681	Lowering Control Valve .....	1

**MAIN LIFT**  
**TWO STAGE VISTA – PAGE 1 OF 2**

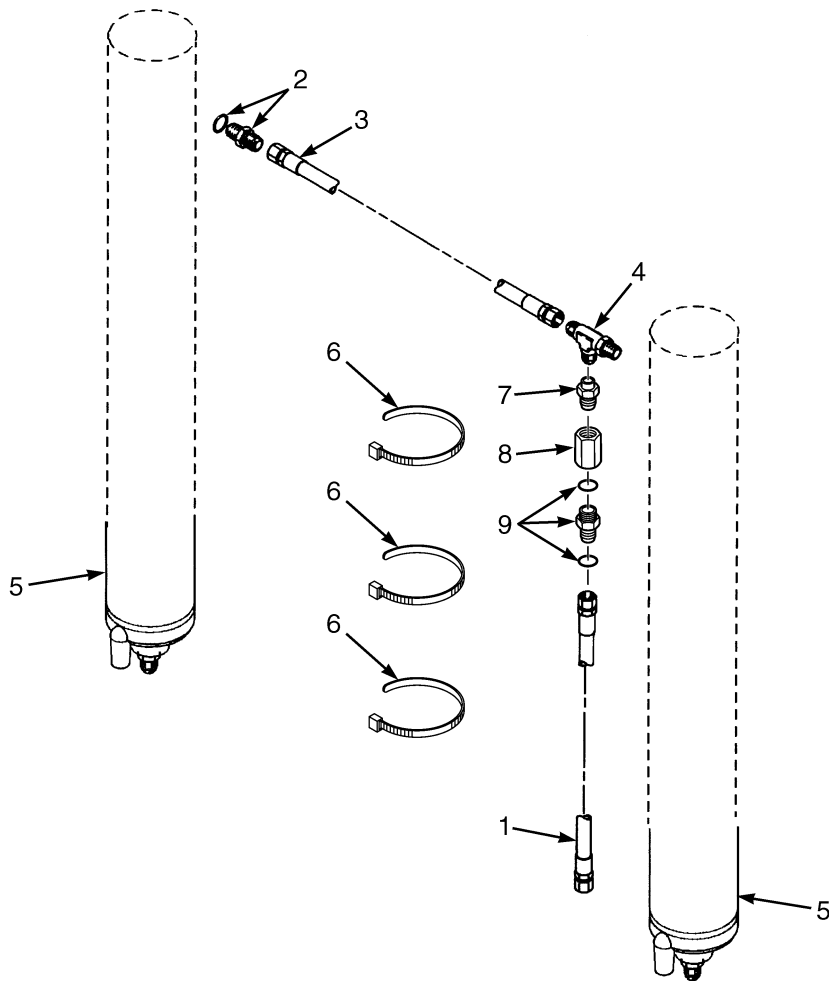
ITEM	PART NO.	DESCRIPTION	QTY
22	<b>b</b> 16983	O-Ring .....	1
23	<b>a</b> 1300165	Spacer .....	2
24	<b>b</b> 136985	Capscrew .....	2
24	<b>a</b> 292515	Capscrew .....	2
25	<del>388049</del> 292682	Lockwasher .....	2
26	1303391	Washer .....	2
27	15181	Washer .....	2
28	292687	Lockwasher .....	2
29	292580	Capscrew .....	2
30	1455467	Pin .....	2
31	15244	Cotter Pin .....	2
32	15136	Washer .....	2
33	<del>1318914</del> 216877	Nut .....	2
34	221786	Washer .....	4
35	287837	Capscrew .....	2
36	292683	Lockwasher .....	2
37	1460265	Bracket .....	2

**FOOTNOTES:**

**a** H14.00-16.00XM  
**b** H18.00XM  
**c** Refer to Table

**d** → S/N A214E01550V  
**e** S/N A214E01551V →

**MAIN LIFT (FIGURE 10-4)**  
**TWO STAGE VISTA — PAGE 2 OF 2**



HP170857

**MAIN LIFT**  
**TWO STAGE VISTA – PAGE 2 OF 2****H14.00-16.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		2900 mm (114.2 in.)	3650 mm (143.7 in.)	4550 mm (179.1 in.)	5300 mm (208.7 in.)
		Mast Group Number	-	-	-
	Mast Assy	b1372870 c1458388	b1370078 c1458389	b1370079 c1458390	b1370080 c1458391
1	Hose Assy	88300	88300	123045	252388

**H14.00-16.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		6100 mm (240.2 in.)	6600 mm (259.8 in.)	6900 mm (271.7 in.)
		Mast Group Number	-	-
	Mast Assy	b1370081 c1458392	b1370082 c1458393	b1370083 c1458394
1	Hose Assy	159369	116046	1304708

**H18.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		2900 mm (114.2 in.)	3650 mm (143.7 in.)	4550 mm (179.1 in.)	5300 mm (208.7 in.)
		Mast Group Number	-	-	-
	Mast Assy	1372869	1370072	1370073	1370074
1	Hose Assy	88300	88300	123045	252388

**H18.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		6100 mm (240.2 in.)	6600 mm (259.8 in.)	6900 mm (271.7 in.)
		Mast Group Number	-	-
	Mast Assy	1370075	1370076	1370077
1	Hose Assy	159369	116046	276638

**MAIN LIFT**  
**TWO STAGE VISTA – PAGE 2 OF 2**  
**H20.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		2900 mm (114.2 in.)	3650 mm (143.7 in.)	4550 mm (179.1 in.)	5300 mm (208.7 in.)
		Mast Group Number	-	-	-
	Mast Assy	1373368	1373369	1373370	1373371
1	Hose Assy	88300	88300	123045	252388

**H20.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		6100 mm (240.2 in.)	6600 mm (259.8 in.)	6900 mm (271.7 in.)
		Mast Group Number	-	-
	Mast Assy	1373372	1373373	1373374
1	Hose Assy	159369	116046	276638

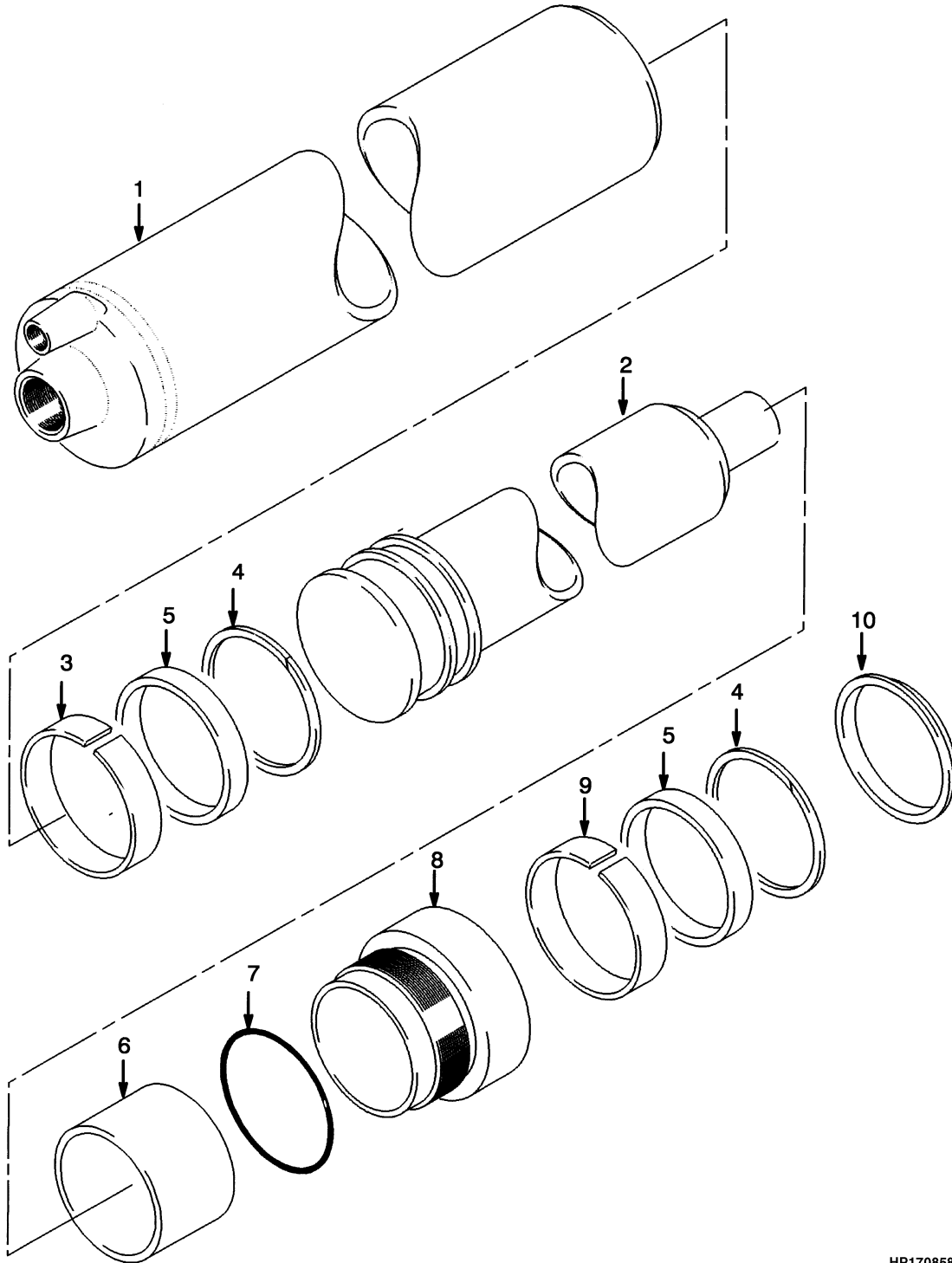
ITEM	PART NO.	DESCRIPTION	QTY
	a . . . . .	Mast Assy .....	1
1	a . . . . .	Hose Assy .....	1
2	131460	Fitting .....	2
2	16483	O-Ring .....	1
3	132009	Hose Assy .....	1
4	17062	Fitting .....	1
5	. . . . .	Lift Cylinder .....	1
6	273775	Strap Clamp .....	3
7	1595722	Adapter .....	1
8	1595723	Check Valve .....	1
9	16541	Fitting .....	1
9	16484	O-Ring .....	1

**FOOTNOTES:**

- a Refer to Table
- b → S/N A214E01550V
- c S/N A214E01551V →



## LIFT CYLINDER (FIGURE 10-5) H14.00-16.00XM — TWO STAGE VISTA (→ 9/2004)



HP170858



**LIFT CYLINDER**  
**H14.00-16.00XM – TWO STAGE VISTA (→ 9/2004)**

**H14.00-16.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		2900 mm (114.2 in.)	3650 mm (143.7 in.)	4550 mm (179.1 in.)	5300 mm (208.7 in.)
		<b>Mast Group Number</b>	-	-	-
<b>Cylinder Group Number</b>	<b>1385965</b>	<b>8504123</b>	<b>8504124</b>	<b>8504125</b>	
	Cylinder Assy	1385965	1385928	1385929	1385930
1	Tube Wldmt- Cylinder	1385934	1385934	1385935	1385936
2	Cylinder Rod	1385884	1385884	1385885	1385886
6	Spacer	816470	387286	387286	387286

**H14.00-16.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		6100 mm (240.2 in.)	6600 mm (259.8 in.)	6900 mm (271.7 in.)
		<b>Mast Group Number</b>	-	-
<b>Cylinder Group Number</b>	<b>8504126</b>	<b>8504127</b>	<b>1385966</b>	
	Cylinder Assy	1385931	1385932	1385966
1	Tube Wldmt- Cylinder	1385937	1385938	1385968
2	Cylinder Rod	1385887	1385888	1385890
6	Spacer	387286	387286	----

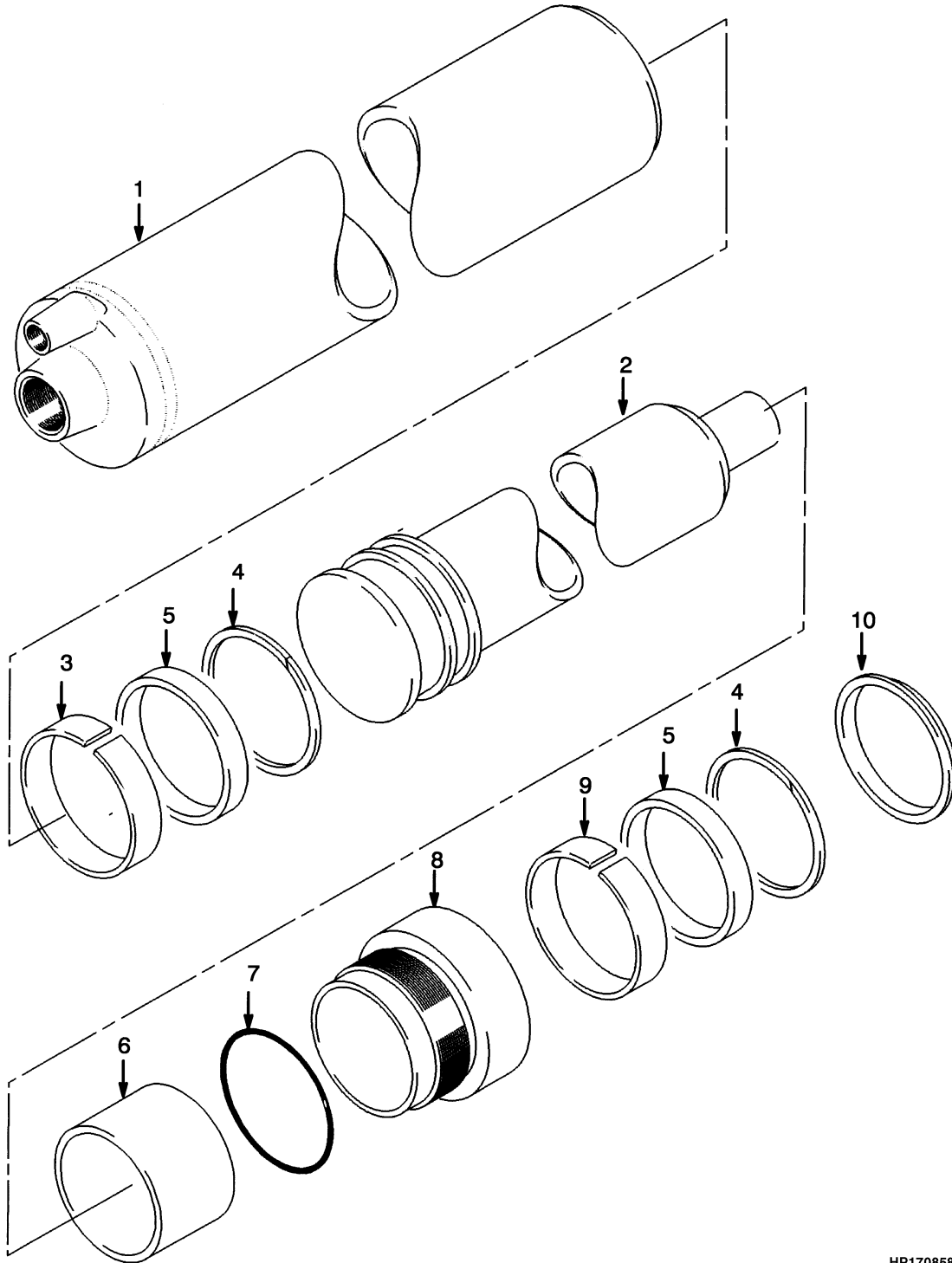
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a . . . . .</b>	Cylinder Assy .....	1
1	<b>a . . . . .</b>	Tube Wldmt-Cylinder .....	1
2	<b>a . . . . .</b>	Cylinder Rod .....	1
3	636954	Wear Ring .....	2
4	638224	Back-Up Ring .....	2
5	637166	Rod Seal .....	2
6	<b>a . . . . .</b>	Spacer .....	1
7	362102	O-Ring .....	1
8	1328946	Retainer .....	1
9	318067	Wear Ring .....	1
10	815620	Rod Wiper .....	1
	1385958	Kit-Seal .....	1

**FOOTNOTES:**

- a Refer to Table



## LIFT CYLINDER (FIGURE 10-6) H14.00-16.00XM — TWO STAGE VISTA (9/2004 →)



HP170858

**LIFT CYLINDER**  
**H14.00-16.00XM – TWO STAGE VISTA (9/2004 →)**

**H14.00-16.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		2900 mm (114.2 in.)	3650 mm (143.7 in.)	4550 mm (179.1 in.)	5300 mm (208.7 in.)
		<b>Mast Group Number</b>	-	-	-
	<b>Cylinder Group Number</b>	<b>1594228</b>	<b>8526393</b>	<b>8526394</b>	<b>8526395</b>
	Cylinder Assy	1594228	2071043	2071044	2071045
1	Tube Wldmt- Cylinder	1385934	1385934	1385935	1385936
2	Cylinder Rod	1568388	1568388	1568389	1568390
6	Spacer	816470	387286	387286	387286

**H14.00-16.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		6100 mm (240.2 in.)	6600 mm (259.8 in.)	6900 mm (271.7 in.)
		<b>Mast Group Number</b>	-	-
	<b>Cylinder Group Number</b>	<b>8526396</b>	<b>8526397</b>	<b>1594229</b>
	Cylinder Assy	2071046	2071047	1594229
1	Tube Wldmt- Cylinder	1385937	1385938	1385968
2	Cylinder Rod	1568391	1568392	1594222
6	Spacer	387286	387286	387286

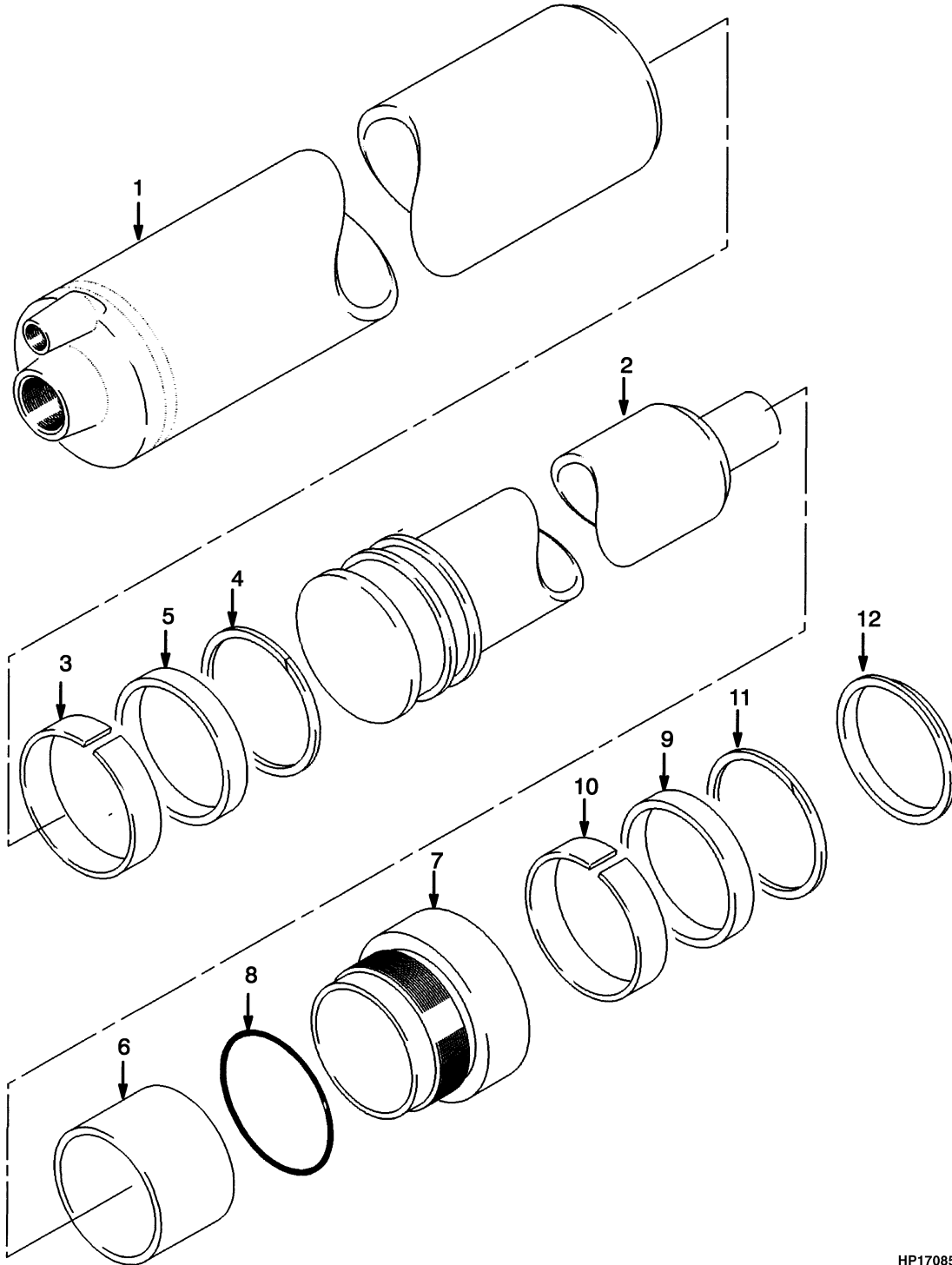
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a . . . . .</b>	Cylinder Assy .....	1
1	<b>a . . . . .</b>	Tube Wldmt-Cylinder .....	1
2	<b>a . . . . .</b>	Cylinder Rod .....	1
3	636954	Wear Ring .....	2
4	638224	Back-Up Ring .....	2
5	637166	Rod Seal .....	2
6	<b>a . . . . .</b>	Spacer .....	1
7	362102	O-Ring .....	1
8	1328946	Retainer .....	1
9	318067	Wear Ring .....	1
10	815620	Rod Wiper .....	1
	1385958	Kit-Seal .....	1

**FOOTNOTES:**

- a Refer to Table



## LIFT CYLINDER (FIGURE 10-7) H18.00-20.00XM — TWO STAGE VISTA (→ 9/2004)



HP170859



**LIFT CYLINDER**  
**H18.00-20.00XM – TWO STAGE VISTA (→ 9/2004)**

**H18.00-20.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		2900 mm (114.2 in.)	3650 mm (143.7 in.)	4550 mm (179.1 in.)	5300 mm (208.7 in.)
		<b>Mast Group Number</b>	-	-	-
<b>Cylinder Group Number</b>	<b>1385973</b>	<b>1385974</b>	<b>1388345</b>	<b>1594533</b>	
	Cylinder Assy	1385973	1385974	1388345	1388346
1	Tube Wldmt- Cylinder	1372908	1372908	1372909	1372910
2	Cylinder Rod	1388339	1388339	1388340	1388341
6	Spacer	816470	387286	387286	387286

**H18.00-20.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		6100 mm (240.2 in.)	6600 mm (259.8 in.)	6900 mm (271.7 in.)
		<b>Mast Group Number</b>	-	-
<b>Cylinder Group Number</b>	<b>1388346</b>	<b>1594534</b>	<b>1388347</b>	
	Cylinder Assy	1388347	1388348	1459951
1	Tube Wldmt- Cylinder	1372911	1372912	1372913
2	Cylinder Rod	1388342	1388343	1459949
6	Spacer	387286	387286	387286

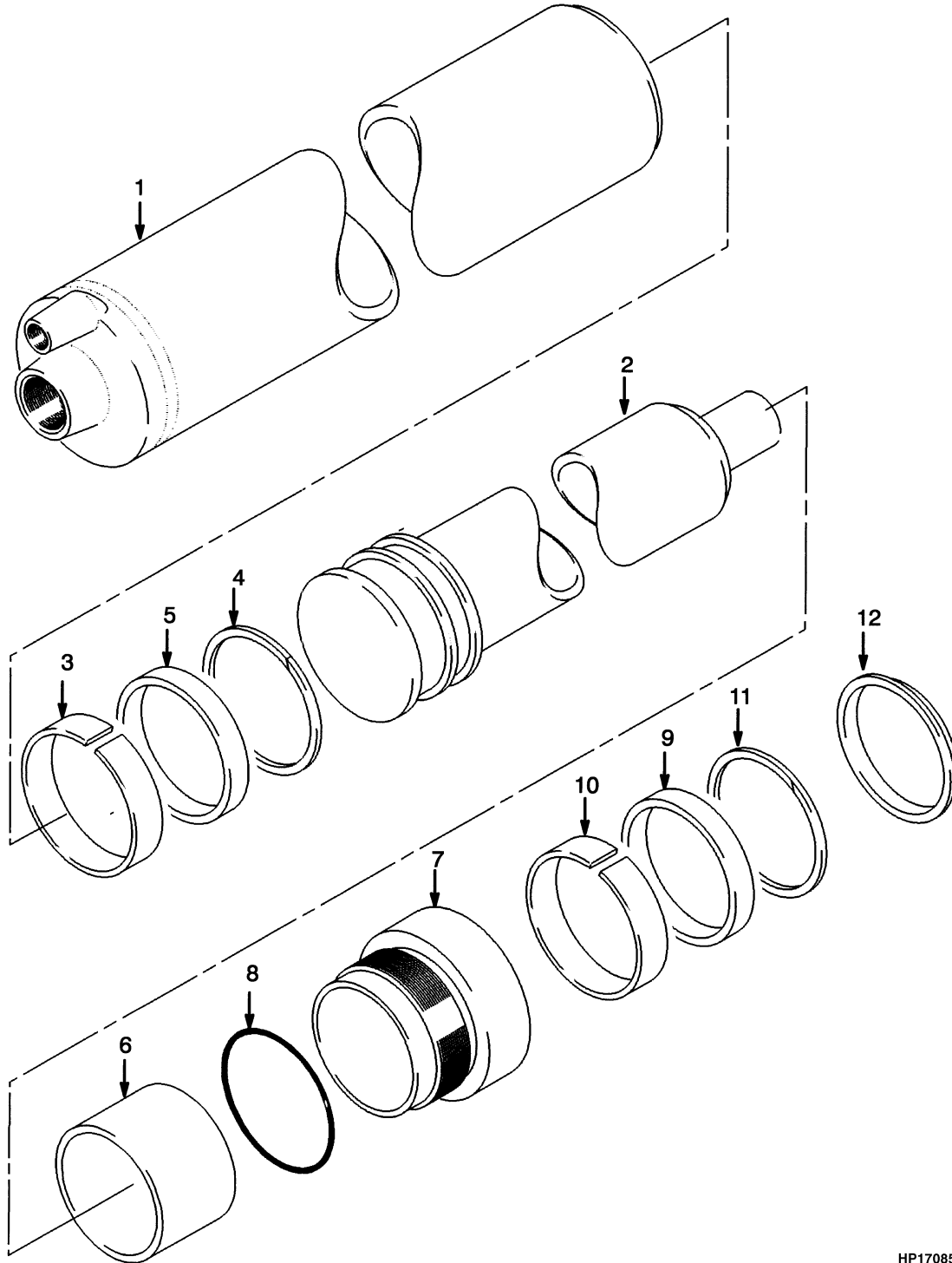
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a . . . . .</b>	Cylinder Assy .....	1
1	<b>a . . . . .</b>	Tube Wldmt-Cylinder .....	1
2	<b>a . . . . .</b>	Cylinder Rod .....	1
3	636956	Wear Ring .....	1
4	638224	Back-Up Ring .....	2
5	637166	Rod Seal .....	2
6	<b>a . . . . .</b>	Spacer .....	1
7	1372921	Retainer .....	1
8	1372899	O-Ring .....	1
9	815620	Rod Wiper .....	1
10	318067	Wear Ring .....	1
11	637168	Rod Seal .....	1
12	638256	Back-Up Ring .....	1
	1372922	Kit-Seal .....	1

**FOOTNOTES:**

- a Refer to Table



## LIFT CYLINDER (FIGURE 10-8) H18.00-20.00XM — TWO STAGE VISTA (9/2004 →)



HP170859

**LIFT CYLINDER**  
**H18.00-20.00XM – TWO STAGE VISTA (9/2004 →)**

**H18.00-20.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		2900 mm (114.2 in.)	3650 mm (143.7 in.)	4550 mm (179.1 in.)	5300 mm (208.7 in.)
		<b>Mast Group Number</b>	-	-	-
	<b>Cylinder Group Number</b>	<b>1594530</b>	<b>1594532</b>	<b>1594533</b>	<b>1594534</b>
	Cylinder Assy	1594530	1594532	1594533	1594534
1	Tube Wldmt- Cylinder	1372908	1372908	1372909	1372910
2	Cylinder Rod	1594274	1594274	1594275	1594276
6	Spacer	816470	387286	387286	387286

**H18.00-20.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		6100 mm (240.2 in.)	6600 mm (259.8 in.)	6900 mm (271.7 in.)
		<b>Mast Group Number</b>	-	-
	<b>Cylinder Group Number</b>	<b>1594535</b>	<b>1594536</b>	<b>1594537</b>
	Cylinder Assy	1594535	1594536	1594537
1	Tube Wldmt- Cylinder	1372911	1372912	1372913
2	Cylinder Rod	1594277	1594278	1594279
6	Spacer	387286	387286	387286

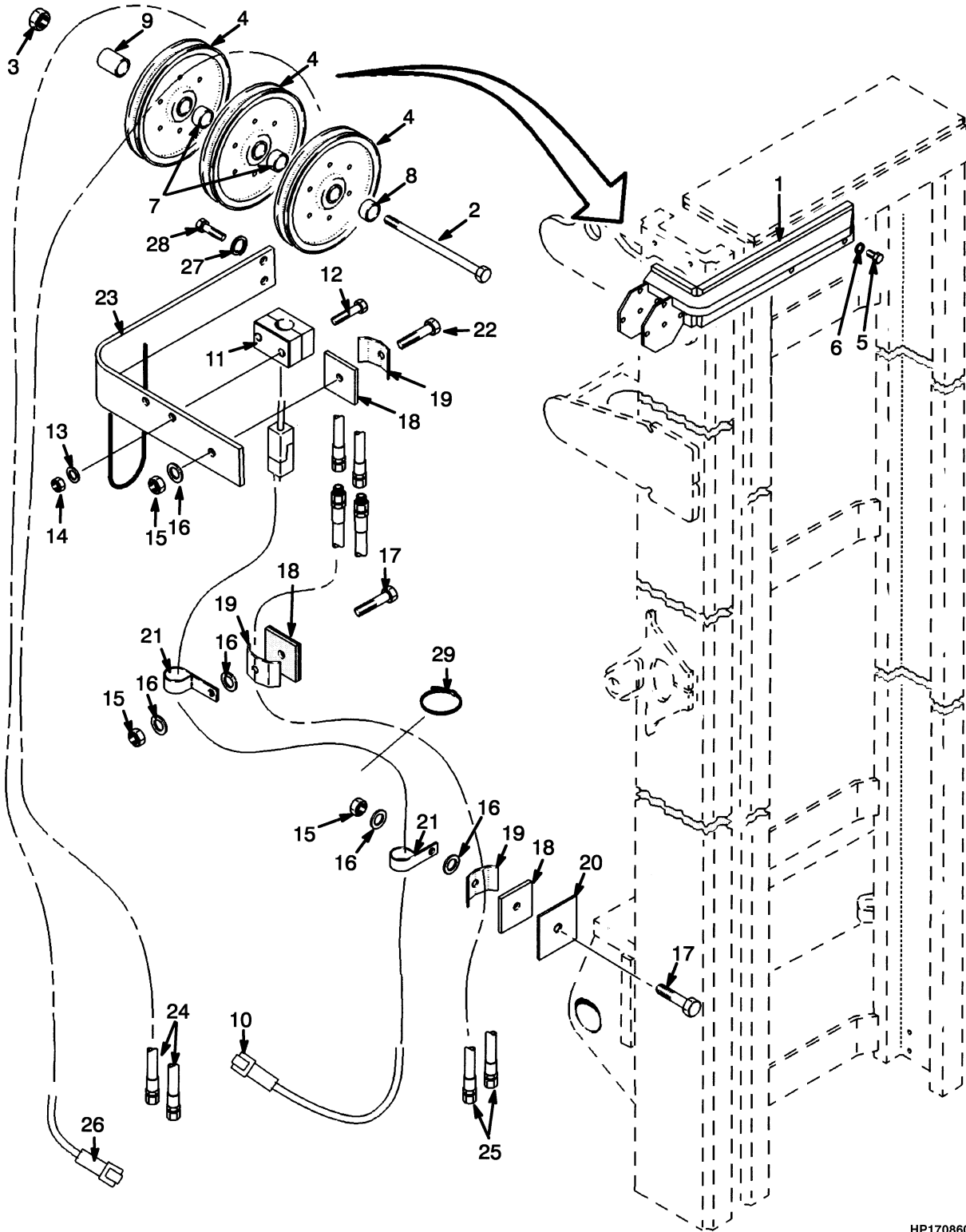
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a . . . . .</b>	Cylinder Assy .....	1
1	<b>a . . . . .</b>	Tube Wldmt-Cylinder .....	1
2	<b>a . . . . .</b>	Cylinder Rod .....	1
3	636956	Wear Ring .....	1
4	638224	Back-Up Ring .....	2
5	637166	Rod Seal .....	2
6	<b>a . . . . .</b>	Spacer .....	1
7	1372921	Retainer .....	1
8	1372899	O-Ring .....	1
9	815620	Rod Wiper .....	1
10	318067	Wear Ring .....	1
11	637168	Rod Seal .....	1
12	638256	Back-Up Ring .....	1
	1372922	Kit-Seal .....	1

**FOOTNOTES:**

- a Refer to Table



## HEADER HOSE (FIGURE 10-9) TWO STAGE VISTA



HP170860



**HEADER HOSE  
TWO STAGE VISTA****H14.00-16.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		2900 mm (114.2 in.)	3650 mm (143.7 in.)	4550 mm (179.1 in.)	5300 mm (208.7 in.)
		Mast Group Number	-	-	-
	Mast Assy	b1372870 c1458388	b1370078 c1458389	b1370079 c1458390	b1370080 c1458391
10	Wire Harness (Front End Equipment)	1452025	1452025	1452026	1452027
24	Hose Assy	1451999	1451999	1452000	1452001
25	Hose Assy	1452015	1452015	1452015	1452016
26	Wire Harness (Front End Equipment)	1452036	1452036	1452037	1452038

**H14.00-16.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		6100 mm (240.2 in.)	6600 mm (259.8 in.)	6900 mm (271.7 in.)
		Mast Group Number	-	-
	Mast Assy	b1370081 c1458392	b1370082 c1458393	b1370083 c1458394
10	Wire Harness (Front End Equipment)	1452028	1452029	1452030
24	Hose Assy	1452002	1452003	1452004
25	Hose Assy	1452017	1452018	1452019
26	Wire Harness (Front End Equipment)	1452049	1452039	1452046

## HEADER HOSE TWO STAGE VISTA

### H18.00XM

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		2900 mm (114.2 in.)	3650 mm (143.7 in.)	4550 mm (179.1 in.)	5300 mm (208.7 in.)
		Mast Group Number	-	-	-
	Mast Assy	1372869	1370072	1370073	1370074
10	Wire Harness (Front End Equipment)	1452031	1452031	1452032	1452033
24	Hose Assy	1452005	1452005	1452006	1452007
25	Hose Assy	1452020	1452020	1452021	1452022
26	Wire Harness (Front End Equipment)	1452042	1452042	1452043	1452044

### H18.00XM

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		6100 mm (240.2 in.)	6600 mm (259.8 in.)	6900 mm (271.7 in.)
		Mast Group Number	-	-
	Mast Assy	1370075	1370076	1370077
10	Wire Harness (Front End Equipment)	1452029	1452034	1452035
24	Hose Assy	1452008	1452009	1452003
25	Hose Assy	1452018	1452023	1452024
26	Wire Harness (Front End Equipment)	1452045	1452046	1452040

### H20.00XM

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		2900 mm (114.2 in.)	3650 mm (143.7 in.)	4550 mm (179.1 in.)	5300 mm (208.7 in.)
		Mast Group Number	-	-	-
	Mast Assy	1373368	1373369	1373370	1373371
10	Wire Harness (Front End Equipment)	1452031	1452031	1452032	1452033
24	Hose Assy	1452010	1452010	1452011	1452012
25	Hose Assy	1452020	1452020	1452021	1452022
26	Wire Harness (Front End Equipment)	1452047	1452047	1452048	1452049

**HEADER HOSE  
TWO STAGE VISTA**

**H20.00XM**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		6100 mm (240.2 in.)	6600 mm (259.8 in.)	6900 mm (271.7 in.)
		Mast Group Number	-	-
	Mast Assy	1373372	1373373	1373374
10	Wire Harness (Front End Equipment)	1452029	1452034	1452035
24	Hose Assy	1452009	1452004	1452013
25	Hose Assy	1452018	1452023	1452024
26	Wire Harness (Front End Equipment)	1452029	1452047	1452050

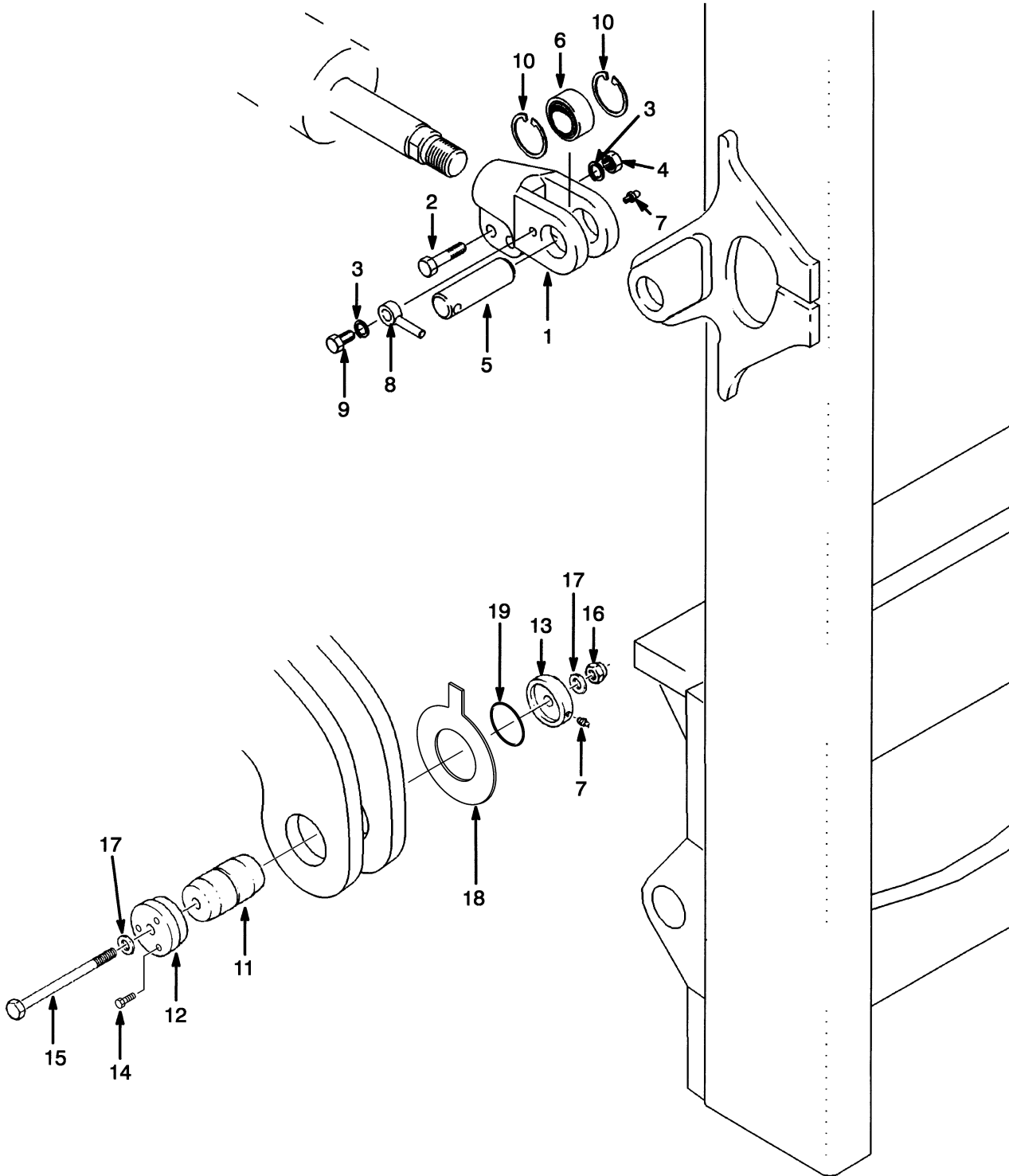
ITEM	PART NO.	DESCRIPTION	QTY
	<b>a . . . . .</b>	Mast Assy .....	1
1	1452256	Bracket .....	1
2	14999	Capscrew .....	4
3	221357	Locknut .....	4
4	189451	Hose Sheave .....	3
5	292581	Capscrew .....	4
6	292687	Lockwasher .....	4
7	280610	Spacer .....	2
8	1301650	Spacer .....	1
9	815932	Spacer .....	1
10	<b>a . . . . .</b>	Wire Harness (Front End Equipment) .....	1
11	1391418	Clamp .....	1
12	160549	Capscrew .....	2
13	15154	Lockwasher .....	2
14	221703	Nut .....	2
15	300937	Nut .....	4
16	320161	Washer .....	7
17	292535	Capscrew .....	3
18	138929	Plate .....	4
19	343590	Clamp .....	4
20	1338037	Plate .....	3
21	391484	Clamp (Insulated) .....	3
22	292533	Capscrew .....	1
23	1373215	Bracket .....	1
24	<b>a . . . . .</b>	Hose Assy .....	2
25	<b>a . . . . .</b>	Hose Assy .....	2
26	<b>a . . . . .</b>	Wire Harness (Front End Equipment) .....	1
27	292683	Lockwasher .....	2
28	4048844		
	292528	Capscrew .....	2
29	397676	Strap Clamp .....	1

**FOOTNOTES:**

- a** Refer to Table
- b** → S/N A214E1550
- c** S/N A214E1551 →



## MAST INSTALLATION (FIGURE 10-10) TWO STAGE VISTA



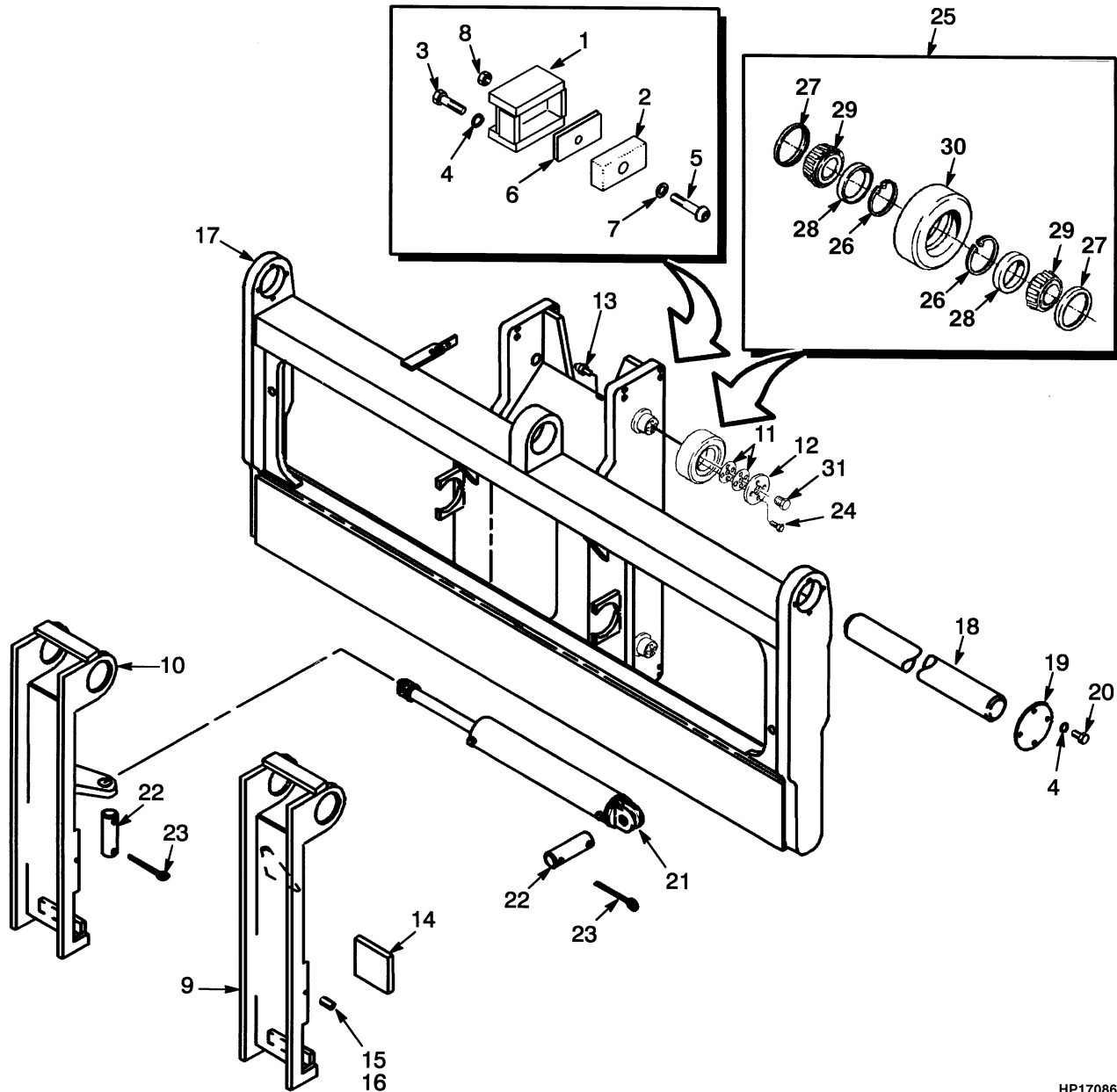
HP170861

**MAST INSTALLATION  
TWO STAGE VISTA**

ITEM	PART NO.	DESCRIPTION	QTY
1	1391452	Rod End .....	2
2	292574	Capscrew .....	4
3	292685	Lockwasher .....	8
4	292600	Nut .....	4
5	1391522	Pin .....	4
6	1391500	Bushing .....	4
7	16001	Grease Fitting .....	4
8	1391523	Anchor .....	4
9	292562	Capscrew .....	4
10	67551	Snap Ring .....	8
11	1321890	Pin .....	2
12	<b>a</b> 1321891	Cap .....	2
12	<b>b</b> 1493562	Cap .....	2
13	<b>a</b> 1302172	Cap .....	2
13	<b>b</b> 1491763	Cap .....	2
14	<b>b</b> 18191	Capscrew .....	6
15	<b>a</b> 1302176	Capscrew .....	2
15	<b>b</b> 1355031	Capscrew .....	2
16	<b>a</b> 53163	Locknut .....	2
16	<b>b</b> 248320	Wheel Nut .....	2
17	296426	Washer .....	4
18	<b>b</b> 1492331	Shim .....	1
19	<b>b</b> 39679	O-Ring .....	2

**FOOTNOTES:****a** → S/N A214E01776**b** S/N A214E01777 →

## CARRIAGE (FIGURE 10-11) TWO STAGE VISTA



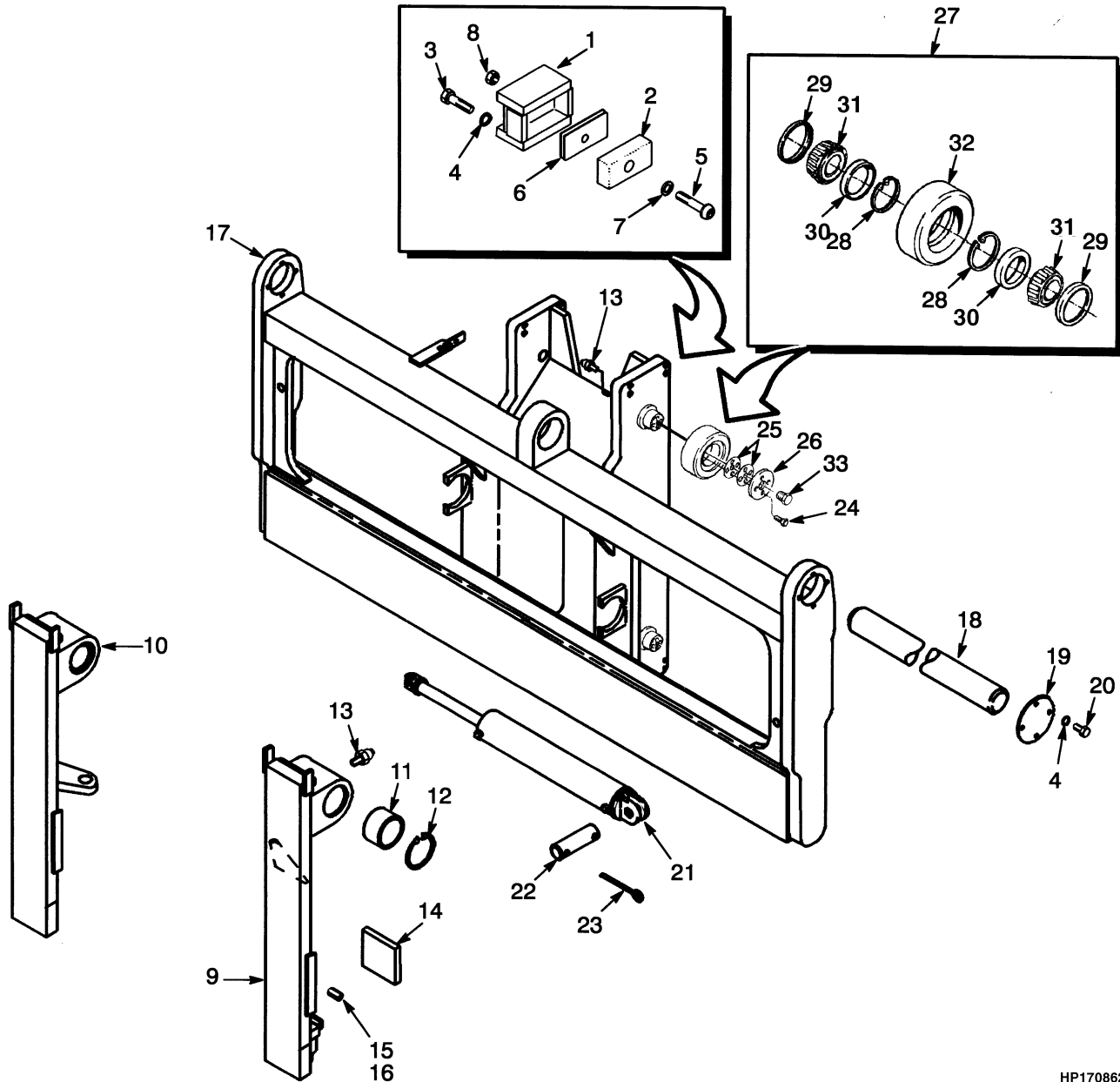
HP170863



**CARRIAGE  
TWO STAGE VISTA****KEY:****A: H16.00XM****B: H18.00XM**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1325795	Bracket Wldmt .....	4	4
2	1325785	Bearing .....	4	4
3	292529	Capscrew .....	16	16
4	292683	Lockwasher .....	24	24
5	1364272	Capscrew .....	4	4
6	1325797	Shim (1,52 mm) .....	AR	AR
6	1325798	Shim (0,051 mm) .....	AR	AR
6	1372962	Shim (3,05 mm) .....	AR	AR
7	320159	Washer .....	8	8
8	316836	Nut .....	4	4
9	1384489	Guide (LH) (LH) .....	..	1
9	1384497	Guide (LH) (LH) .....	1	..
10	1384490	Guide (RH) (RH) .....	..	1
10	1384498	Guide (RH) (RH) .....	1	..
11	1325763	Shim .....	AR	AR
11	1325764	Shim .....	AR	AR
11	1373329	Shim .....	AR	AR
12	1325760	Cap .....	4	4
13	16001	Grease Fitting .....	6	6
14	1373176	Block .....	2	2
15	302097	Setscrew .....	4	4
16	136687	Nut .....	4	4
17	1373204	Carriage Wldmt .....	..	1
17	1373300	Carriage Wldmt .....	1	..
18	1373175	Pin .....	..	2
18	1384483	Pin .....	2	..
19	1373196	Plate .....	2	2
20	292527	Capscrew .....	8	8
21	1390639	Cylinder Assy (☞Figure 10-14).....	2	2
21	1390640	Cylinder Assy (☞Figure 10-14).....	2	2
21	1458395	Cylinder Assy (☞Figure 10-14).....	2	2
21	1458396	Cylinder Assy (☞Figure 10-14).....	2	2
22	1373216	Pin .....	4	4
23	15237	Cotter Pin .....	8	8
24	293644	Capscrew .....	16	16
25	1325765	Load Roller Assembly .....	4	4
26	47478	Snap Ring .....	2	2
27	1325761	Shield .....	2	2
28	392197	Bearing Cup (Tapered Roller) (130 mm) .....	2	2
29	276228	Bearing Cone (Tapered Roller) (85 mm) .....	2	2
30	1325756	Roller .....	1	1
31	14349	Fitting (Pipe Plug) .....	4	4

## CARRIAGE (FIGURE 10-12) WITH QUICK DISCONNECT — TWO STAGE VISTA



HP170862

**CARRIAGE**  
**WITH QUICK DISCONNECT – TWO STAGE VISTA****KEY:****A: H16.00XM****B: H18.00XM**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1325795	Bracket Wldmt .....	4	4
2	1325785	Bearing .....	4	4
3	292529	Capscrew .....	16	16
4	292683	Lockwasher .....	24	24
5	1364272	Capscrew .....	4	4
6	1325797	Shim (1,52 mm) .....	AR	AR
6	1325798	Shim (0,051 mm) .....	AR	AR
6	1372962	Shim (3,05 mm) .....	AR	AR
7	320159	Washer .....	8	8
8	316836	Nut .....	4	4
9	1373203	Guide (LH) (LH) .....	..	1
9	1373312	Guide (LH) (LH) .....	1	..
10	1373212	Guide (RH) (RH) .....	..	1
10	1373311	Guide (RH) (RH) .....	1	..
11	<del>1373177</del> 4167097	Bushing .....	4	4
12	<del>1373284</del> 334475	Snap Ring .....	4	4
13	16001	Grease Fitting .....	6	6
14	1373176	Block .....	2	2
15	302097	Setscrew .....	4	4
16	136687	Nut .....	4	4
17	1373204	Carriage Wldmt .....	..	1
17	1373300	Carriage Wldmt .....	1	..
17	1373089	Stubshaft .....	4	4
18	1373175	Pin .....	..	2
18	1384483	Pin .....	2	..
19	1373196	Plate .....	2	2
20	292527	Capscrew .....	8	8
21	1390639	Cylinder Assy (☞Figure 10-14).....	2	2
21	1390640	Cylinder Assy (☞Figure 10-14).....	2	2
21	1458395	Cylinder Assy (☞Figure 10-14).....	2	2
21	1458396	Cylinder Assy (☞Figure 10-14).....	2	2
22	1373216	Pin .....	4	4
23	15237	Cotter Pin .....	8	8
24	293644	Capscrew .....	16	16
25	1325763	Shim .....	AR	AR
25	1325764	Shim .....	AR	AR
25	1373329	Shim .....	AR	AR
26	1325760	Cap .....	4	4
27	1325765	Load Roller Assembly .....	4	4
28	47478	Snap Ring .....	2	2
29	1325761	Shield .....	2	2
30	392197	Bearing Cup (Tapered Roller) (130 mm) .....	2	2
31	276228	Bearing Cone (Tapered Roller) (85 mm) .....	2	2

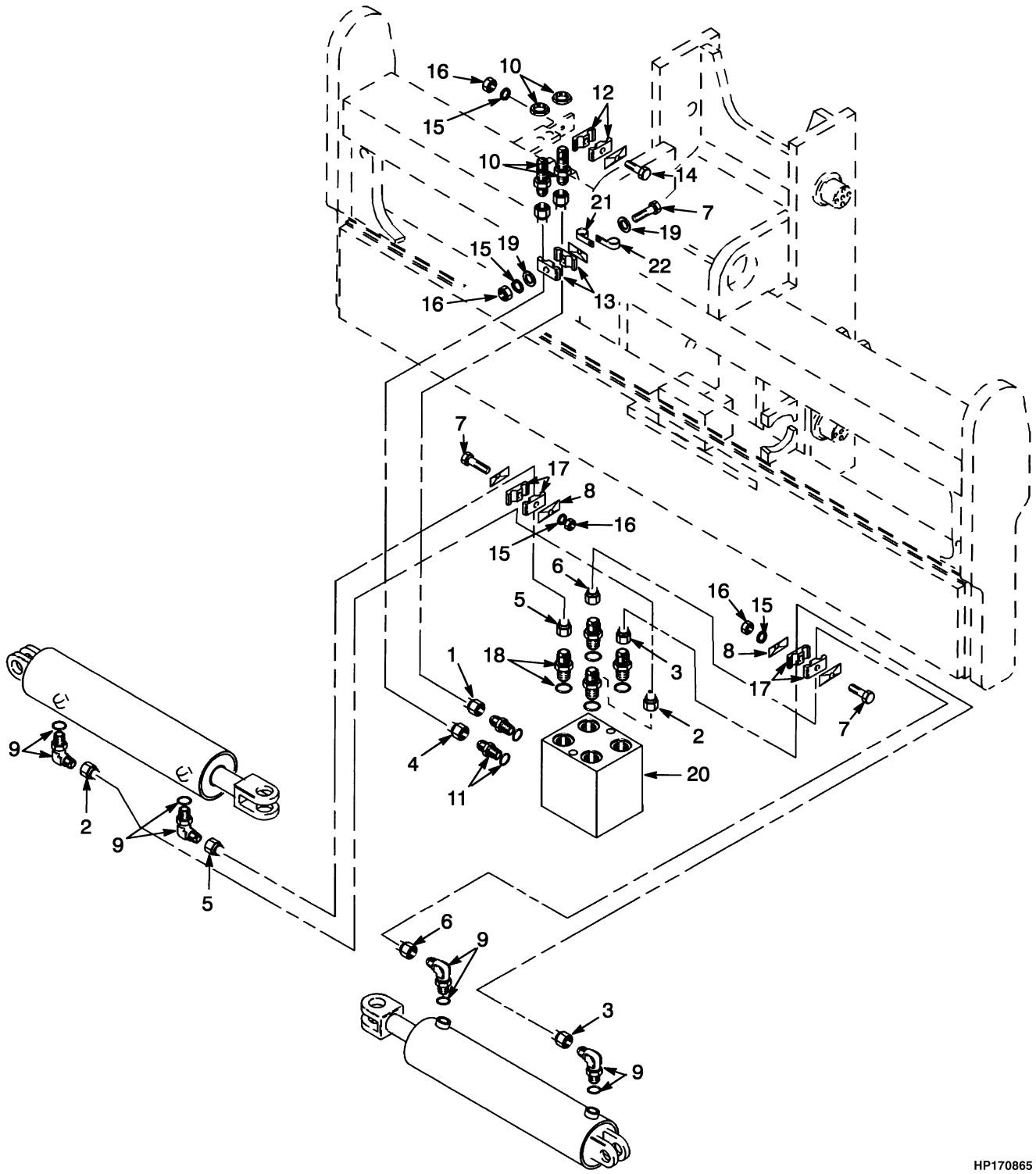
## CARRIAGE WITH QUICK DISCONNECT – TWO STAGE VISTA

**KEY:****A: H16.00XM****B: H18.00XM**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
32	1325756	Roller .....	1	1
33	14349	Fitting (Pipe Plug) .....	4	4



## CARRIAGE (FIGURE 10-13) HYDRAULIC SYSTEM — TWO STAGE VISTA

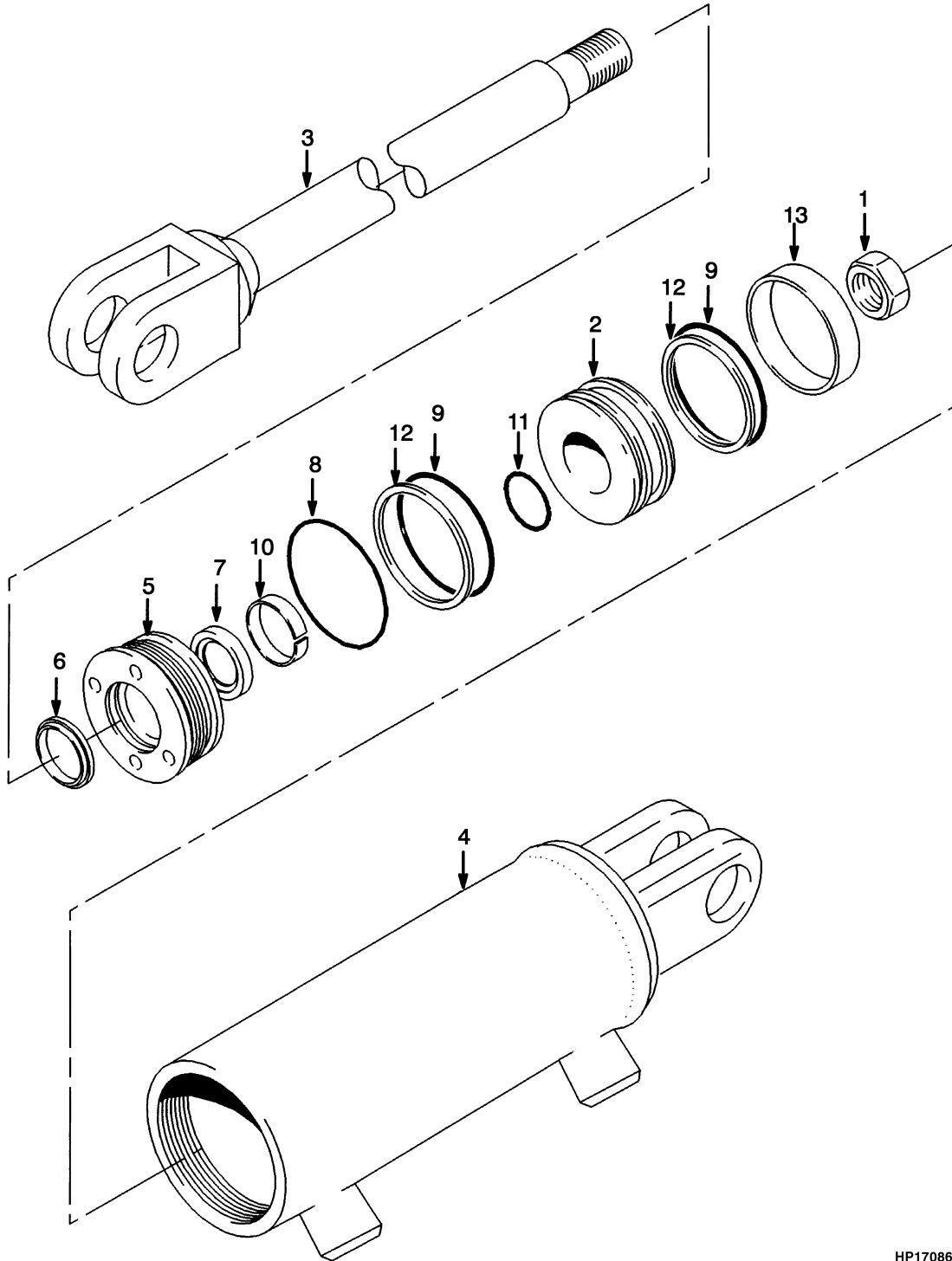


HP170865

**CARRIAGE**  
**HYDRAULIC SYSTEM – TWO STAGE VISTA****KEY:****A: H16.00XM****B: H18.00XM**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1389399	Tube Assy .....	1	..
1	1391897	Tube Assy .....	..	1
2	1383865	Tube Assy .....	1	..
2	1393805	Tube Assy .....	..	1
3	1383866	Tube Assy .....	1	..
3	1391899	Tube Assy .....	..	1
4	1389398	Tube Assy .....	1	..
4	1391887	Tube Assy .....	..	1
5	1383868	Tube Assy .....	1	..
5	1391898	Tube Assy .....	..	1
6	1383869	Tube Assy .....	1	..
6	1393804	Tube Assy .....	..	1
7	136704	Capscrew .....	3	2
8	1393739	Cover Plate .....	2	1
9	16559	Fitting .....	4	4
9	16484	O-Ring .....	1	1
10	16449	Fitting .....	2	2
11	16542	Connector .....	2	2
11	16485	O-Ring .....	1	1
12	1373335	Clamp .....	1	1
13	1393803	Clamp .....	1	1
14	136703	Capscrew .....	..	1
14	292512	Capscrew .....	1	..
15	292681	Lockwasher .....	4	4
16	239503	Nut .....	4	4
17	1393802	Clamp .....	2	2
18	16909	Fitting .....	4	4
18	16485	O-Ring .....	1	1
19	320157	Washer .....	2	2
20	1372994	Selector Valve (Solenoid) (Two Function) (☞Figure 10-15).....	1	1
20	1393730	Selector Valve (Solenoid) (Four Function) (☞Figure 10-15).....	1	1
20	1393729	Selector Valve (Solenoid) (Three Function) (☞Figure 10-15).....	1	1
20	1393731	Selector Valve (Solenoid) (Five Function) (☞Figure 10-15).....	1	1
21	154208	Clamp .....	1	1
22	379048	Clamp (Four and Five Function) .....	2	2
	1455636	Wire Harness (Selector Valve) (Selector Valve) (☞Figure 4-62).....	1	1

## FORK POSITIONER AND SIDE-SHIFT CYLINDER (FIGURE 10-14) TWO STAGE VISTA



HP170864

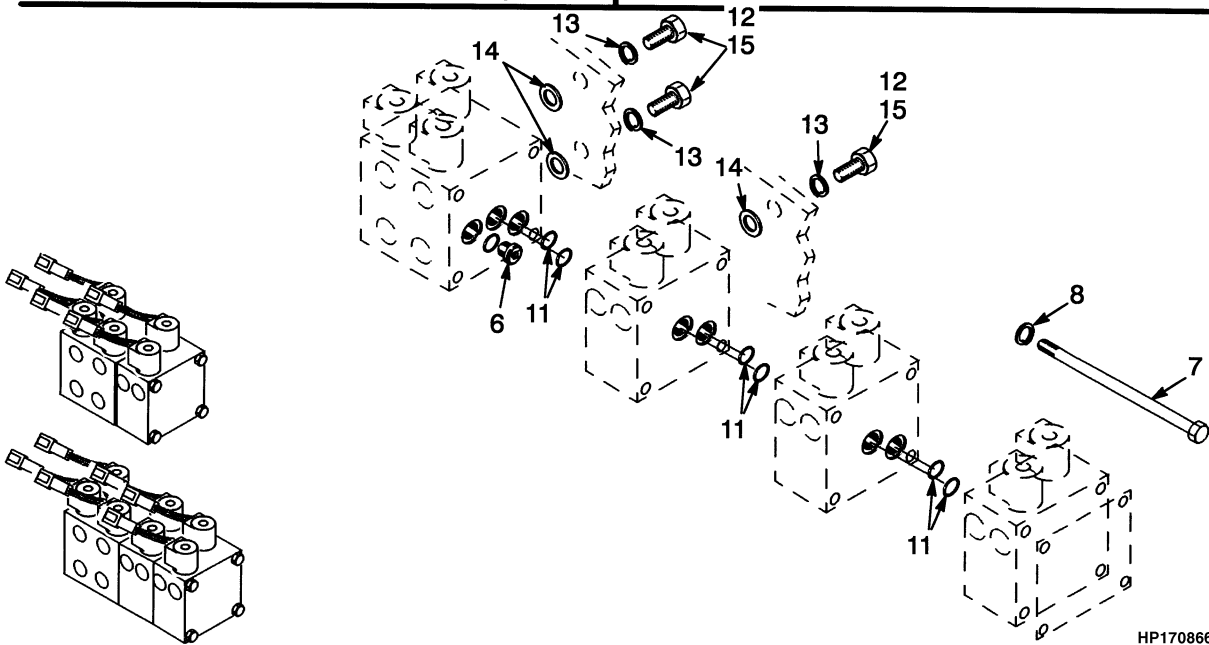
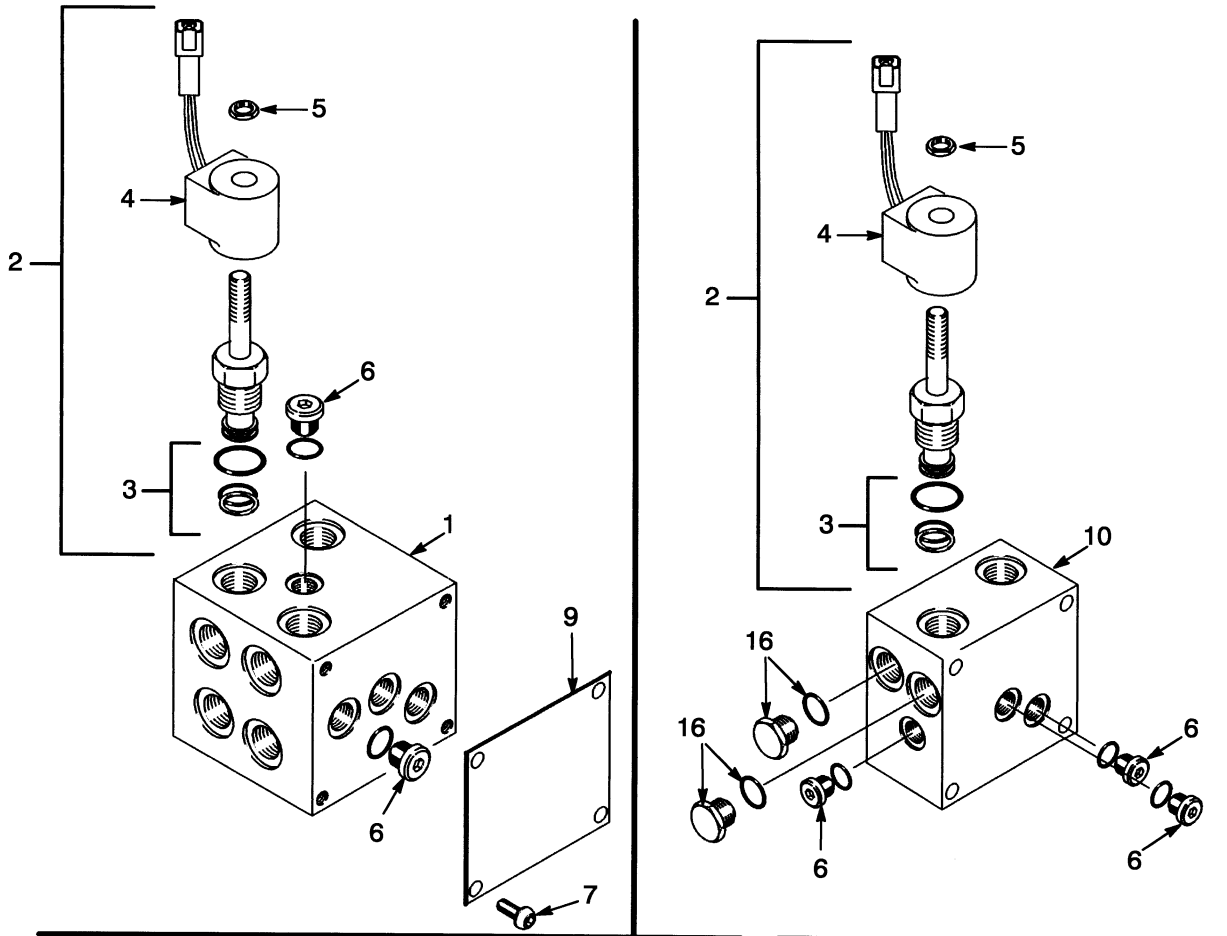


**FORK POSITIONER AND SIDE-SHIFT CYLINDER  
TWO STAGE VISTA****KEY:****A: H16.00XM****B: H18.00XM**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	<b>a</b> 1390639	Cylinder Assy .....	..	1
	<b>a</b> 1390640	Cylinder Assy .....	1	..
	<b>b c</b> 1458395	Cylinder Assy .....	..	1
	<b>b c</b> 1458396	Cylinder Assy .....	1	..
1	1393401	Locknut .....	1	1
2	1393402	Piston .....	1	1
3	.....	Rod .....	1	1
4	.....	Shell .....	1	1
5	1393405	Gland .....	1	1
6	1393413	Wiper .....	1	1
7	1393412	Rod Seal .....	1	1
8	1393411	Back-Up Ring .....	1	1
9	1393410	O-Ring .....	2	2
10	1393409	Wear Ring .....	1	1
11	1393408	O-Ring .....	1	1
12	1393407	Piston Seal .....	1	1
13	1393406	Wear Ring .....	2	2
	1393414	Kit-Seal .....	2	2

**FOOTNOTES:****a** With Pin Carriage**c** S/N A214E01577 →**b** With Quick Disconnect Carriage

## SOLENOID VALVE (FIGURE 10-15) TWO STAGE VISTA



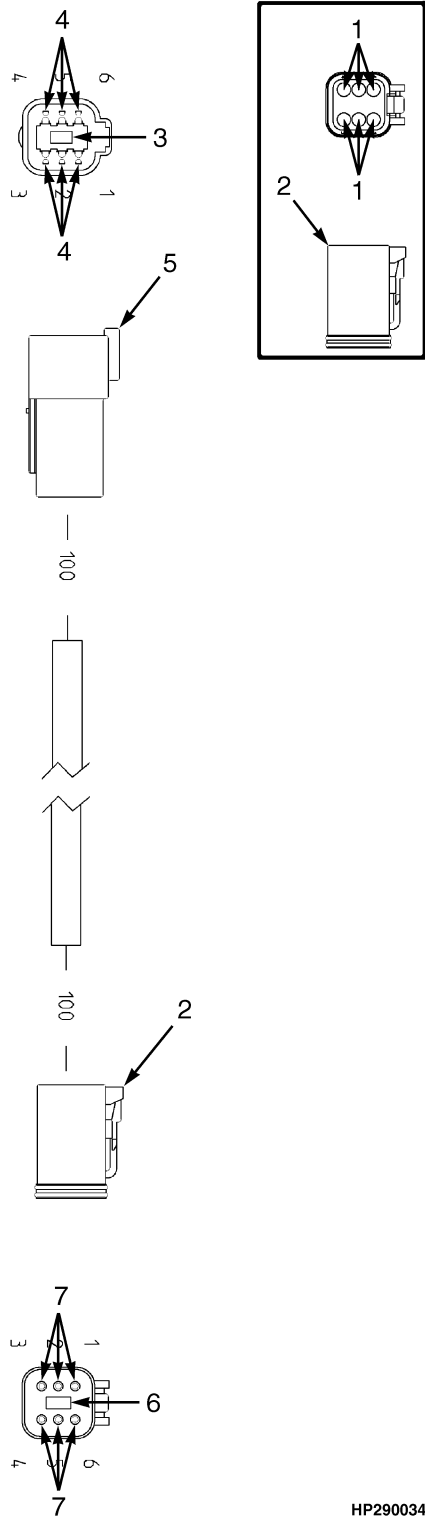
HP170866

**SOLENOID VALVE  
TWO STAGE VISTA****KEY:**

- A: Two Function**  
**B: Three Function**  
**C: Four Function**  
**D: Five Function**

ITEM	PART NO.	DESCRIPTION	QTY			
			A	B	C	D
	1372994	Selector Valve .....	1	..	..	..
	1393729	Selector Valve .....	..	1	..	..
	1393730	Selector Valve .....	..	..	1	..
	1393731	Selector Valve .....	..	..	..	1
1	.....	Body .....	1	1	1	1
2	1452130	Cartridge (Includes Solenoid) .....	3	5	7	9
3	1452131	Kit-Seal .....	1	1	1	1
4	1388380	Coil .....	1	1	1	1
4	1330409	Connector .....	1	1	1	1
4	1330414	Connector (Secondary Lock) .....	1	1	1	1
5	1393164	Nut .....	1	1	1	1
6	1452132	Plug .....	3	6	9	12
7	1452133	Kit-Capscrew .....	..	..	..	1
7	1452136	Kit-Capscrew .....	..	1	..	..
7	1452137	Kit-Capscrew .....	..	..	1	..
7	1452138	Bolt .....	4	..	..	..
8	1452135	Washer .....	4	4	4	4
9	1452134	Cover Plate .....	1	1	1	1
10	1393728	Hydraulic Control Valve (Auxiliary) .....	..	1	2	3
11	1452139	O-Ring .....	..	2	4	6
12	292509	Capscrew .....	2	3	3	3
13	<del>388049</del> 292682	Lockwasher .....	2	3	3	3
14	320162	Washer .....	2	3	3	3
15	280472	Sealant (Adhesive) .....	AR	AR	AR	AR
16	216590	Fitting .....	..	2	4	6
	1677816	Kit-Service .....	..	..	1	..
	1677815	Kit-Service .....	..	1	..	..
	1677831	Kit-Service .....	..	..	..	1

**WIRE HARNESS (FIGURE 10-16)  
FRONT END EQUIPMENT — HEADER HOSES, MAST REAR**



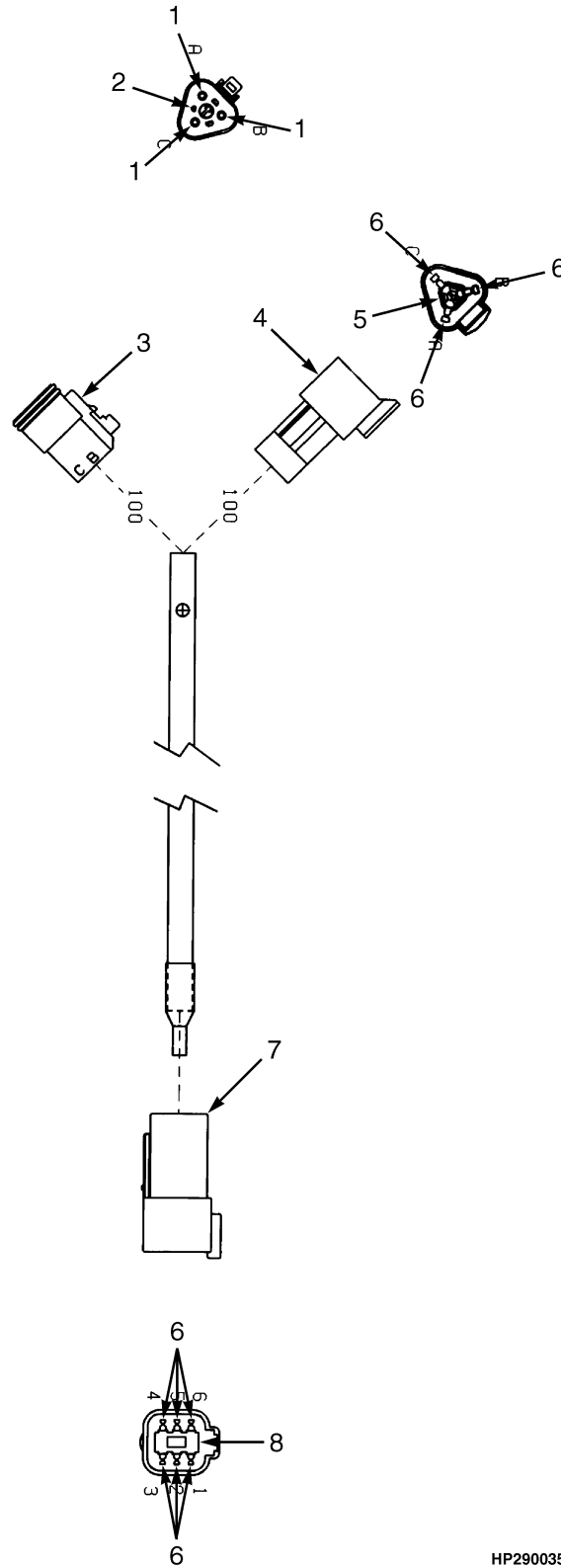
HP290034

**WIRE HARNESS**  
**FRONT END EQUIPMENT – HEADER HOSES, MAST REAR**

**KEY:****A: H16.00XM****B: H18.00XM****C: H20.00XM**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
	1452025	Wire Harness (Front End Equipment) 2900 mm, 3650 mm .....	1	..	..
	1452026	Wire Harness (Front End Equipment) 4550 mm .....	1	..	..
	1452027	Wire Harness (Front End Equipment) 5300 mm .....	1	..	..
	1452028	Wire Harness (Front End Equipment) 6100 mm .....	1	..	..
	1452029	Wire Harness (Front End Equipment) 6100 mm .....	1	1	1
	1452030	Wire Harness (Front End Equipment) 6900 mm .....	1	..	..
	1452031	Wire Harness (Front End Equipment) 2900 mm, 3650 mm .....	..	1	1
	1452032	Wire Harness (Front End Equipment) 4550 mm .....	..	1	1
	1452033	Wire Harness (Front End Equipment) 5300 mm .....	..	1	1
	1452034	Wire Harness (Front End Equipment) 6600 mm .....	..	1	1
	1452035	Wire Harness (Front End Equipment) 6900 mm .....	..	1	1
1	1330439	Plug .....	6	6	6
2	1330422	Connector .....	2	2	2
3	1330417	Connector (Secondary Lock) .....	1	1	1
4	1330437	Terminal (Pin) .....	6	6	6
5	1330412	Connector .....	1	1	1
6	1330428	Connector (Secondary Lock) .....	1	1	1
7	1330438	Terminal (Socket) .....	6	6	6

**WIRE HARNESS (FIGURE 10-17)  
FRONT END EQUIPMENT — HEADER HOSES, MAST FRONT**



HP290035

**WIRE HARNESS**  
**FRONT END EQUIPMENT – HEADER HOSES, MAST FRONT**

**KEY:****A: H16.00XM****B: H18.00XM****C: H20.00XM**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
	1452036	Wire Harness (Front End Equipment) 2900 mm, 3650 mm .....	1	..	..
	1452037	Wire Harness (Front End Equipment) 4550 mm .....	1	..	..
	1452038	Wire Harness (Front End Equipment) 5300 mm .....	1	..	..
	1452039	Wire Harness (Front End Equipment) 6600 mm .....	1	..	..
	1452040	Wire Harness (Front End Equipment) 6900 mm .....	..	1	..
	1452041	Wire Harness 6600 mm .....	1	..	1
	1452042	Wire Harness (Front End Equipment) 2900 mm, 3650 mm .....	..	1	..
	1452043	Wire Harness (Front End Equipment) 4550 mm .....	..	1	..
	1452044	Wire Harness (Front End Equipment) 5300 mm .....	..	1	..
	1452045	Wire Harness (Front End Equipment) 6100 mm .....	..	1	..
	1452046	Wire Harness (Front End Equipment) 6900 mm, 6100 mm .....	1	1	..
	1452047	Wire Harness (Front End Equipment) 2900 mm, 3650 mm .....	..	..	1
	1452048	Wire Harness (Front End Equipment) 4550 mm .....	..	..	1
	1452049	Wire Harness (Front End Equipment) 6100 mm, 5300 mm .....	1	..	..
	1452050	Wire Harness (Front End Equipment) 6900 mm .....	..	..	1
1	1330438	Terminal (Socket) .....	3	3	3
2	1330426	Connector (Secondary Lock) .....	1	1	1
3	1330420	Connector .....	1	1	1
4	1330410	Connector (DT REC 3-Pin) .....	1	1	1
5	1330415	Connector (Secondary Lock) .....	1	1	1
6	1330437	Terminal (Pin) .....	6	6	6
7	1330412	Connector .....	1	1	1
8	1330417	Connector (Secondary Lock) .....	1	1	1





11

MAST WITH EMPTY CONTAINER HANDLER

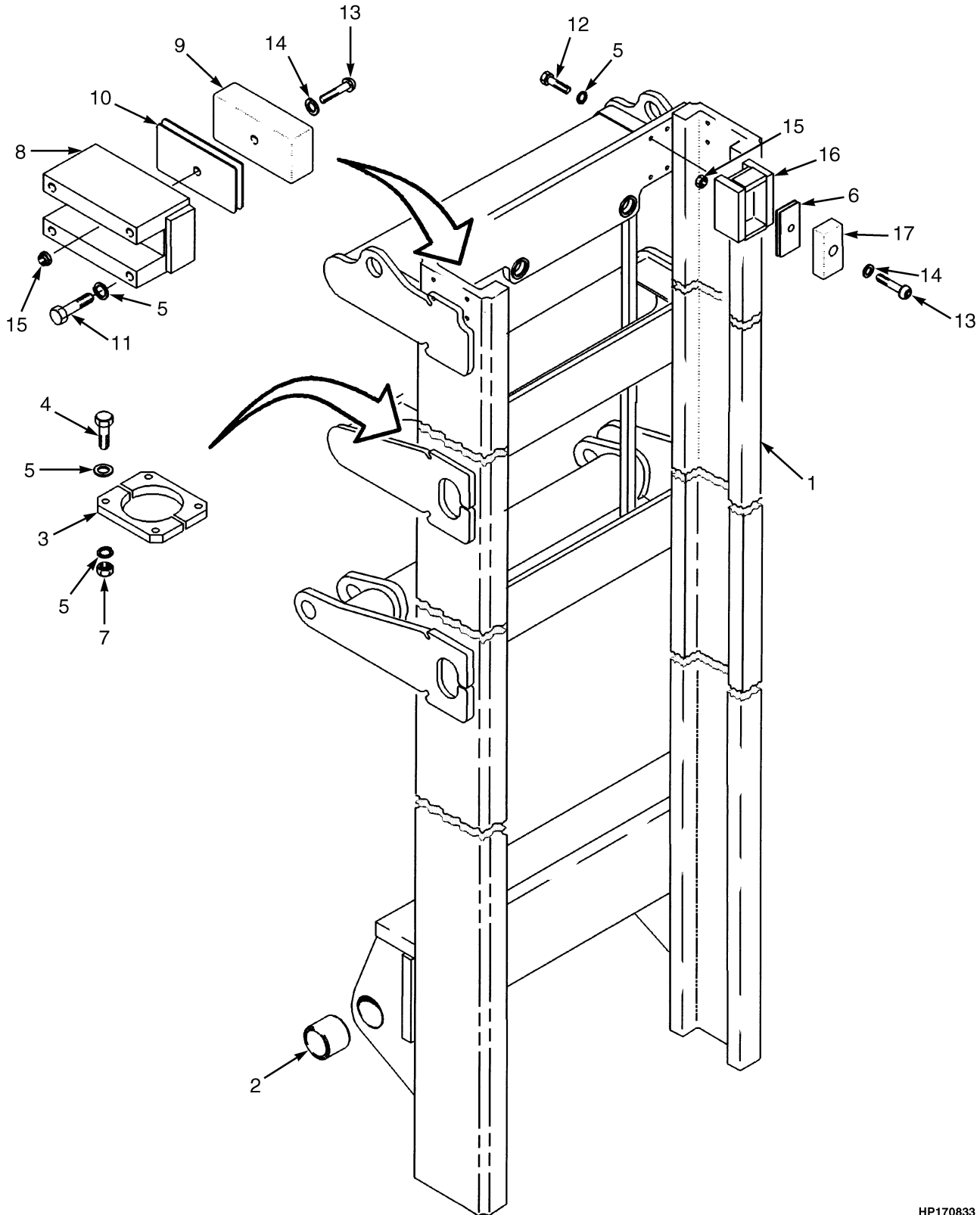


## SECTION 11

### MAST WITH EMPTY CONTAINER HANDLER

DESCRIPTION	PAGE
AUXILIARY ATTACHMENTS	
EMPTY CONTAINER HANDLER .....	11-58
EXTENSION CYLINDER	
EMPTY CONTAINER HANDLER (→ S/N A214E01806) .....	11-38
HEADER HOSE	
EMPTY CONTAINER HANDLER (→ S/N A214E01807Y EXC. 01791) .....	11-42
EMPTY CONTAINER HANDLER (S/N A214E01808Y ↔ S/N A214E01962A INC. 01791) .....	11-46
EMPTY CONTAINER HANDLER (S/N A214E01963A ↔ S/N A214E02077B) .....	11-50
EMPTY CONTAINER HANDLER (S/N A214E02078B →) .....	11-54
HYDRAULIC SYSTEM	
EMPTY CONTAINER HANDLER - PAGE 1 OF 2 (→ S/N A214E01806) .....	11-32
EMPTY CONTAINER HANDLER - PAGE 2 OF 2 (→ S/N A214E01806) .....	11-34
INNER MAST	
EMPTY CONTAINER HANDLER .....	11-6
LIFT CYLINDER	
EMPTY CONTAINER HANDLER (→ S/N A214E01574) .....	11-18
EMPTY CONTAINER HANDLER (S/N A214E01575 →) .....	11-20
LIFT CYLINDER ATTACHING PARTS	
EMPTY CONTAINER HANDLER (→ S/N A214E02236D) .....	11-22
EMPTY CONTAINER HANDLER (S/N A214E02237D →) .....	11-24
MAIN LIFT	
EMPTY CONTAINER HANDLER (→ S/N A214E01654) .....	11-10
EMPTY CONTAINER HANDLER (S/N A214E01655 →) .....	11-14
MAST INSTALLATION	
EMPTY CONTAINER HANDLER .....	11-60
OUTER MAST	
EMPTY CONTAINER HANDLER .....	11-2
SIDE-SHIFT CYLINDER	
CONTAINER HANDLING ATTACHMENT (→ S/N A214E01806) .....	11-40
TWIST LOCK CYLINDER	
EMPTY CONTAINER HANDLER (→ S/N A214E01806) .....	11-36
VERTICAL END BEAM	
EMPTY CONTAINER HANDLER (→ S/N A214E01806) .....	11-30
WEAR PLATES	
EMPTY CONTAINER HANDLER (→ S/N A214E01806) .....	11-28
WIRE HARNESS	
EMPTY CONTAINER HANDLER (→ S/N A214E01806) .....	11-62
FRONT END EQUIPMENT - HEADER HOSES, EMPTY CONTAINER HANDLER (S/N A214E01963A →)	
.....	11-70
HOOK ATTACHMENT (S/N A214E01807 ↔ S/N A214E01962A) .....	11-65
MAST (→ S/N A214E02077B) .....	11-66
MAST (S/N A214E02078B →) .....	11-68
TWIST LOCK (S/N A214E01807 ↔ S/N A214E01962A) .....	11-64

## OUTER MAST (FIGURE 11-1) EMPTY CONTAINER HANDLER



HP170833

**OUTER MAST  
EMPTY CONTAINER HANDLER**

**H16.00XM-EC12**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS
		13850 mm (545.3 in.)
Mast Group Number		-
	Mast Assy	b1373136 d1496375 e1544032 c1372821 e1544034
1	Outer Mast	c1372821 e1544034

**H18.00XM-EC12**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS
		16450 mm (647.6 in.)
Mast Group Number		-
	Mast Assy	b1373137 d1496376 e1544033 c1372822 e1544035
1	Outer Mast	c1372822 e1544035

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a . . . . .</b>	Mast Assy .....	1
1	<b>a . . . . .</b>	Outer Mast .....	1
2	321177	Bushing .....	2
3	1393726	Retainer .....	4
4	292535	Capscrew .....	8
5	320161	Washer .....	32
6	1373031	Shim .....	AR
6	1373032	Shim .....	AR
6	1373033	Shim .....	AR
7	<del>4348944</del> 216877	Nut .....	8
8	1373050	Bracket Wldmt .....	2
9	1373038	Block .....	2
10	1373034	Shim .....	AR
10	1373035	Shim .....	AR
10	1373036	Shim .....	AR
11	246001	Capscrew .....	8

**OUTER MAST  
EMPTY CONTAINER HANDLER**

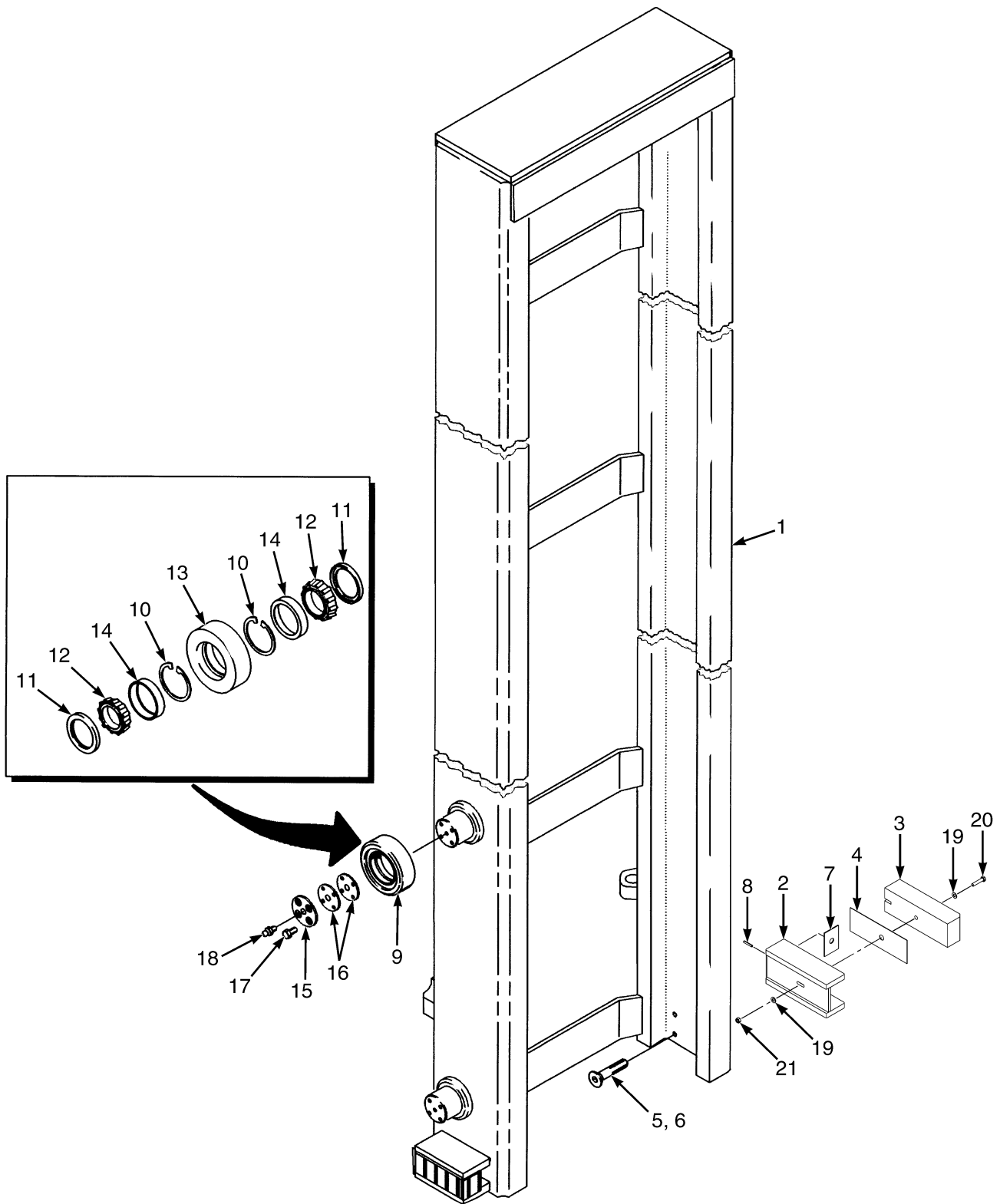
ITEM	PART NO.	DESCRIPTION	QTY
12	292531	Capscrew .....	8
13	1364272	Capscrew .....	6
14	320159	Washer .....	8
15	302401	Locknut .....	6
16	1373051	Bracket Wldmt .....	2
17	1373037	Block .....	2

**FOOTNOTES:**

- a** Refer to Table  
**b** → S/N A214E01806  
**c** → S/N A214E01962
- d** S/N A214E01807 ↔ S/N A214E01962  
**e** S/N A214E01963 →



## INNER MAST (FIGURE 11-2) EMPTY CONTAINER HANDLER



HP171432



**INNER MAST  
EMPTY CONTAINER HANDLER****H16.00XM-EC12**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS
		13850 mm (545.3 in.)
	<b>Mast Group Number</b>	-
	Mast Assy	b1373136 c1496375 e1544032 1372824
1	Inner Mast	1372824

**H18.00XM-EC12**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS
		16450 mm (647.6 in.)
	<b>Mast Group Number</b>	-
	Mast Assy	b1373137 c1496376 e1544033 1372825
1	Inner Mast	1372825

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a . . . . .</b>	Mast Assy .....	1
1	<b>a . . . . .</b>	Inner Mast (13850 mm) .....	1
2	1373049	Bracket Wldmt .....	2
3	1373039	Bearing .....	2
4	1373028	Shim .....	AR
4	1373029	Shim .....	AR
4	1373030	Shim .....	AR
5	296255	Capscrew .....	4
6	321197	Loctite .....	AR
7	1373025	Shim .....	AR
7	1373026	Shim .....	AR
7	1373027	Shim .....	AR
8	302468	Roll Pin .....	2
9	1325765	Load Roller Assembly .....	4
10	47478	Snap Ring .....	2
11	1325761	Shield .....	2
12	276228	Bearing Cone (Tapered Roller) (85 mm) .....	2
13	1325756	Roller .....	1
14	392197	Bearing Cup (Tapered Roller) (130 mm) .....	2
15	1325760	Cap .....	4
16	1325763	Shim .....	AR

## INNER MAST EMPTY CONTAINER HANDLER

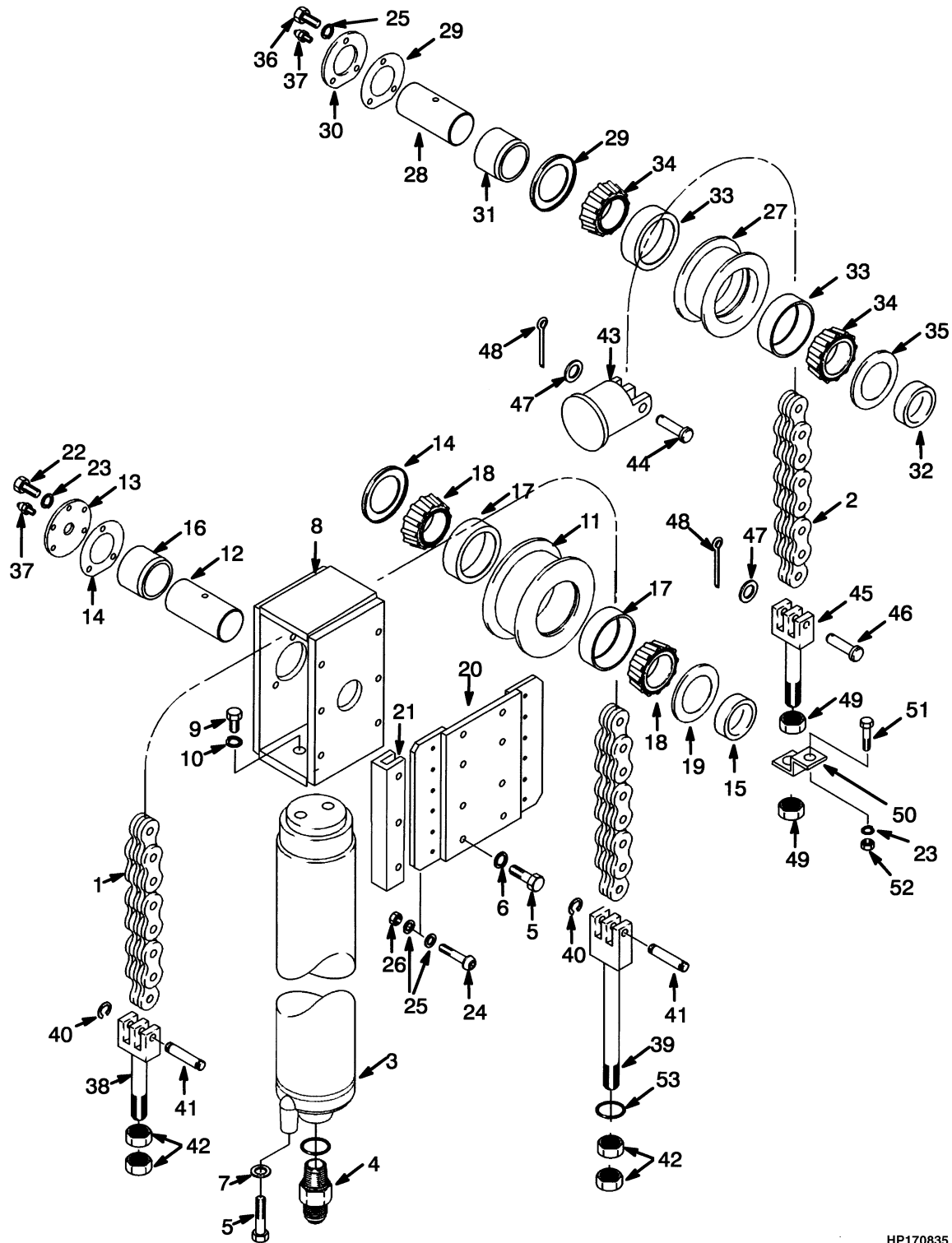
ITEM	PART NO.	DESCRIPTION	QTY
16	1325764	Shim .....	AR
16	1373329	Shim .....	AR
17	<b>b</b> 132860	Capscrew .....	16
17	<b>d</b> 293644	Capscrew .....	16
18	16001	Grease Fitting .....	4
19	320159	Washer .....	8
20	292517	Capscrew .....	6
21	302401	Locknut .....	6

### FOOTNOTES:

- a** Refer to Table
- b** → S/N A214E01806
- c** S/N A214E01807 ↔ S/N A214E01962
- d** S/N A214E01807 →
- e** S/N A214E01963 →



## MAIN LIFT (FIGURE 11-3) EMPTY CONTAINER HANDLER (→ S/N A214E01654)



HP170835

**MAIN LIFT**  
**EMPTY CONTAINER HANDLER (→ S/N A214E01654)**

**H16.00XM-EC12**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS
		13850 mm (545.3 in.)
	<b>Mast Group Number</b>	-
	Mast Assy	1373136
1	Chain	198324
2	Chain	1373054
3	Lift Cylinder	1391487

**H18.00XM-EC12**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS
		16450 mm (647.6 in.)
	<b>Mast Group Number</b>	-
	Mast Assy	1373137
1	Chain	330303
2	Chain	1373055
3	Lift Cylinder	1391488

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a</b> . . . . .	Mast Assy .....	1
1	<b>a</b> . . . . .	Chain .....	2
2	<b>a</b> . . . . .	Chain .....	2
3	<b>a</b> . . . . .	Lift Cylinder .....	2
4	376682	Lowering Control Valve .....	2
5	136985	Capscrew .....	12
6	<del>388049</del> 292682	Lockwasher .....	10
7	1303391	Washer .....	2
8	<b>c</b> 1389410	Housing .....	2
8	<b>b</b> 1455347	Housing .....	2
9	<b>b</b> 320165	Washer .....	4
9	<b>c</b> 320165	Washer .....	8
10	<b>b</b> 292562	Capscrew .....	4
10	<b>c</b> 292562	Capscrew .....	8
11	1455301	Chain Sheave .....	2
12	1455487	Shaft .....	2
13	1455992	Cover Plate .....	2
14	110931	Shim (0,127 mm) .....	AR
14	110932	Shim (0,178 mm) .....	AR
14	110933	Shim (0,508 mm) .....	AR
15	159296	Spacer .....	2

**MAIN LIFT**  
**EMPTY CONTAINER HANDLER (→ S/N A214E01654)**

ITEM	PART NO.	DESCRIPTION	QTY
16	159297	Spacer .....	2
17	159299	Bearing Cup (Tapered Roller) (147.64 mm) .....	4
18	230408	Bearing Cone (Tapered Roller) (92.08 mm) .....	4
19	159295	Oil Seal .....	4
20	1455396	Guide .....	2
21	1393735	Chain Guide .....	4
22	293645	Capscrew .....	10
23	296422	Washer .....	16
24	1393738	Capscrew .....	24
25	320156	Washer .....	48
26	302399	Nut .....	24
27	1383552	Chain Sheave .....	2
28	1373010	Shaft .....	2
29	1373014	Shim .....	AR
29	1373015	Shim .....	AR
29	1373016	Shim .....	AR
30	1372971	Plate .....	2
31	1373011	Spacer .....	2
32	1373012	Spacer .....	2
33	167970	Bearing Cup .....	4
34	167971	Bearing Cone .....	4
35	3013841	Oil Seal .....	4
36	132860	Capscrew .....	6
37	16001	Grease Fitting .....	4
38	1455377	Chain Anchor .....	2
39	1455378	Chain Anchor .....	2
40	1194251	Snap Ring .....	8
41	1455490	Pin .....	4
42	136405	Nut .....	8
43	1372884	Chain Anchor .....	2
44	1373020	Pin .....	2
45	1373349	Chain Anchor .....	2
46	1303383	Pin .....	2
47	15146	Washer .....	4
48	15244	Cotter Pin .....	4
49	221725	Nut .....	4
50	132829	Lockplate .....	2
51	292531	Capscrew .....	2
52	302402	Locknut .....	2
53	<b>d</b> 1458125	Spacer .....	2

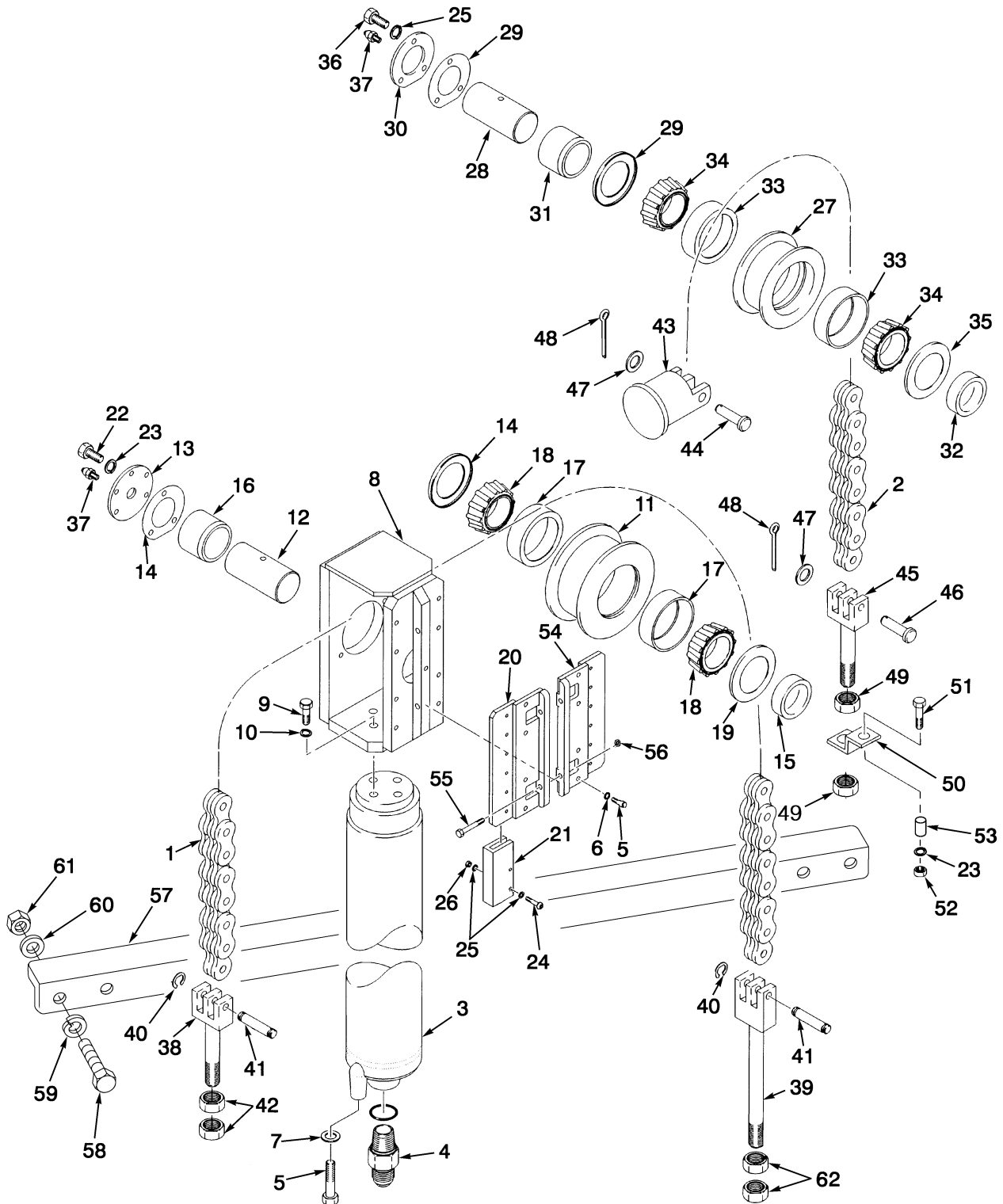
**FOOTNOTES:**

**a** Refer to Table  
**b** → S/N A214E01574

**c** S/N A214E01575 →  
**d** S/N A214E01577 → (ATT-2066V)



## MAIN LIFT (FIGURE 11-4) EMPTY CONTAINER HANDLER (S/N A214E01655 →)



HP170836



**MAIN LIFT  
EMPTY CONTAINER HANDLER (S/N A214E01655 →)**

**H16.00XM-EC12**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS
		13850 mm (545.3 in.)
Mast Group Number		-
	Mast Assy	g1496375 i1544032 198324 1373054 1389408
1	Chain	198324
2	Chain	1373054
3	Cylinder Assy	1389408

**H18.00XM-EC12**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS
		16450 mm (647.6 in.)
Mast Group Number		-
	Mast Assy	g1496376 i1544033 330303 1373055 1389409
1	Chain	330303
2	Chain	1373055
3	Cylinder Assy	1389409

ITEM	PART NO.	DESCRIPTION	QTY
	d . . . . .	Mast Assy .....	1
1	d . . . . .	Chain .....	2
2	d . . . . .	Chain .....	2
3	d . . . . .	Cylinder Assy .....	2
4	376682	Lowering Control Valve .....	2
5	136985	Capscrew .....	18
6	388049		
	292682	Lockwasher .....	20
7	1303391	Washer .....	2
8	1465599	Housing (Chain Sheave) .....	2
9	320165	Washer .....	8
10	292562	Capscrew .....	8
11	1455301	Chain Sheave .....	2
12	1455487	Shaft .....	2

## MAIN LIFT EMPTY CONTAINER HANDLER (S/N A214E01655 →)

ITEM	PART NO.	DESCRIPTION	QTY
13	1455992	Cover Plate .....	2
14	110931	Shim (0,127 mm) .....	AR
14	110932	Shim (0,178 mm) .....	AR
14	110933	Shim (0,508 mm) .....	AR
15	159296	Spacer .....	2
16	159297	Spacer .....	2
17	159299	Bearing Cup (Tapered Roller) (147.64 mm) .....	4
18	230408	Bearing Cone (Tapered Roller) (92.08 mm) .....	4
19	159295	Oil Seal .....	4
20	1465601	Guide (Front Sheave) .....	2
21	1393735	Chain Guide .....	4
22	293645	Capscrew .....	10
23	296422	Washer .....	16
24	1393738	Capscrew .....	24
25	320156	Washer .....	48
26	302399	Nut .....	24
27	1383552	Chain Sheave .....	2
28	1373010	Shaft .....	2
29	1373014	Shim .....	AR
29	1373015	Shim .....	AR
29	1373016	Shim .....	AR
30	1372971	Plate .....	2
31	1373011	Spacer .....	2
32	1373012	Spacer .....	2
33	167970	Bearing Cup .....	4
34	167971	Bearing Cone .....	4
35	<b>g</b> 3013841	Oil Seal .....	4
35	<b>i</b> 1518209	Oil Seal .....	4
36	132860	Capscrew .....	6
37	16001	Grease Fitting .....	4
38	<b>b g</b> 1460436	Chain Anchor (Short) .....	2
38	<b>b i</b> 1507589	Chain Anchor (Short) .....	2
39	<b>a</b> 1460437	Chain Anchor (Long) .....	2
40	1194251	Snap Ring .....	8
41	<b>g</b> 1455490	Pin .....	4
41	<b>i</b> 1509182	Pin .....	2
41	<b>i</b> 1455490	Pin .....	2
42	<b>g</b> 136405	Nut .....	8
42	<b>i</b> 221295	Nut .....	8
43	<b>e g</b> 1372884	Chain Anchor .....	2
43	<b>e i</b> 1534281	Chain Anchor .....	2
44	1373020	Pin .....	2
45	<b>c f</b> 1373349	Chain Anchor .....	2
45	<b>c h</b> 1494402	Chain Anchor .....	2
46	1303383	Pin .....	2
47	15146	Washer .....	4
48	15244	Cotter Pin .....	4
49	221725	Nut .....	4
49	221729	Nut .....	4
50	<b>f</b> 132829	Lockplate .....	2

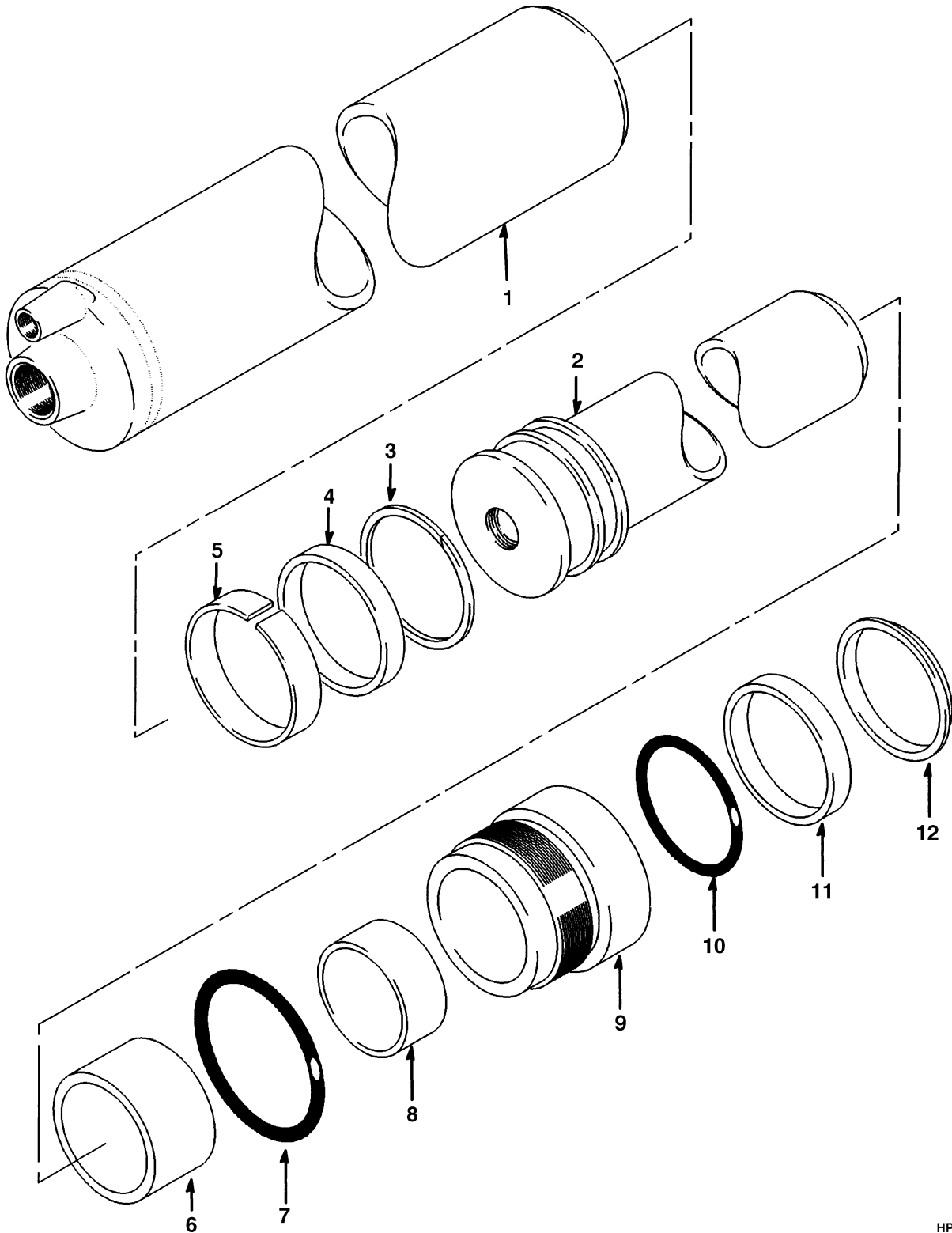
**MAIN LIFT**  
**EMPTY CONTAINER HANDLER (S/N A214E01655 →)**

ITEM	PART NO.	DESCRIPTION	QTY
50	<b>h</b> 1495969	Lockplate .....	4
51	<b>f</b> 292531	Capscrew .....	2
51	<b>h</b> 292538	Capscrew .....	2
52	<del>1318914</del> 216877	Nut .....	2
52	302402	Locknut .....	2
53	<b>f</b> 1458125	Spacer .....	2
53	<b>h</b> 1496053	Spacer .....	2
54	1465602	Guide (Rear Sheave) .....	2
55	136718	Capscrew .....	4
56	<del>1586693</del> 136692	Nut .....	4
57	<b>i</b> 1507696	Plate .....	2
58	<b>i</b> 292533	Capscrew .....	4
59	<b>i</b> 320161	Washer .....	18
60	<b>i</b> 292683	Lockwasher .....	4
61	<b>i</b> 302402	Locknut .....	4
62	136405	Nut .....	4

**FOOTNOTES:**

<b>a</b>	Bottom of Inner Mast	<b>f</b>	→ S/N A214E01806
<b>b</b>	Halfway-up On Outer Mast	<b>g</b>	→ S/N A214E01962A
<b>c</b>	On Attachment	<b>h</b>	S/N A214E01807 →
<b>d</b>	Refer to Table	<b>i</b>	S/N A214E01963A →
<b>e</b>	Top of Outer Mast		

## LIFT CYLINDER (FIGURE 11-5) EMPTY CONTAINER HANDLER (→ S/N A214E01574)



HP170844

**LIFT CYLINDER  
EMPTY CONTAINER HANDLER (→ S/N A214E01574)  
H400H-EC5**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS
		13850 mm (545.3 in.)
	Mast Group Number	-
	Cylinder Group Number	1391487
	Lift Cylinder	1391487
1	Tube Wldmt- Cylinder	1391481
2	Rod Assy	1391484

**H450H-EC6**

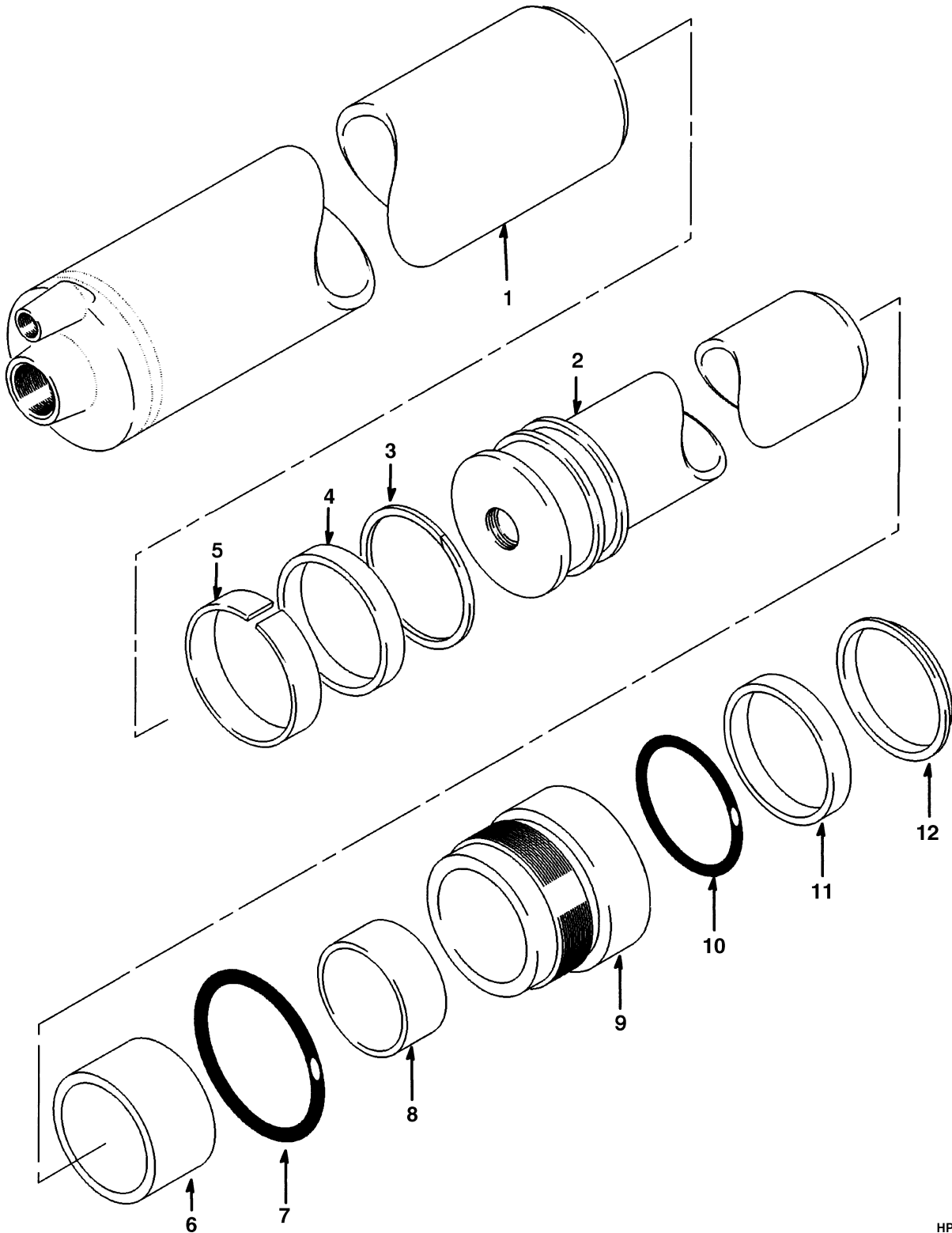
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS
		16450 mm (647.6 in.)
	Mast Group Number	-
	Cylinder Group Number	1391488
	Lift Cylinder	1391488
1	Tube Wldmt- Cylinder	1391482
2	Rod Assy	1391485

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a</b> . . . . .	Lift Cylinder .....	1
1	<b>a</b> . . . . .	Tube Wldmt-Cylinder .....	1
2	<b>a</b> . . . . .	Rod Assy .....	1
3	638299	Back-Up Ring .....	1
4	637170	Rod Seal .....	1
5	385133	Wear Ring .....	1
6	1451823	Spacer .....	1
7	1373127	O-Ring .....	1
8	636907	Wear Ring .....	1
9	1373126	Retainer .....	1
10	637168	Rod Seal .....	1
11	638256	Back-Up Ring .....	1
12	1373129	Rod Seal .....	1
	1391877	Kit-Seal .....	1

**FOOTNOTES:**

**a** Refer to Table

## LIFT CYLINDER (FIGURE 11-6) EMPTY CONTAINER HANDLER (S/N A214E01575 →)



HP170844

**LIFT CYLINDER**  
**EMPTY CONTAINER HANDLER (S/N A214E01575 →)**  
**H400H-EC5**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS
		13850 mm (545.3 in.)
	Mast Group Number	-
	Cylinder Group Number	1389408
	Cylinder Assy	1389408
1	Tube Wldmt- Cylinder	1391481
2	Cylinder Rod	1389405

**H450H-EC6**

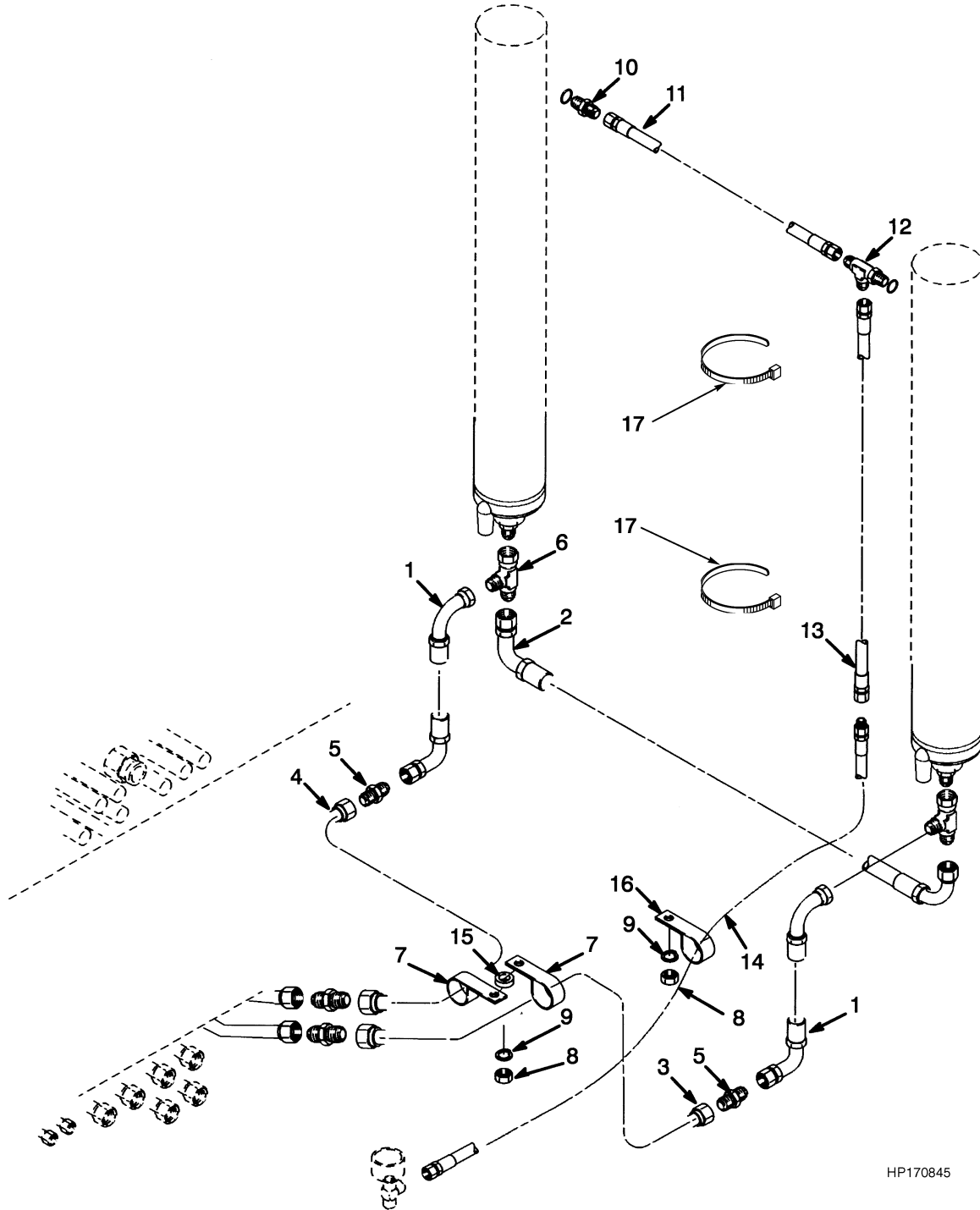
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS
		16450 mm (647.6 in.)
	Mast Group Number	-
	Cylinder Group Number	1389409
	Cylinder Assy	1389409
1	Tube Wldmt- Cylinder	1391482
2	Cylinder Rod	1389406

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a</b> . . . . .	Cylinder Assy .....	1
1	<b>a</b> . . . . .	Tube Wldmt-Cylinder .....	1
2	<b>a</b> . . . . .	Cylinder Rod .....	1
3	638299	Back-Up Ring .....	1
4	637170	Rod Seal .....	1
5	385133	Wear Ring .....	1
6	1451823	Spacer .....	1
7	1373127	O-Ring .....	1
8	636907	Wear Ring .....	1
9	1373126	Retainer .....	1
10	637168	Rod Seal .....	1
11	638256	Back-Up Ring .....	1
12	1373129	Rod Seal .....	1
	1391877	Kit-Seal .....	1

**FOOTNOTES:**

**a** Refer to Table

## LIFT CYLINDER ATTACHING PARTS (FIGURE 11-7) EMPTY CONTAINER HANDLER (→ S/N A214E02236D)



HP170845



**LIFT CYLINDER ATTACHING PARTS  
EMPTY CONTAINER HANDLER (→ S/N A214E02236D)**

**H16.00XM-EC12**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS
		13850 mm (545.3 in.)
	Mast Group Number	-
13	Hose Assy	300597

**H18.00XM-EC12**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS
		16450 mm (647.6 in.)
	Mast Group Number	-
13	Hose Assy	1393740

ITEM	PART NO.	DESCRIPTION	QTY
1	1565736	Hose Assy .....	2
2	1384484	Hose Assy .....	1
3	1565737	Tube Assy .....	1
3	14494	Sleeve .....	2
3	1451834	Sleeve .....	2
4	1565738	Tube Assy .....	1
4	14494	Sleeve .....	2
4	1451834	Sleeve .....	2
5	1336054	Fitting .....	2
6	1337266	Fitting .....	2
7	1310611	Clamp .....	5
8	<b>b</b> 302401	Locknut .....	3
8	<b>c</b> 302401	Locknut .....	4
9	<b>b</b> 320161	Washer .....	3
9	<b>c</b> 320161	Washer .....	4
10	131460	Fitting .....	2
10	16483	O-Ring .....	1
11	252376	Hose Assy .....	1
12	17062	Fitting .....	1
13	<b>a</b> . . . . .	Hose Assy .....	1
14	301250	Hose Assy .....	1
15	1300165	Spacer .....	3
16	<b>c</b> 321487	Clamp .....	1
17	273775	Strap Clamp .....	AR

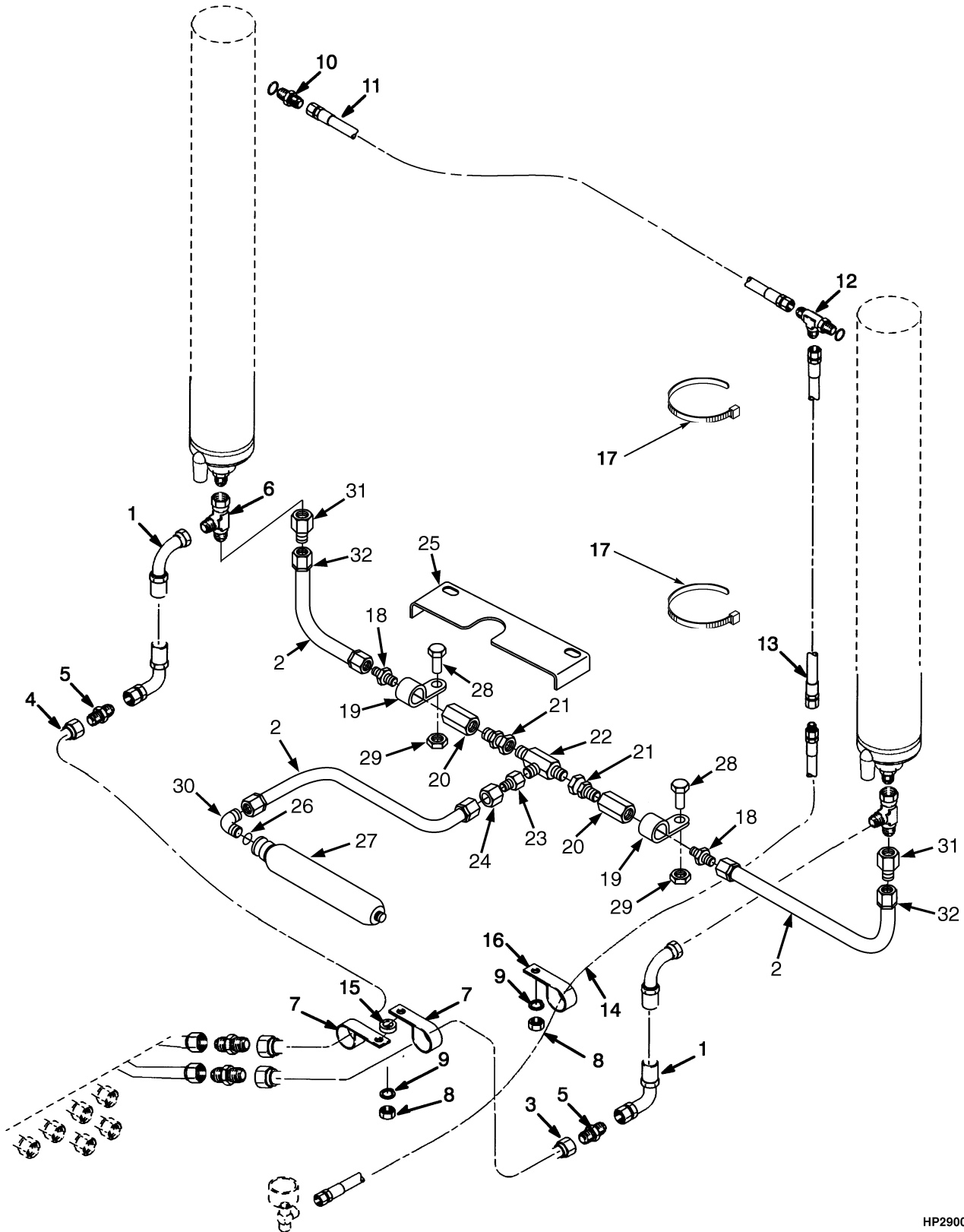
**FOOTNOTES:**

**a** Refer to Table

**c** S/N A214E01535 →

**b** → S/N A214E01534

## LIFT CYLINDER ATTACHING PARTS (FIGURE 11-8) EMPTY CONTAINER HANDLER (S/N A214E02237D →)



HP290031

**LIFT CYLINDER ATTACHING PARTS**  
**EMPTY CONTAINER HANDLER (S/N A214E02237D →)**

**H16.00XM-EC12**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS
		13850 mm (545.3 in.)
	Mast Group Number	-
13	Hose Assy	300597

**H18.00XM-EC12**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS
		16450 mm (647.6 in.)
	Mast Group Number	-
13	Hose Assy	1393740

ITEM	PART NO.	DESCRIPTION	QTY
1	1565736	Hose Assy .....	2
2	1562101	Hose Assy .....	3
3	1565737	Tube Assy .....	1
4	1565738	Tube Assy .....	1
5	1336054	Fitting .....	2
6	1337266	Fitting .....	2
7	1310611	Clamp .....	5
8	302401	Locknut .....	4
9	320161	Washer .....	4
10	131460	Fitting .....	2
10	16483	O-Ring .....	1
11	252376	Hose Assy .....	1
12	17062	Fitting .....	1
12	16484	O-Ring .....	1
13	a . . . . .	Hose Assy .....	1
14	301250	Hose Assy .....	1
15	1300165	Spacer .....	3
16	321487	Clamp .....	1
17	273775	Strap Clamp .....	AR
18	6996678		
	1470843	Fitting (BSPP) (ORFS/T - 13/16-16) (T5 - 3/4 in., 26.441 mm) .....	2
19	398074	Clamp .....	2
20	1595264	Valve (Line Burst) .....	2
21	1595263	Fitting .....	2
22	1522438	Fitting .....	1
22	1495114		
	252729	O-Ring .....	1
22	1495113		
	265731	O-Ring .....	1
23	1487150	Fitting .....	1

**LIFT CYLINDER ATTACHING PARTS**  
**EMPTY CONTAINER HANDLER (S/N A214E02237D →)**

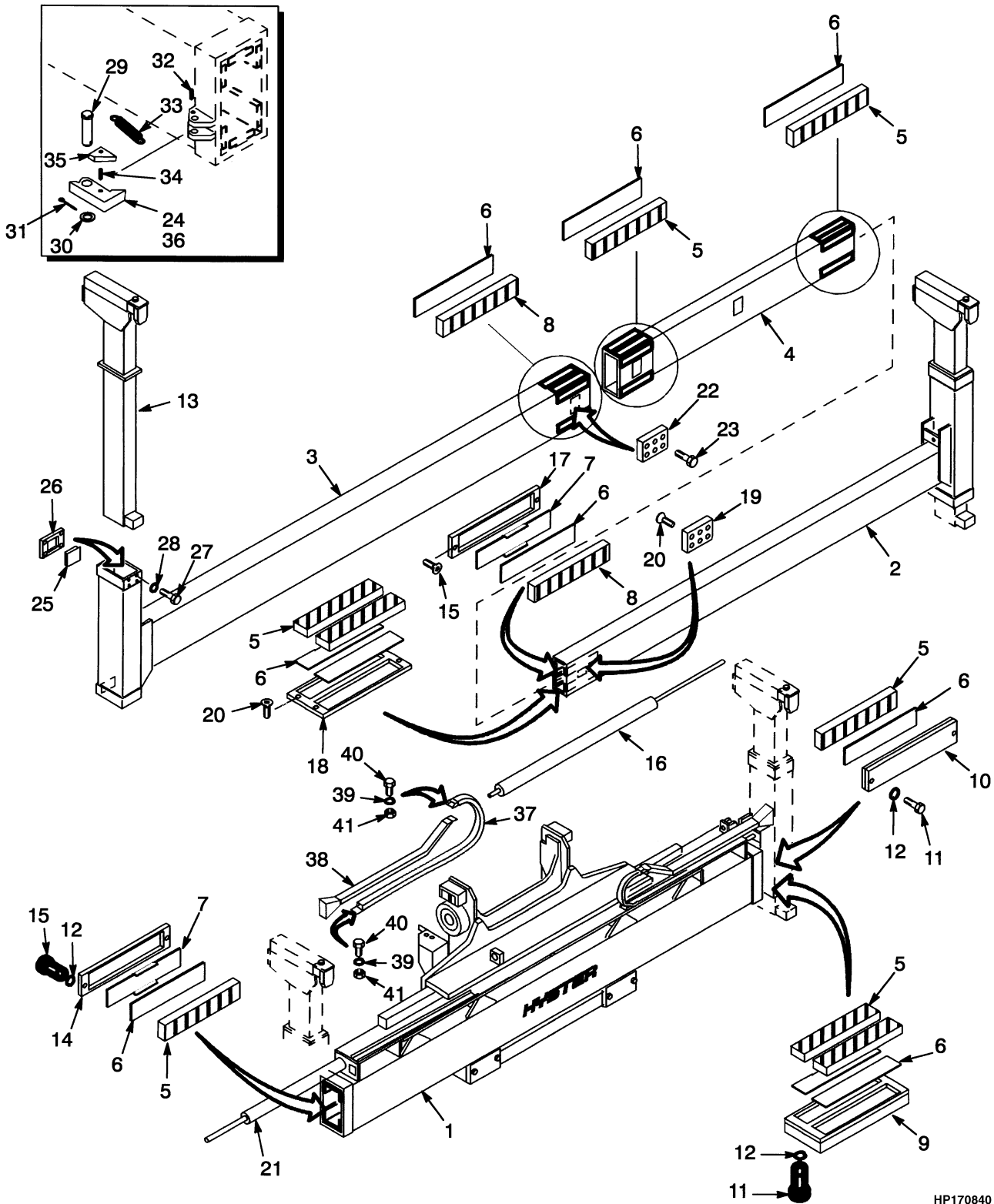
ITEM	PART NO.	DESCRIPTION	QTY
23	1495113		
	265731	O-Ring .....	1
23	1495115		
	280154	O-Ring .....	1
24	1487166	Fitting .....	1
25	1562102	Plate .....	1
26	16487	O-Ring .....	1
27	1616995	Accumulator .....	1
28	292537	Capscrew .....	2
29	302402	Locknut .....	2
30	1570423	Fitting .....	1
31	222369	Fitting .....	2
31	16484	O-Ring .....	1
32	14494	Sleeve .....	2
32	16487	O-Ring .....	1

**FOOTNOTES:**

- a Refer to Table



## WEAR PLATES (FIGURE 11-9) EMPTY CONTAINER HANDLER (→ S/N A214E01806)

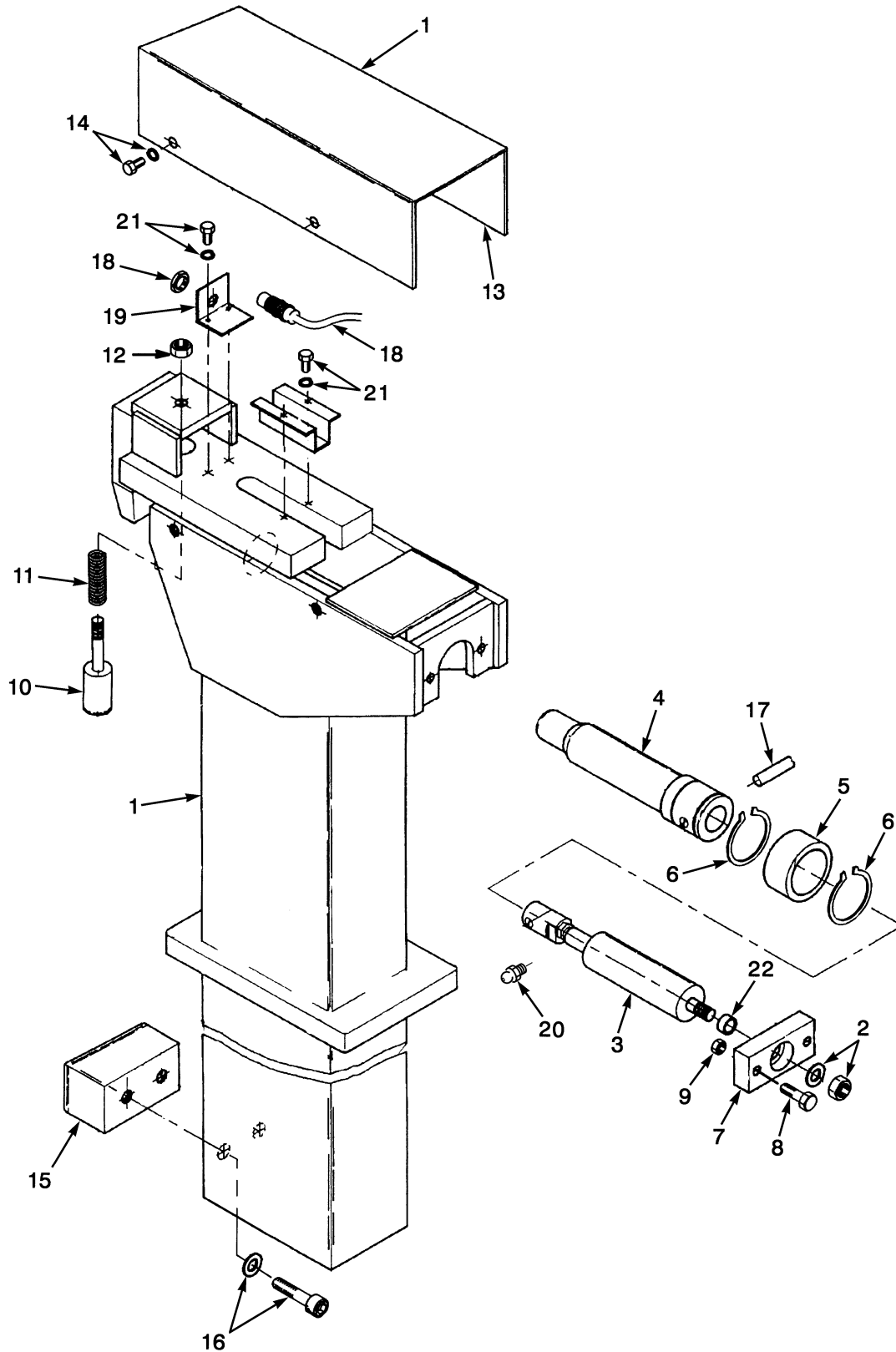


HP170840

**WEAR PLATES**  
**EMPTY CONTAINER HANDLER (→ S/N A214E01806)**

ITEM	PART NO.	DESCRIPTION	QTY
1	1453904	Beam (Main) .....	1
2	1453905	Beam (LH) .....	1
3	1453906	Beam (RH) .....	1
4	1453907	Beam .....	1
5	1453908	Friction Disk .....	40
6	1453909	Shim .....	48
7	1453910	Lockplate .....	12
8	1453911	Plate .....	8
9	1453912	Plate .....	1
10	1453913	Block .....	6
11	1453914	Bolt .....	16
12	1453915	Washer .....	48
13	1453932	Locking Head (Vertical) (☞Figure 11-10).....	2
14	1453916	Plate .....	8
15	1453917	Bolt .....	16
16	1392292	Sideshift Cylinder (☞Figure 11-15).....	1
17	1453918	Plate .....	4
18	1453919	Plate .....	2
19	1392314	Lockplate .....	2
20	1453920	Capscrew .....	28
21	1392290	Cylinder Assy (☞Figure 11-14).....	2
22	1453921	Stop .....	2
23	1453922	Bolt .....	12
24	1392296	Stop .....	1
25	1392319	Lockplate .....	4
26	1392320	Lockplate .....	4
27	1453923	Capscrew .....	16
28	1453924	Washer .....	16
29	1392293	Pin .....	2
30	1392294	Ring .....	4
31	1392295	Cotter Pin .....	2
32	1392297	Retainer (Spring) .....	4
33	1392298	Spring .....	2
34	1392299	Retainer .....	2
35	1454066	Block .....	2
36	1392301	Stop .....	1
37	1454061	Beam .....	2
38	1454053	Cable (Support) (RH) .....	1
38	1454055	Cable (Support) (LH) .....	1
39	1392324	Washer .....	12
40	1454063	Capscrew .....	8
41	1454064	Nut .....	8

## VERTICAL END BEAM (FIGURE 11-10) EMPTY CONTAINER HANDLER (→ S/N A214E01806)



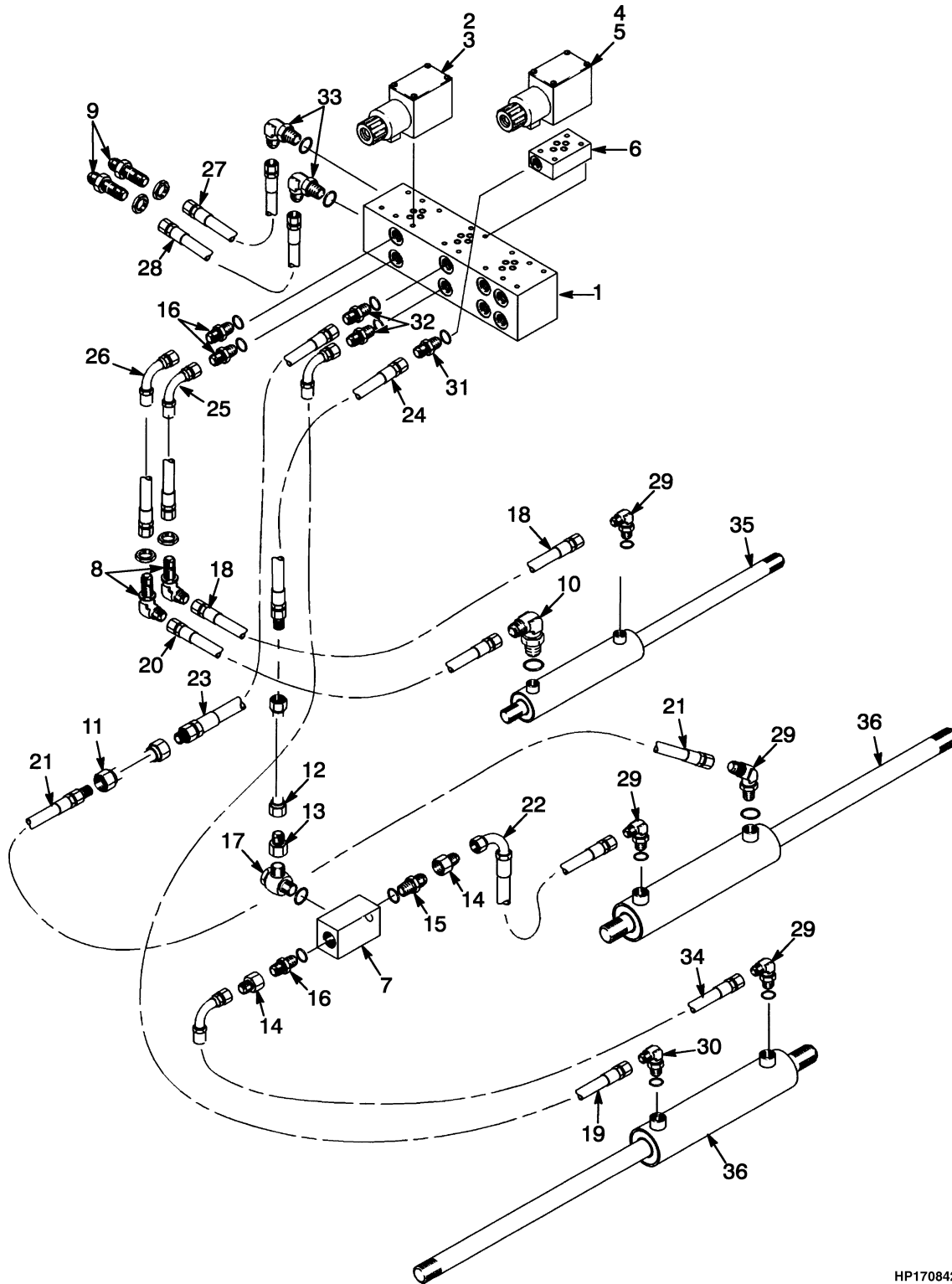
HP170841



**VERTICAL END BEAM**  
**EMPTY CONTAINER HANDLER (→ S/N A214E01806)**

ITEM	PART NO.	DESCRIPTION	QTY
	1453932	Locking Head .....	1
1	1453926	Beam .....	1
2	1392351	Locknut .....	1
3	1392370	Cylinder (☞ Figure 11-13).....	1
4	1484112	Pin .....	1
5	1392372	Bushing .....	1
6	1392373	Snap Ring .....	2
6	1460908	Snap Ring .....	2
7	1392374	Plate .....	1
8	1392375	Bolt .....	2
8	292531	Capscrew .....	2
9	1392376	Locknut .....	2
9	1460909	Nut .....	2
10	1392377	Pin .....	1
11	1392378	Spring .....	2
12	1453928	Nut .....	1
13	1392371	Pin .....	1
14	1453929	Bolt .....	4
14	1460914	Lockwasher .....	4
15	1453930	Block .....	1
16	1453931	Capscrew .....	2
16	292583	Capscrew .....	2
16	1460911	Washer .....	2
17	1453927	Axle .....	1
18	1453988	Switch .....	3
19	1460505	Bracket .....	1
20	1484113	Grease Fitting .....	1
21	1460912	Bolt .....	4
21	1460913	Washer .....	4
22	1392366	Bushing .....	1
23	1460506	Bracket .....	1
	1460511	Bushing (Not Illustrated) .....	2

## HYDRAULIC SYSTEM (FIGURE 11-11) EMPTY CONTAINER HANDLER — PAGE 1 OF 2 (→ S/N A214E01806)

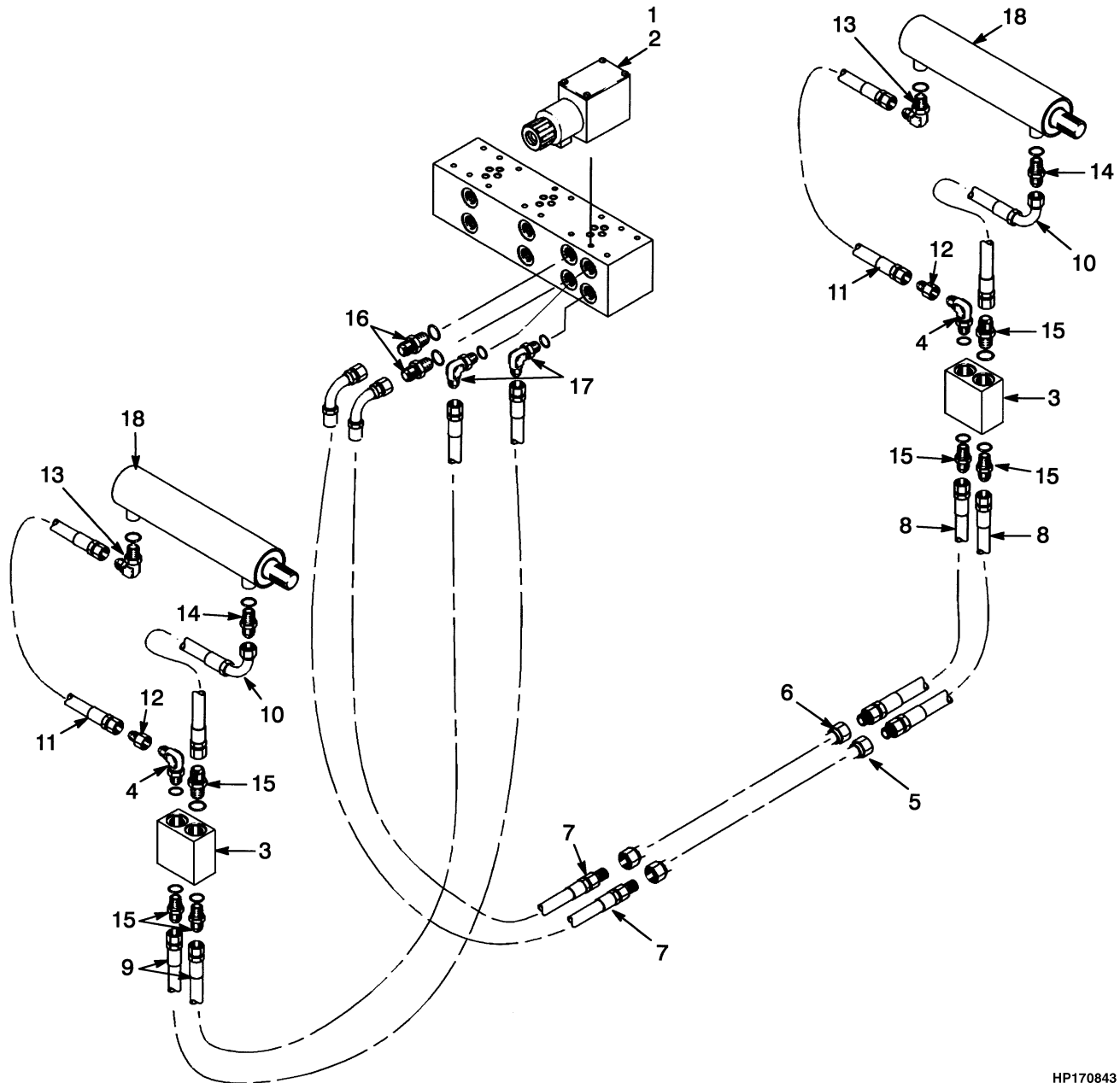


HP170842

**HYDRAULIC SYSTEM**  
**EMPTY CONTAINER HANDLER – PAGE 1 OF 2 (→ S/N A214E01806)**

ITEM	PART NO.	DESCRIPTION	QTY
1	1454011	Block .....	1
2	1454012	Solenoid .....	1
3	1454013	Coil (24 Volt) .....	1
4	1454014	Solenoid .....	1
5	1454015	Coil (24 Volt) .....	1
6	1454016	Check Valve .....	1
7	1454018	Flow Valve .....	1
8	1454020	Coupling .....	2
9	16449	Fitting .....	2
10	1454022	Fitting .....	3
11	.....	Tube .....	1
12	1454023	Tube .....	1
13	.....	Fitting .....	1
14	.....	Fitting .....	2
15	1454025	Fitting .....	1
16	1454026	Fitting .....	3
17	.....	Fitting .....	1
18	1454031	Hose .....	1
19	1454032	Hose .....	1
20	1454033	Hose .....	1
21	1454034	Hose .....	1
22	1454035	Hose .....	1
23	1454038	Hose .....	1
24	1454037	Hose .....	1
25	1454039	Hose .....	1
26	1454040	Hose .....	1
27	1454041	Hose .....	1
28	1454042	Hose .....	1
29	1454165	Fitting .....	4
30	1454166	Fitting .....	1
31	1454173	Fitting .....	1
32	1454174	Fitting .....	2
33	1454175	Fitting .....	2
34	1454036	Hose .....	1
35	6990502	Sideshift Cylinder (☞Figure 11-15).....	1
36	1392290	Cylinder Assy (☞Figure 11-14).....	2

## HYDRAULIC SYSTEM (FIGURE 11-12) EMPTY CONTAINER HANDLER — PAGE 2 OF 2 (→ S/N A214E01806)

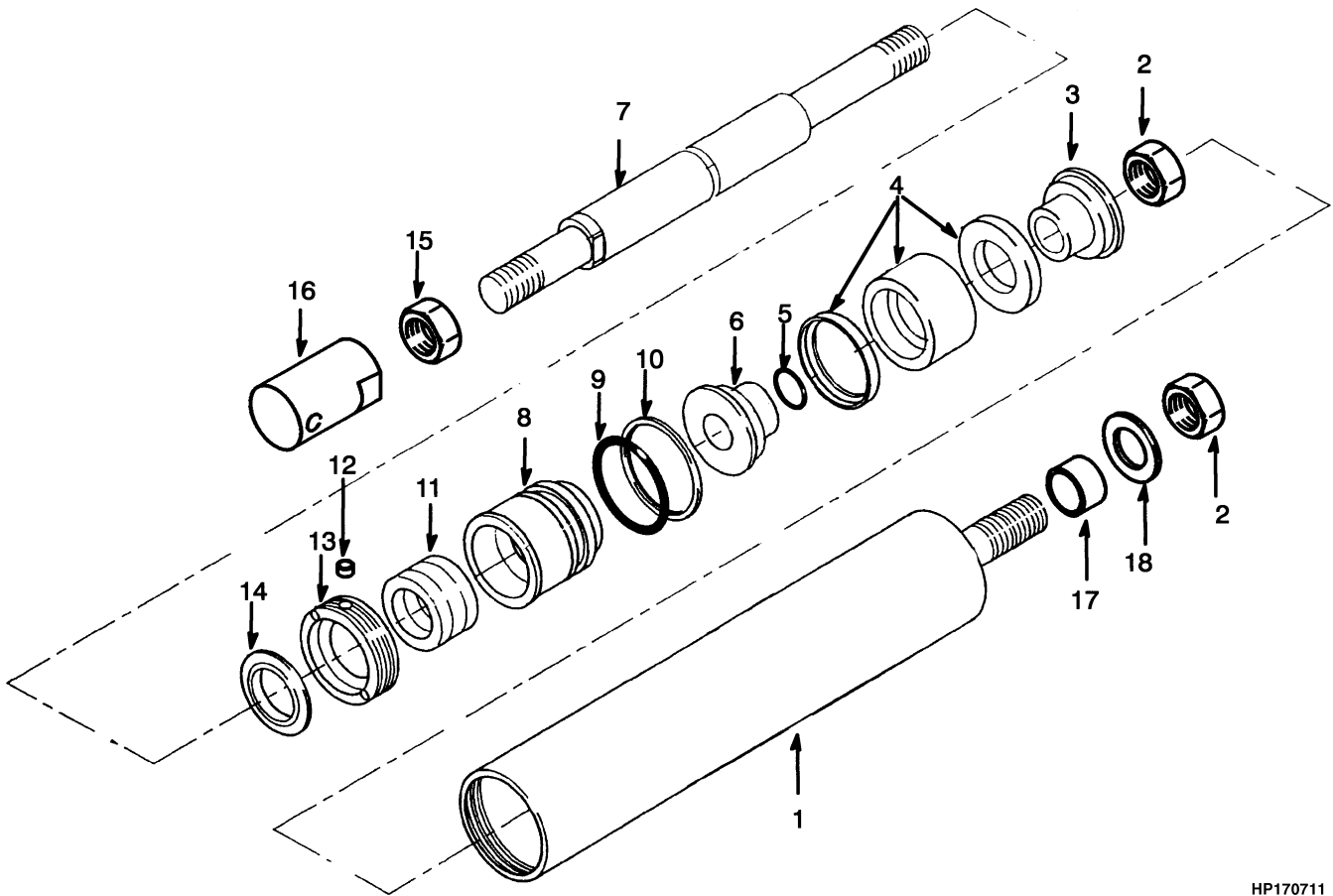


HP170843

**HYDRAULIC SYSTEM**  
**EMPTY CONTAINER HANDLER – PAGE 2 OF 2 (→ S/N A214E01806)**

ITEM	PART NO.	DESCRIPTION	QTY
1	1454017	Solenoid .....	1
2	1454013	Coil (24 Volt) .....	1
3	1454019	Check Valve .....	2
4	1454022	Fitting .....	2
5	1454024	Tube .....	2
6	.....	Tube .....	1
7	1454027	Hose .....	2
8	1454029	Hose .....	2
9	1454030	Hose .....	2
10	1454043	Hose .....	2
11	1454164	Hose .....	2
12	1454167	Fitting .....	2
13	1454168	Fitting .....	2
14	1454169	Fitting .....	2
15	1454170	Fitting .....	6
16	1454171	Fitting .....	2
17	1454172	Fitting .....	2
18	1392370	Cylinder (Twist Lock) (☞Figure 11-13).....	2

## TWIST LOCK CYLINDER (FIGURE 11-13) EMPTY CONTAINER HANDLER (→ S/N A214E01806)

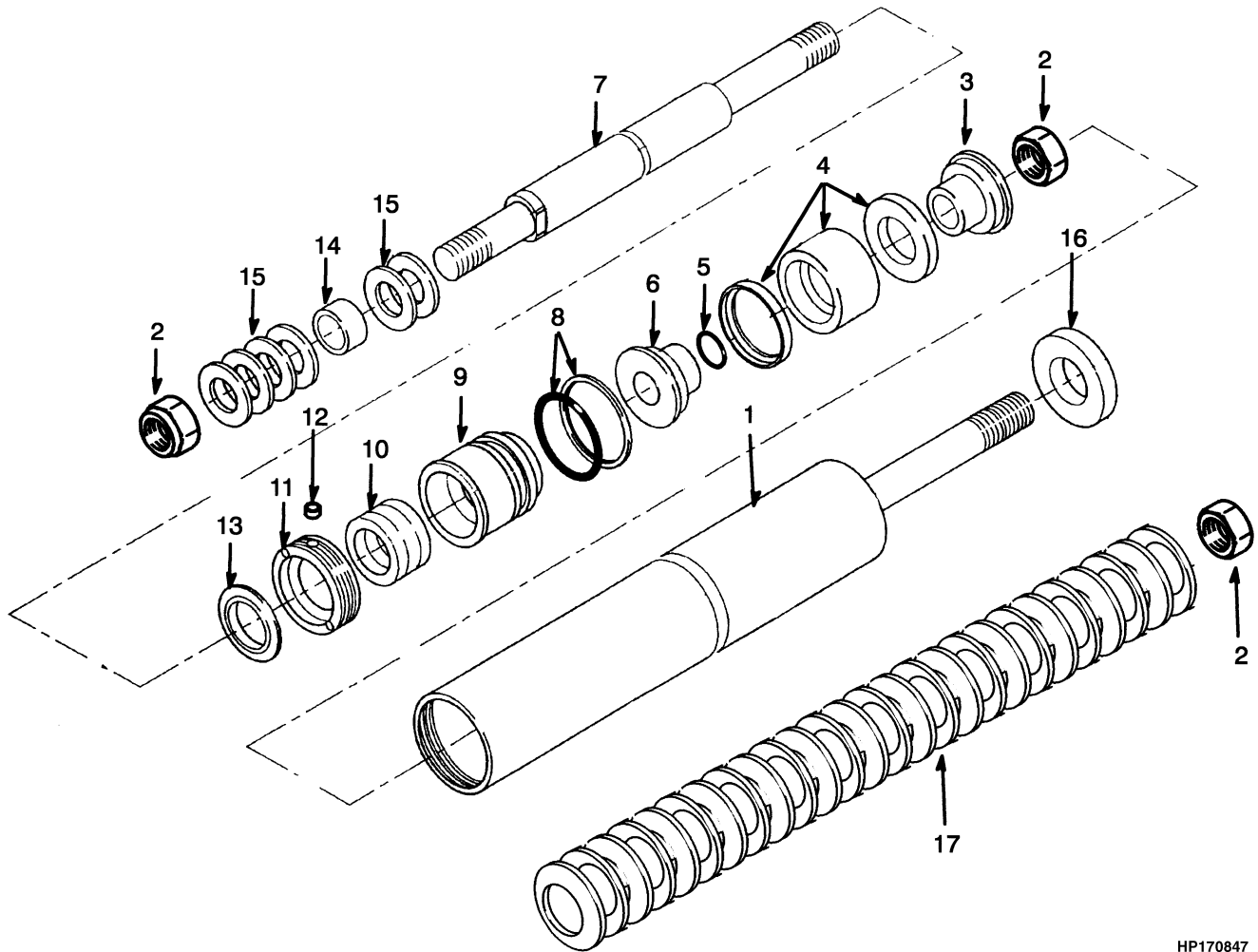


HP170711

**TWIST LOCK CYLINDER**  
**EMPTY CONTAINER HANDLER (→ S/N A214E01806)**

ITEM	PART NO.	DESCRIPTION	QTY
	1392370	Cylinder .....	1
1	1392350	Tube Wldmt-Cylinder .....	1
2	1392351	Locknut .....	2
3	1392352	Piston .....	1
4	1392353	Seal .....	1
5	1392354	O-Ring .....	1
6	1392355	Piston .....	1
7	1392356	Cylinder Rod .....	1
8	1392357	Retainer .....	1
9	1392358	O-Ring .....	1
10	1392359	Ring .....	1
11	1392360	Packing .....	1
12	1392361	Insert .....	1
13	1392362	Nut .....	1
14	1392363	Wiper .....	1
15	1392364	Nut .....	1
16	1392365	Rod End .....	1
17	1392366	Bushing .....	1
18	1392367	Washer .....	1
	1453954	Kit-Seal .....	1

## EXTENSION CYLINDER (FIGURE 11-14) EMPTY CONTAINER HANDLER (→ S/N A214E01806)



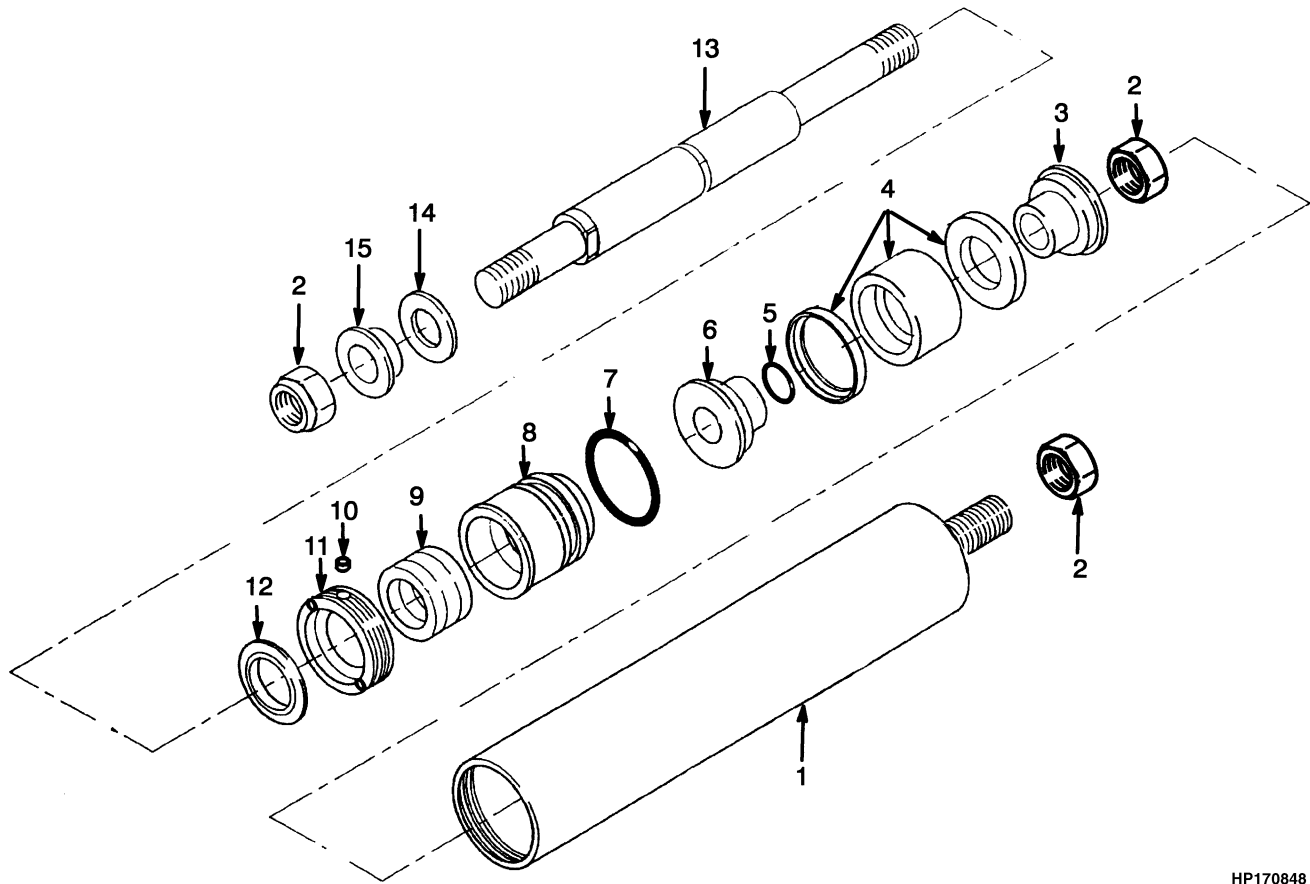
HP170847



**EXTENSION CYLINDER**  
**EMPTY CONTAINER HANDLER (→ S/N A214E01806)**

ITEM	PART NO.	DESCRIPTION	QTY
	1392290	Cylinder Assy .....	1
1	1392335	Tube Assy .....	1
2	1392336	Nut .....	3
3	1392337	Piston .....	1
4	1392387	Seal .....	1
5	1392338	O-Ring .....	1
6	1392339	Piston .....	1
7	1392340	Rod .....	1
8	1392341	O-Ring .....	2
9	1392342	Retainer .....	1
10	1392386	Seal .....	1
11	1392344	Nut .....	1
12	1392361	Insert .....	1
13	1392345	Wiper .....	1
14	1392346	Bushing .....	1
15	1392347	Ring .....	6
16	1392348	Ring .....	1
17	1392349	Disk Spring .....	24
	1454046	Kit-Seal .....	1

## SIDE-SHIFT CYLINDER (FIGURE 11-15) CONTAINER HANDLING ATTACHMENT (→ S/N A214E01806)

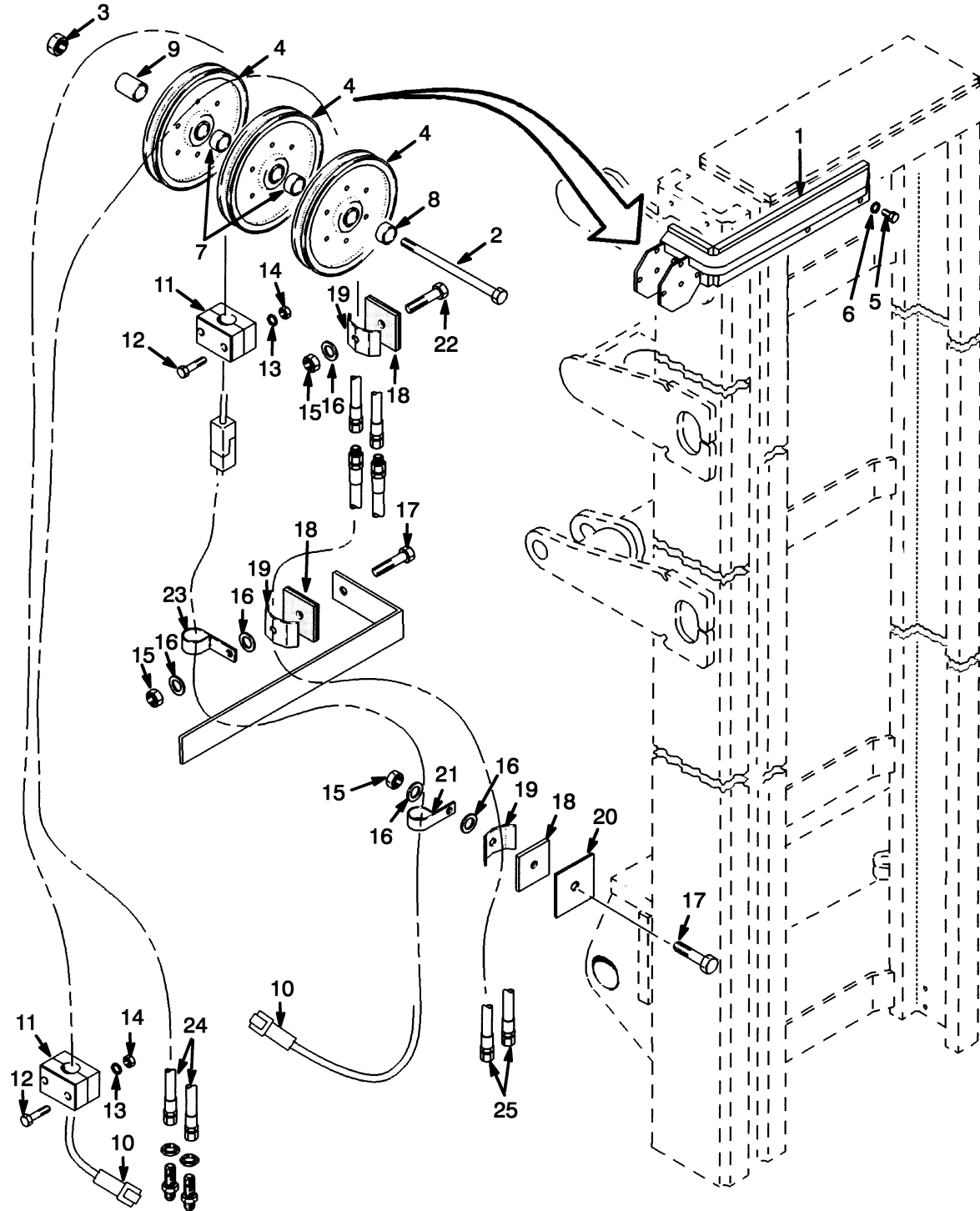


HP170848

**SIDE-SHIFT CYLINDER**  
**CONTAINER HANDLING ATTACHMENT (→ S/N A214E01806)**

ITEM	PART NO.	DESCRIPTION	QTY
	1392292	Sideshift Cylinder .....	1
1	1392327	Tube .....	1
2	.....	Locknut .....	1
3	1392328	Piston .....	1
4	.....	Packing .....	1
5	.....	O-Ring .....	1
6	1392329	Piston .....	1
7	.....	O-Ring .....	1
8	1392331	Retainer .....	1
9	.....	Packing .....	1
10	.....	Insert .....	1
11	1392332	Nut .....	1
12	.....	Wiper .....	1
13	1392330	Rod .....	1
14	1392333	Ring .....	1
15	1392334	Bushing .....	1
	1392549	Kit-Seal .....	1

## HEADER HOSE (FIGURE 11-16) EMPTY CONTAINER HANDLER (→ S/N A214E01807Y EXC. 01791)



HP170837

**HEADER HOSE**  
**EMPTY CONTAINER HANDLER (→ S/N A214E01807Y EXC. 01791)**

**H16.00XM-EC12**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS
		13850 mm (545.3 in.)
	<b>Mast Group Number</b>	-
	Mast Assy	1373136
10	Wire Harness	1459676
24	Hose Assy	1452776
25	Hose Assy	1391906

**H18.00XM-EC12**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS
		16450 mm (647.6 in.)
	<b>Mast Group Number</b>	-
	Mast Assy	1373137
10	Wire Harness	1459675
24	Hose Assy	1452652
25	Hose Assy	1391907

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a . . . . .</b>	Mast Assy .....	1
1	1382729	Bracket Wldmt .....	1
2	14999	Capscrew .....	4
3	221357	Locknut .....	4
4	189451	Hose Sheave .....	3
5	292581	Capscrew .....	4
6	292687	Lockwasher .....	4
7	280610	Spacer .....	2
8	1301650	Spacer .....	1
9	815932	Spacer .....	1
10	<b>a . . . . .</b>	Wire Harness .....	1
11	1391418	Clamp .....	1
12	221440	Capscrew .....	1
13	15154	Lockwasher .....	2
14	221703	Nut .....	2
15	300937	Nut .....	7
16	320161	Washer .....	14
17	292535	Capscrew .....	6
18	138929	Plate .....	7
19	343590	Clamp .....	7
20	1338037	Plate .....	6
21	391484	Clamp (Insulated) .....	6

## HEADER HOSE EMPTY CONTAINER HANDLER (→ S/N A214E01807Y EXC. 01791)

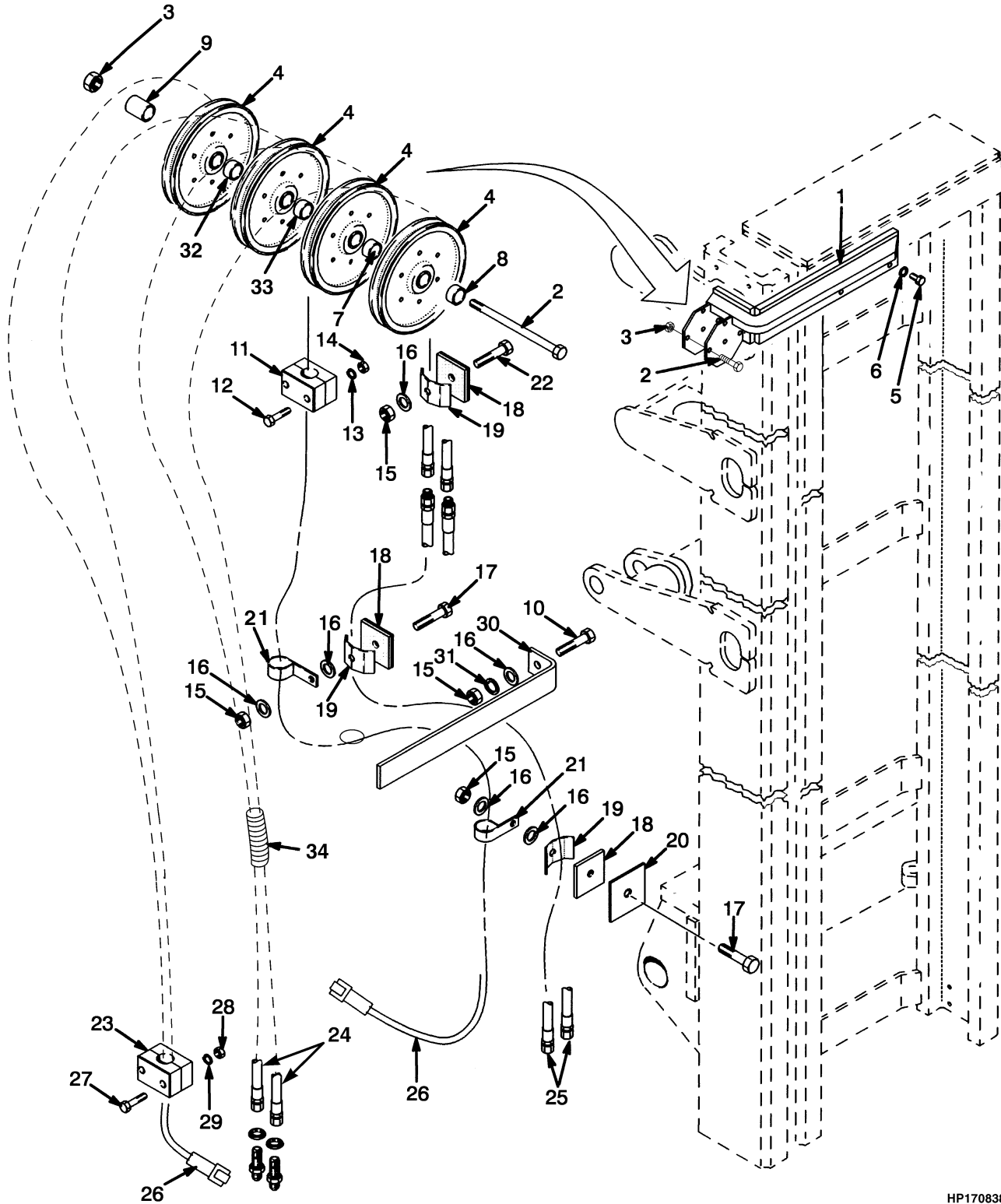
ITEM	PART NO.	DESCRIPTION	QTY
22	292533	Capscrew .....	1
23	1330603	Clamp .....	1
24	a . . . . .	Hose Assy .....	2
25	a . . . . .	Hose Assy .....	2

### FOOTNOTES:

a Refer to Table



## HEADER HOSE (FIGURE 11-17) EMPTY CONTAINER HANDLER (S/N A214E01808Y ↔ S/N A214E01962A INC. 01791)



HP170838



**HEADER HOSE**  
**EMPTY CONTAINER HANDLER (S/N A214E01808Y ↔ S/N A214E01962A INC. 01791)**

**H16.00XM-EC12**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS
		13850 mm (545.3 in.)
	<b>Mast Group Number</b>	-
	Mast Assy	1496375
24	Hose Assy	1500979
25	Hose Assy	1391906
26	Wire Harness	<b>b1500975</b> <b>c1500977</b>

**H18.00XM-EC12**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS
		16450 mm (647.6 in.)
	<b>Mast Group Number</b>	-
	Mast Assy	1496376
24	Hose Assy	1500980
25	Hose Assy	1391906
26	Wire Harness	<b>b1500976</b> <b>c1500978</b>

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a . . . . .</b>	Mast Assy .....	1
1	1382729	Bracket Wldmt .....	1
2	14999	Capscrew .....	4
3	221357	Locknut .....	4
4	<b>c 189451</b>	Hose Sheave .....	4
5	292581	Capscrew .....	4
6	292687	Lockwasher .....	4
7	<b>c 280610</b>	Spacer .....	1
8	1301650	Spacer .....	1
9	<b>b 815932</b>	Spacer .....	1
9	<b>c 1502350</b>	Spacer (Alternate Part) .....	1
10	246001	Capscrew .....	4
11	1391418	Clamp .....	1
12	221440	Capscrew .....	2
13	15154	Lockwasher .....	2
14	221703	Nut .....	2
15	300937	Nut .....	11
16	320161	Washer .....	18
17	292535	Capscrew .....	6
18	138929	Plate .....	7

**HEADER HOSE**  
**EMPTY CONTAINER HANDLER (S/N A214E01808Y ↔ S/N A214E01962A INC. 01791)**

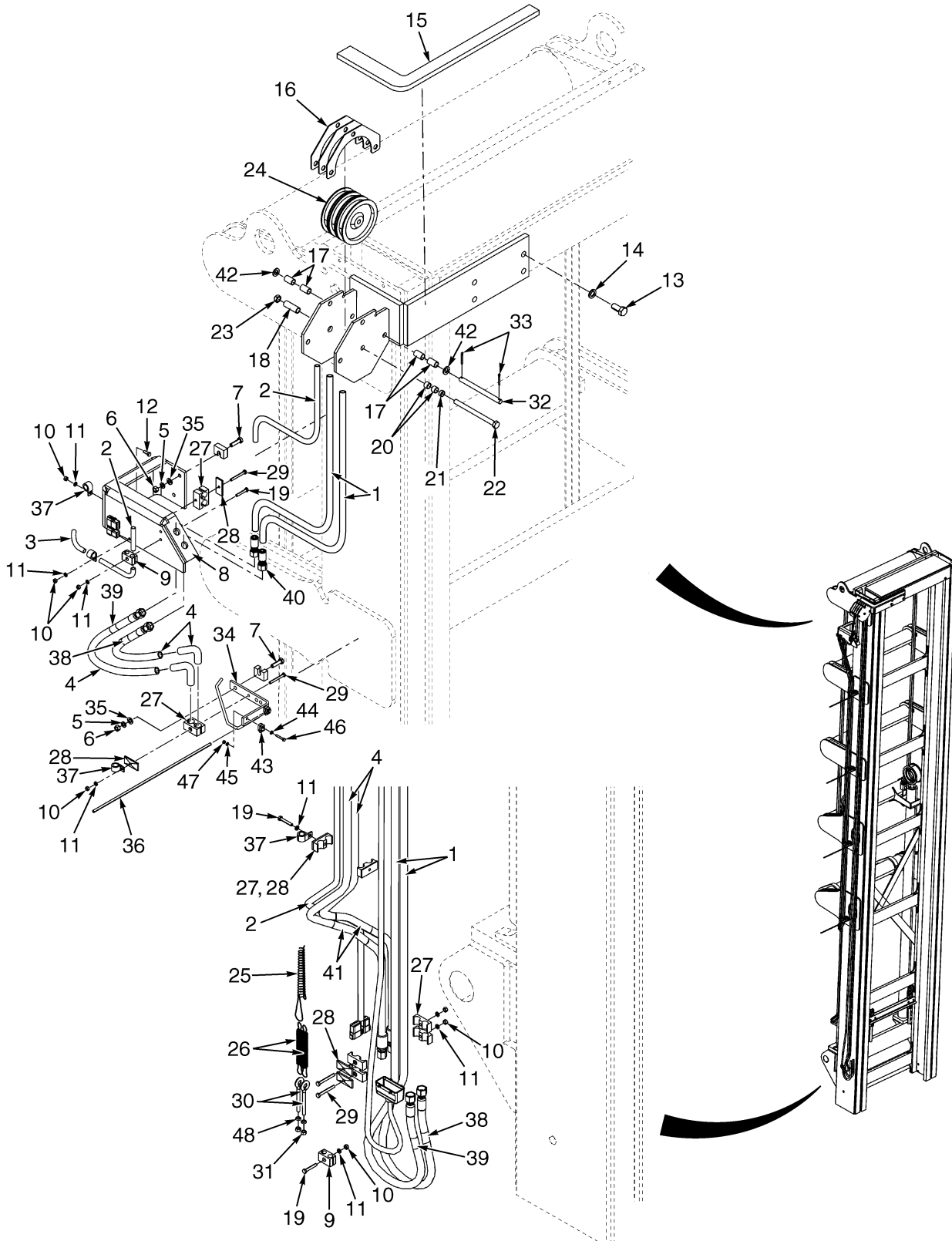
ITEM	PART NO.	DESCRIPTION	QTY
19	1465369	Clamp .....	7
20	1338037	Plate .....	7
21	391484	Clamp (Insulated) .....	6
22	292533	Capscrew .....	1
23	1330603	Clamp .....	1
24	<b>a</b> . . . .	Hose Assy .....	2
25	<b>a</b> . . . .	Hose Assy .....	2
26	<b>a</b> . . . .	Wire Harness .....	1
27	136704	Capscrew .....	2
28	239503	Nut .....	2
29	292681	Lockwasher .....	2
30	1461600	Bracket .....	4
31	292683	Lockwasher .....	4
32	<b>c</b> 1502341	Spacer .....	1
33	<b>c</b> 1502344	Spacer .....	1
34	316596	Sleeve (Coil) .....	1

**FOOTNOTES:**

- a** Refer to Table
- b** With Hook Spreader
- c** With Twist Lock Spreader



## HEADER HOSE (FIGURE 11-18) EMPTY CONTAINER HANDLER (S/N A214E01963A ↔ S/N A214E02077B)



HP170564

**HEADER HOSE**  
**EMPTY CONTAINER HANDLER (S/N A214E01963A ↔ S/N A214E02077B)**

**H16.00XM-EC12**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS
		13850 mm (545.3 in.)
	<b>Mast Group Number</b>	-
	Mast Assy	1544032
1	Hose Assy	1541279
2	Wire Harness	1541265
3	Wire Harness (Front End)	1541271
4	Hose Assy	1541277

**H18.00XM-EC12**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS
		16450 mm (647.6 in.)
	<b>Mast Group Number</b>	-
	Mast Assy	1544033
1	Hose Assy	1541319
2	Wire Harness	1541266
3	Wire Harness (Front End)	1541272
4	Hose Assy	1541278

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a . . . . .</b>	Mast Assy .....	1
1	<b>a . . . . .</b>	Hose Assy .....	2
2	<b>a . . . . .</b>	Wire Harness .....	1
3	<b>a . . . . .</b>	Wire Harness (Front End) .....	1
4	<b>a . . . . .</b>	Hose Assy .....	2
5	292683	Lockwasher .....	12
6	1318914		
	216877	Nut .....	12
7	287837	Capscrew .....	12
8	1539988	Plate .....	1
9	1393803	Clamp .....	3
10	239503	Nut .....	11
11	292681	Lockwasher .....	13
12	136749	Screw .....	1
13	292581	Capscrew .....	4
14	292687	Lockwasher .....	4
15	1541631	Bracket Wldmt .....	1

## HEADER HOSE

EMPTY CONTAINER HANDLER (S/N A214E01963A ↔ S/N A214E02077B)

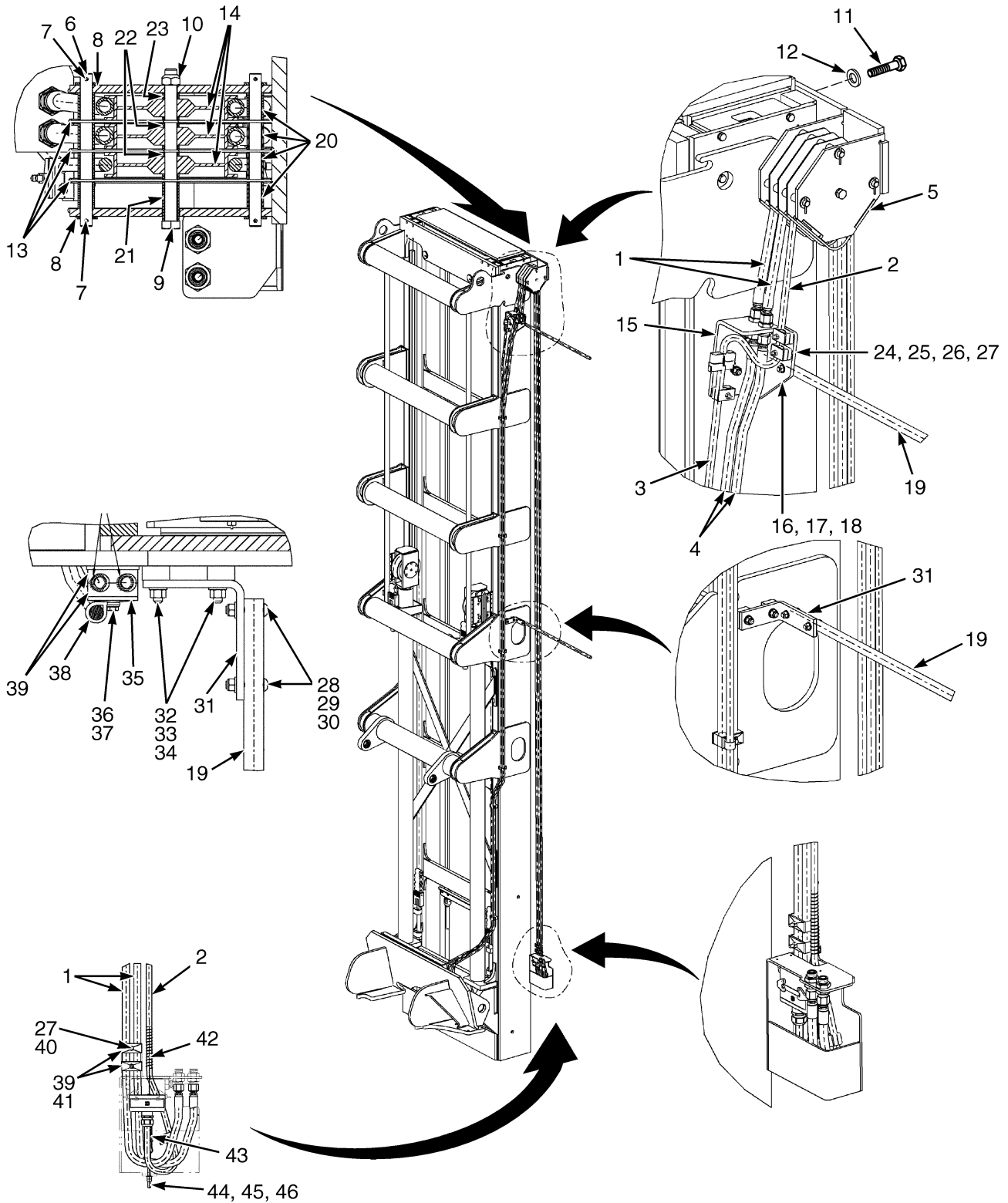
ITEM	PART NO.	DESCRIPTION	QTY
16	1539992	Separator Plate .....	3
17	1540330	Spacer .....	12
18	815932	Spacer .....	1
19	292509	Capscrew .....	5
20	280610	Spacer .....	2
21	1301650	Spacer .....	1
22	14999	Capscrew .....	1
23	221357	Locknut .....	1
24	189451	Hose Sheave .....	3
25	1322039	Cable .....	1
26	1323166	Spring .....	2
27	1533665	Clamp (Twin) .....	18
28	1530668	Cover Plate .....	9
28	1533649	Cover Plate (Alternate Part) .....	9
29	136703	Capscrew .....	7
30	313222	Eyebolt .....	2
31	221707	Nut .....	4
32	1542033	Pin .....	3
33	15244	Cotter Pin .....	6
34	1543660	Guard (Hose) .....	5
35	320161	Washer .....	14
36	1539991	Rod .....	5
37	1347202	Clamp .....	8
38	1464622	Identification Band .....	4
39	1464621	Identification Band .....	4
40	1528589	Fitting .....	2
41	316596	Sleeve (Coil) .....	1
42	320165	Washer .....	6
43	1541140	Clamp .....	10
44	320156	Washer .....	20
45	292680	Washer .....	8
46	287844	Capscrew .....	10
47	302399	Nut .....	10
48	15134	Washer .....	2

**FOOTNOTES:**

**a** Refer to Table



## HEADER HOSE (FIGURE 11-19) EMPTY CONTAINER HANDLER (S/N A214E02078B →)



HP171376



**HEADER HOSE  
EMPTY CONTAINER HANDLER (S/N A214E02078B →)**

**H16.00XM-EC12**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS
		13850 mm (545.3 in.)
	<b>Mast Group Number</b>	-
	Mast Assy	1544032
1	Hose Assy	1541279
2	Wire Harness (Mast)	1571694
3	Wire Harness (Front End)	1541271
4	Hose Assy	1541277

**H18.00XM-EC12**

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS
		16450 mm (647.6 in.)
	<b>Mast Group Number</b>	-
	Mast Assy	1544033
1	Hose Assy	1541319
2	Wire Harness (Mast)	1571695
3	Wire Harness (Front End)	1541272
4	Hose Assy	1541278

ITEM	PART NO.	DESCRIPTION	QTY
	<b>a . . . . .</b>	Mast Assy .....	1
1	<b>a . . . . .</b>	Hose Assy .....	2
2	<b>a . . . . .</b>	Wire Harness (Mast) .....	1
3	<b>a . . . . .</b>	Wire Harness (Front End) .....	1
4	<b>a . . . . .</b>	Hose Assy .....	2
5	1581445	Bracket Wldmt .....	1
6	1542033	Pin .....	2
7	15244	Cotter Pin .....	6
8	320165	Washer .....	6
9	14999	Capscrew .....	1
10	221357	Locknut .....	1
11	292581	Capscrew .....	4
12	4020900		
	320169	Washer .....	4
13	1539992	Separator Plate .....	3
14	189451	Hose Sheave .....	3
15	1581448	Plate .....	1

**HEADER HOSE**  
**EMPTY CONTAINER HANDLER (S/N A214E02078B →)**

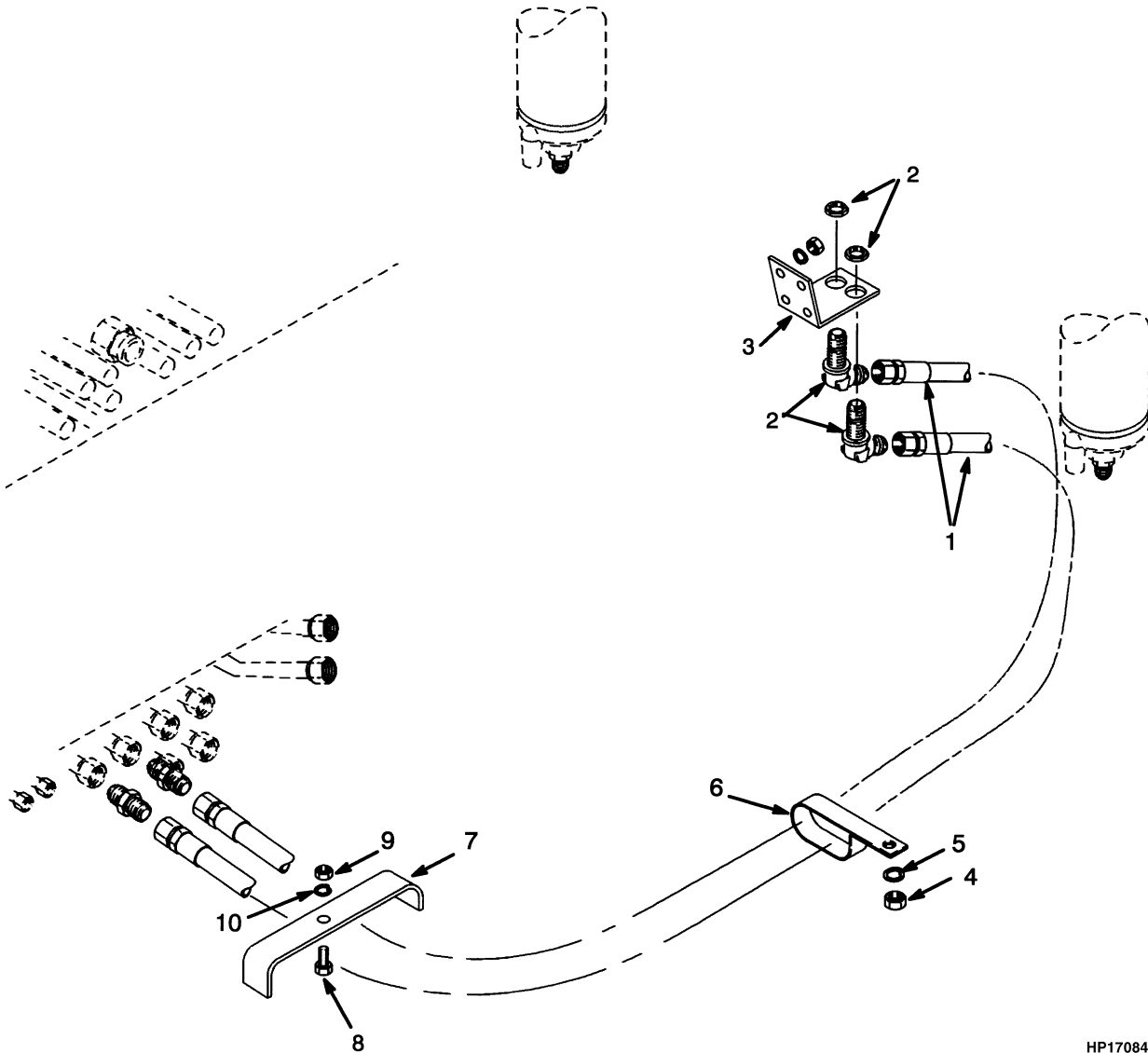
ITEM	PART NO.	DESCRIPTION	QTY
16	1364272	Capscrew .....	2
17	320159	Washer .....	2
18	302401	Locknut .....	2
19	1581547	Tube .....	2
20	1540330	Spacer .....	12
21	815932	Spacer .....	1
22	280610	Spacer .....	2
23	1301650	Spacer .....	1
24	1561747	Clamp .....	4
25	1533648	Plate (Cover) .....	4
26	136704	Capscrew .....	4
27	302400	Nut .....	4
28	1364272	Capscrew .....	2
29	320159	Washer .....	2
30	302401	Locknut .....	2
31	<del>1582217</del> 4055147	Bracket Wldmt .....	1
32	<del>1318914</del> 216877	Nut .....	4
33	246001	Capscrew .....	4
34	320161	Washer .....	4
35	1530668	Cover Plate .....	8
35	1533649	Cover Plate (Alternate Part) .....	8
36	320157	Washer .....	6
37	292509	Capscrew .....	6
38	1347202	Clamp .....	6
39	1533665	Clamp (Twin) .....	16
40	136703	Capscrew .....	2
41	1530668	Cover Plate .....	8
42	1322039	Cable .....	1
43	1323166	Spring .....	1
44	313222	Eyebolt .....	1
45	221707	Nut .....	2
46	15134	Washer .....	1

**FOOTNOTES:**

**a** Refer to Table



## AUXILIARY ATTACHMENTS (FIGURE 11-20) EMPTY CONTAINER HANDLER



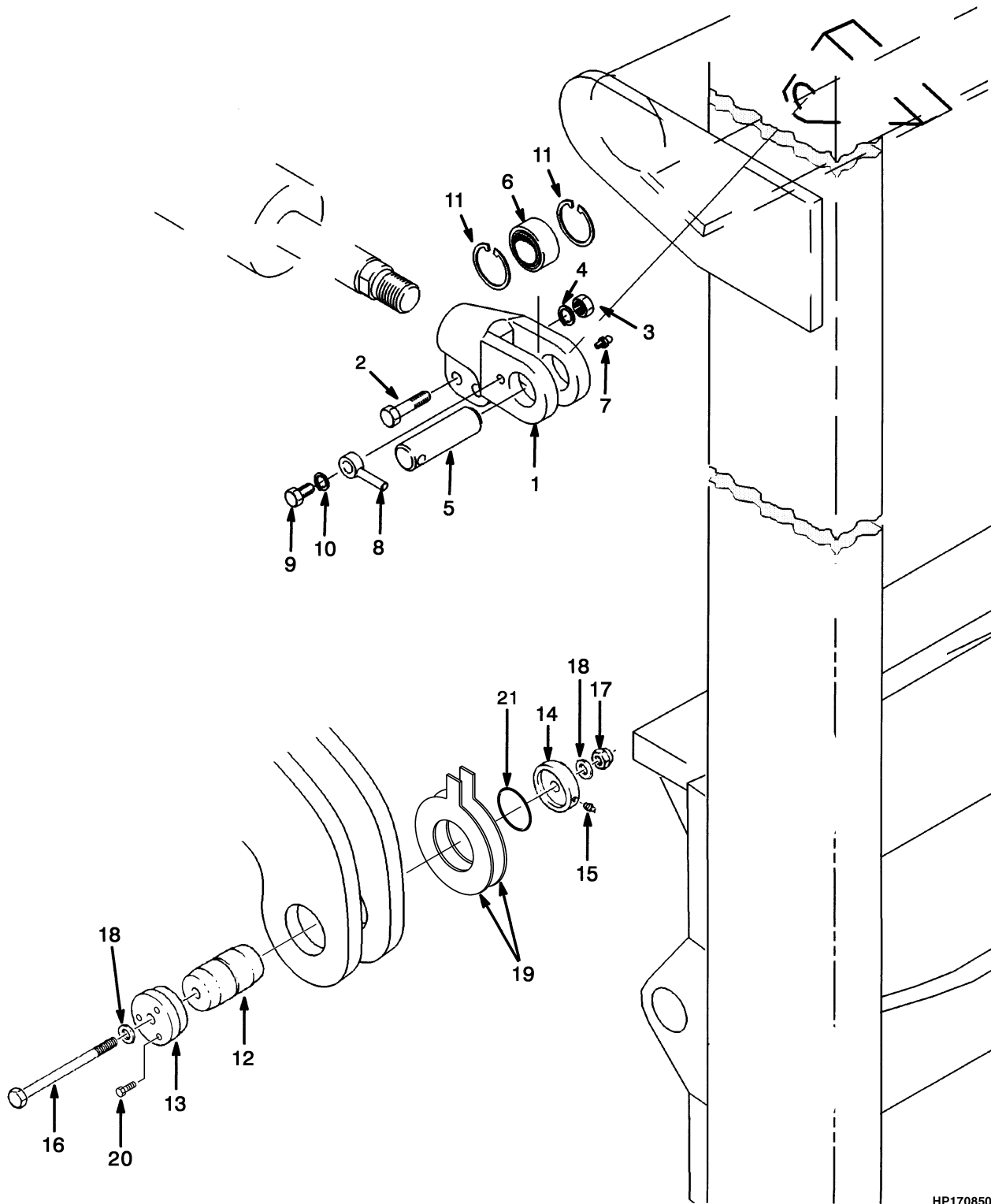
HP170849

**AUXILIARY ATTACHMENTS  
EMPTY CONTAINER HANDLER**

ITEM	PART NO.	DESCRIPTION	QTY
1	<b>a</b> 1393905	Hose Assy .....	2
1	<b>b</b> 1452850	Hose Assy .....	2
2	<b>b</b> 16449	Fitting .....	2
2	<b>a</b> 16467	Fitting .....	2
3	1384472	Plate .....	1
4	302401	Locknut .....	4
5	<b>b</b> 320159	Washer .....	4
5	<b>a</b> 320161	Washer .....	4
6	255578	Clamp .....	2
7	1384527	Bracket .....	1
8	<b>a</b> 292505	Capscrew .....	1
8	<b>b</b> 292507	Capscrew .....	1
9	302399	Nut .....	1
10	320156	Washer .....	1

**FOOTNOTES:****a** → S/N A214E01534**b** S/N A214E01535 →

## MAST INSTALLATION (FIGURE 11-21) EMPTY CONTAINER HANDLER



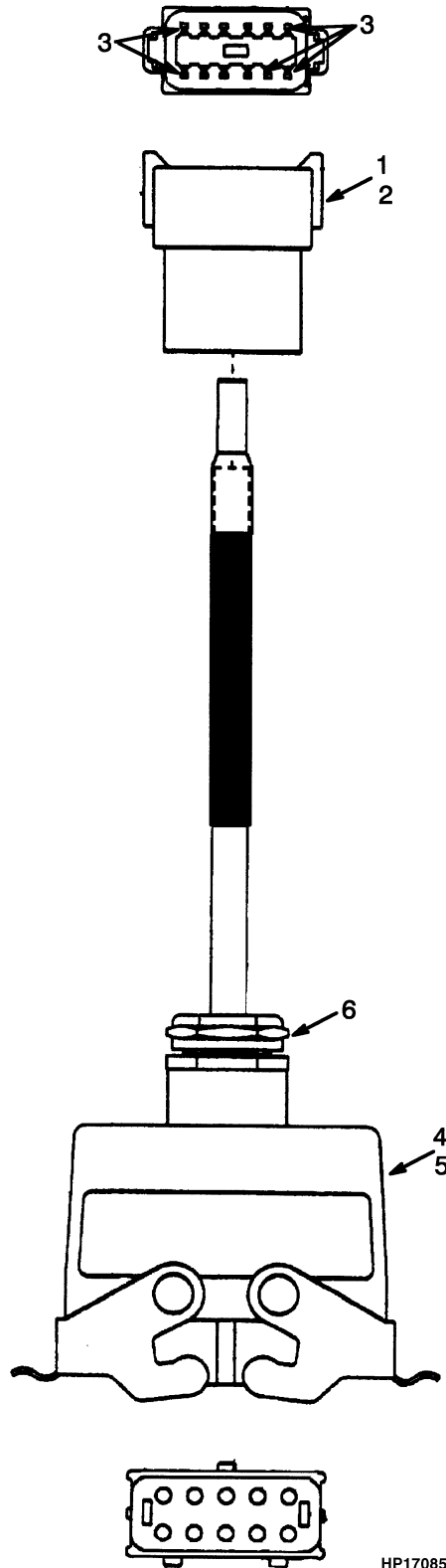
HP170850

**MAST INSTALLATION  
EMPTY CONTAINER HANDLER**

ITEM	PART NO.	DESCRIPTION	QTY
1	1391451	Rod End .....	2
2	292574	Capscrew .....	4
3	292600	Nut .....	4
4	292685	Lockwasher .....	4
5	1391522	Pin .....	2
6	1391500	Bushing .....	4
7	16001	Grease Fitting .....	4
8	1391523	Anchor .....	4
9	292562	Capscrew .....	4
10	292685	Lockwasher .....	4
11	67551	Snap Ring .....	4
12	1321890	Pin .....	2
13	<b>a</b> 1321891	Cap .....	2
13	<b>b</b> 1493562	Cap .....	2
14	<b>a</b> 1302172	Cap .....	2
14	<b>b</b> 1491763	Cap .....	2
15	16001	Grease Fitting .....	1
16	<b>a</b> 1302176	Capscrew .....	2
16	<b>b</b> 1355031	Capscrew .....	2
17	<b>a</b> 53163	Locknut .....	2
17	<b>b</b> 248320	Wheel Nut .....	2
18	<b>a</b> 221775	Washer .....	4
18	<b>b</b> 221777	Washer .....	4
19	<b>b</b> 1492331	Shim .....	2
20	<b>b</b> 18191	Capscrew .....	6
21	<b>b</b> 39679	O-Ring .....	2

**FOOTNOTES:****a** → S/N A214E01776**b** S/N A214E01777 →

**WIRE HARNESS (FIGURE 11-22)**  
**EMPTY CONTAINER HANDLER (→ S/N A214E01806)**





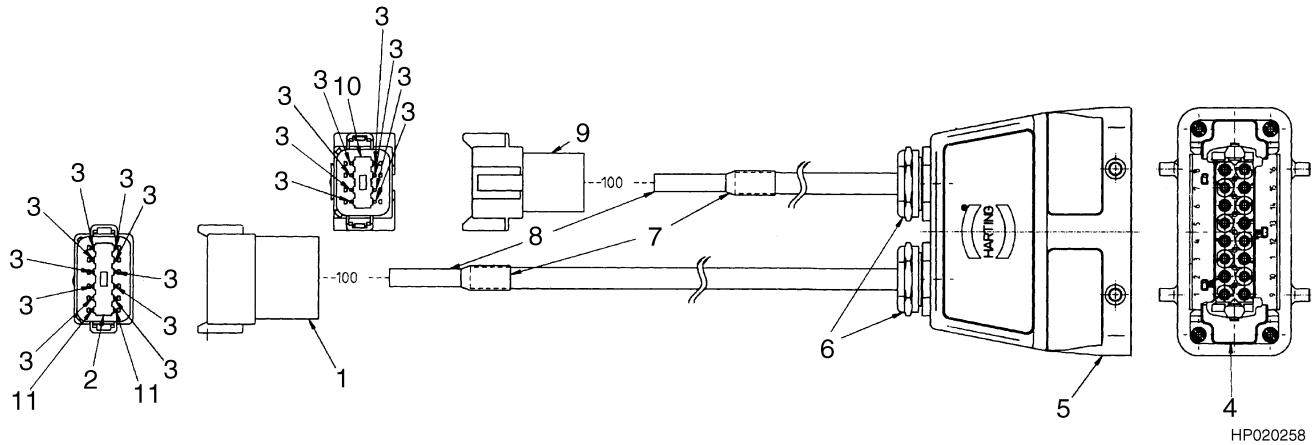
**WIRE HARNESS**  
EMPTY CONTAINER HANDLER (→ S/N A214E01806)

**KEY:****A: H16.00XM****B: H18.00XM**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	<b>a</b> 1393826	Wire Harness .....	1	..
	<b>b</b> 1459676	Wire Harness .....	1	..
	<b>a</b> 1383862	Wire Harness .....	..	1
	<b>b</b> 1459675	Wire Harness .....	..	1
1	1352602	Connector (12 Pin) .....	1	1
2	1352603	Secondary Lock .....	1	1
3	1330437	Terminal (Pin) .....	12	12
4	1383872	Plug .....	1	1
5	1383873	Terminal .....	1	1
6	1384480	Protector .....	1	1

**FOOTNOTES:****a** → S/N A214E01578**b** S/N A214E01579 →

## WIRE HARNESS (FIGURE 11-23) TWIST LOCK (S/N A214E01807 ↔ S/N A214E01962A)



**KEY:**

**A:** H16.00XM

**B:** H18.00XM

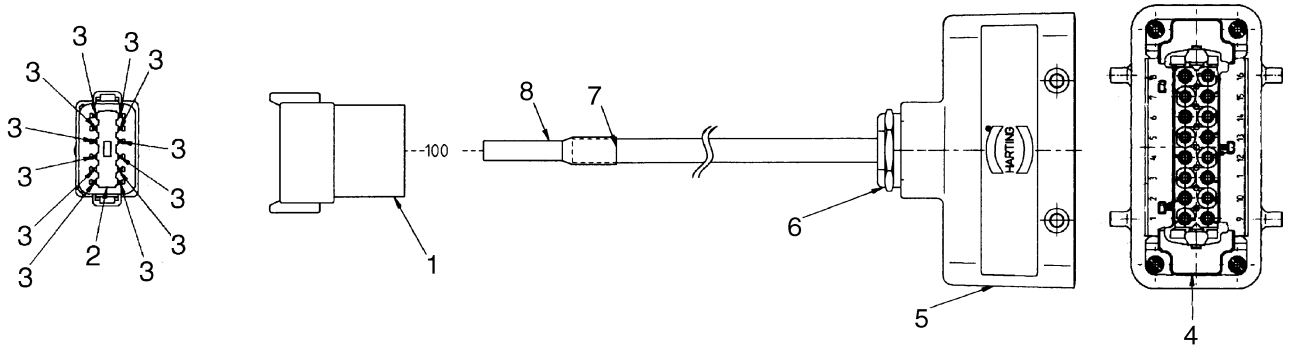
ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	<b>a</b> 1500977	Wire Harness .....	1	..
	<b>b</b> 1500978	Wire Harness .....	..	1
1	1352602	Connector (12 Pin) .....	1	1
2	1352603	Secondary Lock .....	1	1
3	1363885	Terminal (Pin) .....	18	18
4	885955	Connector (Female Insert) .....	1	1
5	1496906	Connector .....	1	1
6	1460618	Fitting (Compression) .....	2	2
7	222524	Heat Shrink .....	AR	AR
8	381919	Braiding .....	AR	AR
9	1330413	Connector (8 Pin) .....	1	1
10	1330418	Connector (DT REC 8-Pin) .....	1	1
11	1330439	Plug .....	2	2

**FOOTNOTES:**

**a** → S/N A214E01578

**b** S/N A214E01579 →

**WIRE HARNESS (FIGURE 11-24)**  
**HOOK ATTACHMENT (S/N A214E01807 ↔ S/N A214E01962A)**



HP020257

**KEY:**

- A: H16.00XM**
- B: H18.00XM**

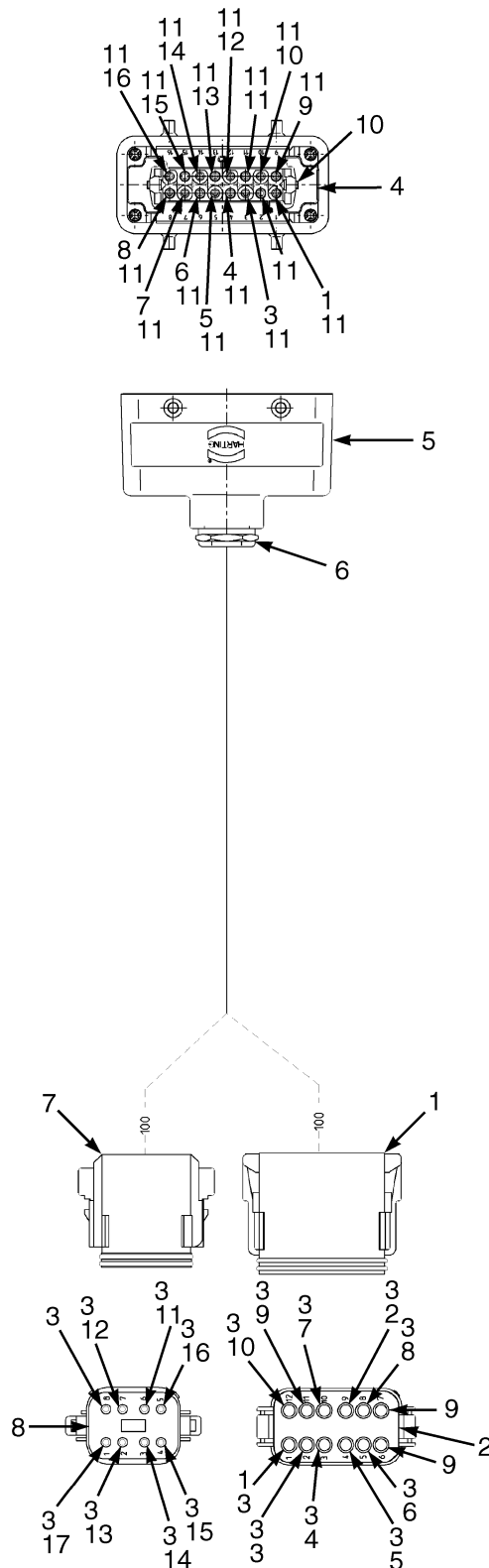
ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	<b>a</b> 1500975	Wire Harness .....	1	..
	<b>b</b> 1500976	Wire Harness .....	..	1
1	1352602	Connector (12 Pin) .....	1	1
2	1352603	Secondary Lock .....	1	1
3	1363885	Terminal (Pin) .....	12	12
4	885955	Connector (Female Insert) .....	1	1
5	1496907	Connector .....	1	1
6	1460618	Fitting (Compression) .....	1	1
7	222524	Heat Shrink .....	AR	AR
8	381919	Braiding .....	AR	AR

**FOOTNOTES:**

**a** → S/N A214E01578

**b** S/N A214E01579 →

## WIRE HARNESS (FIGURE 11-25) MAST (→ S/N A214E02077B)

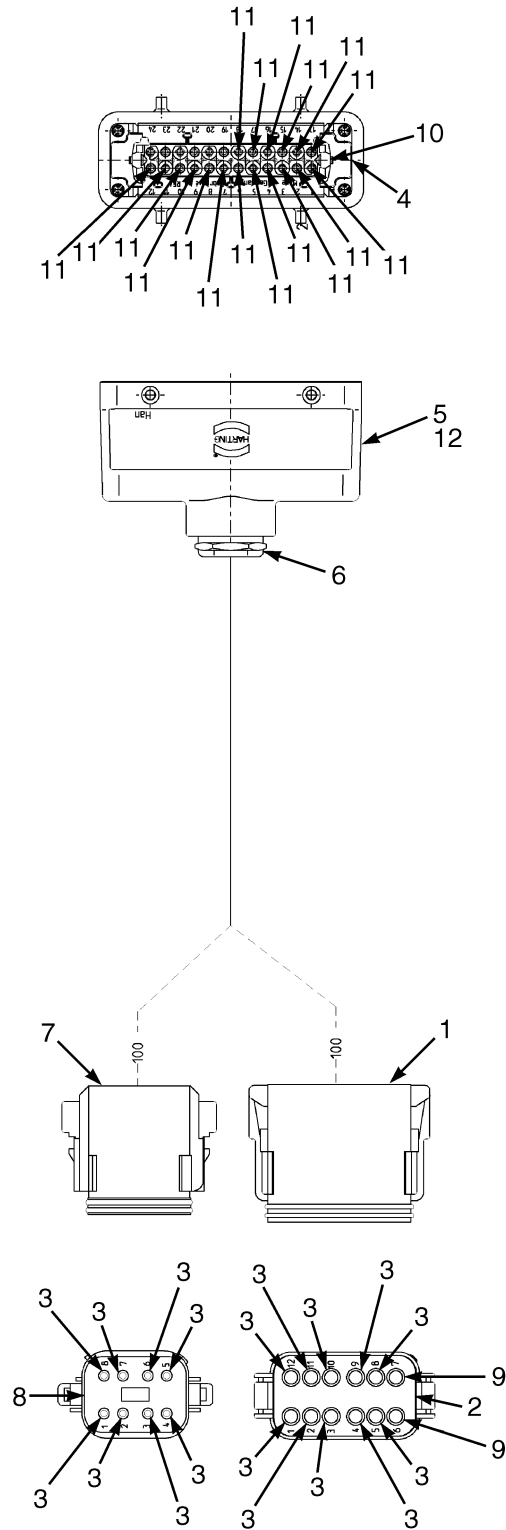


HP081711

**WIRE HARNESS**  
**MAST (→ S/N A214E02077B)****KEY:****A: H16.00-ECH****B: H18.00-ECH**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1541265	Wire Harness .....	1	..
	1541266	Wire Harness .....	..	1
1	1351068	Connector .....	1	1
2	1351069	Secondary Lock .....	1	1
3	1363886	Terminal (Socket) .....	18	18
4	885955	Connector (Female Insert) .....	1	1
5	1496907	Connector .....	1	1
6	888139	Fitting , Compression .....	1	1
7	1330423	Connector (8 Socket) .....	1	1
8	1330429	Connector (Secondary Lock) .....	1	1
9	1330439	Plug .....	2	2
10	1491182	Terminal .....	1	1
11	833772	Terminal .....	16	16

## WIRE HARNESS (FIGURE 11-26) MAST (S/N A214E02078B →)

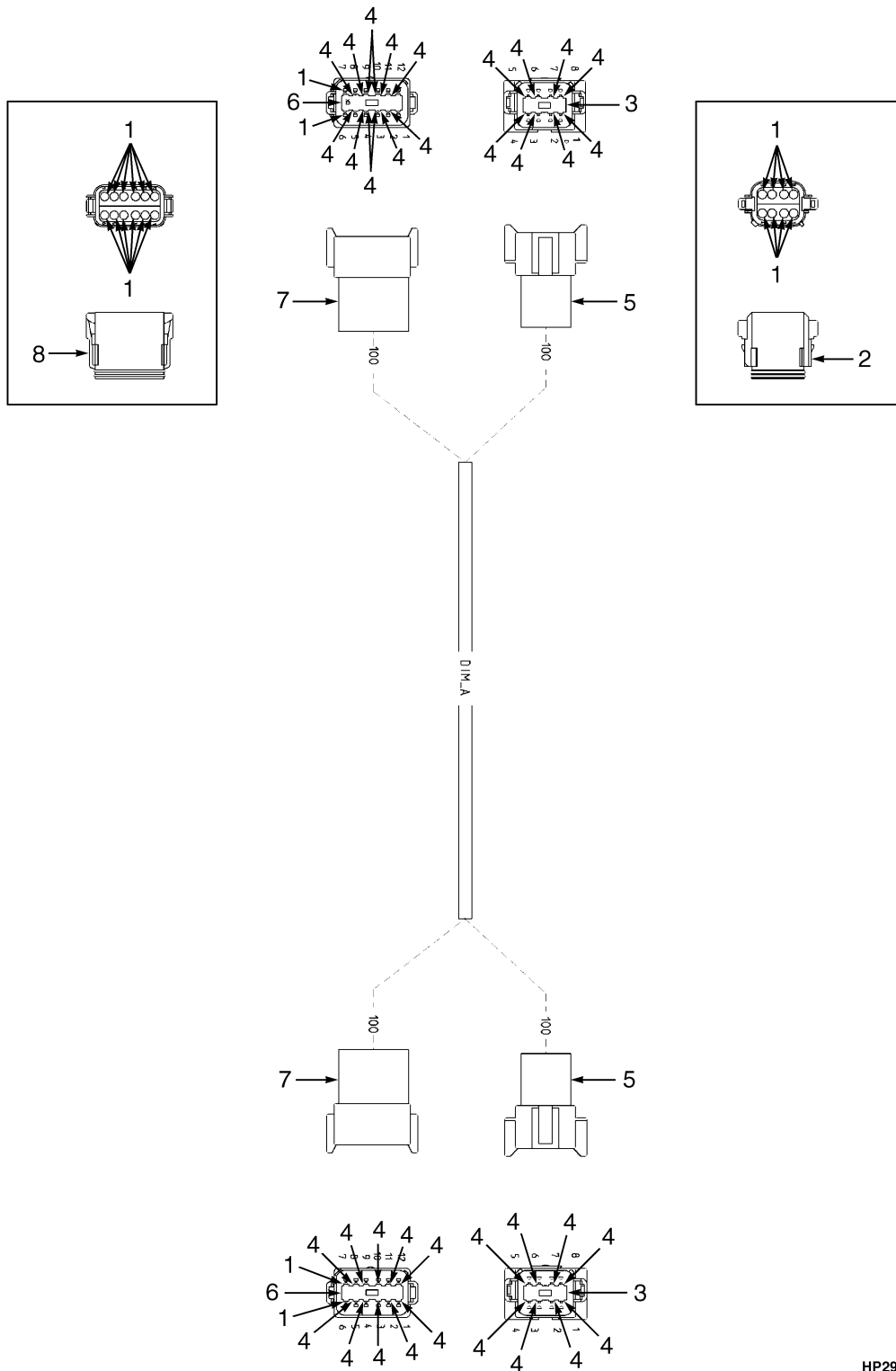


HP081710

**WIRE HARNESS**  
**MAST (S/N A214E02078B →)****KEY:****A: H16.00-ECH****B: H18.00-ECH**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1571694	Wire Harness (Mast) .....	1	..
	1571695	Wire Harness (Mast) .....	..	1
1	1351068	Connector .....	1	1
2	1351069	Secondary Lock .....	1	1
3	1363886	Terminal (Socket) .....	18	18
4	1572599	Connector Insert (Female) .....	1	1
5	1572600	Connector .....	1	1
6	1599346	Fitting .....	1	1
7	1330423	Connector (8 Socket) .....	1	1
8	1330429	Connector (Secondary Lock) .....	1	1
9	1330439	Plug .....	2	2
10	1491182	Terminal .....	1	1
11	833772	Terminal .....	18	18
12	1610755	Cover .....	1	1

## WIRE HARNESS (FIGURE 11-27) FRONT END EQUIPMENT — HEADER HOSES, EMPTY CONTAINER HANDLER (S/N A214E01963A →)



HP290033



**WIRE HARNESS****FRONT END EQUIPMENT – HEADER HOSES, EMPTY CONTAINER HANDLER (S/N A214E01963A →)**

<b>ITEM</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY</b>
	1541271	Wire Harness (Front End) 8400 mm .....	1
	1541272	Wire Harness (Front End) 9700 mm .....	1
1	1330439	Plug .....	24
2	1330423	Connector (8 Socket) .....	1
3	1330418	Connector (DT REC 8-Pin) .....	2
4	1363885	Terminal (Pin) .....	36
5	1330413	Connector (8 Pin) .....	2
6	1352603	Secondary Lock .....	2
7	1352602	Connector (12 Pin) .....	2
8	1351068	Connector .....	1







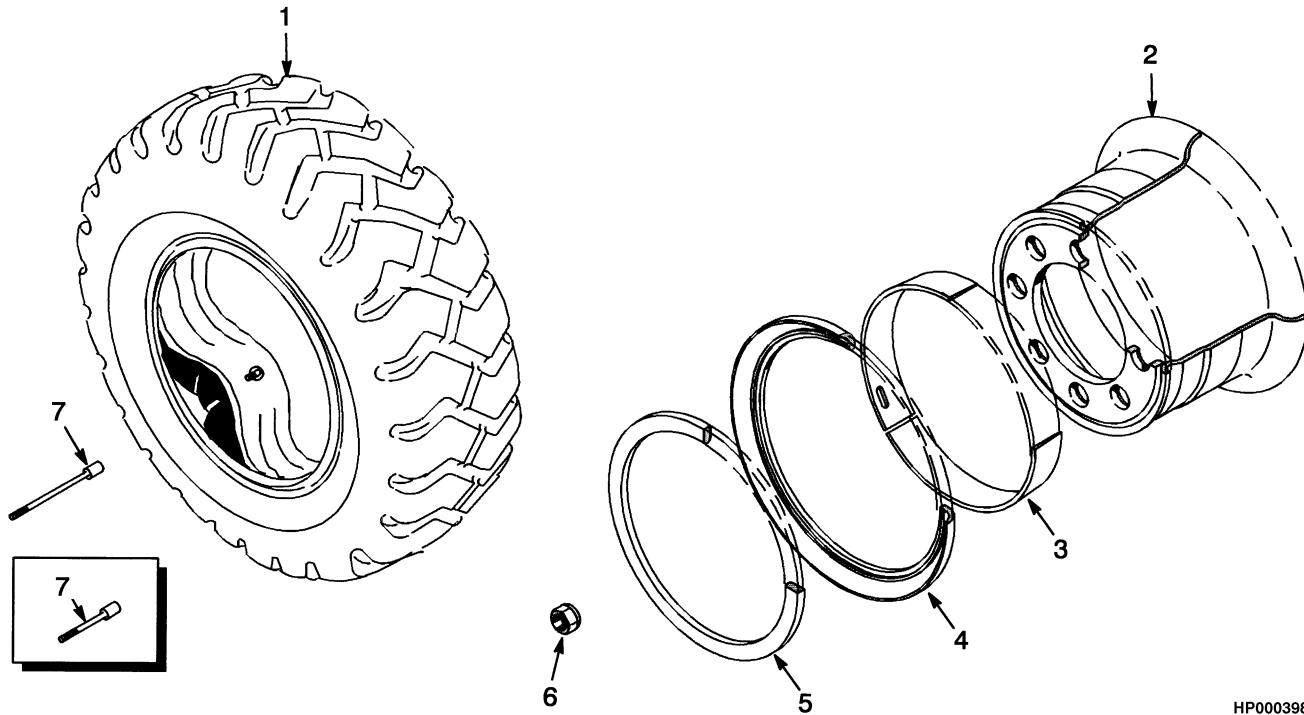
**SECTION 12  
OPTIONS**

---

<b>DESCRIPTION</b>	<b>PAGE</b>
<b>FORKS</b>	
HOOK TYPE .....	12-12
PIN TYPE .....	12-10
<b>WHEEL AND TIRE</b>	
BIAS TIRE .....	12-2
BIAS TIRE - SIMEX AND GOODYEAR TIRES .....	12-4
RADIAL TIRE .....	12-5
SOLID TIRE - WITH TREAD .....	12-7
SOLID TIRE - SMOOTH .....	12-8

---

## WHEEL AND TIRE (FIGURE 12-1) BIAS TIRE



HP000398

**KEY:**

- A: H14.00-16.00XM (12.00 x 24-20)
- B: H18.00-20.00XM (14.00 x 24-20)
- C: H16.00XM-EC12(12.00 x 24-20)
- D: H18.00XM-EC12 (12.00 x 24-20)

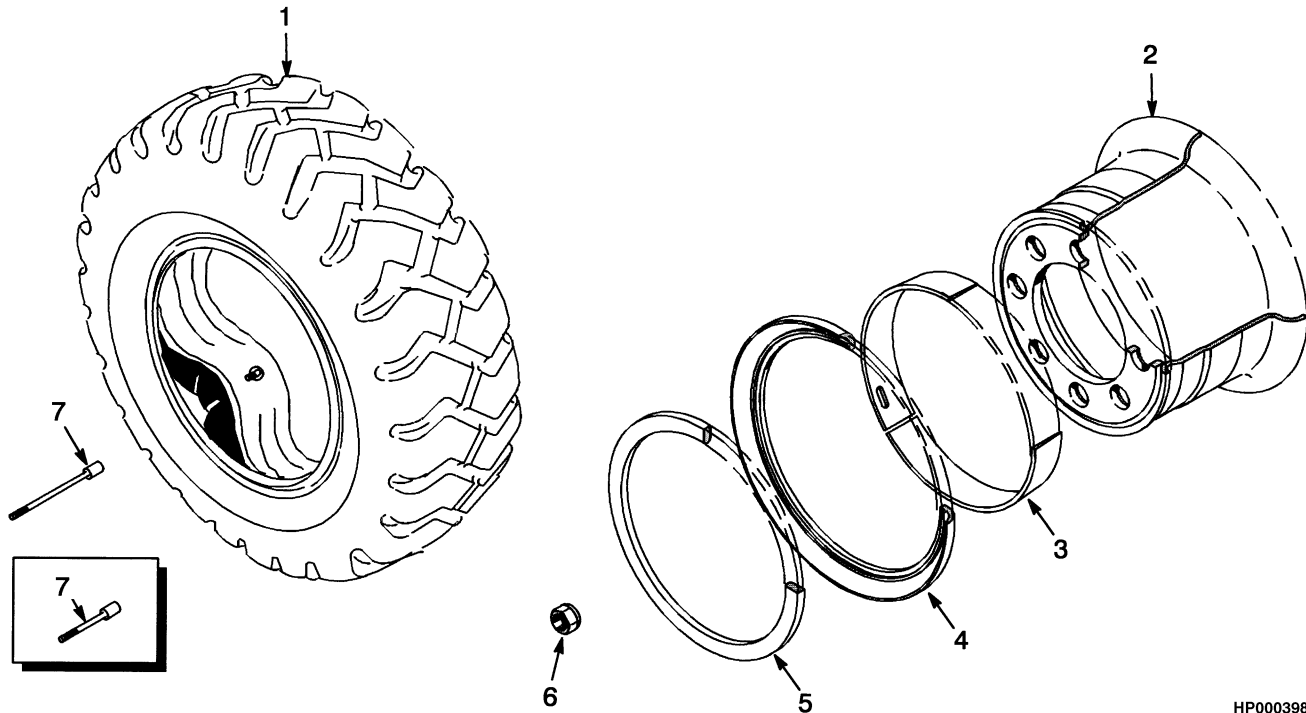
ITEM	PART NO.	DESCRIPTION	QTY			
			A	B	C	D
1	1382381	Pneumatic Tire .....	6	..	6	6
1	130663	Tire and Tube .....	..	6	..	..
1	1382382	Pneumatic Tire .....	1	..	1	1
1	1382383	Pneumatic Tire .....	1	..	1	1
1	115586	Pneumatic Tire .....	..	1	..	..
1	115593	Tube .....	..	1	..	..
2	1385577	Wheel Assy .....	..	6	..	..
2	<b>a</b> 1385578	Wheel Assy .....	6	..	6	6
2	<b>b</b> 1534873	Wheel Assy .....	6	..	6	6
2	1614372	Wheel Assy .....	..	..	6	6
3	<b>a</b> 1391060	Ring .....	1	1	1	1
3	<b>b</b> 1452916	Ring (Conical) .....	1	1	1	1
4	1466004	Ring (Side) .....	..	1	..	..
4	<b>a</b> 1466005	Ring .....	1	..	1	1
4	<b>b</b> 1538311	Ring .....	1	..	1	1
5	4637809	.....	..	..	..	..
	1538310	Wheel Lock Ring .....	..	1	..	..
5	<b>a</b> 1391065	Wheel Lock Ring .....	1	..	1	1
5	<b>b</b> 4637809	.....	..	..	..	..
	1538310	Wheel Lock Ring .....	1	..	1	1

**KEY:****A: H14.00-16.00XM (12.00 x 24-20)****B: H18.00-20.00XM (14.00 x 24-20)****C: H16.00XM-EC12(12.00 x 24-20)****D: H18.00XM-EC12 (12.00 x 24-20)**

ITEM	PART NO.	DESCRIPTION	QTY			
			A	B	C	D
6	376026	Wheel Nut .....	48	48	48	48
7	1303417					
	49189	Extension (Valve Stem) (Drive) .....	2	2	2	2
8	116265	Valve Stem Extension (Steering) .....	2	2	2	2
	1511548	Wheel Stud (Not Illustrated) .....	48	48	48	48

**FOOTNOTES:****a** → S/N A214E01922**b** S/N A214E01923 →

## WHEEL AND TIRE (FIGURE 12-2) BIAS TIRE — SIMEX AND GOODYEAR TIRES



HP000398

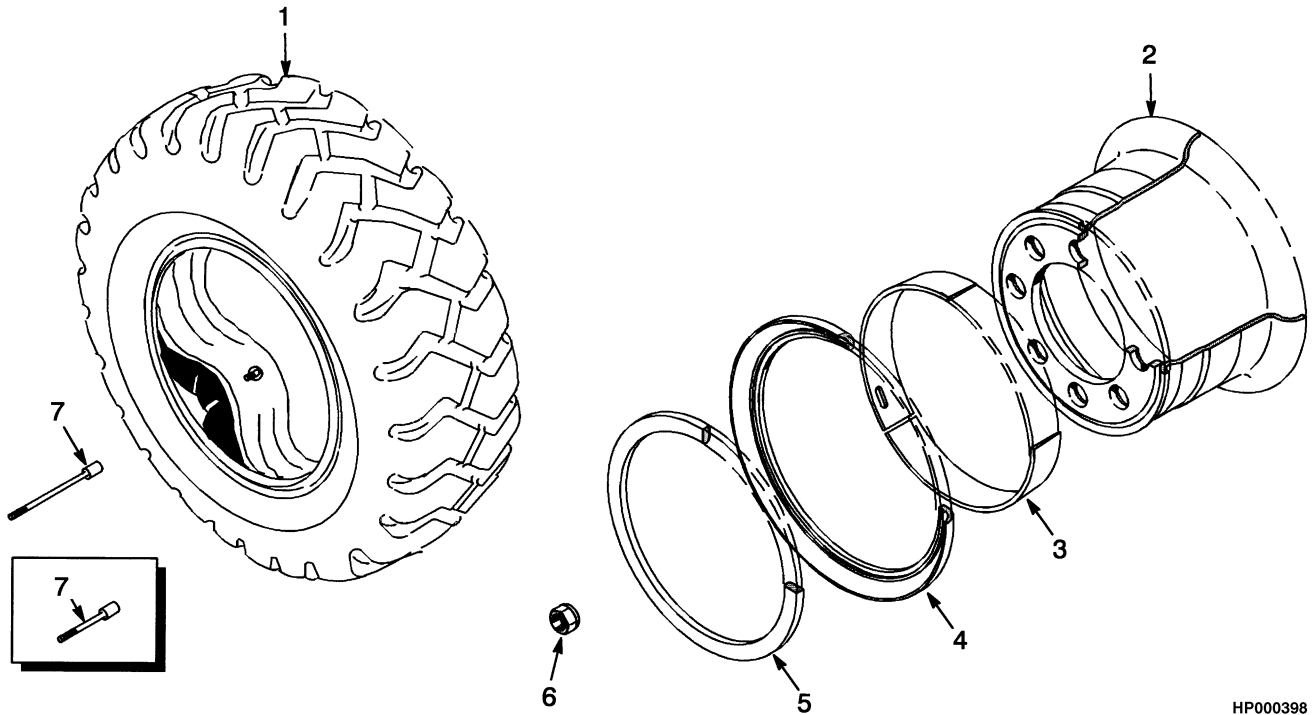
**KEY:**

- A:** 12.00 X 24 - 20, FLT and ECH, Simex
- B:** 14.00 X 24 - 28, FLT Only, Simex
- C:** 14.00 X 24- 28, FLT Only, Goodyear

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
1	1641217	Pneumatic Tire (Simex) .....	2	..	..
1	1641218	Pneumatic Tire (Simex) .....	..	2	..
1	1628907	Pneumatic Tire (Goodyear) .....	..	..	2
1	1641098	Pneumatic Tire .....	1	..	..
1	1641099	Pneumatic Tire .....	..	1	..
1	1628735	Pneumatic Tire .....	..	..	1
1	1382383	Pneumatic Tire .....	1	..	..
1	1485936	Tube .....	..	1	1
2	1614372	Wheel Assy .....	2	..	..
2	1391557	Wheel Assy .....	..	2	..
2	1385577	Wheel Assy .....	..	..	2
3	1452916	Ring (Conical) .....	1	1	1
4	1538311	Ring .....	1	..	..
4	1466004	Ring (Side) .....	..	1	1
5	4637809	Wheel Lock Ring .....	1	1	1
6	376026	Wheel Nut .....	24	24	24
7	116265	Valve Stem Extension (Steer Wheel) .....	2	2	2
7	4303417	Extension (Valve Stem) (Drive Wheel) .....	2	2	2



**WHEEL AND TIRE (FIGURE 12-3)  
RADIAL TIRE**



HP000398

**KEY:**

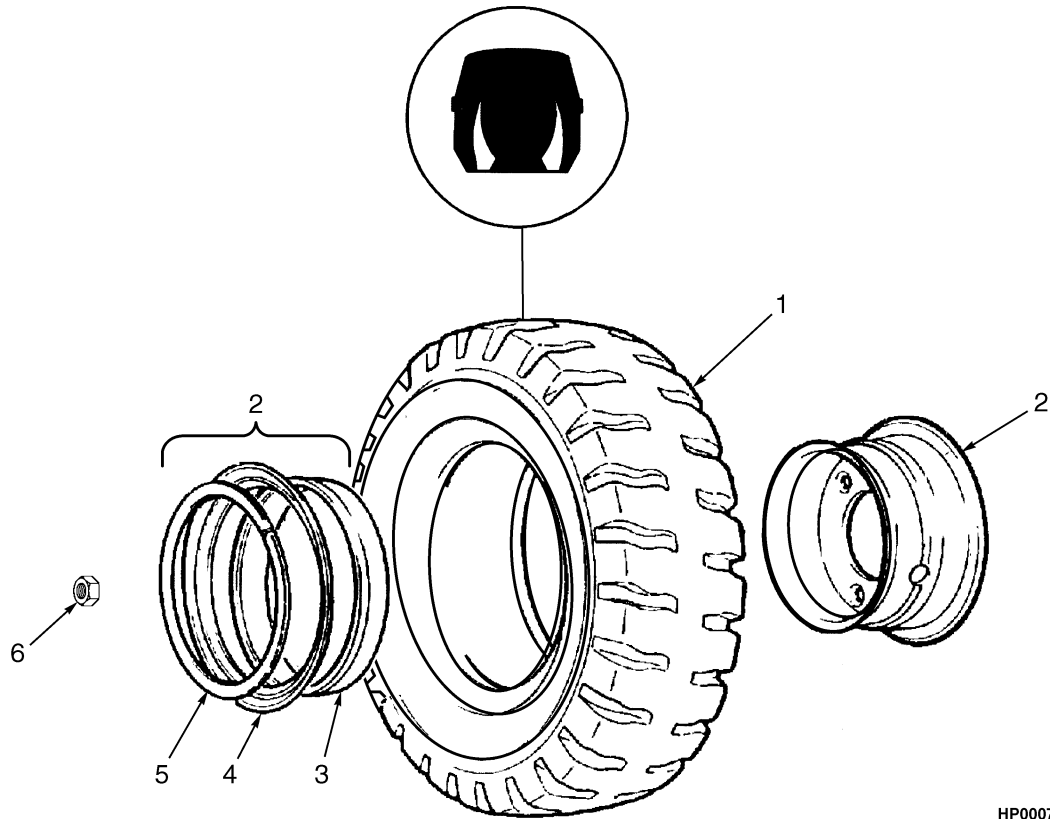
- A: H14.00-16.00XM (12.00 x 24)**
- B: H18.00-20.00XM (14.00 x 24)**
- C: H16.00XM-EC12 (12.00 x 24)**
- D: H18.00XM-EC12 (12.00 x 24)**

ITEM	PART NO.	DESCRIPTION	QTY			
			A	B	C	D
1	1460448	Pneumatic Tire .....	6	..	6	6
1	1460451	Pneumatic Tire (Tubed 14.00 x 24 Radial) .....	..	6	..	..
1	1460398	Pneumatic Tire .....	1	..	1	1
1	1460403	Tire Flap .....	1	..	1	1
1	1460405	Tube .....	1	..	1	1
1	1376007	Washer (Valve Stem) .....	1	1	1	1
1	1460402	Pneumatic Tire (Radial 14.00 x 24) .....	..	1	..	..
1	1460404	Tire Flap .....	..	1	..	..
1	1460406	Tube .....	..	1	..	..
2	1385577	Wheel Assy .....	..	6	..	..
2	1534873	Wheel Assy .....	6	..	6	6
3	1452916	Ring (Conical) .....	1	1	1	1
4	1466004	Ring (Side) .....	..	1	..	..
4	1538311	Ring .....	1	..	1	1
5	4637809	Wheel Lock Ring .....	..	1	..	..
5	1538310	Wheel Lock Ring .....	1	..	1	1
6	376026	Wheel Nut .....	48	48	48	48
7	4303417	Extension (Valve Stem) (Drive) .....	2	2	2	2

**KEY:****A: H14.00-16.00XM (12.00 x 24)****B: H18.00-20.00XM (14.00 x 24)****C: H16.00XM-EC12 (12.00 x 24)****D: H18.00XM-EC12 (12.00 x 24)**

ITEM	PART NO.	DESCRIPTION	QTY			
			A	B	C	D
8	49189					
	116265	Valve Stem Extension (Steering) .....	2	2	2	2
	376026	Wheel Nut (Not Illustrated) .....	48	48	48	48

**WHEEL AND TIRE (FIGURE 12-4)  
SOLID TIRE — WITH TREAD**



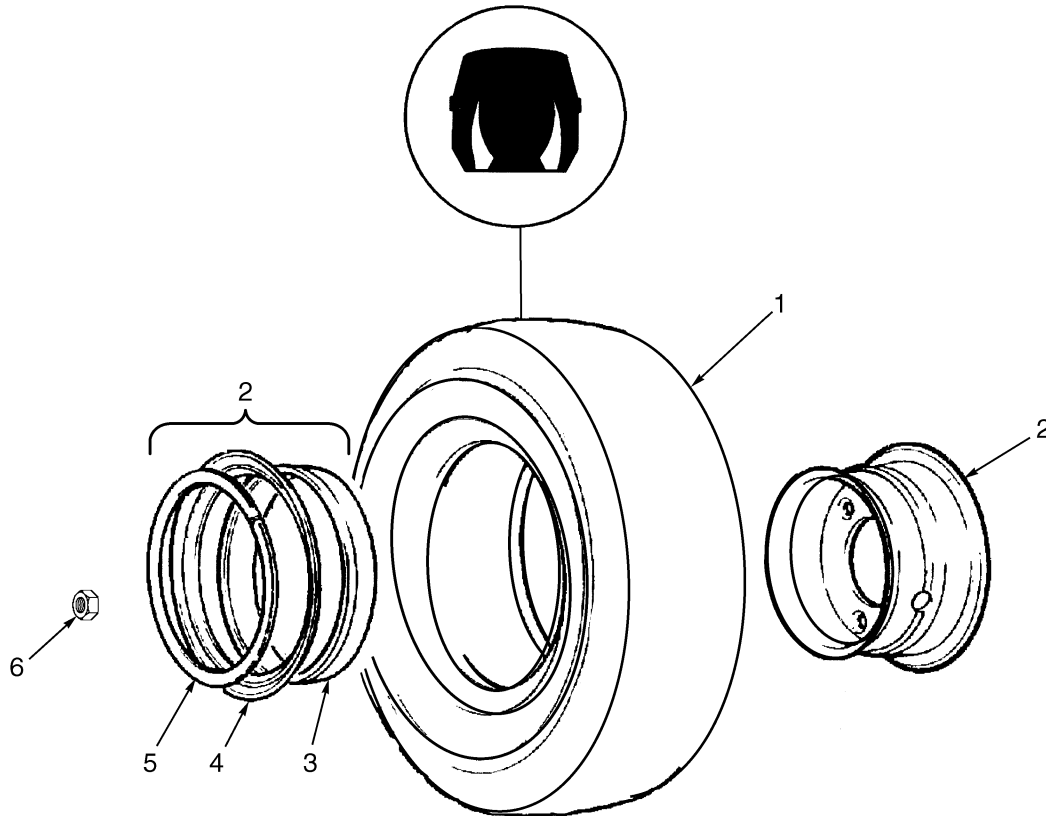
HP000772

**KEY:**

- A:** H14.00-16.00XM (12.00 x 24-10)
- B:** H18.00-20.00XM (14.00 x 24-10)
- C:** H16.00XM-EC12 (12.00 x 24-10)

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
1	1393796	Solid Pneumatic Tire .....	6	..	6
1	<del>1393797</del> 1668701	Tire (Solid Pneumatic, With Tread 14.00 - 24) .....	..	6	..
2	1385579	Wheel Assy .....	6	..	6
2	1385577	Wheel Assy .....	..	6	..
3	1452916	Ring (Conical) .....	1	1	1
4	1466004	Ring (Side) .....	1	1	1
5	<del>1637809</del> 1538310	Wheel Lock Ring .....	1	1	1
6	376026	Wheel Nut .....	48	48	48
	376026	Wheel Nut (Not Illustrated) .....	48	48	48

## WHEEL AND TIRE (FIGURE 12-5) SOLID TIRE — SMOOTH

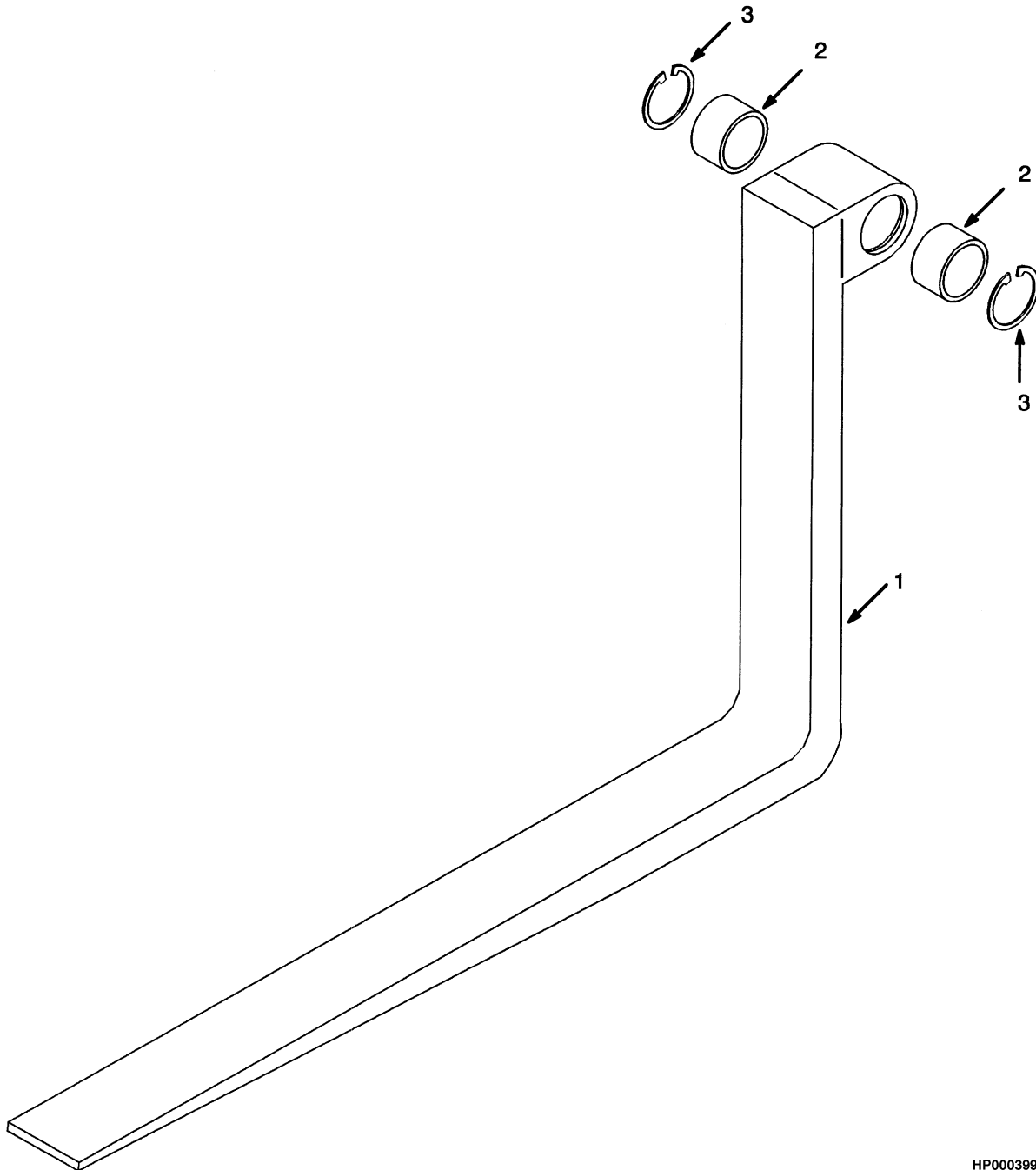


HP000773

ITEM	PART NO.	DESCRIPTION	QTY
1	1393787	Solid Tire (48.5 X 14 - 24) .....	6
2	1451454	Wheel Assy .....	6
2	1391646	Rim .....	6
3	1452916	Ring (Conical) .....	1
4	1466004	Ring (Side) .....	1
5	1637809	Wheel Lock Ring .....	1
6	376026	Wheel Nut .....	48
	376026	Wheel Nut (Not Illustrated) .....	48



**FORKS (FIGURE 12-6)  
PIN TYPE**

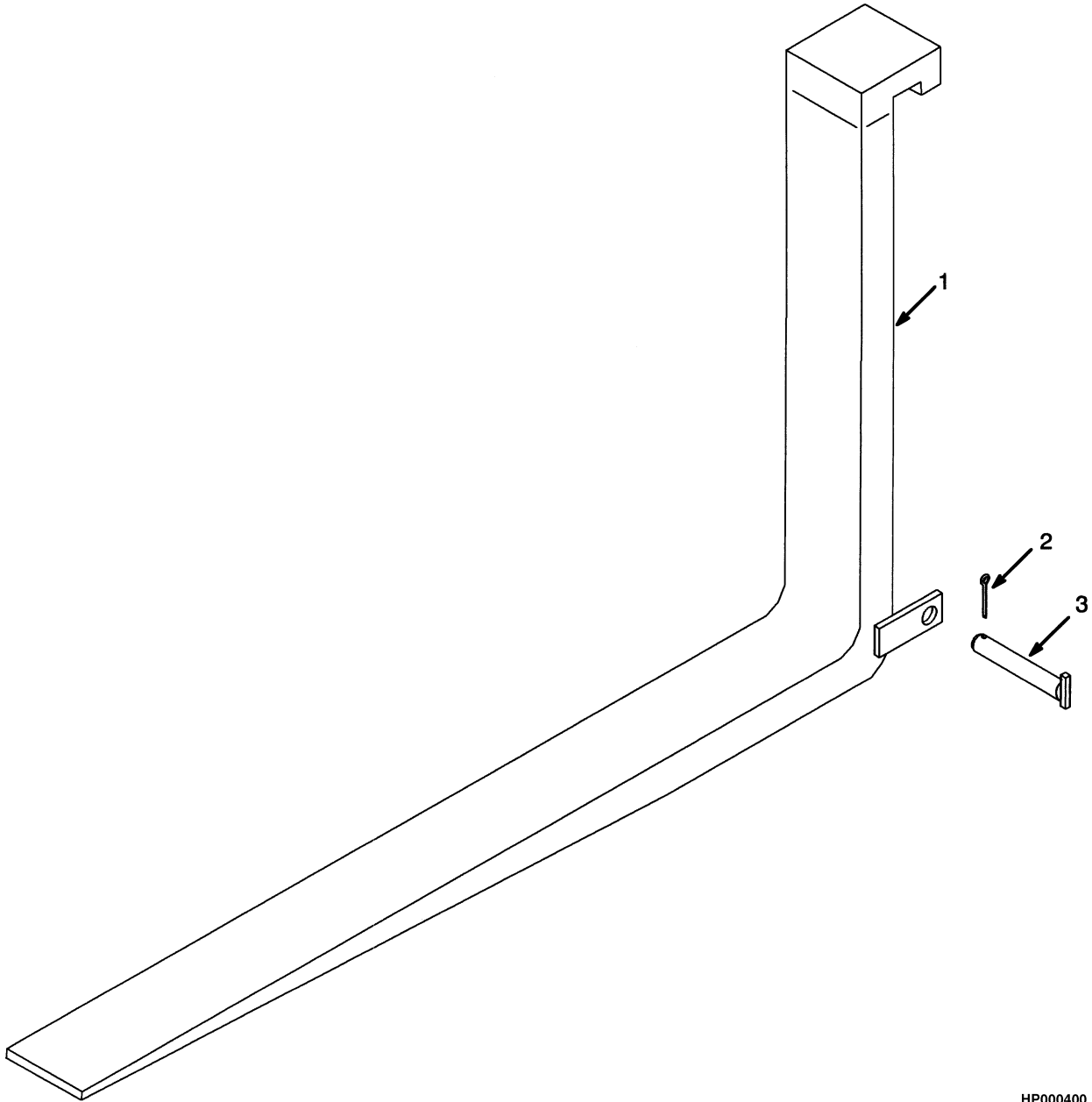


HP000399

**FORKS  
PIN TYPE****KEY:****A: 7.8 x 3.9****B: 9.75 x 3.9**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1373239	Fork (1829 mm) .....	2	..
	1373320	Fork (1524 mm) .....	2	..
	1373346	Fork (2134 mm) .....	2	..
	1373319	Fork (2134 mm) .....	..	2
	1373238	Fork (2438 mm) .....	2	..
	1373233	Fork (2438 mm) .....	..	2
1	1373237	Fork (1829 mm) .....	1	..
1	1373451	Fork (1524 mm) .....	1	..
1	1373347	Fork (2134 mm) .....	1	..
1	1373450	Fork (2134 mm) .....	..	1
1	1373236	Fork (2438 mm) .....	1	..
1	1373230	Fork (2438 mm) .....	..	1
2	<del>1373177</del>			
	4167097	Bushing .....	1	..
3	<del>1373284</del>			
	334475	Snap Ring .....	1	..

**FORKS (FIGURE 12-7)  
HOOK TYPE**



HP000400



**FORKS  
HOOK TYPE****KEY:****A: H14.00-16.00XM****B: H18.00-20.00XM**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	1372954	Fork .....	2	..
1	1372952	Fork .....	..	2
2	15236	Cotter Pin .....	2	2
3	1451183	Pin .....	2	..
3	1373174	Pin .....	..	2







**SECTION 13  
NUMERICAL INDEX**

<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>
125	3-9	10	14692	9-28	35		3-7	10		11-16	37
126	3-9	11	14758	5-7	12		9-3	31		11-61	7
	5-43	15	14999	10-37	2		9-13	31		11-61	15
138	5-43	25		11-43	2		9-17	9	16015	10-12	13
139	5-43	26		11-47	2	15157	9-3	36	16073	4-27	23
12815	2-127	30		11-52	22		9-13	36	16163	2-131	31
	2-131	29		11-55	9		9-17	12		2-135	31
	2-135	29	15002	3-9	7	15160	9-3	25	16186	4-5	20
12829	9-4	47		5-43	18		9-13	25	16328	9-43	24
	9-61	2		9-33	36		9-17	21		9-44	47
	9-63	2		9-37	36	15175	1-38	62		9-44	62
12833	5-9	12	15004	5-43	7	15176	2-141	19		9-45	77
12843	8-16	37	15011	4-5	2		2-145	19	16334	9-33	20
	8-20	45		4-13	2	15181	10-13	27		9-37	20
	8-23	29	15024	3-9	19	15200	3-9	12	16374	1-38	63
12845	5-9	11		5-43	8	15201	5-43	16		2-141	21
12874	5-9	10	15025	5-43	28	15212	5-43	27		2-143	19
13963	7-19	9	15049	4-24	65		7-3	23		2-145	21
14349	8-15	33	15052	5-41	18	15224	6-19	24	16376	2-141	18
	8-19	33	15054	3-9	4	15236	12-13	2		2-145	18
	10-43	31		9-49	14	15237	10-43	23	16445	5-7	17
	10-46	33	15055	1-35	7		10-45	23	16447	8-4	32
14388	1-42	44		1-37	7	15244	10-13	31	16449	9-29	2
	3-3	29	15086	2-143	24		11-12	48		10-49	10
	3-7	11	15127	9-49	13		11-16	48		11-33	9
	9-61	15		9-71	24		11-52	33		11-59	2
	9-63	15	15134	2-141	13		11-55	7	16452	8-23	39
14489	9-27	29		2-143	13	15315	6-4	26	16466	7-9	14
14491	9-28	46		2-143	17		6-7	26	16467	11-59	2
14494	8-20	42		2-143	25	15316	6-3	5	16475	9-75	3
	8-23	33		2-145	13		6-7	5	16478	8-19	30
	9-21	18		11-52	48	15382	9-3	17	16481	7-7	18
	9-25	30		11-56	46		9-61	4		7-9	18
	9-28	40	15136	10-13	32		9-63	4		8-3	23
	11-23	3	15146	11-12	47	15384	9-61	4		8-7	2
	11-23	4		11-16	47	15882	9-3	10		8-7	13
	11-26	32	15152	1-19	10		9-13	10		8-7	23
14512	5-7	18		3-9	6		9-17	22		8-11	11
14555	5-9	17	15154	3-9	3	15890	9-79	12		8-12	42
14591	8-15	28		5-43	6	15894	7-11	10		8-12	43
14594	8-12	36		10-37	13		7-13	10		8-15	28
	8-19	7		11-43	13	15895	9-81	11		8-19	28
14595	9-81	14		11-47	13	15907	9-75	6		8-24	45
14676	9-4	48	15155	1-38	65	16001	10-8	19	16483	8-3	4
	9-18	54		9-9	14		10-41	7		8-3	14
14682	2-127	5	15156	2-141	14		10-43	13		8-7	4
14685	5-9	13		2-143	14		10-45	13		8-7	14
14691	9-27	26		2-145	14		11-8	18		8-11	1
	9-28	36		3-3	18		11-12	37		8-11	2

## NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
	8-12	37		8-11	5		11-26	26		8-12	38
	8-12	38		9-3	28		11-26	32		8-15	6
	8-15	6		9-13	28	16538	8-7	2		8-19	6
	8-15	8		9-27	32		8-12	42		8-23	5
	8-15	9		9-65	1		8-19	28		9-27	18
	8-15	19		9-69	1		8-24	45		9-33	29
	8-15	23		10-49	11		8-24	45		9-37	29
	8-19	6		10-49	18	16540	8-3	4		9-49	3
	8-19	7	16486	8-3	8		8-7	4	16559	7-20	44
	8-19	8		8-4	34		8-11	2		8-7	11
	8-19	9		8-7	30		8-15	9		8-12	40
	8-19	19		8-11	7		8-19	9		9-77	6
	8-19	23		8-11	10		8-23	9		10-49	9
	8-23	5		8-12	35		9-27	17	16561	8-4	34
	8-23	8		8-27	7		9-33	32		8-7	30
	8-23	9		8-29	4		9-37	32		8-11	7
	8-23	16		8-29	14		9-49	5		8-29	14
	8-23	24		9-21	21	16541	7-7	25	16562	8-8	34
	9-21	2		9-25	32		7-9	25		8-11	33
	9-25	9		9-43	8		8-4	49		8-29	2
	9-27	17		9-56	7		8-7	9	16567	8-15	8
	9-27	18		9-75	13		8-11	6		8-19	8
	9-27	19		9-75	19		9-27	25		8-23	16
	9-27	20		9-77	3		9-75	11		9-21	2
	10-16	2	16487	5-9	4		9-77	4		9-25	9
	11-23	10		5-9	6		10-16	9		9-27	19
	11-25	10		8-3	8	16542	8-3	3	16571	8-3	16
16484	7-7	25		8-3	16		8-7	3		8-27	19
	7-9	25		8-4	31		10-49	11	16597	7-3	4
	7-20	44		8-7	8	16543	8-4	42	16704	4-7	26
	8-3	11		8-8	34		8-8	43	16724	5-41	17
	8-3	15		8-8	39		8-11	10	16743	4-24	64
	8-4	49		8-8	43		8-12	35	16745	9-28	38
	8-7	9		8-11	32	16544	5-9	6	16750	1-19	9
	8-7	11		8-12	33		8-3	8	16805	9-33	23
	8-7	15		8-12	35		8-7	8		9-37	23
	8-11	6		8-27	17		8-8	43	16815	6-19	2
	8-12	40		8-27	19		8-12	35		7-3	5
	8-12	41		8-29	2	16549	8-12	37		9-3	30
	9-27	25		8-29	7		8-15	23		9-13	30
	9-27	31		9-3	9		8-19	23		9-17	8
	9-28	45		9-13	9		8-23	24	16835	2-141	22
	9-75	11		9-43	17	16551	9-65	1		2-143	20
	9-77	4		9-44	41		9-67	1		2-145	22
	9-77	6		9-44	55		9-69	1	16882	8-4	48
	9-81	14		9-44	71	16556	7-7	18	16883	9-27	5
	10-16	9		9-61	7		7-9	18		9-27	21
	10-49	9		9-63	7		8-7	13	16909	9-3	28
	11-25	12		9-65	9		8-12	43		9-13	28
	11-26	31		9-65	12	16558	8-3	14		9-17	6
16485	8-3	3		9-69	9		8-7	14		10-49	18
	8-7	3		9-69	12		8-11	1	16923	5-7	2

**NUMERICAL INDEX (continued)**

<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>
	8-15	29		9-71	17		9-9	13	67551	10-41	10
	9-21	13	17066	8-4	47	18516	1-35	8		11-61	11
	9-27	33		8-29	9		1-37	8	69815	2-127	12
16925	9-27	30		9-25	28	18535	3-3	17	73462	9-34	44
16926	9-25	3	17167	9-75	19		3-7	9	78459	8-4	36
16928	9-28	40	17197	8-3	11	18558	9-3	35	79377	3-4	42
16963	9-7	12	17215	2-127	11		9-13	35	79483	7-19	15
	9-9	7		2-127	13		9-17	11	82270	7-19	5
16969	8-15	35	17218	7-7	14	18602	9-3	24	83846	8-8	39
	8-20	43		9-28	43		9-13	24		8-11	32
	8-23	27	17222	9-33	27		9-17	20		8-29	7
	9-27	20		9-37	27	18901	1-41	39	86007	6-3	10
	9-49	4	17300	9-4	40	18905	4-35	9		6-7	10
16970	9-27	31		9-17	40		4-39	9	86008	6-11	35
	9-28	45		9-61	5	18921	9-47	3	86520	1-47	23
16974	9-9	9		9-63	5	30062	6-11	7	87911	9-77	7
16983	8-4	36	17309	7-9	7		6-15	7	88195	9-9	21
	8-7	32	17315	7-7	7	30077	7-19	21	88300	10-16	1
	8-11	29	17319	7-7	15	30151	7-19	30		10-16	1
	9-13	38		9-21	16	30374	9-7	13		10-16	1
	10-13	22		9-27	30		9-9	12		10-16	1
16989	7-9	15		9-28	46	34055	7-19	28		10-16	1
	9-71	1	17345	9-61	5	34056	7-19	27		10-16	1
	9-75	2	17352	2-131	34	35503	9-63	15	88587	6-4	30
16992	5-9	5		2-135	34	37103	7-19	32		6-8	30
	5-9	9	17636	9-63	19	39383	6-4	32	90207	9-81	7
	8-8	41	17637	9-63	18		6-8	32	90937	7-19	25
	8-12	34	17764	9-3	34	39679	10-41	19	95033	7-20	40
17039	9-69	23		9-13	34		11-61	21	95034	7-20	40
	9-71	30		9-17	10	39742	9-61	9	95166	7-20	40
17040	8-27	13		9-25	25		9-63	9	95578	9-65	14
17042	5-9	16	17776	9-27	28	39767	9-33	15		9-67	18
17049	8-15	24	17777	9-21	15		9-37	15	97623	6-4	47
	8-19	24		9-28	34		9-43	18		6-8	47
	8-23	17	17778	9-28	43		9-44	45	97626	6-4	49
	8-23	44	17779	9-21	11		9-44	60		6-8	49
17052	8-27	8	17780	9-25	8		9-45	75	97638	6-4	36
	8-29	16	17782	8-27	16	42598	3-3	14		6-8	36
17054	8-19	30	18097	9-33	19	46388	9-81	12	102990	4-27	5
	8-23	34		9-37	19	47478	10-8	11		4-35	27
17061	9-27	27	18191	10-41	14		10-43	26		4-39	27
17062	7-7	1		11-61	20		10-45	28	110174	9-65	20
	8-15	22	18425	9-33	18		11-7	10		9-67	20
	8-19	22		9-37	18	49189	12-3	7		9-69	20
	8-23	23	18460	3-9	2		12-4	7		9-71	20
	10-16	4	18471	9-49	12		12-5	7	110931	11-11	14
	11-23	12	18480	9-49	12	53086	9-81	10		11-16	14
	11-25	12	18498	1-35	4	53163	10-41	16	110932	11-11	14
17063	9-28	44		1-37	4		11-61	17		11-16	14
17064	9-65	10	18515	2-141	25	55289	9-79	9	110933	11-11	14
	9-67	16		2-143	23	63899	3-3	1		11-16	14
	9-69	10		2-145	25	66883	9-17	44	111056	3-4	36

## NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
112470	9-4	51	127852	1-42	44		4-39	30		1-37	27
	9-7	20	128408	8-3	19		9-75	16		1-47	15
	9-9	16		8-7	20	133683	7-3	22		1-53	4
	9-17	18		8-12	45	134810	1-19	8		1-55	17
112886	9-33	28	129563	4-36	56		4-23	23		1-57	17
112989	2-127	4		8-3	21	134811	4-45	7		1-63	36
	2-131	22		8-4	46	134812	4-97	12		2-127	18
	2-135	22		8-7	21		4-99	4		2-128	36
114268	2-131	30		8-11	19		4-105	11		2-141	11
	2-135	30		8-27	14		4-113	7		2-143	11
114312	1-47	18	129684	3-4	35	136405	10-12	20		2-145	11
114662	4-5	22		3-7	17		11-12	42		3-4	38
	4-13	27		3-7	17		11-16	42		3-7	20
115586	12-2	1	129886	4-97	18		11-17	62		3-7	20
115593	12-2	1	129887	4-73	30	136681	1-32	39		4-35	24
115696	9-3	7		4-83	5		1-41	8		4-39	24
	9-13	7		4-88	7		3-3	25		5-3	12
	9-17	23	129889	4-105	14		3-9	29		5-43	37
116046	10-16	1	130336	8-4	35		4-9	16		9-7	5
	10-16	1		8-7	31		4-13	12		9-33	6
	10-16	1		8-11	20		4-17	16		9-33	6
116091	2-141	23	130443	3-9	26		4-21	6		9-37	6
	2-143	21	130663	12-2	1		4-36	51		11-17	56
	2-145	23	130845	1-41	38		4-40	51	136703	10-49	14
116265	12-3	8		2-127	7		7-3	30		11-52	29
	12-4	7		2-131	32	136687	1-9	20		11-56	40
	12-6	8		2-135	32		1-29	16	136704	3-4	46
117860	9-34	43	131460	8-15	19		1-31	7		8-27	4
118807	2-127	15		8-19	19		1-35	19		8-29	13
	2-131	24		8-23	8		1-37	19		10-49	7
	2-135	24		10-16	2		1-41	30		11-48	27
119055	2-127	19		11-23	10		1-47	3		11-56	26
	2-131	26		11-25	10		3-9	33	136718	11-17	55
	2-135	26	131878	2-141	30		3-9	39	136749	1-9	8
119236	2-127	31	132009	10-16	3		4-9	10		1-9	8
	2-131	23	132131	4-17	22		4-17	7		1-9	22
	2-135	23		4-29	12		4-17	27		1-29	34
123045	10-16	1	132451	6-4	51		4-23	13		1-35	33
	10-16	1		6-8	51		4-29	13		1-37	33
	10-16	1	132801	2-141	15		5-41	10		2-119	34
125428	6-11	21		2-145	15		9-69	25		2-123	12
	6-15	21	132829	11-12	50		9-71	23		2-128	40
127045	8-4	38		11-16	50		10-43	16		2-135	46
	8-20	40	132860	2-127	22		10-45	16		3-9	31
	8-23	20		2-127	22	136692	1-5	11		3-13	4
	8-27	1		2-131	19		1-5	21		4-23	29
	9-4	53		2-135	19		1-9	15		5-41	4
	9-7	10		10-8	18		1-19	27		8-3	25
	9-9	18		11-8	17		1-27	22		8-7	25
	9-17	25		11-12	36		1-29	20		8-23	18
127238	2-127	6		11-16	36		1-31	18		11-51	12
127611	3-9	15	132861	4-35	30		1-35	27	136750	9-67	3



**NUMERICAL INDEX (continued)**

<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>
	9-71	3	141908	9-3	22	154594	2-131	33	169775	4-24	67
136985	1-29	24		9-17	30		2-135	33	169781	4-23	1
	1-31	26	142500	8-3	8	154952	8-3	15	169784	4-24	60
	1-53	2		9-21	21	156478	2-119	14	169785	4-23	5
	1-55	20		9-25	32		2-121	2		4-24	55
	1-57	20	142682	8-11	5		2-123	2		4-24	60
	2-131	21	144050	9-3	22	156696	9-61	3	173247	8-3	21
	2-132	50		9-13	22	157065	4-73	21	175899	4-7	8
	2-135	21	145502	8-15	32	159179	7-20	38		4-15	23
	3-4	40	145639	3-9	27	159180	7-20	37	176640	1-35	31
	3-7	22	145641	2-141	20	159185	7-19	2		1-37	31
	3-7	22		2-143	18	159186	7-19	2		2-121	19
	5-17	8		2-145	20	159295	11-12	19		2-123	21
	7-19	23		9-33	24		11-16	19		4-9	31
	8-3	24		9-37	24	159296	11-11	15		4-18	49
	8-7	24	145824	2-119	20		11-16	15		4-35	12
	8-12	48		2-121	20	159297	11-12	16		4-39	12
	9-7	2		2-123	22		11-16	16		4-43	7
	9-33	5	146803	9-79	8	159299	11-12	17		5-41	5
	9-33	11	147449	8-8	35		11-16	17		8-15	3
	9-37	5		8-8	40	159369	10-16	1		8-19	3
	10-13	24		8-11	30		10-16	1		8-23	2
	11-11	5	147455	8-27	15		10-16	1	176910	3-3	11
	11-15	5	147983	2-119	24	160245	4-73	8	177953	6-5	62
137852	2-128	53		2-125	1	160549	10-37	12	180979	8-8	35
	3-13	7	147985	2-119	25	163520	1-41	43		8-11	30
	4-5	12		2-125	2	164289	2-131	35		8-29	3
	4-9	21	148605	4-97	19		2-135	35	181045	1-19	8
	4-9	38	148607	4-80	6	164488	3-9	38		4-23	23
	4-13	16	148609	4-97	20		4-35	23	181046	4-27	20
	4-15	18	148612	4-83	4		4-39	23		4-45	6
	4-17	21		4-88	4	164658	1-42	52		4-97	21
	4-17	40	148616	4-73	10		4-27	6		4-99	5
	4-21	9	148617	4-73	29	166112	9-69	13		4-105	10
	4-24	46	148626	4-73	9	166285	9-67	28	181941	9-61	11
	4-27	7	148648	4-99	12	166818	1-65	4		9-63	11
	4-35	40	149531	1-49	5	166857	2-132	55	186304	4-23	25
	4-36	53	151551	2-119	6		2-136	58	189451	10-37	4
	4-36	57		2-124	5		3-3	15		11-43	4
	4-39	40	151554	2-119	3		3-7	1		11-47	4
	4-40	53		2-124	2	167053	5-43	23		11-52	24
	4-40	59	153049	9-65	8	167261	9-21	12		11-55	14
	4-43	10		9-67	11		9-25	7	190252	4-5	18
138929	10-37	18		9-69	8	167970	11-12	33	190383	4-7	15
	11-43	18		9-71	11		11-16	33	190757	9-3	29
	11-47	18	153069	8-7	19	167971	11-12	34		9-13	29
139012	5-43	5		8-12	46		11-16	34		9-17	7
139924	9-4	49	154208	4-5	3	168371	2-119	5	190784	9-61	13
	9-18	49		4-9	2		2-124	4		9-63	13
141276	2-119	9		4-36	47	168718	2-127	9	190785	9-61	12
	2-124	8		5-43	36		3-4	44		9-63	12
141850	3-4	37		10-49	21	169759	4-23	4	190787	9-61	8

## NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
	9-63	8	214336	2-119	26		11-16	49	225334	9-81	8
192544	6-23	8		2-125	3	221729	11-16	49	226352	8-4	44
192683	7-19	11	214339	2-119	2	221767	3-9	32		8-27	10
195769	3-15	4		2-124	1		6-19	3	226774	1-27	2
196959	2-119	23	214421	9-9	20	221775	11-61	18	227096	4-29	8
	2-121	21	216590	10-53	16	221777	11-61	18	227176	4-23	37
	2-123	23	216735	1-5	3	221780	6-5	60	227220	2-119	21
	2-125			1-13	3		6-8	59		9-4	39
197067	4-35	15		4-35	37	221786	10-13	34		9-13	15
	4-39	15		4-39	37	222029	1-38	55		9-17	37
	5-41	19		7-3	10		1-65	13	227221	2-119	27
197068	1-47	5	216877	2-127	23	222331	7-7	1		2-123	9
197070	1-49	6		3-3	22		7-9	1		9-77	5
197858	2-143	16		3-7	15	222369	8-4	37	230389	7-19	22
198324	11-11	1		4-36	61		8-19	35	230390	7-19	31
	11-15	1		4-40	61		8-23	32	230408	11-12	18
198518	9-79	11		7-3	17		9-21	17		11-16	18
198691	7-9	11		9-17	27		9-28	39	233683	9-61	14
199085	9-3	32		9-61	16		11-26	31		9-63	14
	9-13	32		9-63	16	222383	9-65	12	234888	9-43	6
	9-17	13		10-4	5		9-69	12	238810	1-29	38
199524	9-43	5		10-13	33	222400	9-27	32		1-32	42
199598	6-5	52		11-3	7	222415	5-9	4	239423	1-69	14
	6-8	52		11-17	52		8-4	31	239503	1-29	21
199917	9-3	33		11-51	6		8-27	17		1-31	9
	9-13	33		11-56	32	222435	8-27	7		1-35	34
	9-17	14	217549	1-9	35		8-29	4		1-37	34
200445	6-3	4	219302	3-3	10	222443	9-33	38		1-41	9
	6-7	4	220499	3-9	5		9-37	38		3-3	8
200972	6-11	6	221295	11-16	42		9-49	2		3-9	43
	6-15	6	221357	10-37	3	222444	9-56	7		3-13	5
200982	6-11	31		11-43	3	222456	9-75	13		4-9	19
	6-15	31		11-47	3		9-77	3		4-17	19
201776	9-65	9		11-52	23	222464	9-3	9		4-18	50
	9-69	9		11-55	10		9-13	9		4-23	31
201781	8-7	32	221372	1-49	7	222473	3-4	32		4-29	17
	8-11	29	221377	9-79	3		3-7	7		4-35	10
201800	2-127	10	221420	5-43	13	222482	1-42	44		4-39	10
204223	4-7	16	221440	11-43	12	222494	9-3	38		5-29	5
	4-15	12		11-47	12		9-13	38		5-33	2
206027	4-24	60	221703	5-43	14	222517	9-28	37		5-43	3
206150	8-7	15		10-37	14	222524	11-64	7		7-7	21
	8-12	41		11-43	14		11-65	7		7-9	21
	9-28	45		11-47	14	222533	9-3	26		9-67	5
208107	6-4	27	221707	11-52	31		9-13	27		9-71	5
	6-4	28		11-56	45		9-17	19		10-49	16
	6-7	27	221714	9-59	25	222556	9-3	27		11-48	28
209067	9-41	10	221720	6-5	61		9-13	26		11-51	10
212786	8-7	18		6-8	60		9-17	31	239784	8-3	23
213100	5-43	33	221721	6-5	61	223216	2-141	17		8-7	23
214195	6-3	9		6-8	60		2-143	15		8-11	11
	6-7	9	221725	11-12	49		2-145	17	240683	6-11	18

**NUMERICAL INDEX (continued)**

<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>
	6-15	18	264159	9-17	42	286767	4-7	12		1-41	28
246001	1-5	2	265731	9-21	29		4-15	8		4-9	7
	1-13	5		11-25	22	286901	4-35	7	292502	9-69	24
	2-131	16		11-26	23		4-39	7		9-71	22
	2-132	54	265817	1-25	15	287136	2-127	29	292505	8-15	12
	2-135	16	266519	9-47	4	287805	4-24	47		8-19	12
	2-136	54	267262	8-7	27	287816	3-9	21		8-23	13
	3-3	12		8-11	4		4-17	4		11-59	8
	4-18	53		8-23	35	287817	4-29	6	292506	9-41	6
	7-20	41	268915	6-4	43	287837	10-13	35	292507	8-15	27
	9-79	16	273775	2-127	27		11-51	7		8-19	27
	11-3	11		9-33	12	287844	11-52	46		8-23	11
	11-47	10		9-37	12	287851	1-41	31		9-29	7
	11-56	33		10-16	6		5-47	10		9-77	16
246108	1-42	45		11-23	17	287854	1-5	8		11-59	8
246396	9-9	19		11-25	17		1-19	24	292508	3-3	7
248320	10-41	16	273969	6-4	34		1-29	12		9-67	32
	11-61	17		6-8	34		1-31	16	292509	5-7	20
250095	4-43	1	274044	7-20	42		1-31	16		9-7	15
251099	3-9	34	274885	7-9	2		1-55	16		10-53	12
251994	7-7	27	275496	4-7	23		1-57	16		11-52	19
	7-9	28		4-15	22		1-63	35		11-56	37
	9-75	7	275498	4-5	27		2-119	19	292510	5-4	44
	9-77	15	276228	10-8	13		2-121	10	292512	10-49	14
252376	11-23	11		10-43	29		2-127	16	292513	4-5	14
	11-25	11		10-45	31		4-40	57		4-13	18
252388	10-16	1		11-7	12		5-3	37		4-21	11
	10-16	1	276638	10-16	1		7-7	12	292514	1-6	39
	10-16	1		10-16	1		7-9	12		2-132	53
252729	9-21	8	279740	4-27	8		9-33	5		2-135	42
	9-21	9	279752	1-41	37		9-65	7		5-9	1
	9-21	10	280154	11-26	23		9-67	7		8-3	13
	9-21	22	280156	9-21	14		9-69	7		8-8	37
	9-21	29		9-22	30		9-71	8		8-11	16
	9-22	33		9-22	31		10-4	17		8-27	20
	11-25	22		9-22	32	287860	1-13	18		8-29	5
252793	2-119	4	280472	1-17	34		4-35	26	292515	2-128	55
	2-124	3		1-22	46		4-39	26		10-13	24
255578	1-42	54		1-31	24		9-17	4	292517	2-128	48
	8-7	18		1-41	6		9-31	12		9-41	12
	8-12	47		4-43	9		9-33	11		11-8	20
	9-4	44		10-53	15		9-37	11	292524	2-128	48
	9-29	3	280610	10-37	7	292500	1-27	3		2-131	28
	9-65	6		11-43	7		1-29	17		2-135	28
	11-59	6		11-47	7		1-31	23	292525	9-41	3
258493	1-42	47		11-52	20		4-27	22		9-65	3
258590	9-17	1		11-56	22	292501	1-9	17		9-69	3
261156	1-38	57	280644	1-21	34		1-27	21	292526	2-141	5
261158	1-9	38	284521	9-41	13		1-29	13		2-143	5
264134	1-49	28	284847	3-9	1		1-31	4		2-145	5
	9-33	21		3-15	1		1-35	18		4-5	4
	9-37	21		3-17			1-37	18		4-9	3

## NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
	4-13	4		10-41	9		5-41	9		1-37	29
292527	1-32	32		11-11	10		11-52	45		1-53	3
	1-32	32		11-11	10	292681	1-9	10		1-55	18
	2-131	20		11-15	10		1-9	10		1-57	18
	2-135	20		11-61	9		1-29	19		1-63	37
	7-19	6	292563	1-5	33		1-29	36		2-119	18
	10-12	15	292572	2-139	1		1-35	2		2-121	12
	10-43	20	292573	5-7	29		1-37	2		2-128	45
	10-45	20	292574	10-41	2		1-41	32		2-131	14
292528	4-40	64		11-61	2		2-119	33		2-132	52
	7-9	29	292580	5-7	25		2-123	13		2-135	14
	9-3	12		10-13	29		2-128	44		2-136	52
	9-17	26	292581	10-37	5		2-135	45		2-141	10
	9-65	19		11-43	5		3-3	26		2-143	10
	9-67	24		11-47	5		3-9	30		2-145	10
	9-69	19		11-51	13		3-13	6		3-4	39
	9-71	29		11-55	11		4-9	18		3-7	21
	10-12	16	292583	11-31	16		4-13	14		3-7	21
	10-37	28	292591	1-49	15		4-17	18		4-5	15
292529	4-36	60	292597	1-49	23		4-18	48		4-13	19
	7-3	15	292600	10-41	4		4-21	8		4-21	12
	9-13	12		11-61	3		4-24	48		4-35	25
	10-43	3	292665	5-41	24		4-29	18		4-39	25
	10-45	3	292668	1-35	21		4-35	11		4-40	58
292531	10-4	2		1-37	21		4-35	31		5-9	2
	11-4	12		1-47	12		4-39	11		5-17	9
	11-12	51		4-35	17		4-39	31		5-43	38
	11-17	51		4-39	17		4-43	8		7-3	6
	11-31	8		5-41	13		5-7	21		7-9	13
292533	10-37	22	292676	5-41	25		5-41	3		7-19	24
	11-17	58	292679	1-9	28		5-43	2		8-3	9
	11-44	22		1-27	9		7-3	32		8-8	38
	11-48	22		1-35	22		7-7	20		8-11	17
292535	1-6	43		1-37	22		7-9	20		8-27	21
	1-17	2		1-41	41		8-3	26		8-29	6
	1-21	1		1-47	13		8-7	26		9-7	4
	1-49	31		4-35	16		8-23	19		9-33	8
	10-37	17		4-39	16		9-7	18		9-33	8
	11-3	4		5-41	12		9-9	3		9-37	8
	11-43	17	292680	1-9	19		9-67	4		10-4	18
	11-47	17		1-27	5		9-67	31		10-13	25
292537	11-26	28		1-29	15		9-71	6		10-53	13
292538	11-17	51		1-31	6		9-75	17		11-11	6
292539	9-65	22		1-35	16		10-49	15		11-15	6
	9-67	25		1-37	16		11-48	29	292683	1-32	35
	9-69	22		1-41	29		11-51	11		1-32	35
	9-71	27		1-47	4	292682	1-5	10		1-38	47
292540	1-38	46		3-9	22		1-9	14		2-127	24
292544	9-3	19		4-9	9		1-19	25		2-127	24
	9-13	19		4-17	6		1-29	22		2-131	18
	9-17	17		4-17	26		1-31	19		2-135	18
292562	6-23	6		4-29	7		1-35	29		2-141	6

**NUMERICAL INDEX (continued)**

<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>
	2-143	6	293782	3-9	13	298132	4-13	3		4-43	5
	2-145	6		7-3	18		4-18	54		8-15	14
	3-3	13	296027	5-17	11		8-3	18		8-19	14
	3-7	13	296128	10-4	16	298829	9-7	1		8-23	14
	4-5	5	296150	1-10	47	298832	3-3	2		9-29	9
	4-9	4	296152	1-35	20		3-7	27		9-77	18
	4-13	5		1-37	20	299257	7-9	27		11-12	26
	4-18	55	296155	1-9	27	300088	1-35	38		11-16	26
	4-36	46	296164	9-9	34		1-37	38		11-52	47
	4-40	62	296166	5-43	1		2-128	39		11-59	9
	5-7	23	296172	1-5	13	300597	11-23	13	302400	1-38	53
	7-19	7	296174	1-13	14		11-25	13		1-42	49
	9-17	33	296238	2-131	37	300937	1-5	5		2-121	18
	9-61	18	296255	10-4	9		1-5	24		2-123	20
	9-63	3		10-8	8		1-6	46		2-131	39
	9-79	17		11-7	5		1-13	4		8-15	4
	10-4	4	296360	7-3	26		1-17	5		8-19	4
	10-12	14	296380	4-23	30		1-21	4		8-23	3
	10-13	36	296396	1-27	11		1-32	33		8-27	5
	10-37	27	296408	4-9	20		1-32	33		8-29	11
	10-43	4		4-17	20		9-41	1		9-9	4
	10-45	4	296417	9-41	7		10-37	15		11-56	27
	11-17	60	296418	4-29	19		11-43	15	302401	1-25	20
	11-48	31		9-69	26		11-47	15		1-42	51
	11-51	5	296419	1-38	43	300939	1-6	45		1-47	26
292684	9-3	20		3-3	27		1-17	3		2-128	56
	9-13	20	296420	1-35	30		1-21	2		2-131	13
	9-17	16		1-37	30	301250	9-3	18		2-131	48
292685	10-41	3		2-128	49		11-23	14		2-135	13
	11-61	4		2-131	27		11-25	14		2-136	51
	11-61	10		2-135	27	302036	1-47	11		4-5	10
292687	1-49	20		9-41	5		4-35	14		4-5	10
	1-49	25	296421	1-35	28		4-39	14		4-7	4
	5-7	26		1-37	28	302048	4-9	23		4-7	4
	10-13	28	296422	1-35	9		4-17	24		4-9	14
	10-37	6		1-37	9	302049	4-43	3		4-9	14
	11-43	6		2-139	4	302097	10-43	15		4-13	10
	11-47	6		9-41	2		10-45	15		4-15	17
	11-51	14		11-12	23	302109	10-4	15		4-15	17
292689	7-20	43		11-16	23	302233	5-41	23		4-17	11
293614	5-43	35	296423	1-27	15	302236	1-19	13		4-17	39
293644	10-43	24		2-128	52	302244	1-41	40		4-17	39
	10-45	24		2-131	44		5-41	11		4-35	36
	11-8	17	296426	2-139	7	302248	1-27	8		4-39	36
293645	11-12	22		5-7	30	302256	1-27	12		7-7	9
	11-16	22		10-41	17	302335	1-5	19		7-7	9
293649	9-79	16	296431	1-49	12	302343	1-5	25		7-9	9
293654	6-11	12		1-49	16	302349	1-5	22		8-3	28
293716	6-11	3	296464	1-27	10	302399	2-19	1		8-7	28
	6-15	3	296472	1-47	2		2-65	2		8-12	50
293779	3-9	37	296844	6-11	17		4-7	14		8-20	38
293781	7-7	13		6-15	17		4-15	10		8-23	42

## NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
	9-4	41	313222	11-52	30	320155	1-9	29		1-9	9
	9-17	3		11-56	44		1-35	23		1-9	23
	9-29	5	313805	9-41	8		1-37	23		1-29	33
	9-31	10	313828	1-55	15		9-33	37		1-32	40
	9-65	5		1-57	15		9-37	37		1-38	49
	9-65	5		1-63	1	320156	1-9	18		2-119	32
	9-67	9		7-3	27		1-27	4		2-121	17
	9-69	5	313860	5-43	10		1-29	14		2-123	14
	9-71	10	314170	3-9	9		1-31	5		2-123	19
	9-75	8	314809	5-43	17		1-35	17		2-131	38
	9-77	20	316596	2-132	56		1-37	17		2-135	44
	11-4	15		2-136	57		1-41	3		3-9	
	11-8	21		3-4	43		3-9	36		3-13	3
	11-23	8		3-7			3-9	44		4-36	42
	11-23	8		8-3	2		4-7	2		4-40	42
	11-25	8		8-8	46		4-9	8		7-3	31
	11-56	18		8-11	21		4-15	11		8-15	5
	11-56	30		9-4	55		4-17	5		8-19	5
	11-59	4		9-9	19		4-17	25		8-23	4
302402	1-32	33		9-18	52		4-23	12		8-27	6
	1-49	33		9-34	41		4-27	21		8-29	12
	2-131	15		9-37	41		4-43	4		9-9	35
	2-131	49		11-48	34		5-41	8	320159	1-5	9
	2-135	15		11-52	41		8-15	13		1-5	20
	2-136	53	316826	1-6	38		8-19	13		1-14	21
	7-9	30		1-6	40		8-23	12		1-19	26
	9-3	14		1-13	16		9-29	10		1-29	23
	9-13	14		1-13	19		9-77	17		1-31	25
	9-17	38		9-33	10		11-12	25		1-31	25
	9-65	18		9-37	10		11-16	25		1-42	50
	9-67	26		9-41	4		11-52	44		1-47	10
	9-69	18	316828	1-5	34		11-59	10		2-119	17
	9-71	28		2-139	8	320157	1-35	5		2-121	11
	11-12	52		5-7	31		1-37	5		2-127	17
	11-17	52	316829	1-49	9		1-41	33		2-128	37
	11-17	61		1-49	17		2-128	41		2-128	54
	11-26	29		7-13	5		3-3	9		2-141	9
302468	11-7	8	316833	4-36	49		3-13	2		2-145	9
302497	1-49	11		4-40	49		4-9	17		3-4	41
303493	5-41	15	316835	1-25	14		4-13	13		3-7	23
306952	1-63	32	316836	1-29	11		4-17	17		3-7	23
306954	1-63	20		1-31	13		4-18	51		4-5	9
306957	1-63	9		10-4	8		4-21	7		4-5	9
309062	9-81	9		10-8	7		4-23	11		4-7	6
309124	4-7	13		10-43	8		9-7	17		4-9	13
	4-15	9		10-45	8		9-9	2		4-9	13
309637	1-19	3	318067	10-19	9		9-67	6		4-9	22
309666	1-27	13		10-23	9		9-67	30		4-13	9
309707	1-49	28		10-27	10		9-71	4		4-15	16
	1-49	28		10-31	10		10-49	19		4-15	16
310102	1-38	52	318352	1-25	17		11-56	36		4-17	10
311245	3-3	1	320154	1-10	48	320158	1-9	9		4-17	38

**NUMERICAL INDEX (continued)**

<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>
	4-17	38	320161	1-14	22		9-61	17	334325	9-33	17
	4-21	4		1-32	34		9-63	17		9-37	17
	4-35	28		1-32	34		10-53	14	334340	9-33	9
	4-36	52		1-47	25	320165	11-11	9		9-37	9
	4-39	28		4-7	29		11-11	9	334475	10-45	12
	4-40	52		4-7	29		11-15	9		12-11	3
	5-43	38		4-9	35		11-52	42	334639	1-49	29
	7-7	10		4-9	35		11-55	8	334886	10-12	19
	7-7	10		4-15	15	320166	1-31	17	335989	1-65	11
	7-9	10		4-15	15		6-23	7	335991	1-65	12
	9-4	45		4-17	37	320169	11-55	12	339528	4-27	14
	9-29	6		4-17	37	320177	9-41	11	339530	9-4	52
	9-33	7		4-36	55	321113	2-121	16		9-18	51
	9-33	7		4-40	55		2-123	18	340044	4-27	4
	9-37	7		5-7	22	321177	10-4	20	340213	5-43	11
	9-65	4		5-43	12		11-3	2	343590	10-37	19
	9-65	4		7-9	3	321197	10-4	10		11-43	19
	9-67	8		9-3	13		10-8	9	344242	3-15	9
	9-69	4		9-4	42		11-7	6	344244	3-15	6
	9-71	9		9-13	13	321293	6-3	7	344245	3-15	3
	9-75	9		9-17	28		6-7	7	344246	3-15	5
	9-77	19		9-31	11	321487	9-4	43	344247	3-15	2
	10-4	7		10-4	3		9-31	2	345355	4-36	44
	10-8	3		10-37	16		11-23	16		4-40	44
	10-43	7		11-3	5		11-25	16	345400	3-15	10
	10-45	7		11-17	59	323493	9-55	22	345408	7-15	2
	11-4	14		11-23	9	323549	2-127	8	345409	7-15	3
	11-8	19		11-23	9	323864	1-42		345410	7-15	4
	11-56	17		11-25	9		9-31	13	345411	7-15	5
	11-56	29		11-43	16	324896	7-3	20	345412	7-15	6
	11-59	5		11-47	16	325789	4-45	4	345423	7-3	3
320160	1-6	41		11-52	35		4-73	7	345424	7-15	11
	1-9	13		11-56	34		4-115	7	345735	9-53	11
	1-13	15		11-59	5	329067	1-5	31	345929	9-53	9
	1-25	21	320162	1-5	4		1-9	4	346330	4-45	8
	1-29	18		1-5	23		1-21	36		4-49	12
	1-29	35		1-13	6		1-29	32	346971	10-12	22
	1-31	12		1-13	6	329069	7-3	27	348368	9-61	6
	1-31	12		1-38	48		9-7	16		9-63	6
	2-131	12		1-49	32		9-67	29	350521	8-7	7
	2-131	47		2-131	17	329420	6-3	8		8-11	26
	2-135	12		2-135	17	330006	10-12	2	353302	9-4	46
	2-136	50		2-136	55		10-12	2		9-61	1
	2-141	9		2-141	12	330009	10-12	2		9-63	1
	2-143	9		2-143	12	330010	10-12	2	353379	4-35	29
	8-3	29		2-145	12		10-12	2		4-39	29
	8-7	29		3-3	21	330011	10-12	2	353453	9-9	32
	8-12	49		3-7	14	330100	9-34	39	358099	6-5	56
	8-19	37		4-35	39		9-37	39		6-8	56
	8-23	41		4-39	39	330303	11-11	1	358300	9-79	7
	9-7	3		4-43	16		11-15	1	358674	4-35	32
	9-17	39		9-17	32	331536	1-65	1		4-39	32

## NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
	4-43	9	370730	4-45	9		1-21	17		5-26	39
359756	8-15	18		4-73	27	376949	1-17	29	383413	5-3	42
	8-19	18	370776	4-23	38		1-21	18		5-3	42
362030	1-9	21		4-29	9		4-27	15	383414	5-4	42
	1-29	9	370790	4-49	13		4-31	6	383415	5-4	42
	1-31	3	371172	9-50	4	378070	4-35	13	383416	5-4	42
	1-35	15	371345	7-15			4-39	13	383417	5-4	42
	1-37	15	371666	7-3	37	378451	4-45	5	383418	5-4	42
362102	10-19	7	373091	4-35	13	379048	10-49	22	383419	5-4	42
	10-23	7		4-39	13	379650	1-55	22	383420	5-4	42
362255	7-3	8	374021	4-35	8		4-23	27	383421	5-4	42
362816	7-3	3		4-39	8	379674	7-3	25	383789	2-139	9
365344	1-27	14	375629	1-17	16	379675	4-35	4		9-41	29
366063	7-17	3		1-22	43		4-39	4		9-55	19
366064	7-17	5		7-3	26	379697	7-3	16	384014	4-35	18
366065	7-17	6	376026	6-8	50	379902	4-23	25		4-39	18
366066	7-3	2		7-19	20	380109	4-108	1	385133	11-19	5
	7-17			12-3	6	380121	4-45	3		11-21	5
367251	1-35	6		12-4	6	380292	9-34	40	385420	5-22	45
	1-37	6		12-5	6		9-37	40		5-26	49
367540	4-125	1		12-6		381846	4-23		385516	1-55	25
367960	4-105	17		12-7	6		4-33	5		1-57	24
367968	4-105	16		12-7			4-59	3	387246	9-79	13
369242	1-17	14		12-8	6		4-61	3	387247	9-79	14
	1-22	42		12-8			4-97	15	387248	9-79	10
	4-35	3	376064	1-25	2		4-102	5	387286	10-19	6
	4-39	3	376066	9-61	10	381847	4-59	4		10-19	6
	7-3	12		9-63	10		4-61	4		10-19	6
369801	2-127	14	376137	1-41	12		4-97	17		10-19	6
	2-131	25	376186	9-79	2	381919	4-122	8		10-19	6
	2-135	25	376276	1-21	7		4-125	2		10-23	6
369804	8-4	40	376319	1-49	4		11-64	8		10-23	6
	8-8	44	376397	1-35	3		11-65	8		10-23	6
	8-11	9		1-37	3	382689	5-30	32		10-23	6
	9-3	8		1-38	64	382779	5-4	47		10-23	6
	9-13	8		2-141	24	382784	5-16	32		10-23	6
	9-17	24		2-143	22	382795	5-13	10		10-27	6
370009	4-5	23		2-145	24	382796	5-11	12		10-27	6
	4-13	28	376504	7-3	9	382810	5-3	25		10-27	6
370175	9-81	3	376505	7-3	11	382815	5-38	46		10-27	6
370176	9-81	4	376506	7-3	19	382818	5-3	2		10-27	6
370196	9-81	5	376510	7-3	14		5-4	58		10-27	6
370197	9-81	6	376681	10-12	22	382828	5-3	38		10-31	6
370471	4-24	52	376682	11-11	4	382845	5-13	8		10-31	6
370646	4-23	18		11-15	4		5-47	33		10-31	6
370647	4-23	17	376840	1-25	18	382846	5-11	6		10-31	6
	4-33	6	376867	1-25	3		5-13	16		10-31	6
	4-73	17	376868	1-25	4	382847	5-11	8		10-31	6
370648	4-23	19	376922	1-25	5	382848	5-11	9	387325	9-79	
	4-33	1	376947	1-17	28		5-13	14	388783	5-43	19
370727	4-105	15		1-21	16		5-47	12	389688	1-65	3
370728	4-105	12	376948	1-17	30	382912	5-21	32	391484	10-37	21



**NUMERICAL INDEX (continued)**

<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>
	11-43	21	806425	4-73	22	816692	9-49	9	1301154	4-45	1
	11-48	21	806426	4-73	14	816693	9-49	10		4-49	14
392016	3-9	8	806427	4-73	20	816694	9-49	6		4-51	1
392197	10-8	15	815597	1-10	49	833772	4-115	13		4-53	7
	10-12	5	815620	10-19	10		11-67	11		4-59	1
	10-43	28		10-23	10		11-69	11		4-61	1
	10-45	30		10-27	9	885955	11-64	4		4-63	11
	11-7	14		10-31	9		11-65	4		4-95	7
392198	10-12	4	815914	4-35	1		11-67	4		4-99	6
394101	9-33	34		4-39	1	886391	9-9	5	1301156	4-33	11
	9-37	34	815932	10-37	9	887334	4-36	45	1301157	4-33	7
397676	4-5	6		11-43	9		4-40	45	1301177	1-17	24
	4-7	1		11-47	9	888012	1-67	8		1-21	22
	4-9	5		11-52	18		1-69	8		1-41	34
	4-13	6		11-56	21	888139	11-67	6		5-41	22
	4-15	1	816045	1-19	17	888333	9-4	54		9-33	3
	4-17	2	816046	1-19	15		9-17	35		9-37	3
	4-21	3	816117	8-15	29	895468	7-4	40	1301189	1-17	23
	9-25	33		8-19	29	919724	3-3	16		1-21	23
	10-37	29		8-23	26		3-7	8	1301224	4-23	36
398074	11-25	19		9-21	13	931586	3-4	45	1301228	4-83	9
398184	7-7	11		9-27	33	980360	9-3	23		4-87	8
	9-65	6	816232	8-4	39	980938	9-4	49		4-88	3
	9-67	10		8-8	42	1152816	4-29	10	1301229	4-45	19
	9-69	6		8-11	8	1194251	10-12	18		4-49	3
	9-71	7		9-7	11		11-12	40	1301254	1-19	11
636907	11-19	8		9-9	8		11-16	40	1301255	1-17	27
	11-21	8	816372	1-19	19	1300057	4-24	40		1-21	25
636954	10-19	3	816377	1-27	19		4-73	18	1301263	1-17	19
	10-23	3	816378	1-27	18	1300094	1-67	1	1301264	1-17	20
636956	10-27	3	816380	1-25	13		1-69	1	1301282	4-23	21
	10-31	3	816441	4-5	7	1300117	7-3	13	1301284	1-41	42
637166	10-19	5		4-9	11	1300165	4-35	38		4-23	16
	10-23	5		4-13	7		4-39	38	1301286	1-17	25
	10-27	5		4-17	8		7-3	33		1-21	26
	10-31	5	816442	4-35	22		9-67	27	1301292	1-17	33
637168	10-27	11		4-39	22		9-71	18		1-21	20
	10-31	11	816468	9-31	4		10-13	23	1301293	1-17	32
	11-19	10	816470	10-19	6		11-23	15		1-21	19
	11-21	10		10-23	6		11-25	15	1301296	4-23	14
637170	11-19	4		10-27	6	1300231	4-59	11	1301297	1-21	37
	11-21	4		10-31	6		4-61	11	1301310	1-41	7
638224	10-19	4	816504	7-19	33		4-97	16	1301323	1-41	4
	10-23	4	816508	7-19	13	1300757	4-27	9	1301326	1-41	1
	10-27	4	816509	7-19	14	1301001	1-41	35	1301372	1-25	8
	10-31	4	816552	6-5	57	1301020	1-41	13	1301374	1-25	10
638256	10-27	12	816578	9-79	2		1-45		1301375	1-25	11
	10-31	12	816580	9-79	7	1301086	1-49	8		1-27	24
	11-19	11	816590	3-3	3		1-49	21	1301389	1-41	11
	11-21	11	816597	9-49	11		1-49	24	1301393	1-41	14
638299	11-19	3	816690	9-49	8	1301121	1-41	17	1301395	1-41	19
	11-21	3	816691	9-49	7	1301127	1-41	5	1301396	1-41	20

## NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1301397	1-41	21		11-16	46	1310641	4-35	6	1315872	4-23	23
1301398	1-41	22	1303391	10-13	26		4-39	6		4-23	23
1301399	1-41	26		11-11	7	1310688	4-23	3	1316326	6-4	41
1301400	1-41	27		11-15	7	1310692	4-23	6	1316395	9-53	7
1301404	1-41	23	1303432	7-9	16		4-24	54	1316397	9-53	8
1301405	1-41	24	1303551	6-4	35		4-24	59	1316398	9-53	10
1301422	7-3	3		6-8	35	1310710	9-33	14	1316527	4-25	72
1301424	4-27	19	1304708	10-16	1		9-37	14		4-27	15
1301425	7-3	28	1304709	7-7	2	1310715	9-34	45		4-29	5
1301426	7-3	24	1304971	1-17	17		9-38	47		4-31	2
1301437	7-3	21	1306902	1-19	16	1311217	1-19	14		4-31	3
1301535	2-119	15	1306924	4-27	15	1311260	1-47	16		4-31	4
	2-121	8	1307051	1-19	12	1311267	1-47	1		4-31	5
1301587	1-41	10	1307110	4-23	8	1311268	4-7	27	1316542	1-65	14
1301589	1-41	25		4-24	53		4-15	29	1316593	1-47	6
1301593	4-27	3		4-24	58		4-27	18		4-27	17
1301598	1-41	36	1307121	4-9	6	1311273	1-41	18	1317998	5-47	4
1301613	4-23	28		4-17	3	1311287	1-17	10	1318002	5-47	4
1301617	4-33	11		4-17	23		1-22	45	1318005	5-21	6
1301619	4-33	7	1307682	4-24	57	1311288	1-17	9		5-25	6
1301640	4-23	32		4-24	61		1-21	38	1318025	9-53	4
1301645	4-24	57	1307683	4-24	57	1311295	1-47	19	1318026	9-53	5
1301650	10-37	8	1307684	4-24	52	1311296	1-47	20	1318027	9-53	5
	11-43	8	1307687	4-24	43	1311297	1-47	21	1318045	9-53	3
	11-47	8		4-24	43	1311300	1-47	7	1318047	9-53	6
	11-52	21		4-29	11	1311366	7-17		1318443	1-19	20
	11-56	23		5-41	21	1311388	1-17	26	1318619	9-59	17
1301676	7-3	34	1307694	4-23	22		1-21	24	1318621	9-59	24
1301685	1-47	8	1307736	7-3	39	1311403	4-24	63	1319177	1-27	7
1301686	1-47	17	1307737	1-17	15	1311423	1-67	2	1319190	4-5	21
1301700	1-5	15		1-21	21		1-69	2		4-13	26
	1-27	17		7-3	38	1311425	4-40	63		4-13	26
1301702	1-35	11	1307755	1-19	8	1311430	1-21	31	1319620	9-38	45
	1-37	11	1307772	9-33	31	1311432	1-21	28	1320979	9-43	7
1301703	1-35	10		9-37	31	1311433	1-21	29	1320980	9-45	79
	1-37	10	1307775	9-33	4	1312083	6-19	26	1320982	9-43	19
1301704	4-23	15		9-37	4	1312090	6-19	23		9-43	29
1301708	1-41	2	1308786	9-81		1312226	1-19	8		9-43	32
1301720	4-73	28	1309824	1-27	16	1312450	1-27	16		9-44	42
1301727	1-47	9	1309912	6-4	42	1312616	6-12	37		9-44	57
	4-43	6	1310611	1-42	48		6-16	37		9-44	72
1301739	4-23	26		9-31	9	1313368	1-41	43		9-45	80
1301783	1-19	8		11-23	7		1-42	47	1320983	9-43	4
1302109	1-29	37		11-25	7	1313733	1-45	1	1320986	9-43	2
	1-32	41	1310625	4-27	15	1313734	1-45	2	1320994	9-43	22
1302172	10-41	13		4-29	5	1313735	1-45	4		9-44	44
	11-61	14	1310627	4-33	7	1313736	1-45	5		9-44	58
1302176	10-41	15		4-33	11	1313737	1-45	6		9-45	73
	11-61	16	1310630	4-23	20	1313744	1-45	3	1320998	9-43	23
1302938	2-139	6		4-33	2	1315641	1-63	2		9-44	43
	5-7	28	1310638	4-35	19	1315643	1-59	2		9-44	59
1303383	11-12	46		4-39	19	1315781	7-15	15		9-45	74

**NUMERICAL INDEX (continued)**

<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>
1321381	9-43	8	1325582	1-19	4		10-45	6		4-93	3
1321890	10-41	11	1325585	1-41	15	1325798	10-4	11		4-97	1
	11-61	12	1325597	1-17	7		10-8	5		4-117	1
1321891	10-41	12	1325623	1-17	21		10-43	6		4-122	1
	11-61	13	1325624	1-17	22		10-45	6		4-125	6
1322010	2-141	7	1325641	7-19	19	1325855	7-19	19		10-57	4
	2-143	7	1325646	7-19	26	1326071	4-35	35	1330411	4-61	9
	2-145	7	1325729	1-21	30		4-39	35		4-65	1
1322039	11-52	25	1325756	10-8	14	1326772	1-47	22		4-67	1
	11-56	42		10-43	30	1326805	1-65	21		4-74	5
1322079	9-3	1		10-46	32	1326808	7-3	25		4-77	9
1322673	4-105	13		11-7	13	1327164	4-111	18		4-79	10
1323052	9-33	13	1325760	10-43	12	1327746	5-43	30		4-80	7
	9-37	13		10-45	26	1327747	5-43	29		4-83	1
1323115	1-55	23		11-7	15	1327748	5-43	32		4-85	6
	1-57	22	1325761	10-8	12	1327895	7-3	36		4-87	1
1323116	1-55	26		10-12	6	1328205	1-65	18		4-88	5
	1-57	25		10-43	27	1328548	9-53	1		4-93	5
1323117	1-55	24		10-45	29	1328946	10-19	8		4-95	5
	1-57	23		11-7	11		10-23	8		4-97	4
1323146	4-21	16	1325763	10-8	16	1330134	9-81			4-99	1
1323166	11-52	26		10-8	17	1330171	8-15	15		4-107	1
	11-56	43		10-43	11		8-19	15		4-111	7
1323576	4-73	3		10-45	25		8-23	15		4-113	10
1323577	4-69	3		11-7	16	1330356	4-73	26		4-115	10
	4-71	5	1325764	10-8	17	1330409	4-35	20	1330412	4-65	5
1323579	4-69	6		10-43	11		4-39	20		4-65	21
	4-111	3		10-45	25		4-59	9		4-67	5
	4-113	4		11-8	16		4-63	9		4-80	2
	4-115	4	1325765	10-8	10		4-65	11		4-93	9
1323586	4-73	4		10-43	25		4-67	11		4-97	22
1323852	4-29	20		10-45	27		4-74	3		4-101	5
1323854	4-29	2		11-7	9		4-77	7		4-105	1
1323889	6-5	59	1325766	10-12	7		4-79	12		4-111	10
1324518	4-7	11	1325767	10-12	9		4-93	1		4-113	5
	4-15	7	1325768	10-12	10		4-95	1		4-115	5
1324577	1-17	13	1325781	10-12	8		4-97	13		10-55	5
	1-19	7	1325782	10-12	8		4-99	8		10-57	7
	1-22	48	1325783	10-12	8		4-101	8	1330413	4-45	10
	1-25	19	1325784	10-12	12		4-118	4		4-47	6
1325346	1-55	13	1325785	10-4	12		4-120	4		4-49	10
	1-57	13		10-8	4		4-121	1		4-65	3
1325519	1-6	44		10-43	2		9-9	5		4-65	17
	1-17	4		10-45	2		9-50	2		4-67	3
	1-21	3	1325791	6-3			9-50	5		4-67	17
1325548	1-41	16	1325795	10-4	13		10-53	4		4-69	1
1325550	1-21	6		10-8	6	1330410	4-45	13		4-71	1
1325557	1-5	30		10-43	1		4-49	7		4-77	3
	1-9	3		10-45	1		4-51	7		4-79	2
1325564	7-3	29	1325797	10-4	11		4-53	5		4-97	6
1325567	1-19	1		10-8	5		4-55	5		11-64	9
1325576	1-19	2		10-43	6		4-63	1		11-71	5

## NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1330414	4-35	20		4-67	6		4-67	9		4-85	2
	4-39	20		4-93	10		4-89	4		4-87	5
	4-59	10		4-97	23		4-90	4		4-88	2
	4-63	10		4-101	6		4-97	26		4-89	2
	4-65	12		4-105	2		4-105	6		4-90	2
	4-67	12		4-111	11		4-111	16		4-100	2
	4-74	4		4-113	6		4-122	9		4-102	2
	4-77	8		4-115	6		10-57	3		4-106	2
	4-79	11		10-55	3	1330421	4-63	3		4-118	2
	4-93	2		10-57	8		4-65	7		4-119	2
	4-95	2	1330418	4-45	11		4-67	7		4-120	2
	4-97	14		4-47	7		4-85	4		4-121	5
	4-99	9		4-49	11		4-89	6		4-122	5
	4-101	9		4-65	4		4-90	6		4-125	4
	4-118	5		4-67	4		4-107	4	1330426	4-47	11
	4-120	5		4-69	2		4-116	1		4-61	6
	4-121	2		4-71	2	1330422	4-45	15		4-65	10
	9-9	5		4-77	4		4-49	5		4-67	10
	9-50	2		4-97	7		4-65	13		4-89	5
	9-50	6		11-64	10		4-67	13		4-90	5
	10-53	4		11-71	3		4-80	5		4-97	27
1330415	4-45	14	1330419	4-43	13		4-81	6		4-105	9
	4-49	8		4-47	8		4-93	7		4-111	17
	4-51	8		4-55	7		4-97	9		4-122	10
	4-53	6		4-63	7		4-100	4		10-57	2
	4-55	6		4-81	1		4-101	1	1330427	4-63	4
	4-63	2		4-81	4		4-105	4		4-65	8
	4-93	4		4-81	5		4-115	14		4-67	8
	4-97	2		4-83	6		10-55	2		4-85	5
	4-117	2		4-85	1	1330423	4-47	4		4-89	7
	4-122	2		4-87	4		4-51	3		4-90	7
	4-125	7		4-87	7		4-65	15		4-107	5
	10-57	5		4-88	2		4-67	15		4-116	2
1330416	4-61	10		4-89	1		4-69	8	1330428	4-45	16
	4-65	2		4-89	8		4-71	3		4-49	6
	4-67	2		4-89	9		4-74	7		4-65	14
	4-74	6		4-89	10		4-77	11		4-67	14
	4-77	10		4-89	11		4-79	5		4-80	4
	4-79	14		4-90	1		4-93	11		4-81	7
	4-80	9		4-100	1		4-97	24		4-93	8
	4-83	2		4-102	1		4-105	4		4-97	10
	4-85	7		4-106	1		11-67	7		4-100	5
	4-87	2		4-118	1		11-69	7		4-105	5
	4-88	5		4-119	1		11-71	2		4-115	15
	4-93	6		4-120	1	1330424	4-43	14		10-55	6
	4-95	6		4-121	4		4-47	9	1330429	4-47	5
	4-97	5		4-122	4		4-55	8		4-51	4
	4-99	2		4-125	3		4-55	12		4-65	16
	4-107	2	1330420	4-47	10		4-59	6		4-67	16
	4-111	8		4-59	5		4-63	8		4-69	9
	4-115	11		4-61	5		4-81	2		4-71	4
1330417	4-65	6		4-65	9		4-83	7		4-74	8

**NUMERICAL INDEX (continued)**

<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>
	4-77	12		4-101	3		4-51	2	1334999	4-111	4
	4-79	6		4-102	3		4-53	8	1335138	1-65	20
	4-93	12		4-105	7		4-55	10	1335143	1-65	8
	4-97	25		4-106	3		4-59	2	1335575	1-55	12
	4-101	2		4-107	6		4-61	2	1335578	1-57	3
	4-105	5		4-111	9		4-63	12	1335579	1-55	5
	11-67	8		4-116	3		4-83	10	1335867	7-19	4
	11-69	8		4-118	3		4-87	9	1335871	7-19	3
1330437	4-45	12		4-119	3		4-88	8	1336054	9-22	32
	4-47	1		4-120	3		4-95	4		9-25	24
	4-49	9		4-121	6		4-99	7		9-31	7
	4-59	8		4-122	6		4-99	11		11-23	5
	4-63	5		10-55	7	1331560	4-33	10		11-25	5
	4-65	18		10-57	1	1331591	4-35	34	1336112	9-75	12
	4-67	18	1330439	4-45	17		4-39	34		9-77	2
	4-69	10		4-47	3	1331592	4-35	34	1336173	4-69	5
	4-74	10		4-51	6		4-39	34		4-111	6
	4-80	8		4-53	2	1331593	4-36	59	1336592	1-65	7
	4-87	3		4-55	2	1331851	9-41	27	1336789	4-35	5
	4-97	3		4-56	4	1331909	2-141	2		4-39	5
	4-99	3		4-65	20		2-143	2		4-116	
	4-101	7		4-67	20		2-145	2	1336790	4-33	3
	4-105	3		4-69	7	1331937	9-21	1		4-106	
	4-107	3		4-74	11		9-22	31	1336796	4-23	7
	4-108	4		4-77	5		9-25	10	1336898	3-7	
	4-111	12		4-79	1		9-25	14	1336912	1-5	32
	4-117	3		4-80	1	1332206	8-15	33		1-10	51
	4-118	6		4-81	8		8-19	33	1336914	1-5	28
	4-120	6		4-85	9		8-24	46		1-9	1
	4-121	3		4-97	8	1332801	6-19	4	1336986	1-21	32
	4-122	3		4-100	6	1332805	6-19	5	1337266	9-22	30
	9-9	5		4-101	4	1332940	7-7	22		9-31	8
	10-55	4		4-102	4		7-9	22		11-23	6
	10-57	6		4-105	8	1332941	7-7	19		11-25	6
1330438	11-63	3		4-111	15		7-9	19	1338037	10-37	20
	4-43	15		10-55	1	1334461	1-55	4		11-43	20
	4-45	18		11-64	11		1-57	4		11-48	20
	4-47	2		11-67	9	1334462	1-55	10	1338881	5-15	9
	4-55	9		11-69	9		1-57	10	1339113	6-19	19
	4-59	7		11-71	1	1334463	1-57	5	1339114	6-19	20
	4-63	6	1330574	4-24	39	1334464	1-55	8	1339115	6-19	12
	4-65	19		7-3	35		1-57	8	1339116	6-19	13
	4-67	19	1330576	1-65	16	1334465	1-55	6	1339119	6-19	10
	4-69	4	1330603	11-44	23		1-57	6	1339121	6-19	9
	4-73	12		11-48	23	1334466	1-55	9	1339480	9-41	17
	4-74	9	1331025	7-9	6		1-57	9		9-41	23
	4-80	3		9-33	28	1334467	1-55	11	1339828	1-67	14
	4-81	3		9-37	28		1-57	11		1-69	15
	4-87	6	1331081	9-56	2	1334468	1-55	7	1339829	1-67	7
	4-89	3	1331209	4-49	2	1334470	1-55	3		1-69	7
	4-97	11	1331233	4-45	2	1334491	7-7	23	1342664	1-21	35
	4-100	3		4-49	4		7-9	23	1342701	9-53	1

## NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1343145	6-19	14		6-15	15		4-108	3	1357735	6-19	
1343161	8-15	16	1347817	6-11	16		11-63	1	1358734	1-27	2
	8-19	16		6-15	16		11-64	1	1359588	1-65	8
	9-50	3	1347822	6-11	20		11-65	1	1360660	4-35	2
1343162	8-15	17		6-15	20		11-71	7		4-39	2
	8-19	17	1347831	6-11	26	1352603	4-53	4	1360777	1-27	7
1345023	4-7	24		6-15	26		4-55	4	1361087	1-10	46
	4-15	26	1347839	6-11	34		4-77	2		1-38	42
1345026	4-122	11		6-16	34		4-79	13	1361205	4-29	15
1345027	4-122	7	1349793	9-81	13		4-108	5	1361207	4-29	16
1345675	1-38	56	1350014	9-33	22		11-63	2	1361208	4-45	20
1345719	8-15	1		9-37	22		11-64	2		4-49	1
	8-15	2	1350710	9-56	3		11-65	2	1361209	4-45	21
	8-19	1	1350711	9-56	4		11-71	6	1362277	4-13	21
	8-19	2	1350712	9-56	5	1354237	4-73	3		4-21	13
	8-31		1350862	9-41	24	1354812	3-15	7	1363885	4-35	20
	8-31		1350911	1-42	53	1354813	3-15	8		4-39	20
1345720	4-23	33		4-21	2		3-17	14		4-53	1
1346421	9-56		1350914	4-5	13	1355027	1-21	13		4-55	1
	9-75	10		4-13	17	1355028	1-21	11		4-61	8
	9-77	1		4-21	10	1355031	10-41	15		4-77	6
1346424	1-25	7	1350955	8-16	38		11-61	16		4-79	9
1346425	1-25	9		8-20	46	1355038	9-33	35		4-83	3
1346426	1-25	1		8-23	30		9-37	35		4-85	8
1346600	6-4	29	1350997	9-56	1	1355113	1-5	27		4-88	6
1346894	1-67	6	1351068	4-56	1		1-9	5		4-105	3
	1-69	6		4-74	1	1355326	7-15	8		4-125	8
1346918	1-65	19		4-77	13	1355346	6-19	7		11-64	3
1347202	11-52	37		4-79	7	1356943	1-27	2		11-65	3
	11-56	38		4-111	13	1356947	1-47	24		11-71	4
1347224	4-55	11		4-113	8		4-5	8	1363886	4-51	5
	4-95	3		4-115	8		4-5	8		4-56	3
	4-99	10		11-67	1		4-7	3		4-61	7
	4-99	10		11-69	1		4-7	3		4-73	6
1347588	6-3	9		11-71	8		4-9	12		4-77	15
1347770	6-11	2	1351069	4-56	2		4-9	12		4-79	4
	6-15	2		4-74	2		4-13	8		4-83	8
1347772	6-11	11		4-77	14		4-15	2		4-85	3
	6-15	11		4-79	8		4-15	14		4-88	1
1347774	6-11	9		4-111	14		4-15	14		4-90	3
	6-15	9		4-113	9		4-17	9		4-105	7
1347800	6-12			4-115	9		4-17	36		4-125	5
	6-16			11-67	2		4-17	36		11-67	3
1347812	6-11	10		11-69	2		4-24	51		11-69	3
	6-15	10	1352190	1-67	5		4-35	41	1364272	10-4	6
1347813	6-12			1-69	5		4-36	54		10-8	2
	6-16		1352202	9-33	16		4-39	41		10-43	5
1347814	6-11	13		9-37	16		4-40	54		10-45	5
	6-15	13	1352602	4-53	3		4-40	60		11-4	13
1347815	6-11	14		4-55	3	1356948	1-27	2		11-56	16
	6-15	14		4-77	1	1357026	7-15	9		11-56	28
1347816	6-11	15		4-79	3	1357734	6-19	25	1364542	1-9	32

**NUMERICAL INDEX (continued)**

<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>
1366725	1-65	7		10-37			10-12		1372995	9-41	20
1367282	4-9	15	1370081	10-4			10-16			9-43	
	4-17	15		10-8			10-37		1373010	11-12	28
1367342	2-128	46		10-12		1372870	10-4			11-16	28
1368151	1-41	10		10-16			10-8		1373011	11-12	31
1369138	5-43	20		10-37			10-12			11-16	31
1369496	1-27	6	1370082	10-4			10-16		1373012	11-12	32
1369520	1-19	22		10-8			10-37			11-16	32
1370072	10-4			10-12		1372884	11-12	43	1373014	11-12	29
	10-8			10-16			11-16	43		11-16	29
	10-12			10-37		1372899	10-27	8	1373015	11-12	29
	10-16		1370083	10-4			10-31	8		11-16	29
	10-37			10-8		1372908	10-27	1	1373016	11-12	29
1370073	10-4			10-12			10-27	1		11-16	29
	10-8			10-16			10-31	1	1373020	11-12	44
	10-12			10-37			10-31	1		11-16	44
	10-16		1370084	10-4	1	1372909	10-27	1	1373025	11-7	7
	10-37			10-4	1		10-31	1	1373026	11-7	7
1370074	10-4			10-4	1	1372910	10-27	1	1373027	11-7	7
	10-8			10-4	1		10-31	1	1373028	11-7	4
	10-12		1370085	10-4	1	1372911	10-27	1	1373029	11-7	4
	10-16			10-4	1		10-31	1	1373030	11-7	4
	10-37		1370086	10-4	1	1372912	10-27	1	1373031	11-3	6
1370075	10-4			10-4	1		10-31	1	1373032	11-3	6
	10-8		1370087	10-4	1	1372913	10-27	1	1373033	11-3	6
	10-12			10-4	1		10-31	1	1373034	11-3	10
	10-16		1370088	10-4	1	1372921	10-27	7	1373035	11-3	10
	10-37			10-4	1		10-31	7	1373036	11-3	10
1370076	10-4		1370089	10-4	1	1372922	10-27		1373037	11-4	17
	10-8			10-4	1		10-31		1373038	11-3	9
	10-12		1371383	5-7	1	1372952	12-13	1	1373039	11-7	3
	10-16		1371398	7-19	33	1372954	12-13	1	1373049	11-7	2
	10-37		1372808	10-4	1	1372958	10-4	14	1373050	11-3	8
1370077	10-4			10-4	1	1372961	10-4	19	1373051	11-4	16
	10-8		1372809	10-4	1	1372962	10-4	11	1373054	11-11	2
	10-12		1372810	10-4	1		10-8	5		11-15	2
	10-16		1372811	10-4	1		10-43	6	1373055	11-11	2
	10-37		1372812	10-4	1		10-45	6		11-15	2
1370078	10-4		1372813	10-4	1	1372971	11-12	30	1373089	10-45	17
	10-8		1372814	10-8	1		11-16	30	1373115	10-8	1
	10-12			10-8	1	1372980	5-3			10-8	1
	10-16		1372815	10-8	1		5-15			10-8	1
	10-37		1372816	10-8	1		5-19			10-8	1
1370079	10-4		1372817	10-8	1		5-21		1373116	10-8	1
	10-8		1372818	10-8	1		5-29			10-8	1
	10-12		1372819	10-8	1		5-33		1373117	10-8	1
	10-16		1372821	11-3	1		5-37			10-8	1
	10-37		1372822	11-3	1	1372982	5-41	6	1373118	10-8	1
1370080	10-4		1372824	11-7	1	1372990	7-3	1		10-8	1
	10-8		1372825	11-7	1		7-15		1373119	10-8	1
	10-12		1372869	10-4		1372994	10-49	20		10-8	1
	10-16			10-8			10-53		1373120	10-8	1

## NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
	10-8	1	1373312	10-45	9		9-47		1373553	2-119	8
1373126	11-19	9	1373319	12-11		1373412	3-3	3		2-124	7
	11-21	9	1373320	12-11		1373413	3-3	3	1373556	2-119	1
1373127	11-19	7	1373329	10-8	17	1373415	3-3	19		2-121	1
	11-21	7		10-43	11		3-7	2		2-123	1
1373129	11-19	12		10-45	25	1373416	3-3	20		2-124	
	11-21	12		11-8	16		3-7	3	1373563	2-119	29
1373136	11-3		1373335	10-49	12	1373430	2-141	3		2-123	7
	11-7		1373346	12-11			2-143	3	1373566	2-119	28
	11-11		1373347	12-11	1		2-145	3		2-123	8
	11-43		1373349	11-12	45	1373431	2-141	16	1373570	1-49	1
1373137	11-3			11-16	45		2-145	16	1373571	1-49	2
	11-7		1373358	10-12	2	1373435	2-141	31	1373572	1-49	3
	11-11		1373359	10-12	2	1373436	2-141	4	1373573	1-49	13
	11-43		1373360	10-12	2		2-143	4	1373574	1-49	26
1373174	12-13	3	1373368	10-4			2-145	4	1373585	3-3	5
1373175	10-43	18		10-8		1373437	2-119	13	1373586	3-3	6
	10-45	18		10-12			2-121	9	1373604	8-15	2
1373176	10-43	14		10-16		1373438	2-141	1		8-19	2
	10-45	14		10-37			2-145	1		8-31	
1373180	10-12	2	1373369	10-4		1373440	6-5	59	1373606	4-7	10
1373181	10-12	2		10-8		1373446	2-119	12		4-15	6
	10-12	2		10-12			2-121	3	1373611	9-33	25
1373183	10-12	2		10-16			2-123	3		9-37	25
1373196	10-43	19		10-37		1373448	2-119	10		9-53	
	10-45	19	1373370	10-4			2-123	6	1373626	9-27	7
1373203	10-45	9		10-8		1373450	12-11	1	1373627	9-27	12
1373204	10-43	17		10-12		1373451	12-11	1	1373628	9-21	28
	10-45	17		10-16		1373452	2-127	2		9-25	21
1373212	10-45	10		10-37		1373502	8-27	2	1373629	9-21	23
1373215	10-37	23	1373371	10-4			8-29	10		9-25	16
1373216	10-43	22		10-8		1373505	9-41	14	1373630	9-21	24
	10-45	22		10-12		1373506	9-41	15		9-25	17
1373230	12-11	1		10-16		1373507	9-41	16	1373631	9-21	25
1373233	12-11			10-37		1373508	9-41	18		9-25	19
1373236	12-11	1	1373372	10-4		1373509	9-41	19	1373632	9-21	26
1373237	12-11	1		10-8		1373510	9-41	25		9-25	18
1373238	12-11			10-12		1373511	9-41	26	1373633	9-21	27
1373239	12-11			10-16		1373514	9-21	14		9-25	20
1373265	6-23			10-37		1373515	9-22	33	1373634	9-21	7
1373269	2-128	47	1373373	10-4		1373516	9-21	22	1373635	9-21	6
1373270	5-7	27		10-8			9-25	15	1373636	9-27	11
1373274	2-139	3		10-12		1373517	9-21	8	1373637	9-27	10
1373280	5-7	24		10-16			9-25	2	1373638	9-27	13
1373285	2-119	10		10-37		1373527	1-35	13	1373639	9-27	6
	2-121	6	1373374	10-4		1373540	1-35	1	1373640	9-27	14
1373292	2-119	22		10-8		1373541	1-35	1	1373641	9-27	16
	2-121	7		10-12		1373547	1-35	37	1373642	9-27	15
1373293	2-145	30		10-16			1-37	37	1373643	9-27	23
1373300	10-43	17		10-37		1373549	9-27	4	1373644	9-27	24
	10-45	17	1373381	3-9	14	1373551	2-119	7	1373646	9-27	2
1373311	10-45	10	1373389	9-41	21	1373552	2-124	6	1373647	9-27	22



**NUMERICAL INDEX (continued)**

<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>
1373648	9-27	9		4-13	20		9-44	36		6-15	27
1373649	9-27	8	1373795	3-3	28		9-44	51	1380798	6-11	1
1373650	9-27	3	1374097	6-12	36		9-44	66		6-15	1
1373651	9-21	3		6-16	36	1377216	9-43	14	1381126	1-65	9
	9-25	12	1374099	6-12			9-44	37	1381932	7-19	16
1373652	9-21	4		6-16			9-44	52	1381940	7-19	1
1373653	1-35	36	1374428	1-27	2		9-44	67	1381953	5-7	32
1373654	1-35	36	1374550	6-11	22	1377217	9-43	14	1381956	1-53	1
1373655	1-35	26		6-15	22		9-44	37	1381959	1-53	1
1373656	1-35	26	1374558	6-11	29		9-44	52	1381990	9-61	
1373657	1-35	39		6-15	29		9-44	68	1381998	4-29	
	1-38	39	1374750	1-55	21	1377218	9-43	16	1382005	1-5	6
1373658	1-35	39		1-57	21		9-44	39	1382007	1-5	7
	1-38	39	1375018	7-15	7		9-44	54	1382017	1-5	6
1373659	1-35	40	1375021	7-15		1377219	9-43	15	1382018	1-5	7
	1-38	40	1375232	3-4	37		9-44	40	1382020	4-5	26
1373662	6-23		1375381	8-15	7		9-44	53		4-7	21
1373675	7-19	20		8-19	25		9-44	69		4-9	37
1373680	9-21	21		8-23	25	1377220	9-43	20	1382023	3-3	24
1373681	9-21	10		8-23	43		9-44	46		3-7	12
	9-25	5	1375984	1-25	12		9-44	61	1382332	1-35	24
1373682	9-21	9		1-27	23		9-45	76		1-37	24
	9-25	4	1375985	1-25	12	1377224	9-44	48	1382352	7-20	45
1373684	3-3	23		1-27	23	1377226	9-43	33	1382358	2-145	29
	3-7	4	1376007	12-5	1	1377228	9-43	10	1382359	2-145	31
1373685	3-9	41	1376844	9-65	17	1377229	9-43	9	1382365	9-21	19
1373687	7-19	17		9-67	23	1377232	9-43	30	1382366	9-21	20
	7-19	34		9-69	17	1377236	9-43	25	1382368	9-3	3
1373688	7-20	35		9-71	26	1377237	9-43	3	1382369	9-3	1
1373689	7-19	18	1376933	9-72	7	1377238	9-43	1	1382381	12-2	1
	7-20	39	1376934	9-72	12	1377271	1-25	12	1382382	12-2	1
1373690	1-19	23	1377183	5-9	3		1-25	12	1382383	12-2	1
1373691	1-21	5	1377187	4-23	23	1377702	1-25	12		12-4	1
1373701	1-19	21	1377189	4-23	23		1-25	12	1382386	2-141	32
1373710	1-65	5	1377202	9-47	10	1377703	1-25	12	1382389	2-141	29
1373718	1-17	1	1377203	9-47	11		1-25	12	1382390	2-145	32
1373725	1-19	21	1377204	9-47	5	1377704	1-25	12	1382393	2-119	11
1373727	1-47	7	1377205	9-47	6		1-25	12	1382407	7-7	16
1373728	1-47	23	1377206	9-47	7	1377726	1-25	23	1382408	1-35	25
1373739	1-5	17	1377207	9-47	8		1-27	1		1-37	25
1373740	1-5	17	1377208	9-47	9	1377727	1-25	23	1382420	7-7	2
1373743	1-35	12	1377209	9-47	2		1-27	1	1382421	7-7	3
1373744	1-37	12	1377212	9-44	63	1377728	1-21	28	1382440	8-15	34
1373746	1-5	37	1377213	9-43	11	1377729	1-21	29		8-19	34
1373747	1-5	36		9-44	34	1379726	6-19	6		8-24	47
1373750	1-49	14		9-44	49	1379750	6-19	18	1382449	10-12	3
1373760	1-49	10		9-44	64	1380777	6-11	4	1382558	7-15	10
1373761	1-49	27	1377214	9-43	12		6-15	4	1382559	7-15	13
1373773	1-49	18		9-44	35	1380784	6-3	8	1382560	7-15	14
1373788	5-9	3		9-44	50		6-7	8	1382561	7-15	
1373791	3-3	28		9-44	65	1380796	6-16		1382570	6-4	37
	4-5	29	1377215	9-43	13	1380797	6-11	27		6-8	37

## NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1382571	6-4	39		4-39	20	1382918	6-19	1	1383855	1-21	10
	6-7	28	1382868	5-41	2		6-21		1383856	1-21	15
1382572	6-4	40	1382874	4-29	14	1382920	6-19	27	1383859	7-7	6
	6-8	40		4-45		1382922	6-19	16		9-33	28
1382574	6-4	45	1382875	6-4	48	1382924	6-19	21	1383862	11-63	
	6-8	45	1382876	6-8	50	1382950	6-19	22	1383863	4-24	50
1382612	1-5	18	1382877	6-5	53	1383517	9-49	1		4-47	
1382624	1-49	19	1382879	6-5	55		9-50		1383865	10-49	2
	1-49	28		6-8	55	1383552	11-12	27	1383866	10-49	3
1382634	1-29	1	1382880	6-4	46		11-16	27	1383868	10-49	5
1382642	5-43	21		6-8	46	1383554	8-3	7	1383869	10-49	6
1382647	5-43	24	1382884	6-4	24	1383803	4-111	2	1383872	11-63	4
1382649	1-5	26		6-7	24		4-113	2	1383873	11-63	5
	1-9	6	1382885	6-3	11		4-115	2	1383876	1-29	7
1382722	7-7	24		6-3	11	1383804	4-111	5		1-31	21
1382723	7-7	17		6-7	11		4-113	3	1383879	1-29	2
	7-9	17	1382887	6-3	15		4-115	3	1383897	3-3	29
1382725	8-29	1		6-7	15	1383808	4-111	1		3-3	30
1382729	11-43	1	1382888	6-3	14		4-113	1		3-7	5
	11-47	1		6-7	14		4-115	1	1383923	9-43	31
1382735	5-43	39	1382889	6-3	18	1383810	4-108	2	1383924	9-43	21
1382736	5-43	39		6-7	18	1383830	4-24	49		9-44	38
1382743	5-9	8	1382890	6-3	13		4-111			9-44	56
1382749	5-9	7		6-7	13		5-41	14		9-45	78
1382828	5-43	4	1382891	6-3	19	1383831	4-24	56	1383998	4-35	20
1382832	1-21	12		6-7	19	1383832	4-7	18		4-39	20
1382833	1-21	14	1382893	6-3	16		4-9	34	1384009	9-7	14
1382838	4-5	1		6-7	16		4-17	35		9-9	5
	4-9	1	1382894	6-3	17		4-108		1384010	9-7	14
	4-69			6-7	17	1383833	4-7	18		9-9	5
1382840	4-27	12	1382895	6-4	25		4-9	34	1384011	9-7	14
	4-29	4		6-7	25		4-17	35		9-9	5
1382842	4-27	13	1382896	6-3	21		4-108		1384012	9-7	14
	4-29	3		6-7	21	1383834	4-7	5		9-9	5
1382843	4-27	12	1382897	6-3	20		4-87		1384013	9-7	14
	4-27	13		6-7	20	1383838	4-7	17		9-9	5
	4-29	3	1382898	6-4	26		4-9	33	1384014	9-7	14
	4-29	4	1382901	6-4	23		4-65			9-9	5
1382846	1-29	3	1382902	6-4	23	1383841	4-27	2	1384467	9-75	1
1382848	1-29	6		6-7	23		4-31	7	1384468	9-75	4
1382850	2-128	43	1382908	6-11	28		4-63		1384469	9-75	5
1382854	5-9	15	1382910	6-11	30	1383842	1-65	6	1384472	9-29	1
1382855	8-27	12	1382912	6-3	1	1383844	4-24	44		11-59	3
	9-65	15		6-7	1		4-59		1384476	4-29	1
1382856	9-65	14	1382913	6-3	3	1383845	4-24	42	1384479	4-7	9
1382859	5-9	14		6-5	54		4-93			4-9	32
1382861	9-65	21		6-7	3		4-95			4-74	
	9-67	21		6-8	54	1383846	4-23	10	1384480	11-63	6
	9-69	21	1382915	6-3	6	1383851	7-7	4	1384483	10-43	18
	9-71	21		6-7	6	1383852	7-7	5		10-45	18
1382867	4-35	20	1382916	6-3	6	1383854	7-7	8	1384484	11-23	2
	4-36	48		6-7	6		7-9	8	1384489	10-43	9

**NUMERICAL INDEX (continued)**

<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>
1384490	10-43	10	1384621	6-23	5		5-25	7	1385567	8-3	10
1384495	4-33	9	1384627	1-35	14	1385059	5-21	7		8-15	30
	4-107		1384634	9-21	1		5-25	7	1385569	8-15	20
1384497	10-43	9		9-25	10	1385067	5-15	25		8-19	20
1384498	10-43	10	1384635	9-41	28	1385068	5-15	25		8-23	22
1384503	9-25	22	1384648	1-29	27	1385069	5-15	25	1385570	5-43	34
	9-31	15	1384649	7-9	31	1385070	5-15	25	1385576	7-19	12
1384506	1-19	5		9-21	29	1385071	5-15	25	1385577	12-2	2
1384507	1-29	5		9-25	23	1385072	5-15	25		12-4	2
1384509	8-15	21	1384651	1-29	31	1385073	5-15	25		12-5	2
	8-19	21	1384652	1-29	29	1385074	5-15	25		12-7	2
	8-23	21	1384653	1-29	30	1385099	1-67		1385578	12-2	2
1384510	8-15	10	1384659	1-17	12		1-69	11	1385579	12-7	2
	8-19	10		1-19	6	1385130	1-67		1385582	7-11	7
	8-23	6		1-22	47		1-69	12		7-13	7
1384511	8-15	11		1-25	22	1385280	8-3	27	1385583	7-11	9
	8-19	11	1384661	1-9	11		8-4	33		7-13	9
1384513	8-15	25		1-9	11		8-27	18	1385584	1-29	8
1384514	8-15	31		1-9	34	1385504	4-9	25		1-31	8
1384515	8-15	32		1-29	26	1385505	4-7	17		1-35	35
	8-27	11		1-38	44		4-9	33		1-37	35
1384517	8-15	26		2-128	42		4-67		1385586	7-11	12
	8-19	26		2-135	43	1385508	4-27	11		7-13	12
	8-23	10	1384667	1-29	25	1385510	4-27	10	1385587	7-11	11
1384527	9-29	8		1-31	27	1385512	4-43	2		7-13	11
	11-59	7	1384669	3-4	31	1385513	4-33	4	1385588	7-19	
1384532	1-29	27		3-7	6		4-43	13	1385589	7-19	
1384536	2-127	28	1384676	2-119	30		4-102		1385590	7-9	26
1384537	5-43	29		2-123	10	1385514	4-27	1		7-11	
1384540	5-44	40	1384681	2-127	1		4-89			7-20	46
1384546	2-141	26	1384682	2-127	20	1385516	4-23	35	1385591	7-7	26
	2-145	26		2-131	2	1385517	4-23	24		7-11	
1384547	2-141	27		2-135	2		4-105			7-20	46
	2-145	27	1384683	1-37	14	1385519	4-9	24	1385592	7-19	13
1384601	5-41	20	1384691	2-128	38		4-17	28	1385593	7-19	14
1384602	1-47	27	1384695	2-127	26	1385521	4-43	12	1385595	7-19	8
	4-7	28	1384699	9-3	16	1385523	4-43	11	1385596	7-19	10
	4-9	39		9-17	2	1385535	1-9	24	1385598	7-20	36
	4-15	30		9-34	42		1-32	37	1385599	7-19	11
	4-18	52		9-65	13		2-119	31	1385632	8-16	36
	4-27	16		9-67	19		2-123	11		8-20	44
	4-117		1384888	8-27	3	1385545	1-49	19		8-23	28
1384605	4-36	50		8-29	10	1385547	2-141	28	1385884	10-19	2
	4-40	50	1385054	5-29	28	1385548	2-145	28		10-19	2
	4-101			5-33	25	1385551	2-128	46	1385885	10-19	2
1384606	4-35	33	1385055	5-29	28	1385552	2-127	25	1385886	10-19	2
	4-39	33		5-33	25	1385558	9-65	2	1385887	10-19	2
	4-118		1385056	5-29	28		9-67	2	1385888	10-19	2
1384616	4-35	21		5-33	25		9-69	2	1385890	10-19	2
	4-39	21	1385057	5-29	28		9-71	2	1385928	10-19	
	4-81			5-33	25	1385560	2-127	21	1385929	10-19	
1384620	6-23	4	1385058	5-21	7	1385561	2-127	3	1385930	10-19	

## NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1385931	10-19		1390075	5-17	4	1390781	5-15	22	1390822	5-29	11
1385932	10-19		1390076	5-17	10	1390782	5-15	23		5-33	11
1385934	10-19	1	1390077	5-17	7	1390783	5-15	24	1390823	5-29	12
	10-19	1	1390078	5-17	5	1390784	5-15	25		5-33	12
	10-23	1	1390079	5-17	6	1390785	5-15	25	1390824	5-29	13
	10-23	1	1390080	5-3	11	1390786	5-15	26		5-33	13
1385935	10-19	1	1390081	5-3	13	1390787	5-15	27	1390825	5-29	14
	10-23	1	1390083	5-17	1	1390788	5-15	28		5-33	14
1385936	10-19	1	1390084	5-15	1	1390789	5-16	29	1390826	5-29	15
	10-23	1	1390085	5-15	2	1390790	5-16	30		5-33	15
1385937	10-19	1	1390086	5-15	3	1390792	5-3	14	1390827	5-29	16
	10-23	1	1390087	5-15	4	1390793	5-3	15		5-33	16
1385938	10-19	1	1390089	5-15	6	1390794	5-3	16	1390828	5-29	18
	10-23	1	1390090	5-15	7		5-25	24		5-33	17
1385958	10-19		1390091	5-15	8	1390795	5-3	17	1390829	5-29	19
	10-23		1390093	5-15	10	1390796	5-3	18		5-34	35
1385965	10-19		1390094	5-15	11	1390797	5-3	1	1390830	5-29	17
1385966	10-19		1390095	5-15	12		5-3	19		5-33	18
1385968	10-19	1	1390096	5-15	13		5-4	58		5-37	20
	10-23	1	1390097	5-15	14	1390798	5-3	20	1390831	5-29	20
1385973	10-27		1390098	5-15	15	1390799	5-3	21		5-33	19
1385974	10-27		1390099	5-15	16		5-11	13		5-37	21
1388339	10-27	2	1390625	5-7	3		5-13	11	1390832	5-29	21
	10-27	2	1390626	5-7	4	1390800	5-3	22		5-33	20
1388340	10-27	2	1390627	5-7	5	1390801	5-3	23		5-37	22
1388341	10-27	2	1390628	5-7	6		5-47	28	1390833	5-29	22
1388342	10-27	2	1390629	5-7	7	1390802	5-3	24		5-33	21
1388343	10-27	2	1390630	5-7	8	1390805	5-3	26		5-37	23
1388345	10-27		1390631	5-7	9	1390806	5-3	27	1390834	5-29	23
1388346	10-27		1390632	5-7	10	1390809	5-3	29		5-33	22
1388347	10-27		1390633	5-7	11	1390810	5-3	30		5-37	24
1388348	10-27		1390634	5-7	13	1390812	5-29	1	1390835	5-29	24
1388379	9-50	1	1390636	5-7	15	1390813	5-29	2		5-33	23
1388380	9-50	2	1390637	5-7	16		5-33	5		5-37	25
	10-53	4	1390639	10-43	21	1390814	5-29	3	1390836	5-29	25
1389398	10-49	4		10-45	21		5-33	4	1390837	5-29	26
1389399	10-49	1		10-51			5-37	6		5-33	24
1389405	11-21	2	1390640	10-43	21	1390815	5-29	4	1390838	5-29	27
1389406	11-21	2		10-45	21		5-33	3	1390839	5-29	28
1389408	11-15	3		10-51			5-37	7		5-33	25
	11-21		1390641	5-7	19	1390816	5-29	6	1390840	5-29	29
1389409	11-15	3	1390642	9-33	26		5-33	6		5-33	26
	11-21			9-37	26	1390817	5-29	6	1390841	5-29	30
1389410	11-11	8		9-53			5-33	6	1390842	5-29	31
1390027	5-21	24	1390644	5-7	14	1390818	5-29	7	1390843	5-29	32
	5-25	22	1390675	9-27	5		5-33	7	1390844	5-30	32
1390069	5-3	7	1390722	2-119	16	1390819	5-29	8	1390846	5-30	32
1390070	5-3	8	1390776	5-15	17		5-33	8	1390847	5-30	32
1390071	5-3	9	1390777	5-15	18	1390820	5-29	9	1390848	5-30	32
1390072	5-3	10	1390778	5-15	19		5-33	9	1390849	5-30	33
1390073	5-17	2	1390779	5-15	20	1390821	5-29	10	1390850	5-30	34
1390074	5-17	3	1390780	5-15	21		5-33	10		5-33	29

**NUMERICAL INDEX (continued)**

<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>
1390852	5-30	35	1390928	5-38	32		5-25	25		5-26	56
1390853	5-30	36	1390929	5-38	33	1390976	5-21	10	1391005	5-21	38
1390854	5-30	37	1390930	5-38	34		5-25	10		5-26	58
	5-30	41	1390931	5-38	35	1390977	5-21	11	1391006	5-21	39
	5-33	31	1390932	5-38	36		5-25	11		5-26	57
	5-34	34	1390933	5-38	37	1390978	5-21	12	1391007	5-21	40
1390855	5-30	38	1390934	5-38	38		5-25	12		5-26	45
	5-30	42	1390935	5-38	39	1390979	5-21	13	1391008	5-22	41
	5-30	42	1390936	5-38	40		5-25	13		5-26	44
	5-30	44	1390937	5-38	41	1390981	5-21	15	1391009	5-22	42
	5-34	33	1390938	5-38	42	1390982	5-21	15		5-26	46
	5-34	36	1390939	5-38	43		5-47	17	1391010	5-22	44
1390856	5-30	39	1390940	5-38	44	1390983	5-21	15		5-26	50
	5-30	40	1390941	5-38	44	1390984	5-21	16	1391011	5-3	41
	5-30	43	1390942	5-38	44		5-25	14		5-22	46
	5-33	32	1390943	5-38	45	1390985	5-21	14		5-26	48
1390857	5-33	1	1390944	5-38	47		5-21	17	1391014	5-16	31
1390864	5-33	6	1390946	5-3	31		5-25	15	1391015	5-3	3
1390889	5-33	27	1390947	5-3	32	1390986	5-21	18	1391016	5-3	4
1390890	5-33	28	1390948	5-3	33		5-25	16	1391017	5-3	5
1390892	5-33	30	1390949	5-3	34	1390987	5-21	19	1391018	5-3	6
1390897	5-37	1	1390950	5-3	35		5-25	17	1391020	5-3	39
1390898	5-37	2	1390951	5-3	36	1390988	5-21	20		5-3	39
1390899	5-37	3	1390953	5-19	1		5-25	18		5-3	40
1390900	5-19	7	1390954	5-19	2	1390989	5-21	21	1391021	5-4	53
	5-22	43	1390955	5-19	3		5-25	19	1391022	5-3	28
	5-26	47	1390956	5-19	4	1390990	5-21	22		5-25	
	5-37	4	1390957	5-19	5		5-25	20	1391023	5-37	15
	5-47	29	1390958	5-19	6	1390991	5-21	23	1391025	5-4	43
1390901	5-19	8	1390959	5-19	9	1390992	5-21	25	1391029	5-4	48
	5-21	8	1390960	5-19	10		5-25	23	1391030	5-4	45
	5-25	8	1390961	5-19	11	1390993	5-21	26	1391031	5-4	46
	5-37	5	1390966	5-21	1		5-26	43	1391032	5-4	49
	5-47	30		5-25	1	1390994	5-21	27	1391033	5-4	50
1390904	5-37	8	1390967	5-21	2		5-26	34	1391034	5-4	51
1390905	5-37	9		5-25	2	1390995	5-21	28	1391035	5-4	52
1390906	5-37	10	1390968	5-3	40		5-26	35	1391036	5-11	1
1390907	5-37	10		5-21	3	1390996	5-21	29		5-13	1
1390908	5-37	10		5-25	3		5-26	37	1391037	5-11	2
1390909	5-37	11	1390969	5-21	4	1390997	5-21	30		5-13	3
1390910	5-37	12		5-25	4		5-26	38	1391038	5-11	3
1390911	5-37	13	1390970	5-21	5	1390998	5-21	31		5-13	6
1390912	5-37	14	1390971	5-21	7		5-26	36	1391039	5-11	4
1390914	5-37	16		5-25	7	1390999	5-21	33		5-13	2
1390915	5-37	17	1390972	5-21	7		5-25	29		5-13	12
1390917	5-37	19		5-25	7	1391001	5-21	34	1391040	5-11	5
1390921	5-37	26	1390973	5-21	7		5-26	42	1391042	5-11	7
1390922	5-37	27		5-25	7	1391002	5-21	35		5-13	17
1390924	5-37	27	1390974	5-21	7		5-26	40		5-13	18
1390925	5-37	29		5-25	7	1391003	5-21	36	1391043	5-11	15
1390926	5-37	30	1390975	5-21	9		5-26	41		5-13	19
1390927	5-38	31		5-25	9	1391004	5-21	37	1391044	5-11	11

## NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1391045	5-11	10	1391451	11-61	1		4-9	28	1392348	11-39	16
1391046	5-11	14	1391452	10-41	1	1391877	11-19		1392349	11-39	17
	5-13	5	1391457	9-79			11-21		1392350	11-37	1
1391055	6-23	1	1391460	9-79	5	1391887	10-49	4	1392351	11-31	2
1391056	6-23	2	1391461	9-79	4	1391889	10-4	21		11-37	2
1391057	6-23	3	1391462	9-77	13	1391890	10-4	21	1392352	11-37	3
1391060	12-2	3		9-81		1391897	10-49	1	1392353	11-37	4
1391065	12-2	5	1391463	9-77	13	1391898	10-49	5	1392354	11-37	5
1391207	7-11	1		9-81		1391899	10-49	3	1392355	11-37	6
1391208	7-11	2	1391464	9-81	1	1391900	2-128	34	1392356	11-37	7
1391209	7-11	3	1391465	9-81	1	1391906	11-44	25	1392357	11-37	8
1391210	7-11	4	1391466	9-81	2		11-48	25	1392358	11-37	9
1391211	7-11	5	1391467	9-81	2		11-48	25	1392359	11-37	10
1391212	7-11	6	1391472	9-79	18	1391907	11-44	25	1392360	11-37	11
1391213	7-11	1	1391481	11-19	1	1391910	1-27	20	1392361	11-37	12
1391214	7-11	3		11-21	1	1392290	11-29	21		11-39	12
1391215	7-11	4	1391482	11-19	1		11-33	36	1392362	11-37	13
1391401	7-20	47		11-21	1		11-39		1392363	11-37	14
1391403	3-3	5	1391484	11-19	2	1392292	11-29	16	1392364	11-37	15
1391406	7-11		1391485	11-19	2		11-41		1392365	11-37	16
	7-13		1391487	11-11	3	1392293	11-29	29	1392366	11-31	22
1391407	7-11	8		11-19		1392294	11-29	30		11-37	17
	7-13	8	1391488	11-11	3	1392295	11-29	31	1392367	11-37	18
1391408	3-4	34		11-19		1392296	11-29	24	1392370	11-31	3
1391409	3-3	4	1391499	9-3	21	1392297	11-29	32		11-35	18
1391416	1-5	14		9-13	21	1392298	11-29	33		11-37	
1391417	5-43	9		9-17	15	1392299	11-29	34	1392371	11-31	13
1391418	10-37	11		9-59		1392301	11-29	36	1392372	11-31	5
	11-43	11	1391500	10-41	6	1392314	11-29	19	1392373	11-31	6
	11-47	11		11-61	6	1392319	11-29	25	1392374	11-31	7
1391422	1-25	23	1391522	10-41	5	1392320	11-29	26	1392375	11-31	8
	1-27	1		11-61	5	1392324	11-29	39	1392376	11-31	9
1391423	1-25	23	1391523	10-41	8	1392327	11-41	1	1392377	11-31	10
	1-27	1		11-61	8	1392328	11-41	3	1392378	11-31	11
1391427	2-141	8	1391557	12-4	2	1392329	11-41	6	1392386	11-39	10
	2-143	8	1391603	5-43	31	1392330	11-41	13	1392387	11-39	4
	2-145	8		5-47		1392331	11-41	8	1392401	5-30	41
1391428	3-3	6	1391646	12-8	2	1392332	11-41	11		5-34	34
1391432	9-3	15	1391729	8-31	21	1392333	11-41	14	1392402	5-15	5
	9-13	16	1391741	8-32	35	1392334	11-41	15	1392403	5-15	5
	9-17	29	1391744	8-32		1392335	11-39	1	1392404	5-15	5
1391435	3-9	17	1391745	8-32		1392336	11-39	2	1392405	5-15	5
1391437	3-9	23	1391751	8-31	31	1392337	11-39	3	1392406	5-15	5
1391438	3-9	24	1391752	8-31	32	1392338	11-39	5	1392407	5-15	5
1391439	3-9	20	1391850	9-75	15	1392339	11-39	6	1392408	5-15	5
1391440	3-9	15	1391851	9-75	14	1392340	11-39	7	1392409	5-15	5
1391441	3-9	15	1391863	4-5	16	1392341	11-39	8	1392410	5-15	5
1391444	3-9	25		4-9	26	1392342	11-39	9	1392411	5-15	5
1391445	3-9	18		4-13	22	1392344	11-39	11	1392412	5-15	5
1391446	3-9	35	1391864	4-9	27	1392345	11-39	13	1392413	5-29	6
1391447	3-9	40		4-17	30	1392346	11-39	14		5-33	6
1391448	3-9	28	1391865	4-5	17	1392347	11-39	15	1392414	5-29	6

**NUMERICAL INDEX (continued)**

<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>
	5-33	6	1392463	5-47	16		11-16	21	1393805	10-49	2
1392415	5-29	6	1392465	5-47	17	1393738	11-12	24	1393825	9-13	4
	5-33	6	1392467	5-47	18		11-16	24	1393826	11-63	
1392416	5-29	6	1392468	5-47	19	1393739	10-49	8	1393833	1-17	31
	5-29	6	1392470	5-47	20	1393740	8-4	45		1-22	41
	5-33	6	1392471	5-47	21		11-23	13	1393834	1-21	40
1392417	5-29	6	1392472	5-47	22		11-25	13	1393835	1-21	39
	5-33	6	1392473	5-47	22	1393741	1-65	15	1393836	1-21	27
1392418	5-29	6	1392474	5-47	22	1393742	7-9	26	1393841	9-13	4
	5-33	6	1392475	5-47	22		7-13			9-63	
1392419	5-29	6	1392476	5-47	22		7-20	46	1393842	1-35	32
	5-33	6	1392477	5-47	22	1393743	7-7	27		1-37	32
1392420	5-29	6	1392479	5-47	23		7-13		1393843	1-35	32
	5-33	6	1392480	5-47	24		7-20	46		1-37	32
1392421	5-29	6	1392481	5-47	25	1393744	1-65	15	1393844	2-128	47
	5-33	6	1392482	5-47	26	1393745	1-65	14		2-131	9
1392422	5-29	6	1392484	5-47	27	1393748	1-19	22		2-135	9
	5-33	6	1392488	5-47	31	1393750	1-21	8	1393845	6-3	
1392423	5-37	10	1392489	5-47	32	1393753	1-21	9	1393850	1-9	16
1392424	5-37	10	1392549	11-41		1393754	1-17	8	1393852	1-9	7
1392425	5-37	10	1393125	5-21	7	1393755	1-17	18	1393853	1-9	7
1392426	5-37	10		5-25	7	1393756	1-21	8	1393854	1-9	7
1392427	5-37	10	1393126	5-21	7	1393760	1-67	15	1393855	1-9	7
1392428	5-37	10		5-25	7	1393763	1-27	20	1393856	1-9	12
1392429	5-37	10	1393157	2-127	1	1393775	4-7	19	1393858	1-9	16
1392430	5-37	10	1393158	2-127	1	1393776	4-7	20	1393859	9-33	33
1392431	5-37	10	1393159	2-127	1	1393777	4-5	24	1393860	9-33	30
1392432	5-37	27	1393164	10-53	5		4-7	21	1393861	1-29	28
1392433	5-37	27	1393166	2-127	1		4-9	36	1393862	9-21	5
1392434	5-37	27	1393171	6-12		1393778	4-7	7		9-25	1
1392435	5-37	28	1393401	10-51	1		4-15	3	1393863	9-25	11
1392436	5-37	28	1393402	10-51	2	1393779	4-23	35		9-27	1
1392437	5-37	28	1393405	10-51	5	1393781	4-23	34	1393871	1-9	37
1392438	5-38	44	1393406	10-51	13	1393784	4-24	45	1393872	1-10	40
1392439	5-38	44	1393407	10-51	12	1393785	4-5	11	1393876	1-38	45
1392443	5-47	1	1393408	10-51	11	1393786	4-7	9	1393878	1-38	50
1392444	5-47	2	1393409	10-51	10		4-9	32	1393894	2-128	33
1392445	5-47	3	1393410	10-51	9		4-80		1393895	2-127	32
1392447	5-47	4	1393411	10-51	8	1393787	12-8	1	1393905	11-59	1
	5-47	22	1393412	10-51	7	1393788	4-5	19	1393906	1-38	41
1392448	5-47	4	1393413	10-51	6		4-13	25	1399106	3-7	19
1392449	5-47	4	1393414	10-51		1393790	4-7	19	1399115	3-7	18
1392451	5-47	4	1393424	9-53	2	1393791	4-7	20	1450390	8-32	
1392452	5-47	5	1393726	11-3	3	1393792	4-5	25	1450757	1-31	14
1392453	5-47	6	1393728	10-53	10		4-7	21	1450759	1-29	10
1392454	5-47	7	1393729	10-49	20		4-9	36		1-31	22
1392455	5-47	8		10-53		1393796	12-7	1	1450761	1-29	4
1392456	5-47	9	1393730	10-49	20	1393802	9-75	18		1-31	15
1392458	5-47	11		10-53			10-49	17	1450762	1-31	10
1392460	5-47	13	1393731	10-49	20	1393803	10-49	13	1450769	1-13	1
1392461	5-47	14		10-53			11-51	9	1450770	1-13	2
1392462	5-47	15	1393735	11-12	21	1393804	10-49	6	1450783	1-13	1

## NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1450784	1-13	2	1451441	8-3	12	1451537	7-9	5	1452018	10-37	25
1450798	9-77	9		8-7	12	1451538	7-9	24		10-37	25
1450799	9-77	8		8-11	13	1451555	1-9	30		10-37	25
1450800	9-77	10	1451444	8-7	16	1451559	1-9	33	1452019	10-37	25
1450801	9-77	11		8-11	23	1451564	9-77	14	1452020	10-37	25
1450809	1-69	10	1451445	8-7	17	1451594	1-9	25		10-37	25
1450810	1-67	9		8-11	24	1451600	9-13	23		10-37	25
	1-69	9	1451449	8-7	5	1451717	1-9	39		10-37	25
1450811	1-67	3		8-11	25	1451782	1-10	41	1452021	10-37	25
	1-69	3	1451450	1-32	31	1451783	1-9	36		10-37	25
1450812	1-67	4	1451451	1-31	28	1451819	9-31	3	1452022	10-37	25
	1-69	4	1451452	1-31	28	1451820	9-31	4		10-37	25
1450852	1-69	10	1451453	8-7	6	1451821	9-31	5	1452023	10-37	25
1450853	1-69	10		8-11	27	1451822	9-31	6		10-37	25
1450854	1-69	10	1451454	12-8	2	1451823	11-19	6	1452024	10-37	25
1450855	1-69	10	1451455	8-7	10		11-21	6		10-37	25
1450856	1-67	10		8-11	28	1451834	11-23	3	1452025	10-37	10
1450857	1-67	10	1451456	8-3	22		11-23	4		10-37	10
1450858	6-11	19		8-7	22	1451836	9-13	37		10-55	
1450861	6-11	25		8-11	18	1451921	8-19	31	1452026	10-37	10
	6-15	25	1451458	8-19	32		8-23	36		10-55	
1450863	6-4	31		8-23	37	1451924	8-29	15	1452027	10-37	10
	6-8	31	1451459	8-8	40	1451927	8-27	22		10-55	
1450864	6-4	33		8-11	31		8-29	1	1452028	10-37	10
	6-8	33		8-29	8	1451968	7-9	5		10-55	
1450865	6-4	32	1451461	8-19	36	1451969	7-9	4	1452029	10-37	10
	6-8	32		8-23	38	1451999	10-37	24		10-37	10
1450867	6-4	38	1451470	1-31	29		10-37	24		10-37	10
	6-8	38	1451476	1-32	30	1452000	10-37	24		10-37	26
1450868	6-4	44	1451477	1-13	13	1452001	10-37	24		10-55	
	6-8	44	1451478	1-13	13	1452002	10-37	24	1452030	10-37	10
1450872	1-31	20	1451484	1-13	10	1452003	10-37	24		10-55	
1450897	1-32	30	1451489	1-13	11		10-37	24	1452031	10-37	10
1450971	1-31	1	1451494	1-13	11	1452004	10-37	24		10-37	10
1450972	1-31	1	1451497	1-13	10		10-37	24		10-37	10
1451012	1-13	17	1451500	1-13	12	1452005	10-37	24		10-37	10
1451018	1-31	29	1451503	1-13	12		10-37	24		10-55	
1451065	1-17	6	1451508	1-31	11	1452006	10-37	24	1452032	10-37	10
1451183	12-13	3	1451514	1-31	2	1452007	10-37	24		10-37	10
1451208	1-32	38	1451515	1-31	2	1452008	10-37	24		10-55	
1451327	4-9	29	1451521	1-10	50	1452009	10-37	24	1452033	10-37	10
	4-15	28	1451522	1-9	31		10-37	24		10-37	10
	4-18	47	1451523	9-13	1	1452010	10-37	24		10-55	
1451328	4-9	30	1451524	9-13	2		10-37	24	1452034	10-37	10
	4-15	28	1451525	9-13	3	1452011	10-37	24		10-37	10
	4-18	47	1451527	1-10	45	1452012	10-37	24		10-55	
1451350	8-20	39	1451528	1-10	44	1452013	10-37	24	1452035	10-37	10
	8-23	40	1451529	1-10	43	1452015	10-37	25		10-37	10
1451416	1-65	10	1451530	1-10	42		10-37	25		10-55	
1451440	8-3	12	1451532	9-69	14		10-37	25	1452036	10-37	26
	8-7	12	1451533	9-69	15	1452016	10-37	25		10-37	26
	8-11	12	1451536	7-9	4	1452017	10-37	25		10-57	



**NUMERICAL INDEX (continued)**

<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>
1452037	10-37	26	1452310	4-33	10	1452994	8-3	30	1453912	11-29	9
	10-57		1452315	4-40	46	1453024	1-49	2	1453913	11-29	10
1452038	10-37	26		4-121		1453025	1-49	3	1453914	11-29	11
	10-57		1452316	4-40	46	1453031	1-41	10	1453915	11-29	12
1452039	10-37	26		4-121		1453070	8-8	45	1453916	11-29	14
	10-57		1452319	4-36	58		8-12	39	1453917	11-29	15
1452040	10-37	26		4-119			8-20	41	1453918	11-29	17
	10-57		1452323	4-40	48	1453110	9-79	15	1453919	11-29	18
1452041	10-57			4-120		1453123	9-79	5	1453920	11-29	20
1452042	10-37	26	1452324	4-40	47	1453124	9-79	1	1453921	11-29	22
	10-37	26		4-100		1453146	9-55	12	1453922	11-29	23
	10-57		1452500	6-19	8	1453148	9-55	4	1453923	11-29	27
1452043	10-37	26	1452503	6-19		1453421	1-17	11	1453924	11-29	28
	10-57		1452504	6-19			1-22	44	1453926	11-31	1
1452044	10-37	26	1452534	6-3	1	1453487	6-3	1	1453927	11-31	17
	10-57		1452535	6-3	7		6-7	1	1453928	11-31	12
1452045	10-37	26	1452552	4-40	65	1453488	6-3	22	1453929	11-31	14
	10-57			4-121			6-7	22	1453930	11-31	15
1452046	10-37	26	1452593	8-15	1	1453489	6-4	22	1453931	11-31	16
	10-37	26		8-19	1		6-7	22	1453932	11-29	13
	10-57			8-31		1453564	4-43	12		11-31	
1452047	10-37	26	1452639	5-41	1	1453566	2-128	50	1453954	11-37	
	10-37	26	1452640	5-41	1	1453567	2-128	51	1453970	9-13	18
	10-37	26	1452652	11-44	24	1453623	9-53	2		9-31	1
	10-57		1452663	1-47	14	1453624	9-53	2	1453988	11-31	18
1452048	10-37	26	1452697	3-4	47	1453633	5-43	22	1454002	1-55	1
	10-57			3-7			8-31	21	1454003	1-55	1
1452049	10-37	26	1452699	3-4	36	1453634	8-31	33	1454004	1-55	2
	10-37	26	1452700	3-4	37	1453663	8-31	34		1-57	2
	10-57		1452776	11-44	24	1453734	2-128	35	1454006	1-55	3
1452050	10-37	26	1452794	9-41	9	1453739	1-49	11	1454011	11-33	1
	10-57		1452820	1-38	54	1453780	2-127	32	1454012	11-33	2
1452130	10-53	2	1452826	6-3	12	1453781	2-128	33	1454013	11-33	3
1452131	10-53	3		6-3	12	1453798	1-55			11-35	2
1452132	10-53	6		6-7	12	1453799	1-55		1454014	11-33	4
1452133	10-53	7	1452829	1-38	51	1453800	1-55	14	1454015	11-33	5
1452134	10-53	9	1452830	1-38	51		1-57	14	1454016	11-33	6
1452135	10-53	8	1452850	9-29	4	1453846	7-13	1	1454017	11-35	1
1452136	10-53	7		11-59	1	1453847	7-13	3	1454018	11-33	7
1452137	10-53	7	1452916	12-2	3	1453848	7-13	4	1454019	11-35	3
1452138	10-53	7		12-4	3	1453849	7-13	6	1454020	11-33	8
1452139	10-53	11		12-5	3	1453850	7-13	1	1454022	11-33	10
1452197	1-13	7		12-7	3	1453851	7-13	3		11-35	4
1452198	1-13	8		12-8	3	1453852	7-13	4	1454023	11-33	12
1452202	1-13	7	1452935	8-3	6	1453904	11-29	1	1454024	11-35	5
1452203	1-13	8	1452936	8-4	43	1453905	11-29	2	1454025	11-33	15
1452256	10-37	1		8-27	9	1453906	11-29	3	1454026	11-33	16
1452269	1-65	17	1452938	8-3	17	1453907	11-29	4	1454027	11-35	7
1452271	1-65	22	1452941	2-128	35	1453908	11-29	5	1454029	11-35	8
1452277	1-13	20	1452945	8-3	17	1453909	11-29	6	1454030	11-35	9
1452278	1-14	20	1452946	8-3	20	1453910	11-29	7	1454031	11-33	18
1452308	4-33	10	1452993	8-3	30	1453911	11-29	8	1454032	11-33	19

## NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1454033	11-33	20		9-18	50		1-10	52		10-12	
1454034	11-33	21	1455172	9-3	11		8-16	39		10-16	
1454035	11-33	22		9-13	11	1457201	5-41	16		10-37	
1454036	11-33	34		9-17	41	1457954	4-24	49	1458395	10-43	21
1454037	11-33	24	1455174	9-3	37		4-113			10-45	21
1454038	11-33	23	1455177	1-37	36		5-41	14		10-51	
1454039	11-33	25	1455191	1-38	59	1457993	5-7	14	1458396	10-43	21
1454040	11-33	26	1455192	1-38	59	1458018	5-7	15		10-45	21
1454041	11-33	27	1455225	9-77	12	1458125	11-12	53		10-51	
1454042	11-33	28	1455301	11-11	11		11-17	53	1458578	5-41	1
1454043	11-35	10		11-15	11	1458337	9-81	1	1458609	1-19	18
1454046	11-39		1455347	11-11	8	1458338	9-81		1458769	1-65	23
1454053	11-29	38	1455377	11-12	38	1458339	9-81	2	1458892	2-141	29
1454055	11-29	38	1455378	11-12	39	1458378	10-4	1	1459006	5-3	
1454061	11-29	37	1455396	11-12	20		10-4	1		5-15	
1454063	11-29	40	1455411	9-3	6	1458380	10-4	1		5-19	
1454064	11-29	41		9-13	6	1458381	10-4	1		5-29	
1454066	11-29	35		9-17	5	1458382	10-4	1		5-33	
1454087	1-49	30	1455432	10-12	17	1458383	10-4	1		5-37	
1454164	11-35	11	1455466	1-37	13	1458384	10-4	1	1459041	8-15	11
1454165	11-33	29	1455467	10-13	30	1458388	10-4			8-19	11
1454166	11-33	30	1455468	10-12	2		10-8			8-23	7
1454167	11-35	12	1455487	11-11	12		10-12		1459042	8-16	38
1454168	11-35	13		11-15	12		10-16			8-20	46
1454169	11-35	14	1455490	11-12	41		10-37		1459108	5-41	6
1454170	11-35	15		11-16	41	1458389	10-4		1459178	8-3	1
1454171	11-35	16		11-16	41		10-8			8-7	1
1454172	11-35	17	1455594	9-43	26		10-12			8-11	3
1454173	11-33	31	1455595	9-43	27		10-16		1459254	8-4	41
1454174	11-33	32	1455596	9-43	28		10-37			8-8	36
1454175	11-33	33	1455636	4-122		1458390	10-4			8-11	15
1454177	4-31	1		10-49			10-8		1459293	9-79	18
	9-33	1	1455801	2-145	26		10-12		1459350	10-12	21
	9-37	1	1455820	9-55	18		10-16		1459430	9-4	38
1454180	9-33	2	1455951	10-12	11		10-37			9-13	38
	9-37	2	1455992	11-11	13	1458391	10-4			9-17	36
				11-16	13		10-8		1459675	11-43	10
1454945	1-13	9					10-12			11-63	
1454949	1-13	9	1455997	6-4	22		10-12			11-43	10
1454959	6-4	22		6-7	22		10-16		1459676	11-43	10
	6-7	22	1455998	6-4	22		10-37			11-63	
1454960	6-4	22		6-7	22	1458392	10-4		1459839	3-3	6
	6-7	22	1456014	9-47			10-8		1459840	3-3	5
1455040	1-37	1	1456189	1-9	26		10-12		1459841	3-3	6
1455042	1-37	1	1456194	9-59			10-16		1459842	3-3	4
1455044	1-38	58	1456200	9-59			10-37		1459848	5-13	15
1455049	1-37	26	1456470	1-21	33	1458393	10-4		1459949	10-27	2
1455060	1-37	36	1456475	9-3	4		10-8		1459951	10-27	
1455087	1-32	36		9-63			10-12		1460265	10-13	37
1455169	9-13	5	1456622	1-5	12		10-16		1460312	4-40	63
	9-17	48	1456875	9-44	70		10-37		1460394	9-28	41
1455170	9-3	5	1457096	8-20	47	1458394	10-4		1460396	9-28	42
1455171	9-13	17	1457097	1-6	42		10-8		1460398	12-5	1

**NUMERICAL INDEX (continued)**

<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>
1460402	12-5	1	1464433	9-25	6	1466962	5-4	55	1473660	1-63	27
1460403	12-5	1		9-27	2	1466963	5-4	56	1473661	1-63	19
1460404	12-5	1	1464434	9-27	13	1466965	5-4	57	1473662	1-63	29
1460405	12-5	1	1464440	9-27	12	1466969	5-4	46	1473663	1-63	30
1460406	12-5	1	1464454	2-139	2	1466971	5-4	44	1473666	1-63	28
1460408	8-4	45		5-7	27	1466972	5-4	59	1473668	1-63	33
	8-15	32	1464456	2-139	5	1466973	5-4	60	1473670	1-63	3
1460409	9-69	14	1464615	9-41	18	1466974	5-13	7	1473671	1-63	4
	9-71	19	1464617	9-41	19	1466975	5-13	13	1473674	1-59	5
1460436	11-16	38	1464621	11-52	39	1467000	5-25	26	1473676	1-59	7
1460437	11-16	39	1464622	11-52	38	1467001	5-25	26	1473677	1-59	8
1460448	12-5	1	1464623	8-23	31	1467002	5-25	26	1473678	1-59	9
1460451	12-5	1	1464794	8-11	22	1467034	5-13	4	1473679	1-59	10
1460477	2-132	57	1465369	11-48	19	1467063	5-3	13	1473681	1-59	11
	2-136	56	1465374	1-5	29	1467064	5-15	26	1473683	1-59	13
1460505	11-31	19		1-9	2	1467065	5-3	24	1473684	1-59	12
1460506	11-31	23	1465377	5-41	20	1468074	9-65	15	1473685	1-59	14
1460511	11-31		1465382	1-55	19		9-69	15	1473688	1-60	44
1460618	11-64	6		1-57	19	1468319	4-127	8	1473689	1-59	18
	11-65	6	1465401	1-59		1468677	1-67	4	1473691	1-60	43
1460908	11-31	6		1-63			1-69	4	1473692	1-59	19
1460909	11-31	9	1465402	1-59		1470294	5-4	58	1473693	1-59	21
1460911	11-31	16		1-63		1470757	9-79	4	1473694	1-59	15
1460912	11-31	21	1465413	5-41	7	1470765	9-79	6	1473698	1-59	38
1460913	11-31	21	1465470	1-29	5	1470843	11-25	18	1473699	1-59	1
1460914	11-31	14	1465599	11-15	8	1473617	1-59	26	1473700	1-59	2
1461600	11-48	30	1465601	11-16	20	1473618	1-59	32	1473701	1-59	3
1462198	2-141	28	1465602	11-17	54	1473630	1-59	4	1473703	1-59	16
	2-143	26	1466004	12-2	4	1473631	1-59	23	1473704	1-59	24
1462536	2-127	26		12-4	4		1-59	31	1473705	1-59	27
1462572	2-127	26		12-5	4		1-59	37	1473706	1-59	28
1462890	7-3	2		12-7	4	1473632	1-59	22		1-59	33
	7-17	1		12-8	4	1473633	1-59	25	1473707	1-59	29
1462891	7-3	2	1466005	12-2	4	1473636	1-63	6	1473708	1-59	30
	7-17	2	1466943	5-37	29	1473637	1-63	5		1-59	34
1463253	6-5	59	1466944	5-19	2	1473638	1-63	8	1473709	1-59	35
1463254	6-5	58	1466945	5-25	10	1473639	1-63	7	1473710	1-59	36
	6-8	57	1466947	5-25	21	1473640	1-63	11	1473713	1-59	20
1463483	6-5	62	1466948	5-25	28	1473641	1-63	12	1473714	1-59	39
	6-8	42	1466949	5-25	27	1473643	1-63	10	1473715	1-59	40
1463599	6-3		1466950	5-25	27	1473644	1-63	13	1473716	1-60	41
1464283	4-29	14	1466951	5-25	27	1473647	1-63	15	1473717	1-59	17
	4-49		1466952	5-25	27	1473648	1-63	16	1473718	1-60	42
1464284	4-29		1466953	5-25	27	1473649	1-63	17	1473823	6-19	27
1464299	4-7	5	1466954	5-25	31	1473650	1-63	18	1473826	6-19	2
	4-83		1466955	5-25	30	1473652	1-63	14	1473838	6-4	28
1464430	9-3	3	1466956	5-25	33	1473653	1-63	21	1473839	6-4	29
	9-21	6	1466957	5-25	32	1473654	1-63	22		6-7	29
	9-25	26	1466958	5-26	55	1473656	1-63	23	1473840	6-4	23
1464431	9-3	2	1466959	5-26	54	1473657	1-63	24		6-7	23
	9-21	7	1466960	5-26	53	1473658	1-63	25	1473927	9-25	31
	9-25	27	1466961	5-4	54	1473659	1-63	26		9-28	33

## NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1473974	4-5	1	1483901	9-67	12	1487919	9-41	22	1495624	6-21	2
	4-9	1		9-71	13		9-55		1495625	6-21	3
	4-71		1483902	9-67	15	1488357	6-3		1495626	6-21	4
1474197	3-9	16		9-71	16	1488359	6-3		1495627	6-21	5
1474624	1-59	1	1483903	9-67	13	1488360	6-3		1495628	6-21	6
1474626	1-59	3		9-71	15	1488459	5-41	6	1495629	6-21	7
1474647	1-59	6	1483904	9-67	14	1488532	8-15	2	1495630	6-21	8
	1-60	45		9-71	14		8-19	3	1495631	6-21	9
1474655	1-63	34	1483912	9-65	11		8-23	1	1495632	6-21	10
1474761	9-13	2		9-69	11		8-31		1495633	6-21	11
	9-25	26	1484112	11-31	4	1489407	6-12	39	1495634	6-21	12
1474762	9-13	3	1484113	11-31	20		6-16	39	1495635	6-21	13
	9-25	27	1484262	2-5	1	1489411	6-11	19	1495636	6-21	14
1474815	9-41	20		2-6			6-15	19	1495637	6-21	15
	9-43			2-7		1489841	3-3	3	1495638	6-21	16
1475141	9-4	46		2-8		1491182	11-67	10	1495639	6-21	17
	9-17	34		2-9			11-69	10	1495640	6-21	18
	9-63	1		2-10		1491209	9-55	20	1495641	6-21	19
1475350	5-25	5		2-11		1491210	9-55	3	1495642	6-21	20
1475420	6-11	33		2-13		1491211	9-55	5	1495643	6-21	21
	6-15	33		2-14		1491763	10-41	13	1495644	6-21	22
1475421	6-11	32		2-15			11-61	14	1495645	6-21	23
	6-15	32		2-17		1491810	4-36	43	1495646	6-21	24
1476614	4-35	20		2-19			4-40	43	1495647	6-21	25
	4-39	20		2-20		1491814	4-36	43	1495648	6-21	26
1476882	9-79	8		2-21			4-40	43	1495795	4-7	9
1476917	9-79			2-23		1491816	4-36	43		4-9	32
1478758	6-3			2-24			4-40	43		4-15	25
1478759	6-3			2-25		1492331	10-41	18		4-18	44
1479105	4-24	68		2-26			11-61	19		4-77	
1479227	4-24	69		2-27		1493237	8-31	6	1495969	11-17	50
1479353	9-41	20		2-28		1493238	8-31	11	1496053	11-17	53
	9-43			2-29		1493239	8-31	12	1496375	11-3	
1479453	3-4	33		2-30		1493240	8-4	44		11-7	
1479870	9-9	29		2-31		1493562	10-41	12		11-15	
1479898	4-36	43		2-32			11-61	13		11-47	
	4-40	43		2-66		1493615	1-49	22	1496376	11-3	
1480320	4-18	46	1484308	2-131	46	1494294	4-56			11-7	
1480333	2-127	26	1484314	9-44	63	1494312	9-63	1		11-15	
	2-131	4	1484315	9-44	39	1494384	4-24	50		11-47	
	2-135	4		9-44	54		4-31	7	1496453	9-28	47
1480334	2-127	25	1484316	9-43	16		4-51		1496458	9-25	29
	2-131	3		9-44	70	1494402	11-16	45	1496496	9-65	16
	2-135	3	1484331	9-28	48	1494906	8-3	1		9-67	22
1480432	4-73	19		9-67	17		8-7	1		9-69	16
1480453	2-128			9-71	12		8-11	3		9-72	
1480539	4-24	66	1484685	4-17	12	1495139	9-7	14	1496795	6-3	
1482663	4-73	24	1484686	4-17	13		9-9	5	1496796	6-3	
1482668	4-73	25	1485936	12-4	1	1495142	4-73	11	1496797	6-3	
1482752	6-3	2	1487150	11-25	23	1495149	4-24	70	1496906	11-64	5
	6-7	2	1487166	11-26	24	1495254	5-17	2	1496907	11-65	5
1483645	4-21	17	1487908	4-23	2	1495623	6-21	1		11-67	5

**NUMERICAL INDEX (continued)**

<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>
1497239	9-25	13		2-101		1502883	9-72	4	1508512	5-13	
1498530	9-79	5		2-102		1502888	9-72	13	1508513	5-13	9
1498532	9-79			2-103		1503633	4-73	1	1508583	2-135	38
1498533	9-79	1		2-104		1503634	4-73	5	1508584	2-135	39
1499041	1-67	4		2-105		1504014	1-19	16	1508986	4-13	24
	1-69	4		2-109		1504017	1-19	16		4-21	15
1499043	1-65	15		2-110		1504298	4-7	5	1509182	11-16	41
1499053	4-13	11		2-112			4-15	24	1509833	1-65	6
	4-21	5		2-114			4-85		1509988	2-131	8
1499072	4-61	12		2-115		1504860	2-131	1		2-135	8
	4-90	8		2-116			2-135	1	1510117	9-9	25
1499073	4-61	13		2-117		1506665	4-27	25	1510220	4-7	25
	4-90	9	1499350	4-24	44	1506666	4-27	26		4-15	32
1499323	2-5	1		4-61		1506667	4-127	7	1510388	2-131	10
	2-35		1499351	4-27	1	1506668	4-127	5		2-135	10
	2-37			4-90		1506669	4-127	4	1510553	2-132	51
	2-39		1499559	6-11	11	1506670	4-127	6		2-135	36
	2-41		1499562	6-5	53	1506671	4-127	9	1511548	6-4	50
	2-45			6-8	53	1506672	4-127	2		6-8	50
	2-46		1499563	6-4	41	1506673	4-127	10		12-3	
	2-49		1499564	6-4	43	1506674	4-27	24	1511704	2-121	15
	2-50			6-8	43		4-127	1		2-123	17
	2-53		1499566	6-3	11	1506738	4-127	3	1511952	2-6	2
	2-54			6-7	11	1507210	4-24	57		2-35	13
	2-55		1499594	6-4	28	1507212	4-13	23		2-68	1
	2-57			6-8	39		4-17	31		2-105	1
	2-58		1499598	4-23	21		4-21	14		2-112	1
	2-61		1500212	5-19	12	1507253	2-121	14	1511953	2-20	2
	2-63		1500213	5-19	13		2-123	16	1511969	2-7	1
	2-64		1500214	5-19	14	1507260	2-121	13		2-65	6
	2-65		1500965	1-67	16		2-123	15	1511970	2-7	2
	2-66		1500975	11-48	26	1507271	1-21	8	1511971	2-7	3
	2-67			11-65		1507272	1-17	18	1511972	2-7	4
	2-68		1500976	11-48	26	1507359	4-24	57	1511973	2-7	5
	2-69			11-65		1507394	2-119	16	1511974	2-7	6
	2-71		1500977	11-48	26	1507395	2-119	11		2-65	7
	2-75			11-64			2-121	5	1511978	2-11	5
	2-76		1500978	11-48	26		2-123	5		2-69	5
	2-78			11-64		1507412	2-131	5	1511984	2-8	1
	2-81		1500979	11-48	24		2-135	5		2-55	1
	2-82		1500980	11-48	24	1507416	2-131	7	1511996	2-54	2
	2-83		1501919	4-73	23		2-135	7	1511998	2-9	2
	2-84		1502129	6-11	5	1507589	11-16	38	1512001	2-11	9
	2-86			6-15	5	1507696	11-17	57		4-5	28
	2-89		1502341	11-48	32	1507725	4-73	2	1512003	2-11	1
	2-90		1502344	11-48	33	1508010	3-7	19		2-69	1
	2-91		1502350	11-47	9	1508108	1-5	27	1512004	2-11	2
	2-92		1502388	9-55	9		1-9	5		2-31	1
	2-93			9-55	14	1508250	1-5	32		2-53	9
	2-95		1502543	9-9	33		1-10	51		2-61	2
	2-98		1502879	9-71	25	1508300	4-17	29		2-81	8
	2-99			9-72		1508454	1-63	38		2-82	2

## NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1512005	2-11	3	1512112	2-21	3		2-115	2		2-102	1
	2-17	1		2-93	5	1512323	2-32	3	1512487	2-26	2
1512006	2-11	4	1512114	2-21	7		2-115	3	1512488	2-26	3
	2-69	4		2-93	8	1512328	2-71	9	1512489	2-26	5
1512007	2-11	6	1512118	2-21	10	1512413	2-6	5	1512490	2-26	8
1512008	2-11	7		2-93	7	1512415	2-54	1	1512491	2-26	9
1512009	2-11	8	1512119	2-21	11	1512417	2-8	2	1512492	2-26	10
1512011	2-13	1		2-93	4	1512418	2-8	3	1512493	2-26	11
1512012	2-13	2	1512130	2-23	1		2-55	3	1512494	2-26	12
	2-24	3		2-35	17		2-92	1	1512496	2-27	7
	2-95	3		2-58	1	1512420	2-9	3	1512499	2-29	1
	2-97	10		2-63	2	1512423	2-14	2	1512500	2-29	2
1512015	2-14	7	1512132	2-23	3	1512425	2-14	9	1512502	2-30	1
	2-71	4	1512134	2-61	10		2-71	8	1512503	2-30	3
1512025	2-14	6	1512135	2-61	1	1512427	2-15	4		2-69	3
	2-71	7	1512136	2-61	8	1512428	2-15	5		2-92	2
1512026	2-14	3	1512137	2-61	7	1512429	2-15	6	1512586	2-37	14
	2-71	2	1512138	2-61	9	1512430	2-15	7	1512814	2-121	4
1512027	2-14	4	1512139	2-61	4	1512432	2-57	10		2-123	4
	2-71	3	1512146	2-39	8	1512433	2-57	4	1513191	2-91	1
1512029	2-14	1	1512149	2-39	6	1512438	2-17	6	1513337	2-99	2
	2-27	6	1512161	2-46	2	1512439	2-17	7	1513338	2-99	3
	2-71	1	1512163	2-46	4	1512441	2-19	2	1513430	2-109	5
1512033	2-15	2	1512164	2-46	5	1512442	2-19	4		2-109	6
	2-21	1	1512287	2-103	1	1512444	2-66	1	1513701	2-97	6
	2-69	2	1512292	2-27	1	1512445	2-66	2	1513712	2-63	1
	2-75	1		2-35	22	1512447	2-21	2	1513725	2-84	1
	2-93	1		2-68	2	1512448	2-21	4		2-86	2
1512034	2-15	3		2-89	1		2-26	4	1513749	2-63	4
1512037	2-16	9		2-112	2		2-93	2	1513751	2-86	3
1512040	2-15	8	1512293	2-26	1	1512450	2-21	5	1513769	2-61	5
1512046	2-57	1	1512295	2-49	3	1512451	2-21	6		2-109	2
1512047	2-57	2		2-104	3	1512452	2-21	8	1513772	2-93	6
1512048	2-57	3	1512296	2-27	5		2-93	12	1513780	2-63	3
1512049	2-57	11	1512300	2-6	1	1512453	2-21	9	1513789	2-84	8
1512050	2-57	5		2-26	7		2-93	3		2-117	9
1512051	2-24	1		2-104	4	1512454	2-21	13	1513792	2-114	1
	2-53	10	1512302	2-27	3	1512456	2-64	1	1513793	2-95	4
1512052	2-57	9	1512304	2-6	3	1512459	2-24	2		2-97	3
1512053	2-57	7		2-35	7	1512460	2-24	4	1513794	2-61	6
1512056	2-57	8	1512305	2-27	4	1512461	2-24	5	1513797	2-65	3
1512091	2-17	2		2-30	2		2-95	7	1513878	2-35	12
1512092	2-17	5		2-112	4	1512462	2-24	6	1514238	2-131	11
	2-76	2	1512307	2-28	1	1512463	2-24	7		2-135	11
	2-83	4	1512308	2-28	2		2-95	5	1514331	6-21	
1512094	2-17	4	1512309	2-28	3		2-97	4	1514339	2-35	16
1512097	2-9	1	1512310	2-28	4	1512464	2-24	8		2-37	11
	2-117	4	1512312	2-95	2		2-95	6		2-109	3
1512102	2-19	3		2-97	2		2-97	5	1514354	2-41	10
1512106	2-66	3	1512318	2-31	2	1512466	2-135	37	1514360	2-116	2
1512107	2-66	4	1512319	2-31	3	1512467	2-135	40	1514371	2-76	1
1512109	2-20	1	1512322	2-32	2	1512485	2-25	1		2-77	1

**NUMERICAL INDEX (continued)**

<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>
	2-83	2	1517122	2-65	8	1518317	9-9	10	1521707	2-41	
1514436	2-131	36	1517194	2-49	2	1518319	9-13	4	1521708	2-41	
1514483	2-81	2	1517195	2-49	4	1518322	1-13	9	1521709	2-41	
1514488	2-81	4	1517196	2-49	5	1518323	1-13	8	1521710	2-41	
1514496	2-49	13	1517197	2-49	6	1518324	1-13	7	1521712	2-86	4
1514497	2-49	7	1517198	2-49	15	1518329	9-9	1	1521713	2-50	1
1514498	2-49	8	1517210	2-49	27	1518935	4-23	24	1521810	2-65	1
1514499	2-49	9	1517238	2-99	4		4-105		1521811	2-65	4
1514500	2-49	10	1517246	2-45	8	1519013	4-17	14	1521812	2-65	5
1514501	2-49	11		2-45	17	1519026	4-15	13	1521813	2-65	9
1514502	2-49	12	1517250	2-101	1		4-17	34	1521814	2-65	11
1514504	2-49	16	1517256	2-104	1	1519129	4-18	43	1521824	2-67	1
1514542	2-35	8	1517257	2-104	2		4-125		1521825	2-67	2
1514565	2-109	12	1517262	2-105	5	1519576	4-73	16	1521827	2-69	6
1514947	4-23	7	1517266	2-83	1	1519577	4-73	15	1521828	2-69	7
1514948	4-25	73		2-117	1	1519654	1-5	16	1521829	2-69	8
1515423	3-3	3	1517268	2-109	1	1519694	9-3	4	1521831	2-71	6
	3-7	26	1517269	2-109	9		9-63		1521832	1-65	
1515424	3-3	3	1517270	2-109	8	1520356	4-29	5	1521833	1-21	5
	3-7	26	1517299	2-117	3	1520493	4-15	19	1521834	1-17	6
1515475	1-67	5	1517325	9-4	49	1520494	4-15	20	1521837	2-75	5
	1-69	5	1517485	2-131	42	1520495	4-13	29	1521839	2-75	8
1515582	9-41	9	1517544	3-7	16		4-15	21	1521841	2-76	3
1515694	2-117	2	1517563	2-131	43		4-17	41		2-77	3
1515787	2-91	2	1517566	2-131	45	1520499	4-13	30	1521842	2-76	4
1515895	2-75	3	1517589	2-135	49		4-17	42	1521843	2-77	4
1516044	9-27	8	1517638	2-135	47	1520540	4-18	43	1521844	2-76	6
1516050	9-27	7	1517674	2-135	48		4-125			2-77	5
1516055	9-27	24	1517676	1-37	13	1520839	7-19	29	1521845	2-76	7
1516078	9-27	4	1517678	2-135	41	1521153	4-13	31		2-77	6
1516593	1-38	60	1517928	4-15	31	1521310	4-15	4	1521846	2-76	5
1516594	1-38	61	1517972	9-7	6		4-17	32		2-77	8
1516750	9-4	50	1517973	9-7	7	1521391	4-15	27	1521847	2-76	8
1516751	2-131	6	1517974	9-7	8		4-18	45		2-77	7
	2-135	6	1517975	9-7	9	1521392	4-15	27	1521850	2-78	1
1516870	2-131	40	1517976	1-19	16		4-18	45	1521852	2-81	1
1516871	2-131	41	1517982	9-7	19	1521682	2-35	2	1521854	2-81	6
1516916	1-29	4		9-9	15	1521683	2-35	3	1521855	2-81	7
	1-31	15	1518092	9-13	4	1521685	2-35	5	1521857	2-81	9
1516935	1-35	12	1518099	1-13	9	1521686	2-35		1521858	2-81	10
1516936	1-37	12	1518100	1-13	8	1521691	2-35	9	1521860	2-82	1
1517010	2-35	14	1518111	4-15	13	1521692	2-35	10	1521861	2-82	4
	2-68	3		4-17	34	1521693	2-35	11	1521862	2-82	7
	2-75	2	1518112	4-73	13	1521694	2-35	18	1521863	2-82	6
1517011	2-35	15	1518171	1-13	7		2-95	1	1521864	2-82	5
	2-68	4	1518179	9-9	17		2-97	1	1521866	2-83	3
1517069	2-109	4	1518209	11-16	35	1521695	2-35	19	1521867	2-83	5
	2-109	5	1518275	4-24	42	1521696	2-35	21	1521868	2-83	6
1517094	2-91	4		4-97		1521697	2-35	23	1521869	2-83	7
1517108	1-49	13		4-99		1521700	2-41	1	1521870	2-83	8
1517118	2-53	3	1518315	9-9	11	1521705	2-41		1521871	2-83	9
1517119	2-35	20	1518316	9-9	6	1521706	2-41		1521873	2-83	11

## NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1521875	2-84	2	1521965	2-110	1	1531383	4-13	1			2-112
1521876	2-84	4	1521966	2-110	2		4-17	1			2-114
1521878	2-84	5	1521967	2-110	3		4-21	1			2-115
1521879	2-84	5	1521969	2-112	5		4-73				2-116
1521880	2-84	7	1521970	2-112	7	1532089	2-143	32			2-117
1521884	2-89	2	1521971	2-112	6	1532114	2-143	34	1533444	3-17	1
1521885	2-89	3	1521973	2-114	2	1532627	2-5	1	1533445	3-17	2
1521886	2-89	4	1521975	2-115	1		2-35		1533446	3-17	3
1521888	2-90	1	1521980	2-117	6		2-37		1533447	3-17	4
1521889	2-90	2	1521981	2-117	7		2-39		1533448	3-17	5
1521891	2-91	3	1521982	2-117	8		2-41		1533449	3-17	6
1521893	2-92	3	1522438	11-25	22		2-45		1533450	3-17	7
1521894	2-92	4	1524173	7-3	2		2-46		1533451	3-17	8
1521895	2-92	5	1524215	7-3	1		2-49		1533452	3-17	9
1521897	2-93	9	1524551	2-93			2-50		1533453	3-17	10
1521901	2-37	1		2-98	1		2-53		1533454	3-17	11
1521902	2-95	8	1524616	2-116	3		2-54		1533455	3-17	12
	2-97	8	1525240	4-7	5		2-55		1533456	3-17	13
1521907	2-53	14		4-15	24		2-57		1533458	3-17	15
1521908	2-53	11		4-88			2-58		1533648	11-56	25
1521913	2-37	5	1526085	2-55	2		2-61		1533649	11-52	28
1521914	2-37	3	1526088	2-39	7		2-63			11-56	35
1521915	2-37	7	1526090	2-39	7		2-64		1533665	11-52	27
1521919	2-37	16	1526091	2-39	7		2-65			11-56	39
1521921	2-49	14	1526092	2-39	7		2-66		1534281	11-16	43
1521922	2-49	17	1526094	2-39	7		2-67		1534455	4-27	10
1521923	2-49	18	1526099	2-46	1		2-68		1534660	1-65	2
1521924	2-49	19	1526100	2-46	3		2-69		1534873	12-2	2
1521925	2-49	20	1526193	3-7	26		2-71			12-5	2
1521926	2-49		1526357	2-143	1		2-75		1537659	4-13	1
1521927	2-49		1527012	2-97	7		2-77			4-15	31
1521928	2-49	21	1527013	2-97	9		2-78			4-17	1
1521930	2-49	23	1527014	2-97	11		2-81			4-21	1
1521931	2-49	24	1527404	4-24	71		2-82			4-73	
1521932	2-49	25	1527759	2-143	27		2-83		1538099	4-13	22
1521937	2-45	3	1527760	2-143	29		2-84		1538100	4-13	30
1521938	2-112	3	1527761	2-143	31		2-86		1538310	12-2	5
1521939	2-45	12	1527763	2-143	33		2-89			12-2	5
1521943	2-45	2	1527878	9-9	31		2-90			12-4	5
1521944	2-45	1	1527880	9-9	30		2-91			12-5	5
1521946	2-102	2	1528236	2-143	30		2-92			12-5	5
1521949	2-104	5	1528352	2-143	28		2-93			12-7	5
1521951	2-104	7	1528534	9-18	53		2-97			12-8	5
1521952	2-104	8	1528535	9-18	53		2-98		1538311	12-2	4
1521954	2-105	2	1528536	9-3	4		2-99			12-4	4
1521955	2-105	3		9-63			2-101			12-5	4
1521956	2-105	4	1528589	11-52	40		2-102		1538765	6-7	
1521957	2-105	6	1529581	4-18	56		2-103		1538766	6-7	
1521958	2-106	8	1530668	11-52	28		2-104		1539016	6-7	
1521961	2-109	7		11-56	35		2-105		1539988	11-51	8
1521962	2-109	10		11-56	41		2-109		1539991	11-52	36
1521963	2-109	11	1531099	3-7	18		2-110		1539992	11-52	16



**NUMERICAL INDEX (continued)**

<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>
	11-55	13	1543660	11-52	34	1556304	1-13	12	1572599	11-69	4
1540330	11-52	17	1544032	11-3		1556306	1-13	11	1572600	11-69	5
	11-56	20		11-7		1556307	1-13	10	1573932	4-15	25
1541140	11-52	43		11-15		1556873	9-9	26		4-18	44
1541265	11-51	2		11-51		1556876	9-9	23		4-79	
	11-67			11-55		1556879	9-9	27	1574088	4-24	50
1541266	11-51	2	1544033	11-3		1556882	9-9	24		4-31	7
	11-67			11-7		1556888	9-9	28		4-53	
1541271	11-51	3		11-15		1556891	9-9	22	1574227	5-25	
	11-55	3		11-51		1560002	9-63		1581445	11-55	5
	11-71			11-55		1560003	9-63		1581448	11-55	15
1541272	11-51	3	1544034	11-3	1	1560025	9-55	16	1581547	11-56	19
	11-55	3	1544035	11-3	1	1560026	9-55	15	1584540	2-57	11
	11-71		1545279	1-5	35	1560027	9-55	1	1584542	2-81	5
1541277	11-51	4	1545532	4-40	56	1560028	9-55	6	1584546	2-83	3
	11-55	4	1547978	6-12		1560029	9-55	10	1584547	2-83	7
1541278	11-51	4		6-16		1560030	9-55	8	1584549	2-89	3
	11-55	4	1547980	6-8	41	1560031	9-55	13	1584814	2-39	9
1541279	11-51	1	1547982	6-8	48	1560032	9-55	17	1584815	2-39	9
	11-55	1	1552286	2-93	8	1560034	9-55	7	1584816	2-39	9
1541319	11-51	1	1552288	2-53	6	1560035	9-55	15	1584817	2-39	5
	11-55	1	1552714	2-65	10	1560036	9-55	2	1584818	2-39	5
1541631	11-51	15	1552715	2-67	1		9-55	11	1584819	2-39	5
1541787	1-13	1	1552716	2-67	2	1561538	1-42	55	1584820	2-39	5
1541788	1-13	2	1552718	2-69	8	1561604	6-21		1584909	2-49	6
1541789	1-13	1	1553261	2-39	2	1561747	11-56	24	1584910	2-49	1
1541790	1-13	2	1553262	2-39	3	1562101	11-25	2	1584911	2-49	22
1541791	1-5	1	1553768	2-81	3	1562102	11-26	25	1584912	2-49	26
1541792	1-5	1	1553781	2-84	3	1563795	9-71	25	1584914	2-49	28
1542033	11-52	32	1553782	2-93	10	1564349	9-75	10	1584921	2-37	17
	11-55	6	1553817	4-24	41		9-77	1	1584922	2-37	8
1543315	2-89	5	1553819	4-24	62	1564722	6-5	59	1584923	2-37	9
1543317	2-41	6	1553952	2-45	10		6-8	58	1584933	2-45	9
1543318	2-41	8	1553956	2-45	7	1565736	11-23	1	1584935	2-102	3
1543321	2-35	24		2-45	16		11-25	1	1584936	2-102	2
1543325	2-35	6	1553991	2-117	5	1565737	11-23	3	1584938	2-116	3
	2-37	10	1554029	2-53	12		11-25	3	1584939	2-117	10
1543359	2-77	2	1554043	2-41		1565738	11-23	4	1584990	2-41	7
	2-82	3	1554044	2-41	7		11-25	4	1584991	2-41	8
	2-83	4	1554045	2-41	9	1566125	6-15	12	1584992	2-41	6
1543362	2-57	6	1554047	7-19	27	1566126	6-16	35	1584993	2-41	7
1543424	2-61	3	1554048	7-19	29	1568388	10-23	2	1584994	2-41	6
	2-61	5	1554156	4-27	24		10-23	2		2-41	8
1543430	2-61	5		4-127	1	1568389	10-23	2	1584995	2-41	6
1543432	2-61	5	1554742	6-7	1	1568390	10-23	2	1584996	2-41	7
1543435	2-53	1	1554855	1-13	10	1568391	10-23	2	1584997	2-41	8
	2-53	4	1554857	1-13	11	1568392	10-23	2	1584998	2-41	6
	2-53	8	1554858	1-13	12	1570423	11-26	30		2-41	6
	2-53	15	1554865	1-32	30	1571694	11-55	2	1584999	2-41	7
1543439	2-53	15	1554866	1-31	29		11-69		1585000	2-41	8
1543445	2-39	5	1556299	1-32	30	1571695	11-55	2	1585001	2-41	7
1543446	2-39	4	1556302	1-32	29		11-69		1585002	2-41	6

## NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1585003	2-41	7	1598448	2-63	6			2-98			2-53
1585284	2-35	25	1599346	11-69	6			2-99			2-54
1585352	10-12	2	1599700	5-37	18			2-101			2-55
1585357	10-12	2	1602488	2-37	12			2-102			2-57
1585366	10-12	2	1602489	2-37	12			2-103			2-58
1585367	10-12	2	1602490	2-37	12			2-104			2-61
1585370	10-12	2	1603897	2-10	1			2-105			2-63
	10-12	2	1606670	4-24	49			2-109			2-64
1585371	10-12	2		4-115				2-110			2-65
1589318	1-31	29		5-41	14			2-112			2-66
1589320	1-32	30	1607648	4-13	1			2-114			2-67
1589321	1-13	11		4-15	31			2-115			2-68
1589323	1-13	12		4-17	1			2-116			2-69
1589325	1-32	29		4-21	1			2-117			2-71
1589327	1-32	30		4-73		1607978	4-24	50			2-75
1589328	1-13	12	1607649	2-5	1		4-31	7			2-77
1589330	1-13	11		2-35			4-55				2-78
1590041	6-15	19		2-37		1608859	5-41	26			2-81
1590043	6-11	24		2-39		1608860	4-115	12			2-82
	6-15	24		2-41		1608893	4-23	35			2-83
1594222	10-23	2		2-45		1609035	4-24	42			2-84
1594228	10-23			2-46			4-97				2-86
1594229	10-23			2-49			4-99				2-89
1594274	10-31	2		2-50		1610755	11-69	12			2-90
	10-31	2		2-53		1611639	1-57				2-91
1594275	10-31	2		2-54		1611640	1-57				2-92
1594276	10-31	2		2-55		1613651	6-3	4			2-93
1594277	10-31	2		2-57			6-7	4			2-97
1594278	10-31	2		2-58		1613831	1-57	1			2-98
1594279	10-31	2		2-61		1613832	1-57	1			2-99
1594530	10-31			2-63		1613833	1-57	3			2-101
1594532	10-31			2-64		1613834	1-57	7			2-102
1594533	10-31			2-65		1613835	1-57	12			2-103
1594534	10-31			2-66		1614372	12-2	2			2-104
1594535	10-31			2-67			12-4	2			2-105
1594536	10-31			2-68		1616995	11-26	27			2-109
1594537	10-31			2-69		1619371	2-53	5			2-110
1595164	1-25	6		2-71		1619795	4-13	15			2-112
1595263	11-25	21		2-75		1624829	2-23	2			2-114
1595264	11-25	20		2-77		1627649	1-63	31			2-115
1595722	10-16	7		2-78		1628735	12-4	1			2-116
1595723	10-16	8		2-81		1628907	12-4	1			2-117
1596647	2-75	4		2-82		1633032	2-91		1635307	2-35	4
1596648	2-89	6		2-83		1633033	2-5	1	1635346	2-37	4
1597142	2-99	4		2-84			2-35		1635388	2-45	11
1597806	2-91	5		2-86			2-37		1638419	2-39	4
1597813	2-63	7		2-89			2-39		1638420	2-39	4
1597821	2-104	6		2-90			2-41		1638421	2-39	4
1597822	2-63	8		2-91			2-45		1638422	2-39	4
1597832	2-39	1		2-92			2-46		1638856	2-21	12
1597833	2-99	1		2-93			2-49			2-93	11
1598447	2-63	5		2-97			2-50		1641098	12-4	1

**NUMERICAL INDEX (continued)**

<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>	<b>PART NO.</b>	<b>PAGE</b>	<b>ITEM</b>
1641099	12-4	1	1707014	2-32	1	2054630	9-38	43		1-5	7
1641217	12-4	1	1707619	2-41		2054631	9-38	44		1-31	1
1641218	12-4	1	1707620	2-41	6	2054632	9-38	46		1-31	1
1642099	6-11	8	1707621	2-41	7	2054633	8-23	38		1-31	2
	6-15	8	1707622	2-41	8	2054634	9-37	42		1-31	2
1642102	6-16		1708510	2-41	12	2054636	9-17	43		1-31	29
1642103	6-15	27		2-41		2054646	9-17	45		1-32	29
1642104	6-15	31	1708511	2-41	6	2054688	9-37	33		1-32	30
1643396	6-15	23	1708512	2-41	7	2054689	8-15	31		1-32	30
1649349	4-13	32	1708513	2-41	8	2054700	9-4	50	4007075	2-41	
1659572	2-53	2	2003859	4-33	8	2054702	9-3	2	4016302	3-13	1
1661076	2-64	2	2005059	7-3	7	2054703	9-3	3	4025002	6-11	23
1666548	2-83	10	2013361	9-79	6	2055142	8-3	22	4027971	4-127	11
1668701	12-7	1	2032229	7-15			8-11	18	4033239	2-37	13
1673901	2-37		2034460	1-67	13	2055143	9-17	47	4033240	2-37	13
	2-61			1-69	13	2067172	9-37	30	4033241	2-37	13
	2-89		2043084	8-3	5	2071043	10-23		4033323	2-102	1
	2-91			8-7	33	2071044	10-23		4045106	2-14	5
	2-99			8-11	14	2071045	10-23		4045108	2-14	8
	2-104		2043634	4-15	5	2071046	10-23			2-71	5
	2-109			4-17	33	2071047	10-23		4055147	11-56	31
	2-111		2043981	5-9	3	2084159	1-65		4085579	7-20	47
1673902	2-37	2		8-3	5	3013841	11-12	35	4094919	2-15	1
1673978	2-116	1		8-7	33		11-16	35	4094920	2-15	1
1675439	2-75	6		8-11	14	3047334	1-25	16	4142389	4-21	18
1677815	10-53		2045122	9-63	10	3047451	1-5	6	4164161	2-37	6
1677816	10-53		2048776	1-49	30		1-5	6	4164255	6-19	15
1677831	10-53		2051854	9-3	3		1-31	1	4167097	10-45	11
1691873	2-53	8	2051855	9-3	2		1-31	1		12-11	2
	2-53	8	2051859	9-17	46		1-31	2	4185124	2-104	8
1700081	2-78	1	2051863	7-9	16		1-31	2	6990502	11-33	35
1702184	2-109	5	2051864	7-9	24	3047452	1-5	7			





