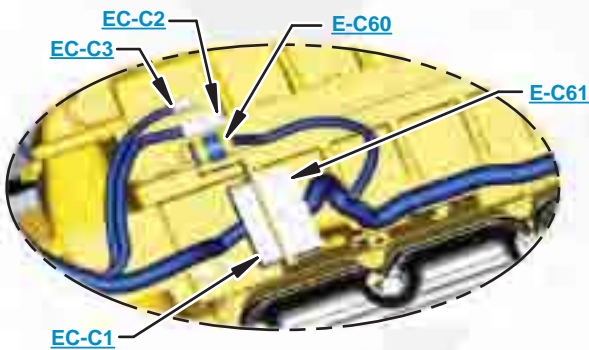


***This document is best viewed at a screen resolution of 1024 X 768.***

To set your screen resolution do the following:  
**RIGHT CLICK** on the **DESKTOP**.  
 Select **PROPERTIES**.  
**CLICK** the **SETTINGS TAB**.  
**MOVE THE SLIDER** under **SCREEN RESOLUTION** until it shows **1024 X 768**.  
**CLICK OK** to apply the resolution.

The Bookmarks panel will allow you to quickly navigate to points of interest.



Click on any text that is BLUE and underlined. These are hyperlinks that can be used to navigate the schematic and machine views.

**VIEW ALL CALLOUTS**

When only one callout is showing on a machine view this button will make all of the callouts visible. This button is located in the top right corner of every machine view page.

HOTKEYS (Keyboard Shortcuts)		
	FUNCTION	KEYS
	Zoom In	“CTRL” / “+”
	Zoom Out	“CTRL” / “-”
	Fit to Page	“CTRL” / “0” (zero)
	Hand Tool	“SPACEBAR” (hold down)
	Find	“CTRL” / “F”



# Schematic

---

246C, 256C, 262C, 262C2, and 272C  
Skid Steer Loader  
Hydraulic System

---

**246C:**  
**JAY1-UP**

**256C:**  
**DWS1-UP**

**262C:**  
**MST1-UP**

**262C2:**  
**TMW1-UP**

**272C:**  
**RED1-UP**

**Volume 1 of 2: Standard Flow with ATAAC and Demand Fan**  
**Volume 2 of 2: XPS High Flow**

---

# COMPONENT LOCATION

## Volume 1 of 2 - STANDARD FLOW



Description	Part Number			Machine Location	Schematic Location
	246/256	262	272		
Accumulator - Ride Control	307-6504	307-6504	307-6504	<a href="#">24</a>	<a href="#">F-5</a>
Cooler Assembly	361-4660	361-4660	361-4660	<a href="#">5</a>	<a href="#">E-3</a>
Coupling (Female)	193-8335	193-8335	193-8335	<a href="#">13</a>	<a href="#">I-1</a>
Coupling (Male)	193-8334	193-8334	193-8334	<a href="#">14</a>	<a href="#">I-1</a>
Cylinder Gp - Lift Cylinders	258-2512	258-2516	258-2516	<a href="#">17</a>	<a href="#">I-3</a>
Cylinder Gp - Quick Coupler	192-2640	192-2640	192-2640	<a href="#">21</a>	<a href="#">D-4</a>
Cylinder Gp - Tilt Cylinder (Left Hand)	258-2515	258-2515	258-2515	<a href="#">16</a>	<a href="#">I-2</a>
Cylinder Gp - Tilt Cylinder (Right Hand)	258-2514	258-2514	258-2514	<a href="#">15</a>	<a href="#">I-2</a>
Displacement Accumulator	193-0447	193-0447	193-0447	<a href="#">9</a>	<a href="#">E-10</a>
Filter Gp - Oil Filter	223-9974	223-9974	223-9974	<a href="#">7</a>	<a href="#">C-2</a>
Manifold Assembly - Bypass Check	258-2589	258-2589	258-2589	<a href="#">8</a>	<a href="#">E-5</a>
Motor Gp - Ataac Fan Motor			278-8720	<a href="#">11</a>	<a href="#">B-3</a>
Motor Gp - Demand Fan Motor	258-2577	258-2577	258-2577	<a href="#">6</a>	<a href="#">C-3</a>
Motor Gp - Single Speed Motor	258-2442	258-2442	258-2605	<a href="#">18</a>	<a href="#">D-10</a>
Pump Gp - Hystat Pump	258-2404	258-2404	258-2404	<a href="#">4</a>	<a href="#">B-8</a>
Pump Gp - Implement/ Charge / Ataac Pump Pump Gp - Implement/ Charge / Ataac Pump (Eu)			258-3464 258-3520	<a href="#">2</a>	<a href="#">B-6</a>
Pump Gp - Implement/ Charge Pump Pump Gp - Implement/ Charge Pump (Eu)	258-2553 258-3260	258-2553 258-3260		<a href="#">1</a>	<a href="#">B-7</a>
Tank Gp - Tank	258-2831	258-2831	258-2831	<a href="#">3</a>	<a href="#">A-4</a>
Valve Gp - Manual Ball Valve	112-1817	112-1817	112-1817	<a href="#">19</a>	<a href="#">G-6</a>
Valve Gp - Pilot Shutoff Valve	274-8563	274-8563	274-8563	<a href="#">10</a>	<a href="#">F-9</a>
Valve Gp - Pre Charge	307-2276	307-2276	307-2276	<a href="#">25</a>	<a href="#">F-5</a>
Valve Gp - Quick Coupler	291-0010	291-0010	291-0010	<a href="#">22</a>	<a href="#">D-4</a>
Valve Gp - Ride Control	307-2275	307-2275	307-2275	<a href="#">23</a>	<a href="#">G-5</a>
Valve Gp - Single Self Level Valve	258-2801	258-2802	258-2802	<a href="#">20</a>	<a href="#">I-6</a>
Valve Gp - Standard Implement Valve	336-1322	336-1324	336-1324	<a href="#">12</a>	<a href="#">F-2</a>
<b>Two Speed Option</b>					
Motor Gp - 2 Speed Motor (Left Hand)	258-2520	258-2520	258-2835	<a href="#">28</a>	<a href="#">H-9</a>
Motor Gp - 2 Speed Motor (Right Hand)	258-2521	258-2521	258-2836	<a href="#">27</a>	<a href="#">H-7</a>
Pump Gp - Hystat Pump	258-2404	258-2404	258-2404	<a href="#">26</a>	<a href="#">F-7</a>
Valve Gp - 2 Speed Valve	274-8564	274-8564	274-8564	<a href="#">29</a>	<a href="#">I-8</a>
<b>XDP Option</b>					
Motor Gp - Hystat Motor	285-2605	285-2605	285-2605	<a href="#">31</a>	<a href="#">H-12</a>
Pump Gp - Hystat Pump	289-6362	289-6362	289-6362	<a href="#">30</a>	<a href="#">F-11</a>
<b>Additional</b>					
Valve Gp - Check	304-6756	304-6756	304-6756	<a href="#">32</a>	<a href="#">F-5</a>

# COMPONENT LOCATION

## Volume 2 of 2 - XPS HIGH FLOW



Description	Part Number			Machine Location	Schematic Location
	246/256	262	272		
Accumulator - Implement Valve Charge	193-0447			<a href="#">1</a>	<a href="#">E-10</a>
Accumulator - Ride Control	307-6504			<a href="#">2</a>	<a href="#">F-5</a>
Cooler Assembly	258-3457			<a href="#">3</a>	<a href="#">E-3</a>
Coupling (Female) 1	218-5841			<a href="#">4</a>	<a href="#">I-1</a>
Coupling (Female) 2	229-5471			<a href="#">5</a>	<a href="#">I-4</a>
Coupling (Male) 1	218-5840			<a href="#">6</a>	<a href="#">I-1</a>
Coupling (Male) 2	229-5468			<a href="#">7</a>	<a href="#">I-4</a>
Coupling (Male) 3	229-5473			<a href="#">8</a>	<a href="#">I-4</a>
Cylinder Gp - Lift	258-2512	258-2516		<a href="#">9</a>	<a href="#">I-3</a>
Cylinder Gp - Quick Coupler	192-2640			<a href="#">10</a>	<a href="#">E-4</a>
Cylinder Gp - Tilt (Left Hand)	258-2515			<a href="#">11</a>	<a href="#">I-2</a>
Cylinder Gp - Tilt (Right Hand)	258-2514			<a href="#">12</a>	<a href="#">I-2</a>
Filter Gp - Oil	223-9974			<a href="#">13</a>	<a href="#">C-2</a>
Manifold Assembly - Bypass Check	308-0421			<a href="#">14</a>	<a href="#">E-5</a>
Motor Gp - 2 Speed (Left Hand)	258-2520	258-2835		<a href="#">15</a>	<a href="#">H-9</a>
Motor Gp - 2 Speed (Right Hand)	258-2521	258-2836		<a href="#">16</a>	<a href="#">H-7</a>
Motor Gp - Ataac Fan			258-2926	<a href="#">17</a>	<a href="#">B-3</a>
Motor Gp - Beta Single Speed	258-2442	258-2605		<a href="#">18</a>	<a href="#">D-10</a>
Motor Gp - Demand Fan	258-2577			<a href="#">19</a>	<a href="#">D-3</a>
Motor Gp - Hystat	285-2605			<a href="#">20</a>	<a href="#">H-12</a>
Orifice	6V-8627			<a href="#">21</a>	<a href="#">A-3</a>
Pump Gp - Charge And Ataac			258-3521	<a href="#">22</a>	<a href="#">B-3</a>
Pump Gp - Charge And Ataac (Eu)			258-2555		
Pump Gp - Charge	258-2555			<a href="#">23</a>	<a href="#">B-4</a>
Pump Gp - Charge (Eu)	258-3261				
Pump Gp - Hystat	289-6362			<a href="#">24</a>	<a href="#">F-11, F-7</a>
Pump Gp - Implement	258-2554			<a href="#">25</a>	<a href="#">B-5</a>
Pump Gp - Ssl Drive	258-2404			<a href="#">26</a>	<a href="#">B-8</a>
Tank Gp	258-2831			<a href="#">27</a>	<a href="#">B-3</a>
Valve Gp - 2 Speed	274-8564			<a href="#">28</a>	<a href="#">I-8</a>
Valve Gp - Check	304-6756			<a href="#">29</a>	<a href="#">F-5</a>
Valve Gp - Check	314-2403			<a href="#">30</a>	<a href="#">F-5</a>
Valve Gp - Manual Ball	112-1817			<a href="#">31</a>	<a href="#">G-6</a>
Valve Gp - Pilot Shutoff	274-8563			<a href="#">32</a>	<a href="#">E-9</a>
Valve Gp - Quick Coupler	291-0010			<a href="#">33</a>	<a href="#">D-4</a>
Valve Gp - Ride Control Accumulator Precharge	307-2276			<a href="#">34</a>	<a href="#">F-5</a>
Valve Gp - Ride Control	307-2275			<a href="#">35</a>	<a href="#">G-5</a>
Valve Gp - Single Self Level	258-2801	258-2802		<a href="#">36</a>	<a href="#">I-5</a>
Valve Gp - Xps Implement	336-1323			<a href="#">37</a>	<a href="#">F-2</a>

# TAP LOCATION

## Volume 1 of 2 - STANDARD FLOW



Tap Number	Description	Schematic Location
<a href="#">BB</a>	SOS	<a href="#">D-3</a>
<a href="#">EE</a>	Charge Pressure	<a href="#">H-8</a> , <a href="#">H-12</a> , <a href="#">C-9</a>
PO	Pilot Oil Pressure	<a href="#">H-1</a>
<a href="#">MC</a>	Main System Pressure (Pump 1 Forward)	<a href="#">H-8</a> , <a href="#">H-12</a> , <a href="#">C-10</a>
<a href="#">MB</a>	Main System Pressure (Pump 2 Forward)	<a href="#">H-7</a> , <a href="#">H-11</a> , <a href="#">C-9</a>
<a href="#">MA</a>	Main System Pressure (Pump 2 Reverse)	<a href="#">F-7</a> , <a href="#">F-11</a> , <a href="#">B-9</a>
<a href="#">MD</a>	Main System Pressure (Pump 1 Reverse)	<a href="#">F-8</a> , <a href="#">F-12</a> , <a href="#">B-10</a>

# TAP LOCATION

## Volume 2 of 2 - XPS HIGH FLOW

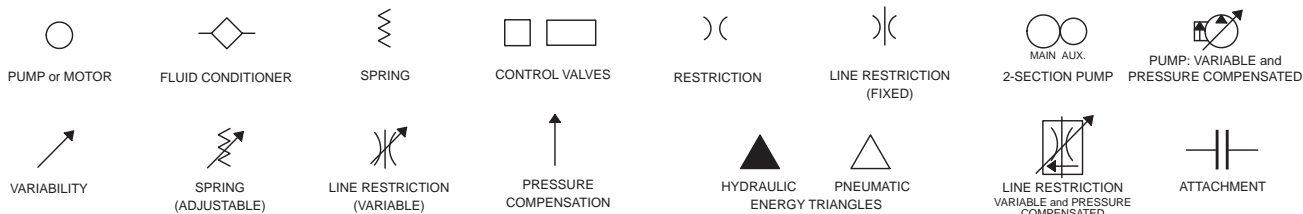


Tap Number	Description	Schematic Location
<a href="#">AA</a>	Load Sense	<a href="#">C-4</a>
<a href="#">BB</a>	SOS	<a href="#">D-3</a>
CC	Implement Pump Pressure	<a href="#">F-4</a>
<a href="#">EE</a>	Charge Pressure	<a href="#">H-8</a> , <a href="#">H-12</a> , <a href="#">C-9</a>
PO	Pilot Oil Pressure	<a href="#">H-1</a>
<a href="#">MC</a>	Main System Pressure (Pump 1 Forward)	<a href="#">H-8</a> , <a href="#">H-12</a> , <a href="#">C-10</a>
<a href="#">MB</a>	Main System Pressure (Pump 2 Forward)	<a href="#">H-7</a> , <a href="#">H-11</a> , <a href="#">C-9</a>
<a href="#">MA</a>	Main System Pressure (Pump 2 Reverse)	<a href="#">F-11</a> , <a href="#">F-7</a> , <a href="#">A-9</a>
<a href="#">MD</a>	Main System Pressure (Pump 1 Reverse)	<a href="#">F-12</a> , <a href="#">F-8</a> , <a href="#">A-10</a>

# FLUID POWER SYMBOLS



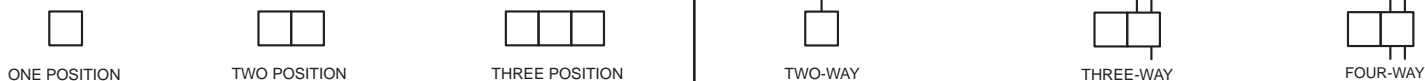
## BASIC COMPONENT SYMBOLS



## VALVE ENVELOPES

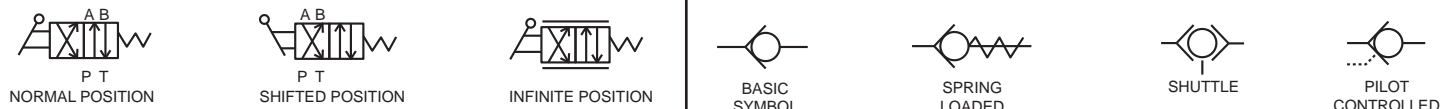
## VALVES

## VALVE PORTS



## CONTROL VALVES

## CHECK VALVES

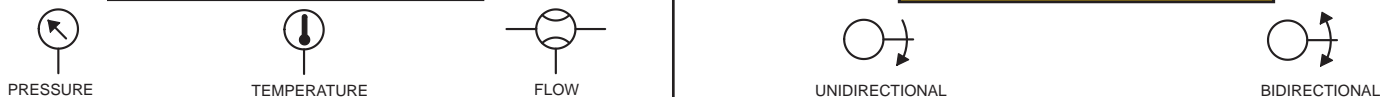


## FLUID STORAGE RESERVOIRS



## MEASUREMENT

## ROTATING SHAFTS



## COMBINATION CONTROLS



## MANUAL CONTROL SYMBOLS



## RELEASED PRESSURE

## PILOT CONTROL SYMBOLS

## REMOTE SUPPLY PRESSURE



## ACCUMULATORS

## CROSSING AND JOINING LINES

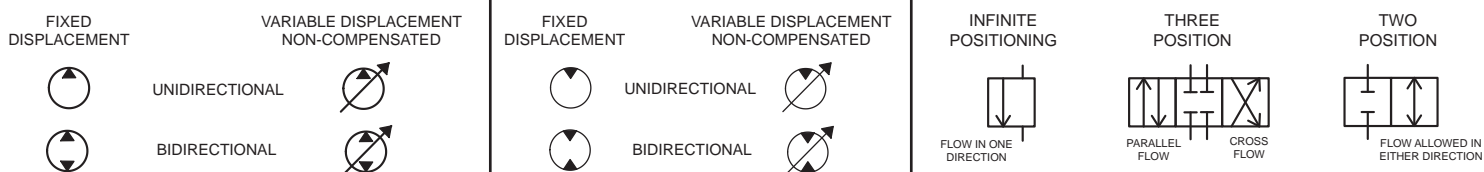
## HYDRAULIC AND PNEUMATIC CYLINDERS



## HYDRAULIC PUMPS

## HYDRAULIC MOTORS

## INTERNAL PASSAGEWAYS



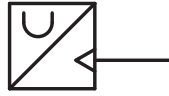
# ELECTRICAL SYMBOLS



## Hydraulic Symbols (Electrical)



Transducer  
(Fluid)



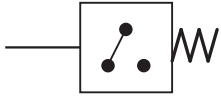
Transducer  
(Gas / Air)



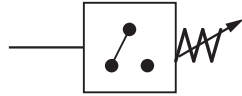
Generator



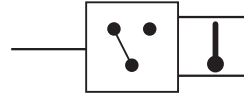
Electric Motor



Pressure Switch



Pressure Switch  
(Adjustable)

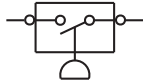


Temperature Switch

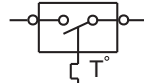


Electrical Wire

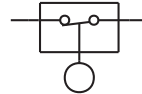
## Electrical Symbols (Electrical)



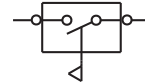
Pressure  
Symbol



Temperature  
Symbol



Level  
Symbol

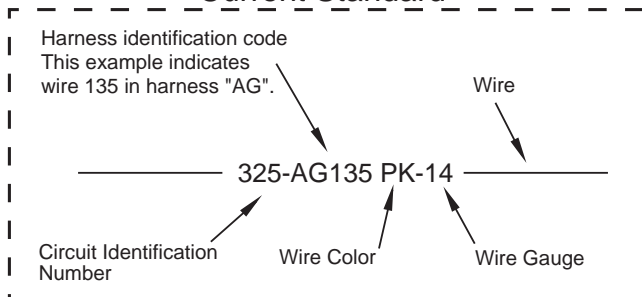


Flow  
Symbol

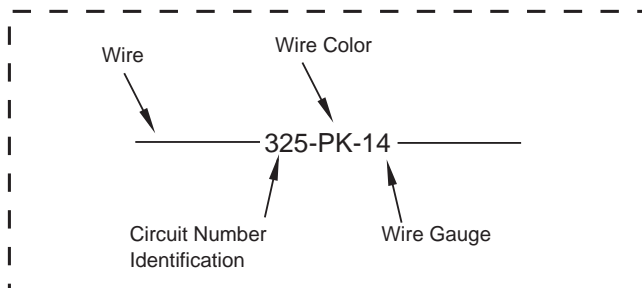
## Wire Number Identification Codes

### Electrical Schematic Example

#### Current Standard

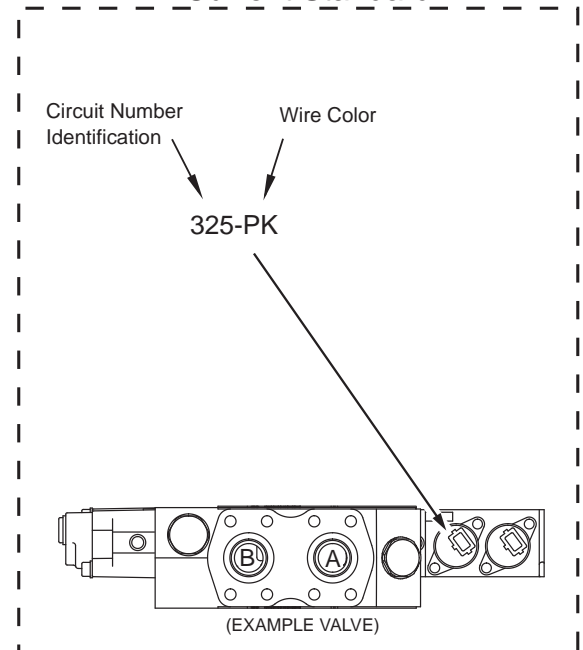


#### Previous Standard

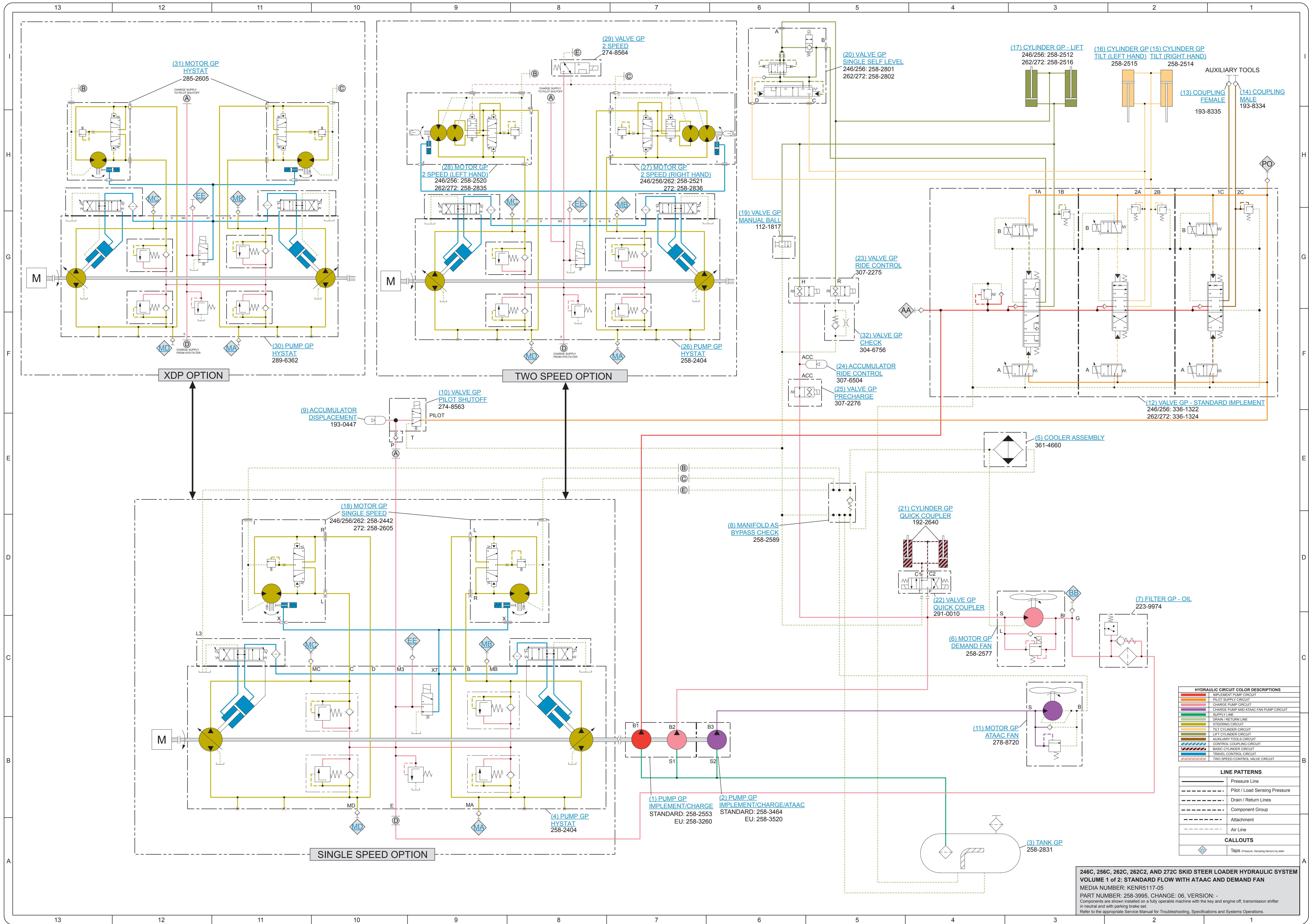


### Hydraulic Schematic Example

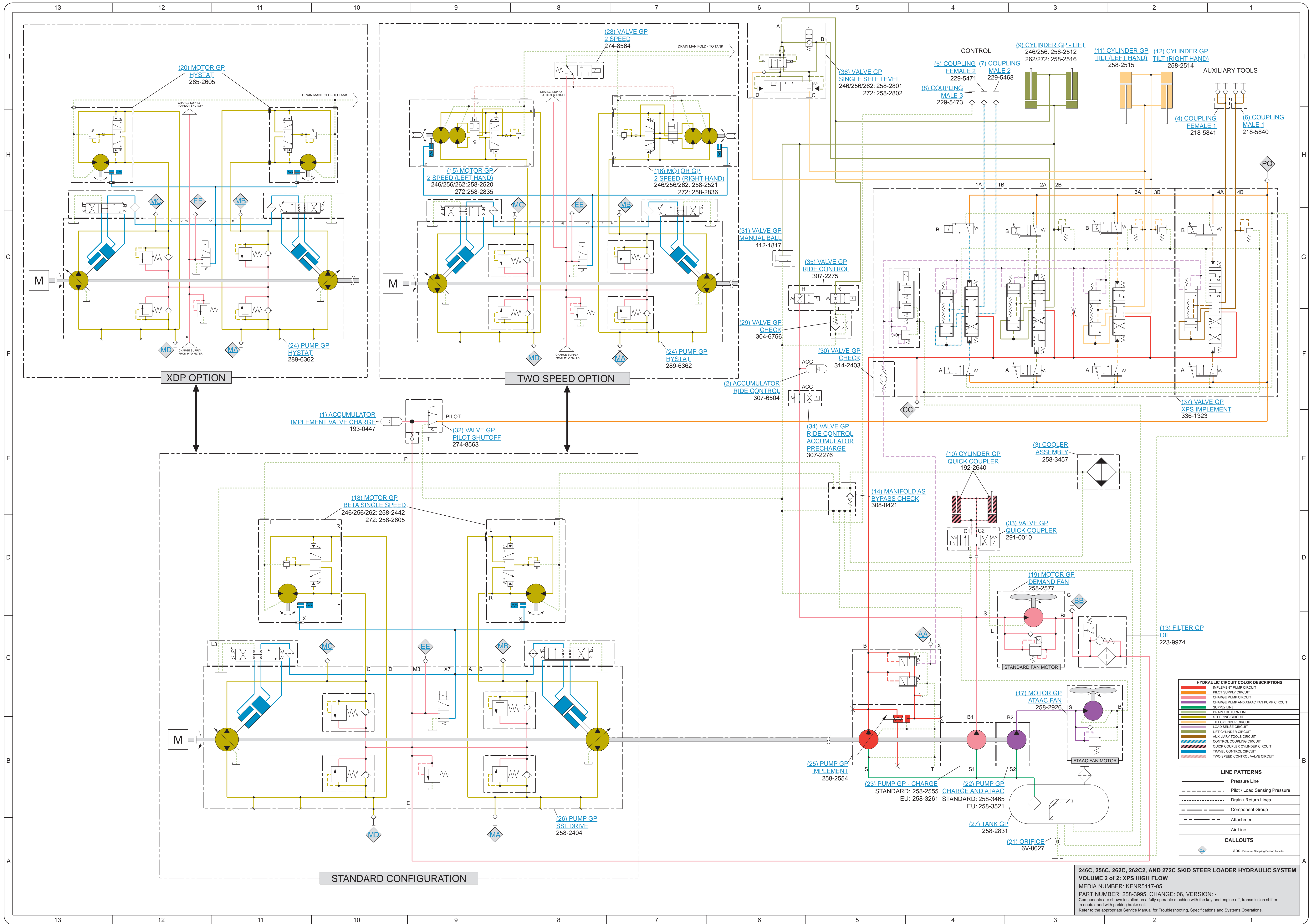
#### Current Standard







246C, 256C, 262C, 262C2, AND 272C SKID STEER LOADER HYDRAULIC SYSTEM  
 VOLUME 1 of 2: STANDARD FLOW WITH ATAAC AND DEMAND FAN  
 MEDIA NUMBER: KENR5117-05  
 PART NUMBER: 258-3995, CHANGE: 06, VERSION: -  
 Components are shown installed on a fully operable machine with the key and engine off, transmission shifter in neutral and with parking brake set.  
 Refer to the appropriate Service Manual for Troubleshooting, Specifications and Systems Operations.



HYDRAULIC CIRCUIT COLOR DESCRIPTIONS	
[Red Line]	IMPLEMENT PUMP CIRCUIT
[Orange Line]	PILOT SUPPLY CIRCUIT
[Yellow Line]	CHARGE PUMP CIRCUIT
[Green Line]	CHARGE PUMP AND ATAAC FAN PUMP CIRCUIT
[Blue Line]	SUPPLY LINE
[Light Blue Line]	DRAIN / RETURN LINE
[Purple Line]	STEERING CIRCUIT
[Pink Line]	TILT CYLINDER CIRCUIT
[Light Green Line]	LOAD SENSE CIRCUIT
[Light Purple Line]	LIFT CYLINDER CIRCUIT
[Light Orange Line]	AUXILIARY TOOLS CIRCUIT
[Light Blue Line]	CONTROL COUPLING CIRCUIT
[Light Green Line]	QUICK COUPLER CYLINDER CIRCUIT
[Light Purple Line]	TRAVEL CONTROL CIRCUIT
[Light Orange Line]	TWO SPEED CONTROL VALVE CIRCUIT

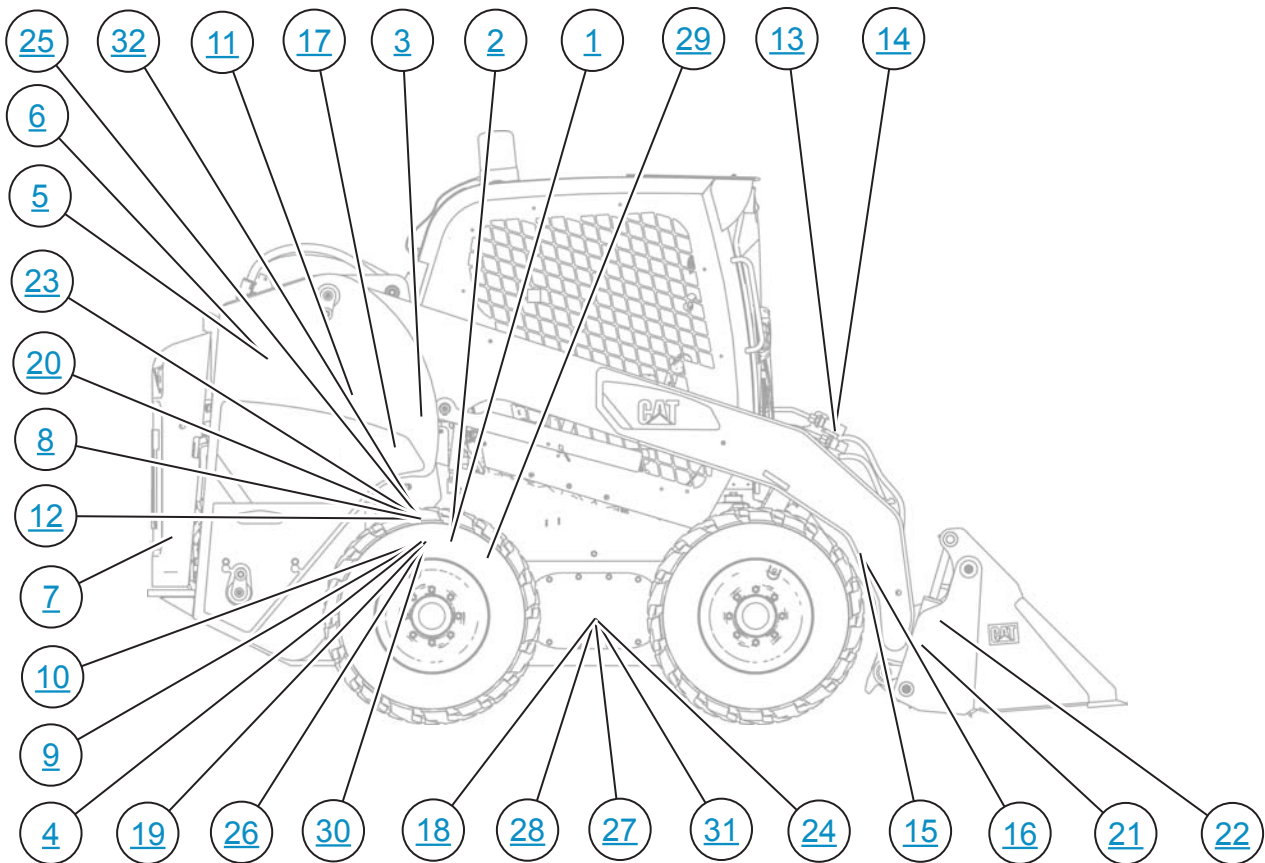
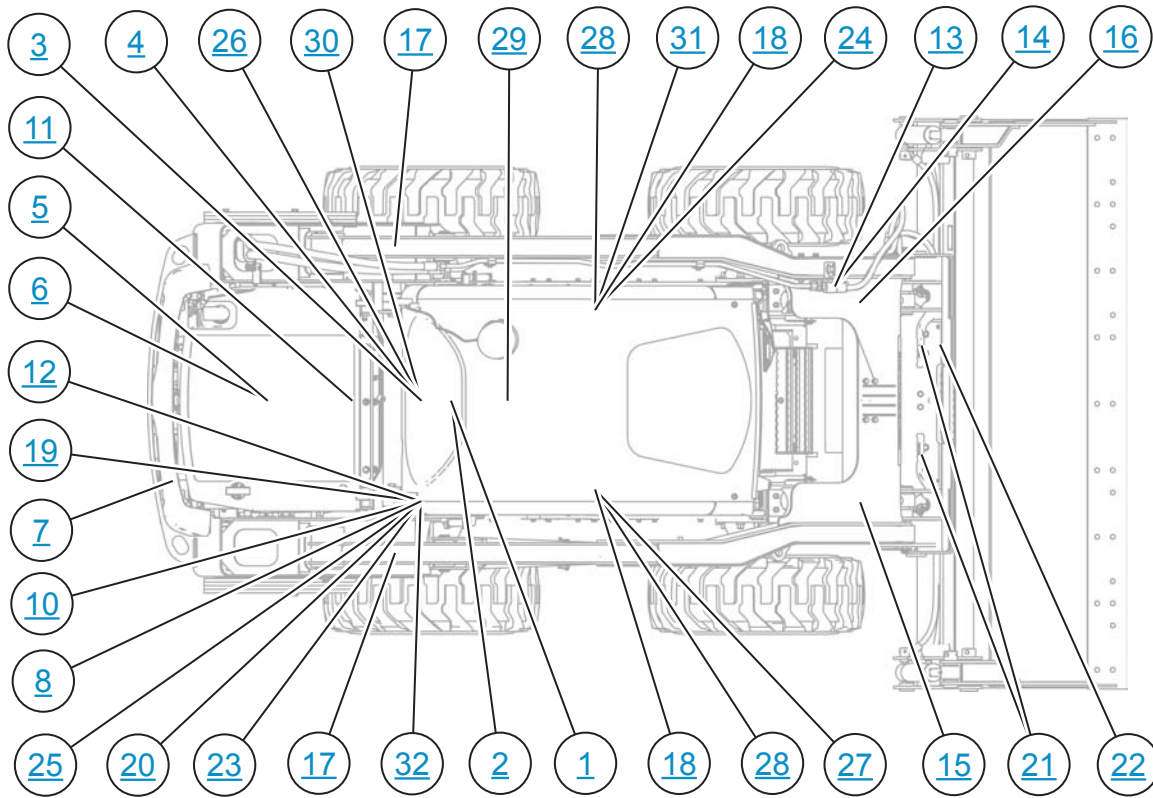
LINE PATTERNS	
[Solid Line]	Pressure Line
[Dashed Line]	Pilot / Load Sensing Pressure
[Dotted Line]	Drain / Return Lines
[Dashed Line]	Component Group
[Dotted Line]	Attachment
[Dashed Line]	Air Line

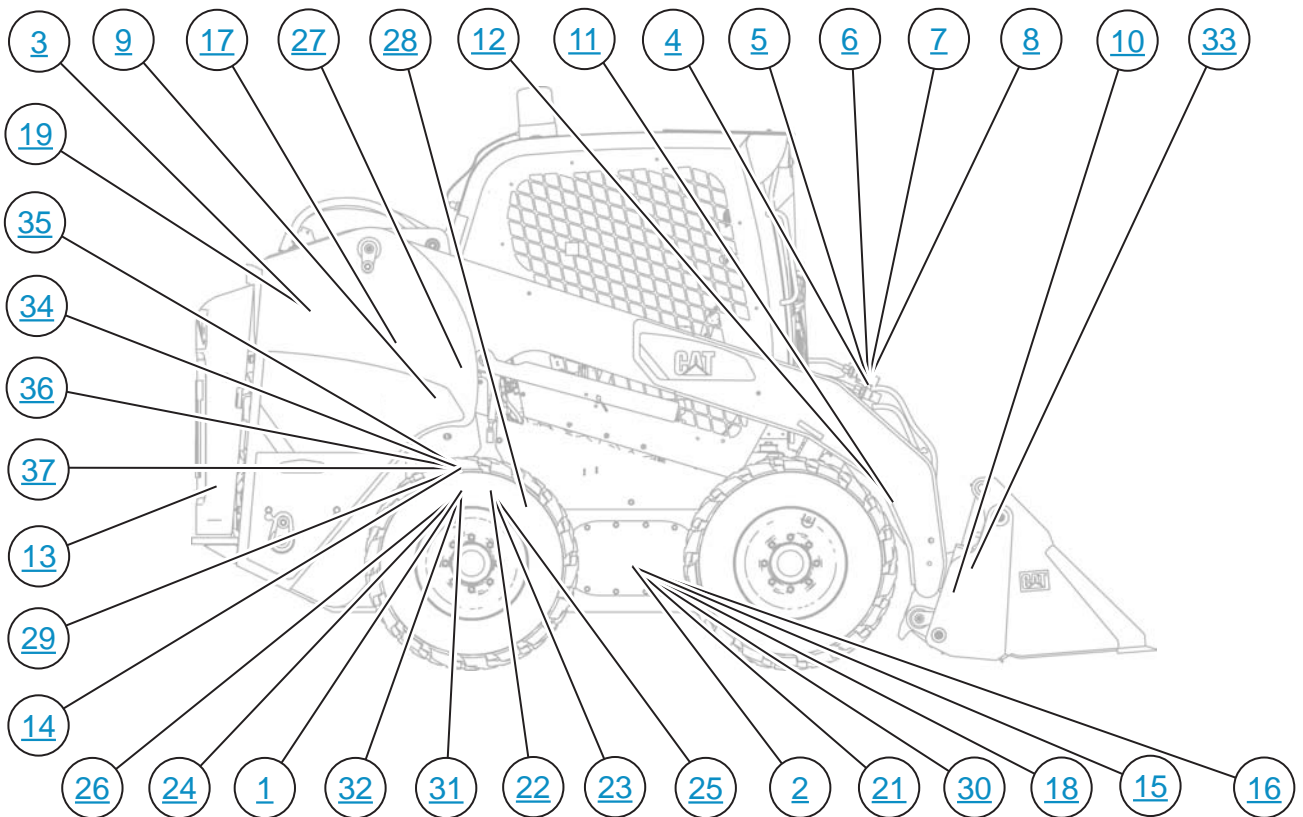
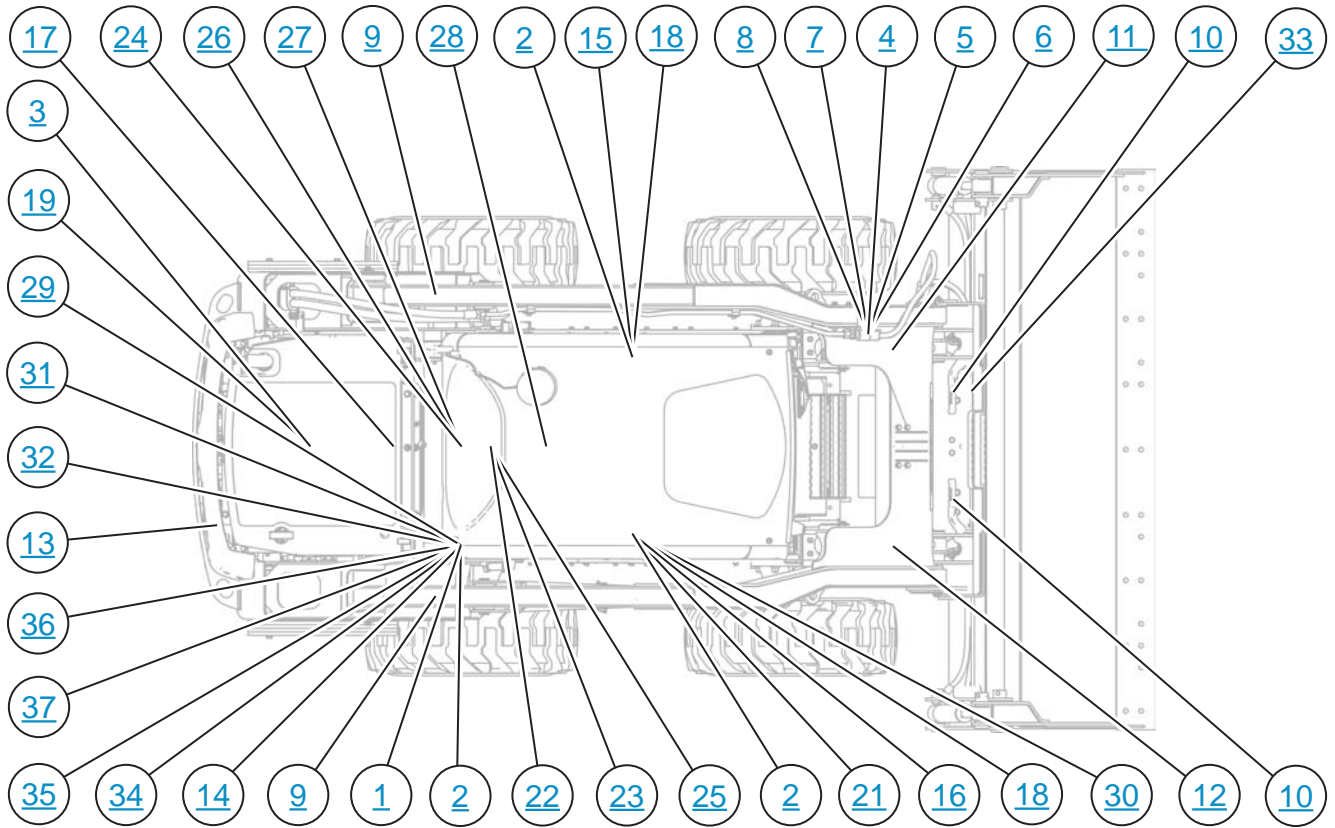
CALLOUTS	
[Diamond Symbol]	Taps Pressure, Sampling, Service to Meter

246C, 256C, 262C, 262C2, AND 272C SKID STEER LOADER HYDRAULIC SYSTEM  
 VOLUME 2 of 2: XPS HIGH FLOW  
 MEDIA NUMBER: KENR5117-05  
 PART NUMBER: 258-3995, CHANGE: 06, VERSION: -  
 Components are shown installed on a fully operable machine with the key and engine off, transmission shifter in neutral and with parking brake set.  
 Refer to the appropriate Service Manual for Troubleshooting, Specifications and Systems Operations.

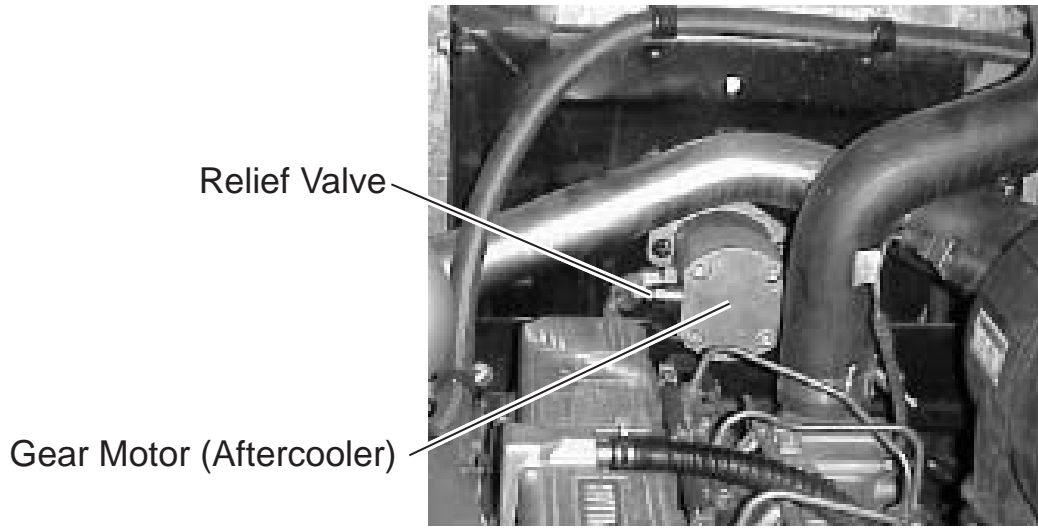
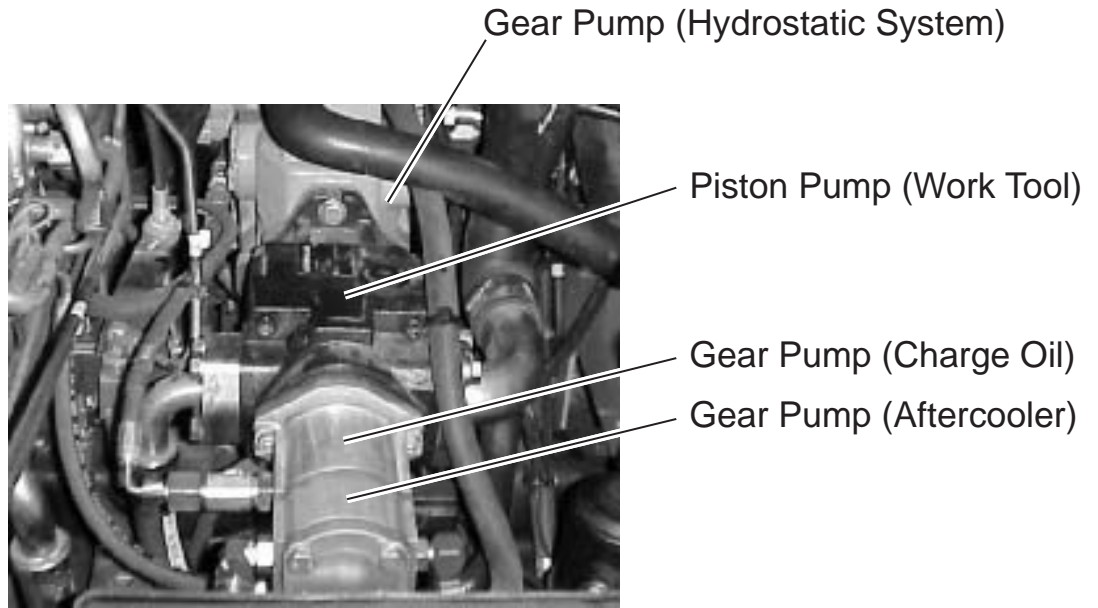
# MACHINE COMPONENT LOCATIONS - STANDARD FLOW



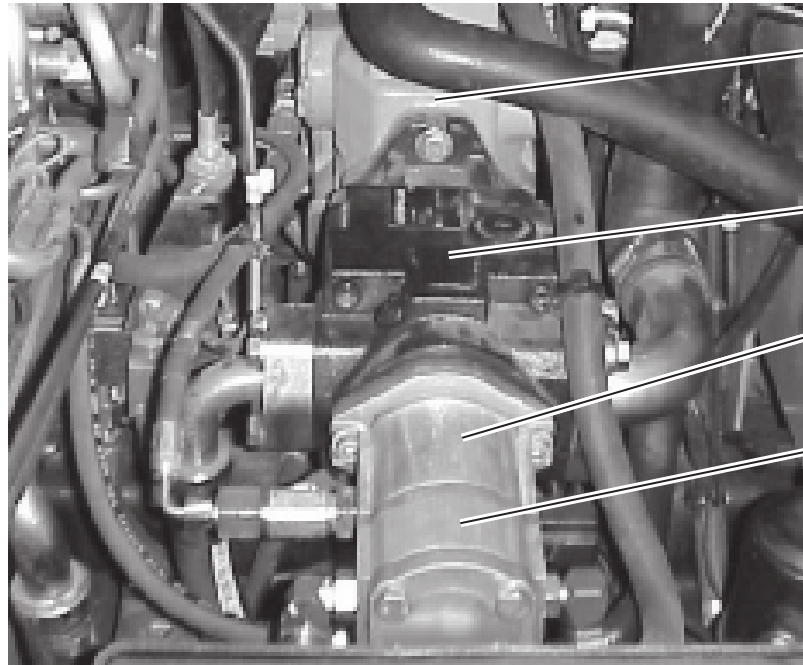
# MACHINE COMPONENT LOCATIONS - XPS



# AIR-TO-AIR AFTERCOOLER SYSTEM ATAAC (IF EQUIPPED) - STANDARD FLOW



# AIR-TO-AIR AFTERCOOLER SYSTEM - XPS

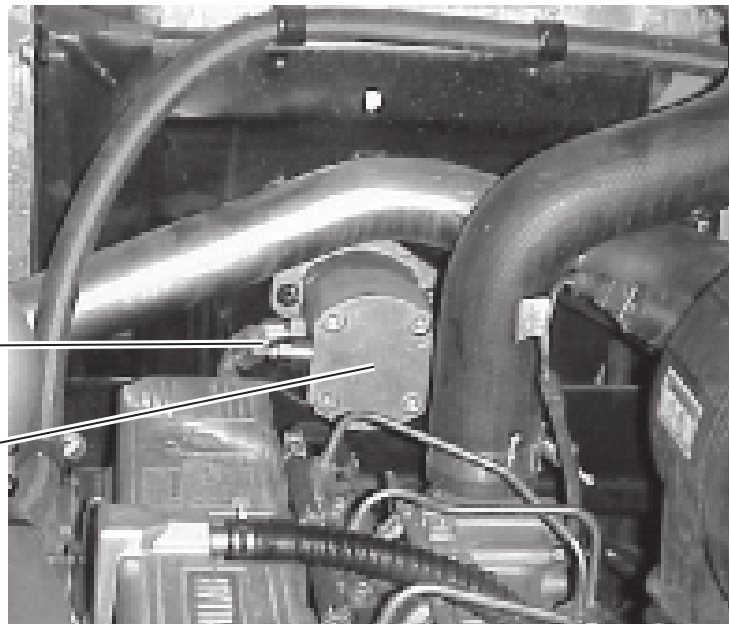


Gear Pump  
(Hydrostatic System)

Piston Pump  
(Work Tool)

Gear Pump  
(Charge Oil)

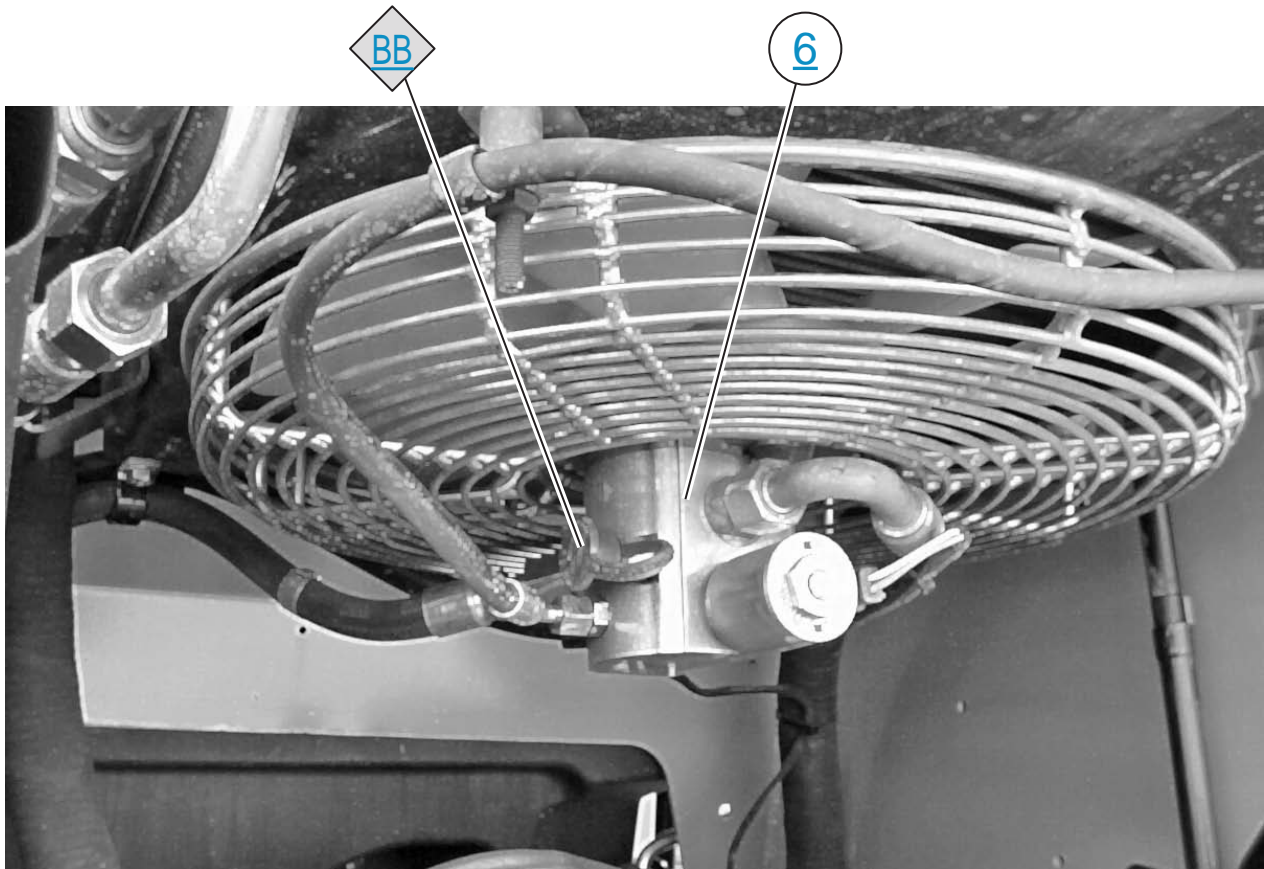
Gear Pump  
(Aftercooler)



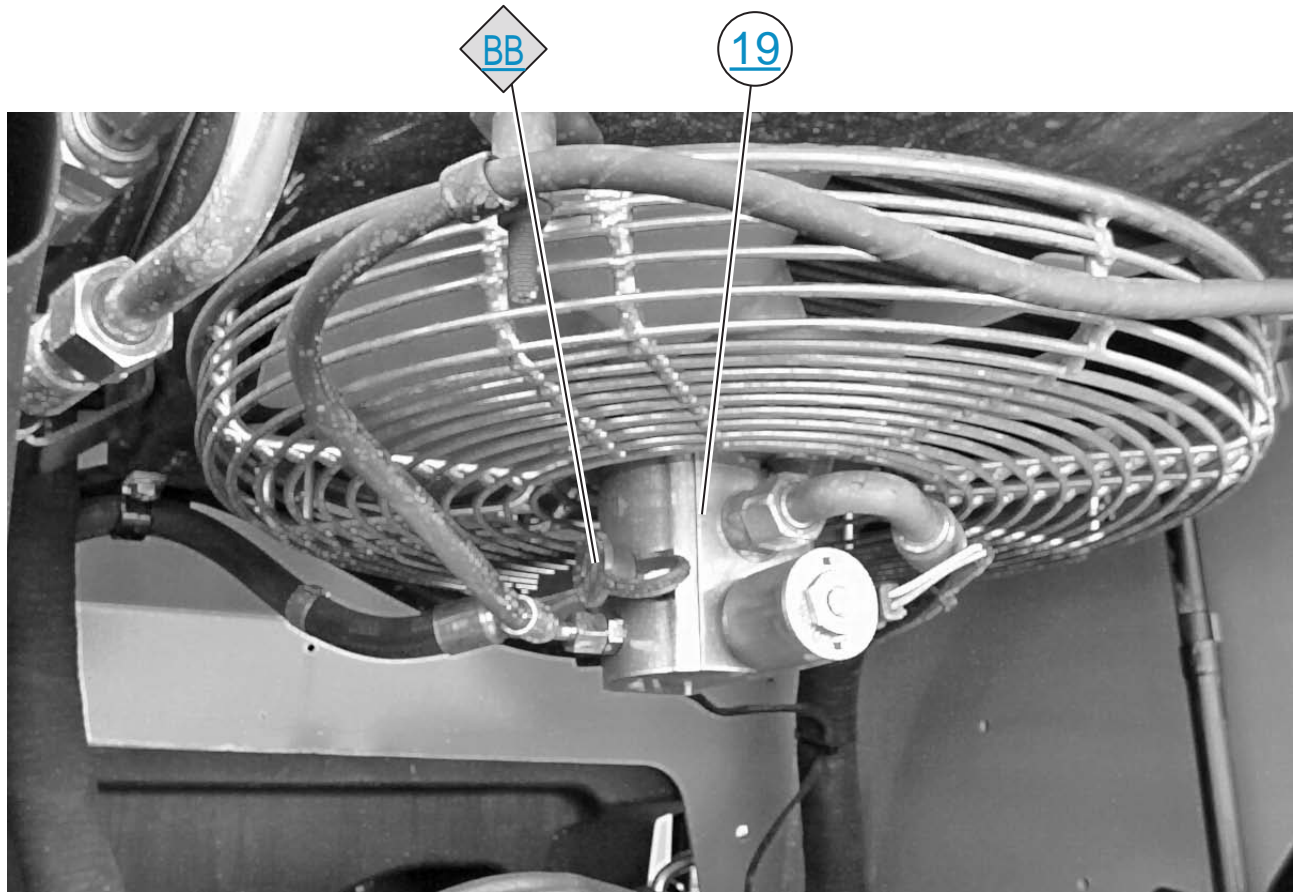
Relief Valve

Gear Motor  
(Aftercooler)

# DEMAND FAN MOTOR AND HYDRAULIC OIL FILTER - STANDARD FLOW



# DEMAND FAN MOTOR AND HYDRAULIC OIL FILTER - XPS HIGH FLOW



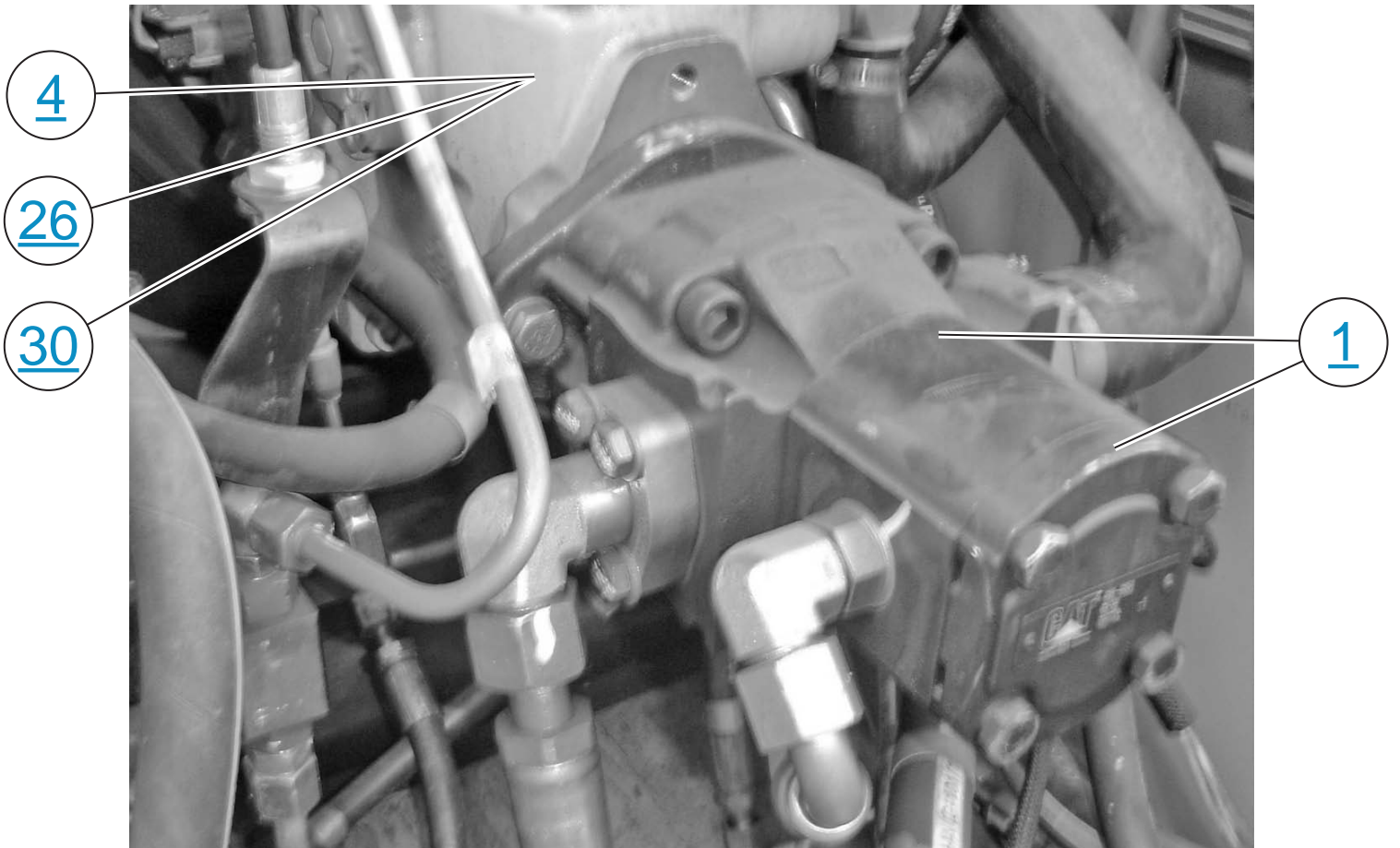
Differential pressure Sensor



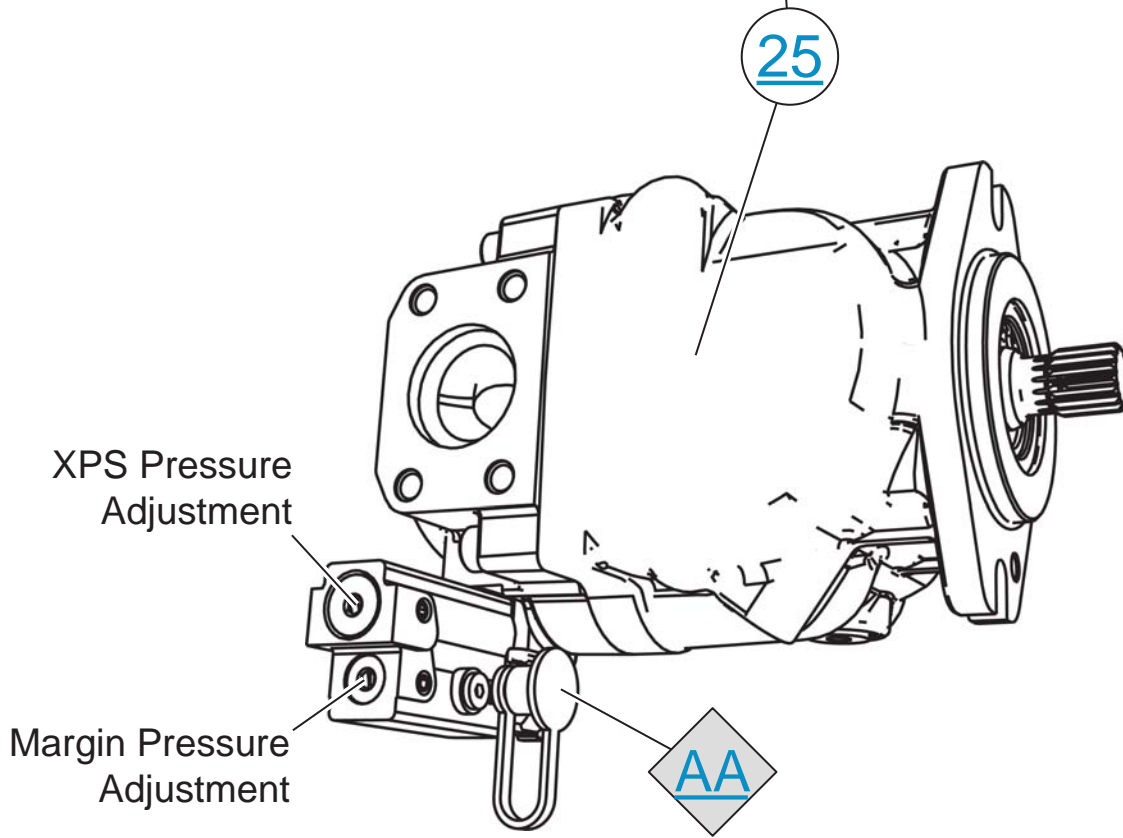
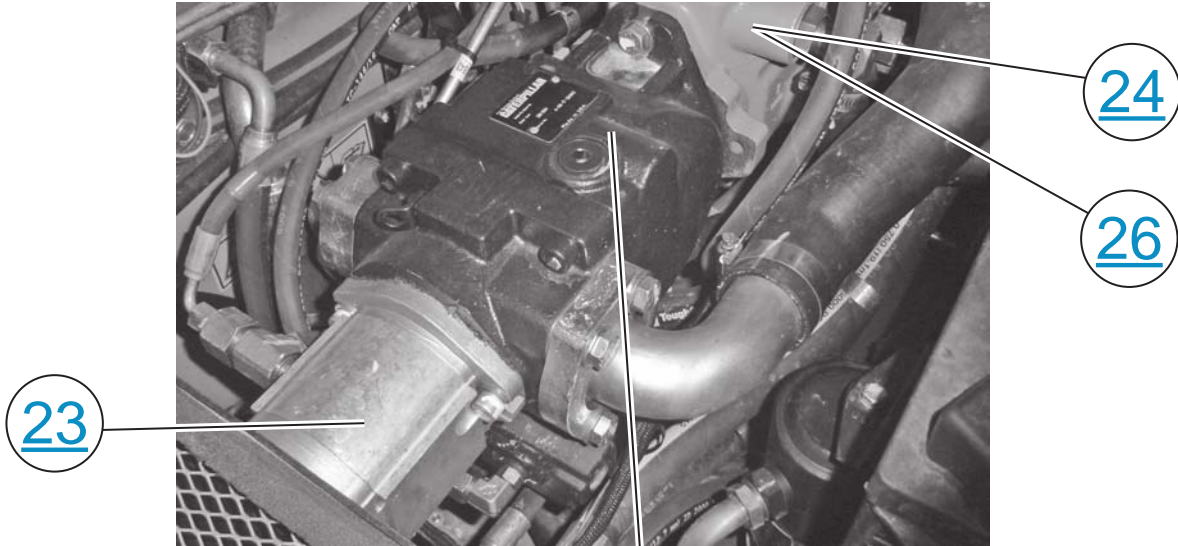
13



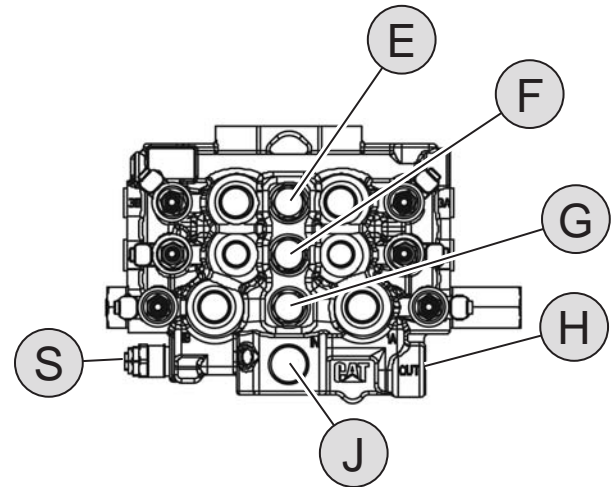
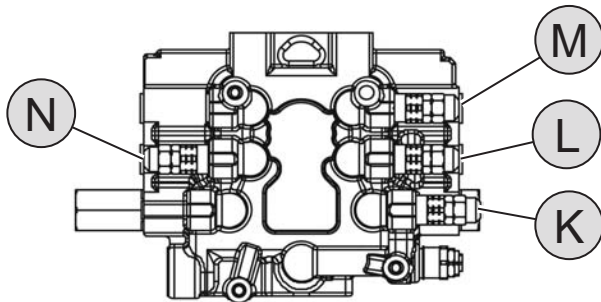
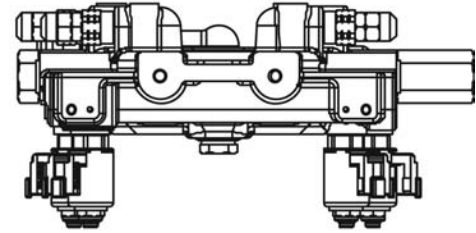
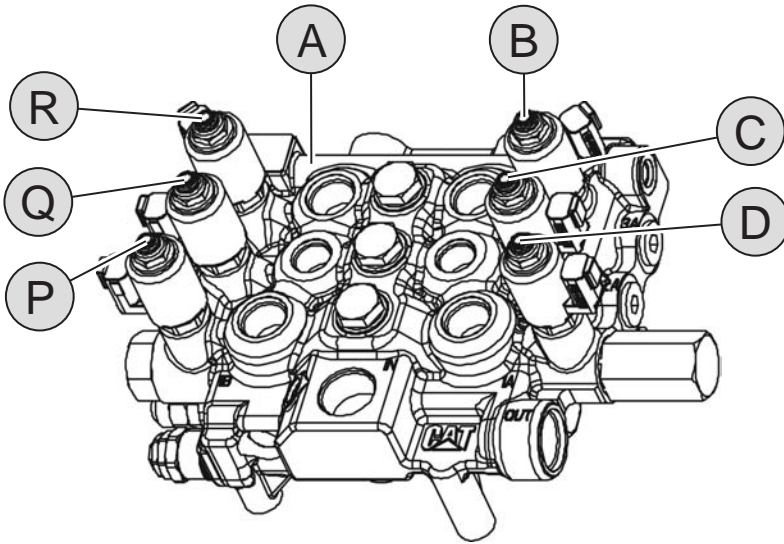
# IMPLEMENT PUMP AND CHARGE PUMP - STANDARD FLOW



# IMPLEMENT PUMP AND CHARGE PUMP - XPS



# IMPLEMENT VALVE - (STANDARD)



(A) Control Valve (work tool)

(B) Solenoid valve for the auxiliary function

(C) Solenoid valve for the tilt function

(D) Solenoid valve for the lift function

(E) Load check valve for the auxiliary control valve

(F) Load check valve for the tilt control valve

(G) Load check valve for the lift control valve

(H) Outlet

(J) Inlet

(K) Relief valve - lift cylinder head end.

(L) Relief Valve - tilt cylinder head end.

(M) Relief Valve - auxiliary valve B port.

(N) Relief Valve for the rod end of the tilt cylinder

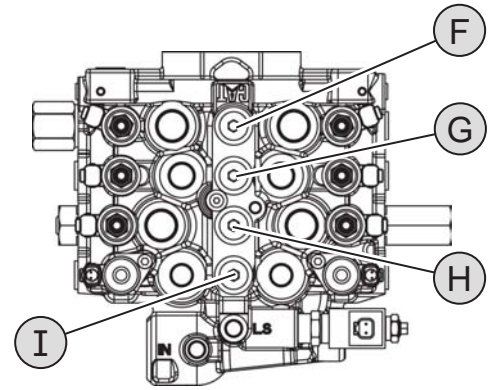
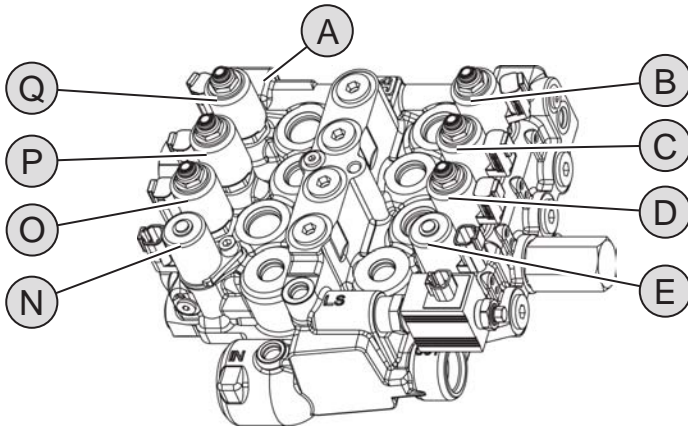
(P) Solenoid valve for the lift function

(Q) Solenoid valve for the tilt function

(R) Solenoid valve for the auxiliary function

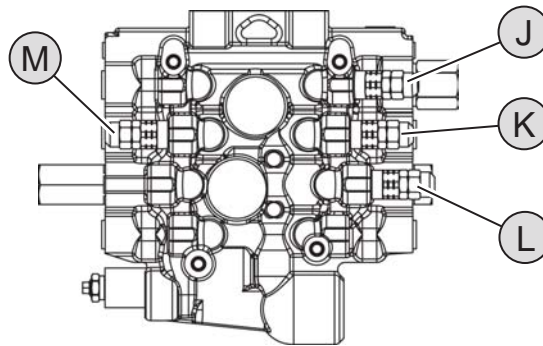
(S) Main relief valve for the work tool hydraulic system

# IMPLEMENT VALVE - (XPS)



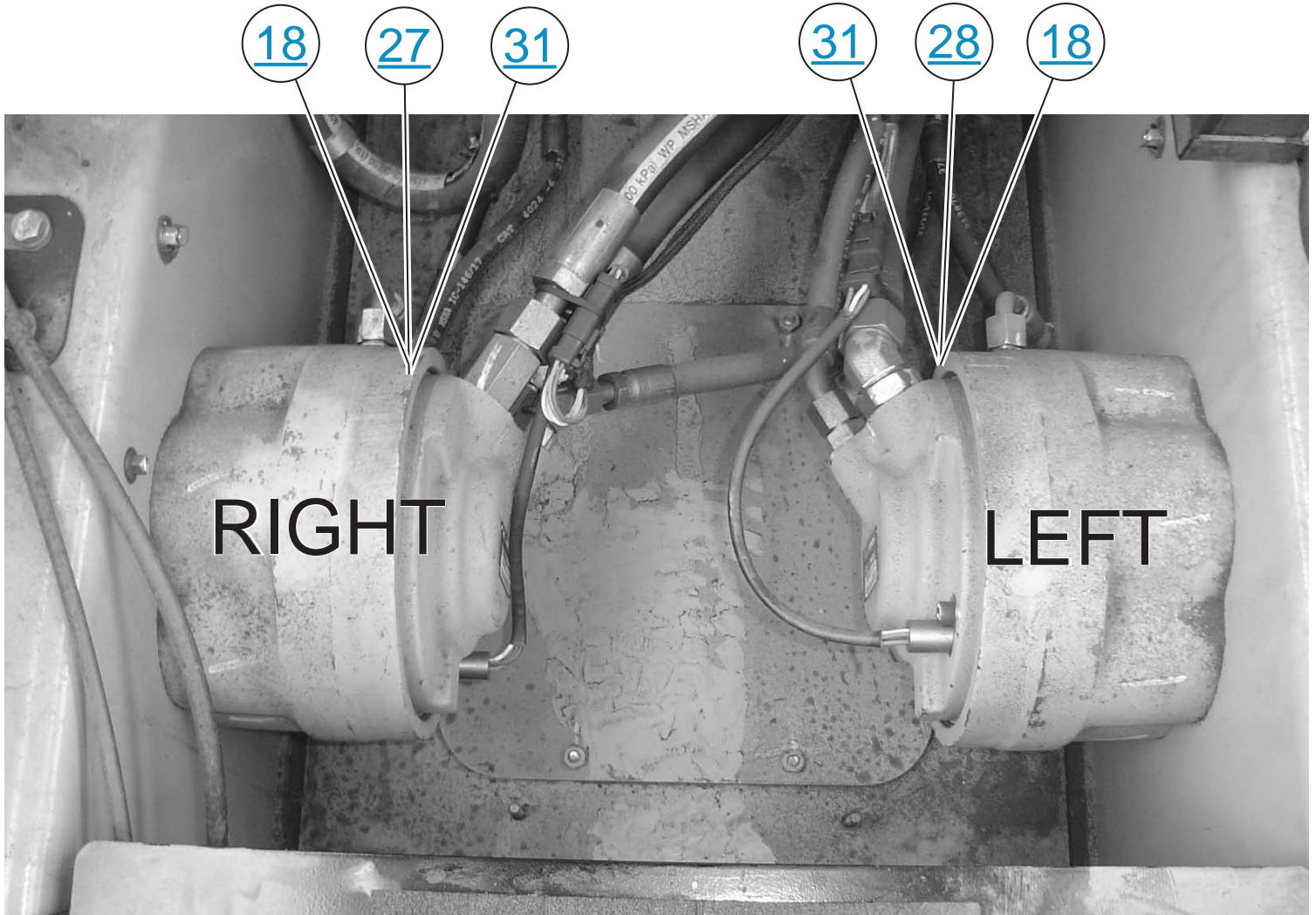
- (A) Control Valve (work tool)
- (B) Solenoid Valve for the auxiliary function
- (C) Solenoid Valve for the tilt function
- (D) Solenoid Valve for the lift function
- (E) Solenoid Valve for the secondary auxiliary function
- (F) Isolator Compensator Assembly for the auxiliary function

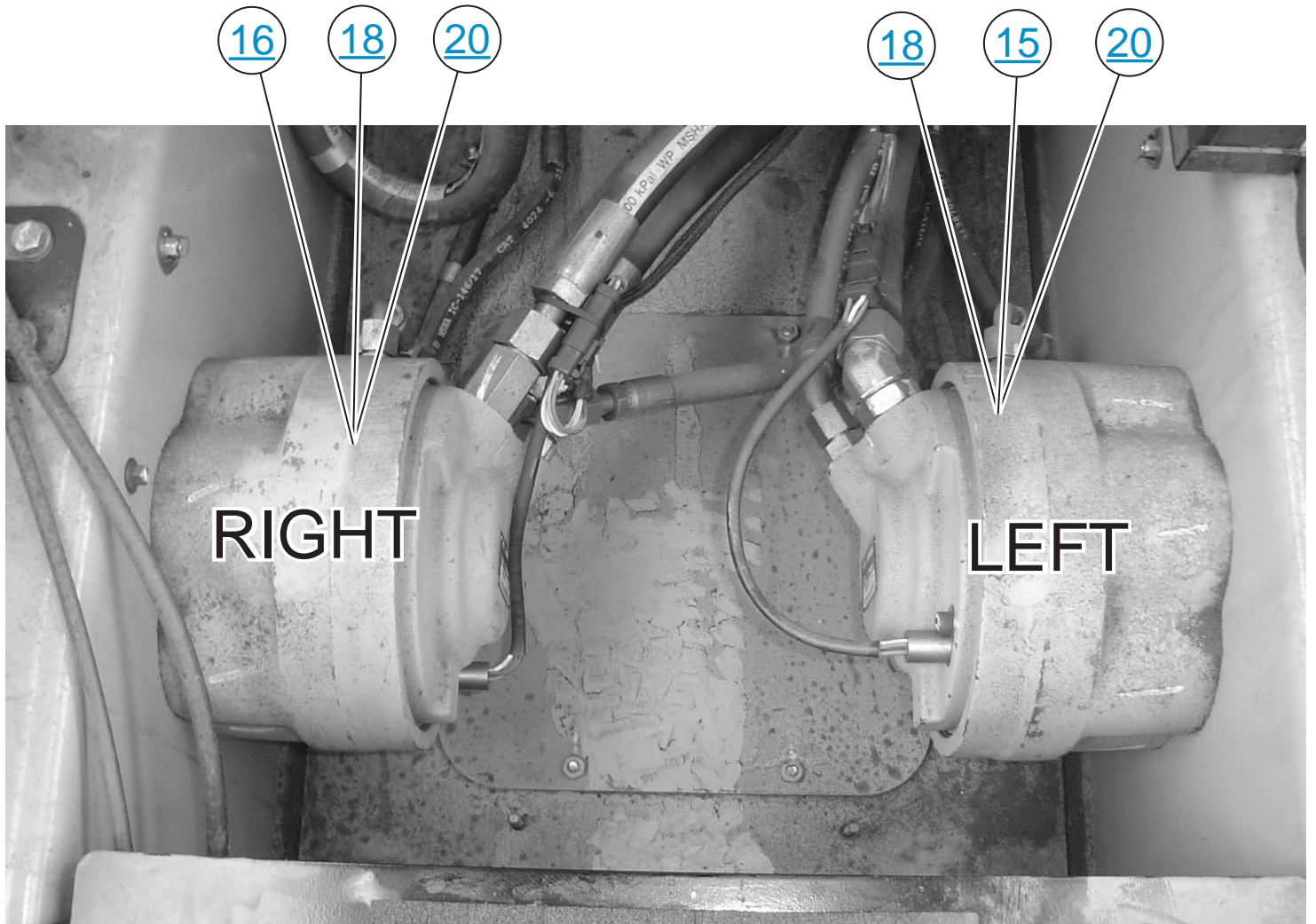
- (G) Isolator Compensator Assembly for the tilt cylinders
- (H) Isolator Compensator Assembly for the lift cylinders
- (I) Isolator Compensator Assembly for the secondary auxiliary function
- (J) Relief Valve for the auxiliary function



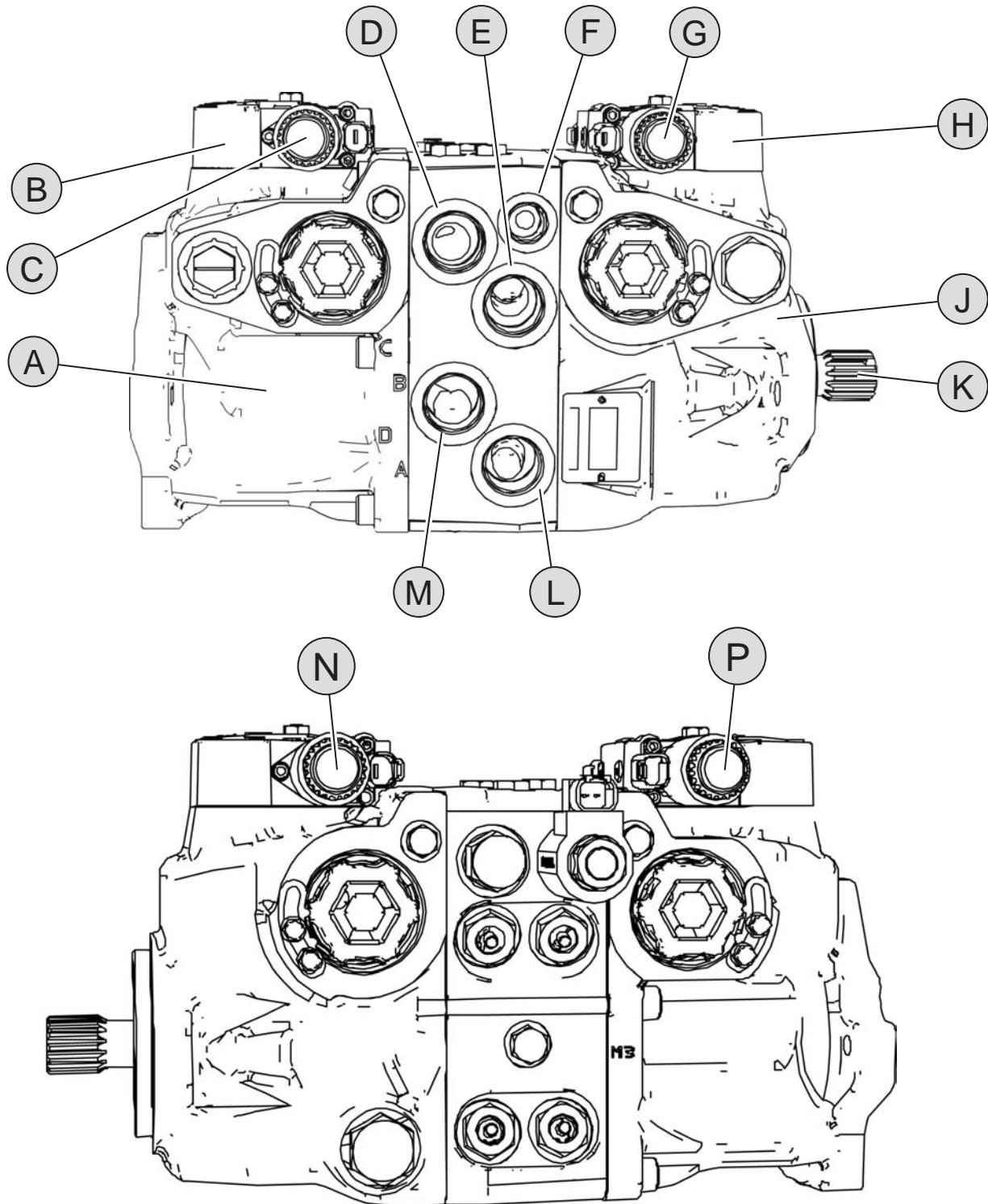
- (L) Relief Valve for the secondary auxiliary function
- (M) Relief Valve for the tilt cylinders
- (N) Solenoid Valve for the secondary auxiliary function
- (O) Solenoid Valve for the lift function
- (P) Solenoid Valve for the tilt function

# PISTON MOTORS - STANDARD FLOW



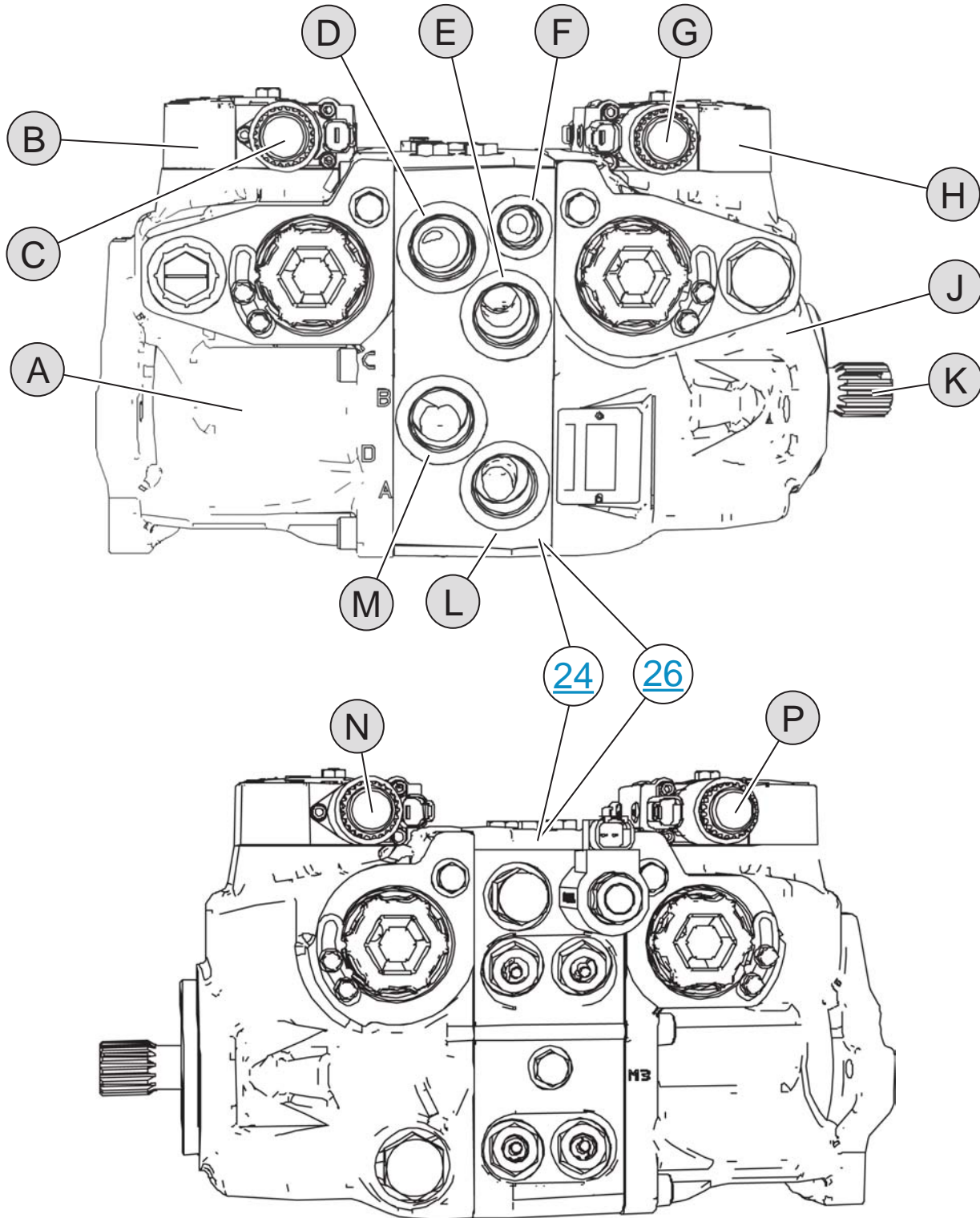


# PISTON PUMP (HYDROSTATIC) - STANDARD FLOW



- |   |  |                               |
|---|--|-------------------------------|
| (A) Rear pump - right hand side drive motor | (F) Port E                             | (L) Port A                    |
| (B) Rear pump displacement control          | (G) Reverse solenoid on the Front pump | (M) Port D                    |
| (C) Forward solenoid on the Rear pump       | (H) Front pump displacement control    | (N) Fwd solenoid - Front pump |
| (D) Port C                                  | (J) Front pump - left side drive motor | (P) Rev solenoid - Rear pump  |
| (E) Port B                                  | (K) Input shaft                        |                               |

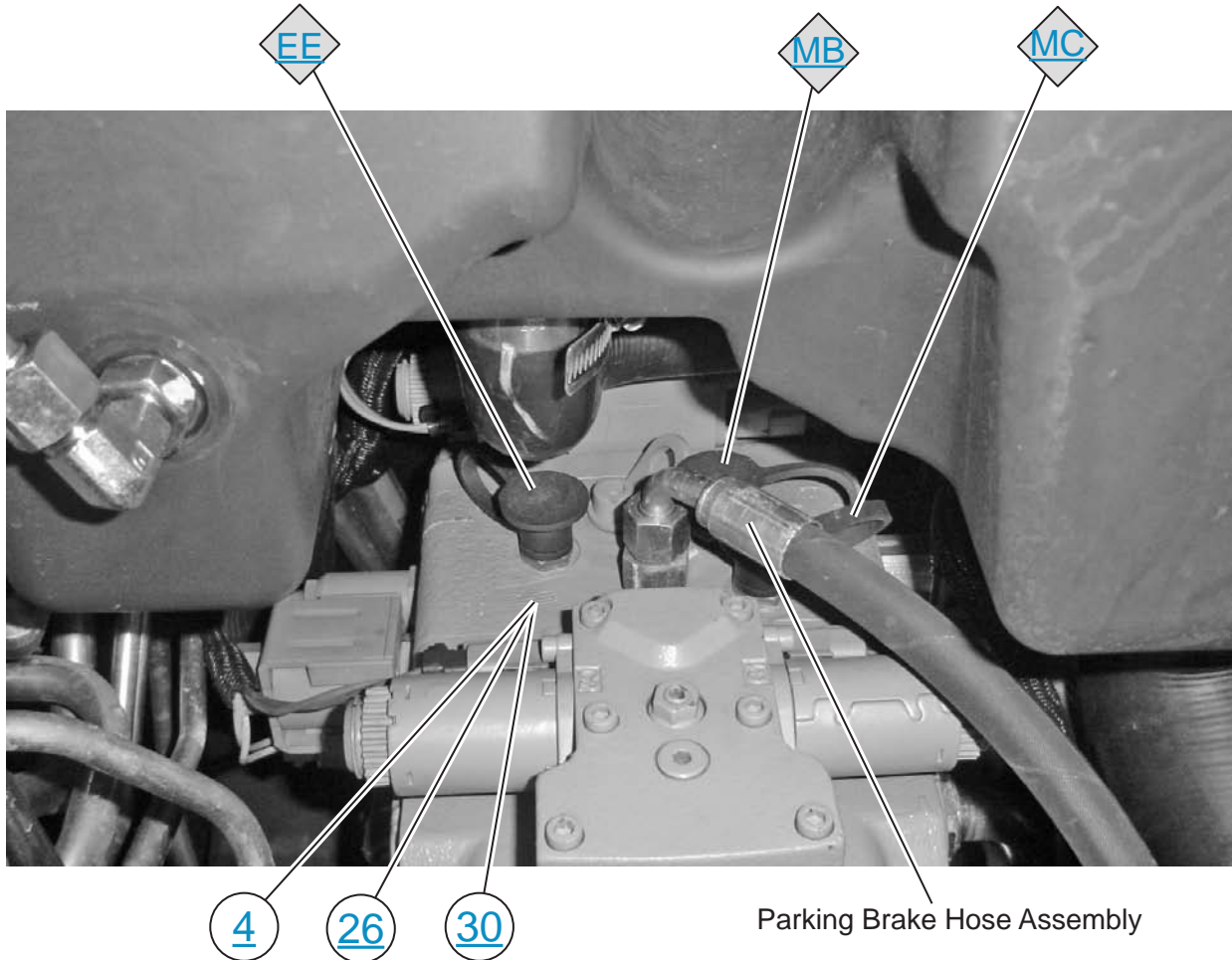
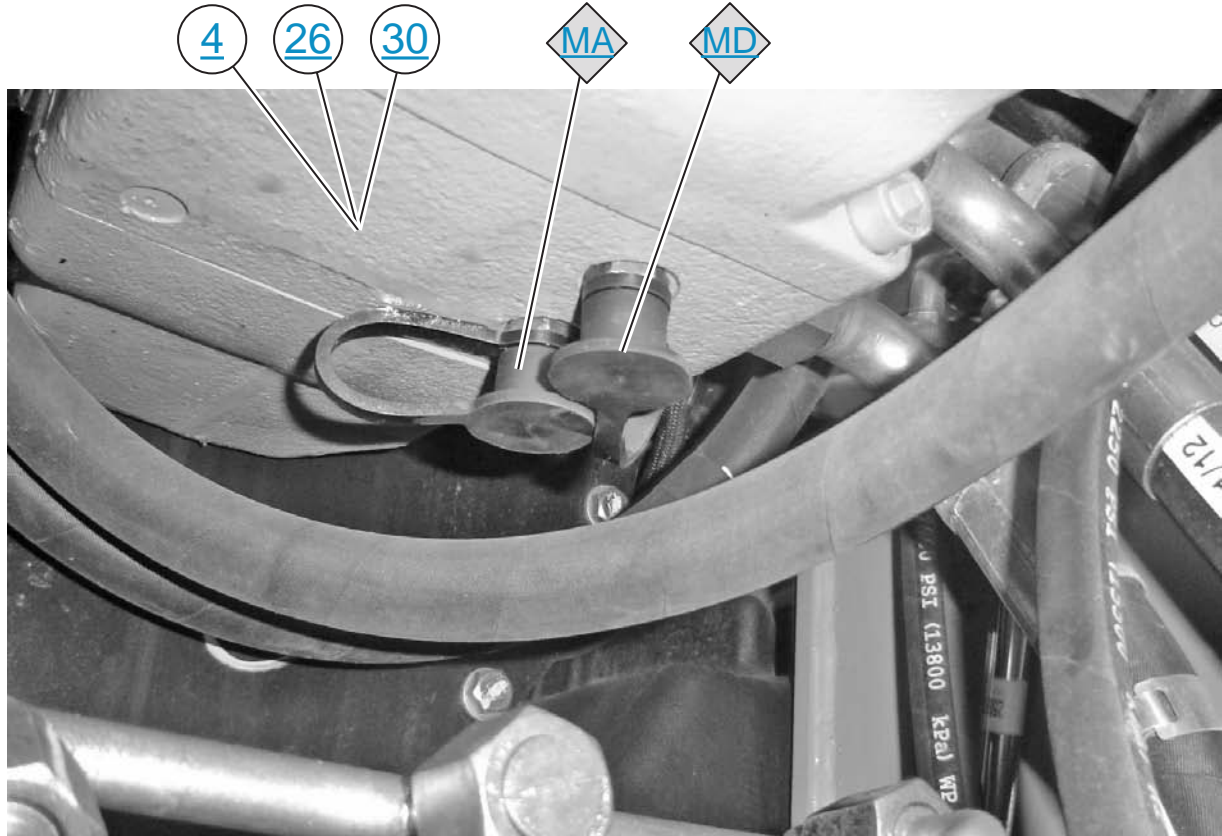
# PISTON PUMP (HYDROSTATIC) - XPS



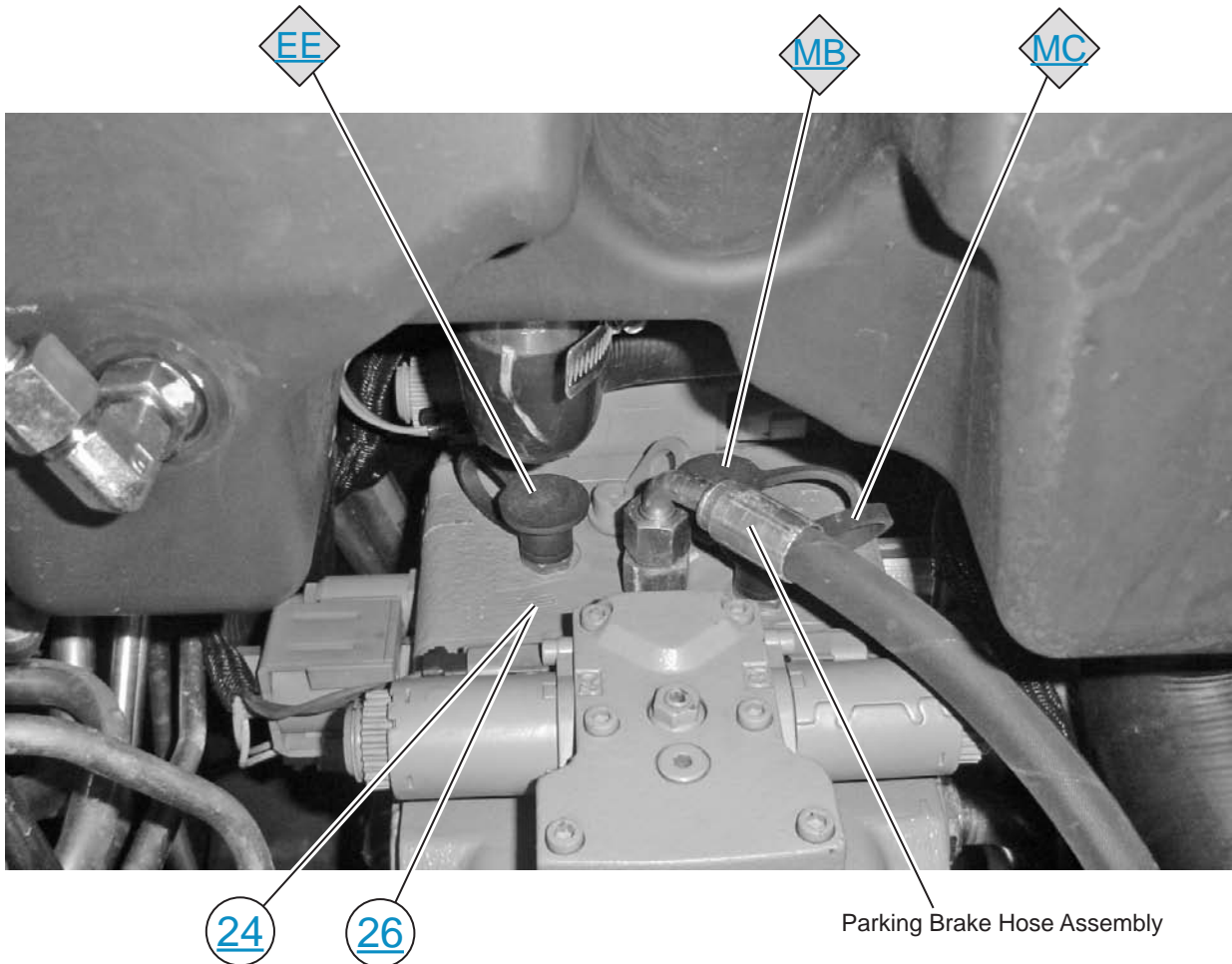
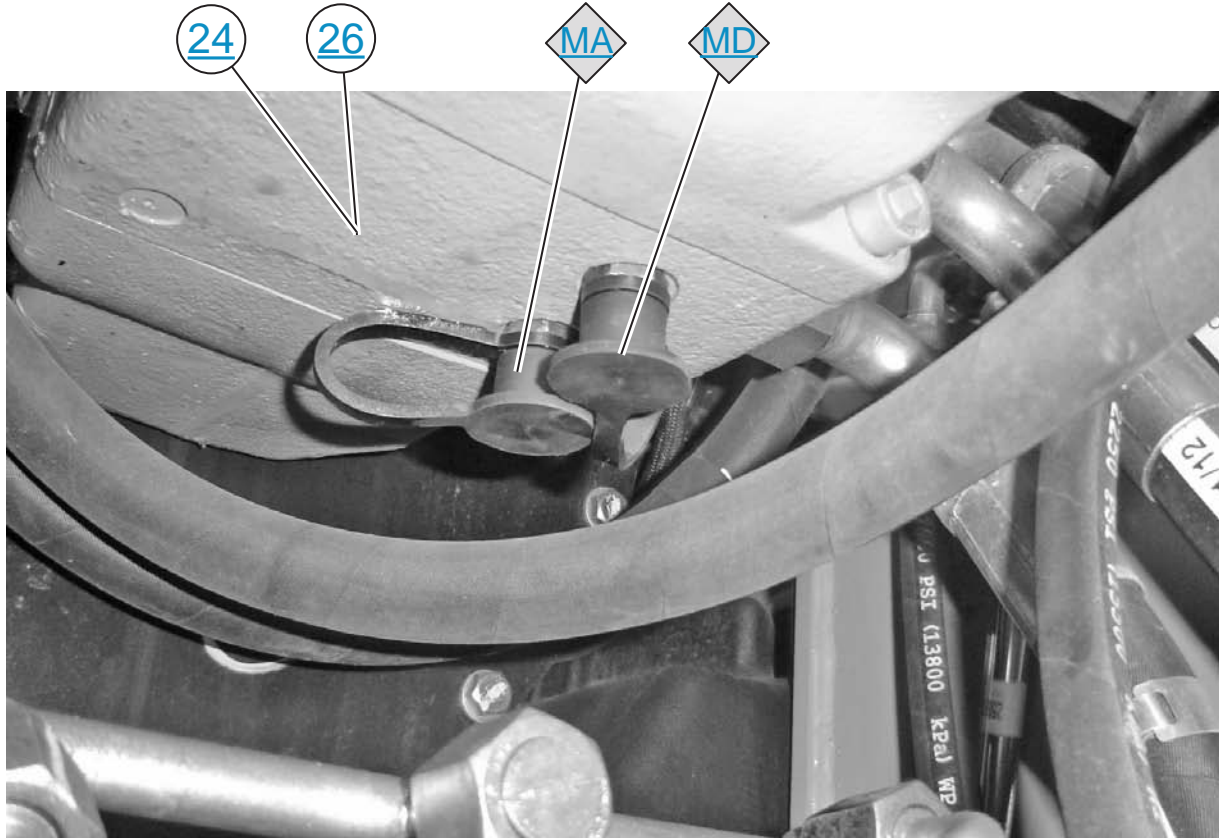
- |   |  |                               |
|---|--|-------------------------------|
| (A) Rear pump - right hand side drive motor | (F) Port E                             | (L) Port A                    |
| (B) Rear pump displacement control          | (G) Reverse solenoid on the Front pump | (M) Port D                    |
| (C) Forward solenoid on the Rear pump       | (H) Front pump displacement control    | (N) Fwd solenoid - Front pump |
| (D) Port C                                  | (J) Front pump - left side drive motor | (P) Rev solenoid - Rear pump  |
| (E) Port B                                  | (K) Input shaft                        |                               |



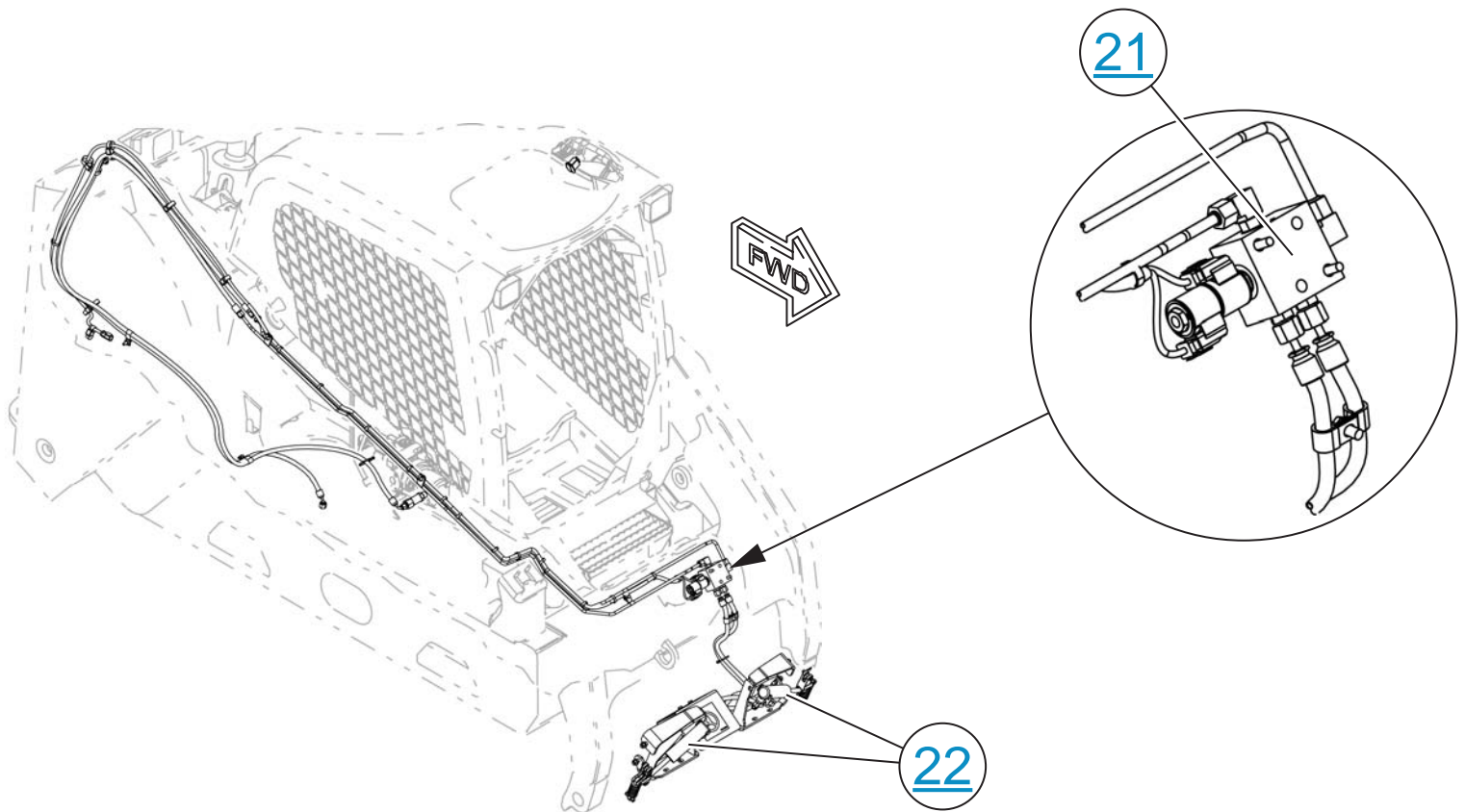
# PRESSURE TAPS - HYSTAT PUMP (STANDARD FLOW)



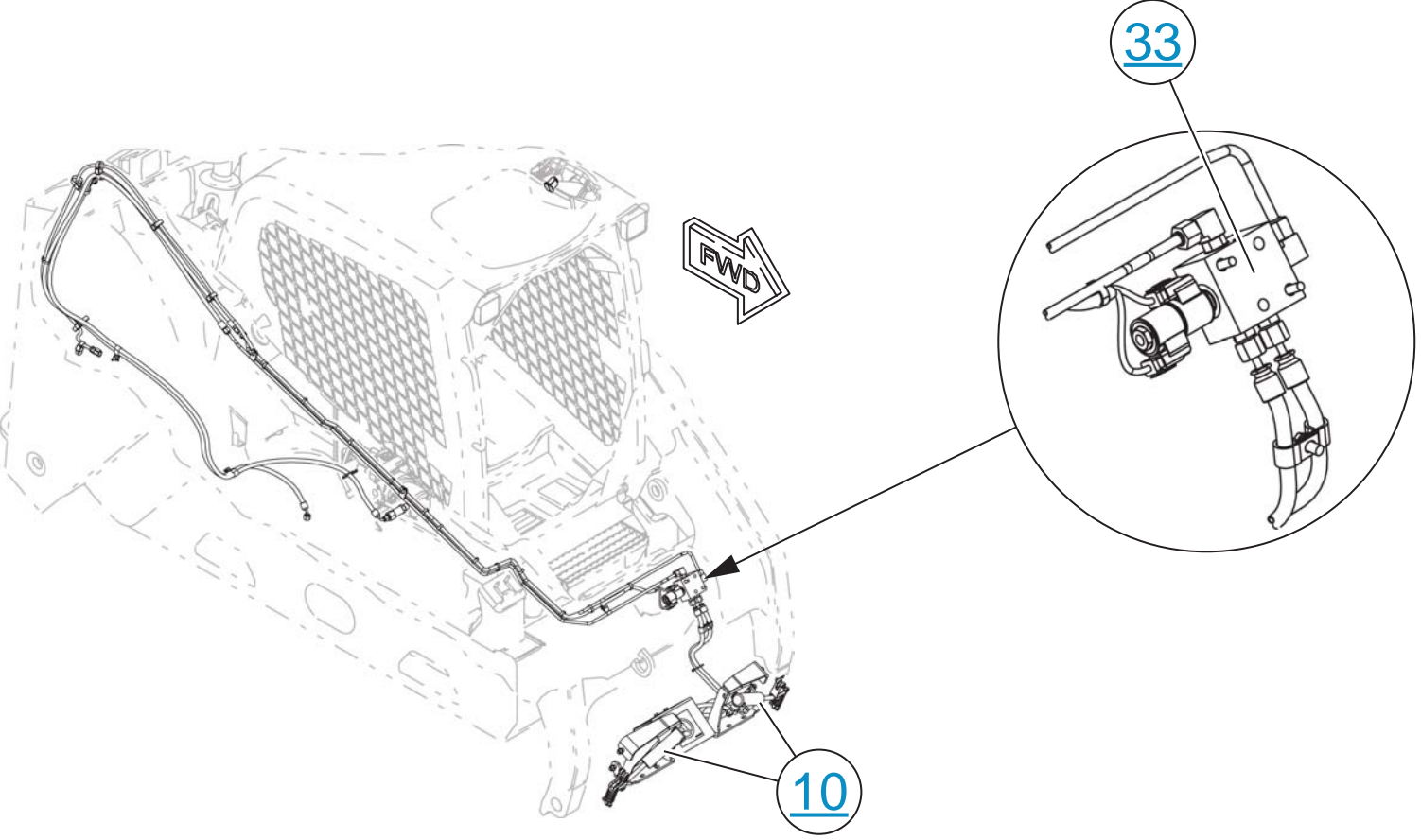
# PRESSURE TAPS - HYSTAT PUMP (XPS)



# QUICK COUPLER AND COUPLER CYLINDERS - STANDARD FLOW



# QUICK COUPLER AND COUPLER CYLINDERS (XPS)



# TANK - STANDARD FLOW



Hydraulic tank sight gauge

Hydraulic tank filler cap

3



Oil temperature sensor

Hydraulic Tank Filler Cap

Hydraulic Tank Sight Gauge



# TANK - XPS HIGH FLOW



Hydraulic tank sight gauge

Hydraulic tank filler cap

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Oil temperature sensor

Hydraulic Tank Filler Cap

Hydraulic Tank Sight Gauge

