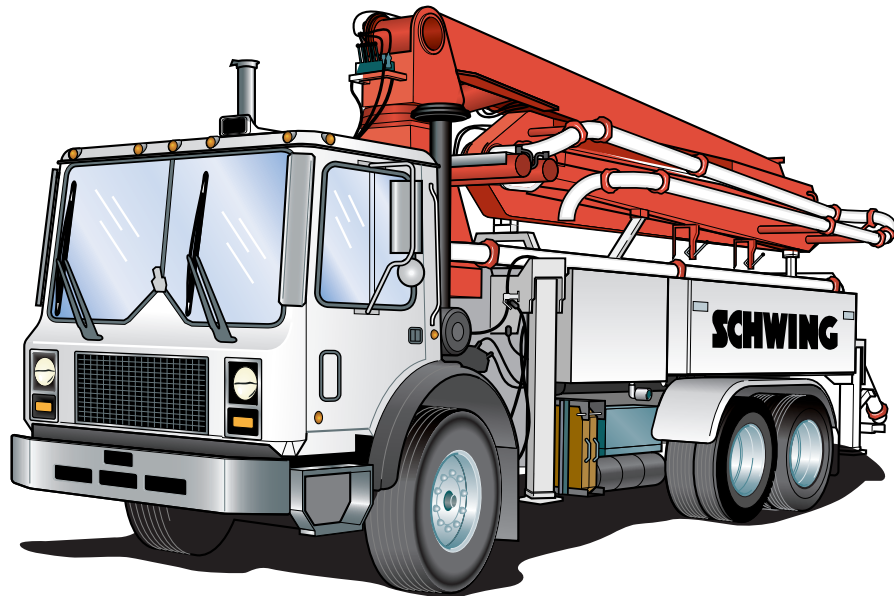




SERVICE BULLETIN BOOK



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All Information is subject to revision

SCHWING SERVICE DEPARTMENT

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OR

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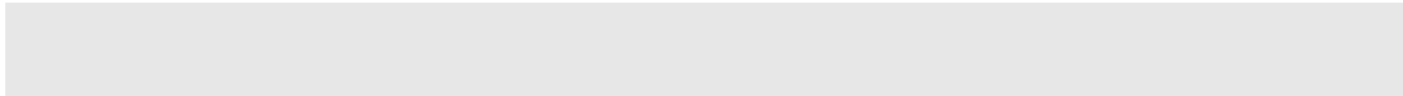
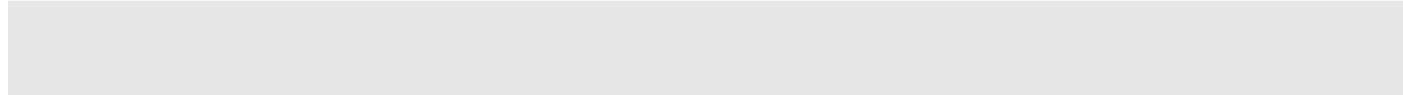
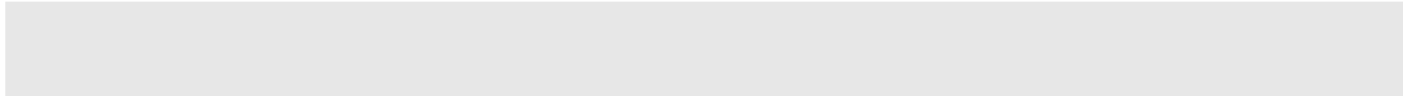
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Bulletin#: 1 (82)

Date: 07/03/82

Subject: Boom rest weldments on all 28M & 31 M booms

July 30, 1982

DISTRIBUTOR LETTER: 124-82
SERVICE BULLETIN #1

Re: Boom Rest Weldments on All 28M and 31M Booms

Gentlemen:

It has come to our attention that some of the welds on the boom rest that is welded to number two boom and sets in the rear and front A frame (when so equipped) are incomplete.

Enclosed please find print pertaining to the area in question.

Schwing America, Inc. recommends that you check the booms in your area and make repairs if necessary. If repairs are necessary, caution should be used so as not to weld on the radius of the boom.

If you have any questions, please feel free to give us a call.

Regards,



Dick McNamara
Parts & Service Coordinator
Schwing America, Inc.

DM/di

Enclosure

SERVICE BULLETIN	1 (82)
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Bulletin#: 2 (82)

Date: 07/30/82

Subject: Plumbing of hydraulic oil cooler motor on 801's & 1001's

July 30, 1982

DISTRIBUTOR LETTER: 125-82
SERVICE BULLETIN #2

RE: Plumbing of Hydraulic Oil Cooler Motor on 801's and 1001's

Gentlemen:


We have a limited number of the above mentioned models that could be plumbed wrong. Please check the units in your area and repair if necessary. The proper plumbing is as follows:

1. Pressure line goes to the safety valve side of the oil cooler motor.
2. Line coming from the opposite side of the motor goes up to system II control block.
3. The return line goes to the heater core and from the heater core to the tank.
4. The drip line must go directly to the tank.

Failure to correct this problem may cause the oil cooler motor seal to be pushed out and the loss of much oil and possible loss of fan.

If you have any questions, please feel free to contact us.

Regards,


Dick McNamara
Parts & Service Coordinator
Schwing America, Inc.

DM/di

SERVICE BULLETIN	2 (82)
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Bulletin#: 3 (82)

Date: 08/31/82

Subject: Water systems for BPL '79 series/KVM 36m: Warning against damages to the water system

August 31, 1982

DISTRIBUTOR LETTER: 126-82

SERVICE BULLETIN #3

Re: Water Systems for BPL '79 Series, 36 Meter
Warning Against Damages to The Water System

Gentlemen:

The water tanks on these systems are equipped with a C2 Quick Coupling. Many batching plants and some hydrants have this connection. We do not recommend filling the tank with this connection.

If this connection was used and the cap on the top of the tank was left in place, the pressure could blow the cap off and also excess pressure could force water past the seal on the hydro-motor and into the hydraulic system. We recommend removing the cap on top of the tank and filling at this point.

Regards,



Dick McNamara
Parts & Service Manager
Schwing America, Inc.

DM/di

SERVICE BULLETIN	3 (82)
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Bulletin#: 4 (82)

Date: 09/02/82

Subject: Insurance on any detachable booms

DISTRIBUTOR LETTER: 128-82

SERVICE BULLETIN: #4

September 2, 1982

Re: Insurance on Any Detachable Booms

Gentlemen:

Please be advised to check with your insurance company to be sure that you have coverage when the boom is detached from truck. Some policies may pertain to complete units, not detachable.

Regards,



Dick McNamara
Parts & Service Manager
Schwing America, Inc.

DM/di

SERVICE BULLETIN

4 (82)

Bulletin#: 5 (82)

Date: 09/17/82

Subject: Separate placing boom power pack oil filter elements

September 17, 1982

DISTRIBUTOR LETTER: 128-82

SERVICE BULLETIN: #5

Re: Separate Placing Boom Power Pack Oil Filter Elements

Gentlemen:

It has come to our attention that the filter elements we have been using on our Separate Placing Boom Power Packs are not of adequate size as per volume of oil being filtered.

We have resolved this problem by changing to a larger style filter and will pass it on to you as soon as we receive them.

In the meantime, we ask that you check the filter daily for leakage and refer back to us if there is a problem.

Sincerely,



Dick McNamara
Parts & Service Manager
Schwing America, Inc.

DM/di

SERVICE BULLETIN	5 (82)
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Bulletin#: 6 (82)

Date: 10/12/82

Subject: Thermostatically controlled clutch fans on Cummins engines

October 15, 1982

DISTRIBUTOR LETTER: 134-82

SERVICE BULLETIN: #6

Re: Thermostatically controlled clutch fans on Cummins engines.

Gentlemen:

There has been some incidents where the fan has malfunctioned and the engine has overheated. The following Cummins parts will allow the fan to run anytime the engine is running:

Fan & Hub	AR 61181
Spacer	143085

The Cummins distributor in Minneapolis says this will have no affect on the warranty on the engine, however we suggest you check this with the Cummins people in your area.

Regards,



Dick McNamara
Parts & Service Manager
Schwing America, Inc.

DM/jw

SERVICE BULLETIN	6 (82)
------------------	--------

Bulletin#: 1 (83)

Date: 02/03/83

Subject: Lubrication being used in all BPL's

February 3, 1983

DISTRIBUTOR LETTER: 105-83

SERVICE BULLETIN: #1

Re: *Lubrication Being Used In All BPL'S*

Gentlemen:

ALL Spicer power mechanical transmissions, auxiliaries and transfer cases must use heavy duty engine oil. This is covered in service manual, section K-1; above 0° F. S.A.E. 30, 40 or 50 MS, DE, DM or DS, below 0° F. S.A.E. 30 MS, DG, DM or DS.

ALL Stibel transfer cases, gear boxes, dist. gear boxes; these can be identified on page 22 and 22A in your operators manual. Proper oils can be selected from charts on page 25 and 25A in your operators manual.

A copy of the operators manual should be included with each unit you deliver.

Any questions you may have on lubrication, please contact the Service Department at Schwing America, Inc.

Regards,



*Dick McNamara
Parts & Service Department
Schwing America, Inc.*

DM/di

SERVICE BULLETIN

1 (83)

Bulletin#: 2 (83)

Date: 02/09/83

Subject: Type of grease to be used on rock valve units

DISTRIBUTOR LETTER: 106-83

SERVICE BULLETIN: #2

February 9, 1983

Re: *Type of grease to be used on Rock Valve units*

Gentlemen:

All Rock Valve units should be lubricated with a Lithium high pressure grease, ARAL HLP-2, or an equivalent.

The Rock Valve should be lubricated while pumping and at approximately every 100 cubic yards.

Regards,



Dick McNamara
Parts & Service Manager
Schwing America, Inc.

DM/di

SERVICE BULLETIN

2 (83)

Bulletin#: 3 (83)

Date: 02/03/83

Subject: Service Bulletin from Eaton Corporation: Re: Engagement procedure for Fuller transmissions

April 5, 1983

DISTRIBUTOR LETTER: 111-83
SERVICE BULLETIN: 3

Gentlemen:

Please read the attached Service Bulletin from Eaton Corporation regarding proper engagement procedure for Fuller transmissions.

Regards,



Dick McNamara
Parts & Service Manager
Schwing America, Inc.

DM/di

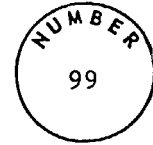
Enclosure

SERVICE BULLETIN

3 (83)



Eaton Corporation
Transmission Division
222 Mosel Avenue
Kalamazoo, Michigan



Fuller® Transmissions

Service Bulletin

Subject: HIGH RANGE SYNCHRONIZER FAILURES IN ROADRANGER TRANSMISSIONS
USED IN PUMPING OR DRILLING OPERATIONS

Damage to the synchronizer can occur if the transmission is range shifted with the driveline to the rear axle dis-engaged.

Make sure the transmission has completed its range shift before dis-engaging the rear axle.

If it is necessary to make a range shift after the operation has begun, use the following steps.

- a) With the shift lever in gear, move selector button to desired range.
- b) Depress clutch, shift transmission to reverse position.
Note: Make sure transmission gearing has stopped turning before moving shift lever into reverse.
- c) Momentarily feather the clutch; this will help the synchronizers unblock and aid completion of the range shift.
- d) Depress clutch and move gear shift lever to the desired gear.
- e) Continue Operation

The material contained in this bulletin is product improvement information. Eaton Corporation is

Bulletin#: 101-84

Date: 02/24/84

Subject: Rock housing transition piece D+230/210mm

SCHWING AMERICA INC.
5900 CENTERVILLE RD, WHITE BEAR, MINNESOTA 55110
AREA CODE 612/429-0999 TWX 910-563-3539



February 24, 1984

SERVICE MEMO: 101-84

Gentlemen:

When installing rock housing to pumping cylinder on wirts using transition piece, 230/210, be sure transition piece is lined up with dowel in housing lining or lining will be damaged. See below illustration.

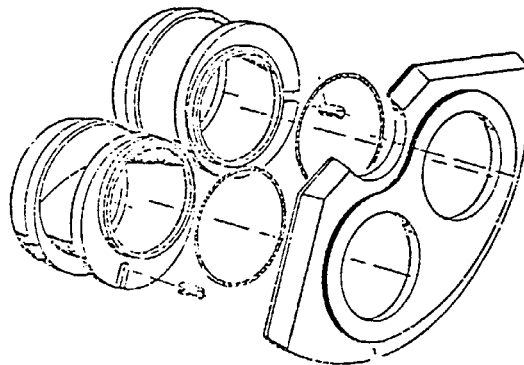
If you have any questions or require any additional information, please feel free to contact us.

Regards,

Carroll Finch

Carroll Finch
Service Department
Schwing America, Inc.

CF/di



SERVICE BULLETIN	101
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Bulletin#: 101

Date: 05/29/84

Subject: Service Life: cutting ring & inlet housing-All rock valves (revised 5/29/84)

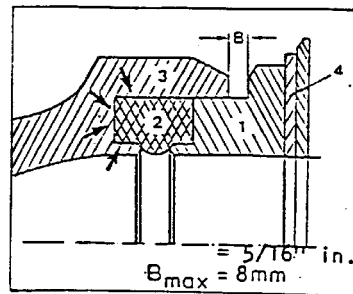
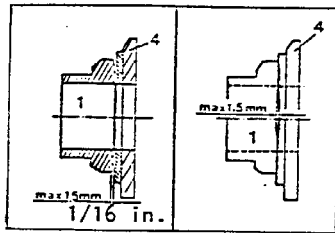
May 29, 1984

DISTRIBUTOR LETTER: 104-84
SERVICE BULLETIN: 101
REVISED 5/29/84

Gentlemen:

Re: Service life of cutting ring and inlet housing lining of all rock valves.

In regards to Distributor Letter number 104-84 please note that the figures are mislabeled and should be labeled as shown below.



Please excuse any inconvenience that this may have caused.

Sincerely,

Ric Berndt
Parts & Service Manager
Schwing America, Inc.

RB:jw

SERVICE BULLETIN

101-84

Bulletin#: 103-84

Date: 03/30/84

Subject: Additional welding on tower area KVM 28/24 (revision)

SCHWING AMERICA INC.
70 CENTERVILLE RD, WHITE BEAR, MINNESOTA 55110
EA CODE 612/429-0999 TWX 910-563-3539



March 30, 1984

SERVICE BULLETIN: 103

Re: BPL 900 HDR KVM 28/24

Attached is drawing 306315 for the 900 KVM 28/24 illustrating a location on the tower requiring additional welding. It is very important the area have additional welding as soon as possible because of the possibility that if the unit has insufficient weld, a crack could occur breaking the tower mounting pin ear.

This welding is required on both sets of ears near the cab - 4 places.

Proceed as follows:

1. Remove all paint and primer in the area requiring welding.
2. Use 7018 electrode.
3. Use D.C. reverse polarity welder.
4. Preheat weld area to 70 to 90°F if ambient or material is below 70°.
5. Use 3/16 max stringer passes. Weld vertically up not vertically down.
6. Grind between each pass.
7. Use a 400°F temp stik applied 1" away from the weld. Temperature must not exceed 400°F.

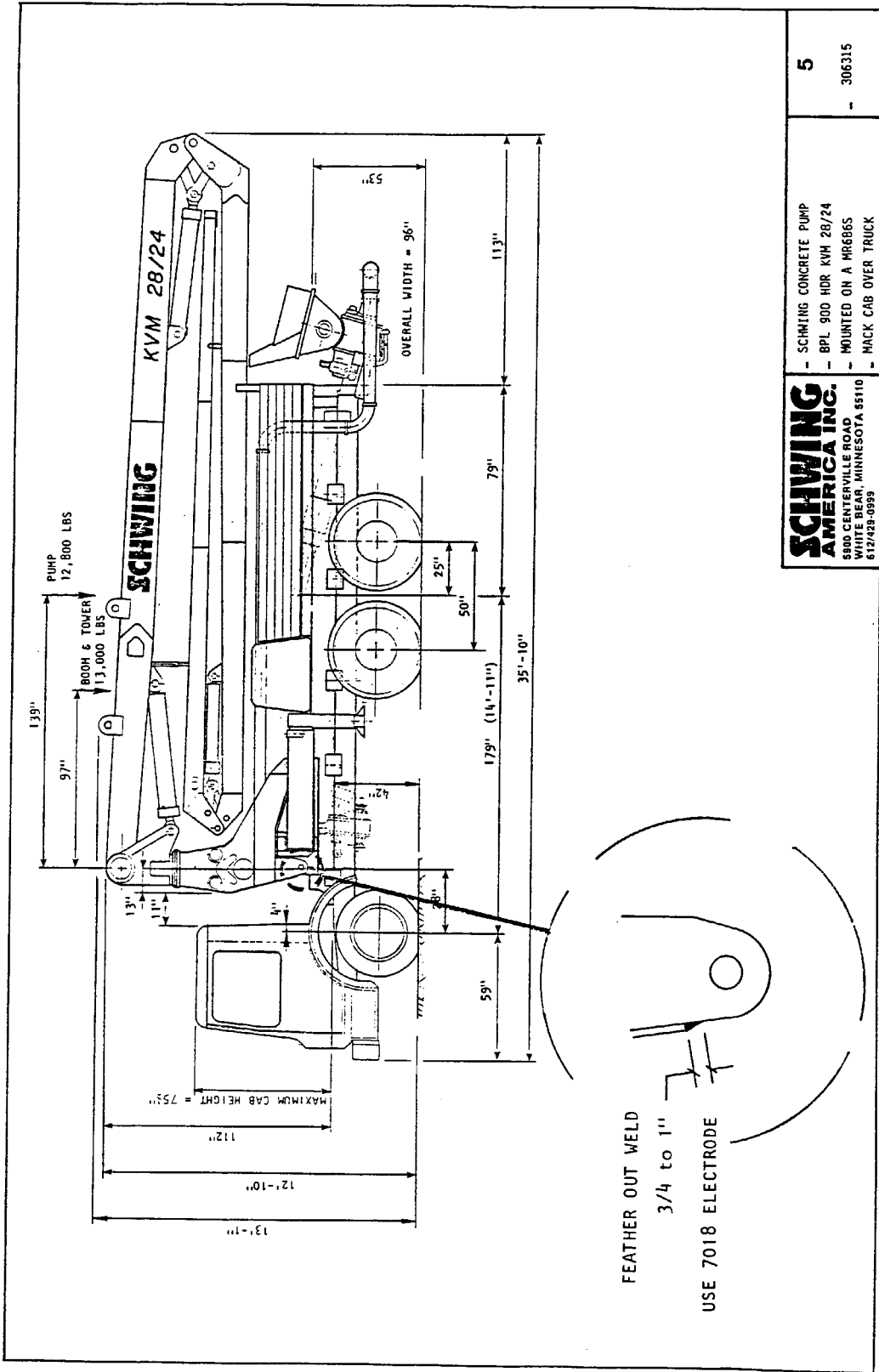
Sincerely,

Terry Atherton
Engineering Manager
Schwing America, Inc.

SERVICE BULLETIN

103-84





SCHWING AMERICA INC.
 5800 CENTERVILLE ROAD
 WHITE BEAR, MINNESOTA 55110
 612/428-9999

- SCHWING CONCRETE PUMP
- BPL 900 HDR KVM 28/24
- MOUNTED ON A MR6865
- MACK CAB OVER TRUCK

5

- 306315

Bulletin#: 104

Date: 03/30/84

Subject: Loose truck mounting tie down bolts (Revised 5/2/84)

March 30, 1984

DISTRIBUTOR LETTER: 116-84
SERVICE BULLETIN : 104
REVISED: May 2, 1984

Re: Loose Truck Mounting Tie Down Bolts

It is imperative that the tie bolts on the truck mounted concrete pumps are tight and not loose because of possible structural damage to the unit.

If the bolts holding the tie down plates on the truck frame are loose do the following:

1. Remove existing bolts.
2. Drill holes out larger with a 47/64 (.734) drill bit designed for 110,000 psi yield steel, standard taper shank twist drill bit.
Part No. 306665 Price = \$40.70 list
3. Ream holes with .745 $\begin{matrix} +.0000 \\ -.0005 \end{matrix}$ #2 morse taper shank, straight flutes.
Part No. 306664 Price = \$44.40 list
4. Use a 5/8-11 Soc HD Bolt with a 3/4" Dia. shoulder. These bolts must press fit in the reamed hole in order to hold securely. Torque to 100 ft-lbs. Order number and length required. Shoulder of bolt must engage completely (to be flush on inside or longer.) Use a flat washer if necessary so that the nut tightens against truck frame and not the bolt shoulder.

Order as follows with quantity required:

<u>Part No.</u>	<u>Description</u>	<u>Price Each</u>
303797	Nut 5/8-11 nylon insert	.42 List
304213	Flat Washer 3/4" Hardened	.28 List
305688	Bolt Soc HD 5/8-11 3/4" Shoulder x 2"L6	6.53 List
or 306669	Bolt Soc HD 5/8-11 3/4" Shoulder x 1 3/4"L6	5.80 List
or 304212	Bolt Soc HD 5/8-11 3/4" Shoulder x 1 1/2"L6	5.04 List

SERVICE BULLETIN

104

Bulletin#: 105

Date: 04/06/84

Subject: Lifting loads for placing booms

April 6, 1984

SERVICE BULLETIN: 105

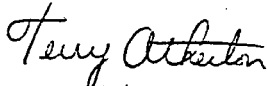
Re: *Lifting Loads for Placing Booms*

Gentlemen:

The 4 meter discharge hose is the maximum weight that Schwing Americas placing booms can lift without support.

The weight equivalent of the 4 meter discharge hose with concrete is 330 lbs.

Sincerely,



Terry Atherton
Engineering Manager
Schwing America, Inc.

SERVICE BULLETIN

105

Bulletin#: 106

Date: 05/30/84

Subject: Replacement of contamination indicator

May 30, 1984

DISTRIBUTOR LETTER: 117-84

SERVICE BULLETIN: 106

RE: REPLACEMENT OF CONTAMINATION INDICATOR

The hydraulic systems of the following placing booms are equipped with the purolator pressure filters model PI 1042 and PI 4205:

KVM 21, KVM 23
KVM 25 up to series 82 (separate oil tank for boom)
KVM 28, KVM 31, KVM 36
KVM 42 up to series 83 (separate oil tank for boom)

The heads of both filters differ, therefore they can be easily identified with the aid of the typical contamination indicators:

Fig. 1 = contamination indicator (1) for PI 1042

Fig. 2 = contamination indicator (1) for PI 4205

To improve the filtering effect, the mesh size of the filter elements has been decreased from 25 micron to 10 micron in the past. Our spare parts service now only supplies such filter elements with a mesh size of 10 micron.

Due to the slightly increased "resistance" of these filter elements it can happen that the contamination indicator responds even with new filter elements and warm oil.

In order not to disconcert the operator we recommend to dismantle the contamination indicator and to replace it by a blind plug 2 (Fig. 1 resp. Fig.2).

These plugs are supplied by our spare parts service.

<u>Filter model</u>	<u>Id. No.</u>
PI 1042	39378
PI 4205	39379

According to experience an exchange of the filter element at regular intervals of 6 months will be sufficient in the sequel.

For better control the label (Fig. 3) should be glued on near the filter. It can be ordered with our spare parts service and has the Id.No. 31919

SERVICE BULLETIN	106
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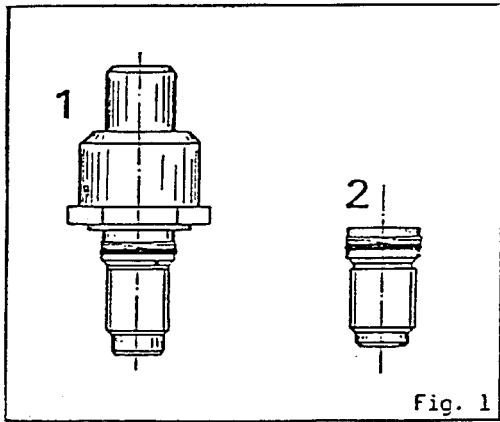


Fig. 1

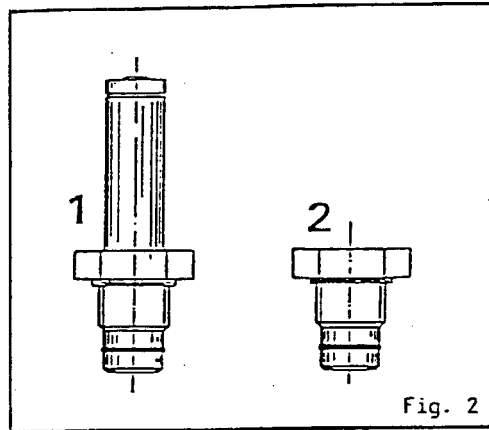



Fig. 2

Regards,

 Ric Berndt
 Parts & Service Manager
 Schwing America, Inc.

▼	Last change of filter element	
▼	date:	
▼		
▼		
▼		
▼		
▼		
▼		
▼		
▼		

Fig. 3

Bulletin#: 107

Date: 05/30/84

Subject: Extending pipeline service life

May 30, 1984

DISTRIBUTOR LETTER: 118-84
SERVICE BULLETIN: 107

Re: Extending Pipeline Service Life

Gentlemen:

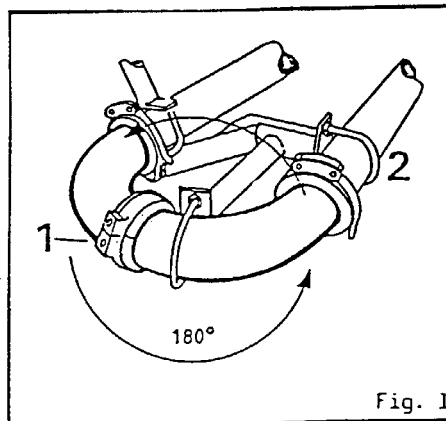
To achieve maximum service life, we recommend turning boom pipes and elbows every 6 months, thus insuring uniform wear. The procedure is as follows:

Elbows:

1. Disassemble the complete bend.
2. Turn 180° (see fig 1.) do not separate the screw clamp (item 1.).
3. Reassemble.

Delivery Pipes:

1. Loosen the U-bolts (item 2).
2. Turn the pipes 180° while still in the U-bolts.
3. Retighten U-bolts.



Regards,
Ric Berndt
Ric Berndt
Parts & Service Manager
Schwing America, Inc.

SERVICE BULLETIN

107

Bulletin#: 108

Date: 05/30/84

Subject: Mounting sealing cover - ID no. 18035

May 30, 1984

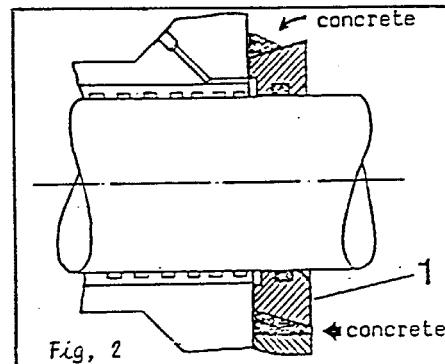
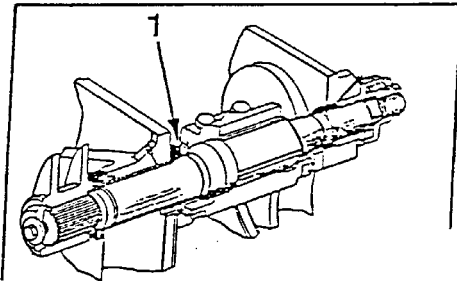
DISTRIBUTOR LETTER: 119-84
SERVICE BULLETIN: 108

Re: Mounting the Sealing Cover - Id. No. 18035
(Order P/N 705 422 104 010)

Gentlemen:

Due to the shape of the sealing ring (Item 1, Fig. 1.) concrete has been settling between the housing lining and the sealing cover. Therefore, to aid in disassembly, the sealing cover has been redesigned with a conical shape (Item 1, Fig. 2.).

It is important to make sure when mounting the new cover that the smaller outside diameter faces the rock valve housing.



If the cover is installed backwards:

1. The bearing cannot be properly greased.
2. The sealing cover can become misaligned during disassembly.

Regards,

Ric Berndt
Parts & Service Manager
Schwing America, Inc.

SERVICE BULLETIN

108

Bulletin#: G-110-84

Date: 07/13/84

Subject: Lubricating the foot and collar bearing of placing booms

July 13, 1984

SERVICE BULLETIN: G-110-84
NOTE: SUPERCEDED
BY
G-101-87

RE: *Lubricating the Foot and Collar Bearings of Placing Booms*

Regular lubrication of the foot and collar bearings located in the pedestal is of the utmost importance, as these are engineered as sliding bearings. (See the machine maintenance schedule.)

Pay close attention to uniform distribution of the lubricant throughout the bearing surface by one of the following methods:

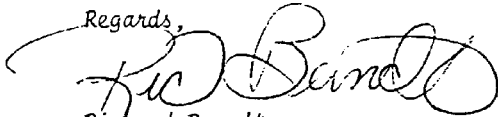
- 1. Lubricate while rotating the boom slowly.*
- 2. Rotate the boom several times after greasing all zerk locations, and repeat the procedure several times.*

Below is a list of lubricants that meet the requirements of the engineering specifications.

<u>Manufacturer</u>	<u>Type</u>
ARAL	ARAL HLP 2
BP	Energrease LS 2
ESSO	Multi-Purpose grease Beacon 2
SHELL	Alvania Grease R 2
TEXACO	Multifak 20
IMPERIAL	Molub-Alloy 777-1 (used at White Bear Factory)

This is only a partial listing of lubricants that will meet the requirements specified. Generally, any lithium based E.P. grease with a class # of 2 will work.

Regards,



Richard Berndt
Parts & Service Manager
Schwing America, Inc.

SERVICE BULLETIN	G-110-84
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Bulletin#: G-111-84

Date: 07/17/84

Subject: Tightening torques for metric bolts

July 17, 1984

SERVICE BULLETIN: G-111-84


RE: *Tightening Torques for Metric Bolts*

The tightening torques specified in DIN 13 (DIN=German Standards Institute) are used as the basis for tightening bolts on Schwing machinery.

Since May of 1983, Schwing operating instructions have included an excerpt from this standard, but these values are, of course, also applicable to older equipment.

This information is to be understood as a supplement to older operating instructions. Use the tables on Page 2 as a standard when carrying out repair work.

Regards,



Richard Berndt
Service Manager
Schwing America, Inc.

SERVICE BULLETIN

G-111-84

SERVICE BULLETIN: 111
Page 2

METRIC NORMAL THREAD							
Bolt Size	Wrench Size	Quality					
		8.8		10.9		12.9	
		in/lbs	ft/lbs	in/lbs	ft/lbs	in/lbs	ft/lbs
M6	10mm	92	8	138	11.5	160	13.5
M8	13mm	222	18.5	330	27	390	33
M10	17mm	444	37	650	54	--	65
M12	19mm	764	64	--	93	--	105
M14	22mm	--	100	--	150	--	175
M16	24mm	--	155	--	230	--	265
M18	27mm	--	222	--	320	--	370
M20	30mm	--	318	--	450	--	525
M22	32mm	--	430	--	615	--	715
M24	36mm	--	540	--	770	--	900
M27	41mm	--	800	--	1150	--	1325
M30	46mm	--	1073	--	1550	--	1800
M33	50mm	--	1480	--	2075	--	2440
M36	55mm	--	1850	--	2665	--	3100
M39	60mm	--	2440	--	3475	--	4070

METRIC FINE THREAD							
Bolt Size	Wrench Size	Quality					
		8.8		10.9		12.9	
		in/lbs	ft/lbs	in/lbs	ft/lbs	in/lbs	ft/lbs
M8 x 1	13mm	240	20	355	30	415	35
M10 x 1.25	17mm	470	40	--	57	--	67
M12 x 1.25	19mm	--	70	--	104	--	120
M12 x 1.5	19mm	--	67	--	96	--	115
M14 x 1.5	22mm	--	105	--	160	--	185
M16 x 1.5	24mm	--	165	--	245	--	290
M18 x 1.5	27mm	--	250	--	355	--	420
M20 x 1.5	30mm	--	350	--	495	--	585
M22 x 1.5	32mm	--	475	--	665	--	785
M24 x 2	36mm	--	590	--	840	--	1000
M26 x 2	41mm	--	860	--	1220	--	1450
M30 x 2	46mm	--	1185	--	1700	--	2000
M33 x 2	50mm	--	1625	--	2300	--	2650
M36 x 3	55mm	--	2000	--	2800	--	3330
M39 x 3	60mm	--	2600	--	3700	--	4300

Bulletin#: G-112-84

Date: 07/18/84

Subject: Care and Maintenance of hydraulic systems

July 17, 1984

SERVICE BULLETIN: G-112-84

Re: Care & Maintenance of Hydraulic Systems

Some of the following information is included in the operating instructions for new machines, however, we wish to inform owners of older machines of the points which are generally true.

1. Selection of the hydraulic oil:

Hydraulic fluids should be selected on the basis of their quality, (use an H.L.P.) and viscosity characteristics, as shown on the table of lubricants.

2. Hydraulic oil viscosities:

Oils with viscosities complying with ISO-VG 46 are suitable for use in the Summer in the United States and Canada, however, other viscosities are required for other climatic conditions. For example, Winter in the Northern U.S. and Canada would require an ISO VG 32, and tropical conditions and rooms where a great deal of heat is generated would require an ISO VG 68 oil.

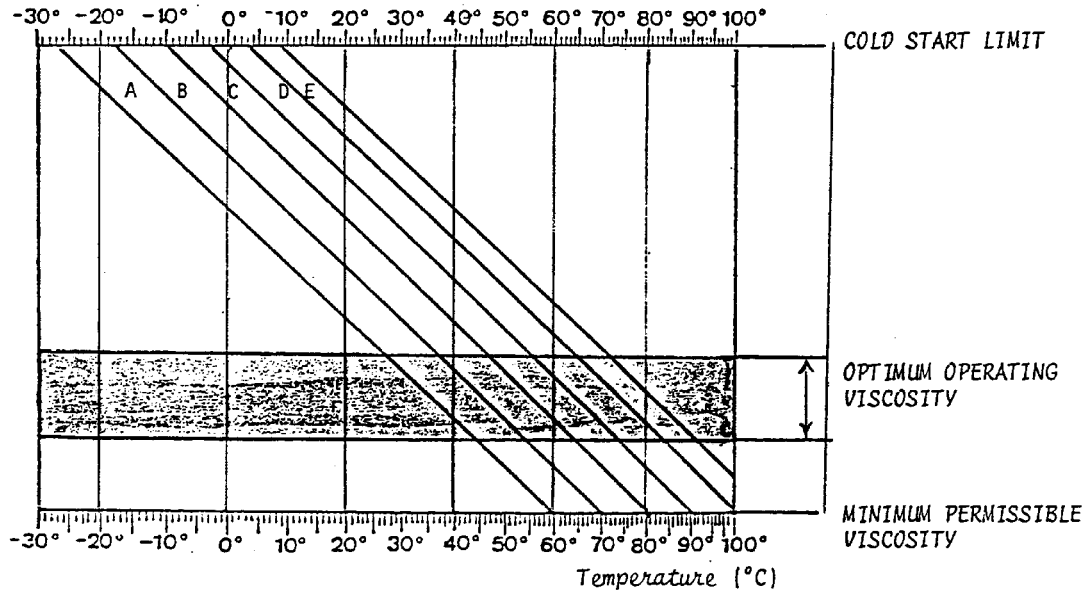
When operating at high ambient (outside) temperatures, pay close attention to the oil thermometer! Temperatures which are continuously above 80°C will lead to premature breakdown of the oil and mechanical damage to the hydraulic system.

When operating in Winter conditions, you should pay close attention to the oil temperature at start-up. An oil with a rating of VG 32 will reach its "cold start limit" at -18°C (0°F) an oil with a rating of VG 46 will reach the same limit at -10°C (14°F), and an oil with a rating of VG 68 will reach this limit at -3°C (27°F). Starting a system below this "cold start limit" may result in major damage to the hydraulic pump.

SERVICE BULLETIN

G-112-84

It is, of course, uneconomical to change out large volumes of fluid just for a few cold Winter days. In such cases we recommend parking the machine indoors overnight and allowing the hydraulic pump to recirculate without pressure for a few minutes before beginning operations.



- A = Viscosity Class VG 22 (Arctic Conditions Only)
- B = Viscosity Class VG 32 (Winter in North America)
- C = Viscosity Class VG 46 (Summer in North America)
- D = Viscosity Class VG 68 (Tropical Conditions)
- E = Viscosity Class VG 100 (Extreme Heat Exposure)

3. Compatibility of hydraulic fluids:

While it is generally true that hydraulic fluids which fulfill the same specifications of quality and viscosity can be mixed together, the manufacturers of hydraulic equipment insist on prohibiting such mixing, due to the use of various additives installed by the lubricant manufacturers to achieve certain properties in the oil.

This means:

- A. Mix hydraulic oils (including "topping" the tanks) only in emergency situations, or loss of quality is possible. If there is doubt, question the pump manufacturer to obtain permission to mix oils.

B. When changing oil types, flush the entire system.

4. Cleaning the tank:

Clean the inside of the tank every time the fluid is changed. Use flushing oil and a lint free rag to do this. In no case are you to use diesel fuel for cleaning tanks, as this will result in damage to hydraulic components, and create a possible explosion hazard.

5. Recommended lubricants:

For reasons of space, only a limited number of lubricants are listed here. Equivalent grades by other manufacturers may also be used. Common brands are shown, listed in alphabetical order.

Code	Manufacturer	Designation	Remark
H-LP (ISO-VG 46)	ARAL	Vitam GF 46	
H-LP (ISO-VG 46)	BP	Energol HLP 46	
H-LP (ISO-VG 46)	ESSO	Nuto H-46	
H-LP (ISO-VG 46)	Mobil	DTE-25	Installed at White Bear Factory
H-LP (ISO-VG 32)	Mobil	DTE-24	Listed because of numbering differences compared to other brands.
H-LP (ISO-VG 68)	Mobil	DTE-26	
H-LP (ISO-VG 46)	Shell	Tellus Oil 46	
H-LP (ISO-VG 46)	Total	Azolla 46	
H-LP (ISO-VG 46)	Texaco	Rando-Oil HDB 46	

DO NOT MIX BRANDS - This may impair quality.

Regards,



Richard Berndt
Service Manager

Bulletin#: G-113-84

Date: 07/18/84

Subject: Pump cleaning agents

July 18, 1984

SERVICE BULLETIN: G-113-84

RE: Pump Cleaning-Cleaning Agents

Regular and complete cleaning is extremely important for construction equipment that comes into contact with concrete.

Spraying the inside of the hopper with form oil before the pour starts will aid in cleanout. A concentrated water jet should be used for cleanout after the pour. (See Operating Instructions.)

If you're thinking of using a concrete removing solution, find out ahead of time if it will be safe for plastic and rubber parts, especially in the rock valve area because there is a danger of these solutions attacking the rubber pressure spring that keeps tension on the cutting ring. The manufacturer of the solution should be able to supply you with information regarding compatibility with plastic and rubber.

In all cases, be sure to flush the solutions out of the machine completely. Don't leave any "puddles" in the hopper, for example.

Regards,



Richard Berndt
Service Manager
Schwing America, Inc.

SERVICE BULLETIN

G-113-84

Bulletin#: G-115-84

Date: 08/15/84

Subject: Grundfos water pumps of KVM 25,32 & 42: adjusting the runner clearance

August 15, 1984

SERVICE BULLETIN: G-115-84

Gentlemen:

RE: Grundfos Water Pumps on KVM 25, 32, 42
Adjusting the Runner Clearance

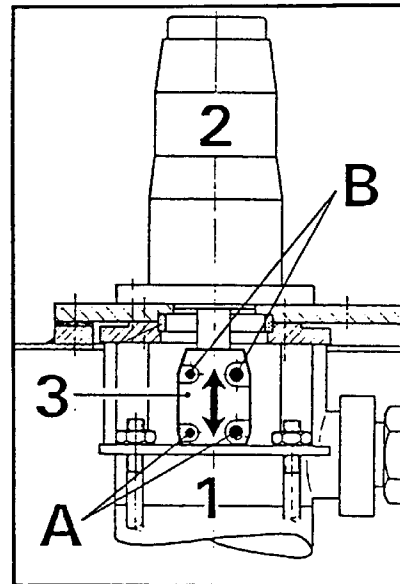
The Grundfos water pump (Item 1) and the hydraulic motor (Item 2) are connected with a cup-type coupling (Item 3). This coupling is connected to the water pump shaft with a pin.

When exchanging the pump or the motor, the runner clearance (axial play of the water pump shaft), must be adjusted as follows:

- Step 1. Put the motor, coupling, and water pump together loosely and place them vertically.
- Step 2. Tighten the lower allen head screws (Item A-water pump side).
- Step 3. Take a screwdriver and pry the coupling and the water pump shaft up to the stop limit. Measure the distance of the travel.
- Step 4. Lower the coupling and shaft one-half of the distance measured in Step 3.
- Step 5. Tighten the upper allen screws (Item B-motor side).

Example: If you measured 1/4" travel in Step 3, then lower the assembly 1/8" and tighten the bolts.

$$\text{Runner clearance} = \frac{\text{Total travel}}{2}$$



SERVICE BULLETIN | G-115-84

Bulletin#: G-116-84

Date: 08/15/84

Subject: Water pump ventilation

August 15, 1984

SERVICE BULLETIN: G-116-84

Gentlemen:

RE: Water pump Ventilation

Grundfos water pumps are not self priming. Whenever you install one, or empty the water tank, you must vent the pump. To vent the pump proceed as follows:

Step 1. Unscrew the plug (Item 1).

Step 2. Fill the water tank.

Step 3. Wait 10 Seconds, then top off the water tank.

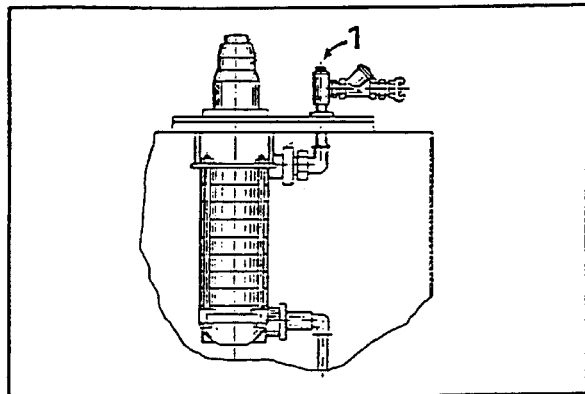
Step 4. The water pump is now vented screw in the plug (Item 1). The water in the pump itself does not drain out - you should not have to vent anymore unless you drain the water pump.

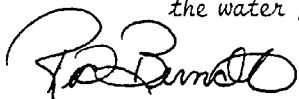
Note: Because the water pump doesn't drain under normal conditions you must be aware of the danger of leaving water in the pump during freezing conditions. If you anticipate below freezing temperatures, follow these instructions:

Step 1. Unscrew the plug (Item 1).

Step 2. Drain the water tank.

Step 3. water pump is now drained - tighten the plug (Item 1) when you have drained the water from the pump, you will have to follow Steps 1 thur 4 above, venting the water pump, to fill the tank again.




Ric Berndt
Service Manager
Schwing America, Inc.

SERVICE BULLETIN

G-116-84

Bulletin#: G-117-84

Date: 08/16/84

Subject: Checking the pneumatic pilot pressure of boom hydraulics

August 16, 1984

SERVICE BULLETIN: G-117-84

Gentlemen:

Re: Checking the Pneumatic Pilot Pressure of the Boom Hydraulics
on KVM 16, 21, and 25

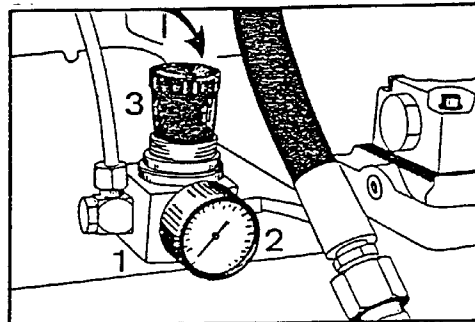
Because the air pressure in the truck system is higher than allowable for the air over hydraulic boom system, a pressure reducing valve (Item #1) is installed between the air tanks of the truck and the boom control block. To check and adjust the air pressure on this valve, take the following steps:

Step 1. Start the truck and fill the air tanks until you have full pressure, as indicated by the gauge in the cab of the truck.

Step 2. Read the gauge on the pressure reducing valve (Item #2, located on the passenger side between the cab and the boom pedestal).

Step 3. The gauge should read 6 bar + .2 bar (85 PSI + 3 PSI). If it doesn't meet this spec, adjust as follows:

- a. Take an allen wrench and loosen the set screw (arrow) on the adjusting knob (Item #3).
- b. Set to spec by turning the adjusting knob.
- c. Tighten the set screw.



Although this pressure setting shouldn't change, we recommend checking it occasionally.

Ric Berndt
Service Manager
Schwing America, Inc.

SERVICE BULLETIN

G-117-84

Bulletin#: G-119-84

Date: 08/16/84

Subject: Adjustment nut of the rock valve

August 16, 1984

SERVICE BULLETIN: G-119-84

Gentlemen:

Re: Adjustment Nut of the Rock Valve

While on service calls, our field representatives have determined that, in some cases, shop personnel and operators are not fully aware of the operation and maintenance of the Rock Valve. In order to clear up some confusion, please make note of the following:

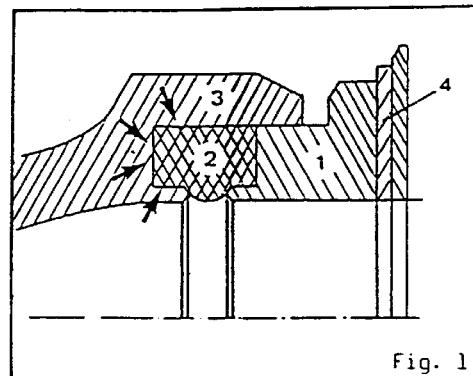
Fig. 1 shows the inlet side of the Rock Valve.

Item #1 is the cutting ring.

Item #2 is the pressure spring.

Item #3 is the Rock.

Item #4 is the inlet housing lining.



The cutting ring of the Rock Valve is adjusted automatically by the pressure spring. It is not necessary or possible to manually adjust for wear.

To extend the service life of the cutting ring and housing lining we highly recommend rotating the cutting ring occasionally.

(See section M of the Service Manual for the rotating procedure.)

SERVICE BULLETIN

G-119-84

Fig. 2 shows the outlet side of the Rock Valve

Item #1 is the adjustment nut

Item #2 is the locking screw

Item #3 is the Rock

Item #4 is the outlet side housing lining

Item #5 is the locking plate

When assembling the rock valve using all new components, there will be a pre-determined amount of axial play in the slewing shaft. This axial play (1.5 to 2mm .059 to .079 in.) can be measured between the Rock and the housing lining at the outlet side. (See Fig. 2)

Check the adjustment nut weekly for free play in the axial direction. Tighten the nut if necessary.

To do this, unscrew the locking screw and turn the adjustment nut clockwise, hand tight, against the stop.

Next, put a wrench on the adjustment nut and tighten clockwise to the next threaded hole on the locking plate, until the locking screw can be screwed into the hole.

Reinsert and tighten the locking screw.

Note: If during repairs, the cutting ring and the housing lining are not changed out at the same time, the axial play will be greater. Only in this case is the axial play to be set (1.5 to 2mm-.059 to .079 inches) by continuing to tighten the adjustment nut beyond where you can do it by hand.

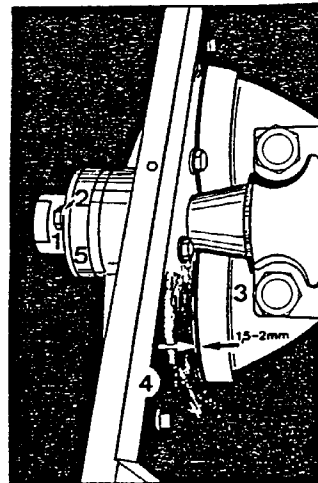


Fig. 2

THE ADJUSTMENT NUT IS NOT USED TO ADJUST THE POSITION OF THE CUTTING RING.

Further information concerning the Rock Valve can be found in your machines operating instructions, and in the Service Manual - Section M.

Rich Berndt
Rich Berndt
Service Manager
Schwing America, Inc.

Bulletin#: G-123-84

Date: 10/17/84

Subject: Boom pipeline maintenance

October 17, 1984

SERVICE BULLETIN: G-123-84

Gentlemen:

Recently, our servicemen have identified certain maintenance errors in the field that could lead to breakdowns.

BLOCKAGES IN BOOM PIPELINE

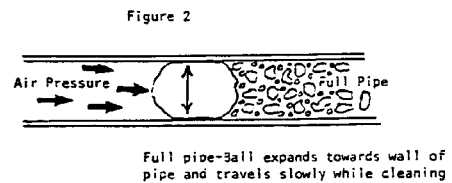
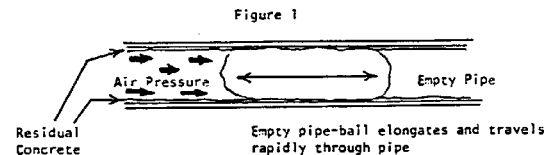
Despite regular cleaning with a sponge ball, one customer had repeated problems with plugging. It was found that old hardened concrete in the elbows was breaking loose and causing the problem. By watching the operator clean out, it was discovered that he always put the machine in reverse, pumped out the pipeline, then walked to the end of the boom and held the ball up to the hose to be sucked into the line. Because he had emptied the pipeline of concrete by the time he inserted the ball, the ball was moving at a high speed, compressing, and residual concrete was being left behind. (See figure 1.)

When cleaning the boom with a sponge ball, always proceed as stated in the Operating Manual:

First, wet up the concrete well and pump the pipeline full. Second, slowly pump out the hopper as much as possible. Third, put the end hose and tip section of the boom straight down. Fourth, press the sponge ball into the end hose and switch the pump into reverse. PUMP SLOWLY! (See Figure 2.)

CORROSION PITS ON PLACING BOOM

We recommend that you check the condition of the paint on your units regularly, especially



K-16

on the placing boom, because corrosion (rust) pits will weaken the steel cross section, and can lead to cracks in high stress areas through the "fatigue notch effect". Please eliminate rusty areas carefully, and repaint.

Sincerely,

Ric Berndt
Parts & Service Manager
Schwing America, Inc.

SERVICE BULLETIN

G-123-84

Bulletin#: G-124-84

Date: 10/17/84

Subject: Divided agitator long rock

October 17, 1984

SERVICE BULLETIN: G-124-84

Gentlemen:

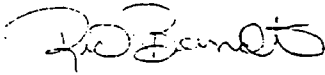
Re: Divided Agitator (Long Rock)

"Left" and "right" agitator paddles are different. In order to avoid confusion, we will immediately begin marking all "left" hand paddles with a welded "L". The right hand paddles will not receive any marking.

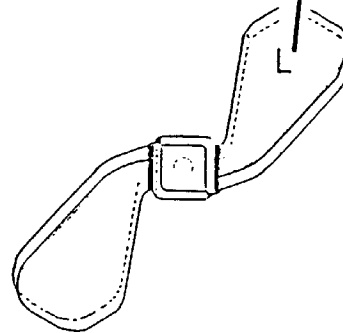
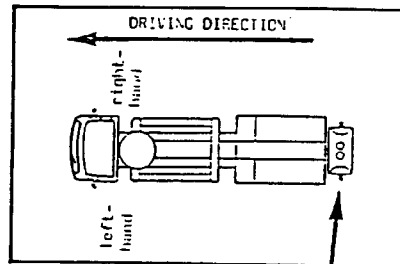
If you are doing repair work that necessitates removing unmarked paddles, please mark the left one as described above.

Please note that the figure at right shows the left and right sides of a unit as we always refer to them in our literature and operating manuals.

Regards,



Ric Berndt
Parts & Service Manager
Schwing America, Inc.



SERVICE BULLETIN

G-124-84

Bulletin#: G-125-84

Date: 11/27/84

Subject: Repairing worn rock valves

November 27, 1984

SERVICE BULLETIN G-125-84

Gentlemen:

Subject: Repairing Worn Rock Valves

A. Repairing Model 330 (Old Design)

Note: The model number of the rock valve may be found on the side of the bolt-on-portion of the valve. (See Figures 1 & 2)

Step 1. Preheat the rock valve to approx. 250°C (480°F)

Step 2. Using a wire feed welder (inert gas), lay on the hard facing with a minimum amount of penetration, (See Figure 3)

Step 3. Cover the welded rock with an asbestos blanket or aluminum cover for slow cool down.

Note: Stoddy makes a widely available wire electrode that should work well in this application - Stoddy #134 wire 1/16th inch thick - hardness approx. 56 HRC. Use the highest HRC wire you can find. (ESAB Autorod AS-60, or Messer-Griessheim Gridur-S-600, both have HRC numbers of 60; 1mm thick).

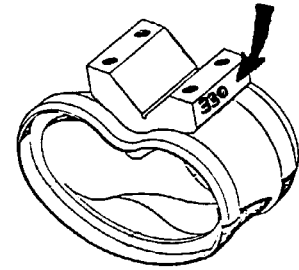


Figure 1.

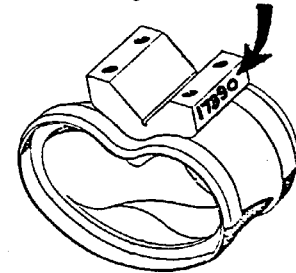


Figure 2.

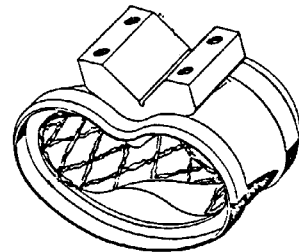


Figure 3.

SERVICE BULLETIN | G-125-84

B. Repairing Model 17390 (Model in current production)

Step 1. Preheat rock to approximately 150°C (300°F)

Step 2. Same as for Model 330

Step 3. Same as for Model 330

VALID FOR BOTH MODELS 330 AND 17390

Experience has taught us that in some cases these procedures may not or will not be done exactly, so we would like to inform you that rebuilding the rock valve does weaken the valve from its original strength. To avoid the problem, therefore, do not use any rebuilt valve on the high pressure side of your pump kit.

If you have any questions call us at Schwing America, Inc.

Sincerely,



Ric Berndt
Parts & Service Manager
Schwing America, Inc.

RB:jw

Bulletin#: G-126-84

Date: 11/05/84

Subject: Cutting ring adjustment - Rock valve

SERVICE BULLETIN

G-126-84

November 5, 1984

SERVICE BULLETIN: G-126-84

Gentlemen:

Re: Cutting Ring Adjustment-Rock Valve

It has come to our attention that the Service Bulletins issued from Schwing America are, in some cases, not being received by the customers.

Distributors are asked to please be sure that all of their customers receive the information issued with the classification "G" preceding the bulletin number.

We are, therefore, issuing this bulletin regarding the adjustment nut on the rock valve (See Fig. 1.) Please make this one point understood:

THE ADJUSTMENT NUT IS NOT USED TO ADJUST THE POSITION OF THE CUTTING RING!!!

To try and do this is to risk heavy wear on the inlet housing, cutting ring, pressure spring, and kidney seal. Please note that on Page M-5 of the service manual, the instructions state that the gap should be set automatically, except where the cutting ring and/or inlet housing are not being changed at the same time as the kidney seal. This is true, but the additional adjustment stated is only to the next available hole, and adjusts the clearance at the kidney seal end of the rock. Please call the Schwing Service Department if you have any doubts.

Sincerely,



Ric Berndt
Parts & Service Manager
Schwing America, Inc.

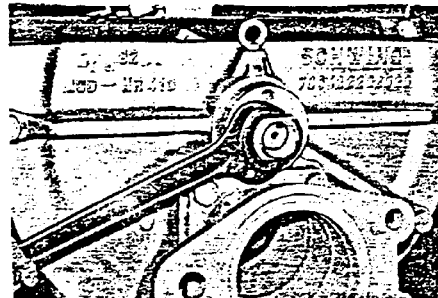


Fig. 1

Bulletin#: G-127-84

Date: 11/29/84

Subject: "Will Fit" oil filter for Schwing products

November 29, 1984

SERVICE BULLETIN G-127-84

Gentlemen:

Schwing America has been made aware that the accessories market is offering filter elements which are said to be useable in the hydraulic systems of our machines.

Hydraulic oil filtering is an extremely critical part of the hydraulic system. For this reason, Schwing has set very high standards for their filter elements, which are rarely equaled in copied filters. Every customer should be made aware of the disadvantages of using these copies.

1. The filtering material of copied elements do not meet our requirements for condition, design or quality.
2. The results of poor filtering are premature breakdown of hydraulic pumps, cylinders, motors, and valves, leading to HIGHER COST OF SPARE PARTS AND REPAIRS.
3. Internal oil leakages caused by the breakdown of hydraulic components will dramatically reduce efficiency, thereby increasing fuel consumption and the cost per yard pumped will increase.
4. Poor filtering results in rapid ageing of the hydraulic oil leading to HIGHER OIL COSTS.
5. In many cases a copied element will not be able to take the strain to which a concrete pump is subjected. It will fall apart, and become part of the contamination that it was designed to remove.
6. Some of the copied elements that we are aware of actually cost more than the original Schwing filter.

SERVICE BULLETIN	G-127-84
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7. If a copied element contaminates a system and causes damage, the Schwing Warranty will not apply to the damaged parts.

Only original Schwing filter elements will guarantee the reliability of our machines. For lowest maintenance and yardage costs, use original Schwing filter elements only.

Regards,



Ric Berndt
Parts & Service Manager
Schwing America, Inc.

RB:jw

Bulletin#: G-1-85

Date: 01/01/85

Subject: Concrete Pumps Truck Mounting Booklet

January 1, 1985

SERVICE BULLETIN G-1-85

Gentlemen:

Attached are new sheets 1D, 5E, 5F and 12A for your Concrete Pumps Truck Mounting booklet. Also included is a new index.

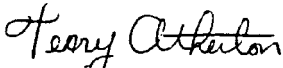
1D is a revision changing the front axle capacity from 12,000 to 16,000 lbs which was in error.

5E and 5F are the KVM 32/28 units with the BPL 900 HDR and the BPL 1200 HDR pumps respectively mounted on cab over Mack trucks. Note the required distance from the front axle to the rear most tandem axle spacing of 16'-7" to 16'-10" for the KVM 32 weights to be legal on the interstate highway system.

The KVM 32 will not be mounted on any conventional trucks in the future because the rear axle weights would be over the legal weight of 34,000 lbs and would not meet our minimum stability factors.

12A is the final version (Revision A) of the BPL 1000 mounted on a Ford F600 truck which was just completed.

Regards,


Terry Atherton
Engineering Manager
Schwing America, Inc.

Enclosures

TA:jw

SERVICE BULLETIN

G-1-85

Bulletin#: G-101-85

Date: 01/16/85

Subject: Plumbing procedure when using power pac on 28 meter boom

January 16, 1985

SERVICE BULLETIN G-101-85

Gentlemen:

Re: Plumbing Procedure When Using the Power Pack on 28 Meter Boom

- Step 1. Shut off truck
- Step 2. Remove boom block pressure hose (B.P.) at the quick disconnect fitting. (Fig. 1, Position "A")
- Step 3. Connect B.P. hose to power pack pressure fitting (Fig. 2)
- Step 4. Remove boom block return hose (B.R.) at the quick disconnect fitting (Fig. 1, Position "D")
- Step 5. Connect B.R. hose to power pack return fitting (Fig. 2)
- Step 6. Remove remote throttle pressure hose (T.P.) at the quick disconnect fitting (Fig. 1, Position "C")
- Step 7. Connect T.P. hose to quick disconnect fitting (Fig. 1, Position "B")
- Step 8. Remove alternate return hose from quick disconnect fitting Position "E" (this fitting is welded to the truck frame)
- Step 9. Connect alternate return hose to quick disconnect fitting (Fig. 2 Position "A")

SERVICE BULLETIN	G-101-85
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Step 10. Now compare to Fig. 2. You should have the boom pressure and return lines connected to the power pack, the remote throttle pressure line connected to fitting "B", and the alternate return line connected to fitting "A". Please note: You should have 3 unused fittings in the system when you're done plumbing: Position "C", Position "D", and Position "E". These fittings should not leak because of the check valve function of the quick disconnect feature. Please make sure that all quick disconnect fittings are fully inserted, and the outside ring of the fittings has snapped completely back to the original position.

Step 11. Start truck. Outriggers and remote control throttle will function.

Regards,



Ric Berndt
Parts & Service Manager
Schwing America, Inc.

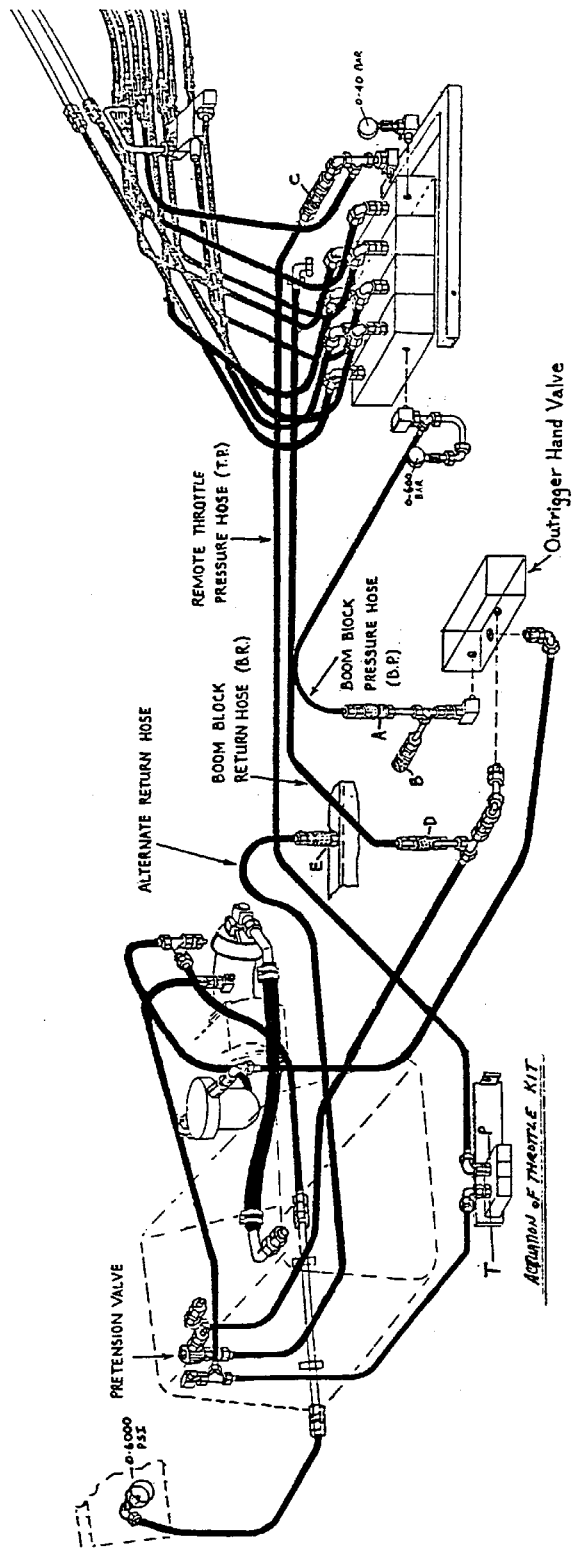


FIGURE 1

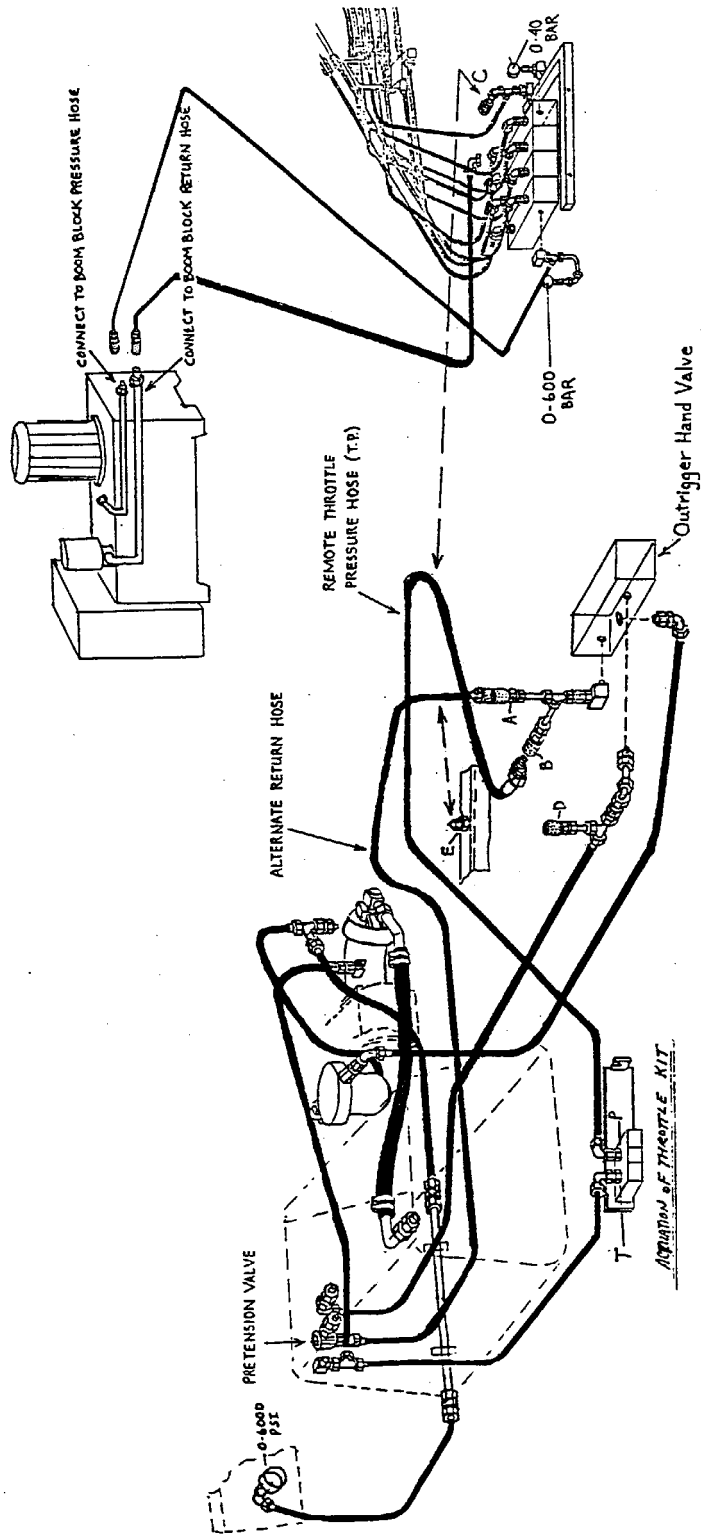


FIGURE 2

Bulletin#: G-102-85

Date: 01/18/85

Subject: Remote Control Boxes KVM 36m & 42M

SERVICE BULLETIN

G-102-85

January 18, 198

SERVICE BULLETIN: G-102-85

RE: Remote Control Boxes - KVM 36, & 42.

Gentlemen:

As of September, 1984, the remote control box for 36m & 42m booms (Fig. 1), has been replaced by a new style, (Fig-2). The new and old boxes are completely interchangeable, and the new box has the following advantages:

1. The new box is much lighter.
2. Easier operation, due to the combining of the 5th boom function into 2 joysticks.
3. To activate boom section 2, you simply push down on the left joystick to extend, and the right joystick to retract. In addition, the two functions are electrically interlocked against each other.
4. Radio remote control may be added.
5. The emergency shutdown contact for the radio control transmitter is conveniently located in the remote box.
6. The box has a luminous diode indicating "remote control ON".
7. The engine speed switches have been combined into a jack switch for ease of operation.

You may order the new box using the same part number as the old box.

Regards,



Ric Berndt
Service Manager
Schwing America, Inc.

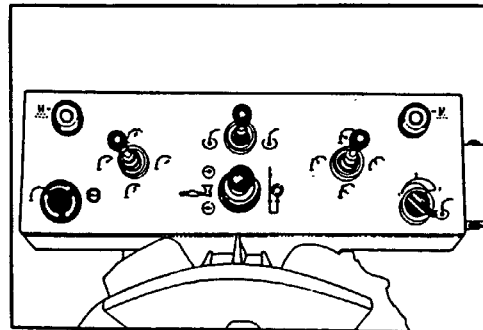


Fig. 1

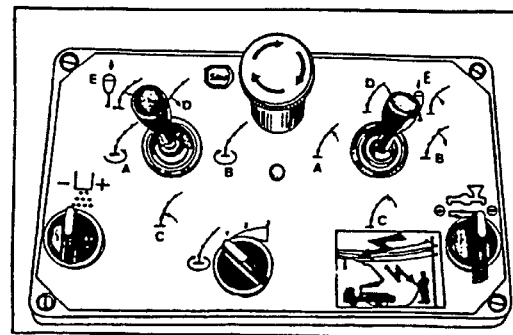


Fig. 2

Bulletin#: G-103-85

Date: 02/18/85

Subject: Hycon Flutec throttle valves

February 18, 1985

SERVICE BULLETIN G-103-85

Gentlemen:

This letter recently came to my attention and I am forwarding a copy to you for your examination. Because in the past, we had been installing the Hycon Flutec Throttle Valve on some gate valve concrete pumps, I will ask you to check to see if any exist in your area, either on your equipment, or a customers. These flow control valves are no longer being installed at Schwing America but they can be purchased through our Spare Parts Department.

In the event you have these Flutec Valves on your equipment or in stock, please contact either the Parts or the Service Department promptly. We will then take the proper action to rectify this problem.

Your immediate attention to this matter will be appreciated.

Regards,



Ric Berndt
Service Manager
Schwing America, Inc.

Enclosure

SERVICE BULLETIN

G-103-85

REXROTH
WORLDWIDE HYDRAULICS

The Rexroth Corporation

Industrial Hydraulics Division

The Rexroth Corporation
2315 City Line Road, P.O. Box 2407, Bethlehem, PA 18001
Telephone (215)694-2300 Telex 64-7498

November 26, 1984

SCHWING AMERICA . INC.
5900 Centerville Rd.
White Bear, MN 55110

Gentlemen:

Enclosed are safety instructions which we received from our supplier Hycon Inc. They require your immediate attention. Please read them carefully and take proper action at once. This supersedes any information previously mailed.

Thank you.

With best regards,

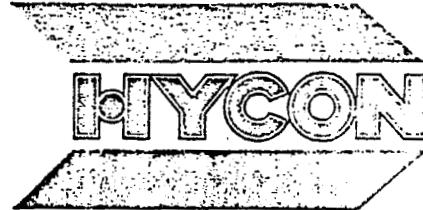
THE REXROTH CORPORATION



Charles G. Fey
Service Manager

/sa
Enclosure
cc: D/L
File

HYCON
CORPORATION
Lehigh Valley Industrial Park
City Line Road and Avenue C
P.O. Box 2626
Bethlehem, PA 18001
Telephone (215) 236-0100
Telex 84 7328



September 28, 1984

RECEIVED

OCT 2 1984

**SUBJECT: SAFETY INSTRUCTIONS FOR IMMEDIATE ATTENTION
FLOW CONTROL AND NEEDLE VALVES
DV/AV, DVP/AVP, DVE/AVE, DRV/DRVP, AND SRV SERIES**

HYCON has discovered that some users operate our flow control and needle shut off valves of the above referenced series, including Sizes 6, 8, 10, 12, and 16, with loose or missing round head pins (designated as pan head pin in HYCON literature). When the round head pin is improperly positioned or removed and the plastic knob is rotated enough turns counterclockwise, the spindle may disengage from the threads in the spindle guide. If the system is pressurized, the spindle and knob may be thrust out, possibly causing injury or property damage.

Effective immediately, all valves Sizes 6, 8, 10, 12, and 16 shipped from Bethlehem will be furnished with steel knobs. Please note that all valves with plastic and steel knobs must have the knob and round head pin installed at all times as per the enclosed maintenance instructions [Prospect A.5.112, A.5.111, A.5.151, revised 9/25/84] before adjusting or operating the valve under pressure. All operators of throttle valves should be notified that the above mentioned instructions must be followed at all times.

It should be noted that at an ambient temperature exceeding 140°F (60°C), the round head pin on plastic knobs can be removed or can become loose. It should also be noted that at an ambient temperature exceeding 125°F (50°C) and with sufficient torque, the round head pin can be deflected, allowing the plastic knobs to be disengaged. To eliminate the potential danger as a result of improper operation described above, HYCON insists on replacing the plastic knobs with steel knobs as outlined on the above mentioned maintenance instructions. The knobs will be made available at no charge for all valves operating at conditions exceeding the temperatures as noted.

-2-

If at any time a round head pin is found to be missing or loose on a plastic knob, HYCON will replace the plastic knob with a steel knob at no charge.

For all valves Sizes 6, 8, 10, 12 and 16 in your present inventory, steel knobs will be made available at no charge. Your inventory of valves with plastic knobs should not be used or sold until replaced with steel knobs. Please advise us immediately of the quantity and size requirements of steel knobs for you and your customers. Please instruct your customers to check for proper installation of knobs and round head pins on a regular basis.

Finally, it should be noted that plastic knobs were initially used for heat insulation qualities.

This product change does not apply to Sizes 20, 25, 30, and 40 because the present design already incorporates a steel insert.

Please give this matter your urgent attention. If you have any questions, please communicate with us immediately.

Sincerely,

HYCON CORPORATION

Ronald L. Bauer
Executive Vice President
and General Manager

RLB/klu
Encl.

-2-

If at any time a round head pin is found to be missing or loose on a plastic knob, HYCON will replace the plastic knob with a steel knob at no charge.

For all valves Sizes 6, 8, 10, 12 and 16 in your present inventory, steel knobs will be made available at no charge. Your inventory of valves with plastic knobs should not be used or sold until replaced with steel knobs. Please advise us immediately of the quantity and size requirements of steel knobs for you and your customers. Please instruct your customers to check for proper installation of knobs and round head pins on a regular basis.

Finally, it should be noted that plastic knobs were initially used for heat insulation qualities.

This product change does not apply to Sizes 20, 25, 30, and 40 because the present design already incorporates a steel insert.

Please give this matter your urgent attention. If you have any questions, please communicate with us immediately.

Sincerely,

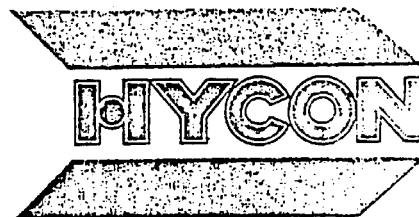
HYCON CORPORATION

Ronald L. Bauer
Executive Vice President
and General Manager

RLB/klu
Encl.

HYCON
CORPORATION

Lehigh Valley Industrial Park
City Line Road and Avenue C
P.O. Box 2626
Bethlehem, PA 18001
Telephone (215) 266-0100
Telex 84 7328



October 16, 1984

Mr. Alfred Krug
REXROTH CORPORATION
2315 City Line Rd.
Bethlehem, PA 18018

Dear Mr. Krug:

SUBJECT: SAFETY INSTRUCTIONS FOR IMMEDIATE ATTENTION
STEEL KNOBS ON HYCON FLOW CONTROL AND NEEDLE VALVES
DV/AV, DVP/AVP, DVE/AVE, DRV/DRVP AND SRV SERIES

HYCON recently started supplying steel knobs with round head pins replacing the plastic knobs on above referenced series valves, including Sizes 6, 8, 10, 12, and 16.

Investigations have shown that the round head pins supplied with steel knobs may pose a potential danger. To eliminate any such potential danger, HYCON insists on replacing the steel knobs with new steel knobs and pins.

Until the current steel knobs are replaced with new steel knobs and pins, do not force the valve open by using a wrench or similar device. Before operating the valve, make sure that the round head pin is positioned as per the enclosed Maintenance Information.

Please note that when replacing the steel knobs, the enclosed Maintenance Instructions (Proposal A.5.112, A.5.111, A.5.151, Revised 9/25/84) should be followed.

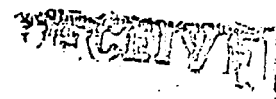
The knobs and pins will be made available at no charge.

Please give this matter your urgent attention. If you have any questions, please communicate with us immediately.

Sincerely,
HYCON CORPORATION


Ron Bauer
General Manager

RB/klu
Encl.



OCT 18 1984

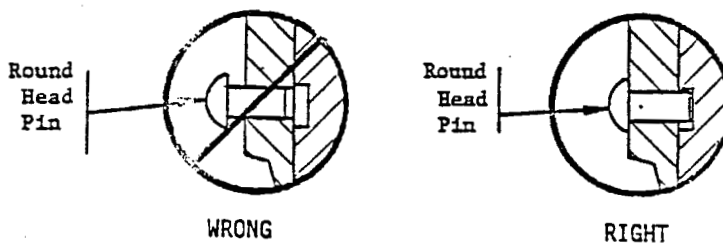
MAINTENANCE INSTRUCTION FOR FLOW CONTROL VALVES
MODELS DV/AV, DVP/AVP, DVE/AVE, DRV/DRVP, SRV

HYCON

TOOLS REQUIRED: Pipe wrench, adjustable wrench, Allen wrench,
small screw driver, and dental pick.

PROCEDURE:

1. Shut off system.
2. Relieve system pressure, i.e., reduce system to atmospheric pressure.
3. Drain system if valve is at a low point in the piping.
4. Remove valve from line or manifold.
5. Place valve in clean work area.
6. Loosen round head pin and set screw on knob. Discard round head pin.
ATTENTION: Round head pin designated as a pan head pin in HYCON literature.
7. Remove knob.
8. Unscrew spindle completely.
9. Remove O-ring and back-up ring from spindle.
Discard O-ring and back-up ring.
10. Clean and degrease housing and spindle.
11. Check spindle and housing for damage. Replace as necessary.
12. Install new back-up ring and O-ring on spindle. O-Ring and Back-Up Ring should be lubricated before replacement.
CAUTION: Back-up ring should be closer to the threaded portion of the spindle.
13. Screw spindle into housing until valve is COMPLETELY closed.
14. Align hex on spindle with knob socket and install knob.
CAUTION: KNOB MUST BE BOTTOMED AGAINST THE HOUSING.
15. Completely insert new round head pin into the knob.
CAUTION: ROUND HEAD PIN MUST BE INSTALLED IN THE KNOB RETENTION GROOVE OF THE VALVE HOUSING BEFORE AND DURING OPERATION OF VALVE.



16. Screw in set screw.
17. Install valve in line or on the manifold.
18. Pressurize system and check for leaks.

HYCON Corporation
Bethlehem, Pa. 18017

Reference: Prospects A.5.111, A.5.112,
A.5.151

Revised 9/25/84

Bulletin#: G-105-85

Date: 05/08/85

Subject: Bushing for rock slewing cylinders



5900 Centerville Road
White Bear, Minnesota 55110
Area Code 612/429-0999
TWX: 910-563-3539
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

May 8th, 1985

SERVICE BULLETIN

G-105-85

RE: Bushings for rock slewing cylinders

SERVICE BULLETIN

G-105-85

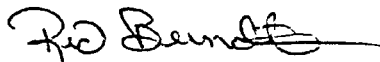
Gentlemen:

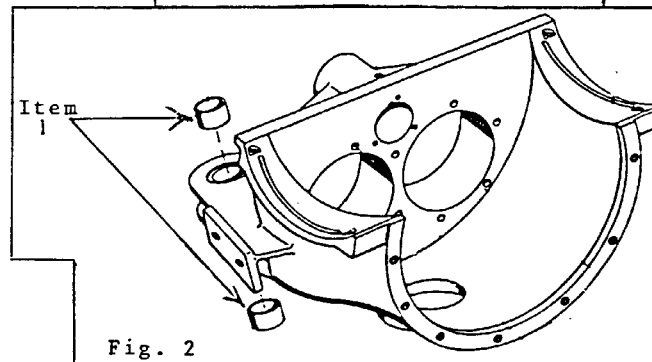
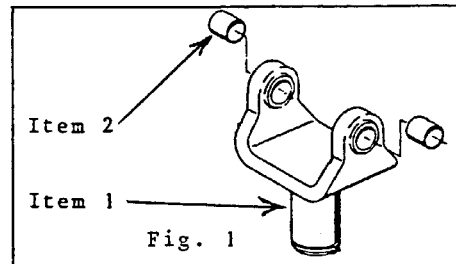
When changing the pivot (Item 1-Fig. 1) on a rock valve slewing cylinder, please be sure that you install new bushings in the pivot eyelets. (Item 2-Fig. 1) These bushings are not automatically shipped with a pivot, so please order them with the pivot, if you don't have them in stock. The part number for this bushing is: 998.504.502.228.

Also, when you change the pivot, we recommend that you change the pivot bushings (Item 1-Fig. 2), if your unit has the thin, teflon coated bushings. The part number on these thin bushings is: 998.504.503.834.0. If your unit has the thick steel bushing, you need not change it out. To tell if your unit has a thin or thick bushing, you must remove the rock cylinder from the rock housing. The thick bushing is one piece, about 1/4" thick. The thin bushings are in 2 pieces (Item 1-Fig. 2). If you don't want to pull your slewing cylinder just to find out, we would recommend ordering the thin bushings. If you don't need them, return them to us for credit.

If you have any questions, call
S.A.I. Service Dept.

Regards,


Ric Berndt
Service Manager
Schwing America, Inc.



Bulletin#: G-106-85

Date: 05/13/85

Subject: Hydrel boom hand valve conversions



5900 Centerville Road
White Bear, Minnesota 55110
Area Code 612/429-0999
TWX: 910-563-3539
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

MAY 13, 1985

SERVICE BULLETIN G-106-85

RE: Hydrel Boom Handvalves

Gentlemen:

On the Hydrel handvalves that we use on KVM 28,31,32,36 & 42 heavy weight booms, there have been problems with the snap ring (Item #21) working its way off of the end of the spool (Fig. 2 - Item #26), or in some cases, breaking apart and falling off. The problem is most apparent on the KVM 36 & 42 Heavyweight slewing speed handvalve, where the handvalve may be left in an activated position all day. The symptoms of this condition would be loss of the function in one or both directions.

We now have a cure for this problem. It consists of a kit, which may be ordered from our parts department, using Part No. 994.990.502.400-3.

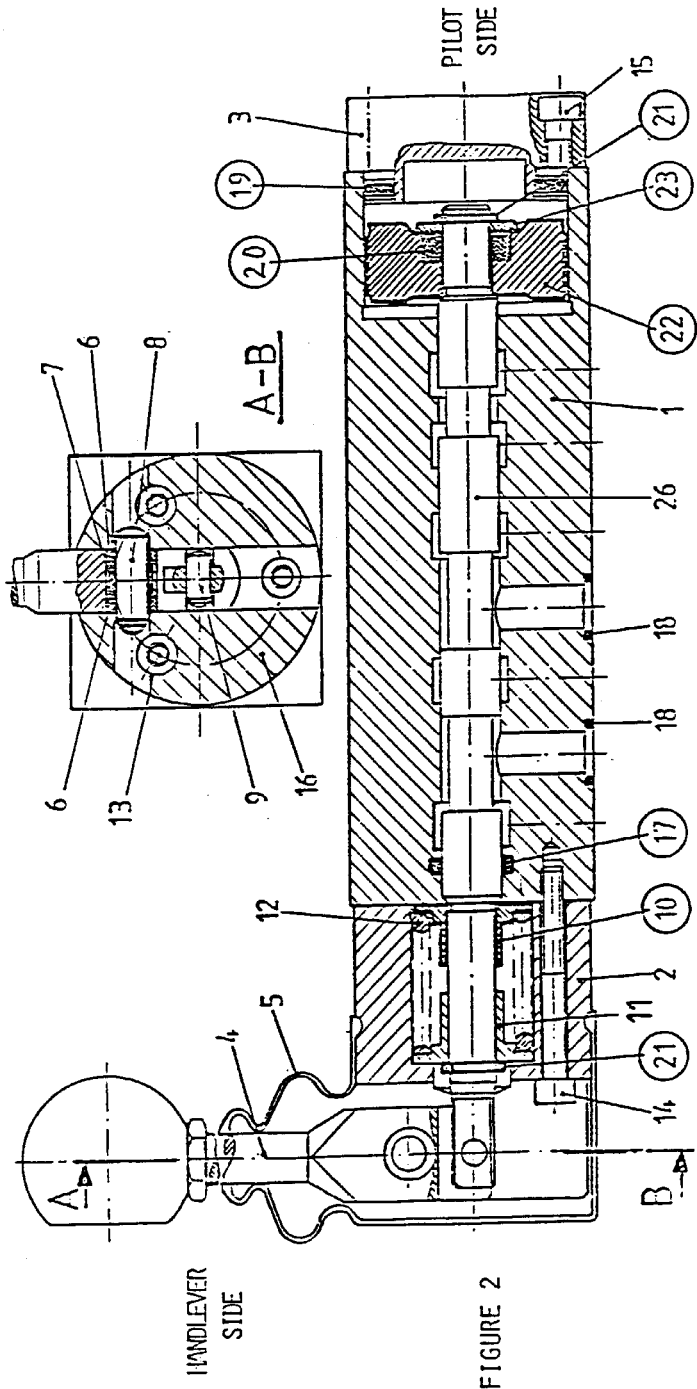
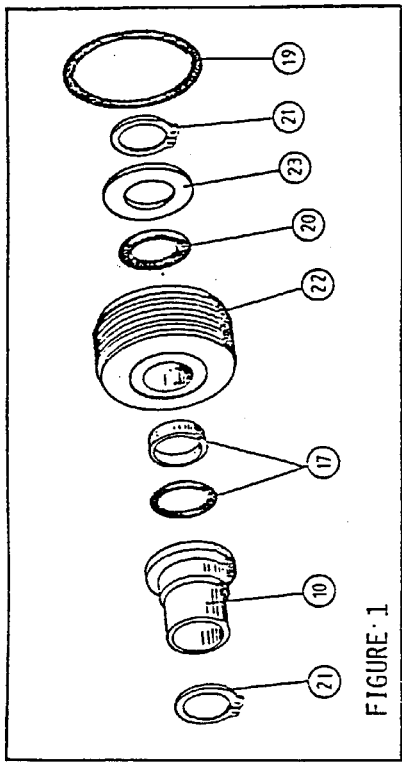
After installing this kit, the snap ring will be relieved, and should cause no further trouble.

The conversion kit consists of the following individual parts:

(See Fig. 1)

- Item #10 - Spring Disc
- Item #17 - Sliding Ring & O'Ring
- Item #19 - O'Ring 44 x 3
- Item #20 - O'Ring 12 x 5
- Item #21 - Snap Ring 12 x 1 (Qty 2)
- Item #22 - Pilot Piston
- Item #23 - Washer

SERVICE BULLETIN	G-106-85
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CONVERSION INSTRUCTIONS

NOTE: Remove the solenoid pilot valve and precontrol plate from the top of the hand valve to be fixed. There is no need to disassemble the pilot valve. Assure absolutely clean conditions! All item numbers listed here refer to Fig. 2 (handvalve cutaway). Circled numbers signify parts included in the kit.

- STEP 1 - Unscrew cylinder screws M6 x 20 (Item #15) and remove cover (Item #3).
- STEP 2 - Remove rubber protection boot (Item #5), cylinder screws M6 x 65 (Item #13), cylinder pin (Item #8), and hand lever (Item #4).
- STEP 3 - Remove cylinder screw M6 x 50 (Item #14) and dismantle support (Item #2).
- STEP 4 - Remove and discard snap ring 12 x 1.5 (Item #21) on hand lever side.
- STEP 5 - Remove spring disc on snap ring side (Item #11) and mark. Remove compression spring (Item #12) and spring disc on spool side (Item #10). Discard spring disc (Item #10).
- STEP 6 - Remove cylinder pin (Item #9) and push the spool (Item #26) carefully out of the valve body through the pilot side. Check the housing bore carefully for fluting or scoring. Also check the snap ring grooves on the spool for wear. Replace damaged parts.
- STEP 7 - Inspect the sliding ring with O'ring (Item #17) in the valve body (Item #1). Replace if it is damaged at all. NOTE: Pay close attention to the position of Item #17.
- STEP 8 - Remove the snap ring (Item #21), washer (Item #23), O'Ring 12 x 5 (Item #20) and pilot piston (Item #22) from the spool and discard.
- STEP 9 - Mount the new parts (Items #20 thru #23) onto the spool (Item #26) as illustrated in Fig. 2.
- STEP 10 - Slightly coat the pilot piston and spool with hydraulic oil and insert carefully into the valve body. Be careful about the position of Item #17.
- STEP 11 - Mount new (shortened) spring disc (item #10) on spool side.
- STEP 12 - Install the compression spring (Item #12), the spring disc that you marked in step 5 (Item #11) and the new snap ring (Item #21). Place the cylinder pin (Item #9) into the spool bore.
- STEP 13 - Install the support (Item #2), bolts (Item #13 & #14), lever (Item #4), cylinder pin (Item #8), and rubber protection boot (item #5)

Page 4 (Con't.)

STEP 14 - Mount rear cover (Item #3) with the new O'ring 44 x 3 (Item #19), and install the bolts (Item #15).

STEP 15 - Remount hand valve on unit.

STEP 16 - Remount the precontrol plate and pilot.solenoid-valve on the hand valve.

NOTE: This conversion will work only on boom handvalves. The handvalves at the operators control panel have a larger diameter spool and cannot be converted with this kit.

Regards,

SCHWING AMERICA, INC.



Ric Berndt
Service Manager

RB/gw

Bulletin#: G-107-85

Date: 05/13/85

Subject: Modification of BPL 900 pumpkit at control block



5900 Centerville Road
White Bear, Minnesota 55110
Area Code 612/429-0999
TWX: 910-563-3539
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

May 13, 1985

SERVICE BULLETIN

G-107-85

Gentlemen:

Re: Modification BPL 900 Pump Kit at Control Block

This modification is to be made to the plumbing at the control block of BPL 900 HDR pump kits.

It involves replacing EGESD-12 LR-WD fittings, which may fail or develop leaks, with a short tube assembly (306479) and a K-GEV 12 LR fitting, part number 994.180.512.000. (See drawing.)

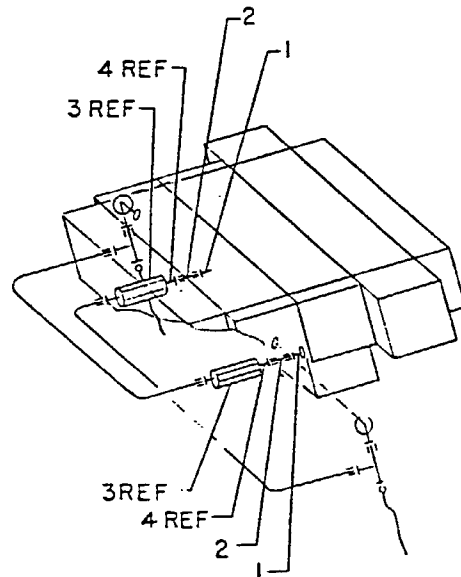
We will send to you at no charge, the parts needed to make this change for all BPL 900 pump kits you have purchased through SAI. It is imperative you pass this information and parts on to your customers as well.

Thank you for your attention in this matter.

Regards,

A handwritten signature in cursive script that reads 'Ric Berndt'.

Ric Berndt
Service Manager
Schwing America, Inc.



NOTE:

"REF" PARTS ARE EXISTING, AND ARE SHOWN FOR REFERENCE ONLY.

SERVICE BULLETIN

G-107-85

Bulletin#: G-108-85

Date: 05/28/85

Subject: Installing the steel pressure spring in rock valves



5900 Centerville Road
White Bear, Minnesota 55110
Area Code 612/429-0999
TWX: 910-563-3539
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

May 28, 1985

SERVICE BULLETIN: G-108-85

RE: Installing the steel pressure spring in rock valves.

Gentlemen:

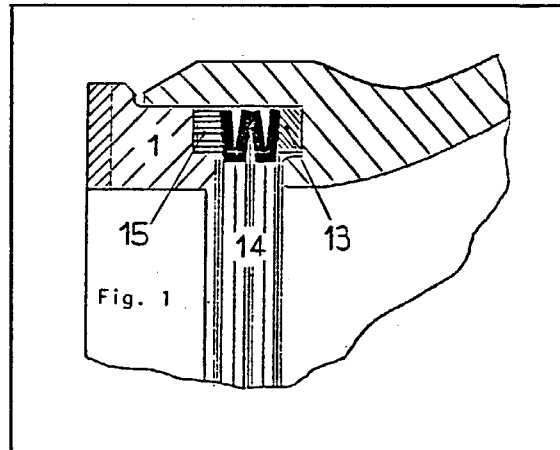
When installing the metal pressure springs in rock valves, you get a kit that consists of the following parts: (See Fig. 1)

Item 13 - Metal Ring ID# 40541

Item 14 - Cup Springs (Qty 4)
ID# 40542

Item 15 - Rubber Gasket
ID# 47299

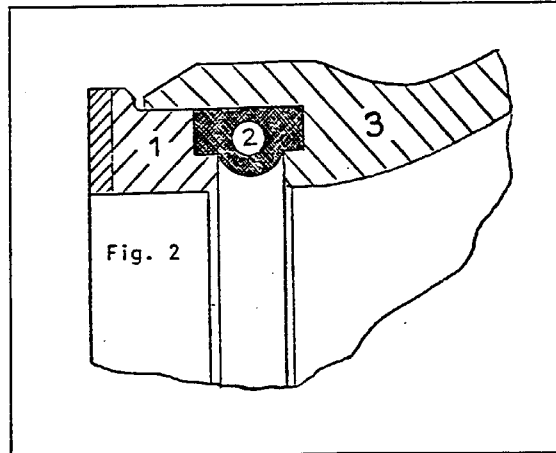
Generally speaking, the above mentioned parts can be installed without disassembling the rock valve. However, to better check and clean the rock valve, we recommend that you disassemble the rock - especially before you install your first set of steel springs. The work involved in disassembly is described in the "Service Repair Instructions for the Rock Valve".



SERVICE BULLETIN G-108-85

After disassembly, the procedure is as follows:

STEP 1 - Remove the cutting ring (Item 1, Fig. 2), and the rubber pressure spring (Item 2, Fig. 2). Check the cutting ring for re-useability. We recommend a new cutting ring if there's any question of the condition of the old cutting ring. The old ring may then be kept as an emergency backup.



STEP 2 - Remove all concrete and rubber residues that are left in the spring chamber of the rock.

STEP 3 - Lightly grease the spring chamber.

STEP 4 - Install rock valve on slewing shaft.

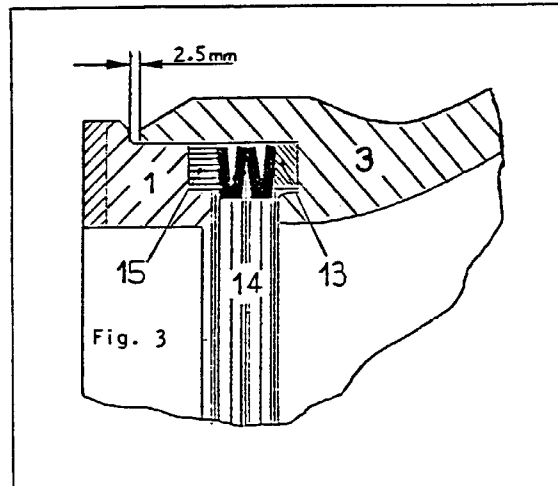
STEP 5 - Lightly grease all the parts of the spring kit.

STEP 6 - Insert metal ring. (Item 13, Fig. 3) into the spring chamber of the rock valve.

STEP 7 - Insert the cup springs (Item 14, Fig. 3) as shown in Fig. 3.

STEP 8 - Install the rubber gasket (Item 15, Fig. 3) around the cutting ring (Item 1, Fig. 3), and insert the cutting ring into the rock.

STEP 9 - Tighten the bolts of the rock valve housing cover uniformly, and make sure that the cutting ring slides into the rock without tilting or binding. At this point, the cup springs will be squeezed together.



* A T T E N T I O N : N E W C L E A R A N C E S *

If you put in all new wear parts (kindey seal, cutting ring and housing lining), the clearances will change from the spec listed for a rubber pressure spring.

Please note the following new distances:

FIG. 3 - Distance from cutting ring (Item 1) to rock valve (Item 3) =
2.5 mm

FIG. 4 - Distance from rock (Item 3)
to kidney plate (Item 4) =
3.5 mm.

If you do not use all new parts, a different distance will result, but you should set the distance at the outlet side to 3.5 mm. This is done with the adjustment nut (2). Do not attempt to adjust the cutting ring distance with the adjustment nut!

The exact life expectancy of this new spring has yet to be determined, because although the prototypes were sent out in July of 1984, we have never seen one wear out. The rubber gasket, (Item 15, Fig. 3), which will eventually dry out and crack, is available seperately by calling our Parts Department and ordering ID# 47299.

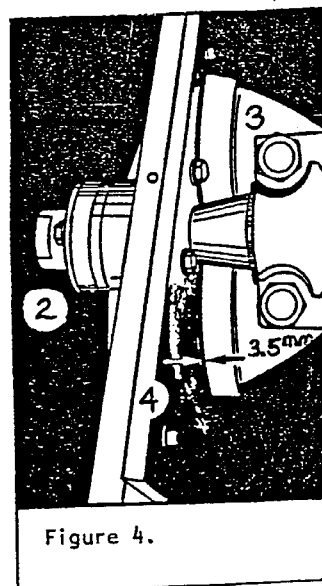
Regards,

SCHWING AMERICA, INC.



Ric W. Berndt
Service Manager

RWB:gw



Bulletin#: G-109-85

Date: 05/30/85

Subject: TRW agitator pressure direct drive



5900 Centerville Road
White Bear, Minnesota 55110
Area Code 612/429-0999
TWX: 910-563-3539
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

May 30, 1985

SERVICE BULLETIN G-109-85

SERVICE BULLETIN G-109-85

RE: TRW Agitator motor pressure (direct drive)

Gentlemen:

On units with direct drive agitators, (see fig. 1: models BP 750, BPL 1000, BPL 580 KVM 23, BPL 650 HDR KVM 23, & BPL 900 HDR KVM 25), the specifications for setting the agitator relief has always been 200 bar.

Because of the trouble we have had with the couplers between the motor and flanges breaking, we have now been issued a new specification from Germany. We will start, effective immediately, setting these motors at 160 bar on all units leaving White Bear. We would also request that all units in the field be changed to meet this specification. Because of the many models involved, and the many locations of the relief valve in question, we would ask that if you do not know which relief valve controls your agitator motor, please call Schwing America Service Dept. at 1-800-328-0335 before attempting this change.

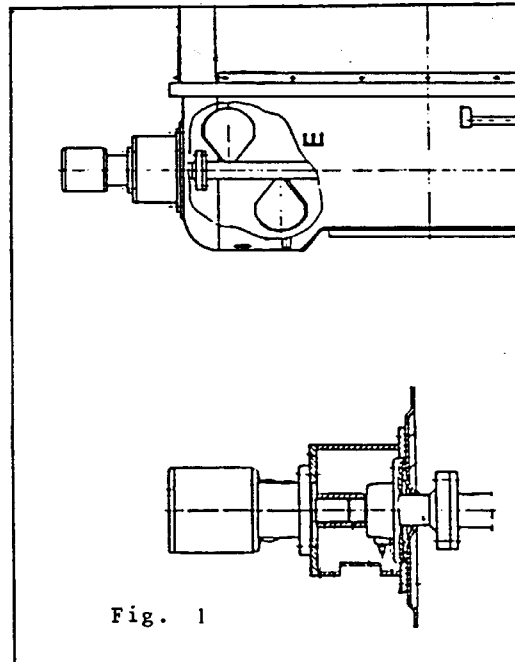
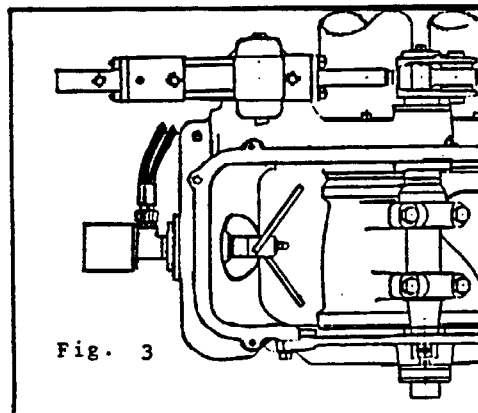
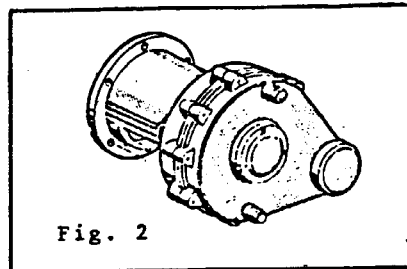


Fig. 1

Please note that this change does not effect units with the STEIBEL Gearbox, (see fig. 2) or the 900 or 1200 Long Rock agitators. (see fig. 3)



Thank you for your cooperation in this matter.

Regards,

SCHWING AMERICA, INC.



Ric W. Berndt
Service Manager

Bulletin#: G-110-85

Date: 07/31/85

Subject: Normally open relief valve for KVM 42LW, and electric bypass valves for KVM 35M and 32M



**SCHWING
AMERICA INC.**

5900 Centerville Road
White Bear, Minnesota 55110
Area Code 612/429-0999
TWX: 910-563-3539
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

July 31, 1985

Service Bulletin

G-110-85

Re: Normally open relief valve (KVM 42 L.W.), electric bypass valves (KVM 32, 25).

Gentlemen:

Due to insurance regulations, new Schwing Concrete pump models are coming from the factory equipped with electric devices that will disable the unit if it develops an electrical fault. Some of the situations that could cause this fault would be:

1. Short circuit in the wiring.
2. Blown fuse.
3. Faulty switch.
4. Loss of current through the continuous duty solenoid on the firewall of the truck.

In the case of 42 meter lightweight units, or 32 meter units, the symptoms of bypass would be loss of all boom functions. On the units with 25 meter booms, the symptoms would also include loss of concrete pump forward and reverse. The purpose of this bulletin, therefore, is to make you aware of the location of these bypass valves, and how to plumb around them to finish a pour in an emergency. Please keep this one point in mind:

THESE INSTRUCTIONS ARE FOR A TEMPORARY FIX ONLY. THE ELECTRICAL FAULT MUST BE LOCATED AND CORRECTED, AND THE VALVE PLUMBED BACK INTO THE SYSTEM. FAILURE TO REINSTALL THE VALVES WOULD LEAVE YOU OR YOUR PEOPLE LIABLE FOR ANY INJURY OR DAMAGE TO PROPERTY THAT COULD RESULT!

Also please note that figures 1 thru 3 apply to 42 lightweight units only, and figures 4 thru 8 apply to 32 and 25 meter units.

SERVICE BULLETIN

G-110-85

KVM 42 L.W. (Normally open relief valve).

Location on unit: Mounted on the forward side of the tool-box, passenger side of truck.

Appearance: See figure 1

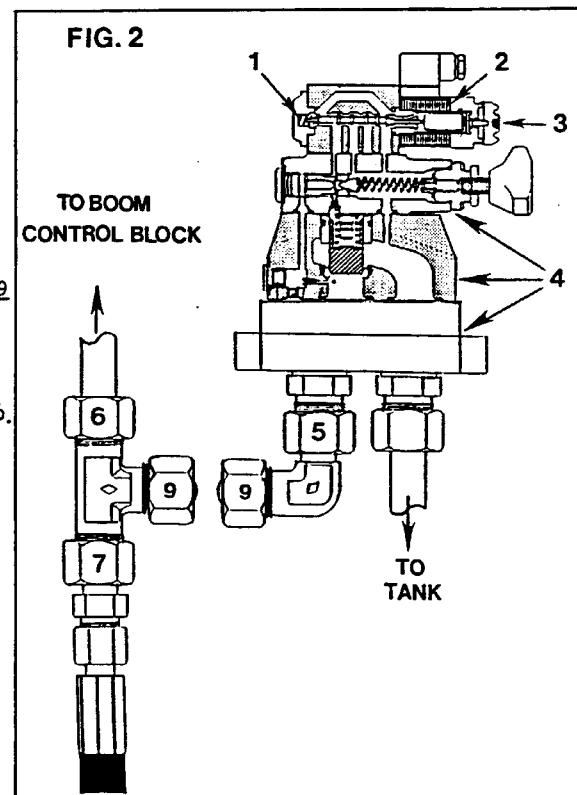
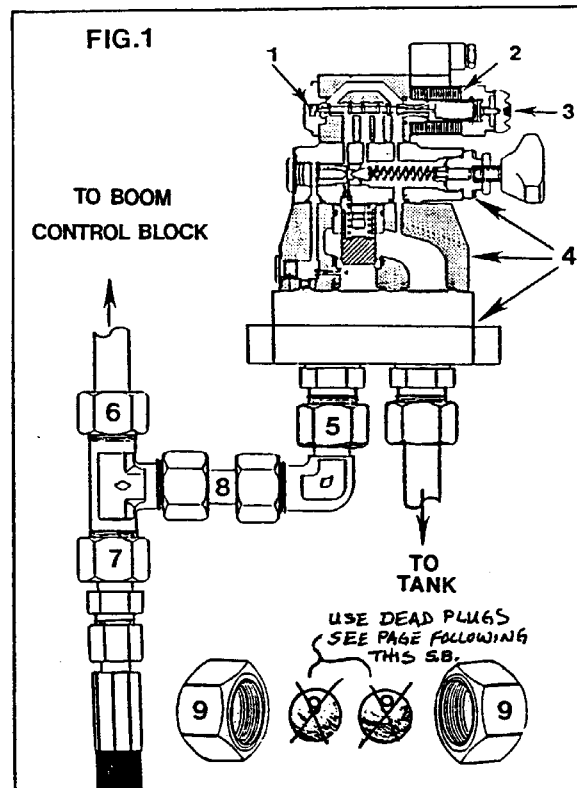
If you should lose all boom functions on the job, you should check this valve first. To test the valve, take your finger and manually push on the rubber end of the electric coil. (Fig. 1, item 3) This will accomplish the same thing that energizing the coil will accomplish, that is, to slide the spool into a closed position. If, when you are holding the spool over you regain boom functions, you can assume that you have lost electricity to the coil. (Fig. 1, item 2) At this point you may either have someone continue to hold the spool over manually, (if your almost done with the pour), or plumb around the valve, (if you still have many yards to go.)

To plumb around the valve:

1. You will need 2 dead plugs, which you may order from our spare parts department by ordering 2 of part no. ~~308692~~ (ball bearings), and 2 of part no. 994.180.121.000-9 (M 20 S capnuts). (See fig. 1, item 9). These, of course must be purchased before hand, if you do not have them in stock already. *SEE PAGE FOLLOWING THIS S.B. FOR DEAD PLUGS.*

2. Take a 36 mm open end wrench, and loosen the capnuts on each end of the tube (fig. 1, item 8.)

3. Using the same wrench, loosen fittings #5, 6, & 7, (fig. 1)



4. Remove tube # 8 by swiveling the "T" fitting and elbow away from each other.

5. Install 1 ^{dead plug} capnut, and 1 ~~ball bearing~~ on both the "T" fitting and the elbow as shown in fig. 2.

6. Tighten fittings 5, 6, & 7. Valve is now bypassed.

Note: There is another relief valve in the system, so there is no danger of over pressurizing this system. Fig. 3 is showing the function of this valve, in schematic form.

KVM 25, 32 (Electric bypass valve)

Location on unit-25 meter, directly towards cab, on front of toolbox. 32 meter, between toolbox and subframe.

Appearance: See fig. 4

If you should lose all boom functions and concrete pump forward reverse, and water pump/agitator function (KVM 25) you may assume that this bypass valve has opened. (See figures 7 & 8 for schematical representation) Please note that on KVM 32, you will only lose boom/outrigger functions if this valve opens. If a check of the main fuse proves positive, replace fuse, and continue the pour. If a check of the main fuse proves negative, you will want to bypass this valve immediately, as there is no way to manually check for loss of function.

To plumb around the electric bypass valve:

1. You will need 2 dead plugs, (SEE PAGE FOLLOWING THIS S.B.)

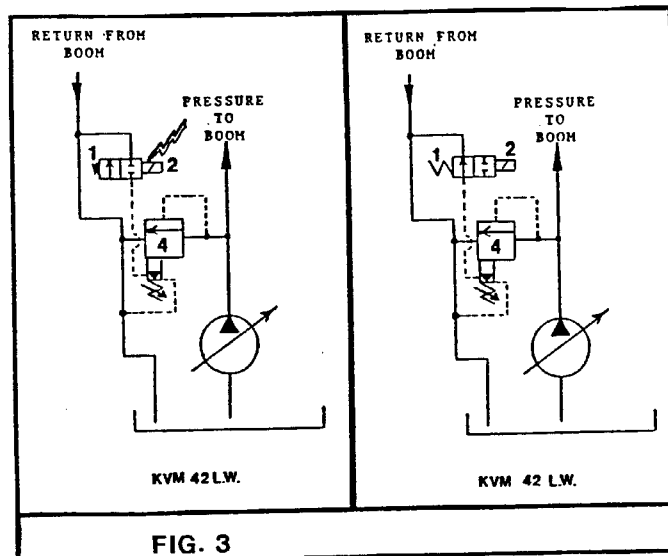


FIG. 3

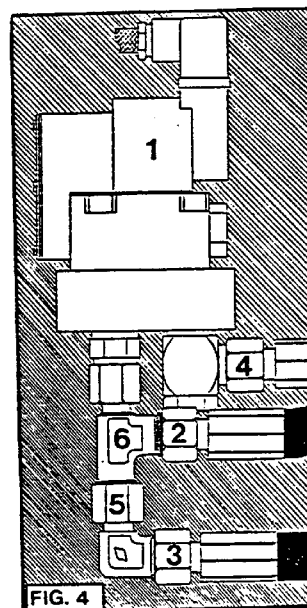


FIG. 4

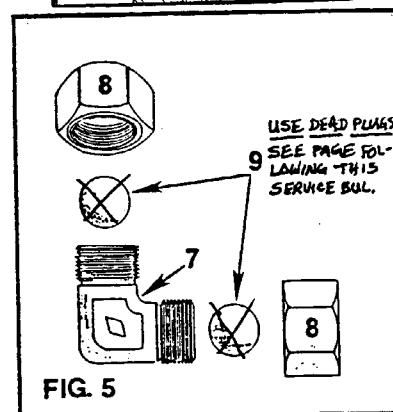


FIG. 5

which may be purchased from our spare parts department by ordering 2 of part no. ~~305238 (ball bearings)~~, and 1 of part no. 994.181.020.000-8 (K-WV 16 S fitting). (See figure 5) Again, these must be on hand before a breakdown if you are to bypass this valve on the job.

2. Using a 30 mm open end wrench, remove the hose (fig. 4 item 2), and the elbow (fig. 4 item 5), from the "T" fitting (fig. 4 item 6).

3. Insert the elbow (fig. 5, item 7), between elbow no. 5 and hose no. 2. (See figure 6)

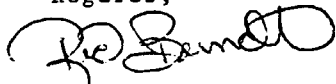
4. Install the ~~ball bearings~~ ^{dead plugs} and capnuts on the "T" fitting (Item 6), as shown in figure 6.

5. Tighten all fittings-valve is now out of the system. Please note that this valve has no relief valve function, so again there is no danger of over pressurizing the system.

This entire bypass procedure should take less than 10 minutes to perform on the job, therefore you should be able to continue pumping easily once you are finished.

DO NOT FORGET TO FIND THE SOURCE OF THE PROBLEM AND CORRECT IT IMMEDIATELY UPON COMPLETION OF THE JOB!

Regards,



Ric Berndt
Service Manager

Schwing America, Inc.

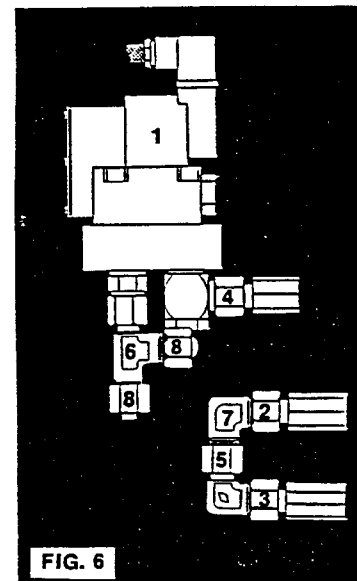


FIG. 6

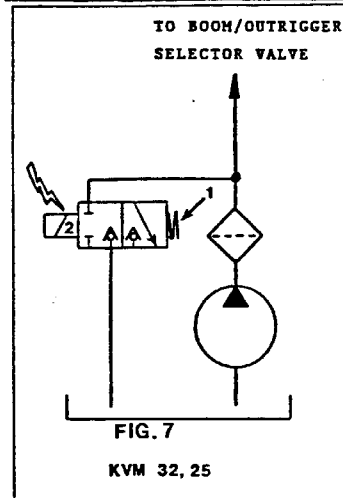


FIG. 7

KVM 32, 25

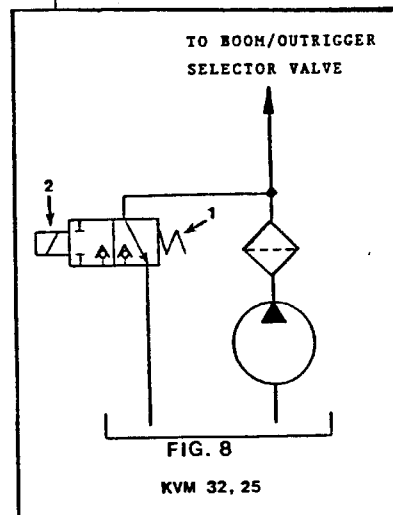
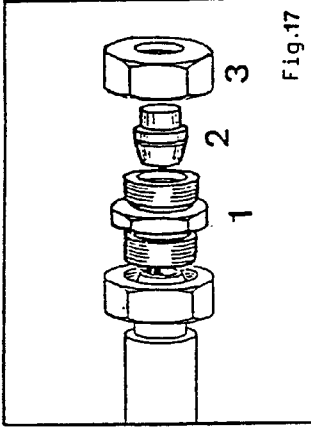


FIG. 8

KVM 32, 25



LOCKING DEAD PLUGS FOR HYDRAULIC HOSES AND TUBES

For SAFE and RELIABLE plugging of ONE hydraulic hose or tube, the following is required. (See Fig. 17)

- Item 1 - Straight screw coupling
- Item 2 - Plug
- Item 3 - Capnut

TO PLUG:	SCREW COUPLING		LOCKING PLUG		CAP NUT	
	TYPE	PART NUMBER	TYPE	PART NUMBER	TYPE	PART NUMBER
1. Agitator Lines	K-GS16S	994.180.920.010	VS16S	994.183.616.000	M16S	994.180.120.000
2. Slewing Cylinder For Rock (DN 165)	K-GS20S	994.180.921.010	VS20S	994.183.617.000	M20S	994.180.121.000
3. Slewing Cylinder For Rock (DN 210)	K-GS25S	994.180.922.010	VS25S	994.183.618.000	M25S	994.180.122.000
	K-GS20S	994.180.921.010	VS20S	994.183.617.000	M20S	994.180.121.000
	K-GS16S	994.180.920.010	VS16S	994.183.616.000	M16S	994.180.120.000
4. Plunger Flat Gate (DN 150)	K-GS20S	994.180.921.010	VS20S	994.183.617.000	M20S	994.180.121.000
5. Plunger Flat Gate (DN 180/210)	K-GS25S	994.180.922.010	VS25S	994.183.618.000	M25S	994.180.122.000

* High pressure 6" gates (BPA 3000, 4000, 5000) will require the same plug as flat gate, DN 180/210 (#5)

Bulletin#: G-111-85

Date: 09/09/85

Subject: Welding on concrete pumps and placing booms



5900 Centerville Road
White Bear, Minnesota 55110
Area Code 612/429-0999
TWX: 910-563-3539
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

September 9, 1985

Service Bulletin

G-111-85

Re: Welding on Concrete Pumps and Placing Booms.

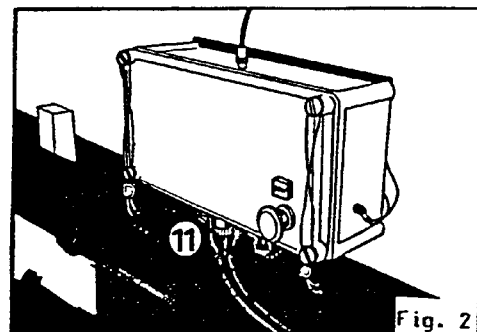
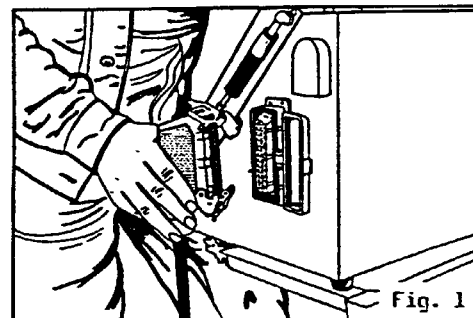
Gentlemen:

Welding to be done on the placing booms may be done only by Schwing America, or a welder authorized by Schwing America. If you need to weld on your boom for any reason, please contact us first.

The electrical components on your radio remote control units are susceptible to external voltage, such as welding current, and damage or destruction of these components will result.

If you are going to be welding anywhere on a unit the following instructions must be strictly observed:

1. On units that have radio remotes:
 - A. If you are using the hard cable, detach it from the operators station, (see figure 1), and store the cable and box away from the unit.
 - B. Unplug connection cable 11 from the radio receiver as shown in figure 2. Protect the socket with the sealing cap.
 - C. As of today's date we have no radio controlled proportional control blocks in use in this



SERVICE BULLETIN

G-111-85

country. However, if we should install them in the future, the plug in amplifier for the proportional solenoids must also be disconnected and protected with a dummy plug.

2. On all units:

- A. Whenever you are going to weld on a unit, you should first disconnect the negative pole of the battery on the truck in order to protect the three phase generator. (See your vehicle operators manual)
- B. Always install the ground cable directly on the part of the machine that the welding is being carried out.
- C. Under no circumstances should you allow welding current to flow through bearings, articulations, or hydraulic components, as gap bridging and arcing will cause serious damage to machined or chromed surfaces.

Regards



Ric Berndt
Service Manager
Schwing America, Inc.

Bulletin#: G-112-85

Date: 09/11/85

Subject: Cleaning the rock valve



5900 Centerville Road
White Bear, Minnesota 55110
Area Code 612/429-0999
TWX: 910-563-3539
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

September 11, 1985

Service Bulletin

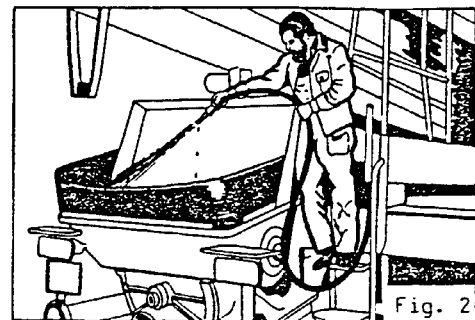
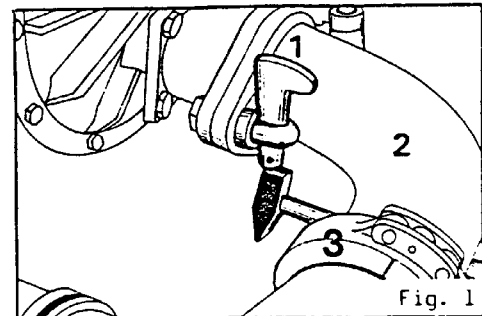
G-112-85

Re: Cleaning the rock valve.

Gentlemen:

The cleaning procedure described below has proven to be the best in practice.

1. Suck the concrete column back through the boom pipeline (Truck mounted boom units only), using a pipecleaning ball. (For a complete description of this procedure, see Service bulletin no. G-123-84, dated Oct. 17, 1984).
2. Knock out wedge (pos. 1, fig. 1), remove clamp (pos. 3, fig. 1) and swing away the pipe bend. (pos. 2, fig. 1)
3. Put the pump in forward, and adjust the stroke limiter to the lowest possible strokes per minute.
4. Pump the remaining concrete out of the rock housing, then direct a water jet into the hopper, as shown in figure 2. The concrete pump will suck the water and flush the material cylinders.



SERVICE BULLETIN

G-112-85

5. STOP the concrete pump, then open the clean out door (figure 3). DO NOT OPEN THE CLEAN OUT DOOR WHILE THE CONCRETE PUMP IS ENGAGED!
6. Switch the rock back and forth, each time flushing the inside and outside. Direct the water jet through the rock valve into the material cylinders, and continue this procedure until the water running out is clear and clean. (figure 4)

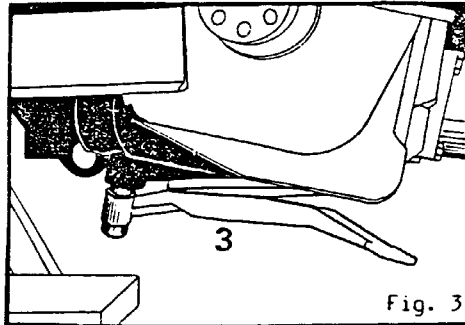


Fig. 3

ATTENTION: ONLY THE WATER JET IS TO ENTER THE ROCK VALVE OPENING. KEEP THE NOZZLE, AND YOUR HANDS AND ARMS OUT OF THE OPENING.

For further cleaning details, see the operating instructions.

By following these instructions it is possible to thoroughly clean the rock valve without any additional tools or procedures.

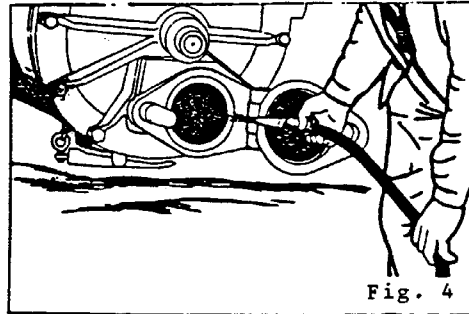


Fig. 4

Regards

Ric Berndt
Service Manager
Schwing America, Inc.

Bulletin#: G-113-85

Date: 09/16/85

Subject: Determining wear: kidney seal & kidney plate outlet side

September 13, 1985

Service Bulletin G-113-85

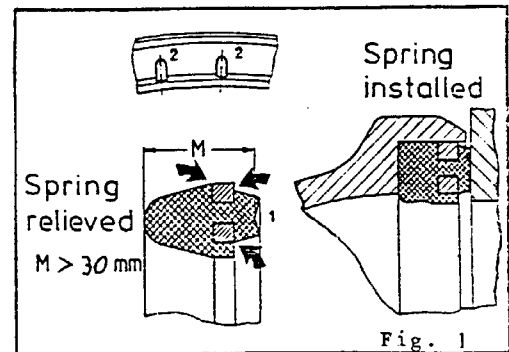
RE: Determining wear on kidney seal and housing lining-outlet side (kidney plate).

Gentlemen:

Although these components will withstand a great deal of hard usage, both pieces should be inspected whenever the cutting ring is replaced.

Replace the kidney seal (fig. 1) if any of the following conditions exist:

1. The seal is swollen due to use of aggressive or harsh cleaning agents. (See Service bulletin G-113-84, dated July 18, 1984)
2. A considerable formation of cracks are found in the areas marked by arrows. (fig. 1) This problem is very rare.
3. Lip (Item 1, fig. 1) is completely worn to the point that the pressure relief grooves (Items 2, fig. 1) are no longer recognizable.
4. The distance indicated by "M" of the released kidney seal does not exceed 30mm (1 3/16").



SERVICE BULLETIN

G-113-85

Replace the housing lining-outlet side (kidney plate) only if scores are found, in the area that contacts the kidney seal, that are deeper than 2.5 mm. You can measure this by placing a steel ruler across the kidney plate in several places, and using a depth gauge to determine the gap.

NOTE: Outside of the area that contacts the kidney seal, you may detect scores that are due to concrete particles penetrating between the rock valve and the kidney plate. (See figure 2 and figure 3) THESE SCORES DO NOT MATTER IN THE LEAST!

We would like to draw your attention to the fact that under no circumstances should you allow the kidney seal to be run with a dry hopper. This will destroy the kidney seal, and is the primary cause of premature wear encountered at the outlet side of the rock valve.

If you will be repairing the rock, or troubleshooting a problem, always fill the hopper with water to the top of the rock valve before switching.

Regards,



Ric Berndt
Service Manager
Schwing America, Inc.

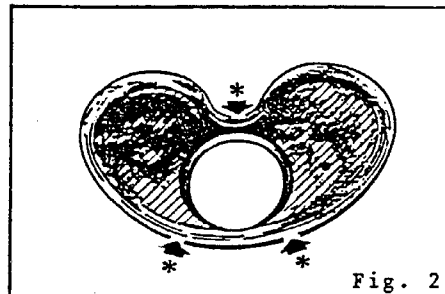


Fig. 2

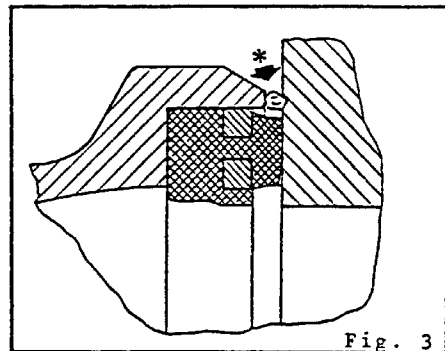


Fig. 3

Bulletin#: G-114-85

Date: 09/18/85

Subject: Holding Valve & Pressure Modification - KVM 42LW



5900 Centerville Road
White Bear, Minnesota 55110
Area Code: 612/429-0999
TWX: 910-563-3539
Telecopy: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

September 18, 1985

Service Bulletin G-114-85

RE: Holding valve and pressure modifications - KVM 42 Lightweight.

Gentlemen:

In our continuing effort to give our customers the very best possible concrete pumps, we have made the following modifications in specifications and holding valves:

1. Holding valve for hydraulic cylinder operating third section of boom.

This valve (see figure 1) has always had a 300 bar relief function built in: we are changing these valves to a 320 bar relief function. This will give the third section more power for lifting, and should also be helpful in speeding up the time it takes to fully extend the third section.

It is not possible to adjust these valves in the field, so we must set them while they are on a test stand during the manufacturing process, and physically change out the blocks on the units in the field.

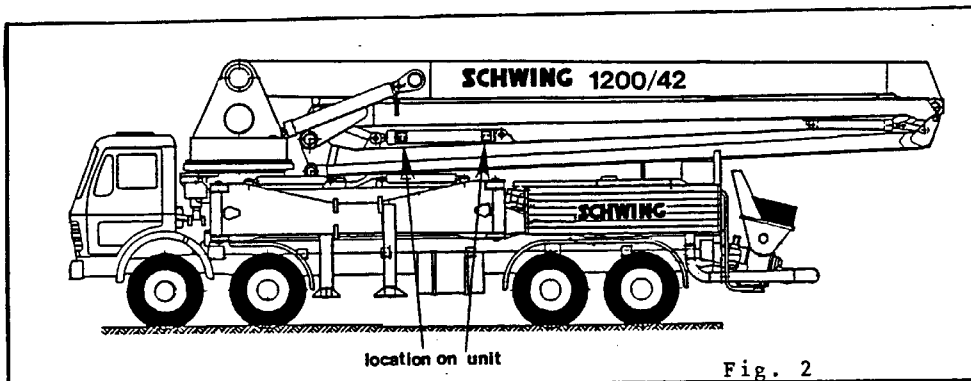
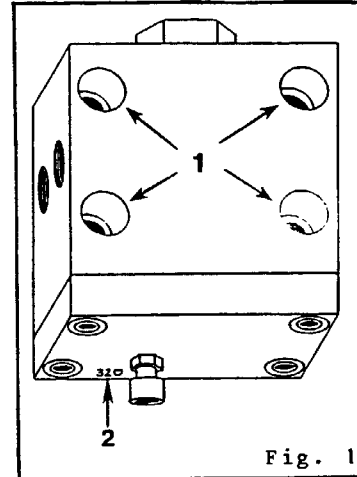
2. In order to make use of this higher pressure valve, we must also raise the system pressure of the entire boom circuit, which is a fairly complicated process, and great care should be taken to fully understand the procedure before attempting the change.

SERVICE BULLETIN

G-114-85

1. To change out the 300 bar holding valves:

- A. Fold up the boom to the traveling position. (see fig. 2)
- B. Shut off truck.
- C. Insert allen wrench into mounting bolts, (fig. 1, item 1), and turn each bolt 1 turn only. The reason for this is to relieve the cylinder of any pressure that might still be stored. Catch any oil in a bucket or drain pan. Do not reuse this oil.
- D. After pressure is relieved, mark (for identification while reassembling), and remove the lines from the holding valves. Cap the open ends with plastic caps or clean rags, to prevent contamination of the oil.
- E. You may now finish removing the mounting bolts, and take off the old holding valves.
- F. Install the new holding valves just as they were with the old ones.
- G. When finished, remember to "top off" your oil tank to compensate for spilled oil. Unfold the boom, and completely extend and retract #3 cylinder five times, to remove air from the cylinder. Boom modification is now complete.



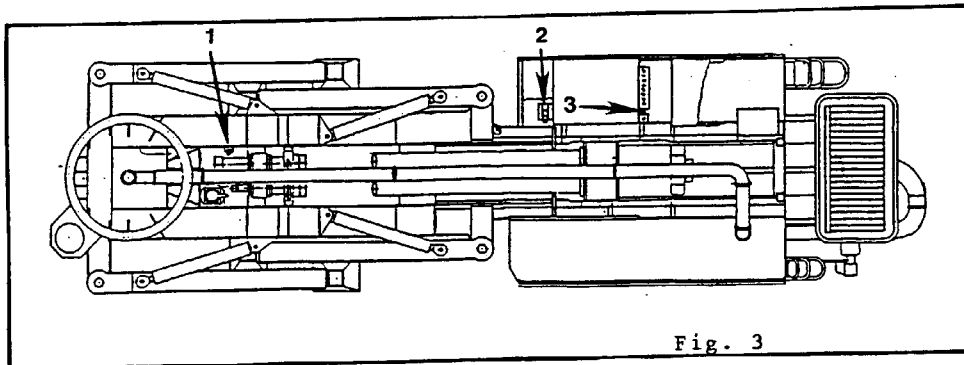


Fig. 3

2. To raise system pressure: (boom circuit) PLEASE READ ALL INSTRUCTIONS BEFORE ATTEMPTING THIS CHANGE.

A. There are three different relief valves for the boom circuit on the 42 lightweights. (see fig. 3) In order to help you understand this system better let's go through the functions of each before we actually reset anything. They are numbered 1 thru 3.

1. (See fig. 4) This is called a pressure regulator, and besides having a relief valve function, this valve also senses pressure on both sides of the boom handvalves, and adjusts the output flow of the boom hydraulic pump according to how much is needed. The spec for relief setting on this valve is shown as 290 bar on the schematics, and we are going to be resetting this valve to 310 bar, using adjustment screw 2. (fig. 4) You may wish to make this change on your prints. DO NOT attempt to adjust the screw at position 3, fig. 4.

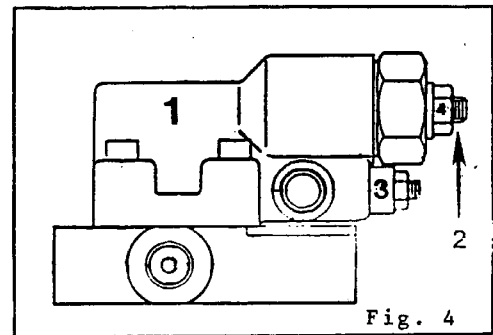


Fig. 4

2. (See fig. 5) This is the normally open relief valve. (Normally open denotes that unless the coil is energized, the relief valve will not develop any pressure.) This is the valve that opens up when you hit the red emergency shut off button on the remote control box or operators panel. On the prints, this is shown as being

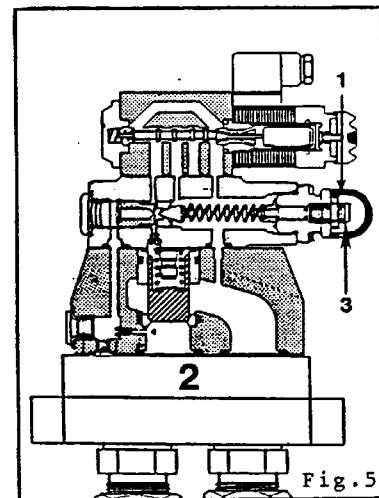


Fig. 5

set at 320 bar, and we will reset this pressure to 340 bar, using adjustment screw 3, (fig. 5)

3. (See fig. 6) This is the relief valve located on the handvalves, and it's function is to protect the handvalves, regardless of a malfunction anywhere else in the system. The prints say that this is set at 330 bar, and we will reset it to 350 bar.

In order to reset the valve with the highest pressure rating, we must first raise the pressure of the other two. (How can we set valve 3 to 350 bar, if the system is relieving at 290 bar at valve 1?) Thus we must start with valve 1. The procedure is as follows:

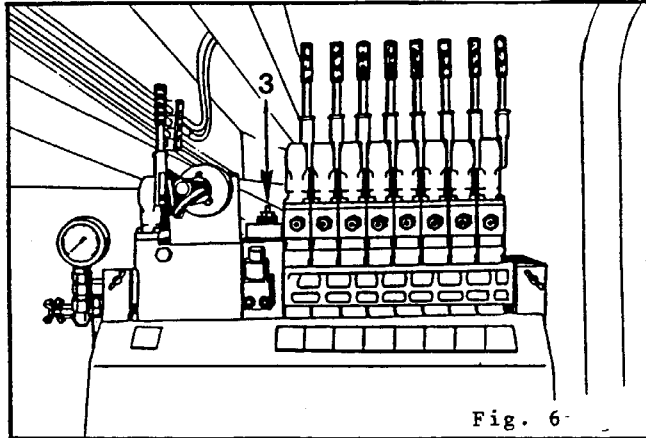


Fig. 6

- A. At valve 1, loosen the locknut (Item 4, fig. 4), and turn in (clockwise) two full turns. This will raise the pressure at this valve much too far.
- B. At valve 2, remove the plastic cap (Item 1, fig. 5), and set off to the side. Loosen the locknut, then turn in (clockwise) the set screw one full turn. This will raise the pressure much too far here, also.
- C. (See fig. 6) Extend the #1 section of the boom until the cylinders can't go any further. The pressure can then be read at the gauge that hangs below the handvalves. Now you may set valve 3 to 350 bar by adjusting the set screw while extending the #1 cylinders. When you get the correct pressure, lock the lock nut on valve 3.
- D. At this point you'll need an assistant. Have him (her) adjust valve 2 while you continue to hold the handvalve for #1 up. Read the gauge until the 340 bar setting is reached. Lock the locknut on valve 2, and replace the plastic cap.

-
- E. Have your helper move to valve 1. While you continue to hold the handvalve and read the gauge, have the helper back out the setscrew on valve 1 until the setting of 310 bar is reached. Lock the locknut. Pressure setting is now complete.

If you have any questions or problems, feel free to give us a call at 1-800-328-0335, between 7 a.m. and 6 p.m. central time.

Regards



Ric Berndt
Service Manager
Schwing America, Inc.

Bulletin#: G-115-85

Date: 09/04/85

Subject: Installatin of new style shaft seal (750 & 1000 rock valve)

September 24, 1985

Service Bulletin G-115-85

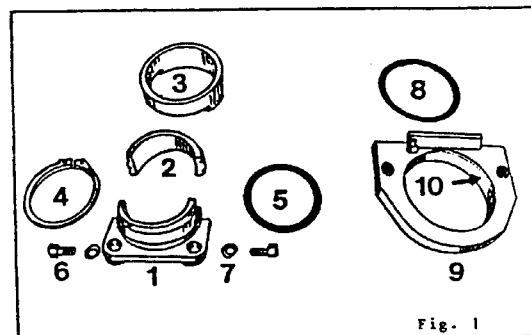
RE: Installation of new style shaft seal for BPA 750 and 1000 - long and short rocks.

Gentlemen:

For pump models 750, and 1000, we are making a conversion kit available for improved pivot shaft sealing. This is the same seal we've already sent out to most of you, at no charge. Anyone who still has the old style seal, (as shown in your parts book - breakdown ident. no. 31834), may get one of the new style seals free (one per unit) by calling our parts department and ordering part no. 705-422-300-180-5. Please have the serial no. of the unit at hand when calling, because we are checking them off a master file as they are shipped out.

For those of you who already have the new style seal, individual parts will be available soon, and may be ordered using the following I.D. numbers: (see fig. 1)

Position No.	ID #
1 - half shell, fixed	50076
2 - half shell, loose	50077
3 - wearing ring	50075
4 - snap ring 110 x 4	3669
5 - O-Ring 112 x 4	6881
6 - Socket head screw M12 x 25 (Qty. 2)	1180
7 - Spring washer 12 (Qty. 2)	1713
8 - O-Ring 136 x 7	4671
9 - End plate	50073
10 - Bushing	50074



NOTE Items 3(wearing ring), 8(O-Ring 136 x 7), and 10 (bushing) are considered wear parts. The rest are not.

SERVICE BULLETIN

G-115-85

INSTALLATION INSTRUCTIONS

1. Dismantle the rock valve with the pivot shaft, (See fig. 2) and clean thoroughly. Check the bearing surfaces of the pivot shaft (arrows), the bearing bushings in the rock housing, and all other component parts for wear. Replace defective parts, especially the rear bearing bushing (at the pivot lever) in the rock valve housing.

2. Remove the pivot shaft, and old style shaft seal from the rock valve.

3. Fit the half shells (Items 1 & 2 fig. 3) on the rock shaft and secure with the wearing ring (Item 3 fig. 3). Align the fixed half shell (Item 1) in the center of the rock, and slightly drill holes to mark the bolt pattern. Use a 13.5 mm (17/32) drill bit.

4. Now disassemble all the parts, and drill holes at the marked spots 25 mm deep (1"), using a 10.5 mm (27/64) drill bit.

5. Tap the holes to M-12 normal thread (M-12 x 1.75) (See fig. 4). Clean the threads.

6. Apply silicone sealing compound (silicone bathroom caulk) to both half shells. (fig. 5)

7. Put half shells in place. Smooth the excess squeezed out sealing compound. Mount the o-ring (Item 5, fig. 6) into the groove that goes around both half shells. Screw in the socket head screws (Item 6), with lock-washers (Item 7). Do not tighten yet.

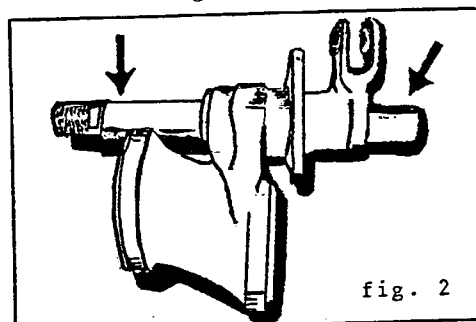


fig. 2

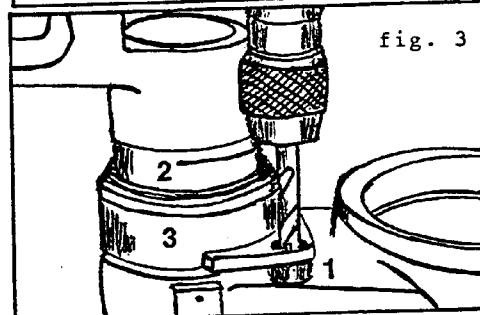


fig. 3

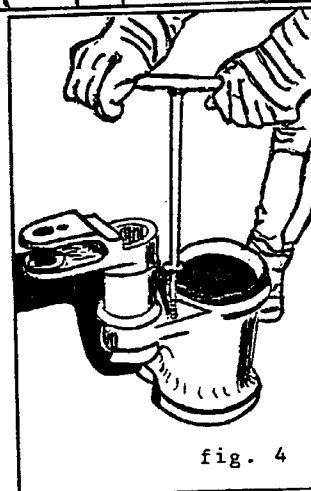


fig. 4

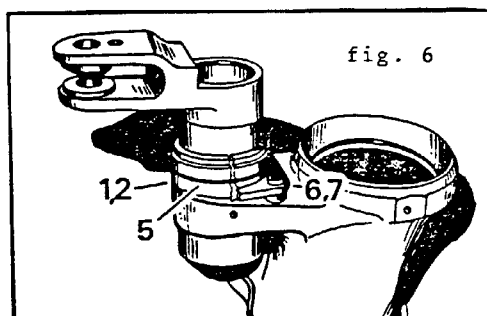


fig. 6

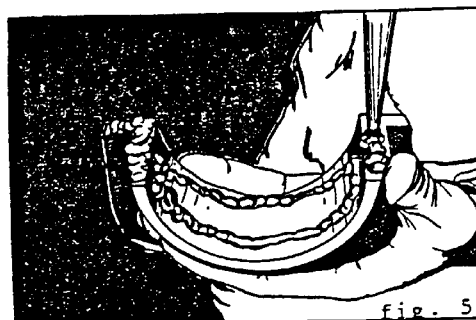
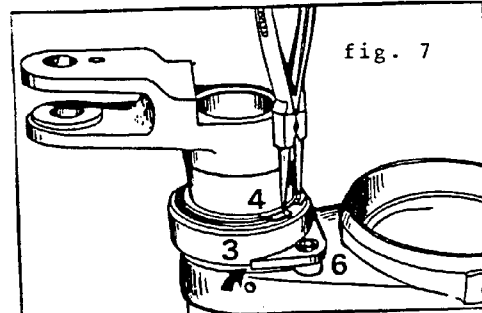
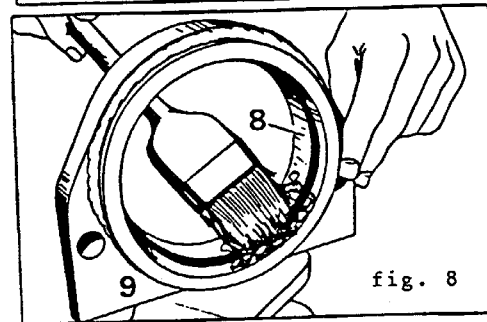


fig. 5

8. Place the wearing ring (Item 3, fig. 7) over the o-ring (Item 5) with a plastic hammer. Pay special attention to the alignment of the notches on the wearing ring (Item 3, notch indicated by arrow). Mount the snapping (Item 4), and tighten the socket head screws (Item 6).



9. Grease the end plate (fig. 8, Item 9). The brass bushing (Item 10) is pressed in at the factory. Place the o-ring (Item 8) in the groove of the end plate.



10. Fit the end plate over the wearing ring and seat it with a plastic hammer as shown in fig. 9. The lug (indicated by arrow) points up.

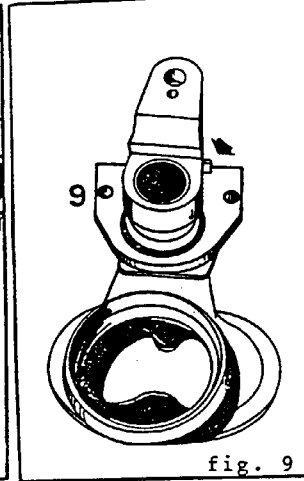
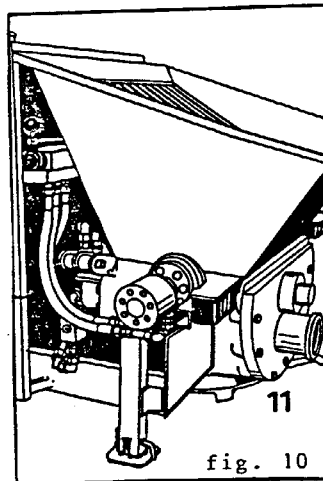
11. Mount the pivot shaft into the rock.

12. Mount the rock with pivot shaft into the housing.

NOTE Tighten the bolts on the rear cover (fig. 10, Items 11) first. Then tighten the end plate bolts (fig. 11, Items 12).

13. Connect the grease line.

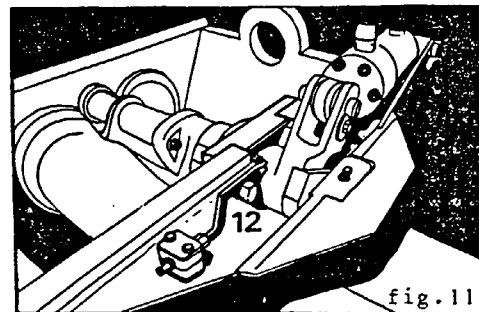
14. Grease the bearings as the rock is switching back and forth. Remember not to stroke the rock with a dry hopper, as this will destroy the kidney seal.



Regards,

Ric Berndt

Ric Berndt
Service Manager
Schwing America, Inc.



Bulletin#: G-116-85

Date: 09/26/85

Subject: Supplement information for Service Bulletin G-110-85

September 26, 1985

Service Bulletin G-116-85

RE: Service bulletin G-110-85, dated July 31, 1985 Supplemental information regarding electric bypass valves.

Gentlemen:

POINT 1. We stated in the above mentioned bulletin that you should order ball bearings (Part #305256 for KVM 25, 32) (Part #308642 for KVM 42 LW) to plug off the lines in the event of having to plumb these valves out of the circuits. We have since learned that some customers have put the wrong ball size in a fitting, which blew out of the fitting under pressure. Obviously, this could create an extremely hazardous condition.

We are, therefore, taking all of the ball bearings off of our shelves, and would ask you to please return the ball bearings that you have in stock to us, with a warranty claim. We have purchased dead plugs from our vendor that will accomplish the same thing as the ball bearings, but cannot be used with the wrong capnut. (See fig. 1)

To order these dead plugs, call our spare parts department and order part #994.183.616.000-4 (for KVM 25, 32) or part #994.183.617.000-0 (for KVM 42 L.W.)

See figure 2 for a complete list of dead plugs available from our spare parts department.

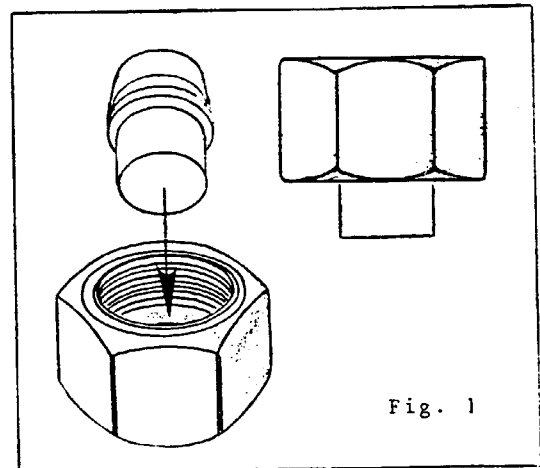


Fig. 1

SERVICE BULLETIN

G-116-85

<u>Size</u>	<u>Walterscheid #</u>	<u>Schwing part #</u>
12	VS 12 L/S	994 183 608 000-0
16	VS 16 S	994 183 616 000-4
20	VS 20 S	994 183 617 000-0
25	VS 25 S	994 183 618 000-5
38	VS 38 S	994 183 624 000-8

Fig. 2

POINT 2. Because you lose all ability to shut off your boom functions via the remote box, when you plumb the bypass valve out of the circuit, you must run the boom manually (no remote control), until you get the bypass valve plumbed back in.

Feel free to call us with any questions.

Regards,



Ric Berndt
Service Manager
Schwing America, Inc.

RB/pt

Bulletin#: G-117-85

Date: 09/27/85

Subject: New style different cylinder packings BP 750R and BP 1000R



5900 Centerville Road
White Bear, Minnesota 55110
Area Code: 612/429-0999
TWX: 910-563-3539
Telecopy: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

September 27, 1985

Service Bulletin G-117-85

RE: New style differential cylinder packings - BP750 R, BP1000 R.

Gentlemen:

As most of you know, we have changed the style of guide bushings, collar sets, and tension rings for the differential cylinders on BP750's and 1000's. The reason for this change was to provide better sealing of the rod, which in turn will keep water out of the hydraulic oil.

The new style packings are working very well in the field, but we have determined that not everyone got the correct bolts to mount the new style tension rings.

To determine if your unit is complete and up to date look in your water box. (See fig. 1) If you still have the old style packings, your tension ring will be Item 1, fig. 1. In this case get the serial no. of your unit, and call the service dept. at 1-800-328-0335. If you've gotten the new style, take out one of the bolts and measure the thread length. It is imperative that your bolts be M-12 x 35 (10.9 hardness). If you find that you have M-12 x 40 bolts, call our spare parts dept. immediately and order the correct ones. (M-12 x 40 bolts will bottom out before they put the right tension on the packings.) As always, feel free to call us with any questions.

Regards,

A handwritten signature in black ink that reads 'Ric Berndt'.

Ric Berndt
Service Manager
Schwing America, Inc.

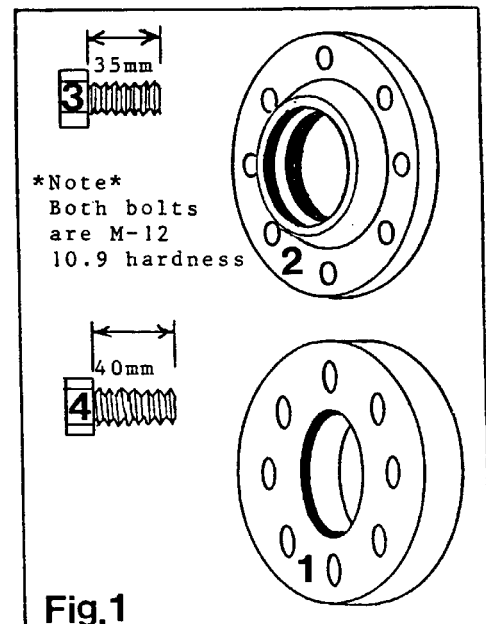


Fig.1

SERVICE BULLETIN

G-117-85

Bulletin#: G-118-85

Date: 09/04/85

Subject: Change in specifications for Service Bulletin G-114-85

November 4, 1985

SERVICE BULLETIN

G-118-85

RE: Change in specifications for Service Bulletin G-114-85.

Gentlemen:

In service bulletin G-114-85 dated Sept. 18, 1985, we informed you of new specifications for setting the pressures on your 42M lightweight booms. The purpose of the new specifications were to give you more lifting power on the No. 3 section. Unfortunately, new information received has indicated that the hand valve bank cannot tolerate the new pressure setting listed (350 bar). For this reason, we are issuing new specifications for the boom circuit. The engineering department has assured us that the following specifications are correct and final.

Valve 1 (Pressure regulator) which we reset to 310 bar, will remain at 310 bar, when we are finished with the adjustments.

Valve 2 (Normally open relief valve) which we reset to 340 bar, will now be lowered to 320 bar when finished.

Valve 3 (Hand valve relief valve) which we raised to 350 bar will now be lowered to 330 bar.

Please refer to the above mentioned service bulletin for complete instructions on the resetting procedure. We are not changing anything on the boom holding valve.

If you need another copy of the original service bulletin, or if you have any questions regarding this procedure, please feel free to call the Schwing America Service Department.

Regards,



Ric Berndt
Service Manager
Schwing America Inc.

RB/pt

SERVICE BULLETIN

G-118-85

Bulletin#: G-101-86

Date: 01/28/86

Subject: Snap ring relieving modification hydraulic handvalves



5900 Centerville Road
White Bear, Minnesota 55110
Area Code: 612/429-0999
TWX: 910-563-3539
Telecopy: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

January 28, 1986

SERVICE BULLETIN G-101-86

RE: Snap ring relieving modification Hydrel handvalves.

Gentlemen:

THIS MODIFICATION MUST BE DONE IMMEDIATELY!!

The attached Service Bulletin (G-106-85, dated May 13, 1985), describes the conversion that was made available to us, the problem it solves, and the steps involved in converting the handvalves.

We have determined that in the case of KVM 28's, or certain 32 Meter booms, where the handvalves are mounted upside down, that the breaking of the 12 x 1.5 snapping could create a malfunction, because small pieces of the snap ring could fall into the solenoid valve, and hydraulically hold the handvalve in an activated position.

It is for this reason that we are sending conversion kits to everyone who has a 900/28 or a 32 Meter unit with the valves mounted upside down. (See figures 1 & 2)

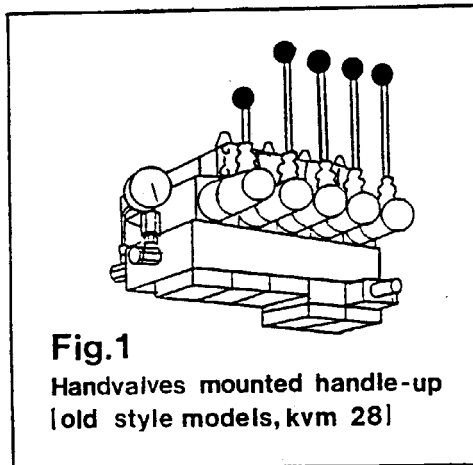


Fig. 1
Handvalves mounted handle-up
[old style models, kvm 28]

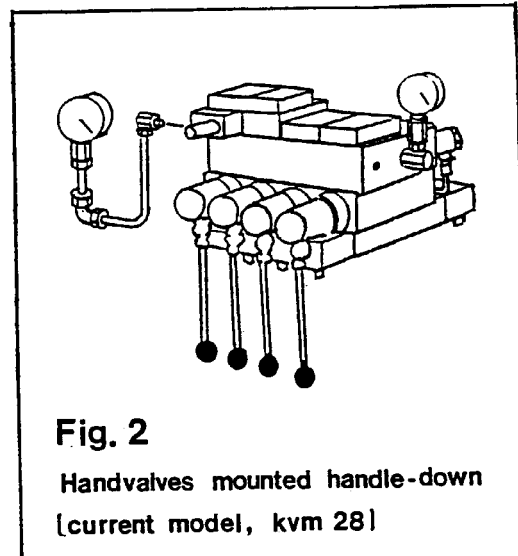


Fig. 2
Handvalves mounted handle-down
[current model, kvm 28]

SERVICE BULLETIN G-101-86

We will procede as follows:

1. All kits will be sent via registered mail - to insure that the kits were received.
2. There will be no charge for the kit.
3. We will pay 4 hours labor, at \$27.50 per hour, for each unit changed.
4. In order to be sure that the units have been changed, we ask that you return the old parts to us, with a warranty claim, at which time we'll issue a credit for the labor.

Distributors are asked to please be sure that all of their customers receive these kits and instructions. If a unit with up-side down handvalves has been sold, please forward this information and kit to the new owner.

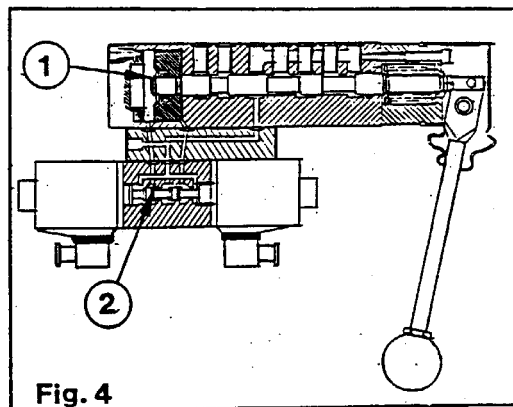
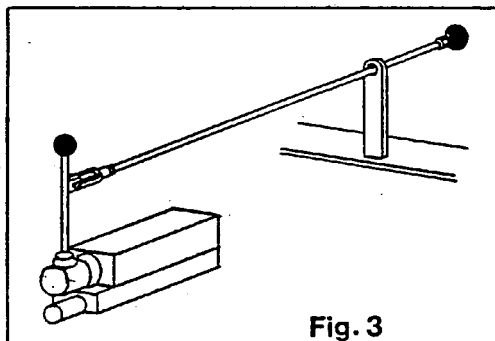
If your boom should stick in an activated position before you convert your units, please be advised of the following emergency procedure: (See figure 3)

Place the emergency stop button on the remote control to the "stop" position. Go to the outrigger handvalve lever, (accessible from either side of the unit), and pull or push the lever. If the outrigger lever is engaged, no oil can go to the boom handvalves, thereby stopping the boom. At this time, you may shut off the truck.

NOTE: Unless the solenoid valve has the snapping piece cleaned out of it, the handvalve will activate again as soon as you restart the truck and center the outrigger handvalve. To finish a pour with this condition, you must remove the solenoid valve from the handvalve, disassemble, and clean the snapping piece out of the valve. (See figure 4. Item 1 shows where the snapping is located, Item 2 shows one place that a small piece of this snapping could lodge itself.) Supervisors are asked to instruct their operators on this emergency procedure.

As always, feel free to call us at 1-800-328-0335 with any questions.

WE CANNOT OVEREMPHASIZE THE IMPORTANCE OF THIS CONVERSION!!!



Regards,

Ric Berndt

Ric Berndt
Service Manager
Schwing America, Inc.

Enclosure
RB/pt

Bulletin#: G-102-86

Date: 02/10/86

Subject: Correction of Bulletin G-117-85



5900 Centerville Road
White Bear, Minnesota 55110
Area Code: 612/429-0999
TWX: 910-563-3539
Telecopy: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

January 30, 1986

SERVICE BULLETIN G-102-86

Re: Correction of Service Bulletin G-117-85.

Gentlemen:

Enclosed is a reissue of Service Bulletin G-117-85, with the only change being the size of the bolts.

The original bulletin listed the bolts as M-10. The correct bolts are, in fact, M-12. Please throw away any copies of the original bulletin that you have, and substitute this reissue.

We apologize for any inconvenience that this error has caused.

Regards,

A handwritten signature in cursive script that reads "Ric Berndt".

Ric Berndt
Service Manager
Schwing America, Inc.

Enclosure

RB/pt

SERVICE BULLETIN	G-102-86
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Bulletin#: G-103-86

Date: 02/10/86

Subject: Odd length boom pipes



5900 Centerville Road
White Bear, Minnesota 55110
Area Code: 612/429-0999
TWX: 910-563-3539
Telecopy: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

February 10, 1986

SERVICE BULLETIN G-103-86

RE: Odd length boom pipes.

Gentlemen:

Beginning immediately, Schwing America will be installing tags on all of our new boom units, specifying the exact length of the make up pipe for each boom section. (See figures 1 & 2)

Figure 3 shows the location of this tag on the unit, and you may want to copy the numbers specified and keep with the unit file, so that you could make or buy a pipe even if the unit is on a job at the time.

The rest of the pipe on each boom section is standardized and listed correctly in your parts book for that unit.

To aid in understanding, we'll go through a 28 meter boom as an example. For every section of the boom, we list 2 3000mm (118 1/8") pipes, plus a shorter pipe. The shorter pipe will always be close to the length given, but in the assembly process the boom section may come out up to 1/4" long or short. We always align the elbows at the pivot point between the sections first, add the standard 3000mm pipes, then measure and build the shorter pipe. The length of this shorter pipe is what we are recording on the tag. (See figure 1)

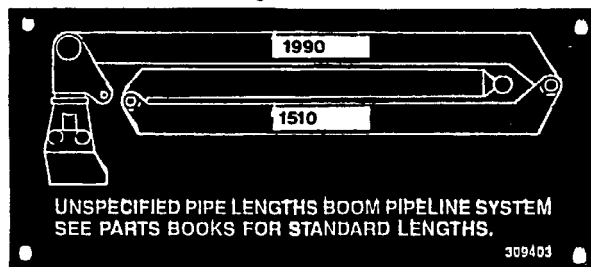


Fig. 1 3 section boom

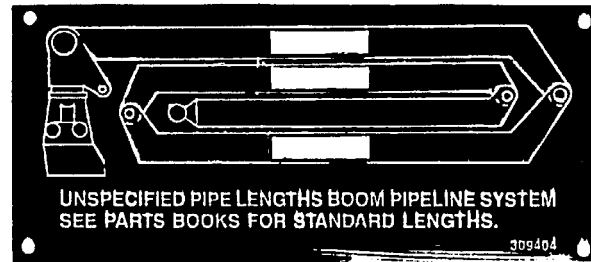
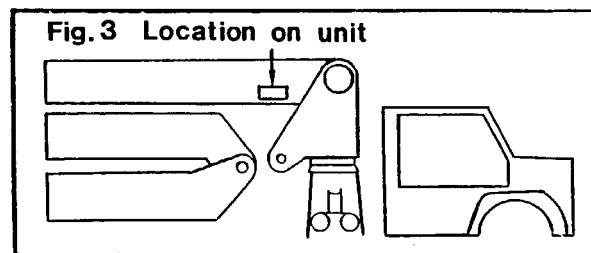


Fig. 2 4 section boom

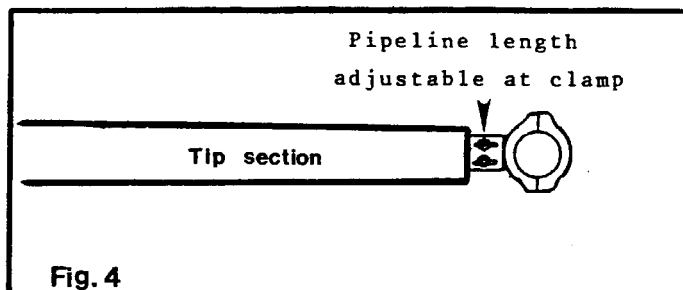


SERVICE BULLETIN

G-103-86

Please note that the tip section will never have an odd length pipe, because the variance will be taken at the adjustable clamp on the very tip of the boom. (See figure 4.)

For those of you with older units, you may order these tags through our spare parts department using part no. 309403 for 3 section booms, and part no. 309404 for 4 section booms. The only tools required to install these tags would be an electric drill, 1/8" bit, and a pop rivet tool capable of installing 1/8" rivets. Once the tag is installed, the operator, mechanic, new owner or anyone else would have the correct length of the make up pipe readily available.



Feel free to contact us with any questions.

Regards,

Ric Berndt
Service Manager
Schwing America, Inc.

RB/pt

Bulletin#: G-104-86

Date: 02/28/86

Subject: Hand valve conversions (piston identification)



**SCHWING
AMERICA INC.**

5900 Centerville Road
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Telecopy: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

February 28, 1986

Service Bulletin G-104-86

RE: Service Bulletin G-101-86 - Handvalve conversions.

Gentlemen:

By now, everyone who has a 28 or 32 meter boom with the handvalves mounted handle down should have received a conversion kit for each handvalve, to change the control piston to the new style which relieves the snap ring on the end of the spool.

We have received reports from our field servicemen that some of the units we sent kits for had already been converted.

For this reason, we want to instruct you on how to identify the new style pistons from the old style. (See figure 1) If you discover that the valve you are disassembling has the new style piston, then there is no reason to continue the conversion. Please return any unused kits to us with the serial number of the unit.

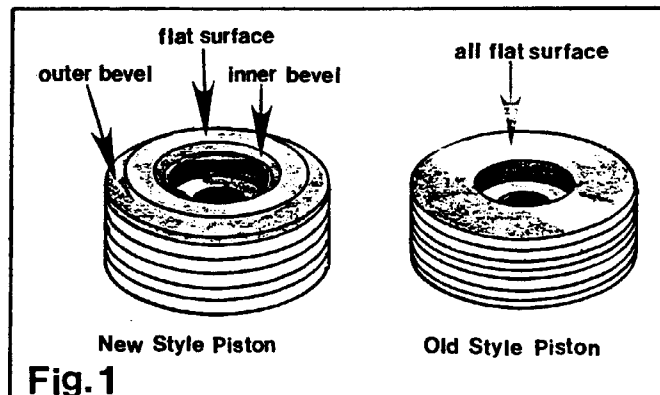
To determine if your handvalve has been converted:

1. Remove handvalve from unit.
2. Take off the rear cover (4 allen head bolts. This will reveal the back of the piston.)
3. Determine whether you have a new or old style piston by comparing to fig. 1.
4. If you discover an old style piston, proceed with the conversion as instructed in the bulletins supplied with the kits.

Please don't hesitate to call if you have any questions.

Regards,

Ric Berndt
Service Manager
Schwing America, Inc.



RB/RE/pt

SERVICE BULLETIN

G-104-86

Bulletin#: G-105-86

Date: 04/08/86

Subject: Adjustment of slewing cylinder stroke length of short and long rock valves for BP 750 and BP 1000



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Subsidiary of:
Friedrich Wilh. Schwing GmbH.

April 8, 1986

SERVICE BULLETIN G-105-86

RE: Adjustment of the slewing cylinder stroke length - short and long rocks - BP 750 and 1000.

Gentlemen:

Please be advised that there is no possible adjustment to align the rock valve to the material cylinder openings on the models listed above. Our service personnel have been made aware that in some cases, mechanics or operators have been unscrewing the slewing yoke (Item 2, fig. 1) to compensate for the rock missing the holes while shifting. This is absolutely not to be done! To unscrew the slewing yoke is to risk tearing off the threads on the end of the cylinder rod, (Item 1, fig. 1), causing an immediate breakdown on the job.

These units were designed to have no adjustment, because the way the rock and slewing shaft (Item 1, fig. 2) are bolted together, no misalignment is possible. If you replace a shifting cylinder or a slewing yoke, you must make sure it is screwed the full distance on the threads and then locked down. If you do notice that the rock is missing the material cylinder openings, you must check to see where the problem may be, i.e. articulated bearings, shifting cylinder (internal), etc.

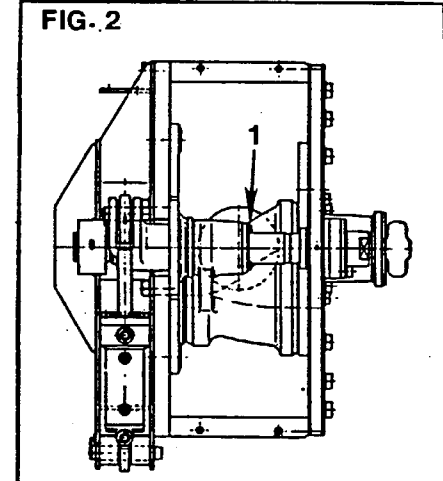
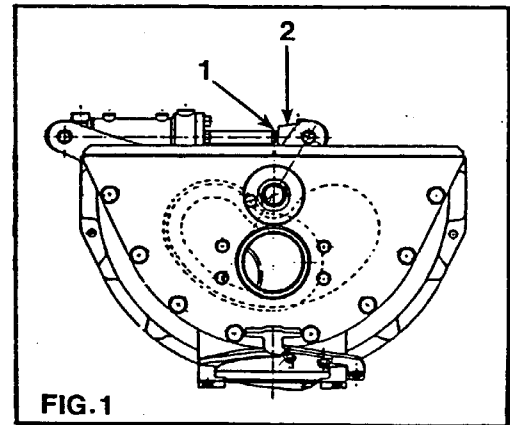
Please call with any questions regarding this matter.

Regards,

A handwritten signature in cursive script, appearing to read 'Ric Berndt'.

Ric Berndt
Service Manager
Schwing America, Inc.

RB/RE/pt



SERVICE BULLETIN G-105-86

Bulletin#: G-106-86

Date: 05/09/86

Subject: Switching valves (BPL 900, BPL 1200's)



**SCHWING
AMERICA INC.**

5900 Centerville Road
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Subsidiary of:
Friedrich Wilh. Schwing GmbH.

SERVICE BULLETIN

G-106-86

Subject: Switching valve modification (P/N 705-190-802-020-0)
for all BPL 900's and 1200's.

Gentlemen:

The following change is needed in the hydraulic switching valve (see figure) located on the right differential cylinder at both ends.

If your unit does not have item #1 and #2 in each switching valve, you must replace the spring with the new spring and guide enclosed. Item #2 should be installed at position #5. A new O-ring and back-up ring (position #3 and #4 also enclosed) should be installed at the same time.

This product improvement will not have any warranty labor consideration.

Schwing America has included the correct amount of springs and guides to cover the number of units shown in our records belonging to you or your customer.

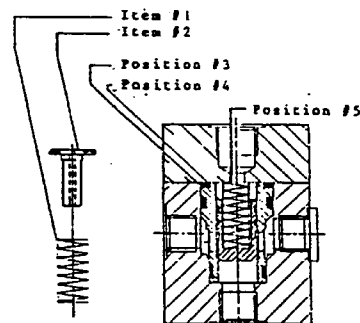
It is essential that this modification be done to prevent pump break-down.

If you have any questions concerning this change or if you need more parts feel free to call the Service Department at 1-800-328-0335.

Regards,

Ric Berndt
Service Manager
Schwing America, Inc

RB/ci



SERVICE BULLETIN

G-106-86

Bulletin#: G-107-86

Date: 05/09/86

Subject: Swing pinion retaining bolts, KVM 36m, 42m, 52m



5900 Centerville Road
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Subsidiary of:
Friedrich Wilh. Schwing GmbH.

May 9, 1986

SERVICE BULLETIN G-107-86

Re: Swing pinion retaining bolts for KVM 36, 42 & 52.

Gentlemen:

On particular occasions in the past it happened that the swing pinion retaining bolts item 1 (fig. 1) of the slewing gear reducer backed out. To avoid possible damages we ask you to check the tightening torque of these screws once a month.

The same applies to the pedestal retaining bolts of the slewing rim bearing item 2 (fig. 1).

Please refer to Service Bulletin G-111-84 for proper tightening torque values. Inspect for and remove loose bolts. Also inspecting bolt hole for damage. Clean bolts and bolt holes. Then installing them again using Loctite 242 and retorquing to specs.

Indications of loose swing pinions are as follows:

Considerable lateral swinging of the boom tip due to increased flank clearance.

A rattling noise while slewing because the pinion rubs against the lining.

As soon as any of the above indications are noticed stop operation and check the retaining bolts of the swing pinion.

Please add this procedure to your monthly preventative maintenance schedule.

Regards,

A handwritten signature in black ink, appearing to read 'Ric Berndt'.

Ric Berndt
Service Manager
Schwing America, Inc.

RB/pt

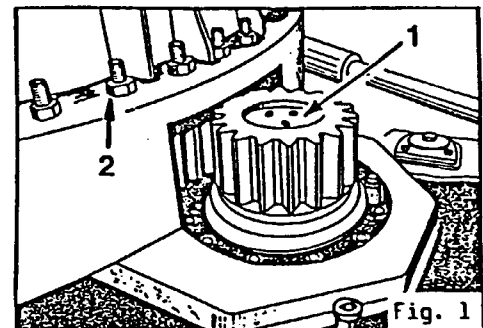


Fig. 1

SERVICE BULLETIN

G-107-86

Bulletin#: G-108-86

Date: 05/15/86

Subject: Improvement of agitator efficiency on long rock units



5900 Centerville Road
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Area Code: 612/429-0999
TWX: 910-563-3539
Telecopy: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

May 15, 1986

SERVICE BULLETIN G-108-86

Subject: Improvement of long rock (Din 180-210) agitator efficiency.

Supersedes bulletin G-124-84, please delete from your manual.

Gentlemen:

Schwing America feels that the efficiency of the agitator unit can aid in the charging of the material cylinders.

This is accomplished by moving the concrete downward along the front wall of the rock housing and inward toward the center of the housing.

If your agitator unit is not rotating forward and the paddles are not installed as illustrated in fig. 1, please do the following:

- 1) Interchange the agitator paddles with each other.
- 2) Change the rotation of the agitators by reversing the hydraulic connections at each agitator motor.

New units as of January 1, 1986 have been fitted out accordingly. Please disregard the welded in L & R on the paddle.

In the future all replacement paddles will be stamped right or left correctly.

Please note that fig. 2, shows the right and left sides of the unit as we always refer to them in our parts literature, operating and service manuals.

Regards,

A handwritten signature in cursive script that reads 'Ric Berndt'.

Ric Berndt
Service Manager
Schwing America, Inc.

RB/pt

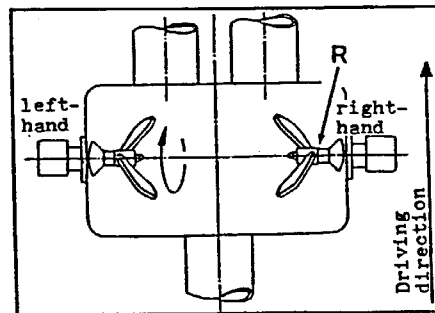


Fig. 1

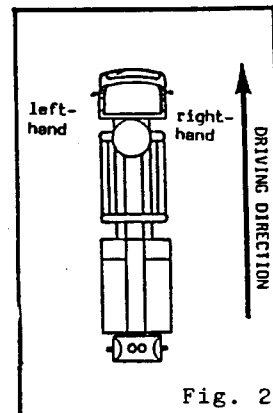


Fig. 2

SERVICE BULLETIN

G-108-86

Bulletin#: G-109-86

Date: 05/15/86

Subject: Rock valve housing welding



5900 Centerville Road
White Bear, Minnesota 55110
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TWX: 910-563-3539
Telecopy: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

May 15, 1986

SERVICE BULLETIN G-109-86

Gentlemen:

Subject: Rock Valve Housing Welding

For general welding on the rock valve housing Germany recommends a UTP068HH DIN 1736 S-NiCr19Nb material number 2.4648. An equivalent American electrode must have the following physical and chemical properties. The electrode must be high Ni and Cr content and high elongation. For example Huntington INCONEL #82 Wire (AWS-ERNICRS) and Huntington INCO weld A, for electrode AWS-ENICRFEZ or equivalent.

Alloy by % Weight	Permissible Additives
Ni at least 67	C 0.1 S 0.015
Cr 18.0 to 22.0	Co 0.1 Si 1.0
Mn 2.0 to 6.0	Cu 0.50 Ti 0.5
Nb 1.5 to 3.0	Fe 4.0 Mo 2.0
	Other elements total 0.5

Melting range approximately 1400 C (2550°F).

Nb is Niobium (20% by weight can be replaced with Tantalum).

Preheat the electrodes 2 to 3 hours at 250 to 300°C (480° to 570°F).

Parts to be welded must be very clean. Preheat the weld area approximately 480° to 570°F. Incline the electrode a little bit and then weld with short arcing. To prevent final crater cracks fill up the crater as good as possible and lift-off the arcing at the side. Let the weld cool slowly under an asbestos or aluminum cover.

Sincerely,

A handwritten signature in cursive script that reads 'Terry Atherton'.

Terry Atherton
Engineering Manager
Schwing America, Inc.

SERVICE BULLETIN G-109-86

TA/pt

Bulletin#: G-110-86

Date: 09/11/86

Subject: Defective Rexroth Safety Valves



5900 Centerville Road
White Bear, Minnesota 55110
Area Code 612/429-0999
TWX: 910-563-3539
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

September 11, 1986

SERVICE BULLETIN G-110-86

Gentlemen:

Schwing America Spare Parts presently has some safety valves, manufactured by Rexroth, (DB/DBW Style) that look normal, but they are actually incorrect and can be dangerous if not properly identified. The 2nd page shows the numbering sequence of the Rexroth safety valves, (DB/DBW Style) the designations that I have circled are very important to insure safe operations of the Rexroth safety valves on our units.

The first designation should always be 315, never 100 because of the pressure we operate at, the 2nd designation should always be omitted, never ever should there be the designations (X), (Y), or (X Y) on any of our Rexroth safety valves in stock. Some of our safety valves in stock have a (Y) designation on them, which means if not properly hooked-up without an external drain, the safety valve will not work correctly, therefore, maximum pressure from the pumps on the hydraulic system will develop, causing possible damage to the components.

None of our hydraulic systems use this external drain, so it is possible for us or our customers to install this safety valve without knowing. Please check all Rexroth safety valves from your stock and inspect immediately to prevent any accidents. If you do find any that have the incorrect designation, please contact us immediately.

SERVICE BULLETIN	G-110-86
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-
- 1) 995.070.024.651-8 - DBW 20B2-30/315UG12NZ4/5
USED ON BPL 1200 KVM 42 BOOM SYSTEM AND BPL 1000.
 - 2) 304636 - DB 30-1-30/315
USED ON EARLIER BPA 650's AND BPA 901's WITHOUT REMOTE ON/OFF.
 - 3) 995.070.005.651-4 - DB 20-2-3X/315
USED ON EARLIER BPA 250's AND BPA 350's WITHOUT REMOTE ON/OFF.
 - 4) 302908 - DBW 30 A2-3X/315UG12NZ4/5
USED ON BPA 650's AND BPA 901's.
 - 5) 302573 - DBW 20A1-3X/315UG12NZ4/5
USED ON BPA 250's AND BPA 350's.

DISTRIBUTOR LETTER 132/86
September 11, 1986

Page - 2 -

Please notice the last page for our part numbers and the proper designations that go along with them.

If you have any questions regarding this matter, please call either the Service Department or the Spare Parts Department.

Regards,

SCHWING AMERICA, INCORPORATED



Ric Berndt
Service Manager

RB/lfe

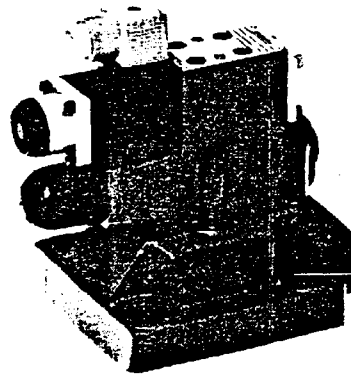
Pressure Control

Pressure Relief Valve

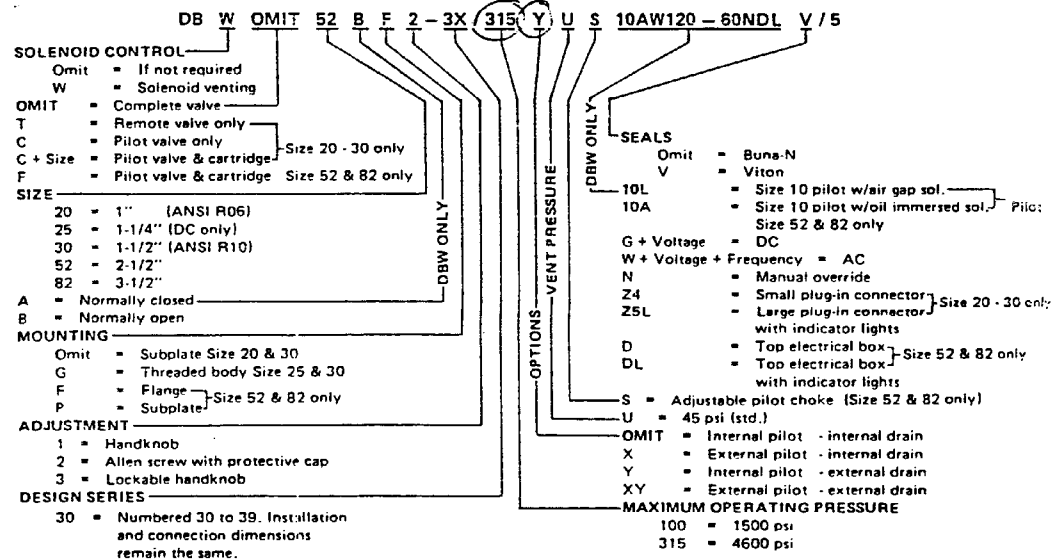
- Refer to RA 25803
- Pilot operated
- Subplate mounting
- Available with solenoid unloading
- Three types of adjustment available
- Handknob
- Set screw with protective cap
- Lockable handknob

Type DB/DBW Series 30
Size 25-1 $\frac{1}{4}$ " to 30-1 $\frac{1}{2}$ "

Up to 4600 psi
Up to 160 gpm



Ordering Code



Bulletin#: G-111-86

Date: 09/15/86

Subject: Bushing for rock valve slewing cylinders



5900 Centerville Road
White Bear, Minnesota 55110
Area Code: 612/429-0999
TWX: 910-563-3539
Telecopy: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

September 15, 1986

SERVICE BULLETIN G-111-86

Subject: Bushing for rock slewing cylinders

Gentlemen:

If any "clearance" is detected in the bushing of the rock slewing pivot (Fig. 1-Item 1), the slewing pivot (Fig. 1-Item 2) and the bushing bore (Fig. 2 Item 1), should be checked immediately in order to prevent subsequent damages.

To check the bushing bore, drive out the two self-lubricating bushings or the single style bushing (Fig. 2-Item 1).

If the two self-lubricating bushings are used (Fig. 3-Item 1), these may be replaced with new ones if the bore diameter is 80mm to a maximum of 80.20mm. A diameter over 80.20mm must be re-worked on a boring machine and bored to 90mm and the new style solid steel bushing* (Fig. 3-Item 3) pressed in.

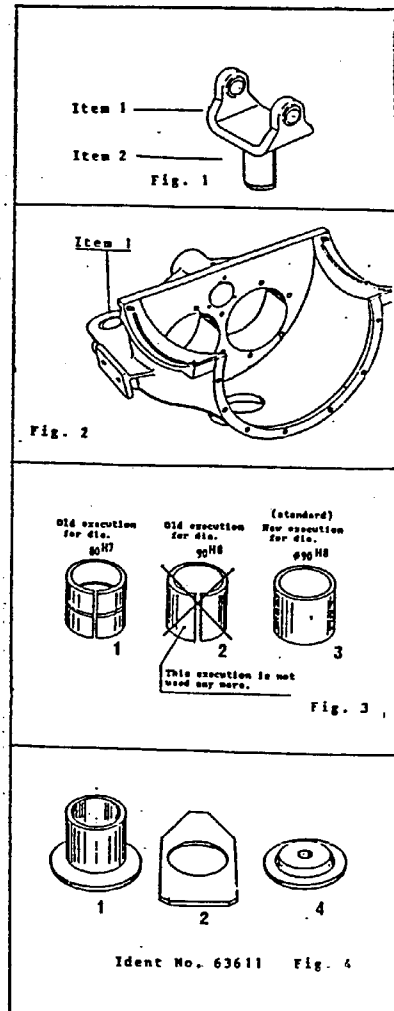
If the single slotted bushing* is used (Fig. 3-Item 2), the bore diameter is 90mm to a maximum of 90.20mm. A diameter of over 90.20 can be repaired by the use of a repair kit (Fig. 4) ID No. 63611.

*Note: The single slotted bushing is no longer available, but has been replaced by a solid steel bushing (Fig. 3-Item 3) with the same part number.

Regards,

Ric Berndt
Service Manager
Schwing America Inc.

RB/ci



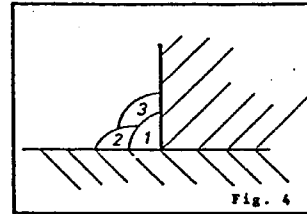
SERVICE BULLETIN

G-111-86

Welding method:

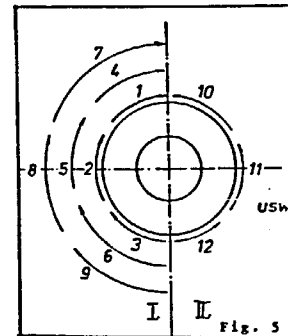
Electrode: with a high content of nickel and chromium and high ductility, for instance: UTP 068 HH

Intensity of current: for dia. 3.25mm = 70-95 ampere.



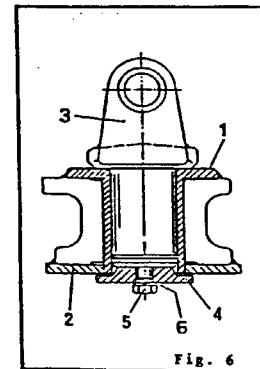
Preheat the electrodes for 2-3 hrs. at 250-300° C. Clean the parts to be welded thoroughly. Preheat the bushing area to approximately 250-300° C, if possible weld with the electrode slightly inclined and with a short arc. In order to avoid end crater cracks, fill the crater and withdraw the arc to the side.

Start with welding one half in three layers (Fig. 4&5). Let them cool down, then weld the second half. Weld bit by bit and always towards the cold end.



After welding is complete, clean and grease pivot (Fig. 6-Item 3) and bushing (Fig. 6-Item 1). Install Disc (Fig. 6-Item 4) rightside up as shown. Install bolt (Fig. 6-Item 5) with a new spring washer (Fig. 6-Item 6) and tighten.

If you have any questions regarding this procedure, please feel free to call the Schwing America Service Department.



Regards,

Ric Berndt

Ric Berndt
Service Manager
Schwing America Inc.

RB/ci

Bulletin#: G-101-87

Date: 10/29/87

Subject: Boom & outrigger lubrication specifications (Supercedes Bulletin G-110-84)



5900 Centerville Road
White Bear, Minnesota 55110
Area Code 612/429-0999
TWX: 910-563-3539
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

October 29, 1987

SERVICE BULLETIN: G-101/87

Re: Lubrication schedule and lubrication
specs for all placing booms and outriggers
(This bulletin supercedes S.B. G110-84)

Gentlemen:

It has come to our attention, via you the customers, and we are in agreement, that the greasing schedule for the booms should be increased to a weekly periodic greasing schedule rather than a monthly period.

This would apply to all lubrication points on the boom and the outriggers. Two brands of grease have been approved for use on the booms and the towers: LUBRIPLATE MO-LITH NO. 2 and TEXACO MOLYTEX EP2.

Specifically this type of grease must have, as a minimum, the following characteristics:

Base Type	Lithium
NLG1 No	2
Working penetration range at 77 F	265/295
Molybdenum Disulphide	3% minimum
ASTM dropping point	350 minimum

SERVICE BULLETIN	G-101-87
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Page 2
G-101-87

Schwing America, Inc. recommends that the tower bearings be greased while rotating the boom slowly.

The above recommended maintenance schedule and lubrication specifications should improve the service life of your placing boom.

Sincerely,

SCHWING AMERICA, INC.



Ric Berndt
Service Manager

RB/di

Bulletin#: G-102-87

Date: 10/15/87

Subject: Installation of textile pressure springs for all rock valves



**SCHWING
AMERICA INC.**

5900 Centerville Road
White Bear, Minnesota 55110
Area Code 612/429-0999
TWX: 910-563-3539
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

October 15, 1987

SERVICE BULLETIN: G-102/87

Mr. Ric Berndt

**RE: INSTALLATION OF A TEXTILE AND RUBBER PRESSURE SPRING
FOR ALL BPA AND BPL CONCRETE PUMPS**

Dear Ric,

In the course of the development of the rock valve, a rubber spring was chosen to serve as the pressure spring for the cutting ring, because such a spring combines the properties of good spring effect and proper sealing at the cutting ring, Schwing has introduced a new improved designed rubber pressure spring.

This spring is designed in several layers of rubber and polyamide and can fully replace older spring versions.

The new rubber spring can be obtained from our spare parts department by ordering: I.D. number 64 473 (DN 165) or I.D. number 64 472 (DN 210).

INSTALLING THE PRESSURE SPRING

Basically the pressure spring can be replaced without dismounting the rock, but in order to be able to check and clean the rock better, we recommend you disassemble the rock. The work steps necessary for this are described in the "Service Repair Instructions for the Rock Valve" book.

SERVICE BULLETIN

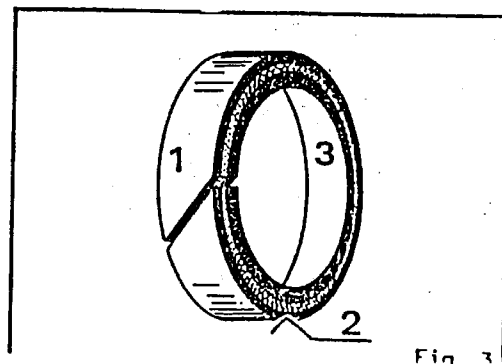
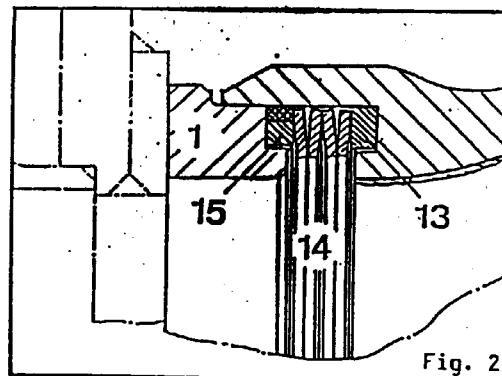
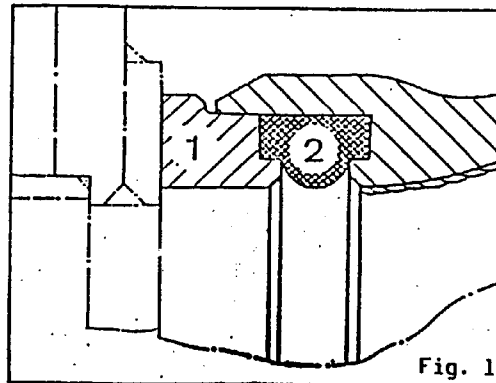
G-102-87

1. Remove cutting ring 1 (Fig. 1 and 2) and check whether it can still be used.
- 2a. Take out old rubber spring 2 (Fig. 1).
- OR
- 2b. Take rubber-metal-sealing ring 15, the four disc springs 14, and the steel ring 13, out of the rock (Fig. 2), total 6 pieces.

CAUTION

Do not forget steel ring 13.

3. Clean the "spring compartment" in the rock and the cutting ring thoroughly of residual concrete and rubber.
4. Grease new rubber spring and "spring compartment" in the rock slightly.
5. Insert new rubber spring into the rock. When doing so, make sure that the thicker rubber layer is positioned towards the inside. (Fig. 3)
 1. Thin rubber layer towards outside.
 2. Polyamide ply.
 3. Thicker rubber layer towards the inside.



6. Insert cutting ring into the rock and rotate if necessary.
7. Tighten screws of the rock valve housing cover uniformly and ensure that the cutting ring will slide into the rock without distortion. (The rubber spring will be compressed).
8. In order to have all the parts "set", remove safety screw 3 (Fig. 1) first and loosen adjusting nut 4 by two turns.
9. Grease the kidney sealing ring and kidney plate and slew the rock several times.
10. First tighten adjusting nut by hand and then turn further to the next tapped hole of locking disc 2. Turn retaining bolt in and tighten.

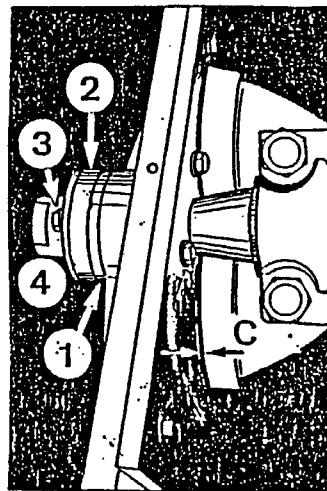


Fig. 1

ATTENTION - IMPORTANT

1. Between bearing bush 1 and locking disc 2 there must be no visible gap (as well as operation).
2. Between rock and housing lining a distance "C" must be perceptible. Contact of metal has to be avoided and indicates a problem such as the following:
 - adjusting nut 4 screwed down too tightly
 - cutting ring jammed
 - used parts not cleaned carefully
 - use of too much grease

- some parts (items 13, 14, & 15 (Fig. 1) were not removed when the disc spring version was converted to rubber spring version.

3. Distance "B" (Fig. 2) depends on the state of the housing lining and the cutting ring.

FOR YOUR REFERENCE:

When all parts are new, the following distances concerning both rock valves (DN 210 and DN 165) result:

B (Fig. 2) = approx. 4 mm
C (Fig. 3) = approx. 2 mm

In order to ensure a safe guidance of the cutting ring in the rock and sufficient tension of the spring, distance "B" (Fig. 2) must not be longer than 8 mm.

Check cutting ring and housing lining clearance. If the 8 mm dimension is exceeded replacement of the wear parts is necessary.

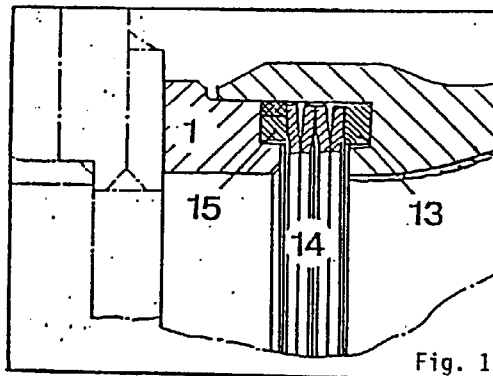


Fig. 1

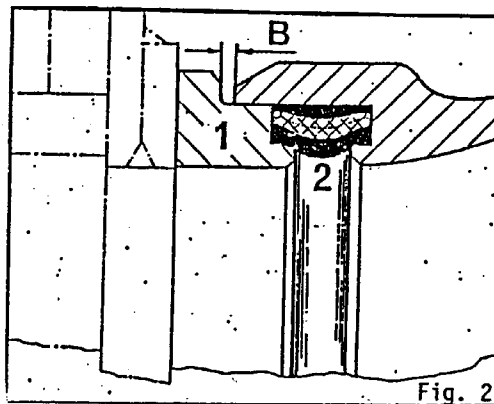


Fig. 2

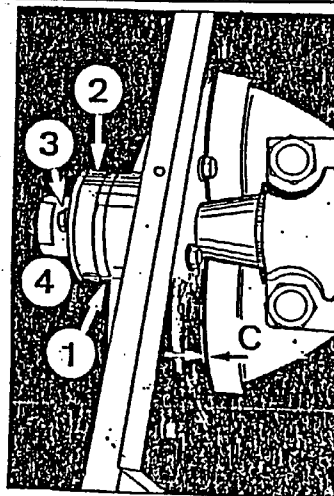


Fig. 3

If you have any questions or require any additional information, please feel free to give us a call.

Sincerely,

SCHWING AMERICA, INC.

Ric Berndt

Ric Berndt
Service Manager

RB/di

Bulletin#: G-103-87

Date: 11/16/87

Subject: Potential boom damage

November 16, 1987

SERVICE BULLETIN: G-103-87

RE: POTENTIAL BOOM DAMAGE

Gentlemen:

Although any operator will try to avoid contact between the boom and surrounding objects during operation, it may at times be difficult to accomplish this, especially on narrow worksites or when visibility is obstructed.

If contact is made with an obstruction, IT IS VITAL THAT THE BOOM BE MOVED IN THE OPPOSITE DIRECTION IMMEDIATELY. NEVER TRY TO PUSH AN OBSTACLE AWAY BY CONTINUING MOVEMENT BECAUSE THE PLACING BOOM MAY BE SERIOUSLY DAMAGED!

Boom sections that can extend more than 180 degrees are especially at risk, due to the fact that the guide levers will, in some positions, multiply the force applied to almost limitless torque... EVEN AT LOW HYDRAULIC OIL PRESSURES!

Because of this, a boom section can be damaged before the relief valve opens. Lowering of the relief pressure is not a viable alternative, however, because in some positions the higher pressure is required for movement.

SERVICE BULLETIN

G-103-87

Page 2
G-103-87

This same principle also applies when considering the length of hose that you attach to your boom, or when slewing the boom side to side while dragging hose. (ATTACHING MORE THAN 1 (ONE) HOSE, 4 METERS (13 FEET) IN LENGTH, IS EXPRESSLY FORBIDDEN!)

IMPORTANT! YOU MUST ALWAYS MAINTAIN A MINIMUM DISTANCE OF 17 FEET BETWEEN YOUR BOOM AND ELECTRICAL POWER LINES.

Please inform your operators accordingly. Of course, in the event that your boom sustains damage of any kind, we urge you to contact the Service Department at Schwing America for a determination. Please add this bulletin to the OPERATING INSTRUCTIONS of your machine and insert in section B of your service manuals.

If you have any questions or require any further information please contact our Service Department.

Sincerely,

SCHWING AMERICA, INC.



Ric Berndt
Service Manager

RB/RE/d1

Bulletin#: G-104-87

Date: 11/12/87

Subject: Rock valve slewing cylinder pivot pin upgrade



5900 Centerville Road
White Bear, Minnesota 55110
Area Code 612/429-0999
TWX: 910-563-3539
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

November 12, 1987

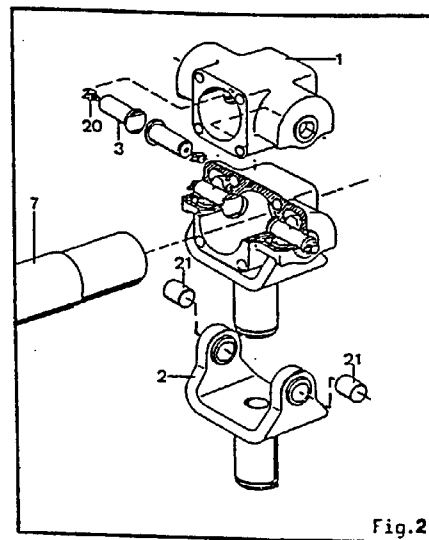
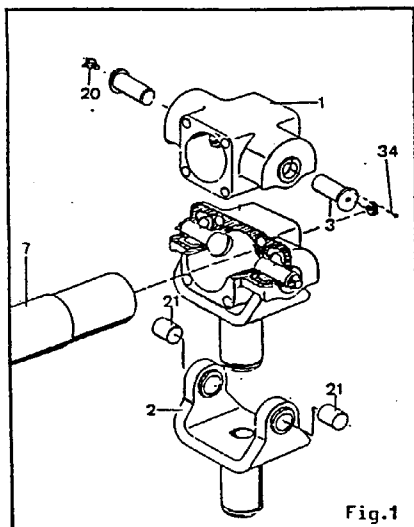
SERVICE BULLETIN: G-104-87

RE: UPDATING SLEWING CYLINDER BEARING TO THE STATE OF CURRENT PRODUCTION.

Gentlemen:

The rock slewing cylinders in current production have been modified to facilitate the mounting process. The new version makes it possible to remove the pivot bolts (item 3, fig. 1) without having to dismantle the slewing cylinder.

A conversion of the older cylinders is possible and should be completed during other repair work. (For example; when replacing the pivot bushing, item 21, fig. 2).



SERVICE BULLETIN | **G-104-87**

To make the conversions:

1. Make sure of absolutely clean conditions. Disassemble the slewing cylinder until you can pull the cylinder pipe (item 7) from the bearing housing (item 1).
2. Remove the old pivot bolts (item 3, fig. 2).
3. Place the new bolts in the holes of the bearing housing and mark the positions for the keeper bolts.

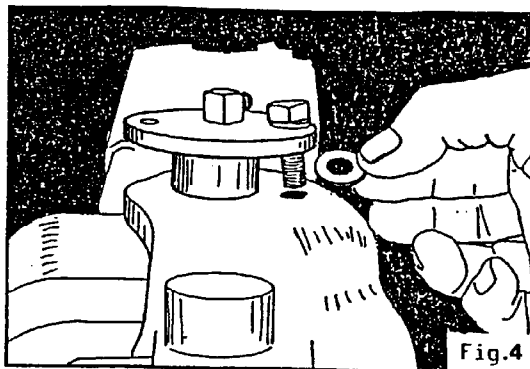
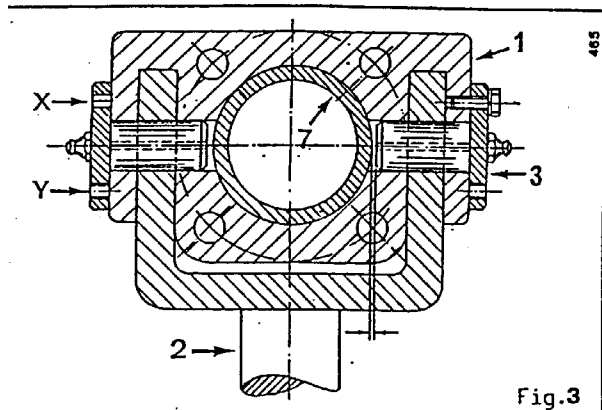
See fig. 3:

Item 1 is the bearing housing, item 2 is the slewing pivot, item 3 are the new pivot bolts, item 7 is the cylinder pipe. Position X is the keeper bolt hole, mark the bearing housing here. Position Y is the threaded pusher hole (for removing the pivot bolts - do not mark or drill here).

4. Remove the pivot bolts. Drill through the outer bearing housing wall PARALLEL to the pivot bolt bores using an 11/32" drill bit. Tap to M 10 x 1.5 thread.
5. Clean the bearing housing and reassemble the slewing cylinder.
6. Connect the bearing housing (item 1) to the slewing pivot (item 2) using the new pivot bolts.

NOTE: Check whether the pivot bolt collar sits flush against the bearing housing. If not, the pivot bolt is hitting the cylinder pipe (because of mismatched tolerances). If this happens, adjust the distance by putting a disk (10.5) under the collar (see fig. 4)

7. Install the M 10 x 20 HHCS and spring washers, and tighten.
8. Grease bearings.



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Parts needed for conversion:

<u>QTY</u>	<u>PART NUMBER/DESCRIPTION</u>
2	997.010.062.134 M 10 X 20 Hex head case screws DIN 933
2	997.221.003.543 M 10 spring washers
4	997.201.003.601 10.5 disk
2	705.422.412.020 Pivot bolts

Tools needed for conversion:

11/32" drill bit
Drill press
M 10 x 1.5 tap and handle
Center punch and hammer.
17mm wrench

If you have any questions or require any further information
please feel free to contact the Schwing Service Department.

Sincerely,

SCHWING AMERICA, INC.



Ric Berndt
Service Mangaer

RB/RE/di

Bulletin#: G-101-88

Date: 01/19/88

Subject: Warning indicator lamp conversion of airshifter on Spicer 784-transfer cases



SCHWING
AMERICA INC.

5900 Centerville Road
White Bear, Minnesota 55110
Area Code 612/429-0999
TWX: 910-563-3539
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

January 19, 1988

SERVICE BULLETIN: G101/88

Mr. Rob Edwards

Re: Spicer 784 Transfer Cases

Dear Rob,

Schwing America has recently been made aware of an instance in which a Spicer 784 transfer case airshifter did not disengage when shifted with the lever in the truck cab. This caused the pumps to continue to turn while driving the unit down the road.

For this reason, Schwing America is strongly advising that the following modification be made. This affects ONLY units with Spicer 784 transfer cases. (See Fig. 1).

There are two airshifters on the 784. (See Fig. 2). The bottom shifter (item #2) engages the driveline to the rear end of the truck, while the top shifter (item #1) engages the hydraulic pumps. We are concerned ONLY with the top shifter on this modification. (If the bottom shifter fails, you will know because the unit will not move). There is a normally open switch existing on the top airshifter on the 784, (item #3) and this modification involves nothing more than wiring in the switch before the cab warning light. (See schematic-Fig. 3).

Parts needed for conversion:

1. Two each crimp on "bullet" style wire connectors
2. Two each crimp on "spade" style wire connectors
3. 15 to 25 feet of 16-20 gauge wire (measure for unit)
4. 15 to 25 feet of 1/4" wire loom (measure for unit)

SERVICE BULLETIN

G-101-88

All of these parts are available at any auto parts store, Radio Shack, or electrical supply store. Additionally, Schwing America carries these items in stock, and may be ordered from our Spare Parts Department using the following ordering information:

<u>Part number/Description</u>	<u>Price as of 1/1/88</u>
305814 Line connector (bullet) #800735	\$.31 each
305226 Spade terminal #402065	\$.10 each
302914 Loom 1/4" #702	\$.22 foot
306792* 16 gauge wire-"red"	\$.08 foot

*Schwing America carries many different colors of wire, the price is the same for any color. It is not necessary to have two different colors for this conversion.

Step 1: Run 2 wires from the airshift lever, located in the truck cab, to the switch on the top airshifter of the 784. We highly recommend running the wires in wire loom for protection against short circuits, but it is not mandatory. Use 16 to 20 gauge wire. Strip about 3/8" of insulation from all four ends.

Step 2: Remove the two wires from the switch on the airshifter (Fig. 4). Cut off the bullet connectors, and strip the insulation from the end of the wires as stated in step 1.

Step 3: (See Fig. 5) At the airshift switch, twist one new wire with one of the wires removed in step 2. Insert both into a new bullet connector, and crimp. Repeat this step with the two remaining wires at the airshifter switch.

Step 4: (See Fig. 6) Install crimp-on spade connectors on the two wire ends at the 784 switch. Fasten one spade connector to each screw on the switch. It does not matter which wire goes to which screw. Conversion is now complete.

From now on you MUST NOT drive the unit if the red cab warning light is on. If the airshift lever has been switched, but the light remains on, you can be sure that the Spicer has not disengaged the hydraulic pump drive. If you were to drive the unit anyway, the hydraulic pumps stand a very good chance of being damaged or destroyed by over-speeding. Driving in reverse would drive the pumps backwards, which would also be very bad for the pumps. In the event that the "preparation for transport" procedures are not followed exactly as stated in the operators manual, there is additional danger when the hydraulic pumps are fully operational while driving the unit. This

could result in several different mishaps, ranging from boiling your hydraulic oil, to accidental raising of the boom, or unfolding of the outriggers.

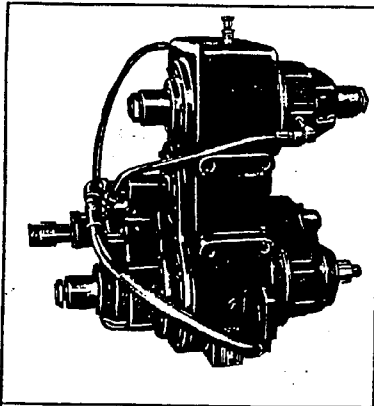


Fig. 1 Spicer 784

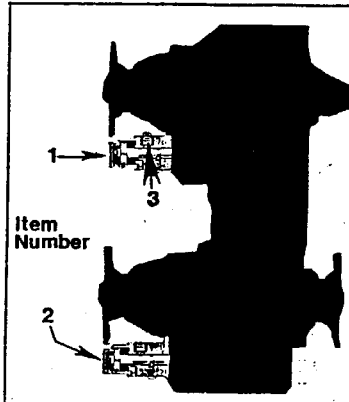


Fig. 2 Switch Location

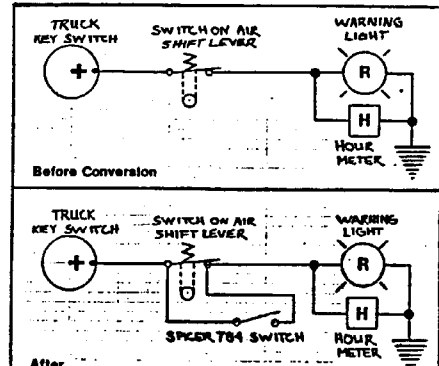


Fig. 3 Schematic

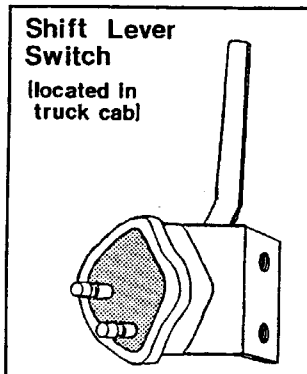


Fig. 4

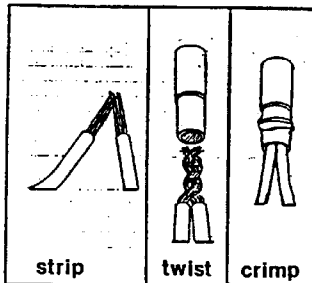


Fig. 5

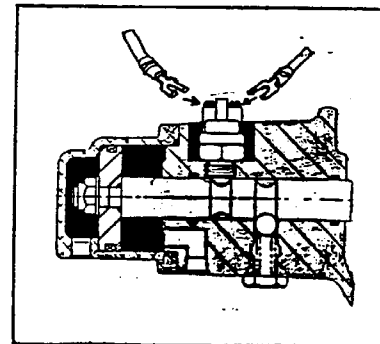


Fig. 6

If you have any questions or require any additional information, please feel free to contact us.

Sincerely,

SCHWING AMERICA, INC.

Ric Berndt

Ric Berndt
 Service Manager

RB/RE/di

Bulletin#: G-102-88

Date: 04/18/88

Subject: Aligning or replacing the material cylinders

April 18, 1988

SERVICE BULLETIN: G-102/88

RE: ALIGNING OR REPLACING THE MATERIAL CYLINDERS

Gentlemen:

Generally speaking, the same steps are required for material cylinder replacement on all models of Schwing concrete pumps. However, the EXACT steps depend on the machine type. (Rock, gate, trailer or boom pumps, etc.).

A detailed description of the exact steps for each machine would be too lengthy for any service bulletin, so we will confine ourselves to the general procedures.

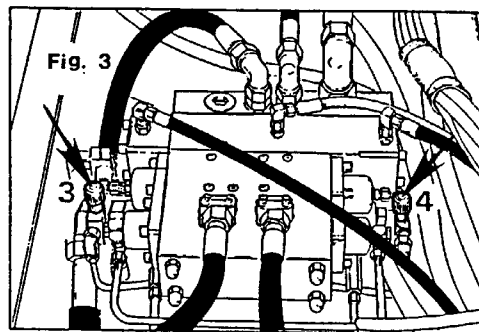
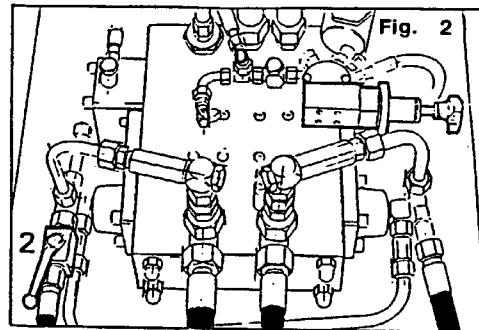
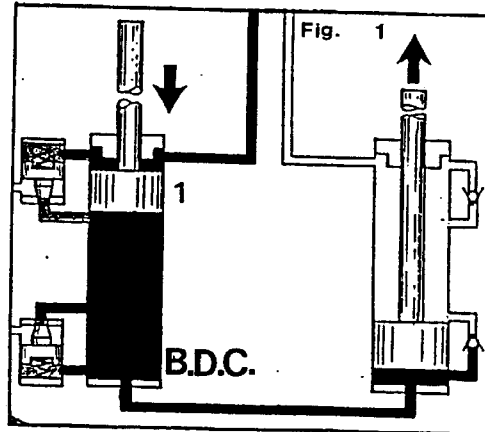
Professional quality repairs will definitely require the following:

1. Qualified personnel
2. Reliable lifting device (forklift, overhead crane, chainfall, or equivalent).
3. Special tools (torque wrench, alignment tool, and dead plugs for the hydraulic system, (see page 9).
4. New bolts, washers, and o-rings MAY be needed. Consult your spare parts book.

Field experience has taught us that the following procedure will be useful:

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- Step 1 Extend and jack the outriggers.
- Step 2 Lift the placing boom enough to slew it off to the side.
- Step 3 Slew boom to the side.
- Step 4 Remove both rubber rams from the differential cylinders in the normal manner.
- Step 5 Retract both differential cylinder rods completely to the stop limits. Procedure for doing this follows:
- 5A Adjust stroke limiter to get lowest possible speed. (If no stroke limiter is installed on unit, put transmission in one gear lower than normal pumping gear. On older trailer pumps, the hand wheel on the hydraulic pump is used to lower strokes/min.).
- 5B Put the S-1 valve into the "pumping" mode, to retract one differential cylinder rod.
- 5C (See Fig. 1) Before piston 1 reaches its bottom dead center (B.D.C.) position, close the ballcock (Fig. 2, item 2) on ROCK VALVE machines, or both throttle valves (Fig. 3), items 3 & 4) on GATE VALVE machines.
- 5D The rod will move into the end position and stop. Immediately switch the S 1 into the neutral position. (Otherwise the machine will go to a high pressure situation).



- 5E Shut off the driving engine. In order to move the second piston to the bottom dead center position without re-extending the 1st cylinder, we must drain out the rocking oil.

IMPORTANT!! When opening the hydraulic system, which we have to do to drain the rocking oil, make certain of absolutely clean conditions.

Depending on the type of machine, the following methods of draining the rocking oil are possible:

- 5F (See Fig. 4) Disconnect one end of the rocking oil hose and hold the hose into a clean container. Oil drained in this manner may be reused **ONLY** if it is poured back into the reservoir **THROUGH** the hydraulic filter. OR.....

(See Fig. 5) Unscrew the vent plug (Fig. 4, item 2) and insert a screw joint (Fig. 5, item 3, available under part number 300997-M22 x 1.5) connect a CLEAN hydraulic hose to the screw joint and put the other end in the filler cap of the reservoir. (Hose should be 13/4 x length. Normally, a 13/4 x 2400 hose will be long enough, but measure to be certain). OR.....

(See Fig. 6) Remove check valve (Fig. 6 item 6), turn it end for end, and remount to tube (item 7). Connect a CLEAN hydraulic hose at connection (item 8) and lay the other end of the hose in the filler cap of the reservoir.

- 5G (See Fig. 7 & 5) Put the S 1 in the reverse mode and retract the 2nd piston at slowest possible speed. The rocking oil will be expelled (for example) through hose 4.

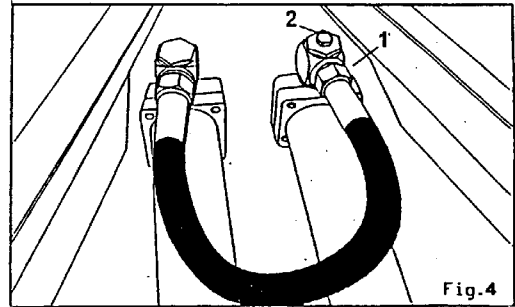


Fig. 4

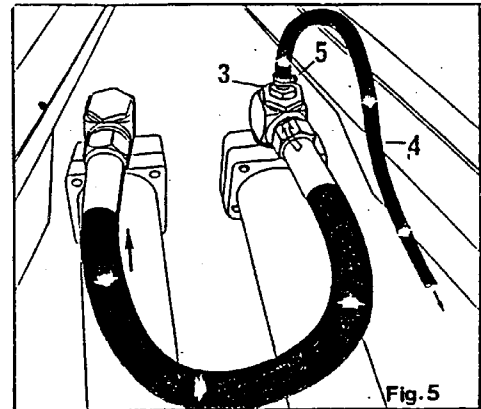


Fig. 5

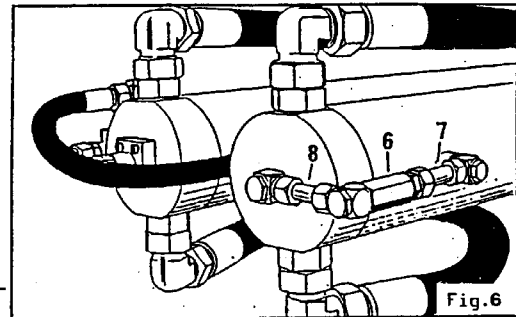


Fig. 6

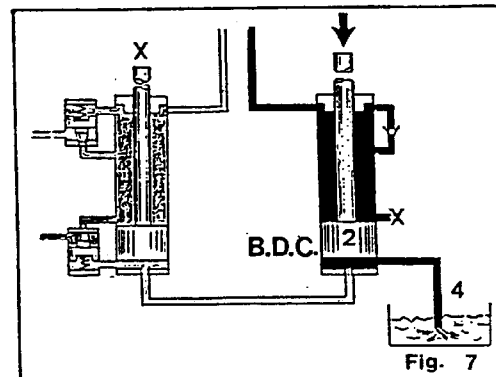


Fig. 7

Step 6 Turn off the drive motor.

Step 7 Remove the hopper and outlet piping from the concrete valve.

IMPORTANT: Plug the agitator connections with dead plugs. See plug list on page 9.

Step 8 Carefully support the differential cylinders to avoid unintentional movement of the pumpkit after the material cylinders have been removed. For example, wedge wooden blocks between the cylinders and a cross beam of the subframe.

FOR GATE VALVE MACHINES:

Step 9A Mark for identification, then remove the hydraulic hoses from the gate plunger cylinders.

IMPORTANT: Plug the open hydraulic lines with dead plugs. See plug list on page 9.

Step 9B Remove the flushing containers.

Step 9C Remove outlet gate.

Step 9D Remove hopper gate.

Step 9E Remove the control housing. See repair instructions for flat gate valves.

FOR ROCK VALVE MACHINES:

Step 9A Mark for identification, then remove the hydraulic hoses from the rock slewing cylinder.

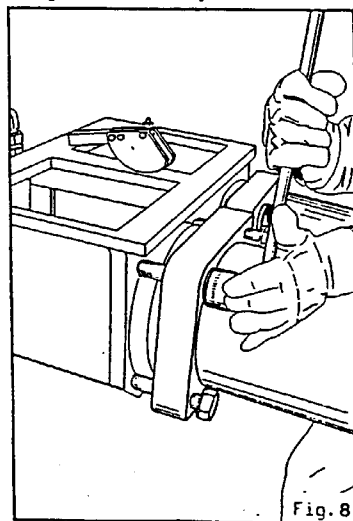
IMPORTANT: Plug the open hydraulic lines with dead plugs. See plug list on page 9.

Step 9B Remove the entire rock valve assembly. See repair instructions for rock valves.

Step 10 Support each material cylinder with the lifting device. Remove the bolts at the water box. (See Fig. 8) If an impact wrench is used, you must use an impact socket and wear eye protection.

Step 11 Detach the material cylinders and remove in a downward direction.

IMPORTANT: Take care not to damage hoses and tubes that may be positioned under the material cylinders.



Step 12 (See Fig. 9) remove the split rings (item 1) and mounting flanges (item 2). If spacing rings are used on the unit, remove them at this time as well.

IMPORTANT: Depending on the type of unit, the mounting parts may be different for the waterbox end and the concrete valve end of the material cylinders. DO NOT interchange the mounting parts end for end. See your spare parts list.

Step 13 Clean, check and grease the mounting parts and all mounting surfaces at the water box and gate or rock housing.

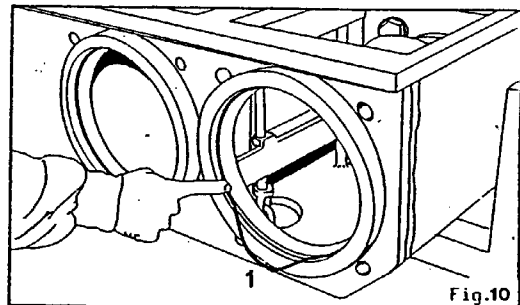
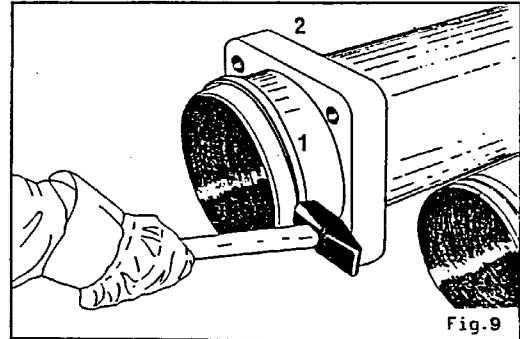
Step 14 Clean the mounting surfaces of the NEW material cylinders thoroughly, REMOVE PRIMER, and grease.

Step 15 (See Fig. 9) Install mounting flanges (item 2) and split rings (item 1). At this time mount spacing rings removed in step 12, if any.

IMPORTANT: Please remember not to interchange the flanges, split rings, and spacing rings from waterbox to concrete valve end. The cylinders themselves can go either way.

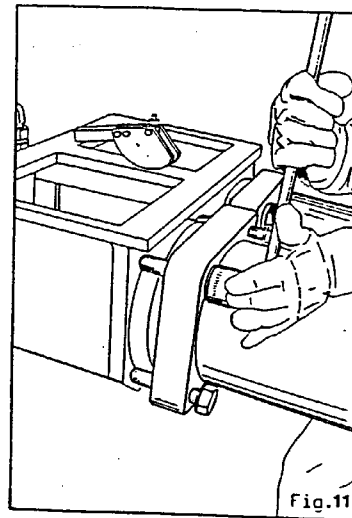
Step 16 (See Fig. 10) Grease the NEW o-rings (item 1) and insert into the lead-in rings of the waterbox.

Step 17 CAREFULLY slide a pre-completed material cylinder into the water box, and give it a ballpark alignment.



Step 18 (See Fig. 11) Screw in the mounting bolts and washers and tighten crosswise, using the torques specified in the table below, for all 3 steps of tightening.

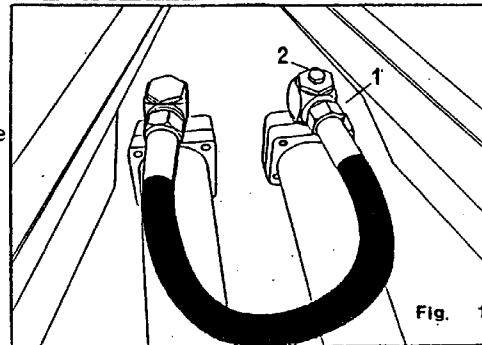
Step 19 After both material cylinders have been installed, the alignment must be checked.



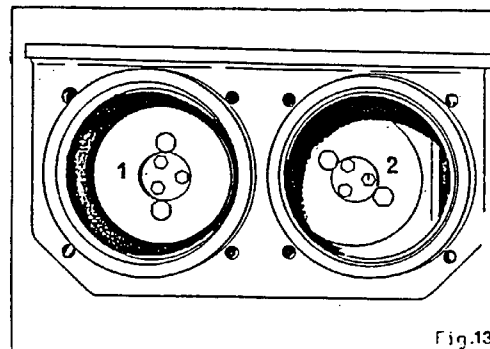
TORQUE SPECS

Bolt Size	Quality (engraved on bolt head)	Step 1	Step 2	Step 3
M-16	8.8	Hand Tight	75 ft/lbs.	155 ft/lbs.
M-16	10.8	Hand Tight	110 ft/lbs.	220 ft.lbs.
M-24	8.8	Hand Tight	260 ft/lbs.	525 ft/lbs.

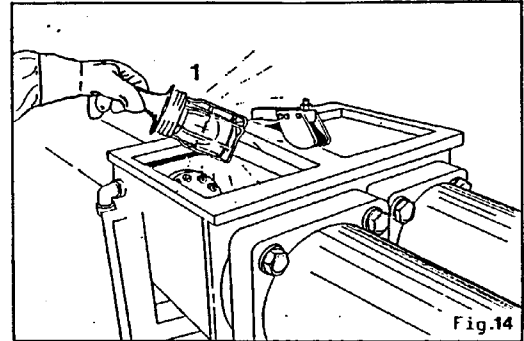
Step 20 (See Fig. 12) Undo the steps taken to drain the rocking oil. For example, re-install the vent plug (item 2), or restore the check valve plumbing as shown in Fig. 6 (BP 3000, BP 5000). After the rocking oil loop is restored, start the motor and switch the S 1 into the "reverse" position, using LOWEST POSSIBLE SPEED. The passenger side differential cylinder rod should extend as the rocking oil loop is refilled. When the rod stops moving, the loop is filled. Switch the S 1 to the neutral position.



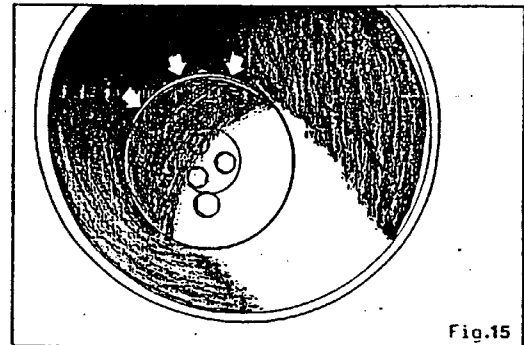
Step 21 (See Fig. 13) With drive motor turned off, mount alignment tool on a differential cylinder rod. (For correct alignment tool, see table on page 10).



Step 22 (See Fig. 14) To visually inspect the alignment, put a trouble light (item 1) in the waterbox, at the opening to the cylinder being aligned. NOTE! Be very careful about fingers and hands in the waterbox. Put the trouble light in the waterbox, then remove your hand BEFORE proceeding to step 23.

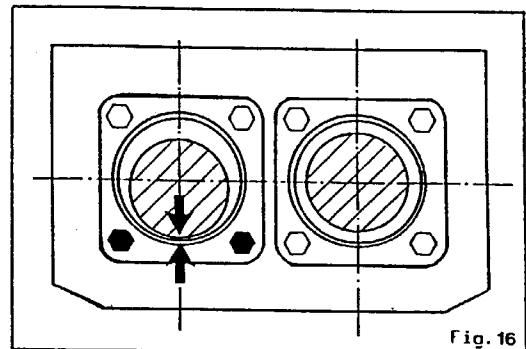


Step 23 (See Fig. 15) Select the "forward" mode of the S 1, AT THE SLOWEST POSSIBLE SPEED! Look into the material cylinder from the concrete valve end. The gap between the alignment tool and the cylinder wall will be seen as rays of light.



IMPORTANT: If the alignment tool should contact the cylinder wall at any time, return the concrete pump to neutral immediately!

Step 24 (See Fig. 16) If, for example, the alignment tool contacts the cylinder on the lower side, loosen the mounting bolts at the waterbox a little bit, then tighten the LOWER bolts first. This will lower the bottom of the material cylinder. When the alignment is close, tighten the top bolts and re-check the alignment. When the alignment is within specification the alignment tool will travel the entire length of the cylinder without touching the cylinder wall. If the alignment tool is not always located exactly in the middle of the cylinder during the travel, but DOES NOT TOUCH, then re-alignment is not necessary. Minor misalignments are compensated for with the rubber ram. Repeat procedure for the other cylinder.



PLEASE NOTE: If proper alignment cannot be achieved otherwise, tightening torques may be exceeded by 10% over the chart specs.

Step 25 Grease NEW o-rings and insert in the valve (rock or gate) housing.

Step 26 CAREFULLY slide the valve housing onto the material cylinders, and rest the valve housing on the machine frame.

Step 27 Bolt the valve housing and material cylinder flanges together as described for the waterbox end in step 18, making sure that the alignment is being maintained.

Step 28 Bolt the valve housing to the machine frame.

Step 29 Check alignment with the tool once more, at slowest possible speed.

IMPORTANT: If a squeaking sound indicates that the alignment tool is dragging on the material cylinder, turn off the concrete pump IMMEDIATELY!

Step 30 If there is no dragging, you may proceed to step 32. If dragging does happen, repeat the visual checks. In the case of rock valve machines we recommend removal of the rock valve body. (See repair instructions for rock valve in service or operators manual).

Step 31 Loosen the bolts on the material cylinders and valve housing, and at the machine frame, and repeat the alignment procedure.

Step 32 Tighten all bolts to step 3 specs from table on page 6.

Step 33 Complete the re-assembly of concrete valves, mount the hopper and install the rubber rams.

Step 34 Re-open the ballcock, or throttle valves.

As always, feel free to contact the Schwing Service Department with any questions you may have.

Sincerely,

SCHWING AMERICA, INC.



Ric Berndt
Service Manager

RB/RE/di

LOCKING DEAD PLUGS FOR HYDRAULIC HOSES AND TUBES

For SAFE and RELIABLE plugging of ONE hydraulic hose or tube, the following is required. (See Fig. 17)

- Item 1 - Straight screw coupling
- Item 2 - Plug
- Item 3 - Capnut

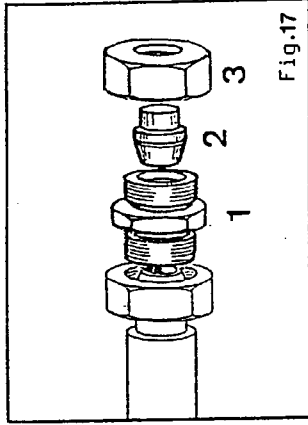


Fig.17

TO PLUG:	SCREW COUPLING		LOCKING PLUG		CAP NUT	
	TYPE	PART NUMBER	TYPE	PART NUMBER	TYPE	PART NUMBER
1. Agitator Lines	K-GS16S	994.180.920.010	VS16S	994.183.616.000	M16S	994.180.120.000
2. Slewing Cylinder For Rock (DN 165)	K-GS20S	994.180.921.010	VS20S	994.183.617.000	M20S	994.180.121.000
3. Slewing Cylinder For Rock (DN 210)	K-GS25S	994.180.922.010	VS25S	994.183.618.000	M25S	994.180.122.000
	K-GS20S	994.180.921.010	VS20S	994.183.617.000	M20S	994.180.121.000
	K-GS16S	994.180.920.010	VS16S	994.183.616.000	M16S	994.180.120.000
4. *Plunger Flat Gate (DN 150)	K-GS20S	994.180.921.010	VS20S	994.183.617.000	M20S	994.180.121.000
5. Plunger Flat Gate (DN 180/210)	K-GS25S	994.180.922.010	VS25S	994.183.618.000	M25S	994.180.122.000

* High pressure 6" gates (BPA 3000, 4000, 5000) will require the same plug as flat gate, DN 180/210 (#5)

ALIGNMENT TOOLS

CONCRETE PUMPKIT TYPE	PART NUMBER	DESIGN
BPA 250-15	952.160.170.010-01	SLIP ON TYPE
BPA 650-15	952.160.170.010-03	SLIP ON TYPE
BPA 350-18	952.160.170.010-02	SLIP ON TYPE
BPA 650-18	952.160.170.010-04	SLIP ON TYPE
BPA 750-15		
BPA 3000-15	952.160.170.010-13	FLANGE MOUNT
BPA 5000-15		
BPA 750-18		
BPA 1000-18	952.160.170.010-14	FLANGE MOUNT
BPA 3000-18		
BPA 5000-18		
BPA 3000-20		
BPL 900-20	952.160.170.010-06	SLIP ON TYPE
BPL 1200-20		
BPL 1201-20		
BPL 1200-23	952.160.170.010-15	FLANGE MOUNT
BPL 1201-23		
BPL 801-20		
BPA 901-20	952.160.170.010-05	SLIP ON TYPE
BPA 900-20		
BPL 1001-23	952.160.170.010-08	SLIP ON TYPE
BPA 4000-23		
BPL 1001-20	952.160.170.010-09	SLIP ON TYPE

Bulletin#: G-104-88

Date: 04/20/88

Subject: Boom guide levers on KVM 32m



5900 Centerville Road
White Bear, Minnesota 55110
Area Code: 612/429-0999
TWX: 910-563-3539
Telecopy: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

April 20, 1988

SERVICE BULLETIN: G-104/88

RE: KVM 32 BOOM GUIDE LEVERS

Gentlemen:

We have been made aware of the fact that some of the guide levers located at the junction of the 3rd and 4th section booms were inadvertently mounted upside down during assembly. Location of the guide lever is shown in Fig. 1.

Please inspect your boom in this area as soon as possible. If you should find that the guide lever on your boom is mounted as shown in Fig. 3, please contact Rob Edwards at Schwing immediately. We would very much appreciate it if you would have the serial number of your unit handy when you call.

Please feel free to call the Schwing Service Department if you have any questions.

Sincerely,

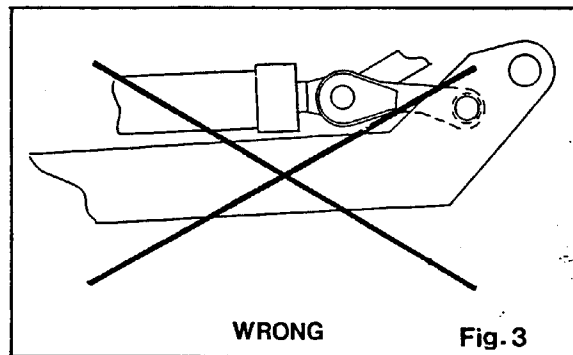
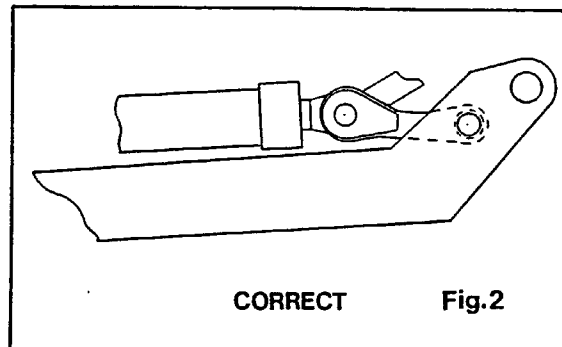
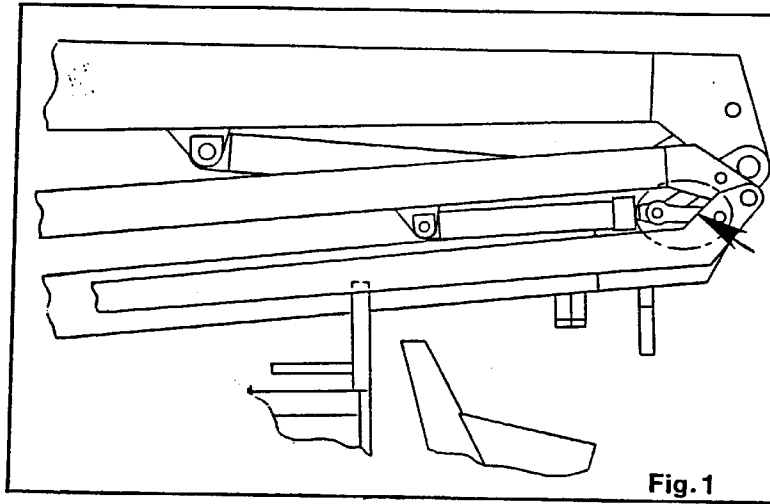
SCHWING AMERICA, INC.

Ric Berndt
Service Manager

RB/RE/di

Enclosure

SERVICE BULLETIN	G-104-88
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Bulletin#: G-105-88

Date: 10/19/88

Subject: Local/Remote switch for BPA 750 & BPA 1000



**SCHWING
AMERICA INC.**

5900 Centerville Road
White Bear, Minnesota 55110
Area Code: 612/429-0999
TWX: 910-563-3539
Telecopy: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

October 19, 1988

SERVICE BULLETIN: G105/88

RE: Nah/Fern (Local/Remote) Switch for BPA 750 & BPA 1000

Gentlemen:

Schwing America has learned that there is a high failure rate with the Nah/Fern switch (P/N 992.900.238.000) that is used on all BPA 750's and all BPA 1000's. This failure is due to moisture entering the switch causing it to become corroded.

In an effort to continually produce the highest quality machines, we will supersede the above switch with a switch that features environment proof sealing. The part number of this new style switch is 314009. In the future all BPA 750-15's and all BPA 750-18's leaving Schwing America will be equipped with this switch. This switch is available through our Spare Parts department as a replacement for all machines presently in the field.

There is also a rubberized protection boot that fits over toggle lever for added protection. The part number of this rubber boot is 303396.

Please refer to the following diagram for a description and wiring instructions on this switch.

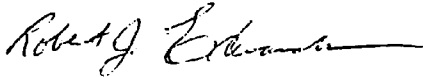
SERVICE BULLETIN	G-105-88
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Disconnect all three wires from the old switch. Remove old switch from panel. Mount new switch into panel and wire as described in the diagram. Hot wire from the fuse to the center terminal, the wire from terminal 87a on the Bosch relay to one outside terminal on the switch, and the wire from terminal 87 on the Bosch relay to the other outside terminals of the switch. The wires on the outside terminals of the switch may have to be reversed to make the position of the switch lever correspond to the correct position label on the panel; i.e. when the switch lever is in the fern (remote) position the machine must be run by remote control.

If you have questions or require any additional information, please feel free to contact us.

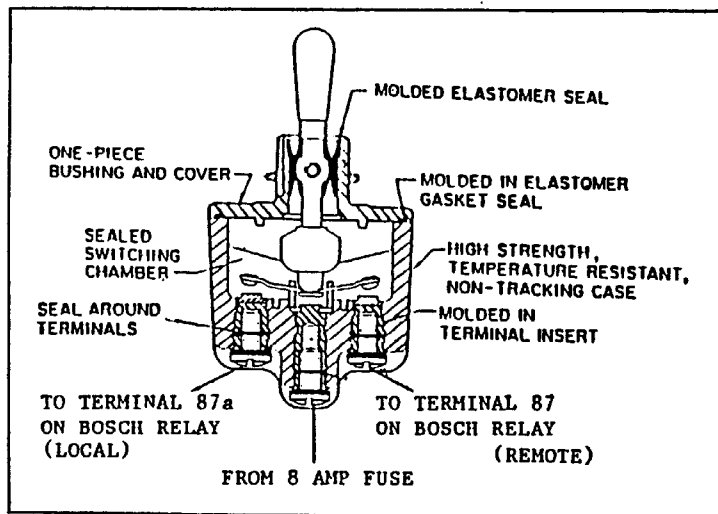
Sincerely,

SCHWING AMERICA, INC.



Robert J. Edwards
Service Manager

RJE/di



Bulletin#: G-101-89

Date: 03/02/89

Subject: Upgrade Program: (Rexroth hand valve block for KVM 42M boom control)



5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
TWX: 910-563-3539
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

March 2, 1989

SERVICE BULLETIN: G-101-89

SERVICE MANUAL

Gentlemen,

Schwing America has developed a plan to update and improve the Rexroth hand valves that control the boom on your KVM 42 units. The details of the plan are outlined in the attached sheets.

Because the plan has a time limit involved, it is important that you make all efforts to get this information to the end users as soon as possible. If you have sold the unit, please call me at (612) 429-0999, and advise me of this. I will then send the information to the new owner.

We are offering this plan in accordance with our policy of providing you, our customer, with the highest possible quality units, and the parts and service to back them up. I urge you to take advantage of this program while it is in effect.

Sincerely,

SCHWING AMERICA, INC.

A handwritten signature in cursive script that reads 'Robert J. Edwards'.

Robert J. Edwards
Service Manager

RJE/di

Enclosure

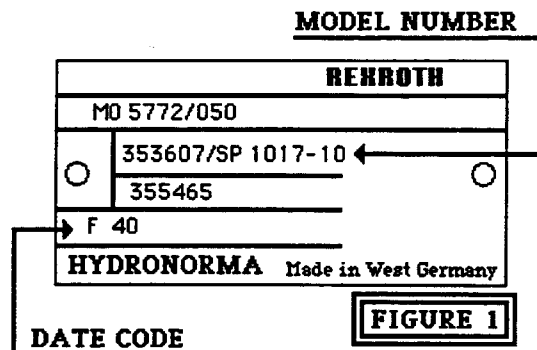
SERVICE BULLETIN	G-101-89
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Rexroth SP-1017 Handvalves...Replacement Program 2/6/89

Dear Customer:

Schwing America, Inc. will be standing behind the handvalves mentioned above (KVM 42 Lightweight), and we've developed a program for taking care of the units in the field.

There is an ID tag mounted on the end plate of the handvalves. If you are standing on the unit, facing the handvalves, the ID tag would be on the extreme right hand side. The tag will give the model number, etc. In addition, there will be a 3 digit code that tells when the valves were made. The code will be a letter and two numbers, for example: F36. This code will be the basis for determining the charge, if any, for exchanging the valves. (See figure 1).



The difference between the handvalves in current production and the handvalves installed on units since 1984 is that the new ones have a hardened ball and seat type of shuttle valve system, instead of a pin installed in the casting of the valve bodies. Furthermore, the new style seats are replaceable. We believe that this will eliminate the cause of the shuttle valve failure that you may have experienced in the past.

Basically, the new program works as follows: If the model number of your handvalve assembly reads "SP 1017-10", your unit already has the new style installed. If your model number reads "SP 1017-00", then you have the old style, and you should consider replacing it during this program. Any valves with a date code beginning with the letters "E" or "F" will be replaced free of charge by SAI. If your date code begins with "D", you may get a valve bank for 50% of the cost to update (\$950). If your date code begins with "C", "B", or "A", you may buy the new version at the cost of rebuilding your bank to current specs (\$1900). The list price for a new set of handvalves from Schwing America is \$8,926.63, so it will certainly make sense to take advantage of this program while it is in effect.

There are two stipulations to the program that must be followed. First, the program will end 12/31/89, so we must have received all returned valve banks by the end of October, 1989, to be sure that we can rebuild them under the program. The second stipulation is that ALL parts are returned with the valve banks, and that they are returned in the specially built wooden crates that you will receive with new bank. These crates are designed to prevent damage to the valve banks that could prevent rebuilding.

The procedure to take advantage of the program will go as follows:

1. Determine the date code on your existing unit. Remember, if your model number is SP 1017-10, you already have the new version.
2. Order a new handvalve bank (Part # 995 130 033 651) from Schwing Spare Parts in the usual manner. We only have a certain number of valve banks to circulate in this program, so **THERE IS A CHANCE THAT THE NEW VALVE BANK MAY NOT BE IMMEDIATELY AVAILABLE.** A new valve bank will be shipped to you as soon as possible, freight PREPAID. Accounting will now invoice you \$8926.63. A note will be added to the invoice stating that the part is under warranty consideration.
3. **REPLACE THE OLD VALVE BANK AS A COMPLETE ASSEMBLY.** The valve banks that we receive from Rexroth should be preset for flow capacities and pressures, and should not require resetting. Note that this assembly does NOT include the concrete pump forward/reverse valve assembly, which has never been a source of the malfunction described above.
4. Fill out a Warranty claim, **INCLUDING THE SERIAL NUMBER OF THE UNIT AND THE DATE CODE** on the claim form.
5. Ship the old valve bank to us, along with the completed warranty claim form, **IN THE WOODEN CRATE SUPPLIED WITH THE NEW VALVE BANK.** Please ship via truck freight, prepaid, as normal. This will be your only cost for shipping.
6. When we receive the crate, we will inspect the contents for completeness. If there is nothing missing, we will then issue a credit for the returned core, according to the schedule above (This will amount to invoice total minus \$0.00 for "E" and "F" date codes, invoice total minus \$950.00 for "D" date codes, and invoice total minus \$1900.00 for "A", "B", and "C" date codes). If there are pieces missing it will result in a delay in processing your claim as we will have to determine the cost of replacement, and subtract this cost from the core credit.

Please don't hesitate to call the SAI service department at (612) 653-2299 if you have questions regarding this program. Service department hours are 8:00 AM to 5:00 PM Monday thru Friday.

Bulletin#: G-102-89

Date: 06/27/89

Subject: KVM 36m, 42m & 52m "ROLLIX" bearing & gear lash inspection

This procedure can be found in the service manual

Bulletin#: G-103-89

Date: 05/02/89

Subject: #1 boom down side relief valve adjustment



5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
TWX: 910-563-3539
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

May 2, 1989

SERVICE BULLETIN: G-103/89

SERVICE MANUAL

Gentlemen:

It has come to our attention that many people that own, operate, and repair SCHWING concrete pumps do not know the purpose or proper adjustment of the 1 (main) boom section down side relief valve.

The purpose of the valve is to protect the boom, the A-frame rest on the subframe, and the truck frame against damage caused by forcing the 1 boom into the cradle hydraulically. We accomplish this by putting a SECONDARY relief valve into the 1 down circuit, and lowering the pressure setting on this secondary relief to a level that will give you some measure of safety when the boom contacts the A-frame cradle. Because the earth's gravity is helping the hydraulics lower the boom, there is no reason that we need main relief pressure (280 to 300 bar, depending on the model) to force the boom down.

The location of this valve on your unit varies from model to model, and is shown in the figures on the following pages. Figure 1 shows the porting on the valve that is used on models with 23, 25, 26, 28, 31, and 32 meter booms. Figure 1 also shows the correct way to plumb the unit to check and/or set the pressure on this valve.

The method of setting the pressure on units with 36 and 42 (LW & HW) meter booms is completely different from the other units, and is documented with figures 7, 8, 9, and 10. Please note that 52 meter units do not have a down side relief valve as such, for a variety of reasons, so this bulletin will not pertain to them.

SERVICE BULLETIN	G-103-89
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The list below is a breakdown, by model, of the correct #1 down side relief valve settings:

KVM 23	}	140 BAR (2030 p.s.i.)
KVM 24-4H		
KVM 25		
KVM 26 (pull out jib)		
KVM 28		
KVM 31		
KVM 32		
KVM 36	}	80 bar (1160 p.s.i.)
KVM 42 (Heavyweight)		
KVM 42 (Lightweight)		

SEE FIGURE 1-(boom sizes KVM 32 and smaller). The block that carries the relief valve has 3 ports. Two ports are pressure ports (in from handvalve, and out to the boom cylinder) plus a tank port. To set the pressure, disconnect the line running from the pressure out port, and install a 0-400, or 0-600 bar (0-2500 psi-minimum) gauge. Push the handvalve lever, which will send oil out of the rear port of the handvalve. Because we have a gauge plugged into the pressure "out" port, the oil will not have a path to the cylinder, and the boom will not move. Instead, the only place that the oil can go is over the relief valve to the tank port. The pressure that reads on the gauge is the pressure that it takes to open the relief valve. If the gauge reads 140 bar (2050 psi), then the valve is properly adjusted. If not, loosen the set screw on the end of the relief valve (requires a 2.5mm allen wrench). Adjust the screwdriver slot clockwise (to raise pressure) or counterclockwise (to lower pressure), until the gauge reads 140 bar. Retighten the set screw, then recheck the pressure. Sometimes, especially on older units, the act of retightening the set screw will raise the pressure slightly. If this happens, loosen the screw again then set the pressure slightly lower than 140 bar. When you retighten the set screw, pressure will be correct. If adjusting the screwdriver slot will not raise or lower the pressure, then the valve will have to be removed from the block. Check that the o-ring and back-up ring are in good shape, and installed in the position shown in Fig. 1. If they are in good shape, the valve must be defective, and will require replacement.

Page 3
Service Bulletin: G-103/89

For 36 and 42 meter units, the pressure must be set without disconnecting the line to the boom. Set up the unit with the outriggers, and unfold the boom. Bring the #1 boom section down until the cylinders bottom out. Continue holding the handle as if you are bringing #1 down. Read the gauge. If it says 80 bar, then no adjustment is necessary. If not, adjust the cartridge as described above, until 80 bar is achieved. On 42 heavyweight and 36 meter units, be sure that you are NOT adjusting the adjustable orifice that may be present (See figure 8).

On 42 lightweight machines that have had the throttle check valve installed (modified-see figure 10), you will have to "T" a pressure gauge into the line after the down side relief valve, as shown in the illustration. The line comes out of the valve with a size 16 fitting, and will require a size 16 "T", then a 16 to 12 adapter to get to the gauge size. The part numbers of these fittings are: 994.182.216.110-5 (for the "T"), and 994.183.103.010-2 (for the adapter). Order both WITH capnuts and wedge rings.

This pressure check should be done whenever you are doing preventive maintenance to the unit, or at least whenever you do your annual boom inspection.

Feel free to call the service department at (612) 653-2299 if you encounter any problems, or if you have a question about the procedures described above.

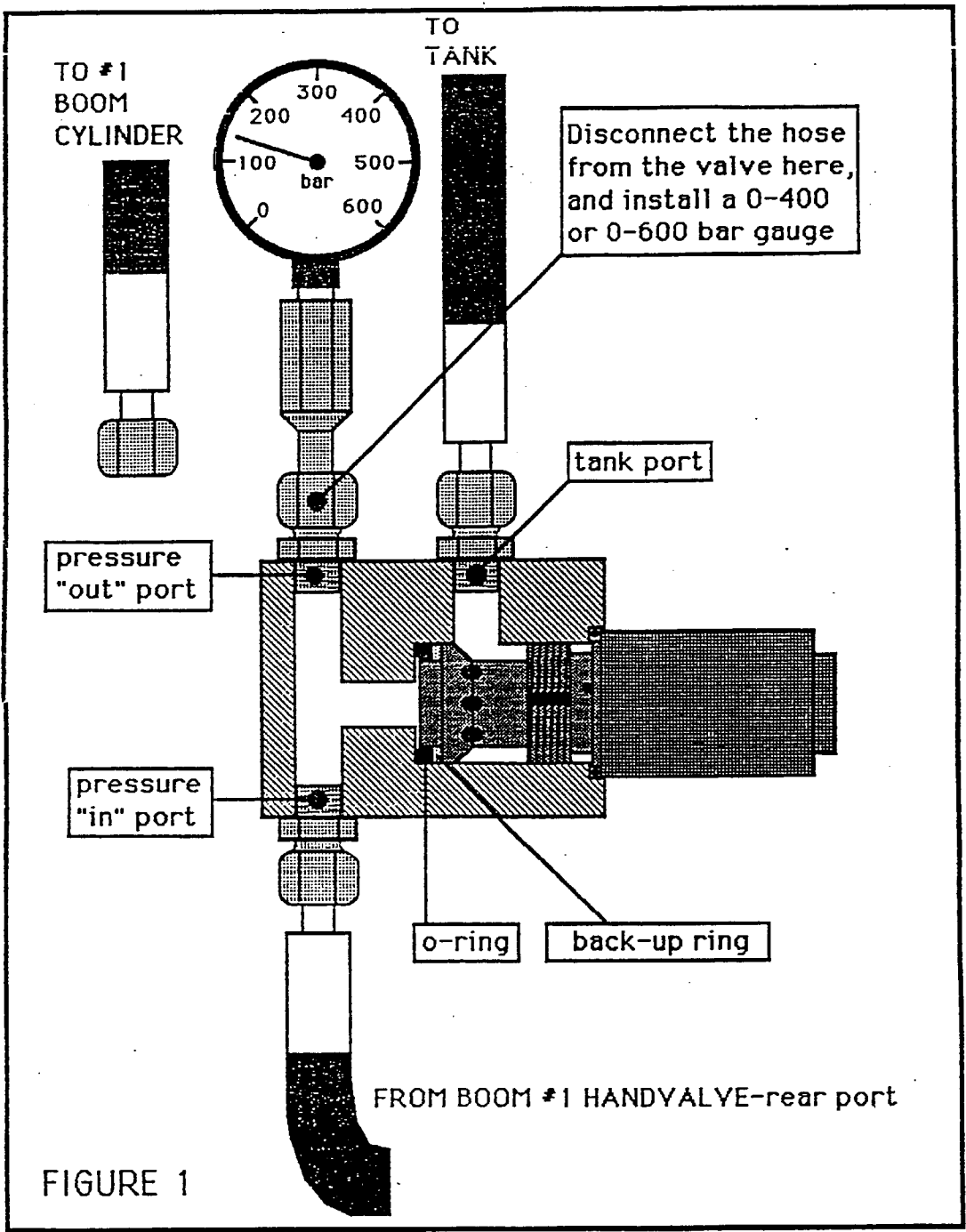
Sincerely,

SCHWING AMERICA, INC.



Robert J. Edwards
Service Manager

RJE/di



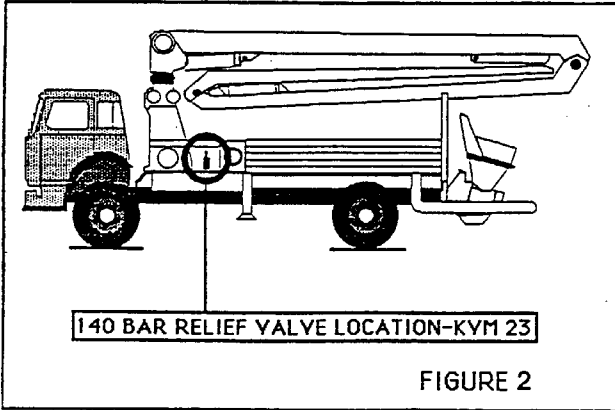


FIGURE 2

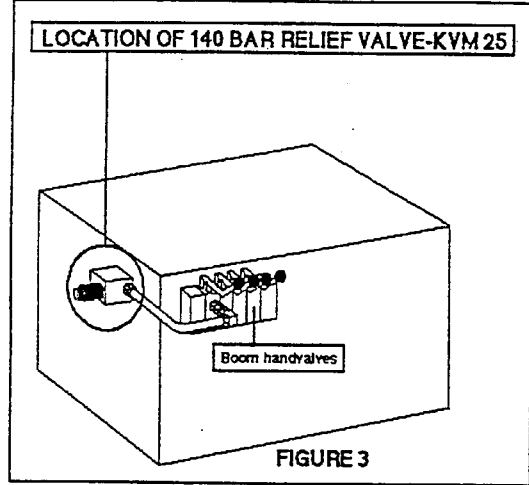


FIGURE 3

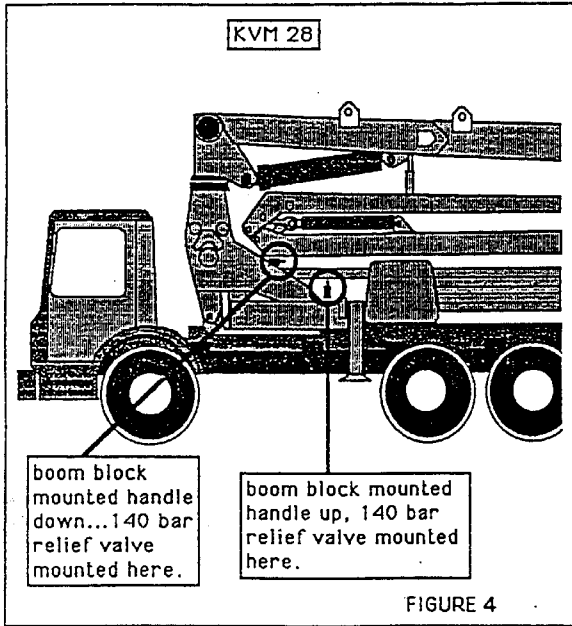


FIGURE 4

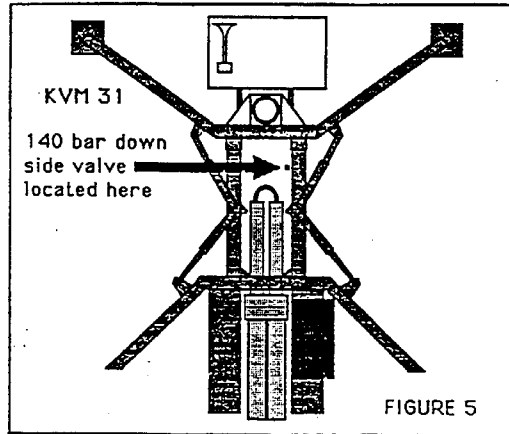


FIGURE 5

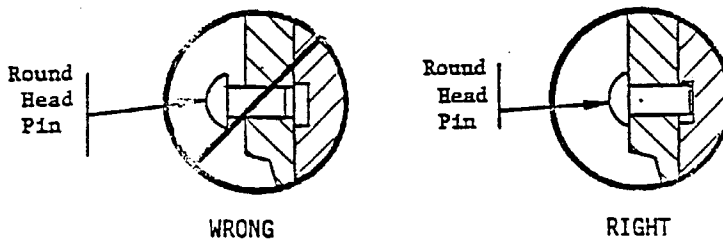
MAINTENANCE INSTRUCTION FOR FLOW CONTROL VALVES
MODELS DV/AV, DVP/AVP, DVE/AVE, DRV/DRVP, SRV

HYCON

TOOLS REQUIRED: Pipe wrench, adjustable wrench, Allen wrench,
small screw driver, and dental pick.

PROCEDURE:

1. Shut off system.
2. Relieve system pressure, i.e., reduce system to atmospheric pressure.
3. Drain system if valve is at a low point in the piping.
4. Remove valve from line or manifold.
5. Place valve in clean work area.
6. Loosen round head pin and set screw on knob. Discard round head pin.
ATTENTION: Round head pin designated as a pan head pin in HYCON literature.
7. Remove knob.
8. Unscrew spindle completely.
9. Remove O-ring and back-up ring from spindle.
Discard O-ring and back-up ring.
10. Clean and degrease housing and spindle.
11. Check spindle and housing for damage. Replace as necessary.
12. Install new back-up ring and O-ring on spindle. O-Ring and Back-Up Ring should be lubricated before replacement.
CAUTION: Back-up ring should be closer to the threaded portion of the spindle.
13. Screw spindle into housing until valve is COMPLETELY closed.
14. Align hex on spindle with knob socket and install knob.
CAUTION: KNOB MUST BE BOTTOMED AGAINST THE HOUSING.
15. Completely insert new round head pin into the knob.
CAUTION: ROUND HEAD PIN MUST BE INSTALLED IN THE KNOB RETENTION GROOVE OF THE VALVE HOUSING BEFORE AND DURING OPERATION OF VALVE.



16. Screw in set screw.
17. Install valve in line or on the manifold.
18. Pressurize system and check for leaks.

HYCON Corporation
Bethlehem, Pa. 18017

Reference: Prospects A.5.111, A.5.112,
A.5.151

Revised 9/25/84

Bulletin#: G-104-89

Date: 09/01/89

Subject: New style flanged transition pieces



5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
TWX: 910-563-3539
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

September 1, 1989

SERVICE BULLETIN: G-104/89

SERVICE MANUAL

Gentlemen:

The following bulletin is being issued for the purpose of informing you of an improvement which has been made to the transition pieces for DN 210/180 rock valves. We have been installing the pieces in all new pumpkits with this size rock valve now for several months, and we believe that it will improve several wear patterns that you may have seen in the past, including spectacle plate and cutting ring life, and kidney seal wear.

We highly recommend that you install these transition pieces into all of your units that have the DN 210/180 rock valves, which include BPL 900, 1200, and 1201 HDR's, and BPA 3000, 3001, and 5000's. Please note that the pieces have to be installed from the material cylinder end of the rock valve housing, so you may wish to wait until you are rebuilding the wear part area before beginning the installation.

Please do not hesitate to contact the service department if you have any questions about the installation or purpose of these transition pieces.

Best regards,

SCHWING AMERICA, INC.

Robert J. Edwards
Robert J. Edwards
Service Manager

RJE/di

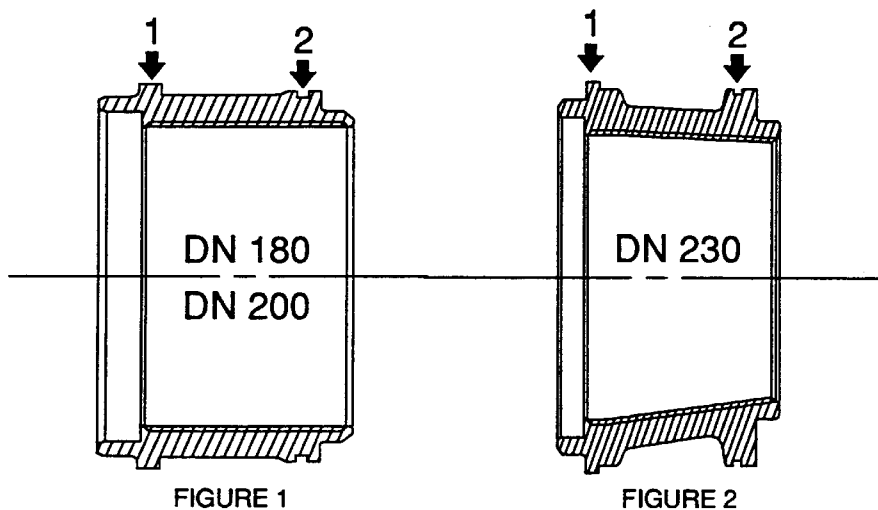
SERVICE BULLETIN	G-104-89
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TRANSITION REPLACEMENT PIECES FOR DN 180, 200, AND 230 PUMPING CYLINDERS

We have been installing transition pieces for several years in high pressure units to protect the material cylinders from excessive wear due to the pumping pressures. Although truck mounted units are normally not subjected to high pressure pumping, we have begun to install transition pieces into ALL DN 210/180 rock valve units

In accordance with our policy of continued product improvement, we have made the following modification to the transition pieces:

1. The collar, #1 (Fig. 1 and 2), relieves pressure on the housing lining (spectacle plate) as it transfers the pressure onto the Rock valve housing when tightening the pumping cylinder bolts. This will result in improved spectacle plate wear.
2. The groove, with an O-ring installed, #2 (Fig. 1 and 2), improves the seal around the housing lining (spectacle plate).



ATTENTION!!!

The new transition pieces are interchangeable with the older transition pieces of identical diameter size. However, because of the new features of the collar, it can only be replaced from the material cylinder side. In the case of DN 180 (7") and DN 200 (8") material cylinders, the pumpkit will have to be moved forward (towards the truck cab) by the length difference between the new and old style transition pieces (approx. 1"). If you have NO transition pieces installed (standard production for 8" material cylinders), the pumpkit will have to be moved forward approx. 5.25 ". Please be certain that moving your pumpkit this distance is possible BEFORE ordering the parts.

The parts that are offered for replacement of the "old" transition pieces to the "new" transition pieces for a DN 180 (7") material cylinder, (see Fig. #3), are as follows:

NOTE!!!

The Housing lining (spectacle plate) has been listed not as a necessity, but as a likely replaceable part for this procedure. Do not order it unless it is needed.

Position	Designation	ID #	Part #	Quantity
1	Transition piece	77557	705-422-101-401	2
2	O-ring	616	994-308-520-500	2
3	Flange	77623	715-420-201-160	2
4	Hex screw (M24 X 120)	1900	997-008-112-734	8
5	O-ring	10014002	994-308-380-400	4
6	Housing Lining (spectacle plate)	74766	705-422-101-380	1

NOTE!!!

The DN 180 Transition Pieces described above are designed for a standard 200 /210 /180 housing. **THEY WILL NOT WORK WITH A DN 180 /210 /180 HOUSING!**

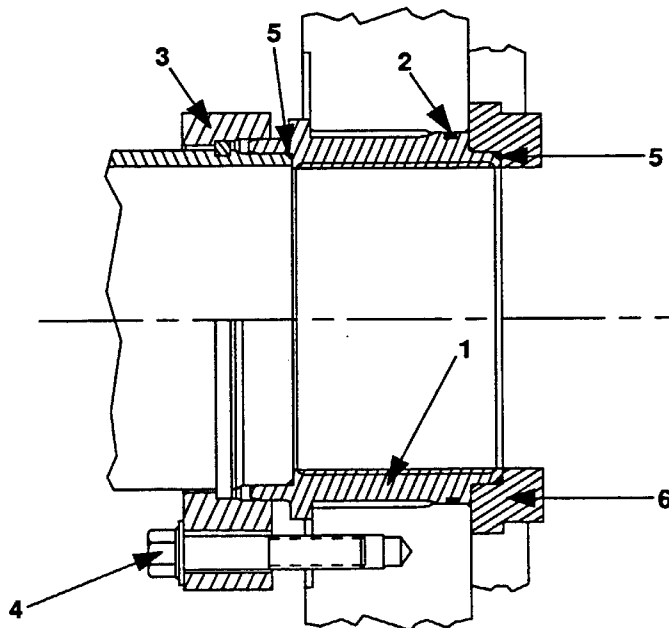


FIGURE 3

The parts that are offered for replacement of the "old" transition pieces to the "new" transition pieces for a DN 200 (8") material cylinder, (see Fig. #4), are as follows:

NOTE!!!

The Housing lining (spectacle plate) has been listed not as a necessity, but as a likely replaceable part for this procedure. Do not order it unless it is needed.

Position	Designation	ID #	Part #	Quantity
1	Transition piece	77886	705-422-101-420	2
2	O-ring	616	994-308-520-500	2
3	Flange	77963	715-420-201-170	2
4	Hex screw (M24 X 120)	1900	997-008-112-734	8
5	O-ring	559	994-307-880-400	4
6	Housing Lining (spectacle plate)	74767	705-422-101-390	1

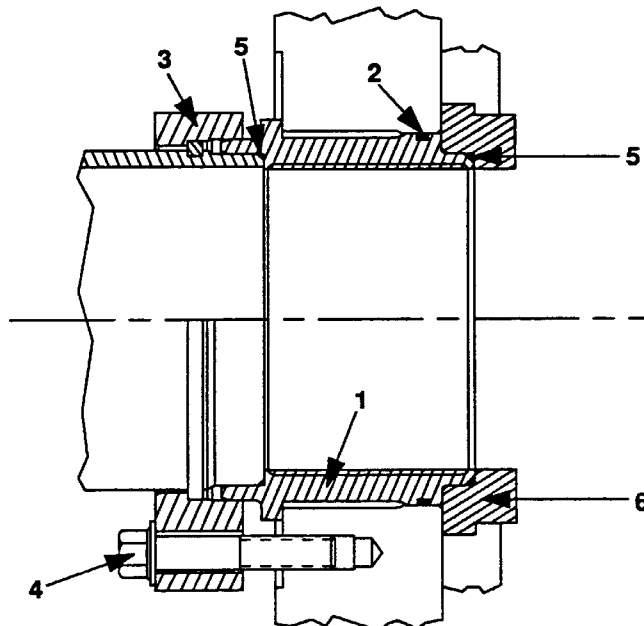


FIGURE 4

For installation of a DN 230 (9") material cylinder, it will be necessary to take off the outside edge of the Rock valve housing with a chamfer approximately 3mm X 15° (see Fig. #5). This chamfer can be created by hand, using a ball grinder. The purpose of this chamfer is to prevent damage to the O-rings on the transition pieces during installation.

The parts that are offered for replacement of the "old" transition pieces to the "new" transition pieces for a DN 230 pumping cylinder, (see Fig. #5), are as follows:

NOTE!!!

The Housing lining (spectacle plate) has been listed not as a necessity, but as a likely replaceable part for this procedure. Do not order it unless it is needed.

Position	Designation	ID #	Part #	Quantity
1	Transition piece	78435	705-422-110-010	2
2	O-ring	663	994-309-140-400	2
3	Flange	78663	705-420-201-100	2
4	Hex screw (M24 X 130)	1243	997-008-112-934	10
5	O-ring	16665	994-308-760-400	2
6	O-ring	650	994-308-950-400	2
7	Housing Lining (spectacle plate)	74768	705-422-101-400	1

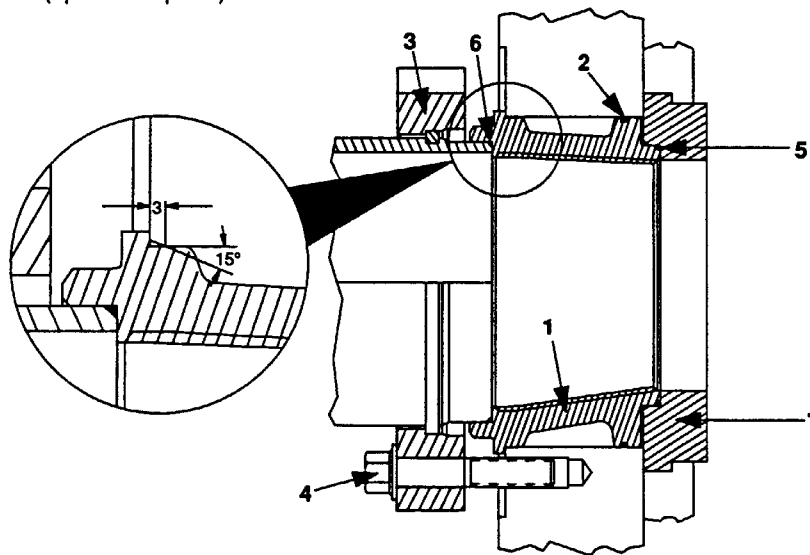


FIGURE 5

Bulletin#: G-106-89

Date: 08/24/89

Subject: KVM 28m outriggers



5900 Centerville Road
White Bear, Minnesota 55110
Area Code 612/429-0999
TWX: 910-563-3539
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

August 24, 1989

SERVICE BULLETIN G106-89

Subject: KVM 28 OUTRIGGERS

Gentlemen:

Please inspect your KVM 28 outriggers as soon as possible according to drawing 316190, attached. If the area shown has a crack, grind out and re-weld with E7018 Electrode per SAI Technical Information Sheet 1004, attached, and then call our Spare Parts Department to order reinforcements as follows for each unit that has cracks.

<u>Qty</u>	<u>Part No.</u>	<u>Description</u>
2	315164	Gusset - R & L, 1 ea.
1	315165	Reinforcement - Left (Drivers side)
1	315166	Reinforcement - Right (Passengers side)
1	Drawing 316140	Installation Instructions

Please provide the parts clerk with the **SCHWING Serial Number** for each unit that you order these parts for. These reinforcements and gussets will be provided and shipped UPS at no charge.

Attached, also, is a list of KVM 28s which our records indicate belong to, or are operated by you. If the list has changed please note the new owners names and addresses and/or other KVM 28s that you now own and send a copy to Schwing's engineering department, attention Jim Howard.

Thank you for your prompt attention to this matter. If you have any questions please call Jim Howard or Terry Atherton, Schwing Engineering Dept.

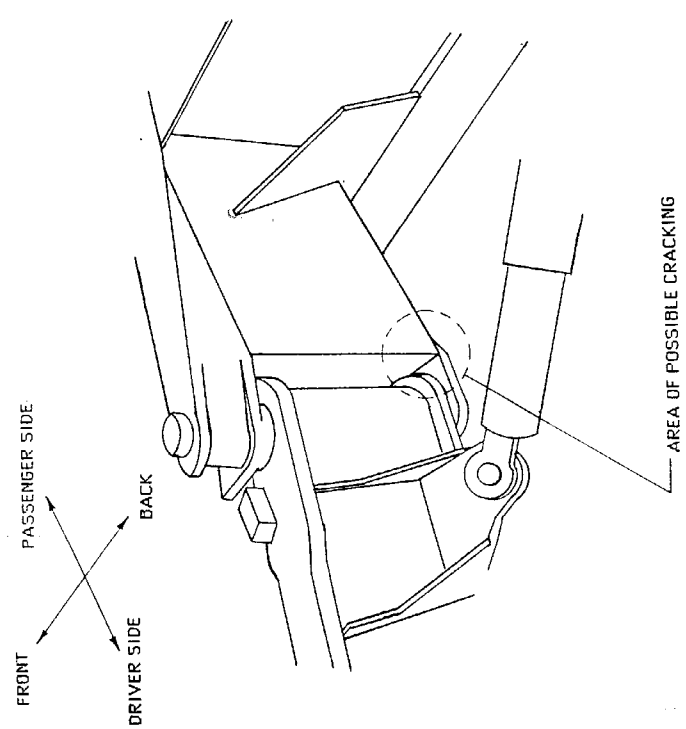
SCHWING AMERICA, INC.

A handwritten signature in black ink, appearing to read "Thomas M. Anderson", written over a horizontal line.

Thomas M. Anderson
Executive Vice President

SYN.	DESCRIPTION	ECO.	DATE	BY

316190



- PROCEDURE:
1. THOROUGHLY CLEAN WITH PRESSURIZED STEAM OR SOLVENT TO REMOVE ALL GREASE AND DIRT.
 2. USE A LIGHT AND MAGNIFIER TO VIEW THE 'AREA OF POSSIBLE CRACKING.' IF ANY QUESTION OF A CRACK USE DIE PENETRANT WHICH CAN BE OBTAINED FROM YOUR LOCAL WELDING SUPPLY HOUSE.
 3. IF THE AREA SHOWN HAS A CRACK, GRIND OUT AND REWELD WITH E7018 ELECTRODE PER SAI TECHNICAL INFORMATION SHEET 1001 ATTACHED.
 4. FOR UNITS WITH CRACKS, CALL SCHWING SPARE PARTS TO ORDER REINFORCEMENTS AND GUSSETS LISTED ON SERVICE BULLETIN NO. G 106-89.
 5. INSTALL REINFORCEMENTS PER DRAWING 316140 ON UNITS WHICH HAD CRACKS.

SCHWING AMERICA INC. WHITE BEAR, MINNESOTA 55110		316190	REV
PART NAME OUTRIGGER INSPECTION		ASSEMBLY	
PRODUCT KVM2B - 0R89		QCS. SCALE	
FIN. WH.		MATERIAL	
LBS.		DATE 7/21/89	
DRAWN BY G.J.M.		CHECKED	
APPROVED		APPROVED	

DO NOT SCALE THIS DRAWING
 WORK TO DIMENSIONS
 UNLESS OTHERWISE SPECIFIED
 TOLERANCES UNLESS OTHERWISE SPECIFIED
 FRACTIONAL DIMENSIONS ± .001
 DECIMAL DIMENSIONS ± .005
 HOLES
 .0005 ± .001

Welding Procedure to Repair Cracks or Weld on Booms
Welder Must be Certified to AWS D1.1
*KVM 23,25,28,31,32,36,42

REV B JTA

1. Remove all paint in area required welding.
2. Grind out crack for full 60° vee weld.
Note: 1. Grind 1/2" further than end of weld and drill 1/8" hole at tip end of vee.
2. Do not air arc or torch.
3. Use Electrode 7018, 8018, 9018, 10018, 11018 or 12018 depending on location.
Note: Must be fresh from hypothermically sealed container- or preheat rods to 200°F to remove moisture.
4. Use D.C. reverse polarity welder.
5. Preheat weld area to 70° TO DRIVE OUT MOISTURE (SEE TABLE BELOW.)
6. Use 3/16 max stringer passes. If out of position weld vertically up not vertically down.
7. Grind between each pass. Approximately 3 passes per 1/4" thickness.
8. Use a 400° temp stik applied 1" away from the weld. Temperature must not exceed 400°F.
9. X-ray weld when complete if in critical structural area.
10. If reinforcements are added or replacement of parent material is required the steel material must be of equal strength (yield & tensile).
11. ALL WELDS MUST BE COMPLETELY NOTCH FREE.
12. THERE MUST BE NO WELDING WITHIN 1" OF ANY ROLLED CORNER.
13. SEE T1 1005 FOR PROPER REPAIR PROCEDURE ON THE TIP SECTION BOOM
DOUBLER PLATES ARE NOT PERMITTED.

PREHEAT AS FOLLOWS		
MATERIAL	SHEET THICKNESS	PREHEAT TEMPERATURE
A36	ABOVE 1"	212°F
EXTEN 50	ABOVE 1"	212°F
80,000 PSI YIELD AND ABOVE	UP TO 1/4"	175°F
	1/4" TO 1/2"	212°F
	1/2" TO 1"	250°F
	ABOVE 1"	300°F

Note:

1. If any questions or problems contact Schwing Engineering.
2. Any deviation from the above procedure may cause the structure to be unsafe.

* There are special procedures to be used on the KVM 52

Bulletin#: G-107-89

Date: 08/29/89

Subject: KVM 32m boom #3 reinforcement



5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
TWX: 910-563-3539
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

August 29, 1989

SERVICE BULLETIN G-107/89

Subject: KVM 32 BOOM #3 REINFORCEMENT

Gentlemen:

Please inspect BOOM #3 of your KVM 32 as soon as possible according to drawing 316265, attached. If the area shown has a crack, grind out and re-weld with E11018 Electrode per SAI Technical Information Sheet 1004, attached, and then call our Spare Parts Department to order reinforcements as follows for each unit that has cracks.

<u>Qty</u>	<u>Part No.</u>	<u>Description</u>
2	316360	Reinforcement
1	Drawing 316365	Installation Instructions

Please provide the parts clerk with the SCHWING Serial Number for each unit that you order these parts for. These reinforcements will be provided and shipped UPS at no charge.

Attached, also, is a list of KVM 32s which our records indicate belong to, or are operated by you. If the list has changed please note the new owners names and addresses and/or other KVM 32s that you now own and send a copy to Schwing's engineering department, attention Jim Howard.

Thank you for your prompt attention to this matter. If you have any questions please call Jim Howard or Terry Atherton, Schwing Engineering Dept.

SCHWING AMERICA, INC.

A handwritten signature in black ink, appearing to read 'T. Anderson', with a long horizontal line extending to the right.

Thomas M. Anderson
Executive VicePresident

SERVICE BULLETIN G-107-89

316265/A

SYM.	DESCRIPTION	ECO.	DATE BY
A	ADD PROCEDURES, REWELDER		8-28-81 JH

SYMBOL MEANS NOTCH FREE

- FILLET WELDS NOTED MUST BE WELDED NOTCH FREE. GRINDING IS ONLY NECESSARY TO REMOVE EXCESS WELD & TO MAKE SMOOTH.
 - FILLET WELD ALL AROUND REINFORCEMENT.
 - THEN FINAL WELD IN DIRECTION SHOWN.

INSPECTION PROCEDURE:

- INSPECT THE AREA SHOWN FOR THE EXISTENCE OF A WELD SEAM. LATER UNITS HAVE A CONTINUOUS PLATE.
NOTE: CONTINUOUS PLATE DOES NOT REQUIRE REINFORCEMENT.
- IF A SEAM EXISTS, THOROUGHLY CLEAN WITH PRESSURIZED STEAM OR SOLVENT TO REMOVE ALL GREASE AND DIRT.
- USE A LIGHT AND MAGNIFIER TO VIEW THE 'AREA OF POSSIBLE CRACKING.' IF ANY QUESTION OF A CRACK USE DIE PENETRANT WHICH CAN BE OBTAINED FROM YOUR LOCAL WELDING SUPPLY HOUSE.
- IF THE AREA SHOWN HAS A CRACK, GRIND OUT AND RE-WELD WITH E11018 ELECTRODE PER SAI TECHNICAL INFORMATION SHEET 1004 ATTACHED. PREHEAT TO 212°F.
- FOR UNITS WITH CRACKS, CALL SCHWING SPARE PARTS TO ORDER REINFORCEMENTS LISTED ON SERVICE BULLETIN NO. G 107-89 AND IN THE BILL OF MATERIAL OF THIS DWG., 2 PER UNIT.
- INSTALL REINFORCEMENTS PER THIS DRAWING ON UNITS WHICH HAD CRACKS.

INSTALLATION PROCEDURE:

- USE E11018 WELD ELECTRODE PER SAI TECHNICAL INFORMATION BULLETIN 1004. PREHEAT TO 212° F.
- GRIND WELD AREAS TO REMOVE PAINT.
- INSTALL ITEM 1. WELD 1/4" ALL AROUND.
- PRIMER AND REPAINT AFFECTED AREAS.

ITEM	PART NO.	PART NAME	QTY.
1	316360	REINFORCEMENT	2

BILL OF MATERIAL

SCHWING AMERICA INC.		316265
WHITE BEAR, MINNESOTA 55110		REV. A
PART NAME FIELD REINFORCEMENT - #3 BOOM		
PRODUCT KVM32 - BR89		ASSEMBLY
FIN. WEL. LRS.		025 SCALE
MATERIAL		DRAWN BY <i>AS</i> CHECKED <i>RSW</i> APPROVED

DO NOT SCALE THIS DRAWING
 WORK TO DIMENSIONS
 UNLESS OTHERWISE SPECIFIED
 TOLERANCES ARE AS SHOWN
 FRACTIONAL DIMENSIONS 1/8" & OVER
 DECIMAL DIMENSIONS 0.005" & OVER
 NOTES - 008

Bulletin#: G-108-89

Date: 09/19/89

Subject: Additional info for Bulletin G-104-89: Transition Pieces



5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
TWX: 910-563-3539
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

September 19, 1989

SERVICE BULLETIN: G-108/89

SERVICE MANUAL

Gentlemen:

Service bulletin G104/89, mailed to you on September 1st, states that on units with 7" or 8" (DN 180 or DN 200mm) material cylinders, you will have to move your pumpkit forward (toward the truck cab) by approximately 1". This is correct ONLY for units that had the old style transition pieces installed. On units that have never had a transition piece, the pumpkit will have to be moved forward approximately 5.25". You can tell if your unit does not have transition pieces installed, because the material cylinders will be seated against the spectacle plate directly. Please remove page one from your bulletin, and substitute the following page.

In a case that was reported to us by a customer, moving the pumpkit ahead 5.25" put the waterbox underneath the oil cooler, making it impossible to remove the waterbox covers. It is still possible to install the new style transition pieces, but in this case he may have to move the oil cooler, or add an extension to the rock valve mounting brackets so that he may move the pumpkit backwards. The latter option would also require adding an extension piece in the outlet pipeline. Please be sure that moving your pumpkit forward is possible without doing other modifications, before you order parts.

SERVICE BULLETIN	G-108-89
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Page 2
Service Bulletin: G-108/89

We apologize for any inconvenience that this omission may have caused, and we will be happy to assist you in coming up with other alternatives, if moving the pumpkit forward creates a problem.

If you have any questions or require any further information, please feel free to give us a call.

Sincerely,

SCHWING AMERICA, INC.



Robert J. Edwards
Service Manager

RJE/di

Enclosure

Bulletin#: G-109-89

Date: 09/19/89

Subject: Program to update governors on MACK trucks



5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
TWX: 910-563-3539
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

September 19, 1989

SERVICE BULLETIN: G-109/89

SERVICE MANUAL

Gentlemen:

Mack Trucks has come up with a program to update the governors on the units built since January, 1988. The plan is to have you bring your unit into your local Mack dealer, and have the work done there. There is a chance that your local Mack dealer will not know what you are talking about when you call to make the appointment for the service. In this case you are to have them contact Don Mensing at the Minneapolis/St. Paul Mack dealer for details and parts. Don's phone number is (612) 633-4810.

I have attached a copy of the letter from Mack to Schwing America for your inspection, as well as a list of the chassis numbers of the affected units. The chassis number listed will be the last 4 digits of the truck serial number. Please check this list before contacting your Mack dealer to be sure that you have one of the units covered under this plan. If chassis number is not listed, this update does not have to be done.

Sincerely,

SCHWING AMERICA, INC.

A handwritten signature in cursive script that reads "Robert J. Edwards".

Robert J. Edwards
Service Manager

RJE/di

Enclosures

SERVICE BULLETIN	G-109-89
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Mack TRUCKS, INC.

2195 West County Road C-2, P.O. Box 64579, St. Paul, Minnesota 55164

August 21, 1989

TEL: (A.C. 612) 633-4810

Mr. Fred Buchholtz
Schwing America
5900 Centerville Road
White Bear, Minnesota 55110

Fred,

Enclosed is the list of MR690S Mack chassis with the EM6-275 engines.

Mack Trucks with assistance from Robert Bosch, has developed a governor update. This update will assist Schwing concrete pump machines to hold RPM tolerances to Schwing recommendations and will reduce "boom bounce" from RPM fluctuation.

We request that units that are in service have any inquiries addressed by Don Mensing, Service Manager, Mack Trucks, Inc. He can be reached at the above-listed phone number.

Thank you for working with us on this governor update.

Sincerely,

MACK TRUCKS, INC



Dick Klick
Fleet Account Executive

RK/bka

cc: Don Mensing
Al Zuback

Enclosures



It's part of the language... "Built Like a Mack Truck"

CHASSIS DELIVERED SINCE JANUARY 1, 1988 - WITH P7100 PUMPS

<u>MODEL</u>	<u>CHASSIS #</u>	<u>ENGINE TYPE</u>	<u>IN SERVICE</u>
MR690S	1265	EM6-275L	01/19/88
	1266		02/29/88
	1267		03/29/88
	1217		03/29/88
	1218		03/29/88
	1459		04/29/88
	1460		05/10/88
	1461		04/29/88
	1462		04/29/88
	1463		04/20/88
	1700		07/29/88
	1701		06/30/88
	1702		07/29/88
	1703		08/30/88
	1704		06/30/88
	1568		04/29/88
	1569		05/26/88
	1570		06/21/88
	1571		06/27/88
	1572		08/08/88
	1573		07/29/88
	1574		08/30/88
	1575		05/17/88
	1576		05/26/88
	1577		06/30/88
	1578		07/28/88
	1849		10/10/88
	1850		08/30/88
	1851		08/30/88
	1852		09/27/88
	1853		09/30/88
	1854		09/30/88
	1890		10/05/88
	1891		09/30/88
	1905		09/30/88
	1906		09/30/88
	1907		10/28/88
	1908		09/30/88
	1909		10/28/88
	1910		10/28/88
2044	10/28/88		
2045	11/29/88		
2046	11/29/88		
2062	02/17/89		
2063	12/28/88		
2064	02/17/89		
2053	11/29/88		
2054	12/28/88		
2055	12/28/88		

CHASSIS DELIVERED SINCE JANUARY 1, 1988 - WITH P7100 PUMPS

<u>MODEL</u>	<u>CHASSIS #</u>	<u>ENGINE TYPE</u>	<u>IN SERVICE</u>
	2056	EM6-275L	01/30/89
	2057		01/30/89
	2058		01/30/89
	2047		11/29/88
	2048		02/17/89
	2049		11/29/88
	2050		12/28/88
	2051		12/28/88
	2052		01/30/89
DM690S	2145	EM6-300L	
DMM6886EX	1035	EM6-350	
EM690S	3630	EM6-300L	
MR690S	2313	EM6-300L	
	2310	EM6-275L	02/17/89
	2311		04/30/89
	2312		03/30/89
	2620		03/30/89
	2621		04/17/89
	2622		
	2623		05/30/89
	2624		05/30/89
	2625		05/30/89
	2626		07/12/89
	2618		04/26/89
	2619		05/30/89
	2628		03/30/89
	2629		03/30/89
	2630		03/30/89
	2631		04/26/89
	2632		05/30/89
MR688S	2003	E6-350	
MR690S	2633	EM6-275L	05/26/89
	2634		
	2635		
	2687		05/30/89
	2688		04/26/89
	2689		07/28/89
DMM6886EX	1042	E6-350	
MR690S	2947	EM6-275L	
	2948		
	2949		
	2944	E176-300L	
	2945		
	3065		
	3041	EM6-275L	
	3042		07/28/89
	3043		
	3044		07/28/89
MR688S	2077	E6-350	

CHASSIS DELIVERED SINCE JANUARY 1, 1988 - WITH P7100 PUMPS

<u>MODEL</u>	<u>CHASSIS #</u>	<u>ENGINE TYPE</u>	<u>IN SERVICE</u>
MR688S	2078	E6-350	
	2079		
	2080		
MR690S	3100	EM6-275L	
	3101		
	3102		
	3103		
	3104		
	3105		
	3106		
	3107		
	3108		
	3109		
	3110		
	3111		
	3112		
	3113		
	3294	EM6-300L	
	2689	EM6-275L	
	3412		07/28/89
	3413		
	3414		
	3409		
	3410		
	3411		

Bulletin#: G-111-89

Date: 10/09/89

Subject: Fuel system plumbing on WHITE trucks: Expeditor model with CAT engines



5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
TWX: 910-563-3539
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

October 9, 1989

SERVICE BULLETIN: G111/89

SERVICE MANUAL

RE: WHITE EXPEDITOR TRUCKS WITH CATERPILLAR ENGINES

Gentlemen:

It has come to our attention that White Trucks may have been improperly installing part of the plumbing for the fuel system on Expeditor model trucks with Caterpillar engines. The symptoms of this error would be, that after sitting overnight, the engine would be very hard to start. There is a check valve installed on the fuel tank to keep the fuel from siphoning back to the tank. If it is correctly installed, it will be on the return hose, with free flow towards the fuel tank. (See the figures on the attached sheets). If the check valve is improperly installed, it will be on the suction line, either right at the fuel tank or at the injector pump, as shown in Figure 2.

To change the check valve to its correct location will require the addition of a 3/8" close nipple, and a 3/8" street elbow, as shown on the detail. Both of these parts should be readily available at any hardware or auto parts store.

Once again, this ONLY affects White trucks with Caterpillar engines. Please feel free to call if you have any difficulties with this change, or if you have any questions.

Sincerely,

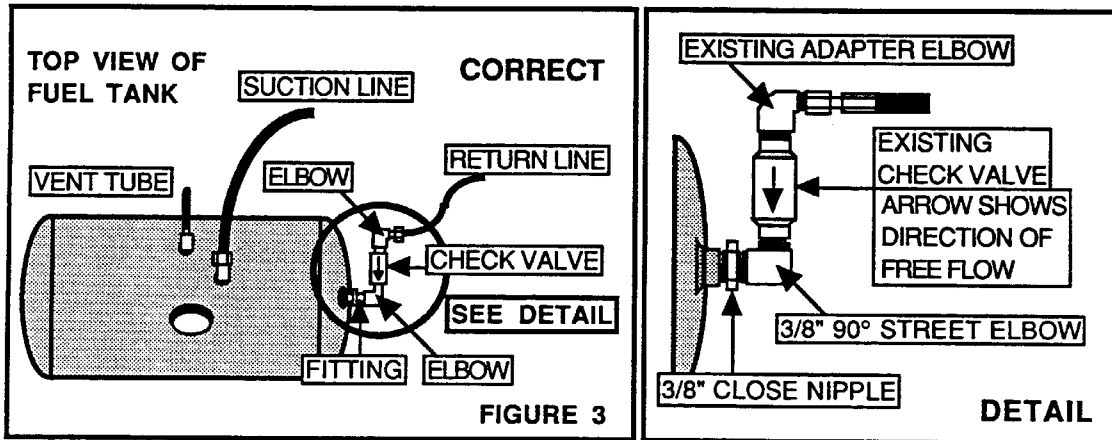
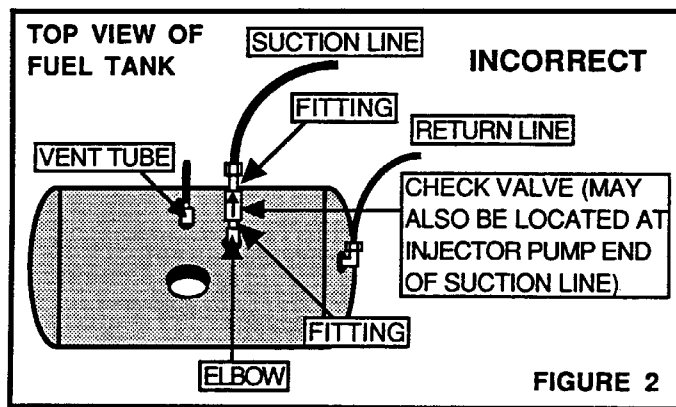
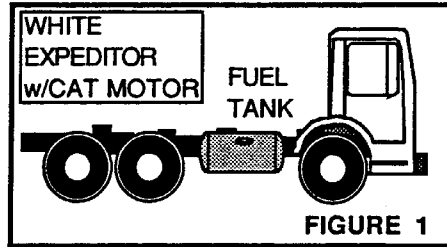
SCHWING AMERICA, INC.

A handwritten signature in cursive script that reads "Robert J. Edwards".

Robert J. Edwards
Service Manager

Enclosure

SERVICE BULLETIN	G-111-89
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Bulletin#: G-112-89

Date: 10/24/89

Subject: KVM 42m boom #3 reinforcement



5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
TWX: 910-563-3539
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

October 24, 1989

SERVICE BULLETIN: G112/89

SERVICE MANUAL

RE: KVM 42 - BOOM NO. 3 REINFORCEMENT

Gentlemen:

Because of similarities in design between the KVM 32 and KVM 42, the same inspection and reinforcement procedures used on the 32 are necessary for the KVM 42.

Please inspect BOOM No. 3 of your KVM 42 as soon as possible, according to drawing 316265, attached. If the area shown has a crack, grind out and re-weld with E11018 Electrode per SAI Technical Information Sheet 1004, attached, and then call our Spare Parts Department to order reinforcements as follows for each unit that has cracks.

<u>QTY</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
2	316360	Reinforcement
1	Drawing 316365	Installation Instructions

Please provide the parts clerk with the SCHWING SERIAL NUMBER for each unit that you order these parts for. These reinforcements will be provided and shipped UPS, at no charge.

Thank you for your prompt attention to this matter. If you have any questions, please call Jim Howard or Terry Atherton, Schwing Engineering Department.

SCHWING AMERICA, INC.

A handwritten signature in dark ink, appearing to read 'T. Anderson', with a long horizontal flourish extending to the right.

Thomas M. Anderson
Executive Vice President

SERVICE BULLETIN	G-112-89
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Enclosures



TECHNICAL INFORMATION

No.: 1004 Rev.B

Date: 1-4-85

Subject: WELDING PROCEDURE FOR STRUCTURAL MEMBERS

By: Terry Atherton

Sheet 1 of 1

Rev.B by T.A.

Welding Procedure to Repair Cracks or Welds on Booms
Welder Must be Certified to AWS D1.1
*KVM 23, 25, 28, 31, 32, 36 & 42

- 1. Remove all paint in area requiring welding.
2. Grind out crack for full 60° vee weld
Note: 1. Grind 1/2" further than end of weld and drill 1/8" hole at tip end of vee.
2. Do not air arc or torch.
3. Use Electrode 7018, 8018, 9018, 10018, 11018 or 12018 depending on location.
Note: Must be fresh from hypothermically sealed container or preheat rods to 200° F to remove moisture.
4. Use D.C. reverse polarity welder.
5. Preheat weld area to 70°F to drive out moisture (see Table Below).
6. Use 3/16 max stringer passes. If out of position, weld vertically up not vertically down.
7. Grind between each pass. Approximately 3 passes per 1/4" thickness.
8. Use a 400° F temp stik applied 1" away from the weld. Temperature must not exceed 400°F.
9. X-ray weld when complete if in critical structural area.
10. If reinforcement are added or replacement of parent material is required the steel material must be of equal strength (yield & tensile).
11. ALL WELDS MUST BE COMPLETELY NOTCH FREE.
12. THEIR MUST BE NO WELDING WITHIN 1" OF ANY ROLLED CORNER.
13. SEE TI 1005 FOR PROPER REPAIR PROCEDURE ON THE TIP SECTION BOOM DOUBLER PLATES ARE NOT PERMITTED.

Table with 3 columns: MATERIAL, SHEET THICKNESS, PREHEAT TEMPERATURE. Rows include A36, EXTEN 50, and 80,000 PSI YIELD AND ABOVE.

- Note:
1. If any questions or problems contact Schwing Engineering
2. Any deviation from the above procedure may cause the structure to be unsafe.
* There are special procedures to be used on the KVM 52

Bulletin#: G-113-89

Date: 10/17/89

Subject: BPA 750 - moving with concrete in hopper



5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
TWX: 910-563-3539
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

October 17, 1989

SERVICE BULLETIN: G113/89

SERVICE MANUAL

RE: BPA 750-15 AND 750-18 - MOVING WITH CONCRETE IN HOPPER

Gentlemen:

It has come to our attention that in some cases the above mentioned units are being driven with the hopper full of concrete. While this will not harm the unit if speeds are kept to (3) MPH, it definitely poses a hazard due to tire overloading if the unit is driven in traffic at normal travel speeds. The hopper holds approximately 1/4 cubic yard of concrete, which will add up to 1000 pounds to the load imposed on the axles and tires.

Because of this situation, we are now recommending that under NO circumstances should the unit be pulled on the highways or city streets with concrete in the hopper. If the unit must be moved to be cleaned out, it should be moved at under 3 MPH.

Please feel free to call us in the service department if you have any questions.

Sincerely,

SCHWING AMERICA, INC.

Robert J. Edwards

Robert J. Edwards
Service Manager

RJE/di

SERVICE BULLETIN	G-113-89
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Bulletin#: G-114-89

Date: 10/30/89

Subject: Emergency plumbing of Rexroth normally open by-pass valve



5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
TWX: 910-563-3539
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

October 30, 1989

SERVICE BULLETIN: G114/89

SERVICE MANUAL

Gentlemen:

The following pages describe the procedure needed to plumb the Rexroth normally open by-pass valve out of the boom circuit. We have issued a version of this service bulletin before, but because all new Schwing boom units are now equipped with a normally open by-pass valve, we feel it is necessary to again state the function and importance of this valve.

Please note that this procedure is shown ONLY FOR THE PURPOSE OF FOLDING UP THE BOOM IN AN EMERGENCY! Under NO circumstances should the valve remain plumbed out of the system during a job. When the unit is back at the shop, the problem must be diagnosed, repaired, and the by-pass valve plumbed back into the system. This valve is plumbed into your boom system to prevent unauthorized or accidental operation, and to disable your boom circuit if an emergency should occur on the job. It accomplishes this by routing the oil from the boom hydraulic pump back to the reservoir. Normally, the valve is deactivated (opened) by pushing on the red "emergency stop" button located on the operator's panel and remote control box.

Some of the things that could cause it to open unintentionally would be a blown fuse, a short in the electrical circuit, or an open (broken) circuit. The valve itself could also become defective. In any case, the problem must be repaired before the boom is used again.

Please feel free to telephone us with any questions about this procedure.

Sincerely,

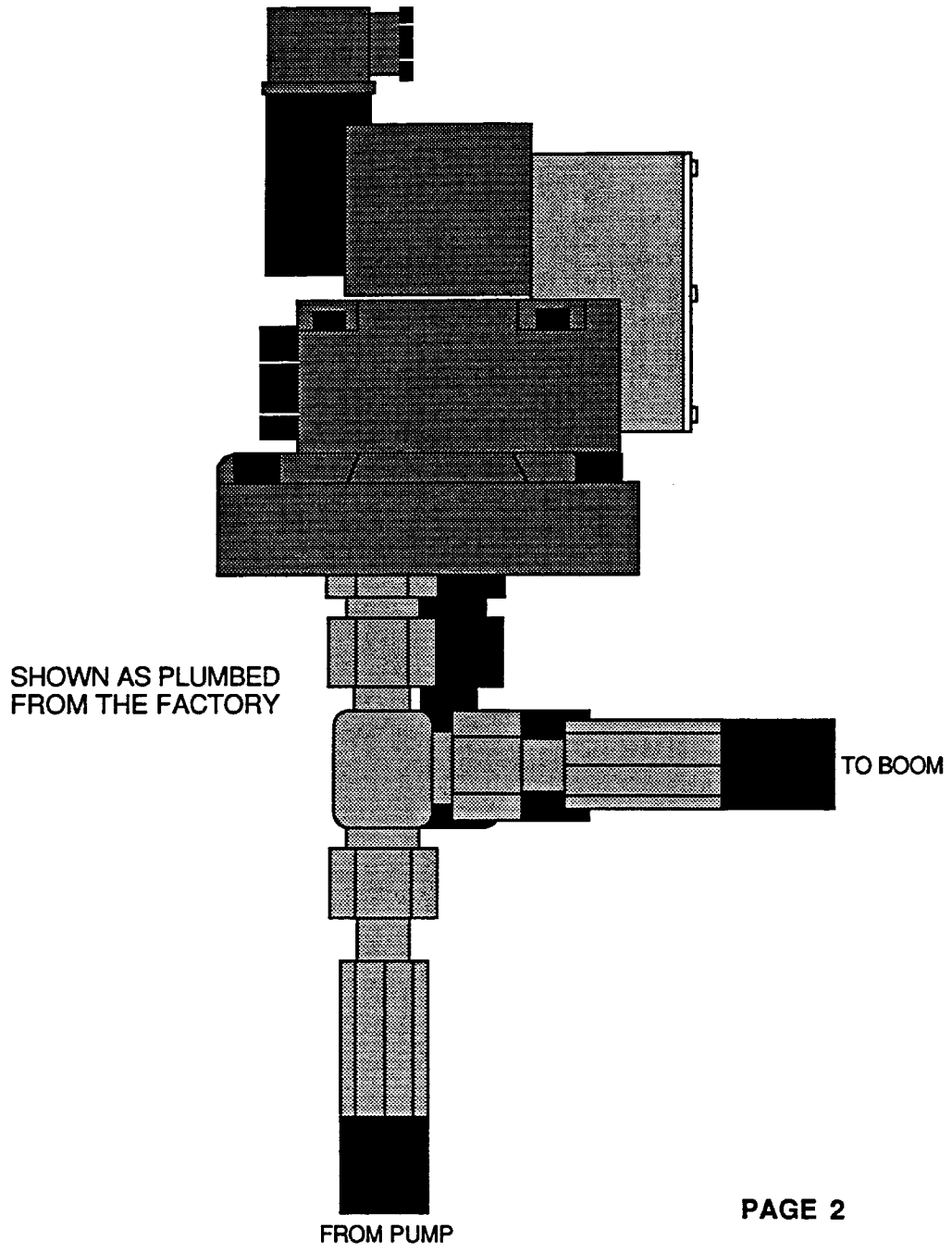
SCHWING AMERICA, INC.

Robert J. Edwards

Robert J. Edwards
Service Manager

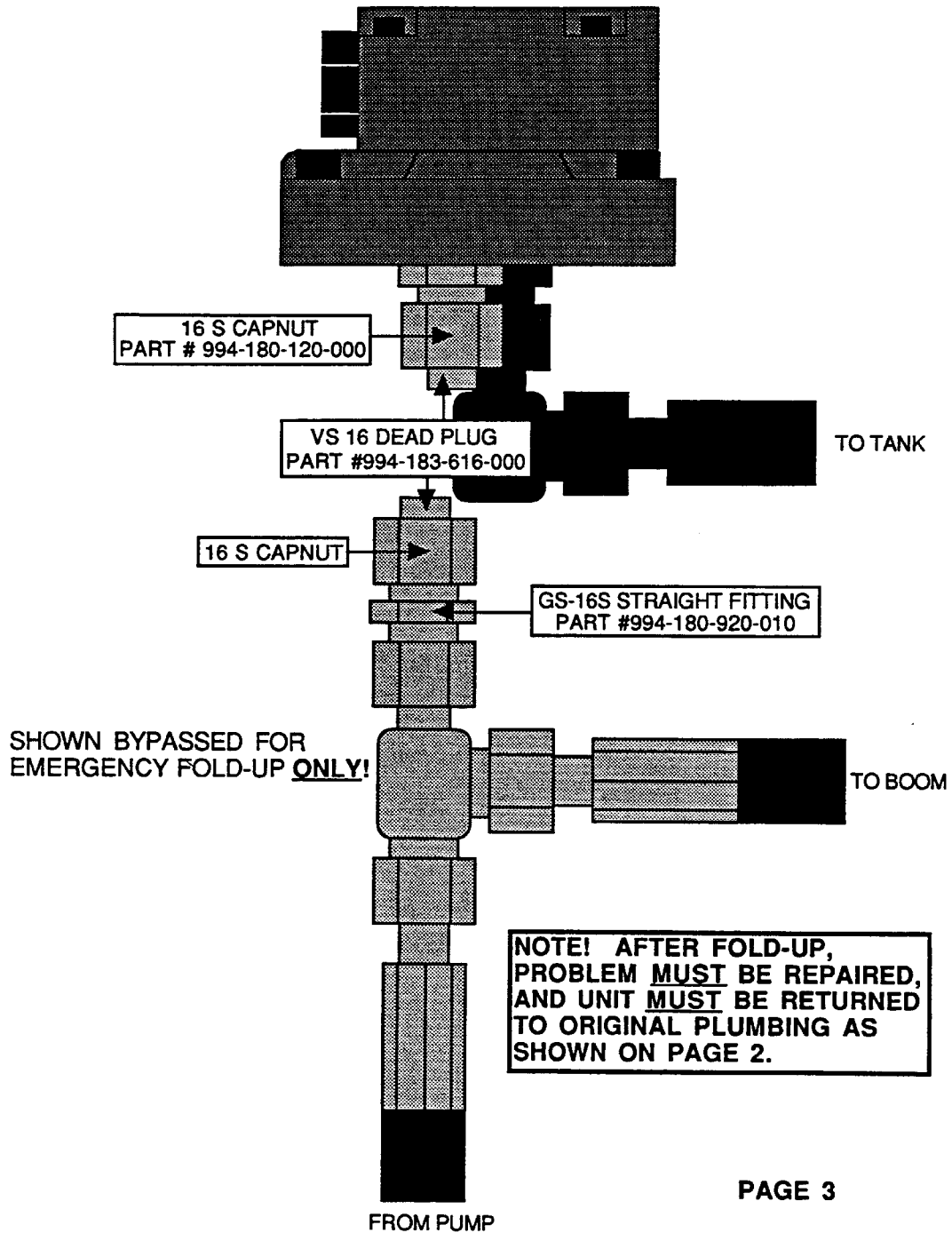
SERVICE BULLETIN	G-114-89
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REXROTH DIRECTIONAL SEAT VALVE (NORMALLY OPEN)



PAGE 2

REXROTH DIRECTIONAL SEAT VALVE (NORMALLY OPEN)



Bulletin#: G-102-90

Date: 01/24/90

Subject: KVM 36m Tower Support Inspection



SCHWING
AMERICA INC.

5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
TWX: 910-563-3539
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

January 24, 1990

SERVICE BULLETIN G 102-90

Subject: KVM 36 TOWER SUPPORT INSPECTION

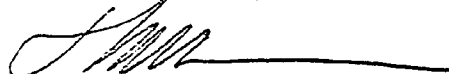
Gentlemen:

Please inspect the tower of your KVM 36 as soon as possible according to the KVM 36 TOWER SUPPORT INSPECTION PROCEDURE sheet attached. Advise Terry Atherton or Jim Howard of any cracks found and reweld per instructions on the procedure sheet and Technical Information sheet 1004, also attached.

Thank you for your prompt attention to this matter. If you have any questions please call Jim Howard or Terry Atherton, Schwing Engineering Department.

Please note also that the hydraulic outrigger slewing of these units includes a separate manual mechanical lock which must be locked in place when the outriggers are positioned for pumping or when they are folded for travel.

SCHWING AMERICA, INC.



Thomas M. Anderson
Executive Vice President

Inclosures:

KVM 36 Tower Support Inspection Procedure
Technical Information sheet 1004

SERVICE BULLETIN

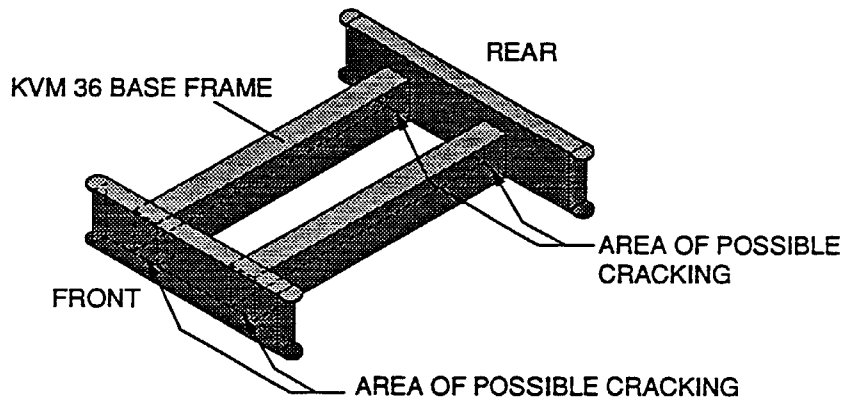
G-102-90

KVM 36 TOWER SUPPORT INSPECTION PROCEDURE

ADDENDUM TO SERVICE BULLETIN G-102-90

INSPECTION PROCEDURE:

1. THOROUGHLY CLEAN THE AREAS WITH PRESSURIZED STEAM OR SOLVENT TO REMOVE ALL GREASE AND DIRT.
2. USE A LIGHT AND MAGNIFIER TO VIEW THE 'AREAS OF POSSIBLE CRACKING'. THESE ARE THE HORIZONTAL WELDS, PERPENDICULAR TO THE TRUCK FRAME, ON THE BOTTOM OF THE BASE FRAME AS SHOWN BELOW. IF ANY QUESTION OF A CRACK USE DIE PENITRANT WHICH CAN BE OBTAINED FROM YOUR LOCAL WELDING SUPPLY HOUSE.
3. IF THE AREA SHOWN HAS A CRACK, GRIND OUT AND RE-WELD WITH E11018 ELECTRODE PER SAI TECHNICAL INFORMATION SHEET 1004 ATTACHED. PREHEAT TO 212°F.
4. FOR UNITS WITH CRACKS SCHWING WILL PROVIDE REINFORCEMENT PLATES AND INSTALLATION INSTRUCTIONS.





**SCHWING
AMERICA INC.**

TECHNICAL INFORMATION

No.: 1004 Rev.B

Date: 1-4-85

Subject: WELDING PROCEDURE FOR STRUCTURAL MEMBERS

By: Terry Atherton

Sheet 1 Of 1

Rev.B by T.A.

Welding Procedure to Repair Cracks or Welds on Booms
Welder Must be Certified to AWS D1.1
*KVM 23, 25, 28, 31, 32, 36 & 42

1. Remove all paint in area requiring welding.
2. Grind out crack for full 60° vee weld
Note : 1. Grind 1/2" further than end of weld and drill 1/8" hole at tip end of vee.
2. Do not air arc or torch.
3. Use Electrode 7018, 8018, 9018, 10018, 11018 or 12018 depending on location.
Note : Must be fresh from hypothermically sealed container or preheat rods to 200° F to remove moisture.
4. Use D.C. reverse polarity welder.
5. Preheat weld area to 70°F to drive out moisture (see Table Below).
6. Use 3/16 max stringer passes. If out of position, weld vertically up not vertically down.
7. Grind between each pass. Approximately 3 passes per 1/4" thickness.
8. Use a 400° F temp stik applied 1" away from the weld. Temperature must not exceed 400°F.
9. X-ray weld when complete if in critical structural area.
10. If reinforcement are added or replacement of parent material is required the steel material must be of equal strength (yield & tensile).
11. ALL WELDS MUST BE COMPLETELY NOTCH FREE.
12. THEIR MUST BE NO WELDING WITHIN 1" OF ANY ROLLED CORNER.
13. SEE TI 1005 FOR PROPER REPAIR PROCEDURE ON THE TIP SECTION BOOM
DOUBLER PLATES ARE NOT PERMITTED.

PREHEAT AS FOLLOWS		
MATERIAL	SHEET THICKNESS	PREHEAT TEMPERATURE
A36	ABOVE 1"	212°F
EXTEN 50	ABOVE 1"	212°F
80,000 PSI YIELD AND ABOVE	UP TO 1/4"	175°F
	1/4" TO 1/2"	212°F
	1/2" TO 1"	250°F
	ABOVE 1"	300°F

Note :

1. If any questions or problems contact Schwing Engineering
2. Any deviation from the above procedure may cause the structure to be unsafe.

* There are special procedures to be used on the KVM 52

Bulletin#: G-103-90

Date: 01/24/90

Subject: KVM 36m Tower Support Inspection & Reinforcement



**SCHWING
AMERICA INC.**

5900 Centerville Road
White Bear, Minnesota 55127
TEL: 612-429-0999
TWX: 910-563-3539
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

February 23, 1990

SERVICE BULLETIN G 103-90

Subject: KVM 36 TOWER SUPPORT INSPECTION & REINFORCEMENT

Gentlemen:

As a follow-up to Service Bulletin G 102-90 attached is a list of KVM 36 booms that our records show belong to, or are operated by you. If the list has changed please note the new owners names and addresses and/or other KVM 36s that you now own, and send or fax a copy to Schwing's Engineering Department, attention Jim Howard (FAX# 612-429-8261).

Please inspect the tower of your KVM 36 as soon as possible according to the KVM 36 TOWER SUPPORT INSPECTION PROCEDURE sheet attached. Advise Terry Atherton or Jim Howard of any cracks found and re-weld per instructions on the procedure sheet and Technical Information sheet 1004, also attached.

For the welds that have cracks, call and order reinforcements from our Spare Parts Department as follows:

<u>Area</u>	<u>Part Number</u>	<u>Qty</u>
Right Front	318114	1
Right Rear	318115	1
Left Front	318115	1
Left Rear	318114	1

Install per drawing 318116, attached. These parts will be shipped to you at no charge via regular UPS. Thank you for your prompt attention to this matter. If you have any questions please call Jim Howard or Terry Atherton, Schwing Engineering Department.

Please note also that the hydraulic outrigger slewing of these units includes a separate manual mechanical lock which must be locked in place when the outriggers are positioned for pumping or when they are folded for travel.

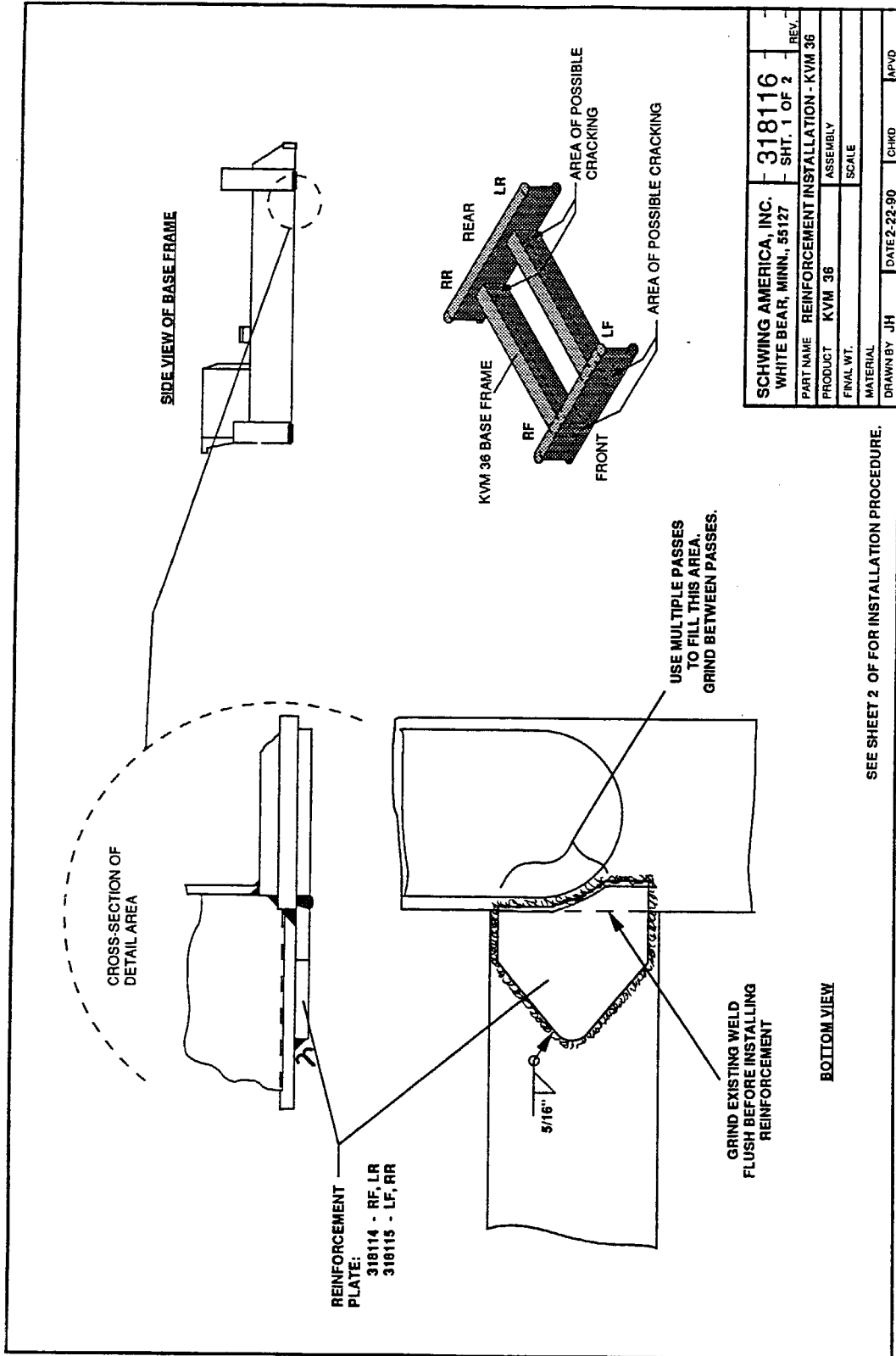
SCHWING AMERICA, INC.

Thomas M. Anderson
Executive Vice President

Encl.: KVM 36 Tower Support Inspection Procedure
Technical Information Sheet TI-1004
Drawing 318116 Sheets 1 and 2

SERVICE BULLETIN

G-103-90



SCHWING AMERICA, INC.		318116	
WHITE BEAR, MINN., 55127		SHT. 1 OF 2	
PART NAME REINFORCEMENT INSTALLATION - KVM 36		REV.	
PRODUCT	KVM 36	ASSEMBLY	
FINAL WT.		SCALE	
MATERIAL			
DRAWN BY	JH	DATE	2-22-90
CHKD		APVD	

SEE SHEET 2 OF FOR INSTALLATION PROCEDURE.

INSTALLATION PROCEDURE:

1. IF CRACKS ARE FOUND IN THE AREAS OF POSSIBLE CRACKING SHOWN, INSTALL THE REINFORCEMENT PLATE ON EACH CORNER THAT IS CRACKED. (NO REINFORCEMENT IS REQUIRED IF NOT CRACKED)
2. REMOVE OR MOVE ITEMS ON THE TRUCK THAT INTERFERE WITH INSTALLATION SUCH AS HYDRAULIC TUBES, HOSES, ETC.
3. IF NOT ALREADY DONE, GRIND OUT CRACK AND RE-WELD PER SAI TECHNICAL INFORMATION SHEET TI-1004 USING E11018 ELECTRODE. PREHEAT TO 212°F.
4. GRIND WELD SEAM SHOWN FLUSH TO PROVIDE A SMOOTH, FLAT SURFACE FOR THE REINFORCEMENT PLATE.
5. POSITION PLATE WITH BEVELED EDGE OUT TO PROVIDE FOR A GOOD VEE WELD. PLATE SHOULD TOUCH EXISTING FILLET WELD.
6. WELD AS SHOWN. 5/16" ALL AROUND USING E11018 ELECTRODE PER SAI TI-1004. PREHEAT TO 212°F.
7. REPEAT FOR OTHER CORNERS WITH CRACKS.
8. PRIMER AND REPAINT AFFECTED AREAS.

J SYMBOL MEANS NOTCH FREE. FILLET WELD NOTED MUST BE WELDED NOTCH FREE. GRINDING IS ONLY NECESSARY TO REMOVE EXCESS WELD & TO MAKE SMOOTH.

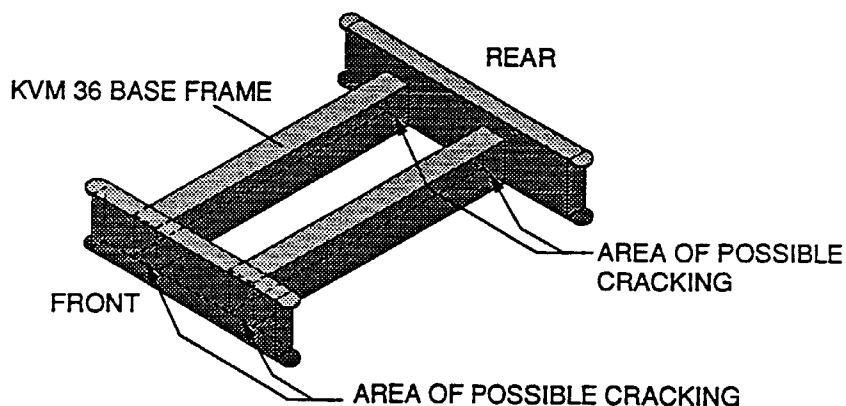
SCHWING AMERICA, INC. WHITE BEAR, MINN., 55127	318116	REV.
PART NAME REINFORCEMENT INSTALLATION - KVM 36	SHT. 2 OF 2	
PRODUCT KVM 36	ASSEMBLY	
FINAL WT.	SCALE	
MATERIAL		
DRAWN BY JH	DATE 2-22-90	CHKD APVD

KVM 36 TOWER SUPPORT INSPECTION PROCEDURE

ADDENDUM TO SERVICE BULLETIN G-102-90

INSPECTION PROCEDURE:

1. THOROUGHLY CLEAN THE AREAS WITH PRESSURIZED STEAM OR SOLVENT TO REMOVE ALL GREASE AND DIRT.
2. USE A LIGHT AND MAGNIFIER TO VIEW THE 'AREAS OF POSSIBLE CRACKING'. THESE ARE THE HORIZONTAL WELDS, PERPENDICULAR TO THE TRUCK FRAME, ON THE BOTTOM OF THE BASE FRAME AS SHOWN BELOW. IF ANY QUESTION OF A CRACK USE DIE PENITRANT WHICH CAN BE OBTAINED FROM YOUR LOCAL WELDING SUPPLY HOUSE.
3. IF THE AREA SHOWN HAS A CRACK, GRIND OUT AND RE-WELD WITH E11018 ELECTRODE PER SAI TECHNICAL INFORMATION SHEET 1004 ATTACHED. PREHEAT TO 212°F.
4. FOR UNITS WITH CRACKS SCHWING WILL PROVIDE REINFORCEMENT PLATES AND INSTALLATION INSTRUCTIONS.





TECHNICAL INFORMATION

No. : 1004 Rev.B

Date : 1-4-85

Subject : WELDING PROCEDURE FOR STRUCTURAL MEMBERS

By : Terry Atherton

Sheet 1 Of 1

Rev.B by T.A.

Welding Procedure to Repair Cracks or Welds on Booms

Welder Must be Certified to AWS D1.1

*KVM 23, 25, 28, 31, 32, 36 & 42

1. Remove all paint in area requiring welding.
2. Grind out crack for full 60° vee weld
Note : 1. Grind 1/2" further than end of weld and drill 1/8" hole at tip end of vee.
2. Do not air arc or torch.
3. Use Electrode 7018, 8018, 9018, 10018, 11018 or 12018 depending on location.
Note : Must be fresh from hypothermically sealed container or preheat rods to 200° F to remove moisture.
4. Use D.C. reverse polarity welder.
5. Preheat weld area to 70°F to drive out moisture (see Table Below).
6. Use 3/16 max stringer passes. If out of position, weld vertically up not vertically down.
7. Grind between each pass. Approximately 3 passes per 1/4" thickness.
8. Use a 400° F temp stik applied 1" away from the weld. Temperature must not exceed 400°F.
9. X-ray weld when complete if in critical structural area.
10. If reinforcement are added or replacement of parent material is required the steel material must be of equal strength (yield & tensile).
11. ALL WELDS MUST BE COMPLETELY NOTCH FREE.
12. THEIR MUST BE NO WELDING WITHIN 1" OF ANY ROLLED CORNER.
13. SEE TI 1005 FOR PROPER REPAIR PROCEDURE ON THE TIP SECTION BOOM
DOUBLER PLATES ARE NOT PERMITTED.

PREHEAT AS FOLLOWS		
MATERIAL	SHEET THICKNESS	PREHEAT TEMPERATURE
A36	ABOVE 1"	212°F
EXTEN 50	ABOVE 1"	212°F
80,000 PSI YIELD AND ABOVE	UP TO 1/4"	175°F
	1/4" TO 1/2"	212°F
	1/2" TO 1"	250°F
	ABOVE 1"	300°F

Note :

1. If any questions or problems contact Schwing Engineering
2. Any deviation from the above procedure may cause the structure to be unsafe.

* There are special procedures to be used on the KVM 52

Bulletin#: G-104-90

Date: 05/07/90

Subject: Pall filters on KVM 32m, 36LW, 42LW, 52m units



5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
TWX: 910-563-3539
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

May 7, 1990

SERVICE BULLETIN: G-104/90

Service Manual

RE: PALL FILTERS on KVM 32, 36LW, 42LW, 52 UNITS

Gentlemen,

Because of the problems encountered with this filter assembly in the field, Schwing America has instituted a program to offer, free of charge, a reinforcement tube for the canister tube. (See Fig. 1 on the following page).

The problem stems from the fact that these filters operate with flow of return oil from the outside through the filter to the center. If the filter is plugged (by dirt) it will start to collapse inward. If the bypass check valves are defective, or do not function for any reason, the filter will continue to collapse until it squeezes the center tube shut. The return oil then has no place to go, pressure rises, and the weakest point in the system breaks. (In this case, the weakest point is the filter head). Remember, a hydraulic system is dirtiest when it is brand new, because all of the microscopic metal and dirt particles that are normally present from the machining processes have not yet been filtered from the oil. Always follow the operator's manual maintenance schedule for filter changes, and keep in mind that all intervals listed are based on 40 hours of operation per week. If you operate the machine more than 40 hours/week, you should shorten the intervals of maintenance accordingly.

SERVICE BULLETIN	G-104-90
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Page 2
Service Bulletin: G-104/90

Please note that Pall has made an internal change to the canister center tube in later versions, so the reinforcement tube may not be required on newer units. Figure 1 describes how to determine if your machine needs the reinforcement tube or not.

Do not hesitate to call the Schwing America Service Department at (612) 429-0999 with any questions or comments.

Sincerely,

SCHWING AMERICA, INC.

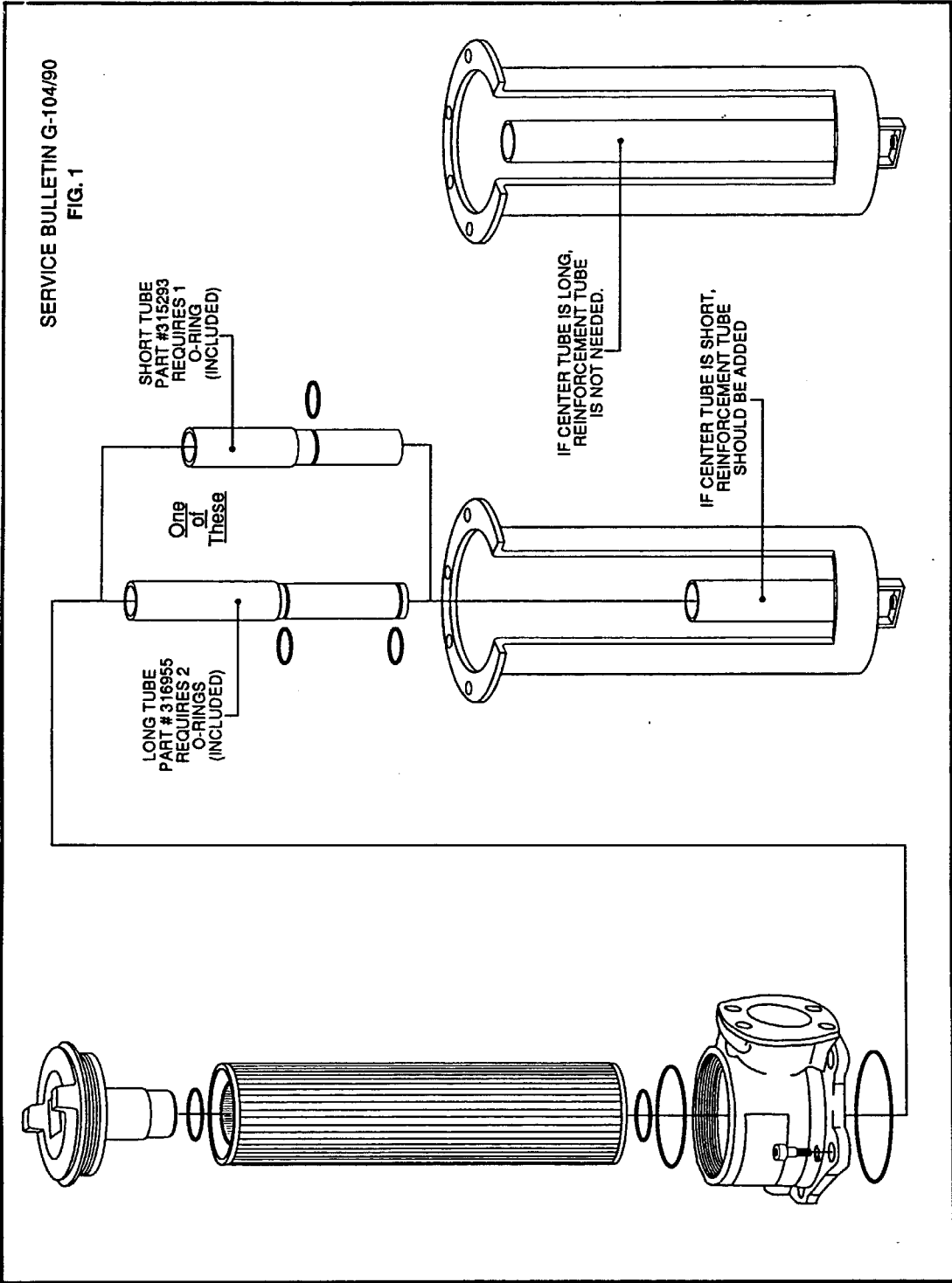


Robert J. Edwards
Service Manager

RJE/di

Enclosure

SERVICE BULLETIN G-104/90
FIG. 1



Bulletin#: G-102-91
Date: 04/19/91
Subject: Check Valve Failure



5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

April 19, 1991

SERVICE BULLETIN: 102/91

Mr. Hank Klein

RE: CHECK VALVE FAILURE

Gentlemen:

A new style check valve, that has no spring or sleeve, has been made available to replace the check valve that incorporate springs and sleeves. Only BP3000/3001/5000/8000 and BPL 900/1200 rock valve units are involved. Refer to figure 2, item C, for a drawing and part number of the new style check valve.

Use figure 2 as a guide to identify all check valves prior to replacement. Valve C is replacing items A & B. Replace check valves in position 1 through 6 only (refer to figure 1). Make sure the direction of the check valve is not reversed during replacement (refer to figure 1.)

Parts should be ordered through Schwing America's Spare Parts Department. Old check valves should be returned through our regular warranty procedures.

If you have any questions or require any further information, please feel free to contact the Service Department.

Sincerely,

A handwritten signature in cursive script that reads "Hank".

Hank Klein
Service Manager

HK/di

Enclosure

SERVICE BULLETIN

G-102-91

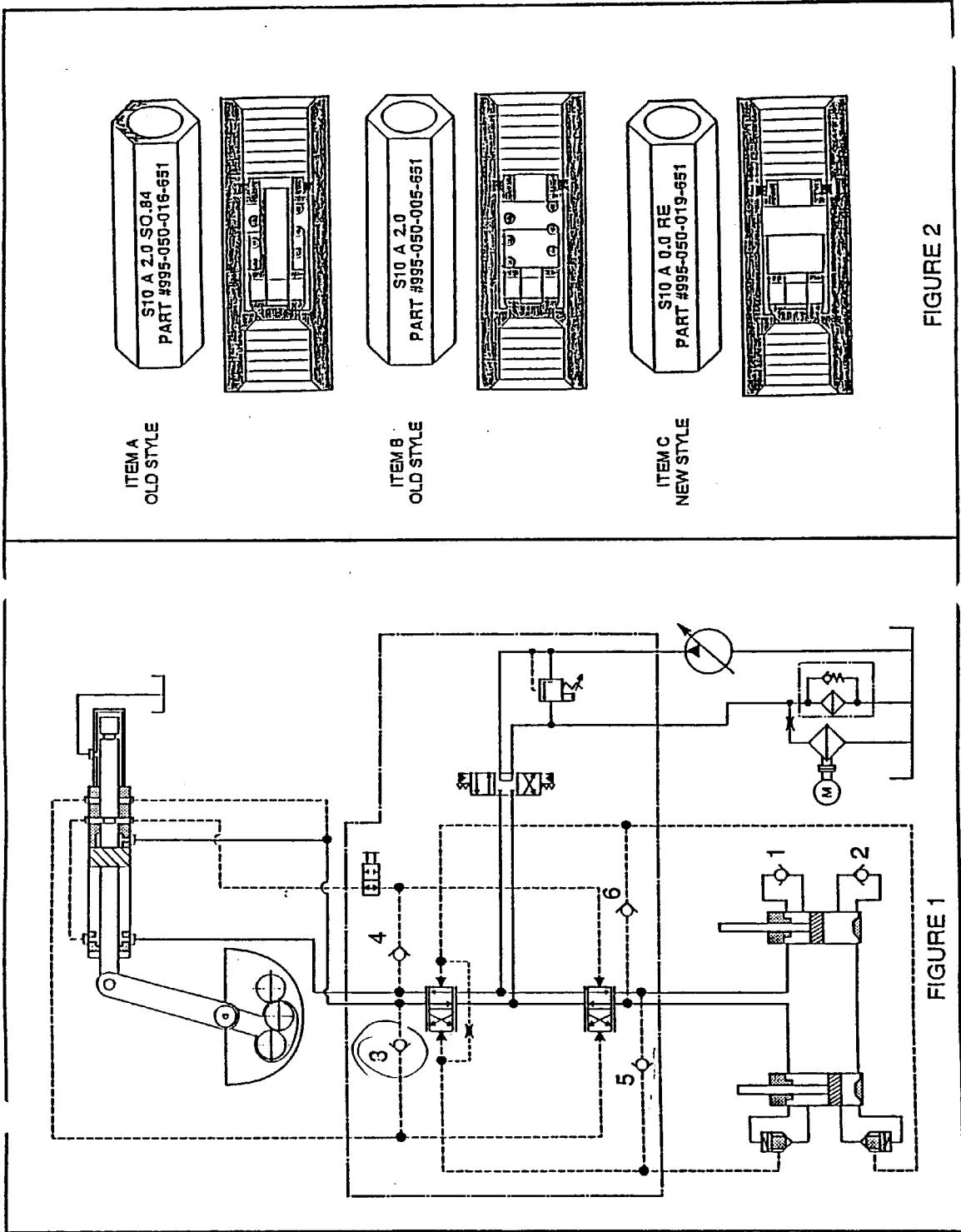
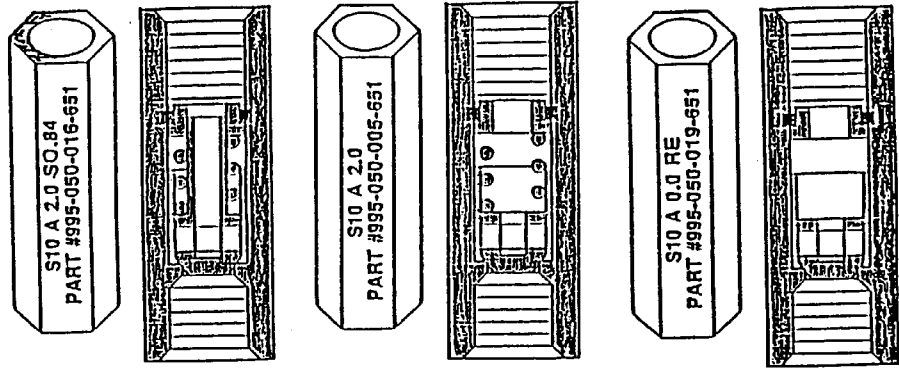


FIGURE 1



ITEM A
OLD STYLE

ITEM B
OLD STYLE

ITEM C
NEW STYLE

FIGURE 2

Bulletin#: G-103-91

Date: 08/22/91

Subject: BPA 750's & 1000's, Hydraulic Pump for Agitator Circuit



5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

August 22, 1991

SERVICE BULLETIN G-103/91

Service Manual

**RE: Hydraulic pump for the agitator circuit on
BPA 750's and 1000's**

Gentlemen:

It has come to our attention that the parts book for the BPA 750-15 lists the agitator pump incorrectly. Since we began manufacturing these units at Schwing America in 1988, we have been installing a Bosch number 0510 615 333 hydraulic pump. The correct part number is shown on the attached replacement parts pages as part number 323790. It is possible that older units are equipped with a Bosch number 0510 415 321 hydraulic pump. This is still available from our spare parts department as ID number 33811, part number 995.420.022.050. Those of you that own BPA 750-18's may wish to install this page in your parts book as well, because you will have one of the two pumps listed.

The difference between the two pumps is in the displacement of oil per revolution of the pump, with part number 323790 having 16cc displacement per revolution, and part number 995.420.022.050 having 8cc displacement per revolution. (The displacement of oil per revolution is responsible for how fast your agitator shaft runs in the hopper).

Page 2
Service Bulletin: G-103/91

If you need to order a replacement agitator pump and are not sure of which unit your machine has, the Bosch part number is stamped into the case of the hydraulic pump. The pump is physically located on the side of the Deutz engine, near the alternator. The two pumps are physically interchangeable, i.e. they have the same bolt mounting pattern and shaft size.

Feel free to contact us with any comments or questions.

Sincerely,

SCHWING AMERICA, INC.



Robert Edwards
Quality Assurance Coordinator

RE/di

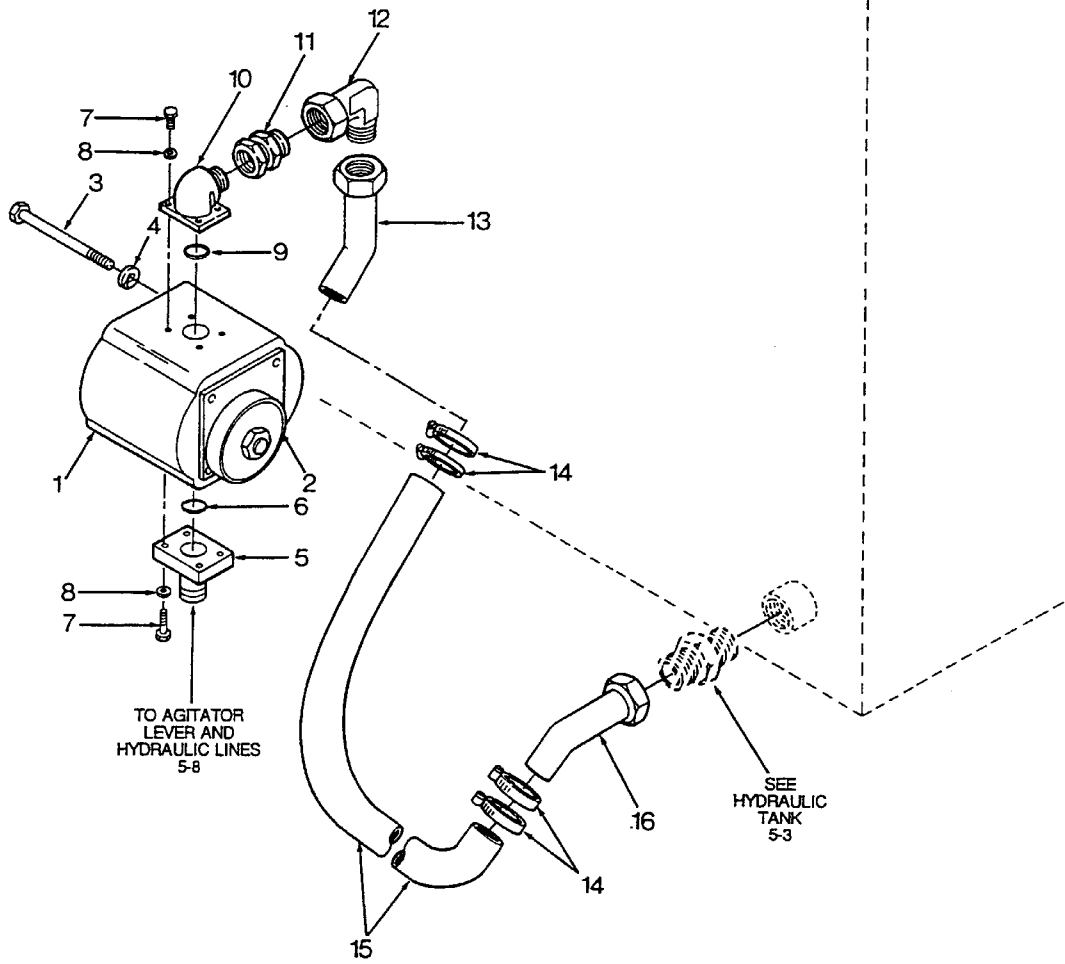
Enclosures



SCHWING
AMERICA INC.

Order No.
ID No. J00023
Description DRIVE UNIT AND SUCTION LINE

SECTION
5



5-8
page 19



**SCHWING
AMERICA INC.**

Order No.

ID No. J00023

Description DRIVE UNIT AND SUCTION LINE



Pos	Qty.	Description	ID No.	Order No.
1	1	HYDRAULIC PUMP, 16cc/REV, Bosch 0510 615 333		323790
		or		
	1	HYDRAULIC PUMP 8cc/Rev, Bosch 0510 415 321	33811	995-420-002-050
2	1	GEAR AND GASKET	40292	995-992-700-046
3	2	SCREW, M 10 x 90, DIN 912, 8.8	7523	997-010-063-734
4	2	SPRING WASHER, M 10	1577	997-221-003-543
5	1	COUPLING, GFS-16S-35	8004	994-182-804-010
6	1	O-RING, 18 x 2.5	229	994-300-910-400
7	8	SCREW, M 6 x 20, DIN 912, 8.8	1575	997-021-046-434
8	8	SPRING WASHER, 6 FST, DIN 7980	1706	997-224-002-543
9	1	O-RING, 24.5 x 2.4	10581	994-301-410-500
10	1	COUPLING, WFS-22-L/40	8076	994-182-907-010
11	1	PIPE COUPLING BODY, REDS-22-L-25-S	8092	994-183-110-010
12	1	PIPE COUPLING BODY, EWSD-25-S	18417	994-182-018-110
13	1	TUBE, 25MM x 11"		303429
14	4	CLAMP, M 20		303225
15	1.5	HOSE, 1" I.D. x 17"		301820
16	1	TUBE, 25mm x 7", with one bend		312820

Bulletin#: G-104-91

Date: 11/26/91

Subject: Reversing Valve used on Fast Switch Circuits



5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

November 26, 1991

SERVICE BULLETIN: G104/91

Service Manual

RE: REVERSING VALVES USED ON "FAST SWITCH" CIRCUITS

Gentlemen:

Schwing America, Inc. has developed a product improvement that will prevent the possibility of breaking the spring in the reversing valve that is installed in the "fast switch" circuits.

In the past, reversing valve part number 995.040.001.700 (see figure 1) has been used. In the future, all fast switch circuits will be equipped with reversing valve part number 995.040.004.700 (see figure 2). It is recommended that you convert your valve from the style shown in figure 1 to the style shown in figure 2, by ordering the conversion kit. The kit number is 324616 and consists of the following parts:

<u>Position</u>	<u>Qty.</u>	<u>Part Number</u>	<u>Description</u>
1	1	510.101.800.640	Spring cap for DSVD 06
2	1	510.100.302.140	Cover
3	4	997.021.041.234	Screw M5 x 16 8.8 Din 912
4	2	510.900.402.340	Spring 2.0 x 10.5 x 15
5	1	994.300.820.600	O-ring 15.6 x 1.78

Use figure 2 as a guide to install the parts on your reversing valve. If you find you have to remove the reversing valve to make the modification, we would advise ordering QTY 4 of position 7, 994.300.290.600, o-ring 8.73 x 1.78 to install between the reversing valve and the baseplate before re-installing.

Page 2
Service Bulletin: G-104/91

If it ever becomes necessary to replace the entire reversing valve in the "fast switch" circuit, you should order the modified style valve which has a part number of 995.040.004.700. Both valves use the same baseplate. Please note that the valve shown in figure 1 is still used on the boom slewing circuit of some units, so it will still be available.

If the valve ever develops a leak, you can completely re-seal it by ordering:

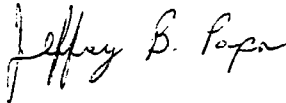
- QTY 2 of position 5
- QTY 4 of position 7
- QTY 1 of position 6, which is an o-ring 7 x 1.5
part number 994.300.160.600

The reversing valve modification kit should be ordered by calling Schwing America's Spare Parts Department (1-800-328-9635).

If you have any questions or require further information, please feel free to contact the Schwing America Service Department (612) 429-0999.

Sincerely,

SCHWING AMERICA, INC.



Jeff Papa
Assistant Service Manager
Concrete Pumps

JP/di

Enclosure

**REVERSING VALVES
USED IN THE "FAST SWITCH" CIRCUIT**

FIGURE 1
995 040 001 700

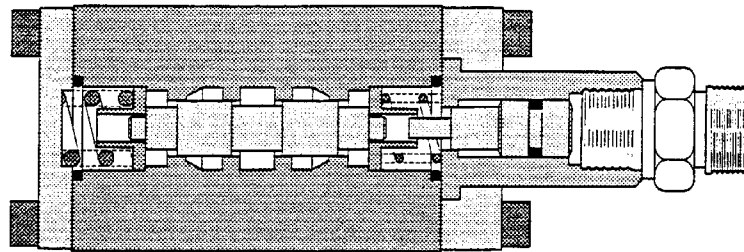
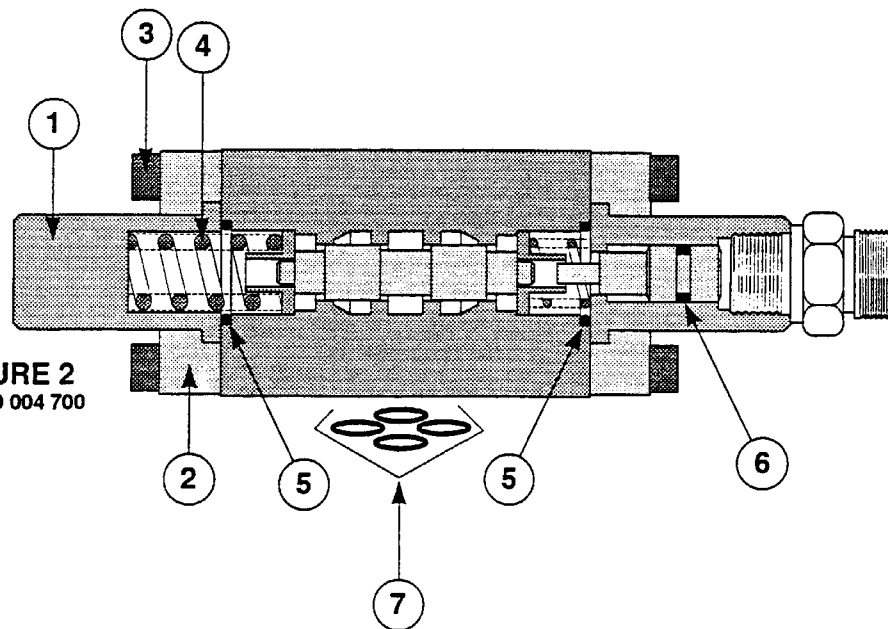


FIGURE 2
995 040 004 700



Bulletin#: G-101-92

Date: 04/14/92

Subject: Torsion Bar Axles: Repair / Modifications of axle mountings



SCHWING
AMERICA INC.

5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

April 14, 1992

SERVICE BULLETIN: G-101/92

RE: Al-Kober Torsion Bar Axles on BPA 750/15, 750/18, and 1000

Gentlemen:

It has come to our attention that in some cases the mounting brackets for the axles on the above mentioned units have cracked (see figure 1). For this reason we ask that you inspect your axle mountings immediately. The problem is caused when the pump is operated without the outriggers, while still attached to the towing vehicle. We have developed two solutions for the problem, and you may choose either solution, **BUT YOU SHOULD MAKE THE REPAIR OR MODIFICATION IMMEDIATELY.**

The first repair procedure (Procedure "A") involves strengthening the assembly by adding material, then bolting the assembly together. It has the advantage of being removable when completed, and the disadvantage of taking extra time to repair. Procedure "B" involves welding the axle bracket directly to the trailer chassis. It has the advantage of being faster, and the disadvantage of being non-removable.

If inspection reveals that you do not have any cracks yet, you should reinforce the area with repair procedure A or B.

If inspection reveals that cracking is present, the crack must be ground and repaired according to the instructions found on page 3, then reinforcement A or B should be implemented.

In either case, you will need to set up the equipment as follows to do the repair:

- 1) Bring the unit to a flat, hard surface (such as a concrete slab).
- 2) Extend the rear outriggers as far as possible. Use cribbing under the pads, if necessary.
- 3) Loosen the bolts on the tires.
- 4) Using the front jack, jack up the unit so both tires are off the ground.
- 5) Remove the tires.
- 6) Install a jack or other means of support under the axle assembly.
- 7) Remove the axle mounting hardware and lower the axle assembly to the ground.
- 8) Proceed to the individual instructions for procedure A or B.

Procedure "A" is recommended by SAI because you could remove the axle assembly for future maintenance or modifications. Procedure "A" requires that you have additional parts, which can be ordered using part number #325768. There will be no charge for this kit.

Schwing America will reimburse you for doing the repairs as follows:

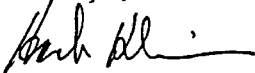
Procedure "A" - 5 hours at your standard labor rate.

Procedure "B" - 3 hours at your standard labor rate.

All claims should be directed to: Schwing America, Inc.
5900 Centerville Rd.
White Bear, Mn. 55127
Attention: Jeff Popa or Hank Klein

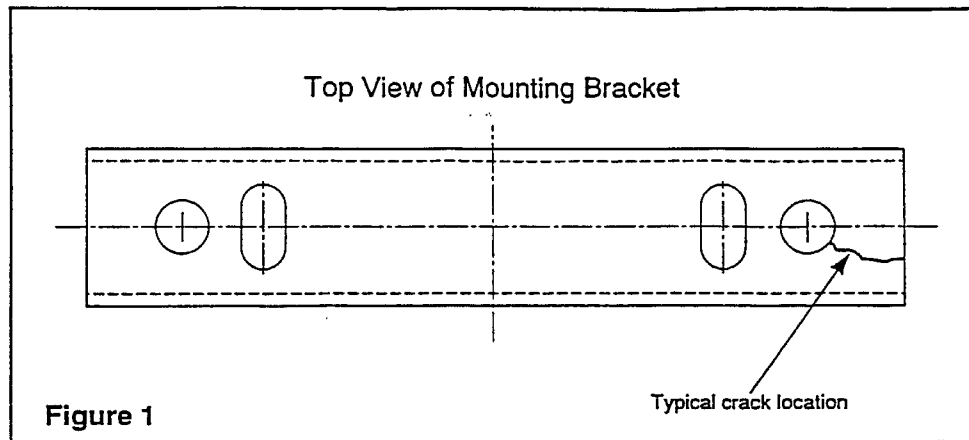
Don't hesitate to call us at (612) 429-0999 if you have any questions, or if you run into any difficulties.

Sincerely,



Hank Klein
SAI Service Manager

Service Bulletin G-101/92
(continued)



TO REPAIR A CRACK IN THE MOUNTING BRACKET:

WELDER MUST BE CERTIFIED TO AWS D1.1

1. Remove all paint in the area requiring welding.
2. Grind out crack for full 60° Vee Weld.

NOTE:

- a. Grind 1/2" further than the end of the weld and drill a 1/8" hole at the tip end of the vee. (Unless the crack runs to the end of the material).
- b. **DO NOT AIR ARC OR TORCH!**
3. Use electrode 7018. **NOTE: Rod MUST be fresh from hypothermally sealed container, or preheat the rod to 200° F to remove moisture.**
4. Use D.C. reverse polarity welder.
5. Preheat the weld area to 70° F to drive out moisture.
6. Use 3/16" max. stringer passes. If out of position, weld vertically up, not vertically down.
7. **ALL WELDS MUST BE COMPLETELY NOTCH FREE!**

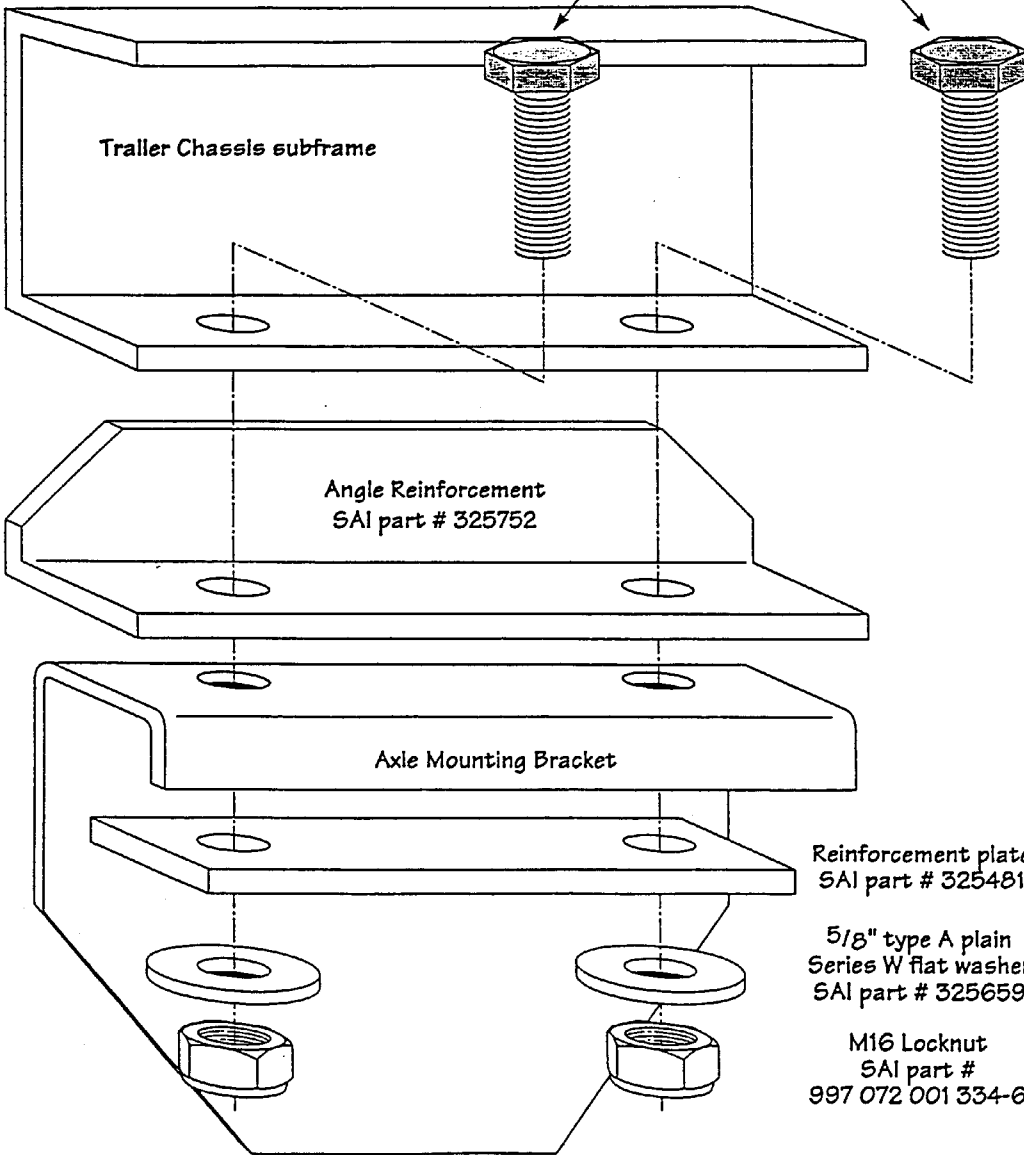
NOTES:

1. If you have any questions or problems, contact Schwing America Engineering Department at (612) 429-0999.
2. Any deviation from the above procedures may cause the structure to be unsafe.

Service Bulletin G-101/92
(continued)

Procedure
"A"

M16 x 50
Din 933, 8.8
SAI part #
997 010 081 534-5



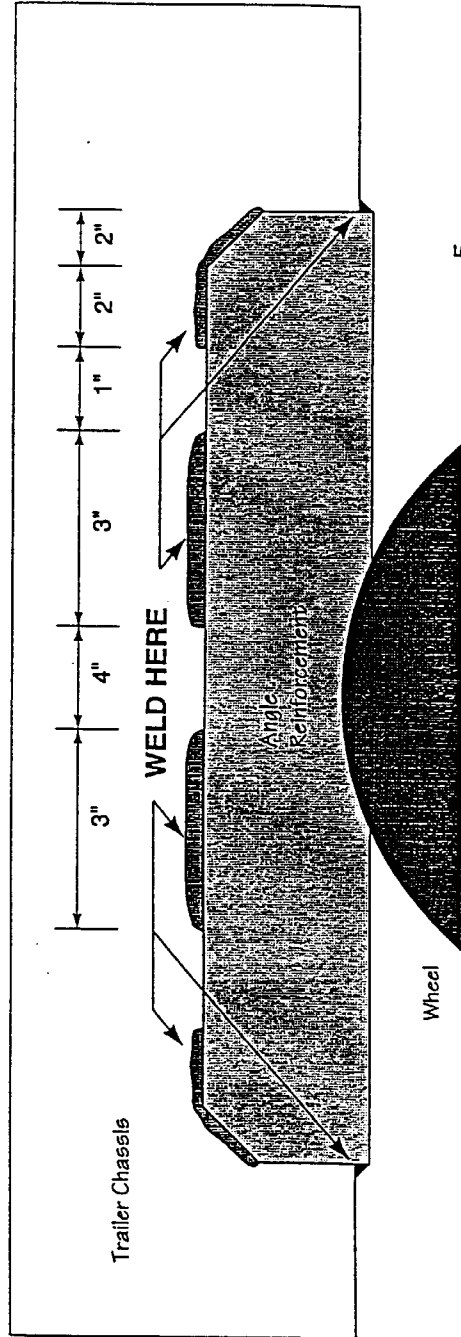
Welding Instructions for Repair Procedure "A"

WELDER MUST BE CERTIFIED TO AWS D1.1

1. Remove all paint from the area requiring welding.
2. Use Electrode 7018. NOTE: Must be fresh from a hypothermally sealed container or preheat rods to 200° F to remove moisture.
3. Use D.C. reverse polarity welder.
4. Preheat the weld area to 70° F to drive out moisture.
5. Use 3/16" stringer passes. If out of position, weld vertically up, not vertically down.
6. ALL WELDS MUST BE COMPLETELY NOTCH FREE.

NOTES:

1. If you have any questions or problems, don't hesitate to call SA1 engineering at (612) 429-0999.
2. Any deviation from the above procedures may cause the structure to be unsafe.



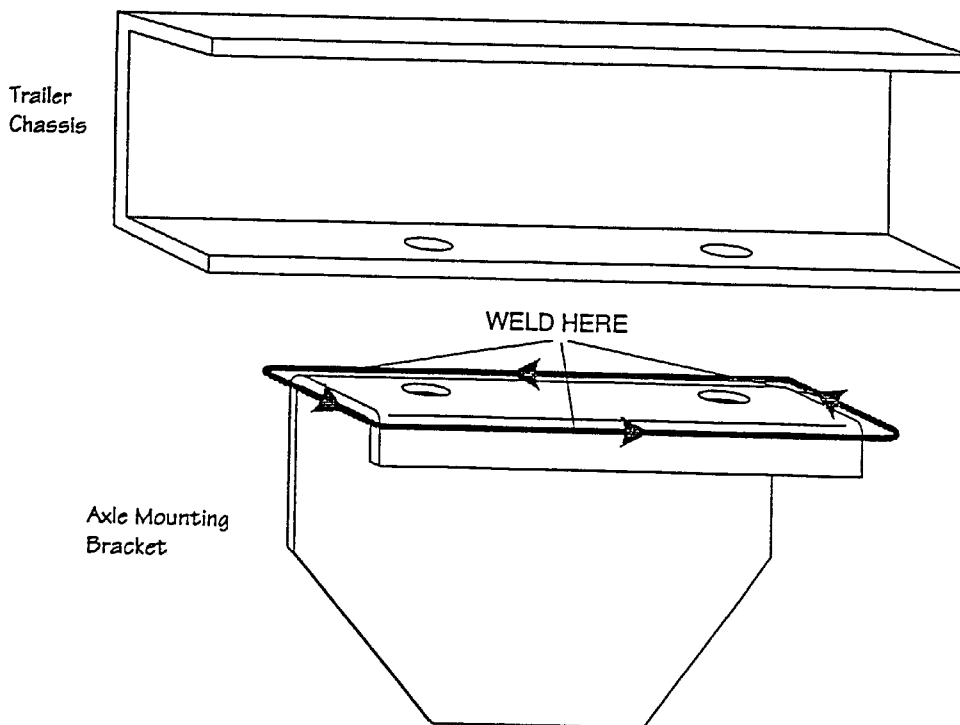
Welding Instructions for Repair Procedure "B"

WELDER MUST BE CERTIFIED TO AWS D1.1

1. Repair any cracks in the axle mounting bracket as described on page 2 of this bulletin.
2. Remove all paint from the area requiring welding.
3. Install the bolts through the trailer chassis and axle mounting bracket.
4. Tighten the nuts to hold the chassis and bracket together during welding.
5. Weld all the way around the axle bracket as shown below.
6. Use Electrode 7018. NOTE: Must be fresh from a hypothermically sealed container or preheat rods to 200° F to remove moisture.
7. Use D.C. reverse polarity welder.
8. Preheat the weld area to 70° F to drive out moisture.
9. Use 3/16" stringer passes. If out of position, weld vertically up, not vertically down.
10. ALL WELDS MUST BE COMPLETELY NOTCH FREE.

NOTES:

1. If you have any questions or problems, don't hesitate to call SAI engineering at (612) 429-0999.
2. Any deviation from the above procedures may cause the structure to be unsafe.



Bulletin#: G-103-92

Date: 10/07/92

Subject: Rock Valve Slewing (Pivot Bushings)



5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

October 7, 1992

SERVICE BULLETIN: G103-92

**RE: ROCK VALVE SLEWING PIVOT BUSHING ON ALL BPL'S AND BPA'S HAVING
A DN 210 ROCK VALVE**

Gentlemen:

The rock valve has been in existence for quite some time now. Experience has taught us that to obtain an optimum slewing pivot bushing life, the bushing must have an as tight as possible fit in the rock valve housing. It is also helpful to supply the slewing pivot and bushing with grease.

Schwing America, Inc. has developed a bushing (PN 319071) that can be installed in the rock valve housing with a negative tolerance. The new bushing should be .006" to .009" larger than the bore diameter in the rock valve housing. The rock valve housing will have to be bored to DIM B (on the attached drawing). Also, the rock valve housing will have to be heated (480 degrees fahrenheit) and the bushing packed in dry ice prior to installation. After all components have returned to normal temperatures it is possible that the bushing may have shrunk and will require honing to proper final dimensions (DIM A on attached drawing).

After the bushing (319071) is installed and honed to proper dimensions, you can install (2) of P/N 998.504.503.834, bushing. Also, as per the attached drawing, you can drill a 23/64 hole through the rock valve housing and bushing, and tap to M 10x1, so that a grease zerk, P/N 300283, may be added. The slewing pivot and bushing should be greased once a week. It may be difficult to drill through the bushing due to the hardness. However, this is possible to do if you obtain a titanium coated drill bit.

Page 2
Service Bulletin: G103-92

With this design of bushing, it is possible to change only the bushings, P/N 998.504.503.834, if any wear should occur. However, if you do not detect the wear soon enough, it is also possible to cut out bushing 319071 and replace with a new one. No further modifications to this style rock valve housing will be needed.

Many customers have also experienced problems with the threads pulling out of the slewing pivot. This is caused by the extreme forces applied when you have a worn bushing. The slewing pivot and cap can be drilled and tapped to accept a new M 22 or 7/18" bolt. It will be necessary to obtain a titanium coated drill bit for this procedure.

If you have any questions regarding this service bulletin, please feel free to contact the Schwing America Service Department.

Sincerely,

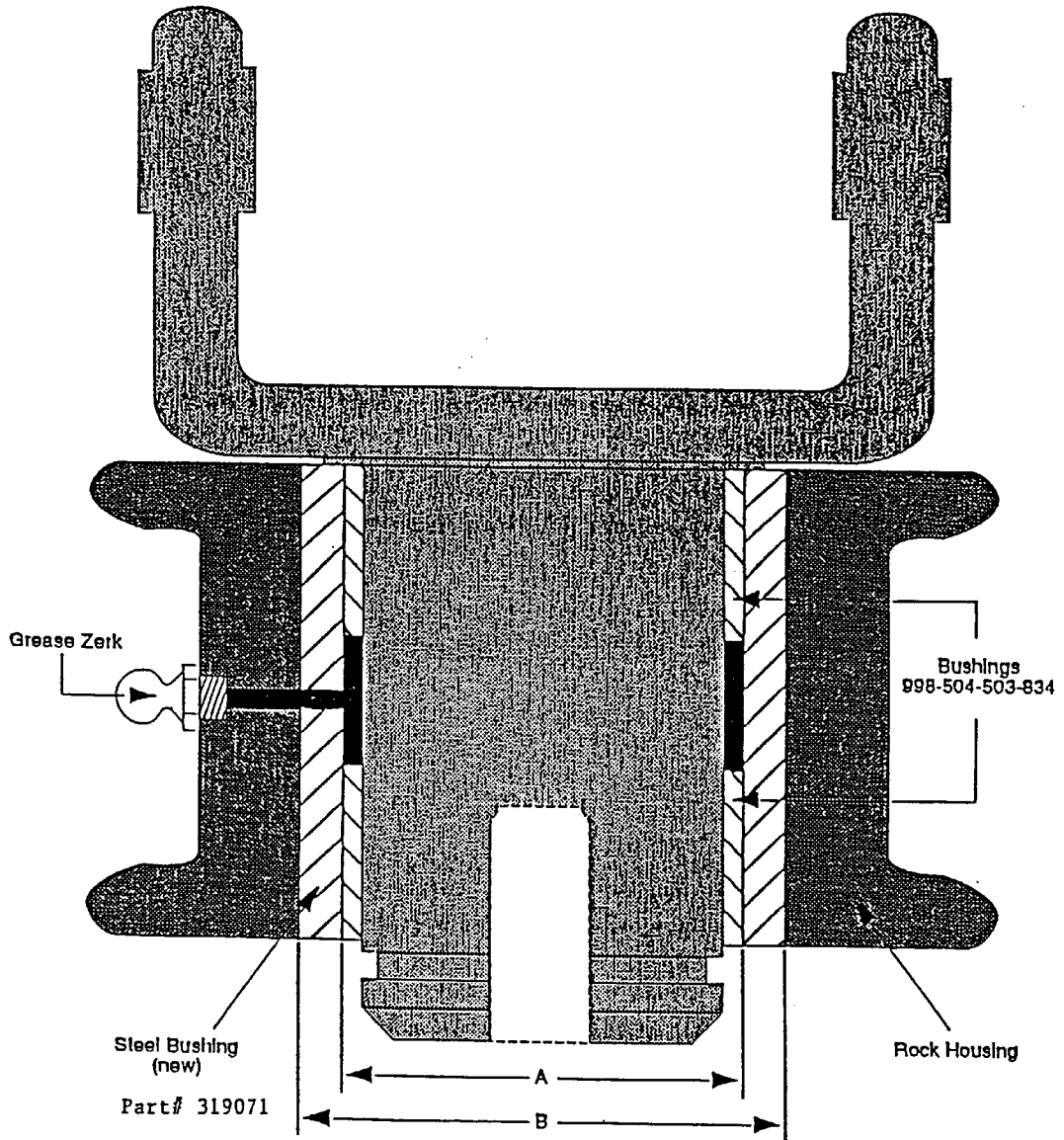
SCHWING AMERICA, INC.



Jeff Popa
Assistant Service Manager

JP/di

Enclosure



Dimension A = Bushing Inside Diameter: Min = 3.149, Max = 3.157 (sized for #998-504-503-834 bushings).
 Dimension B = Bore Diameter: Min = 3.732, Max = 3.734
 Bushing (Part# 319071) Diameter: Min = 3.740, Max = 3.741

Bulletin#: G-104-92

Date: 09/17/92

Subject: Truck Chassis - MACK model MR 688s w/350 HP Engine



SCHWING
AMERICA INC.

5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

October 7, 1992

SERVICE BULLETIN: G104/92
(RE-ISSUE FROM SEPTEMBER 17, 1992)

RE: MACK TRUCK MR CHASSIS WITH E7 ENGINE

Gentlemen:

Mack trucks has issued a service bulletin regarding water pump failure on Mack MR chassis equipped with E7 engine.

We have enclosed a copy of the Mack service bulletin for your review. We suggest that you contact your local Mack dealer with your chassis serial number and make arrangements to have this revision done.

If you have any questions or require further information, please feel free to contact us.

Sincerely,

SCHWING AMERICA, INC.

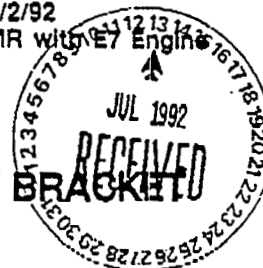


Henry Klein
Service Manager

HK/di



GROUP: 30
 NUMBER: 34A001
 DATE: 7/2/92
 CHASSIS: MR with E7 Engine



WATER PUMP HOUSING AND SUPPORT BRACKET
MR MODELS WITH E7 ENGINES

Coolant leakage has occurred at the gasket between the water pump housing and the engine block on some E7 engines that are installed in MR chassis. To eliminate the cause of this leakage, a redesigned water pump housing and a lighter weight plastic fan are now available. The newly designed water pump housing includes a boss where a support bracket is mounted and attached to the cylinder head, to provide additional support to the water pump.

The addition of the water pump support bracket requires a different spacer be used when remounting the fan ring to the cylinder head. Also, if the chassis is equipped with air conditioning, a different freon compressor bracket must be used, and the fan ring spacer is eliminated.

The chart below lists the part numbers for the water pump housing and related hardware. Refer to the following pages for assembly illustrations.

WATER PUMP HOUSING AND RELATED PARTS:

Qty.	Part No.	Description	Replaces
1	771GB354M	Water Pump Housing Assembly	771GB525M
1	253GC3127	Water Pump Support Bracket	
1	2MH360M	Plastic Fan	2MH429
1	37AX12	Fan Ring Spacer*	35AX1071

* Fan ring spacer is used only on those chassis equipped with a fan ring arrangement.

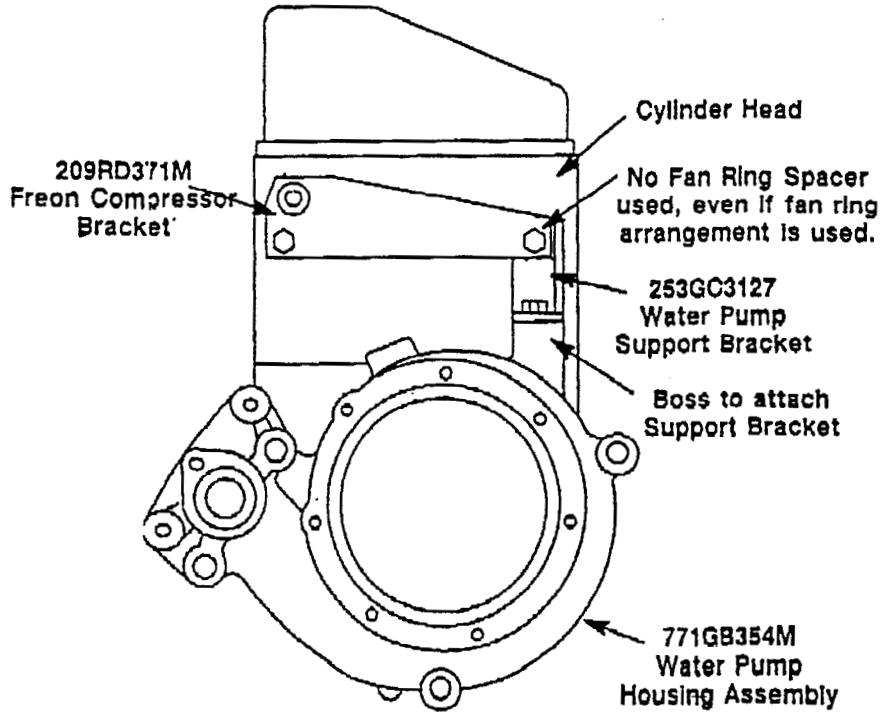
FREON COMPRESSOR BRACKET WHEN EQUIPPED WITH AIR CONDITIONING:

Qty.	Part No.	Description	Replaces
1	209RD371M	Freon Compressor Bracket*	209RD364M

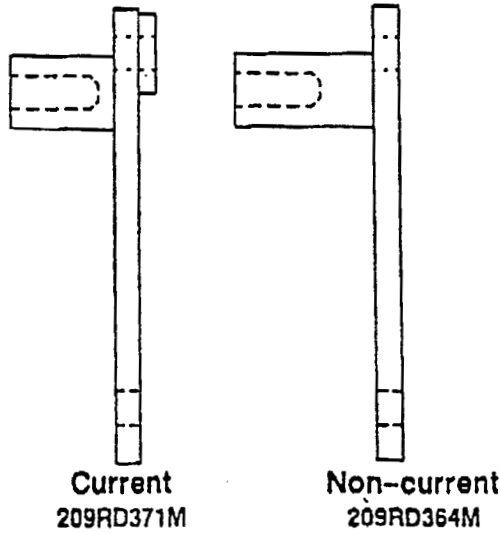
* A fan ring spacer is not used if a fan ring arrangement is installed on a chassis that is equipped with Air Conditioning.

(Continued Page 2)

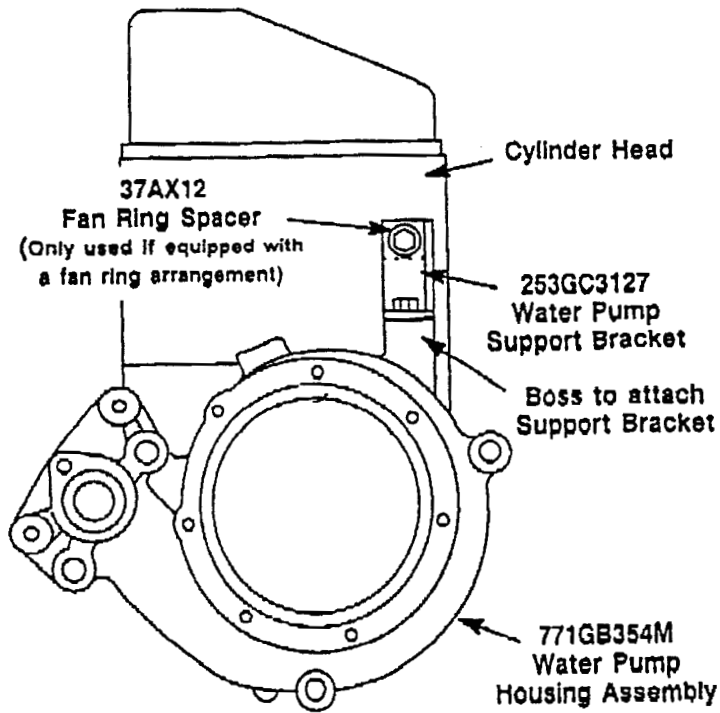
WATER PUMP HOUSING AND SUPPORT BRACKET WITH FREON COMPRESSOR BRACKET



FREON COMPRESSOR BRACKET



**WATER PUMP HOUSING AND SUPPORT BRACKET
WITHOUT FREON COMPRESSOR BRACKET**



Bulletin#: G-104-92

Date: 10/07/92

Subject: Re-issue of MACK truck bulletin from 09/17/92



SCHWING
AMERICA INC.

5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

October 7, 1992

SERVICE BULLETIN: G104/92
(RE-ISSUE FROM SEPTEMBER 17, 1992)

RE: MACK TRUCK MR CHASSIS WITH E7 ENGINE

Gentlemen:

Mack trucks has issued a service bulletin regarding water pump failure on Mack MR chassis equipped with E7 engine.

We have enclosed a copy of the Mack service bulletin for your review. We suggest that you contact your local Mack dealer with your chassis serial number and make arrangements to have this revision done.

If you have any questions or require further information, please feel free to contact us.

Sincerely,

SCHWING AMERICA, INC.

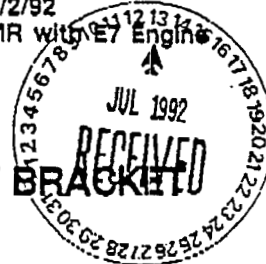


Henry Klein
Service Manager

HK/di



GROUP: 30
 NUMBER: 34A001
 DATE: 7/2/92
 CHASSIS: MR with E7 Engine



WATER PUMP HOUSING AND SUPPORT BRACKET

MR MODELS WITH E7 ENGINES

Coolant leakage has occurred at the gasket between the water pump housing and the engine block on some E7 engines that are installed in MR chassis. To eliminate the cause of this leakage, a redesigned water pump housing and a lighter weight plastic fan are now available. The newly designed water pump housing includes a boss where a support bracket is mounted and attached to the cylinder head, to provide additional support to the water pump.

The addition of the water pump support bracket requires a different spacer be used when remounting the fan ring to the cylinder head. Also, if the chassis is equipped with air conditioning, a different freon compressor bracket must be used, and the fan ring spacer is eliminated.

The chart below lists the part numbers for the water pump housing and related hardware. Refer to the following pages for assembly illustrations.

WATER PUMP HOUSING AND RELATED PARTS:

Qty.	Part No.	Description	Replaces
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* Fan ring spacer is used only on those chassis equipped with a fan ring arrangement.

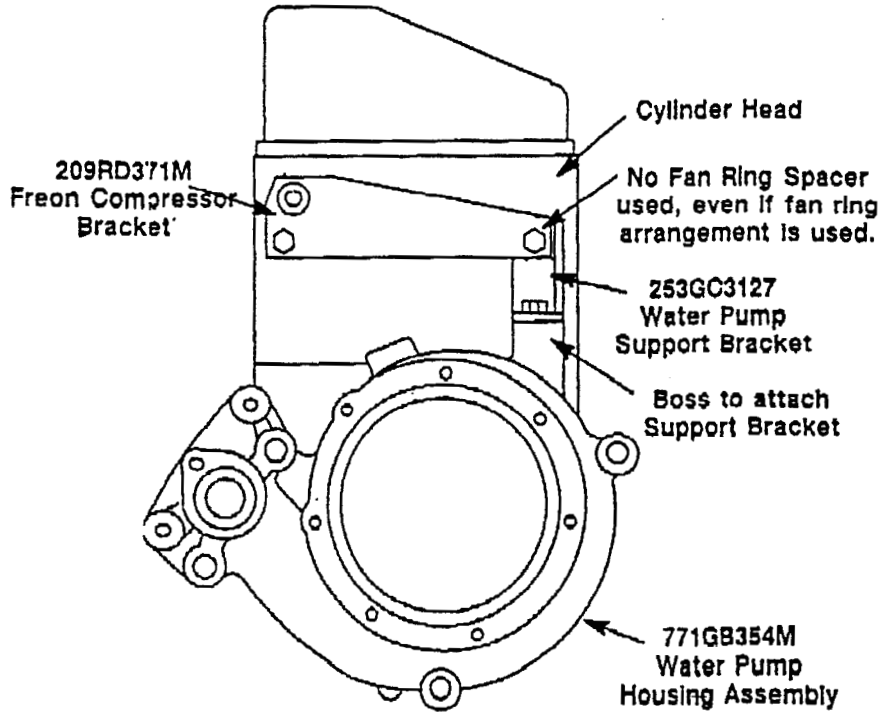
FREON COMPRESSOR BRACKET WHEN EQUIPPED WITH AIR CONDITIONING:

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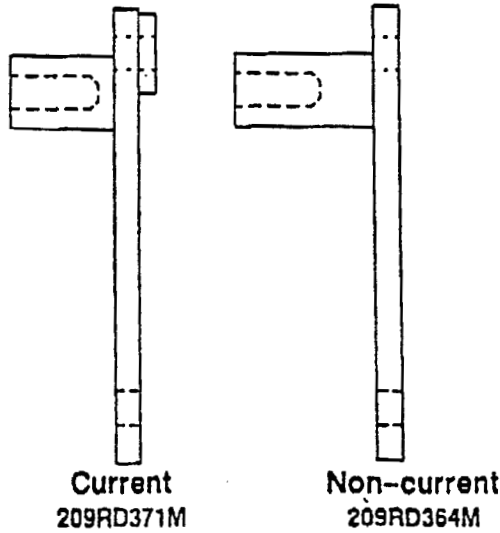
* A fan ring spacer is not used if a fan ring arrangement is installed on a chassis that is equipped with Air Conditioning.

(Continued Page 2)

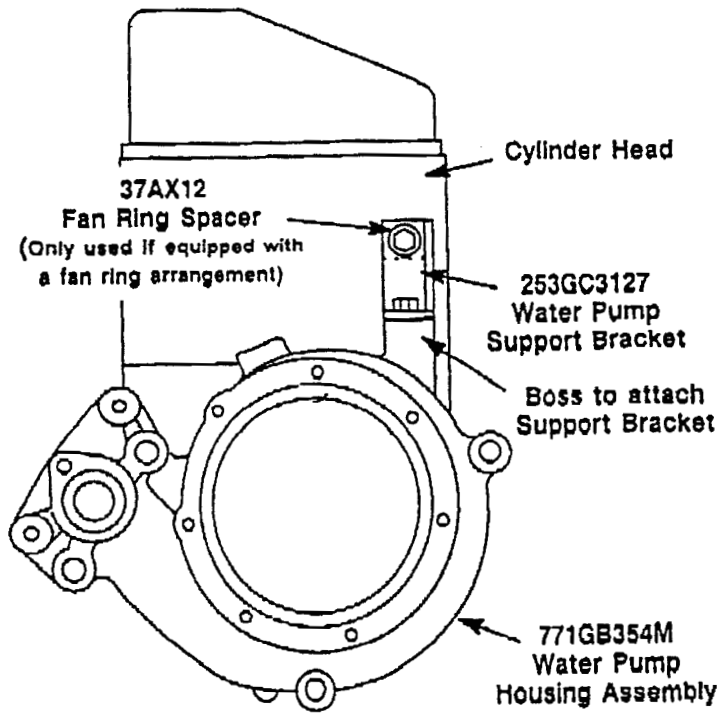
**WATER PUMP HOUSING AND SUPPORT BRACKET
WITH FREON COMPRESSOR BRACKET**



FREON COMPRESSOR BRACKET



**WATER PUMP HOUSING AND SUPPORT BRACKET
WITHOUT FREON COMPRESSOR BRACKET**



Bulletin#: G-107-92

Date: 12/09/92

Subject: HOLDING VALVES for outrigger slewing cylinders on standard KVM 32m



5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

December 9, 1992

SERVICE BULLETIN: G107/92

**RE: Outrigger slewing cylinder holding valves on 32 meter
(standard) units**

Gentlemen:

Schwing America, Inc. has been made aware, that in some cases, the holding valves that are installed on the outrigger slewing cylinders could internally leak, allowing the cylinders to retract when they should not. The problem can be seen after pumping with the boom for several hours. Each standard 32 meter unit should be checked according to the instructions on page 2 of this bulletin.

We have developed a special holding valve to correct this problem, and they are now available from our Spare Parts Department. Instructions for holding valve replacement starts on page 4.

**PLEASE BE ADVISED THAT THIS BULLETIN REFERS ONLY TO 32 METER UNITS,
AND DOES NOT INCLUDE THE 32XL.**

If you have any questions regarding this important information, please feel free to contact us.

Sincerely,

SCHWING AMERICA, INC.

A handwritten signature in black ink, appearing to read "Hank Klein".

Hank Klein
Service Manager

HK/re/di

To check your unit, use the following steps:

NOTE! If the results of this test show that you are not having trouble now, you should repeat the test once per month to be sure that the holding valves have not developed the internal leak. Once the new style holding valves are installed, no further testing is needed

1. When you are ready to do the test, select a job that will have a good deal of boom movement during the course of the day. If the job you select doesn't have a lot of booming, wait to do the test or the results may prove inaccurate.
2. When you set up, be SURE that the outrigger slewing cylinders are fully extended.
3. Pump the job normally.
4. When the job is completed, clean out as usual and fold the boom into the transport position (boom in the cradle). Leave the outrigger handvalve handle in the center (neutral) position for now.
5. Choose one side of the unit to test. AT THIS POINT, BE SURE THAT THE OUTRIGGER IS FREE TO MOVE UP OR DOWN AND SLEW IN OR OUT WITHOUT HITTING ANYTHING. See Figure 1. Open the shut-off valve for the jacking (up-down) function (this is the shut-off valve that is located at the end of the outrigger, above the pad).
6. Be sure that the shut-off valve for the slewing function is closed.
7. Put the outrigger handvalve into the RETRACT position, and bring the pads slightly off the ground. See Figure 2. If the outrigger slewing cylinder begins to retract, even with the shut-off valve closed, you have the problem and you can skip to step 10. If the slewing cylinder did not retract, center the outrigger handvalve, and close the shut-off valve for the jacking function. The pad should still be slightly off the ground.
8. Put the outrigger handvalve into the EXTEND position (just as though you were setting up).
9. Open the shut-off valve for outrigger slewing. If the outrigger can extend, then you have the problem. (The reasoning here is that it could not extend unless it had retracted somewhat during the course of the day).
10. Check both sides. If either valve has this problem, note the serial number of the unit (located on the driver's side of the unit, on the subframe) and immediately contact Schwing America's service department at (612) 429-0999. We will replace both holding valves if either one requires replacement.

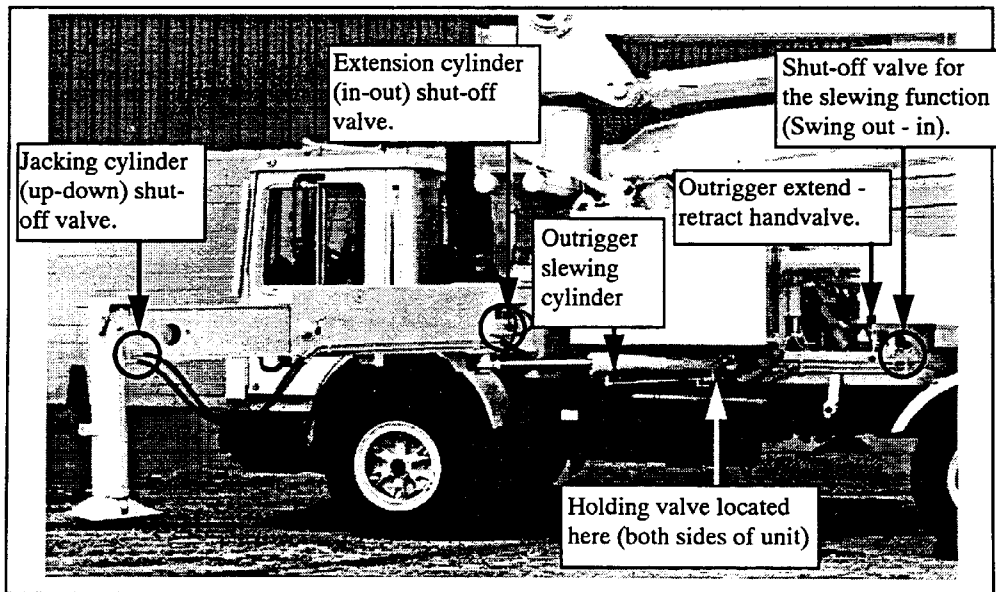


Figure 1. Shut-off valve locations

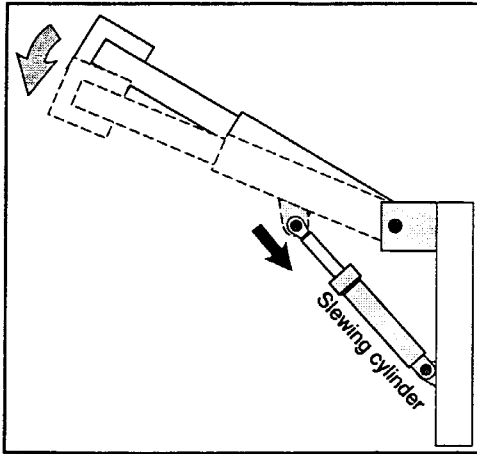


Figure 2. Outrigger slewing cylinder shown retracting. This should not happen when the shut-off valve is closed.

Parts Needed for Holding Valve Replacement

Because modification to the new style holding valve requires that the T port be plugged, you must replace both holding valves, even if only one is bad. Therefore, each replacement kit will include:

- a. Qty 2 of Part Number 327581, holding valve *See Figure 3.* Note that some new style holding valves don't have a drip line at all, while others will have a plug installed with permanent loc-tite. If the drip line is plugged, do NOT remove the plug.
- b. Qty 4 of Part Number 997 285 192 852, 22 x 27 copper seal ring (for the new holding valve stems)
- c. Qty 1 of Part Number 994 180 108 000, M12 L capnut
- d. Qty 1 of Part Number 994 183 608 000, VS 12 L/S dead plug
- e. Qty 1 of warranty claim

The parts will be charged at normal rates, and credit given upon return of the old parts.

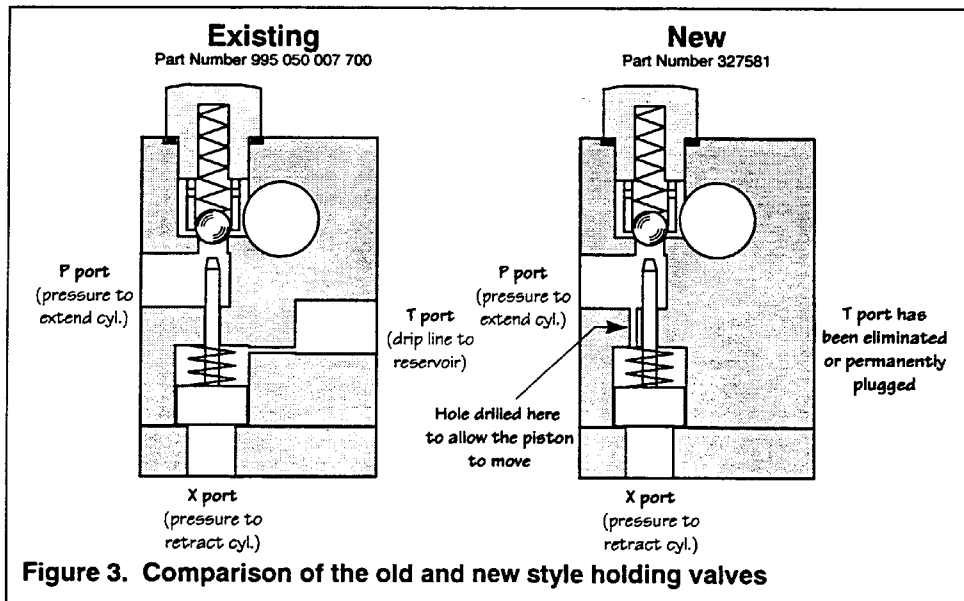
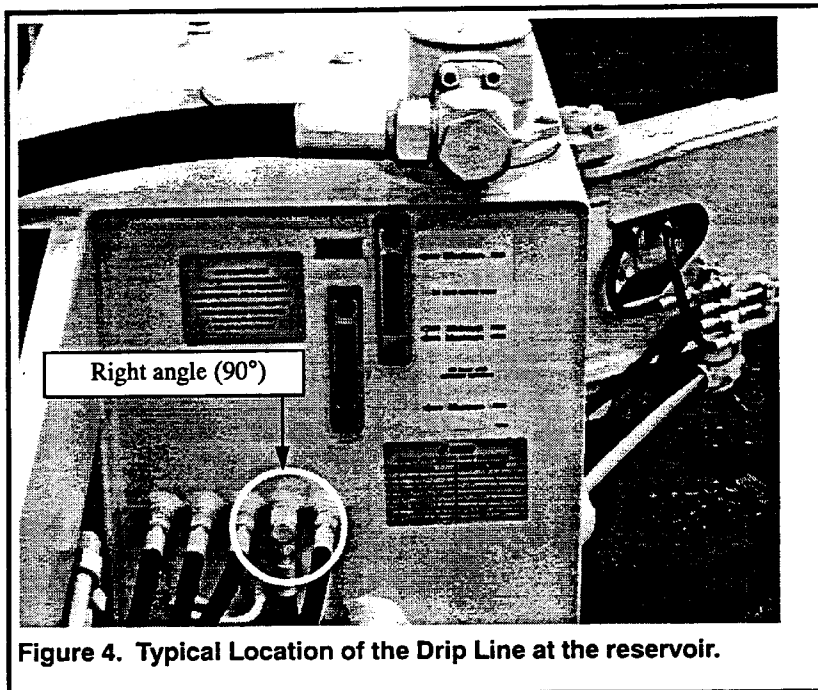


Figure 3. Comparison of the old and new style holding valves

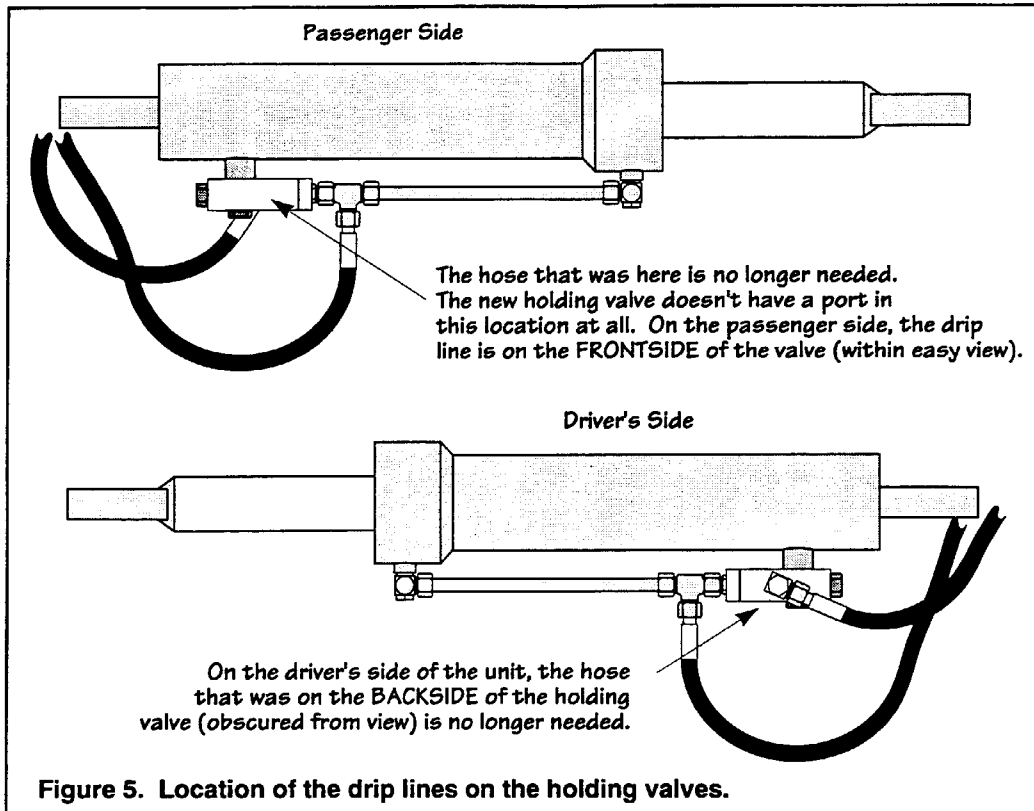
Instructions for Holding Valve Replacement

1. After you have received the parts documented on page 4, begin the conversion by slewing the outriggers into a position that will allow you to access the holding valves easily. Avoid slewing them all the way, however, because the farther you slew them open, the more oil you will lose in step 6. Stop the motor, and remove the key to avoid unintentional starting by nearby personnel.
2. Find the drip line at the hydraulic reservoir (*See Figure 4*). NOTE! The outrigger holding valve drip line is almost always the only hose at this location that has a 90° fitting. If your unit has one 90° fitting as shown below, start there and trace the line to be sure that it is the drip line from the outrigger holding valves before you proceed to step 3.

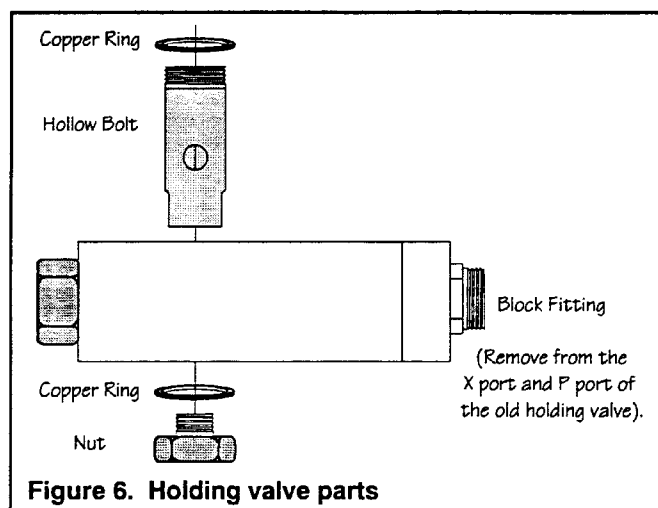


3. Because some oil will be lost when the hose is removed from the tank fitting, the ideal time to do this modification is when the tank is empty for regular cleaning. It is more important to get any defective holding valves off the machine, however, so if it is not the correct time for oil and tank maintenance, do not wait. In this case, just position a drain pan to catch the oil that will be lost when you remove the hose from the tank fitting. Remove the hose from the 90° fitting and plug the fitting with the capnut and dead plug that came in the parts kit. Dispose of the waste oil properly, do not reuse the oil without filtering.
4. *See Figure 5*. Find the holding valve on one side of the unit or the other. Position the drain pan under the holding valve to catch the oil (there will be some).
5. Loosen the hydraulic fittings from the holding valve until they are finger loose. Remove the drip line hose from the holding valve entirely. *See Figure 6*. Have a rag at hand before proceeding to step 6.
6. Using a 27mm socket rapped in a rag (this will prevent oil splattering), loosen the nut on the hollow bolt of the holding valve. When oil starts dripping, allow some time before removing the nut entirely, to allow relieving of pressure and any compressed air that may be in the cylinder. Do not remove the nut until you can no longer hear air escaping from the valve.
7. When the nut is removed, finish removing the hydraulic tubes and fittings from the holding valve, and slide the valve off of the hollow bolt. You may need to put the old holding valve in a vise to remove the block fittings.

Service Bulletin G-107/92, page 4



8. Install the block fittings from the X and P ports of the old valve onto the new valve. Tighten well, but be aware that it is possible to break the fitting if you use a long cheater pipe or similar device.



Service Bulletin G-107/92, page 5

Bulletin#: G-101-93

Date: 04/17/93

Subject: Spacer Blocks, KVM 31, 36 & 42



**SCHWING
AMERICA INC.**

5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

April 7, 1993

SERVICE BULLETIN: G101-93

RE: KVM 31, 36, & 42

Gentlemen:

On the above units, if the front mounting bolts become loose, the front mounting plate may crack. As a precaution, Schwing America, Inc. recommends that a spacer block be added between the outrigger support and the subframe.

Many of the above units have already been modified by our field boom inspectors. If your unit has not been modified, you can order these spacer blocks from the Schwing America Spare Parts Department free of charge, or fabricate them yourself.

This support block is to be positioned and welded directly to the top of the subframe, as shown on the attached sketch. Please use the following steps:

1. Measure the gap between the subframe and the tower.
2. Fabricate two (2) blocks, 3" x 3" x height required. The blocks can be fabricated from any mild steel. Check both sides of unit as the height may differ.

If ordering from our Spare Parts Department, order per part number as follows. Order the nearest thickness which will fit.

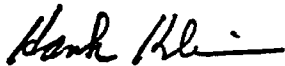
Part Number	Height (inch)
316025-035-001.00	1
316025-035-001.06	1 1/16
316025-035-001.12	1 1/8
316025-035-001.18	1 3/16
316025-035-001.25	1 1/4
316025-035-001.31	1 5/16
316025-035-001.38	1 3/8
316025-035-001.43	1 7/16
316025-035-001.50	1 1/2
316025-035-001.56	1 9/16
316025-035-001.62	1 5/8
316025-035-001.68	1 11/16
316025-035-001.75	1 3/4
316025-035-001.82	1 13/16
316025-035-001.87	1 7/8
316025-035-001.93	1 15/16
316025-035-002.00	2

3. Weld in place as shown on sketch.
4. Check that the bolts on the front tower mounting are secured and tight. Torque as per torque specs in the service manual.

If you have any questions or require further information, please feel free to contact Terry Atherton, Engineering Department.

Sincerely,

SCHWING AMERICA, INC.

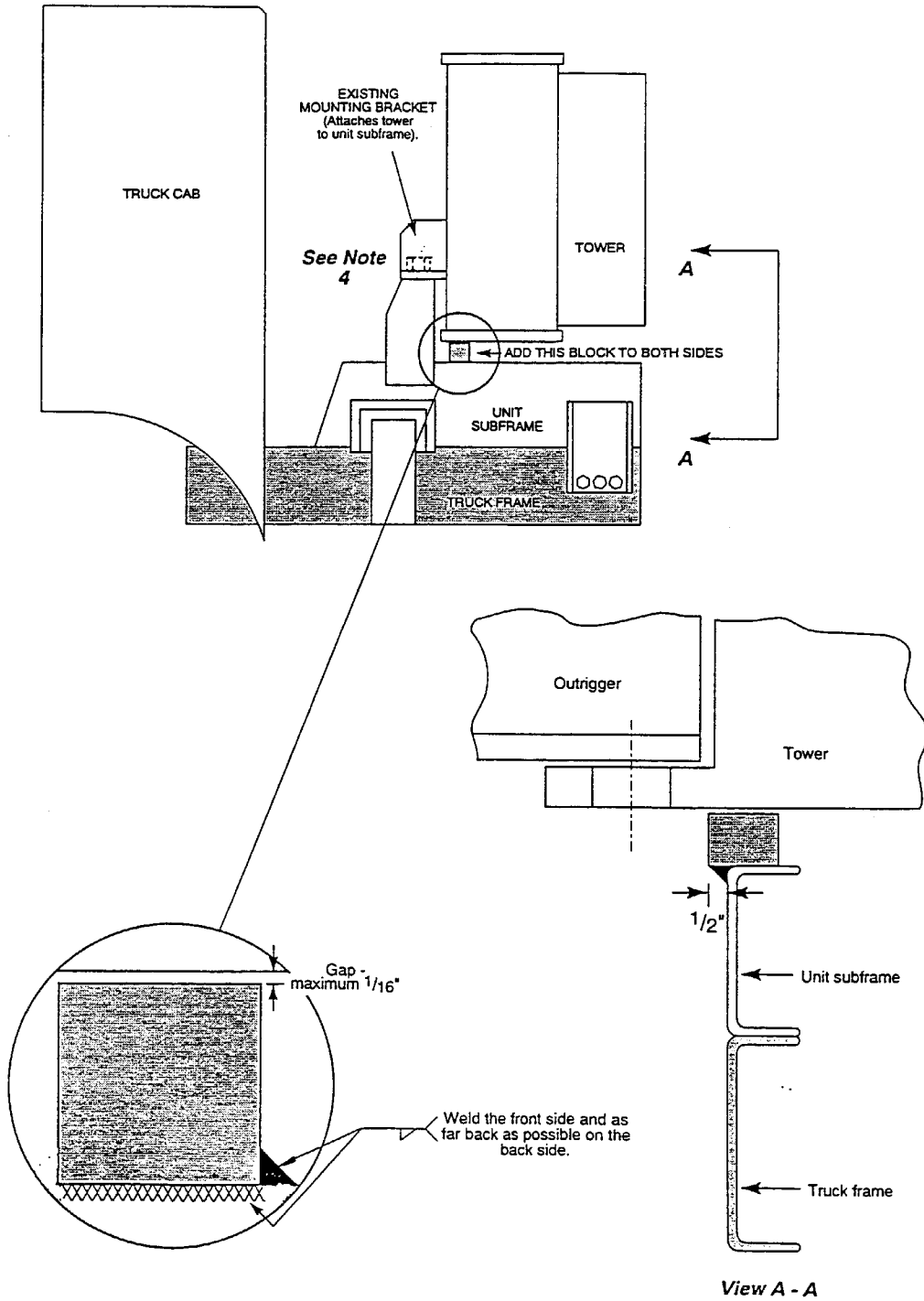


Hank Klein
Service Manager

HK/di

Enclosure

For KVM 31, 36, & 42 Units



Bulletin#: G-102-93

Date: 04/01/93

Subject: Radio Controls FW-18 & FW-20



SCHWING
AMERICA INC.

5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

April

SERVICE BULLETIN: G102/93

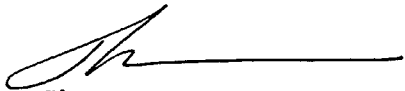
Gentlemen:

Schwing America's radio controls, FW 18 and FW 20, are designed and manufactured to be used on Schwing equipment. Their operation includes a telegraph code that prevents any unintended boom movements.

At the present time, Schwing America has not approved any other radio controls to be used on its equipment. Use of inferior equipment, lacking proper safety features, could create a serious safety hazard and potentially risk serious injury or death. Accordingly, such equipment should not be used on Schwing concrete pumps.

Sincerely,

SCHWING AMERICA, INC.



Thomas M. Anderson
Executive Vice President

TMA/di

Bulletin#: G-103-93

Date: 06/11/93

Subject: Damaged Roll Over Concret Pumps with Booms



**SCHWING
AMERICA INC.**

5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

June 11, 1993

SERVICE BULLETIN: G103-93

RE: DAMAGED ROLL OVER CONCRETE PUMPS WITH BOOMS

Gentlemen:

Whenever a unit is damaged in a roll-over, it is impossible to determine the extent of damage without completely disassembling and inspecting the unit.

Our normal procedure is as follows:

All booms, main column outriggers and tower must be completely disassembled, iron oxide grit blasted and mag particle inspect all weldments per AWS D1.1. All other structural members must be visually inspected. All pins must be ultrasonic inspected. Any damage/cracks must be repaired per SAI 5125 and SAI Engineering recommendation.

Our experience has also shown that when the slewing cylinders are damaged this has resulted in cracks to main column (teeth breaking, etc.) and cracks to the inside of the tower.

Sincerely,

SCHWING AMERICA, INC.

Hank Klein
Service Manager

HK/di

Bulletin#: G-105-93

Date: 12/23/93

Subject: Concrete Pumps Boom Pipeline



5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
FAX: 612-429-3464
Subsidiary of:
Friedrich Wilh. Schwing GmbH.

December 23, 1993

SERVICE BULLETIN: 105/93

Service Manual

RE: CONCRETE PUMPS BOOM PIPELINE

Gentlemen:

In the past ten years, many sizes of pipe have been produced in the market. Schwing America, Inc. only recommends a maximum of 29.57 lbs./ft., including concrete, which results in the following two sizes:

Schwing America, Inc. dual wall; 125mm ID X 4.5mm wall
Construction Forms solid wall; 123.4mm ID X 4.8mm wall

Please discontinue the use of any pipeline which is not 29.57 lbs./ft., including concrete at 150 lbs./ft³.

If you have any questions or require further information, please feel free to contact the Engineering Department at the factory.

Sincerely,

SCHWING AMERICA, INC.

A handwritten signature in black ink, appearing to read "TMA", followed by a long horizontal line extending to the right.

Thomas M. Anderson
Executive Vice President

TMA/di

Bulletin#: G-101/94

Date: 06/15/94

Subject: Safety Issue - Trapped air in hydraulic cylinders



5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
FAX: 612/429-3464
Subsidiary of: Schwing GmbH.

June 15, 1994

SERVICE BULLETIN G-101/94

Service Manual

RE: SAFETY ISSUE - Trapped air in hydraulic cylinders

Gentlemen:

This information is safety related and must be passed on to the operators and mechanics of your concrete pumps:

DO NOT PLACE YOURSELF (OR OTHERS) IN THE DANGER ZONE OF A CYLINDER AFTER REPAIR OR REPLACEMENT OF THE CYLINDER, CYLINDER PARTS OR ACCESSORIES. See the illustrations beginning on page 2 of this bulletin for a description and examples of the danger zones.

As you are surely aware, hydraulic cylinders must use a non-compressible fluid, such as hydraulic oil, in order to hold or move loads. It follows then, that air is not suitable for use in a hydraulic cylinder. Air is easily compressible, and when a force is applied to a cylinder that contains air, the cylinder may extend or retract until the air is compressed to the same pressure as the applied force.

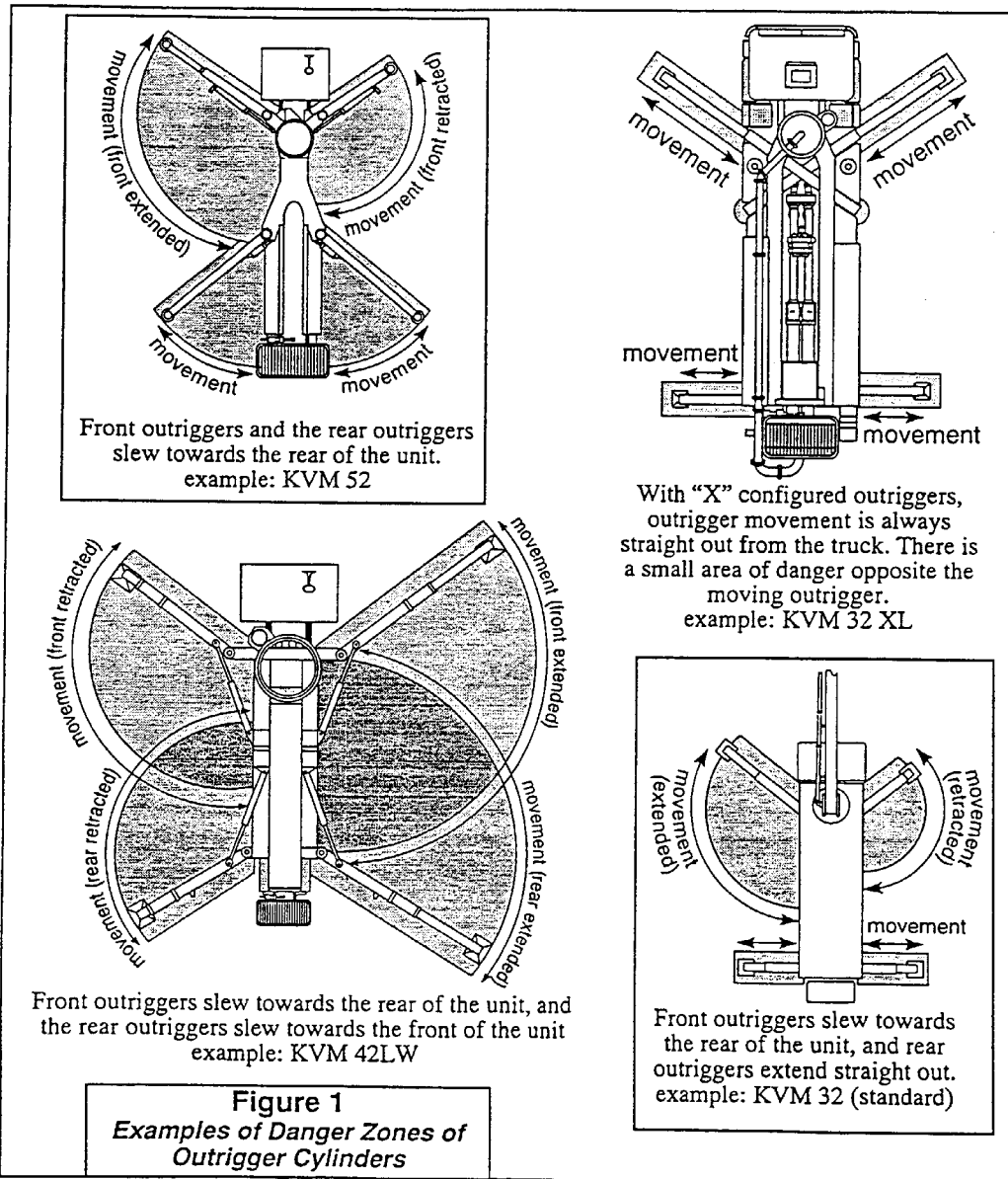
Significant volumes of air can be introduced into a cylinder by any of the following methods:

- If you disassemble a cylinder to change piston rings, packings, rod, or for any other reason
- Replacement of the cylinder
- Replacement of a holding valve on the cylinder
- Replacement of a hose, fitting, or tube near the cylinder
- Allowing the level of oil in the reservoir to fall below the suction port of the hydraulic pumps

As it applies to concrete pumps, air in a cylinder means that the boom, outriggers, rock slewing cylinders, or differential cylinders could extend or retract without warning when a load or force is applied.

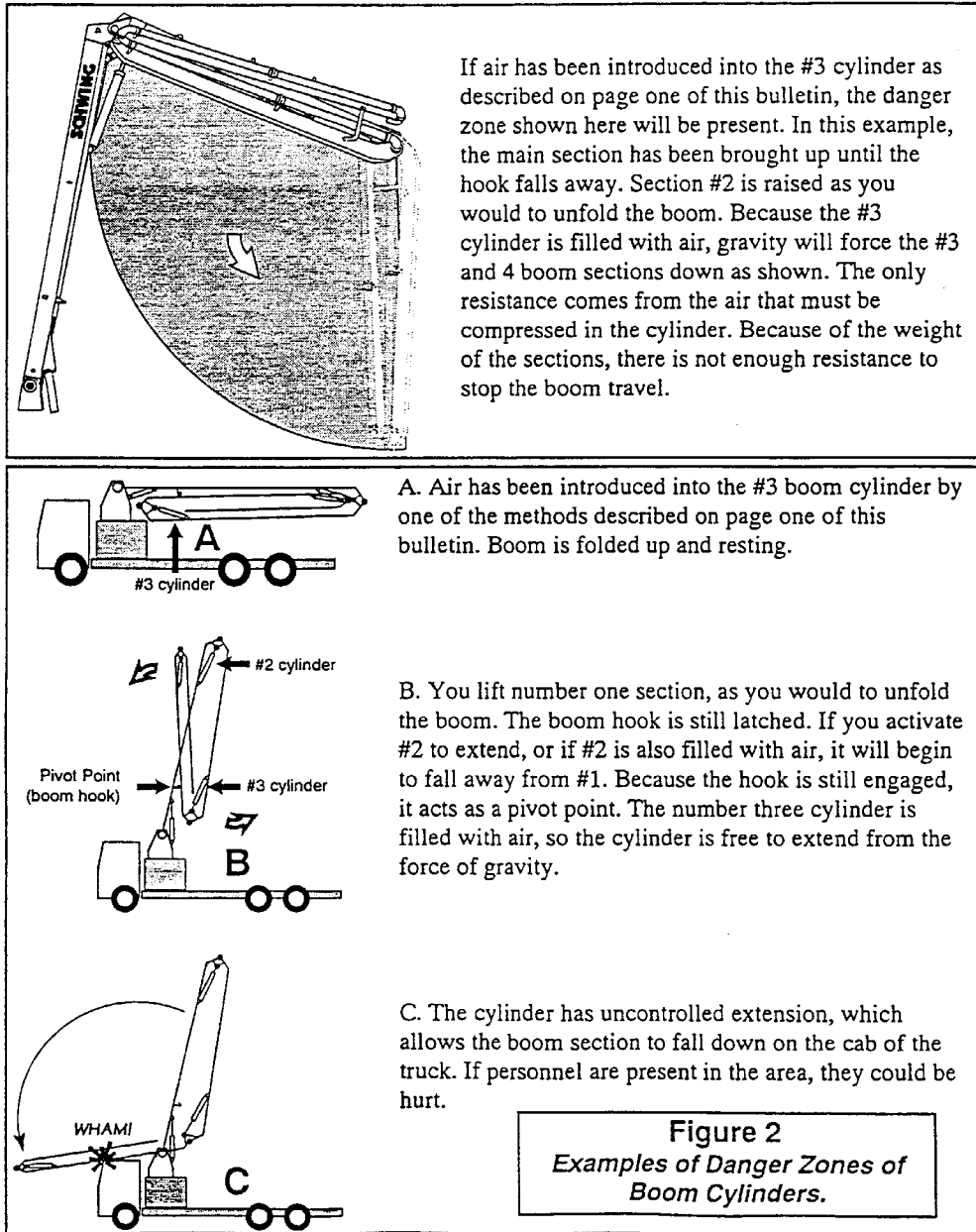
The danger zone of a cylinder is defined as the area that could cause injury or property damage should the cylinder extend or retract in an unpredictable manner. The danger zone would be different for all units. You can see where the area would be on your unit by visualizing the cylinder extending and retracting, including whatever the cylinder is attached to (such as an outrigger arm or boom section).

Shown below are examples of some **danger zones of outrigger cylinders:**



Boom cylinders do not have the same types of danger zones as outriggers. Because gravity is always applying force to a boom cylinder one way or the other, there are only a few positions that can cause the problems described in this bulletin.

Shown below are examples of **danger zones for boom cylinders** (when filled with air).



To avoid the hazards described in this bulletin, you only need to remove the air from a cylinder before you impose a load on it. You do this by forcing the air out of the cylinder by replacing the air with high pressure oil.

FOR OUTRIGGERS: (See the example below)

In this example, the cylinder on the driver's side front outrigger has been replaced. The cylinder is completely filled with air. Proceed as follows:

- Clear the area of personnel and equipment.
- Start the engine and engage the hydraulic pumps.
- Activate the outrigger slew open function. Allow the cylinder to completely extend. Hold the lever in the activated position for 5 seconds after the cylinder has completely extended.
- Activate the outrigger slew closed function. Allow the cylinder to completely retract, and hold the lever activated for 5 seconds.
- Repeat the opening and closing process 5 more times, pausing to allow the cylinder to remain pressurized for 5 seconds at each end point.

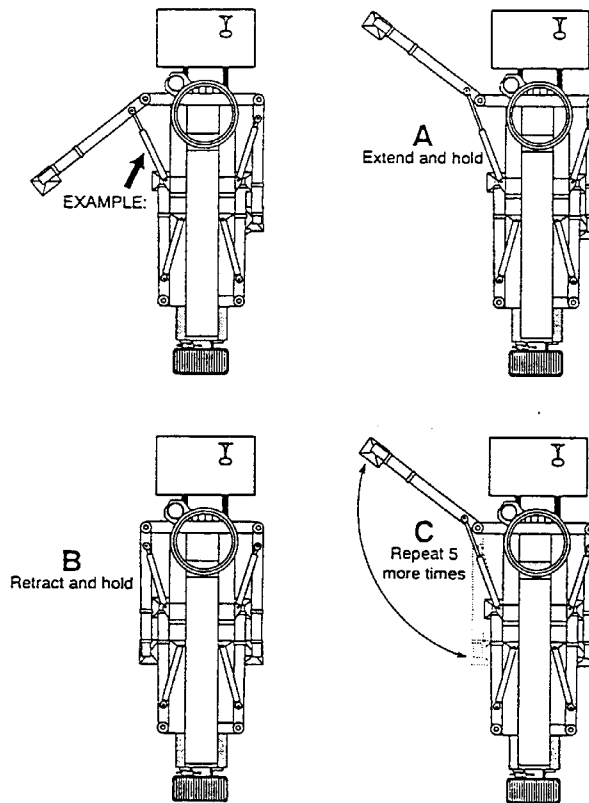


Figure 3
Removing Air from Cylinders

FOR BOOMS:

Whatever cylinder has been serviced should be activated first. Proceed as follows:

- **If the boom is folded up**, you should first retract the cylinder to the end stop, pausing 5 seconds while activated. **If the boom is extended**, you should first extend the cylinder to the end stop, pausing 5 seconds while activated. (Holding the lever activated when the cylinder is stopped at an end point has the effect of compressing the air into tiny bubbles. These bubbles will then flow out with the oil when the cylinder is moved to the opposite end point. You repeat the procedure 6 times to be sure that all of the oil with entrapped air bubbles makes the return to the reservoir).
- Extend and jack the outriggers, if not already done. (If the boom is already extended, this **MUST**

have already been done). Refer to the operation manual if you have questions about this procedure.

- Position the boom so that the affected cylinder can be completely extended and retracted without contacting any obstacles, and without infringing on the 17 foot minimum distance to power lines.
- Completely extend and completely retract the affected cylinder 6 times. Pause for 5 seconds at each end stop, while holding the lever in the activated position.

Contact Schwing America's service department at (612) 429-0999 if you have any questions regarding this procedure.

Sincerely,



Robert J. Edwards
Product Safety Department

Bulletin#: G-102/94

Date: 06/29/94

Subject: Safety Issue - Inssuance of "DO NOT OPERATE" warning devices



5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
FAX: 612/429-3464
Subsidiary of: Schwing GmbH.

June 29, 1994

SERVICE BULLETIN: G-102/94

Service Manual

Re: SAFETY ISSUE - Issuance of "DO NOT OPERATE" warning devices

Gentlemen:

This information is safety related and must be passed on to the operators and mechanics of your concrete pumps.

Enclosed you will find samples of 3 new warning devices that we will be including with new units from this day forward. The purpose of the warnings is to prevent someone from starting the machine while it is being serviced by someone who is in a dangerous or invisible area.

The 3 devices are: (Illustrations shown on page 3 of this bulletin)

- Part number 30332962, cardboard key tag "DO NOT OPERATE..." for trailer units
- Part number 30332963, magnetic warning label "DO NOT OPERATE..." for truck mounted units
- Part number 30332964, static cling label "DO NOT OPERATE..." for truck mounted units

These labels may be ordered for your existing units as needed. To order, just call our spare parts department (800) 328-9635 and order the part numbers and quantities needed. As with all of Schwing's safety labels, there is no charge.

The instructions for use of the labels follow on page 2. After they are seen by your personnel, keep them for training of future operators and mechanics.

If you will be working in a hazardous location of a unit (such as in the waterbox or the rock valve), or if you will be hidden from view to outsiders (inside the unit, on the driveline, for example) you must protect yourself by performing the following steps:

For Truck Mounted Units

- Stop the truck engine.
- Remove the key and put it in your pocket.
- Put the static cling “DO NOT OPERATE” label on the inside of the windshield of the truck. Place it in a location that is obvious to anyone who enters the truck.
- After you leave the truck cab and close the door, put the magnetic warning label “DO NOT OPERATE” over the door handle. In this way, no one can open the door without being made aware that you are working on the machine.
- Perform the needed service on the unit.
- Remove the labels and reinstall the key.
- Store the labels in the glove box for future use.

For Trailer Mounted Units

Diesel Engines

- Stop the engine.
- Remove the key and put it in your pocket.
- Attach a wire into the hole on the “DO NOT OPERATE TAG”.
- Hang the tag in a position that it will have to be moved in order to insert a key into the ignition switch. Be sure that the language that is most likely to be needed is facing outward. (Bilingual tags).
- Perform the needed service on the unit.
- Remove the tag and replace the key.
- Store the tag in the unit tool box for future use.

Electric Motors

- Stop the motor.
- Disconnect the mains, and install a lock according to your lockout-tagout program.
- Attach a wire into the hole on the “DO NOT OPERATE TAG”.
- Hang the tag in a position that it will have to be moved in order to insert a key into the padlock that is protecting the main disconnect. Be sure that the language that is most likely to be needed is facing outward. (Bilingual tags).
- Perform the needed service on the unit.
- Remove the tag and unlock according to your lockout-tagout program.
- Store the tag in the unit tool box for future use.

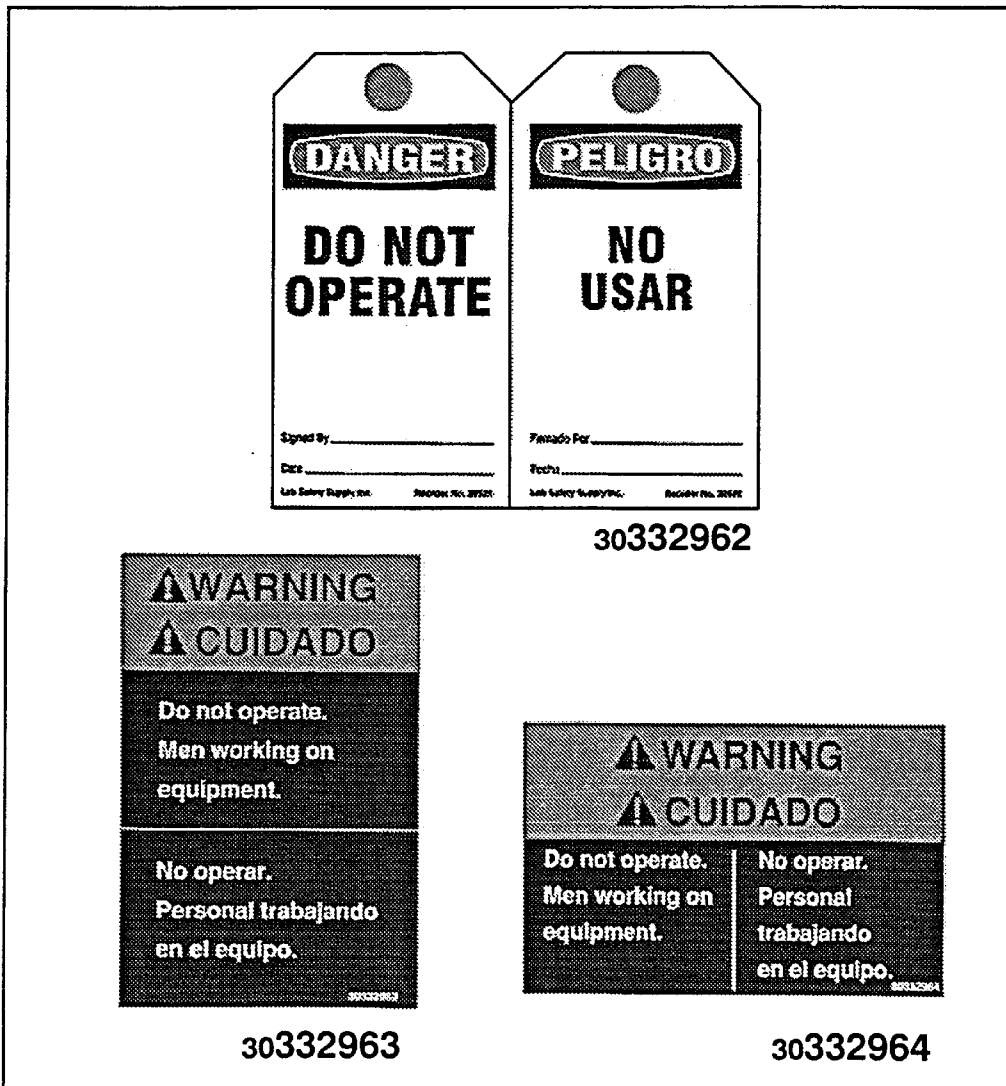
DON'T FORGET TO REMOVE THE LABELS AFTER THE SERVICE IS COMPLETED.
(This is important, because if people always find the unit deserted but the tags installed, they will soon begin to ignore them).

If, over time, the labels become damaged, faded, lost or not useful for any other reason, please replace them immediately.

Sincerely,



Robert Edwards
Product Safety Department, Schwing America, Inc.



Bulletin#: G-102-95

Date: 10/09/95

Subject: Mack Truck Chassis with SS34/38/440 & ST34/38 Suspension



5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
FAX: 612/429-3464
Subsidiary of: Schwing GmbH.

October 9, 1995

SERVICE BULLETIN: G102/95

^F1^
^F2^
^F3^
^F4^

RE: Mack Truck Chassis with SS34/38/440 and ST34/38 Suspension

Gentlemen:

Mack Truck has issued a service bulletin regarding rear suspension trunnion spindle insulators that fail prematurely. The new trunnion spindle insulator is Mack part number, 10QK276, which will provide extended service life.

It would behoove you to inspect the rear suspension of your Mack chassis for this type of failure. The repair is covered under your normal Mack warranty for one year from the date in service.

Attached is a copy of the Mack Service Bulletin for your reference.

If you have any questions, please feel free to contact our Service Department.

Sincerely,

SCHWING AMERICA, INC.

Hank Klein
Service Manager

HK/di

Enclosure

SERVICE BULLETIN



NO: GROUP 04
SECTION: 04B014
DATE: 3/23/90
CHASSIS: ALL

URETHANE TRUNNION SPINDLE INSULATOR

A urethane trunnion spindle insulator (part no. 10QK276) is now available for service replacement of standard rubber insulator part no. 10QK219P2. The urethane insulator will provide extended service life when used in SS34/38/440 and ST34/38 suspensions.

Satisfactory insulator life is directly related to proper installation procedures. The servicing technician should be thoroughly familiar with the instructions in Service Bulletin 04B008, (formerly V27 under SPRINGS), and Master Manual Section 14-20 "Bogie Suspensions".

Bulletin#: G-103-96

Date: 06/05/96

Subject: Fan Belt Failure with MR Mack Truck E7 Engine



**SCHWING
AMERICA INC.**

5900 Centerville Road
White Bear, Minnesota 55127
Area Code: 612/429-0999
FAX: 612/429-3464
Subsidiary of: Schwing GmbH

June 5, 1996

SERVICE BULLETIN: G103/96

Service Manual

RE: FAN BELT FAILURE WITH MR MACK TRUCK E7 ENGINE

Gentlemen:

The attached Mack Service Bulletin 13D001, has the most recent information regarding fan belts. Mack part number 88GB445P600 supersedes any previously recommended part number. Please contact your local Mack dealer and review this information with them.

Note for Units with Air Conditioning:

Mack recommends that the air conditioning be turned off when the truck is in pump mode. It is possible to add a relay and wiring to accomplish this automatically. See attached instructions.

If you have any questions or concerns, please call the Schwing Service Department at (612) 653-2299 or Twin City Mack at (612) 633-4810 and ask for Mr. Bill Thurry, Service Manager.

Sincerely,

SCHWING AMERICA, INC.

Hank Klein
Service Manager

HK/di

Attachments

SERVICE BULLETIN



GROUP: 13
 NUMBER: 13D001
 DATE: 1/17/96
 CHASSIS: All

HEAVY DUTY BANDED BELTS

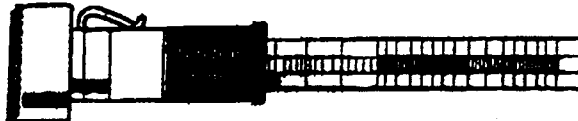
Occasionally, drive belt problems may be experienced on vehicles equipped with an E7 engine when operating under certain severe heavy duty applications. To eliminate these problems, a heavy duty banded belt for use on E7 engines has been released for service. Banded belts offer more stability because the tension across both halves of the belt is the same, making it less likely for the belt to roll over, jump or derail. Additionally, using a banded belt guarantees a perfectly matched set. Banded belts are also available as a factory option on new truck orders. Contact Mack Trucks, Inc. Sales Engineering for additional information.

The following chart summarizes the replacement belt part number according to chassis model, water pump pulley diameter and fan drive ratio:

Part Number	Model	Water Pump Pulley Diameter	Fan Drive Ratio
88GB445P600	MR,	5.45	1.72 Fan Drive Ratio- Manual Transmission
88GB445P610	MR, LE	6.15	1.55 Fan Drive Ratio- Automatic Transmission
88GB445P645	RD6, RD8, DM DMM, RB, CL	5.45	1.72 Fan Drive Ratio- Manual Transmission
88GB445P655	RD6, RD8, DM, DMM, RB, CL	6.15	1.55 Fan Drive Ratio- Automatic Transmission
88GB445P720	CH, FDM	6.65	1.42 Fan Drive Ratio
88GB445P730	CH, FDM	7.25	1.33 Fan Drive Ratio

Adjusting Belt Tension

When installing or servicing a heavy duty banded belt, a tensioning tool, such as the tool available through OTC Tool Corporation (part number OEM1034) illustrated below, is required to adjust belt tension.



000216a

The following instructions outline the proper use of the tensioning tool:

1. Position the lower O-ring at 0.25 inch on the deflection inch scale.

13D001 — Page 1 of 2

SERVICE PUBLICATIONS, ALLENTOWN PA. 18105

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-
2. Position the upper O-ring in the maximum *UP* position.
 3. Lay a straight edge across the water pump and alternator pulleys.
 4. Place the tensioning tool perpendicular to the belt in the center of the longest span, & apply force to deflect the belt 0.25 inch. The lower O-ring must be parallel with the straight edge.
 5. Read the position of the upper O-ring on the pound scale to find the belt deflection force in pounds. When the tool is compressed, the upper O-ring slides down the pound scale, and remains in position to indicate belt deflection force.
 6. Compare the reading with the belt deflection force specifications supplied in the following "Recommended Procedures for Obtaining Maximum Belt Life".

Recommended Procedures for Obtaining Maximum Belt Life

1. Check pulley alignment.
2. Check for a faulty vibration damper.
3. Check for proper viscous fan operation.
4. Clean all pulley groves (water pump, alternator, crank and air conditioner pulleys) with lacquer thinner and water.
5. Use the following procedures to insure proper belt tension at initial installation:
 - a. At initial installation, set belt tension to 20-22 lbs. deflection force
 - b. Run the engine for 20 minutes.
 - c. Recheck belt tension deflection force. Deflection force should be between 17-19 lbs. Readjust if required.
 - d. To insure that belt tension is stabilized, it is recommended that tension be rechecked three days after initial installation.

NOTE

When applications require the engine be operated with the vehicle stationary, it is recommended that the air conditioning not be engaged. Repeated air conditioner compressor cycling causes the belt to experience a jumping affect which may result in belt derailment.

Installation Instructions

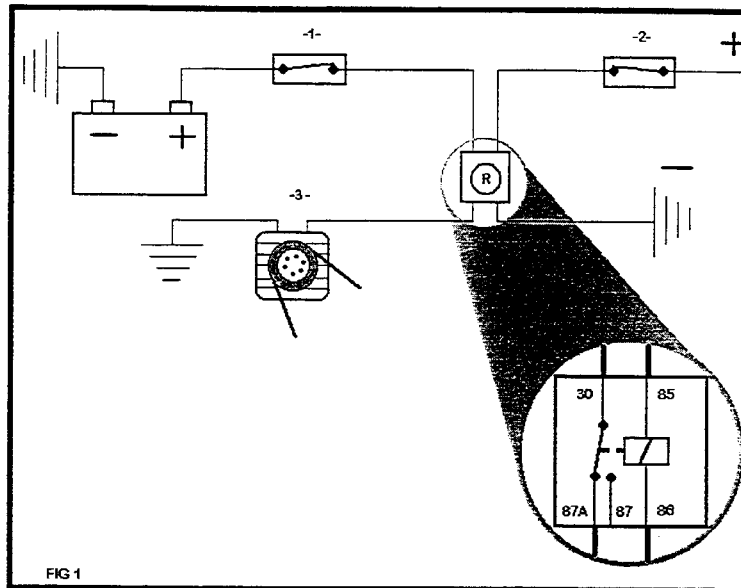
The following parts are required to install the A/C bypass relay. They can be acquired at your local Mack dealer.

<u>Quantity</u>	<u>Part Number</u>	<u>Description</u>
1 ea	41MR21239M	Harness
1 ea	2MR2014	Relay

1. Using wire cutters, remove the black four pole connector from harness and discard (*Fig 2*).
2. You should now have the gray five pole relay base with four wires. Remove the wire marked *D-2.0* from relay base and replace it in the center slot (*Fig 3*).
3. Remove the relay access cover on the truck's doghouse and locate the A/C on/off switch next to the heater controls. This switch will have two wires, one white wire and one black wire with a white stripe. Cut the **white** wire and connect it to the wire marked *D-2.0* on the relay harness.
4. Take the wire marked *A-2.0* and connect it to the remaining white wire on the control switch.

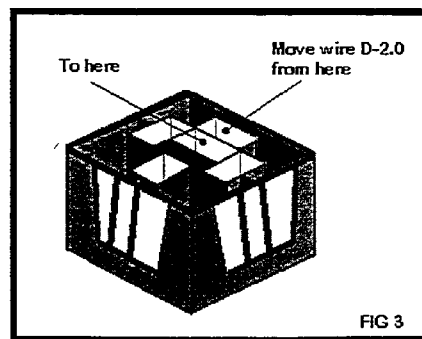
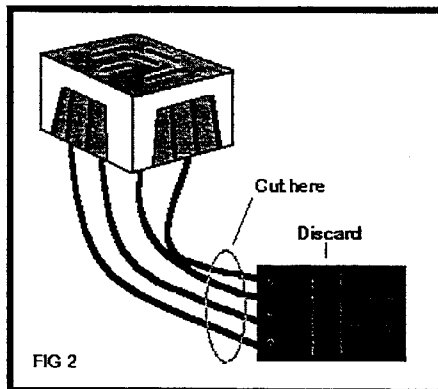
Note: If your truck is using spade terminals on the control switch, they can be used in place of cutting the wire.

5. The wire marked *B-0.8* needs to be connected to the positive terminal on the concrete pump's hour meter inside the cab. An additional piece of wire may be needed to do this.
6. Connect the wire marked *C-0.8* to chassis ground.



1. A/C switch in the on position
2. PTO switch in the on position
3. Air compressor motor

Note: The A/C bypass relay, (highlighted in the circle), is in the de-energized position. When the unit is in PTO, the relay should be energized moving the contact from 87A to 87 creating an open in the compressor circuit.



Bulletin#: G-104-96

Date: 09/06/96

Subject: Concrete Pump Bearing Lubrication



SCHWING
AMERICA INC.

5900 Centerville Road
St. Paul, MN 55127
Phone: (612) 429-0999
Fax: (612) 429-3464
Subsidiary of: Schwing GmbH.

September 6, 1996

SERVICE BULLETIN: 104/96

Service Manual

RE: CONCRETE PUMP BEARING LUBRICATION

Gentlemen:

The purpose of this letter is to advise you of the recommended greases to be used on all KVM units.

These grease recommendations are as follows for the following two major areas:

1. The bronze tower or main column bushings must be greased with a moly additive which has a minimum of 3% molybdenum disulfide.

Greases such as Lubriplate Mo-Lith No. 2, Texaco Molytex EP2, Mobil Grease CM-P may be used or an equivalent with the below listed minimum characteristics.

Base type	Lithium
NLG1 No.	2
cSt @ 40 degrees C (104 degrees F)	320 summer, 150 winter
Molybdenum disulfide	3% minimum
ASTM dropping point (degrees F)	350 degrees F minimum

2. All other bearings must be greased with a lithium grease such as Mobil Grease HP, CM-S, or an equivalent.

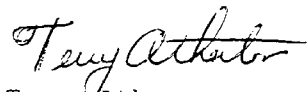
Page 2
Service Bulletin: 104/96

In order to ensure that the grease is uniformly distributed on the bearing surface, you must lubricate while rotating the boom slowly.

If you have any questions, please contact the Schwing America Engineering or Service departments.

Sincerely,

SCHWING AMERICA, INC.



Terry Atherton
Engineering Manager

TA/di

Bulletin#: S-102-97

Date: 04/24/97

Subject: SAFETY ISSUE - Safety Warning Label Part No. 30319869



5900 Centerville Road
St. Paul, Minnesota 55127
Area Code: 612/429-0999
FAX: 612/429-3464
Subsidiary of: Schwing GmbH

April 24, 1997

SAFETY BULLETIN: S102/97

RE: SAFETY ISSUE - Safety warning label part number 30319869

Ladies & Gentlemen:

This information is safety related and must be addressed as soon as possible. It applies to ALL Schwing concrete pumps.

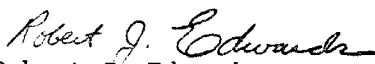
It has recently come to my attention that the safety warning label, 30319869, has been manufactured with the wrong materials. In most or all cases, the warning label is falling apart and becoming unreadable within weeks of installation. It is our intention that all warning labels be kept in good shape and remain readable throughout the life of the machine. The labels have been remanufactured using the correct material and should be installed on each Schwing concrete pump in your fleet as soon as possible. If you have any existing stock on this label, please discard them.

I have included one safety warning label with this letter. Please make a note of how many more labels you will need to completely update your fleet and place an order for that quantity with our Spare Parts department. You should order one or two more than you will actually need to account for waste if the warning label is not properly installed. Please make note of the warning label installation location on the following page.

You can reach our Spare Parts department at 1-800-328-9635. There will be no charge for the warning labels or the shipping.

Sincerely,

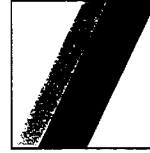
SCHWING AMERICA, INC.


Robert J. Edwards
Manager, Publications/Product Safety Department

Bulletin#: G-103-97

Date: 06/12/97

Subject: Change of Standard Hydraulic Oil & Maintenance Recommendation



**SCHWING
AMERICA INC.**

5900 Centerville Road
St. Paul, Minnesota 55127
Area Code: 612/429-0999
FAX: 612/429-3464
Subsidiary of: Schwing GmbH

June 12, 1997

SERVICE BULLETIN: 103/97

Service Manual

**RE: CHANGE OF STANDARD HYDRAULIC OIL AND MAINTENANCE
RECOMMENDATION**

Ladies & Gentlemen:

As of June 1, 1997, Schwing America, Inc. will be filling all new units with TEXACO Rando HD 46 (standard) or Rando HDZ 46 (by request).

Features of Rando HD 46 oil:

- Premium grade, single viscosity, anti-wear hydraulic oil formulated to meet the requirements of positive displacement, high speed hydraulic pumps
- Corrosion and wear protection
- Easy filterability
- Viscosity index 105
- Paraffin based, light colored
- ISO viscosity rating of VG 46
- Pour point of -20 degrees F
- Viscosity in cSt at 100 degrees C=6.9
- Flash point (COC) = 425 degrees F

Listed below are other brands of single viscosity oil which have been approved for use in Schwing equipment. The order of this list does not signify anything; any oil which meets the quality and viscosity standards described above can be used:

Aral Vitam	Mobil DTE25	BP Energol	Shell Tillus oil
Esso Nuto	Total Azolla	Esso Unavis	Wintershall Wiolan
Fina Lube Hydran AW 46			

Features of Rando HDZ 46 oil:

- Premium grade, shear stable, high viscosity index hydraulic oil formulated for hydraulic systems that are subject to a wide variation in ambient and system operating temperature
- Good anti-foam and water separating properties
- Superior wear protection
- Viscosity index 146
- Blended, light colored
- Designed for use under severe conditions
- ISO viscosity rating of VG 46
- Pour point of -40 degrees F (thinner than HD 46 at cold temp.)
- Viscosity in cSt at 100 degrees C = 7.86 (thicker than HD 46 at warm temp.)
- Flash point (COC) = 400 degrees F
- Improved shear stability in high speed, high pressure systems

Listed below are other brands of high viscosity index oil which have been approved for use in Schwing equipment:

Mobil DTE 15M Finalube Hydran HVI AW46

**NOTE: DO NOT MIX HYDRAULIC OILS OF DIFFERENT MANUFACTURERS.
 THIS MAY RESULT IN A SIGNIFICANT REDUCTION OF QUALITY.**

If hydraulic oil of another manufacturer is to be used, or oil of a different type; e.g. HP instead of HLP a complete oil change is necessary. Mixing different viscosities of oil of the same manufacturer is permissible in some cases. Consult the oil manufacturer to be sure and take into account that the new viscosity is dependent on the ratio of the mixture.

Product Maintenance

The service life of any hydraulic fluid is dependent upon many variables; such as temperature, pressure, agitation, or pumping rate, contamination, catalytic effect of metals and similar factors. Depending upon the magnitude of these various factors, the service life of the same fluid in similar systems operating under apparently similar conditions will vary widely. For this reason, it is almost impossible to predict service life.

You should change your hydraulic oil at least once per year. If you use good filters and change them as recommended in the service manual, the oil will look clean, even after one year, but the chemical additive packages that give the oil its properties will breakdown with time and no amount of filtration will bring them back.

Page 3
Service Bulletin: 103/97

If you have any questions regarding this service bulletin, please contact our Service Department at (612) 653-2299.

Sincerely,

SCHWING AMERICA, INC.



Hank Klein
Service Manager

HK/di

Bulletin#: G-104-97

Date: 06/25/97

Subject: Radio Remote Controllers



**SCHWING
AMERICA INC.**

5900 Centerville Road
St. Paul, Minnesota 55127
Area Code: 612/429-0999
FAX: 612/429-3464
Subsidiary of: Schwing GmbH

June 25, 1997

SERVICE BULLETIN: 104/97

Service Manual

RE: RADIO REMOTE CONTROLLERS

Ladies & Gentlemen:

There are a few items we would like to bring to your attention to give you better service for your radio remotes. Many "cordless" remote controls are being returned for repair. Most of the units being returned, the failure is due to contamination of the printed circuit boards located in the transmitters. This contamination can be avoided with proper care.

The Schwing transmitter boxes are designed to be moisture proof. But they are not built to be washed with high pressure washers or hosed off when cleaning the pump, etc. The electronics in these devices are very temperamental and are similar to components in TV's and VCR's.

Much of the contamination can usually be traced to cracked or missing joystick boots, wrong replacement switches or cracked and damaged housings. It is impossible to protect the internal components from all damage but the more care you give the radio, the better it will serve you. It is very important when the boots fail or become cracked that they are replaced to ensure good service from your equipment.

Page 2
Service Bulletin 104-97

FW18 joystick boots - P/N 10119009 (outer)
FW18 joystick boots - P/N 10119010 (inner)
FW20 joystick boots - P/N 10139220
T40 & T45 joystick boots - P/N 30344463

The rubber boots on the Schwing T45 and T40 radio transmitters need to be sealed with silicone around the handle to prevent moisture damage to the internal components. The rubber boots are sealed at the factory and should be checked to prevent contamination. Please refer to attached installation instructions.

If lubrication of the joysticks becomes necessary, a minimal amount of lubricant should be used. We recommend using a white grease, such as ZEP Multi-Purpose Aerolube NC (TM). Too much grease or the wrong type will cause damage to the internal components. Use a "Q-Tip" to remove dirt, grime and excess greases to ensure smooth movement of the lever.

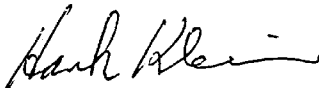
In certain areas of the country radio interference is becoming more apparent. With more people using cell phones, pagers, two way radios and other transmitter-receiver combinations, it is very important to license your radio with the FCC. This will ensure you have open channels and eliminate most of the interference problems. If you do not have the form or need assistance, feel free to contact us.

To ensure prompt and accurate service, enclosed you will find a "REMOTE CONTROL REPAIR REQUEST FORM". Please use this form when returning any radio or component for repair.

If you have any questions regarding this service bulletin, please feel free to contact the Schwing Service Department.

Sincerely,

SCHWING AMERICA, INC.

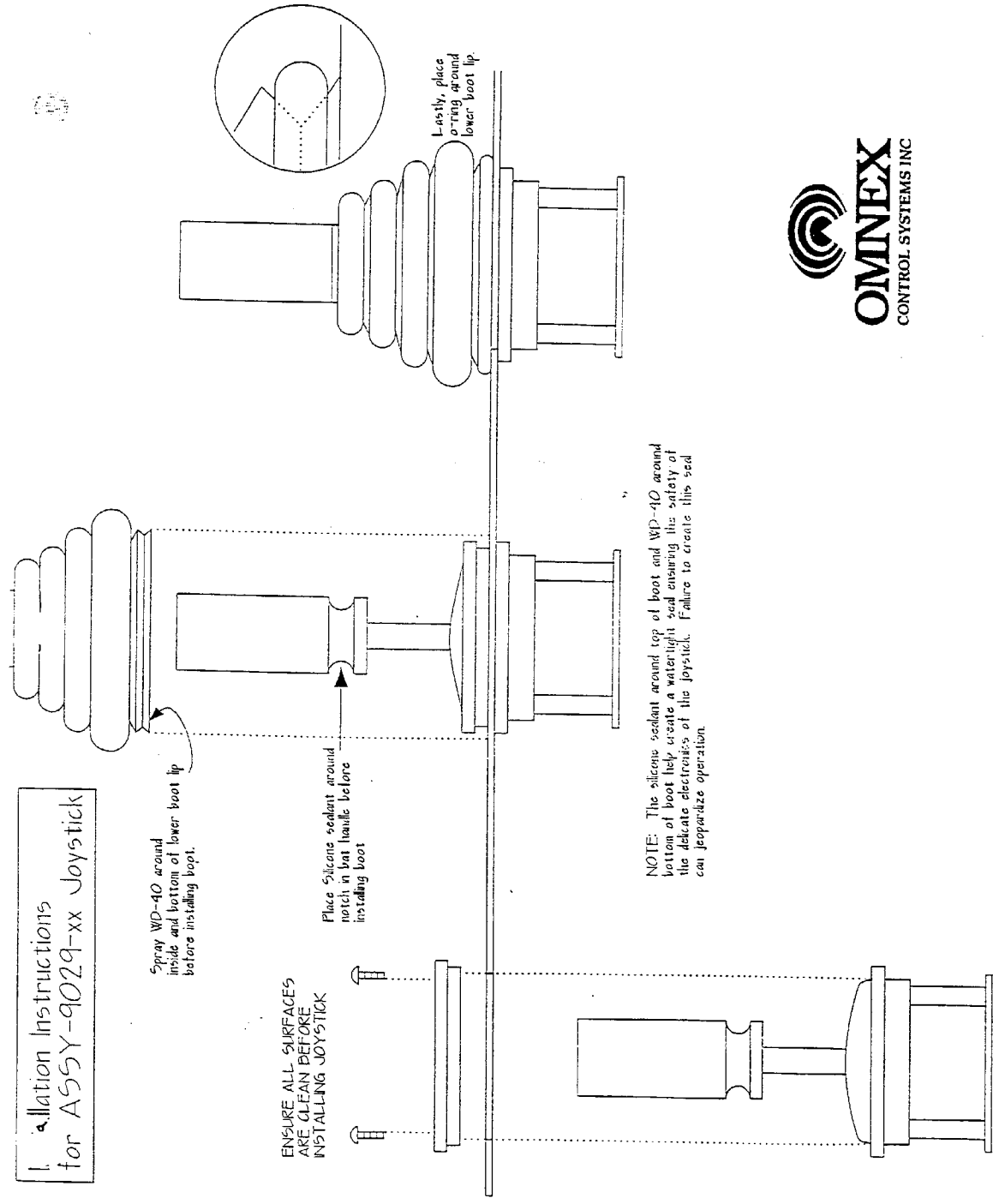


Hank Klein
Service Manager

HK/di

Enclosures

**Installation Instructions
for ASSY-9029-xx Joystick**



NOTE: The silicone sealant around top of boot and WD-40 around bottom of boot help create a watertight seal ensuring the safety of the delicate electronics of the joystick. Failure to create this seal can jeopardize operation.



REMOTE CONTROL REPAIR REQUEST FORM

THIS FORM MUST ACCOMPANY ALL REMOTE CONTROL PRODUCTS SHIPPED TO SCHWING FOR REPAIR

Ship all Parts to:
Schwing America Inc.
Attn: Service Department
5900 Centerville Road
White Bear, MN 55127

SAI Office Use Only	
Req. No. (SAI Use Only):	_____
Packing Slip No.:	_____
Warranty Claim No.:	_____

Date of Failure: _____

Customer: _____

Address: _____

Contact: _____

Phone: _____

Fax: _____

Pump Model No.: _____

Pump Serial No.: _____

Pump Delivery Date: _____

Proportional: B/W:

Radio: Hard Cord:

Model: _____

I.D. #: _____

Radio Frequency: _____

Detailed Description of Problem: _____

Accessories Included: _____

Parts to Repair:

Labor to Repair:

Invoicing Instructions: _____

SAISVC011 REV051-497

Bulletin#: G-101-98

Date: 02/04/98

Subject: Hydraulic Pump Drive Spline Lubrication



**SCHWING
AMERICA INC.**

5900 Centerville Road
St. Paul, Minnesota 55127
Area Code: 612/429-0999
FAX: 612/429-3464
Subsidiary of: Schwing GmbH

February 4, 1998

SERVICE BULLETIN: 101-98

Service Manual

RE: HYDRAULIC PUMP DRIVE SPLINE LUBRICATION

Ladies & Gentlemen:

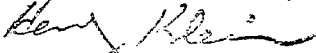
It is highly recommended prior to the installation of any model/maker of hydraulic pump(s) that the drive spline be lubricated with a special pre-assembly grease--Optimoly Past White T. Following this procedure will add extended life to the spline and related parts.

Optimoly Past White T is available in cartridge (p/n 30346107) or aerosol (p/n 30346108) form, and can also be used in other pre-assembly work (see attachment).

If you have any questions or need additional information please call our Service Department at 612/653-2299.

Sincerely,

SCHWING AMERICA, INC.



Hank Klein
Service Manager

HK/di

Attachment



OPTIMOLY PASTE WHITE T

Product Data Sheet

OPTIMOL OPTIMOLY PASTE WHITE T- white paste for clean assembly work, prevents fretting corrosion (false brinelling). Tight fitting components may be disassembled without any difficulties even after many years of operation. OPTIMOL OPTIMOLY PASTE WHITE T is excellently suited for all assembly work and for base thin-film lubrication in all engineering areas. OPTIMOL OPTIMOLY PASTE WHITE T is also available as a spray.

FEATURES

- inhibits fretting corrosion and false brinelling
- clean handling
- facilitates assembly and disassembly
- good separating effect for all types of contact
- resistant to cold and hot water
- excellent rust protection even in salt water
- white, almost colorless in thin layers
- easy application (spray-without CFC)
- temperature application range: -30°C/-22°F to +250°C/+482°F
- USDA-H2 approval

USES

Assembly

Assembly paste with universal application range due to its clean handling and long-term separating and lubricating effect. Superior to lock assembly lubricants in performance tests for a variety of applications. Prevents fretting corrosion on bearing seals, spline shafts, torque loaded connections.

Bulletin#: 101-99
Date: 02/01/99
Subject: Cold Weather Pumping



5900 Centerville Road
St. Paul, Minnesota 55127
Phone: (651) 429-0999
Fax: (651) 429-3464
Subsidiary of: Schwing GmbH

February 1, 1999

SERVICE BULLETIN: 101/99

Service Manual

RE: COLD WEATHER PUMPING

Dear Customer:

Please take note of the information on the following pages. There are two cold weather operation notes, one dealing with use of the boom in extremely cold weather, and one regarding draining the water from your unit after cleanout.

Please feel free to contact us at (651) 429-0999 with any questions or comments.

Sincerely,

SCHWING AMERICA, INC.

A handwritten signature in cursive script, appearing to read "Hank Klein", followed by a horizontal line.

Hank Klein
Service Manager

HK/di

Enclosures

- **Minimum Operating Temperature of the Boom**

Schwing America has established a minimum temperature for operation of the boom. Do not operate the boom at temperatures colder than the minimum, because cracking of the steel can occur!

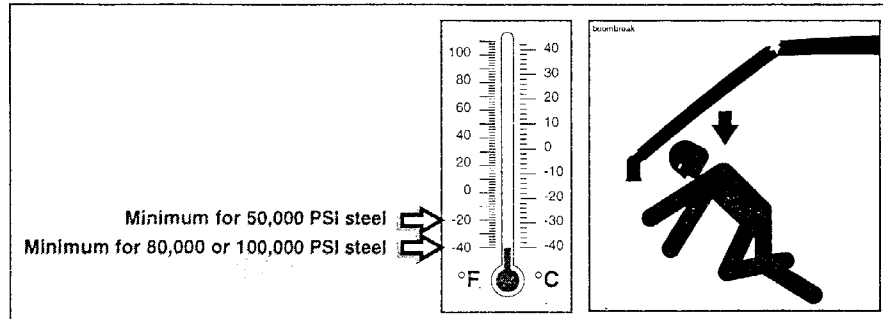


Figure 1

Watch the temperature. Do not use the boom if it is colder outside than shown

You could operate booms built with 50,000 PSI steel at any temperature above -20°F (-29° C). The following units have booms constructed of this steel:

KVM 17, 23, 25, 28, 31, and 32.

You could operate booms built with 80,000/100,000 PSI steel at any temperature above -40°F (-40°C). The following units have booms constructed of this steel:

KVM 24-4H, 26, 28X, 32XL, 34X, 36, 36X, 42, 45SX, 47SX, and 52.

- **Draining Water from the Unit In Freezing Weather**

It has come to our attention that some machines are being damaged when water freezes in the cleanout water system.

To drain the water system in cold weather:

The water system must be drained in freezing conditions, or the water pump and its related piping can be damaged. A 52 meter unit water pump system is used as an example in Figure 2, but the water pump on other models is mounted in different locations and may have several drain cocks installed in the water delivery system. Follow the water delivery line from the pump to the outlet to locate all drain cocks on your unit.

After you've finished with cleanout, and if freezing temperatures are expected, empty your water system as follows:

1. Turn off the water pump.
2. Disconnect the water hose, drain it completely, and store it in the truck cab.
3. If the nozzle will remain on the hose, lock the nozzle in the open position
4. Open the water outlet valve (from the pump to the hose)
5. Close the water supply valve (from the tank to the pump)
6. Open the drain cock for the pump suction line and all other drain cocks along the water delivery line.
7. Activate the water pump for one or two seconds to free any water that may be trapped in the rollers of the pump to prevent cracking the pump housing if the water freezes. Introduce a small amount of antifreeze into the water pump if it cannot be completely drained.
8. The drains should be left open until the next use.
9. Empty the reservoir with the large drain located at the bottom of the tank. A water level sight gauge is located on the side of the tank. If the unit will be stored out-of-doors and freezing temperatures are expected, drain the reservoir and do not refill until you are ready to drive to the job. In extremely cold temperatures, it is advisable to contact the ready-mix supplier of the job and arrange for them to provide you with heated water toward the end of the pour. Some Northern United States and Canadian companies insulate the water tank by wrapping them with construction blankets or foam insulation, and filling the tank with hot water each morning. Remember to close the large drain before refilling the water tank.

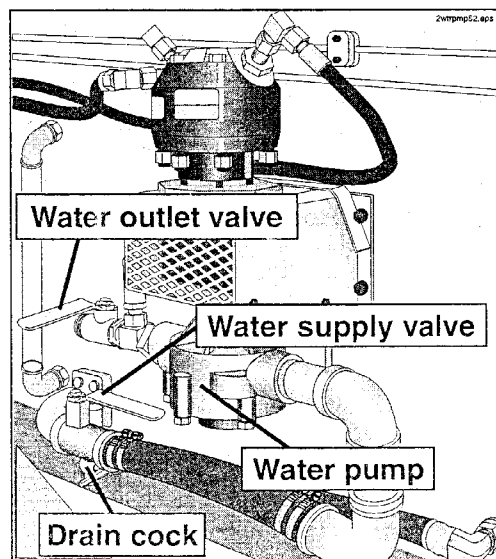
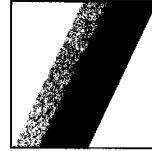


Figure 2
Identification of the water
system components

Bulletin#: 102-99

Date: 02/08/99

Subject: Boom Inspection Rate and Interval Change



**SCHWING
AMERICA INC.**

5900 Centerville Road
St. Paul, Minnesota 55127
Phone: (651) 429-0999
Fax: (651) 429-3464
Subsidiary of: Schwing GmbH

February 8, 1999

SERVICE BULLETIN: 102/99

^F1^ ^F2^ ^F3^
^F4^
^F5^
^F6^ ^F7^ ^F8^

**RE: BOOM INSPECTION RATE AND INTERVAL CHANGE
EFFECTIVE MARCH 1, 1999**

Dear Customer:

Due to increased costs of airfare and other traveling expenses, it is necessary for Schwing America, Inc. to increase our boom inspection rates. This change will take effect March 1, 1999. We would like to emphasize that although Schwing America may from time to time send personnel to assist or complete boom inspections, this does **NOT** alter YOUR obligation, as the owner or operator of this piece of equipment, to insure that boom inspections are complete and that the equipment is operated only under safe conditions.

Schwing America recommends the following boom inspection intervals:

1. First 8 years - every 2000 working hours, or at least once per year, whichever occurs first
2. 8 years and older - every 500 working hours, or at least once per year, whichever occurs first

Page 2
Service Bulletin - 102/99

Schwing America will be charging for the boom inspections we perform per the following schedule:

KVM 17, 23, 23-4H, 24-4H, 25, 26-4, 28, 28X	\$ 800.00
KVM 31, 32, 32XL, 34X	\$ 850.00
KVM 36, 36X, 42	\$ 950.00
KVM 45SX, 47SX, 52	\$1,050.00

Attached is an inspection request form. Please fill this form out completely and return to Schwing America. This form can also be faxed to us at (651) 429-2112. We will then dispatch our boom inspection personnel in an orderly fashion based on existing requests. We are also prepared to handle special requests at normal service rates, plus travel expenses. Structural repair, if required, can be done by Schwing's regular boom inspection personnel at a rate of \$75/hour.

We do have another option you may want to consider for boom inspections and/or structural repairs. Because of the high demand for boom inspections on structural repairs, we have been working with our distributors and independent repair centers throughout the United States to help them become approved boom inspection and structural repair centers.

We have enclosed the current list of the names and addresses of the approved centers and their qualifications. This list of boom inspectors and repair centers are INDEPENDENT of Schwing America and should be dealt with directly. This list will be updated when any changes or additions are made.

Remember, boom inspections are your responsibility. With these programs we are doing our best to ensure they are being done on a regular basis for the safety of all concerned.

Thank you in advance for your cooperation. If you have any questions, please contact our Service Department at (651) 653-2299.

Sincerely,

SCHWING AMERICA, INC.



Hank Klein
Service Manager

HK/di

Enclosures

Independent Boom Inspection/Repair Centers

Company Name/Phone Number	Qualified to Perform Boom Inspections	Qualified to Perform Structural Repairs
Advanced Rental Craig Hunt 5426 Perimeter Road Valdosta, GA 31603 Phone: 912/249-9370	Jehodia Crosby	Jeremy Jenkins
Amherst Concrete Pumping 105 Nantucket Scarborough, Ontario M1P 2N5 Phone: 416/752-2431	Dave Williams Doug Williams	
Beton Industries Inc. 1230 130 th Street Gardena, CA 90247 Phone: 310/323-0404	John Feldes Carlos Valenzuela Mark Lafleur	
Buckeye Concrete Pumping, Inc. Terry Craiglow 4813 Oxford State Road Middletown, OH 45044 Phone: 513/424-5281	Patrick Ross	
* Certified Boom Repair N.E. 411 Hartford Turnpike Shrewsbury, MA 01545 Phone: 508/752-2829	Bruce MacPherson	Mike LaFlamme
* Certified Boom Repair Mike Smith 1011 North 21 st Street Tampa, FL 33605 Phone: 813/247-1963	Wallace Nelson	Carman Cunningham
* Code Welding, Inc. 15818 Avenue C P.O. Box 1724 Channelview, TX 77530 Phone: 281/862-2800	Paul MacNeill Gary Moyer Bob Clark James Todd Tucker	Dwayne Saxton Gary Moyer Bob Clark Joel Clark W.C. Ingel, Jr. Donald Coursey James Todd Tucker
Concrete Placement, Inc. Parts and Service 19945 W. 157 th Street Olathe, KS 66062 Phone: 913/768-8510	Randy Waterman	
Concrete Pump Repair Jerry Anderson 39347 Flink Avenue North Branch, MN 55056 Phone: 612/674-4481	Mike Newman Paul Tacheny	Keith Ruby Jason Mielke
Concrete Pumping W.N.Y. 150 Milton Street Williamsville, NY 14221 Phone: 716/632-8740	Christopher Brind' Amour	
* CPI Inc. 6061 Fairmount Avenue San Diego, CA 92120 Phone: 619/282-2867	Mark Phipps	Kent Wheeler

*Company is mobile and able to travel to customer's yard for repairs.

Revised 01/26/99/jz
Page 1

Independent Boom Inspection/Repair Centers

Company Name/Phone Number	Qualified to Perform Boom Inspections	Qualified to Perform Structural Repairs
* Crane & Machinery, Inc. Bob Bryne 9655 Industrial Drive Bridgeview, IL 60455 Phone: 708/430-5300	Rich Semenic	Randy Poulterman
* Cross Enterprises Inc. Charlie Cross 4321 Oakwood Blvd. Melvindale, MI 48122 Phone: 313/386-8005	Steve Cieszlak Gary Hawthorne	Thomas Carr
First Alarm Testing Inc. P.O. Box 20181 Louisville, KY 40250 Phone: 502/633-5864	Michael J. Hill	
Heavy Metal 19945 W. 157 th Street Olathe, KS 66062 Phone: 913/397-6650	Dave R. Johnston	Dave R. Johnston
* Howard Concrete Pumping Frank Howard RD 1 McClane Street Cuddy, PA 15031 Phone: 412/257-1800	Mark Poole	Mark Poole
HZH Corp. P.O. Box 747 Bensalem, PA 19020 Phone: 215/639-2316	Bill Hottenstein	
* Industrial Repair Services 202 Marshwood Court Chesapeake, VA 23320 Phone: 757/436-2116	Mike Ifko	Mike Ifko
Matec Consultants Ltd. # 116 2544 Douglas Road Burnaby, BC V5C 5W7 Canada Phone: 604/299-0248 Fax: 604/299-6826	Keith Surges	
R.L. McCoy, Inc. Gary Brown 5700 W. Minnesota Building D Indianapolis, IN 46241 Phone: 317/240-0002	Carl Van Allen	
National Concrete 158 Sackville Road Unit # 1 Ste. Sault Marie, Ont. Can P6B 4T6 Phone: 705/253-5646	Gerry Conway Angelo Ritrouato	
Nichols Concrete Equipment Gary Nichols P.O. Box 454 Pelham, AL 35124 Phone: 205/664-34430	Jason Kean	

*Company is mobile and able to travel to customer's yard for repairs.

Revised 01/26/99/jz
Page 2

Independent Boom Inspection/Repair Centers

Company Name/Phone Number	Qualified to Perform Boom Inspections	Qualified to Perform Structural Repairs
* Trican Machinery Ltd. 1906 95 A Avenue Surrey, BC V4N 4P2 Canada Phone: 604/513-3100		Thomas Moore
Walt Winczek 5234 Apple Blossom Friendswood, TX 77546 Phone: 281/992-3939	Walt Winczek	
WIS Welding & Inspection Services 5821 Foxglove Lane Poulsbo, WA 98370 Phone: 360/697-1771 Fax: 360/697-7316	Ken Havens	

*Company is mobile and able to travel to customer's yard for repairs.

Revised 01/26/99/jz
Page 4

Bulletin#: 103-99

Date: 05/04/99

Subject: Soft Switch Function of Generation 3 Pumpkit



**SCHWING
AMERICA INC.**

5900 Centerville Road
St. Paul, Minnesota 55127
Phone: (651) 429-0999
Fax: (651) 429-3464
Subsidiary of: Schwing GmbH

May 13, 1999

SERVICE BULLETIN: 103/99

Service Manual

RE: SOFT SWITCH FUNCTION OF GENERATION 3 PUMPKITS

Dear Customer,

This bulletin refers only to the following pumpkits:

2020-4, 2023-4, 2020-5, 2023-5, 2023H, 2525-5, 2525-6

It has come to our attention that there have been some failures of the soft switch reversing valve cartridge (part number 10175450) on the above mentioned pumpkits.

Please refer to the following pages for information about the problem and the solution.

Feel free to contact us at (651) 653-2299 with any questions or comments.

Sincerely,

SCHWING AMERICA, INC.

Hank Klein
Service Manager

HK/di

Enclosures



Soft Switch Reversing Valves - G3 Pumpkits - G-103/99

What parts are we talking about?

For component identification and location, see figure 1.

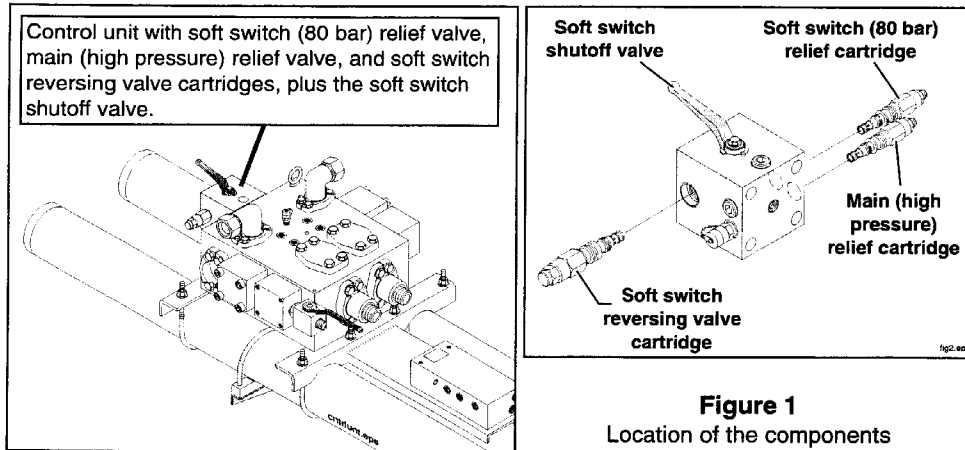


Figure 1
Location of the components

How does it act if it fails?

If a failure occurs, the reversing valve cartridge is stuck in the crossover position. This causes the differential cylinders to operate with only the 80 bar soft switch pressure available. The symptoms of this malfunction are high oil temperature and noticeably fewer strokes per minute.

Can I finish the pour?

If the problem occurs on the job, you can finish the pour by closing the soft switch shutoff valve, shown in figure 1. With this shutoff valve in the closed position, the unit will have main relief pressure available, but will switch much harder.

What can I do to fix it?

If the soft switch reversing valve cartridge is stuck in the crossover position, it must be replaced. Damage to the new cartridge can be avoided by installation of the orifice assembly shown in figure 2. The orifice is to be installed in the X-3 port of the soft switch/main relief control unit. The X-3 port is the activation port for the soft switch reversing valve cartridge. Figure 3 shows the exact location of the X-3 port.

This time, fix it even if it's not broken.

In this case we can avoid the problem by making this modification before the damage occurs. Order one set of parts for each unit in your fleet equipped with one of the Generation 3 pumpkits listed on page 1 of this bulletin.

How do we proceed?

1. Call the Schwing America Spare Parts Department at (800) 328-9635. You need to order 2 parts to make this modification: QTY 1 of part number 10012087 (1.3 mm orifice) and QTY 1 of part number 10003956 (copper sealing ring). You only need to order the soft switch reversing valve cartridge if it is already malfunctioning.

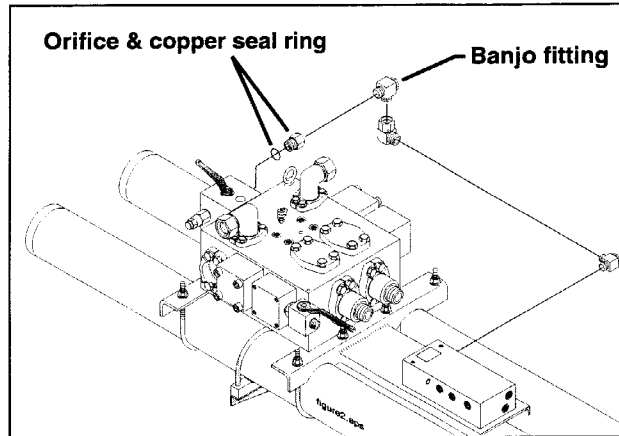


Figure 2
The modification pieces

2. When they arrive, install the parts according to these instructions.
3. Fill out a warranty claim form and mail or fax the form back to Schwing America Inc. If you don't have a warranty claim form, request one when you order the parts. We will credit the cost of the parts, plus 1/2 hour labor.

To make the modification:

1. Be sure that the truck engine is off, and the key is in your pocket. This way, no one can start the unit without your knowledge. Put a "do not operate" tag on the cab door or windshield.
1. Locate the X-3 port on the soft switch/main relief control unit, as shown in figure 3.

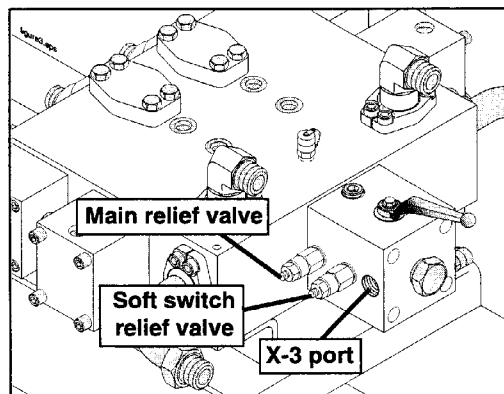


Figure 3
Location of the X-3 port

2. Remove the banjo fitting that is plumbed into the port.
3. Install the orifice and copper seal ring as shown in figure 2.

4. Install the banjo fitting into the orifice.
5. To pressure test the modification, we must high-pressure the unit. Close the soft switch shutoff valve, and the concrete pump shutoff valve, identified in figure 4.

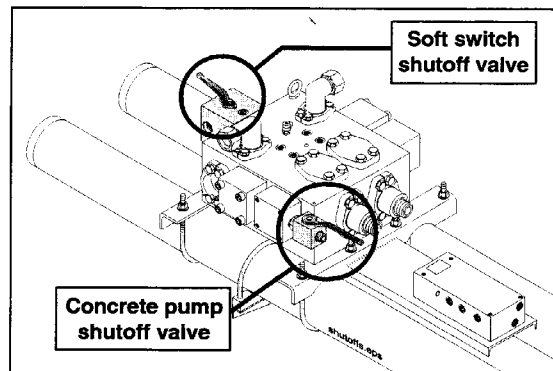


Figure 4
Location of the shutoff valves

6. Start the truck engine.
7. **Warning!** This step will create very high oil pressure (up to 5075 PSI, depending on which model you have). Clear all personnel from the area of the pumpkit before performing this step. Use the remote control, and stand well away from the pumpkit. Put the concrete pump forward/neutral/reverse switch into the forward position. The unit may stroke once before high pressure is created, or it may high-pressure immediately. If you see oil leaking, immediately switch the pump to the neutral position. Do not tighten any fittings until you stop the truck engine and verify zero pressure on the gauges.
8. If you don't see any leaks, continue to high pressure the unit until the oil temperature reaches 50° Celsius.
9. Put the control in the neutral position, and inspect the fittings for leaks. Tighten and retest, if necessary. When there are no leaks with warm hydraulic oil, the job is complete.
10. When finished, open both shutoff valves. The unit won't pump when they're closed.
11. If you are also installing the reversing valve cartridge, be sure the truck is shut off, and verify zero pressure on the gauges before making the change. The torque specification for the soft switch reversing valve cartridge is 22 foot/pounds. Although you don't need to remove either of the relief valve cartridges for this procedure, you should know that those cartridges have a different torque specification. Contact the Schwing Service Department if you should need that information.

Bulletin#: G-104-99

Date: 07/02/99

Subject: Emergency Stops for Older Units



**SCHWING
AMERICA INC.**

5900 Centerville Road
St. Paul, Minnesota 55127
Phone: (651) 429-0999
Fax: (651) 429-3464
Subsidiary of: Schwing GmbH

July 2, 1999

SAFETY/SERVICE BULLETIN: G104/99

Service Manual

RE: EMERGENCY STOPS FOR OLDER UNITS

Ladies & Gentlemen:

Canada recently passed a law making it mandatory for all concrete pumps to have an emergency stop station that, when depressed, will stop the pumping action. We've developed kits to help our Canadian customers comply with the new law, but the kits are available for installation on any concrete pump, regardless of location. If you own a concrete pump that doesn't have an emergency stop station, we encourage you to take advantage of this offer, and install one of the kits.

There are some older units still in service that will not be able to use any E-stop kit until a more extensive modification has been done. A test to determine if your unit will need additional modifications is found on page 3 of this bulletin.

Do not hesitate to call with any questions or concerns you may have.

Sincerely,

SCHWING AMERICA, INC.

Robert Edwards
Manager, Product Safety Department

RE/di
Enclosure



What are the kits?

There are four kits available.

- Kit 1 (\$250.00) is an E-stop station with mounting hardware, plus the parts needed to convert the forward / neutral / reverse hand valve from detented to spring-centered. Kit 1 has the disadvantage of being able to restart the machine simply by the action of resetting the E-stop switch. Although this kit will conform to the letter of the Canadian law, it is not the safest choice and may not be adequate for future safety specifications.
- Kit 2 (\$900.00) is an E-stop station, mounting hardware, and the necessary electronic controller to prevent the unit from restarting by the action of resetting the E-stop switch. Kit 2 also includes the hardware for changing the forward / neutral / reverse valve from detented to spring-centered. Kit 2 will stop the concrete pump, but not the boom or agitator.
- Kit 3 (\$1500.00) is the same hardware and electronic controller package as Kit 2, plus a normally open bypass valve and the necessary plumbing to stop the concrete pump AND the agitator. If you have an existing boom and outrigger dump valve, it is possible to wire it and your existing remote control into this E-stop controller. When modified with this kit, your unit conforms to all existing applicable E-stop specifications. Contact Schwing America's Service Department at (651) 653-2299 to get instructions on converting your unit. Have your serial number handy when you call.
- Kit 4 (\$1750.00) is everything from Kit 3, plus a second normally open bypass valve and plumbing. This allows the E-stop station to also stop the boom and outriggers. This is only necessary if the unit is not already equipped with a dump valve for the boom and outriggers. With Kit 4, as with Kit 3, it is possible to wire your existing remote control into this E-stop controller. When modified with this kit, your unit conforms to all existing applicable E-stop specifications.

Note! For any kit, you will need a length of 12 gauge wire for the connection between the power source and the E-stop station, and from the E-stop station to the power distribution point. For Kits 3 or 4, you'll also need a length of 16 gauge 2 conductor cable to go from the electronics package to the normally open bypass valves. Because of the wide variety of pump models affected by this retrofit, wire cables are NOT included with the kits. Feel free to contact Schwing America to get a recommendation for cable, or you may order the cable from us.

Note! To finish a retrofit with Kit 3 or Kit 4, you will need a couple of hydraulic hoses. Because of the wide variety of pump models affected by this retrofit, they are NOT included with the kits. You should decide where to position the normally open bypass valve(s) and measure the length of hose you will require, then place an order for that length.

Test to see if your unit can use one of the kits without further modifications.

As stated on the front page of this bulletin, some units (any unit equipped with a normally closed relief valve) will need an additional modification before a retrofit kit installation would work. ALL of the models in question have a manually operated S-1 spool. If your unit goes into "reverse" by flipping a switch on a remote control, your unit will NOT need additional modifications. You can verify if you have this type of unit with the following test:

- With the S-1 valve handle in the "forward" position, shut off the concrete pump using the remote control switch.
- Unplug the remote control. If the unit starts pumping, you have a normally closed relief valve. If the unit does not start pumping it has a normally open relief valve and does not need to be modified before you can add one of the retrofit kits.

Some models that used a normally closed relief valve are BPL 580, BPL 600, BPL 800, BPA 250, BPA 350, BPA 550, BPA 650, BPA 801E, BPA 900, and BPA 901. Many of these models were converted to normally open relief valves, so you should do the test before placing an order for a kit.

If you have a unit with a normally closed relief valve, contact Schwing America's Service Department at (651) 653-2299 before you order parts. Have your unit serial number handy when calling for this advice.

Which models can use the kits without further modifications?

Following is a list of models that can use any of the E-stop retrofit kits without further modifications:

BPA: 750, 1000, 2000, 3000, 3001, 4000, 5000, 8000

BPL: 601, 801, 1001, 1201, 900, 1200

For this retrofit, it doesn't matter if the unit is a gate valve machine or if it is a rock valve machine.

NOT SURE?

If you are unsure if your unit needs the retrofit or if it needs additional modifications, or if you don't know which kit would be best for you, help is available from the Schwing America Service Department to answer these, or any other questions. You can reach us at (651) 653-2299. Many times, a phone call is all it takes to clarify an issue. If you're still unsure, a service man can be sent to your location to evaluate your unit(s), make recommendations, and perform the installation. Regular service rates will apply.

Contents of the kits:

Kit 1: \$250.

Contains the following items:

<u>item No.</u>	<u>qty</u>	<u>part number</u>	<u>description</u>
1	1	10073152	Washer, spring (EV 355.111) (spring guide)
2	1	10073151	Washer, spring (EV 355.110) (spring guide)
3	1	10013491	Spring, pressure
4	1	30341049	E-stop station, w/collar, w/3 contact blocks
5	1	10022172	Cable screw joint complete PG 13.5 straight
6	1	30343030	Bracket, E-stop switch
7	4	10001930	Screw DIN 84 M4 x 25 5.8
8	1	30340149	Decal, Emergency Stop, Trilingual

Kit 2: \$900.

Contains the following items:

<u>item No.</u>	<u>qty</u>	<u>part number</u>	<u>description</u>
1	1	10073152	Washer, spring (EV 355.111) (spring guide)
2	1	10073151	Washer, spring (EV 355.110) (spring guide)
3	1	10013491	Spring, pressure
9	1	30353823	Control panel, E-stop retrofit
10	1	30353825	Bracket, E-stop control panel
11	4	10001930	Screw DIN 84 M4 x 25 5.8

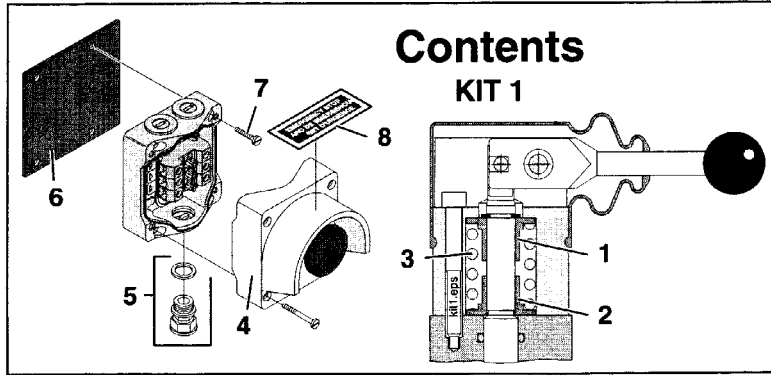


Figure 1
Contents of Kit #1

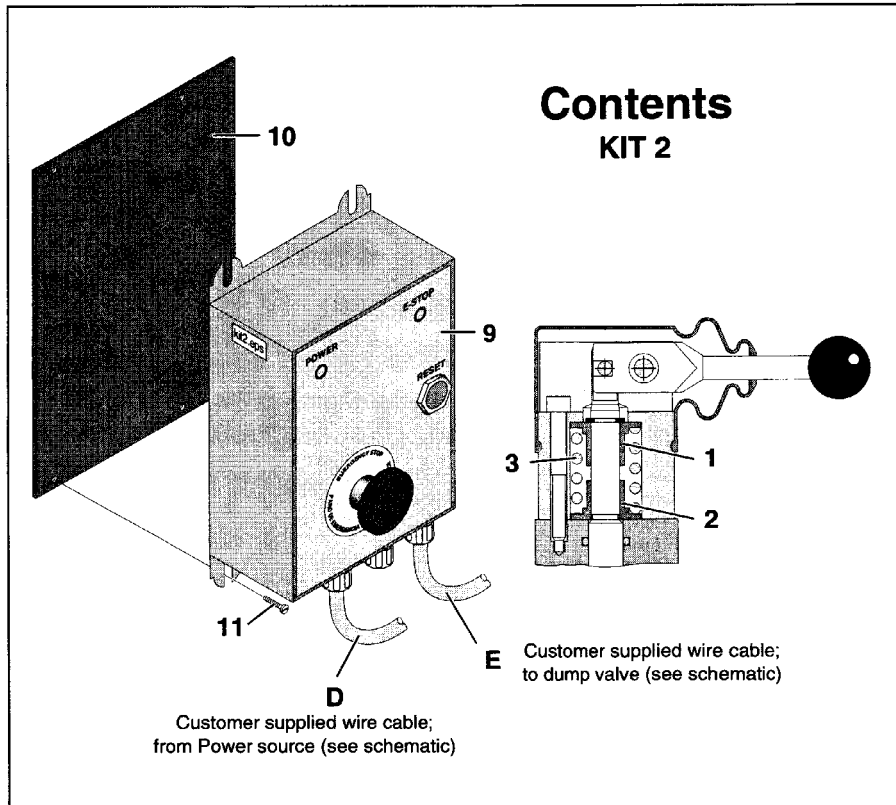


Figure 2
Contents of Kit #2

Kit 3: \$1500.

Contains the following items:

<u>item No.</u>	<u>qty</u>	<u>part number</u>	<u>description</u>
1	1	10073152	Washer, spring (EV 355.111) (spring guide)
2	1	10073151	Washer, spring (EV 355.110) (spring guide)
3	1	10013491	Spring, pressure
9	1	30353823	Control panel, E-stop retrofit
10	1	30353825	Bracket, E-stop control panel
11	4	10001930	Screw DIN 84 M4 x 25 5.8
12	2	30333030	Check valve cplt MJMG-133, C400 1/2"BSPP
13	2	30313715	Tube assy 16mm x 6-5/8" Ig. (1) 90° bend @ 2"
14	1	10049902	Hose, high pressure DN 13/4 x 550 DKO-S
15	1	10091305	Valve directional seat 2/2 MSV 222 PC 10 NH 12V
16	1	10019792	Connection plate
17	1	10007751	Valve Plug GDM 309
18	1	10013470	Sealing, GDM 3-16, 30.5 x 30.5 x 1.5
19	2	10003956	Sealing ring DIN 7603 A 17 x 21 CU
20	2	10001767	Screw DIN 908 R 3/8" 5.8
21	2	10000331	Screw Joint, RED-R3/8" / R1/2"
22	5	10009282	Fitting, straight GES-16-SR 1/2"
23	1	10030252	Fitting, straight GES-12-LR 1/2"
24	2	10018848	Screw Joint, ELSD-16-S (T fitting)
25	1	10019121	Fitting, Tee ELSD-12-L
26	1	10008056	Fitting, Tee TS-16-S
27	1	10019122	Pipe Coupling Body, EWSD - 16 - S (SB)
28	1	30307089	Valve bracket
29	2	10000985	Screw DIN 912 M10 x 40 8.8
30	2	10001577	Washer, spring DIN 127 A 10 FST
31	2	10001250	Nut DIN 934 M10 8

The following items are NOT included but are needed to finish the installation.

- 1 A on dwg. Hose, high pressure 8/2 x length (measure for your unit)
- 1 B on dwg. Hose, high pressure 13/4 x length (measure for your unit)
- 1 C on dwg Hose, high pressure 13/4 x length (measure for your unit)
- 1 D on dwg 12 gauge wire cable (measure for your unit)
- 1 E on dwg. 16 gauge wire cable (measure for your unit)

Please note! All electrical devices are rated at 12 VDC. If you require a different voltage, contact Schwing America's Service Department at (651) 653-2299.

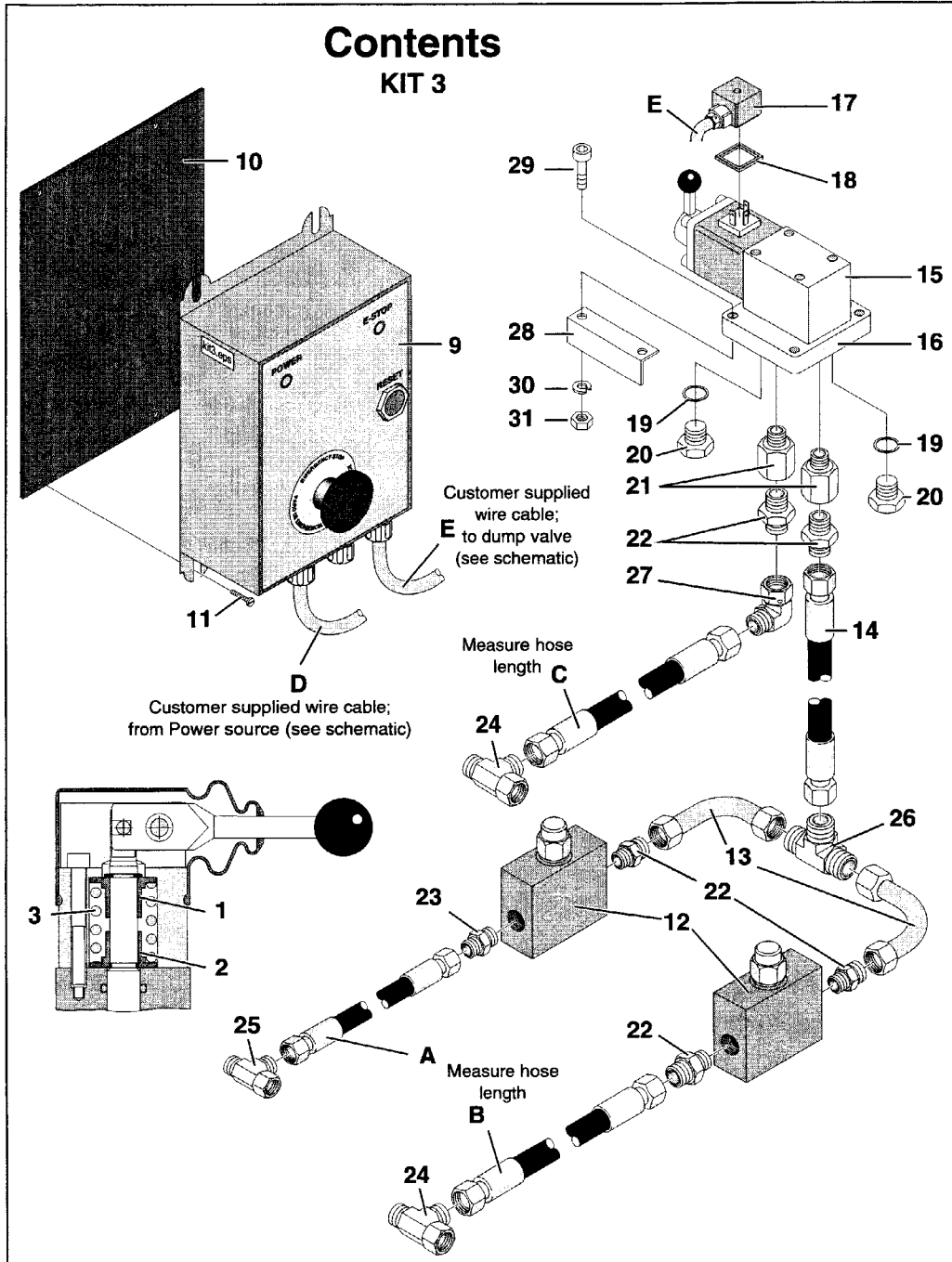


Figure 3
Contents of Kit #3

Kit 4: \$1750.

Contains kit #3, plus the following items:

item No.	qty	part number	description
15	1	10091305	Valve directional seat 2/2 MSV 222 PC 10 NH 12V
16	1	10019792	Connection plate
17	1	10007751	Valve Plug GDM 309
18	1	10013470	Sealing, GDM 3-16, 30.5 x 30.5 x 1.5
19	2	10003956	Sealing ring DIN 7603 A 17 x 21 CU
20	2	10001767	Screw DIN 908 R 3/8" 5.8
25	2	10019121	Fitting, Tee ELSD-12-L
28	1	30307089	Valve bracket
29	2	10000985	Screw DIN 912 M10 x 40 8.8
30	2	10001577	Washer, spring DIN 127 A 10 FST
31	2	10001250	Nut DIN 934 M10 8
32	2	10009282	Fitting, STR GES - 12 - LR 3/8
33	1	10018570	Fitting, EL EWSD-12-L

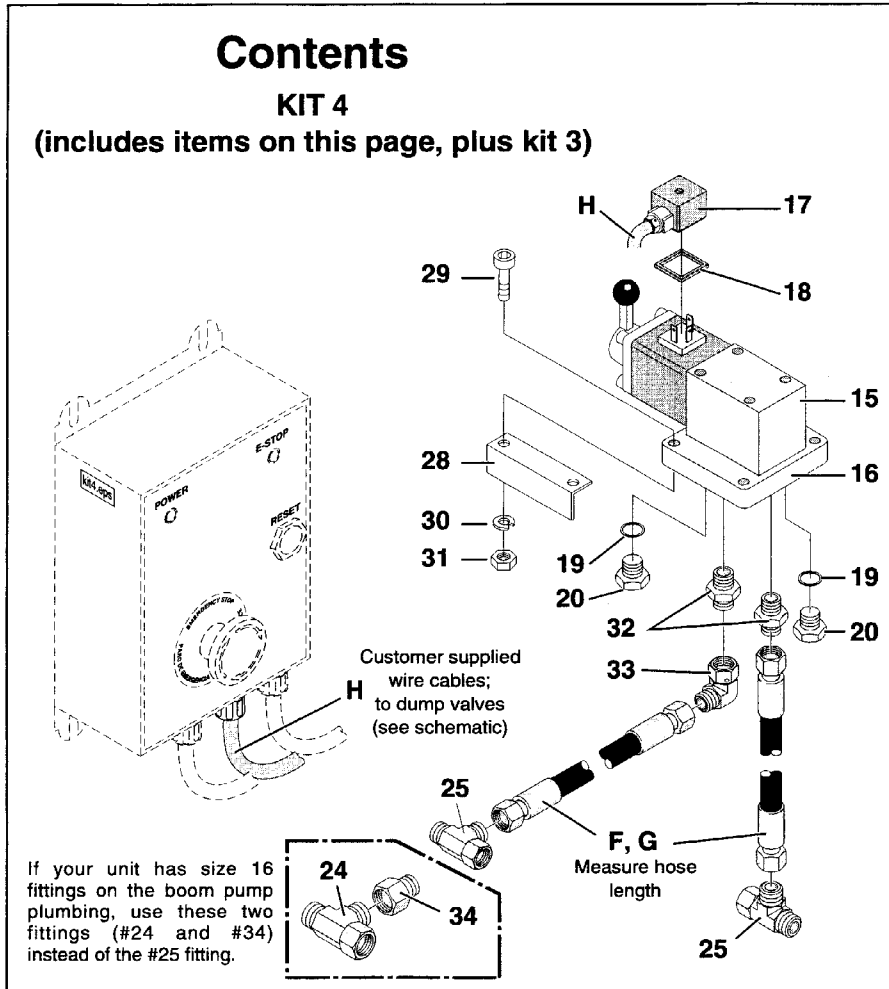
The above assumes the boom pump output to be 12 mm fittings. If your unit has 16 mm fittings on the boom pump, you'll need to install the following fittings as shown on the kit 4 illustration:

34	1	10008068	Pipe coupling body K-REDS-16S / 12L
24	1	10018848	Screw Joint, ELSD-16-S (T fitting)

The following items are NOT included but are needed to finish the installation.

- 1 F on dwg. Hose, high pressure 8/2 x length (measure for your unit)*
- 1 G on dwg Hose, high pressure 8/2 x length (measure for your unit)*
- 1 H on dwg 16 gauge wire cable (measure for your unit)*

Please note! All electrical devices are rated at 12 VDC. If you require a different voltage, contact Schwing America's Service Department at (651) 653-2299.



To make the modification:

When the kit arrives, install it as follows:

1. Position the dump valve(s) near the center of the unit. Find a location where the valve doesn't create a trip or fall hazard and is protected from the elements.
2. Locate the E-stop station or E-stop controller near the hopper, where it is easily accessible and readily visible. It would be best if the location were away from the slamming of the concrete valve and damaging road spray.

Note! Remove the electronic controller from the back plate before welding. Also, disconnect the battery from the unit before welding. When welding, keep the ground wire near the welding location so current will not travel through bearings or cylinders.

-
3. Measure the length of wire cables needed.
 - a. For kit #1 or kit #2, you need a two wire, 12 gauge cable to come from the electric supply, to the E-stop station and back to the electric junction box.
 - b. Kit #3 or #4 requires a two wire, 12 gauge cable to bring power to the E-stop controller (D, shown in kit #3), and a two wire, 16 gauge cable to deliver power from the E-stop controller to each dump valve (E & H, shown in kit #3 and kit #4).
 4. Measure the length of the hoses you need to add to plumb the components as shown in the illustrations for kit #3 and/or kit #4. Order the hoses if you don't already stock them. **Note:** Hose sizes are somewhat standardized. All hoses lengths ordered are rounded UP to the nearest standard size.
 5. Shut off the unit, put the key in your pocket, and put a "do not operate" sign on the door or windshield.
 6. You have to have access to the forward/neutral/reverse handvalve. On some units, it is inside of a control panel. In this case, remove the valve assembly from the control panel.
 7. Change the concrete pump forward/neutral/reverse valve from detented to spring-returned. To do this, follow the steps below.
 - a. Remove the rubber boot from the concrete pump forward/neutral/reverse handvalve. You will see the three screws that hold the handle and actuator assembly to the valve body. (See figure 5.)
 - b. Remove the three socket head screws.
 - c. Using a punch, drive the spool/handle pin out of the valve.
 - d. Remove the actuator assembly from the valve.
 - e. Replace the washer, spring, and detent with the new washers and spring.
 - f. Remove both detent ball assemblies. Replace the screw (only) to keep dirt out of the valve.
 - g. Replace the actuator assembly. Insert the spool handle pin. Reinstall the socket head screws.
 - h. Reinstall the rubber boot.
 - i. Reinstall the valve assembly in the control panel (if located there originally).
 8. When your hoses arrive, plumb the dump valves into the system according to the schematic. Basically, the hose leading to one check valve must be "teed" into the agitator pump outlet, and the hose leading to the other check valve must be "teed" into the relief valve vent. The vent line is the hose that comes from the main relief valve to the "C" port of the concrete pump forward/neutral/reverse valve. (See figure 6.)
 9. When your wire cables arrive, attach them as shown on the schematic. There are too many models covered by this bulletin to be specific about where to attach the wires. If you are unable to read the schematic, please contact our Service Department.

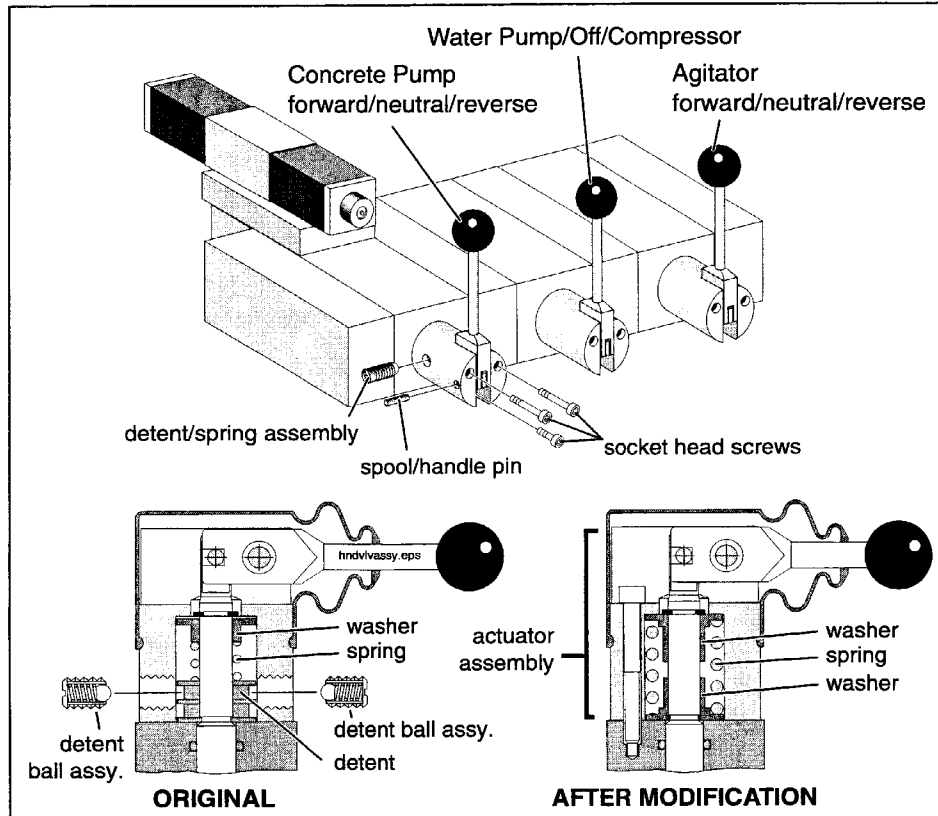


Figure 5
Components of the forward/neutral/reverse handvalve

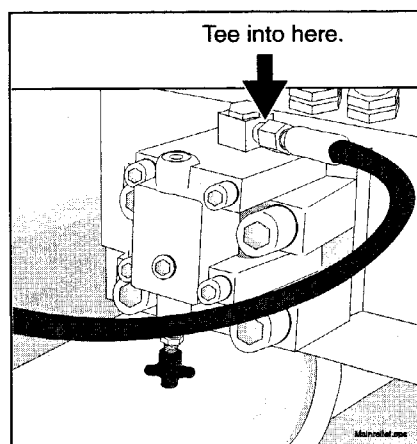
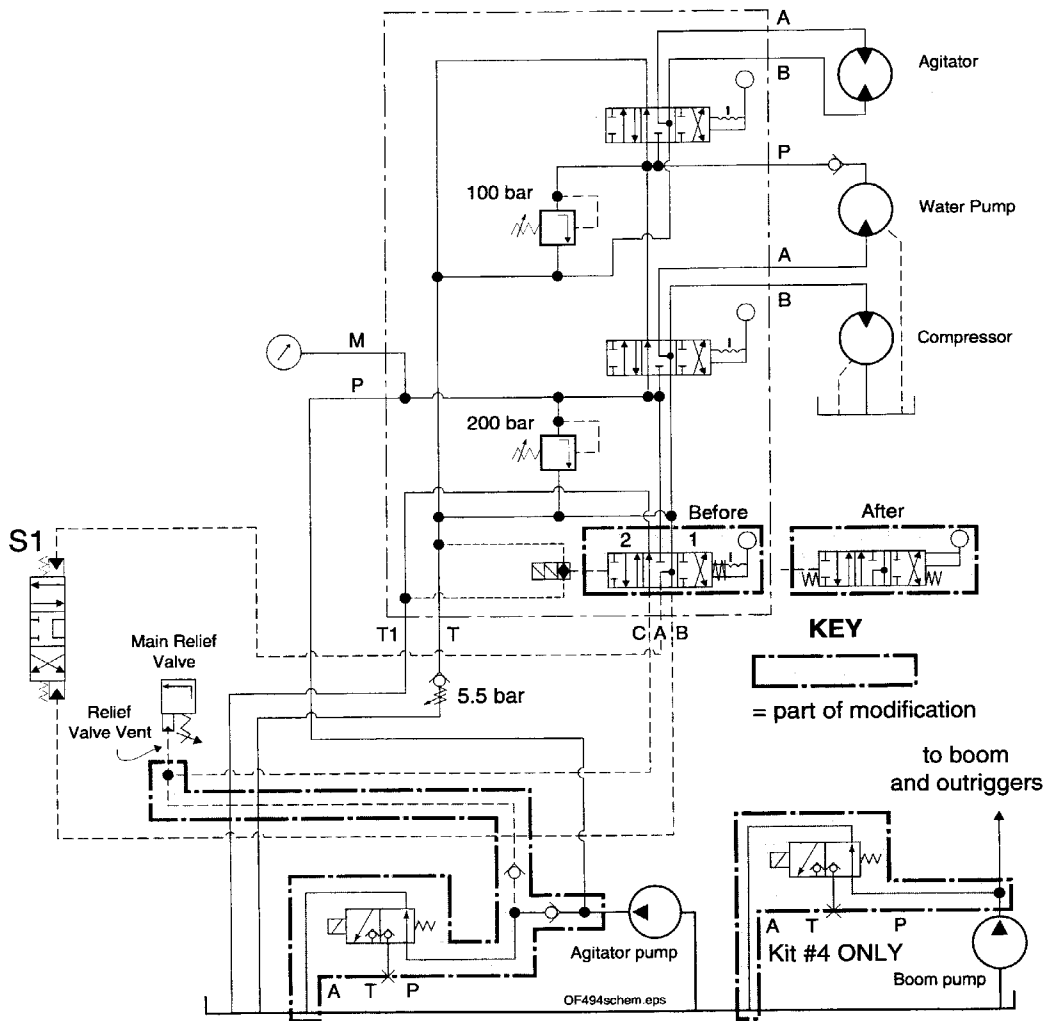


Figure 6
Relief valve vent

Typical Hydraulic Schematic




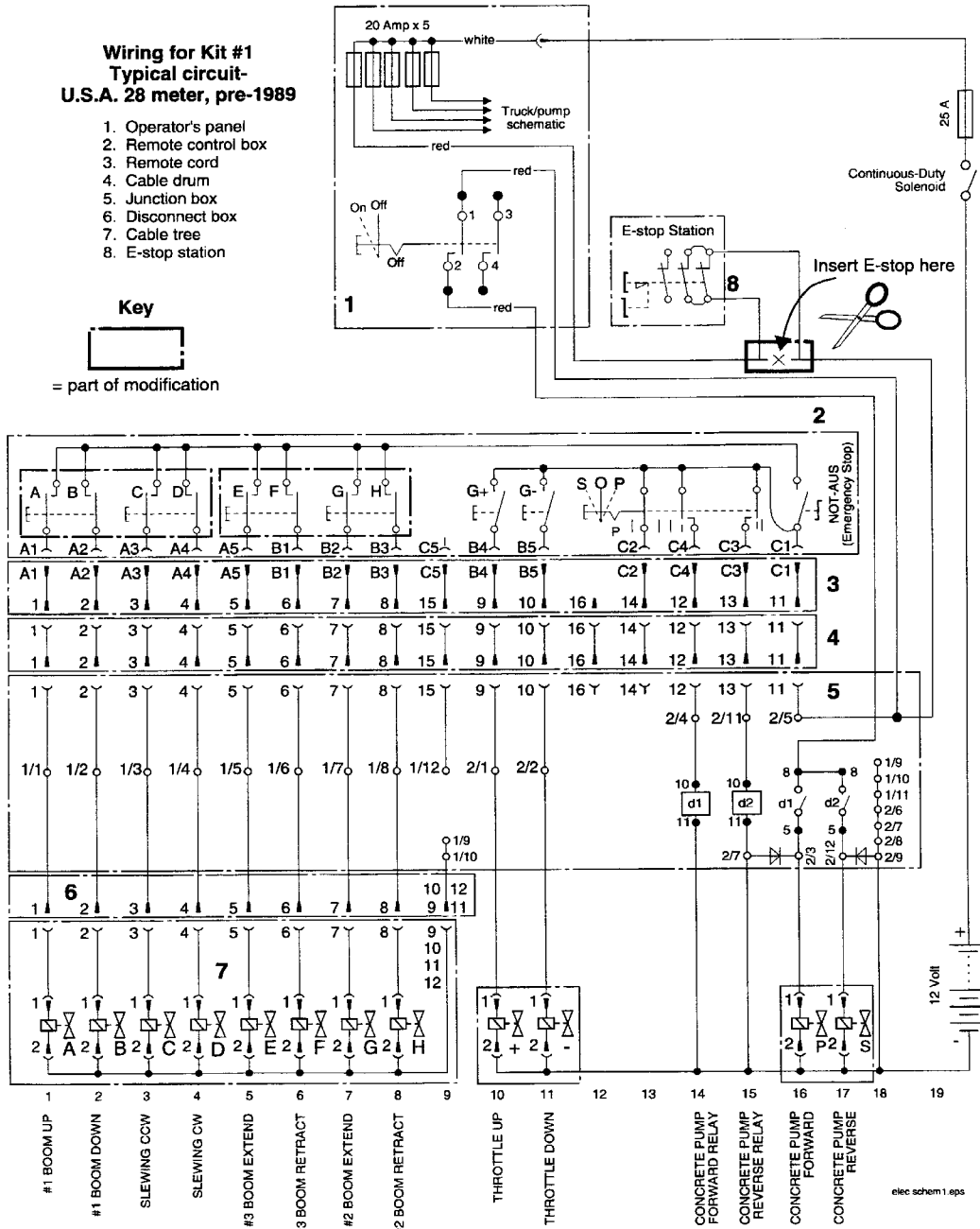
Typical Electric Schematic - Kit #1

Wiring for Kit #1 Typical circuit- U.S.A. 28 meter, pre-1989

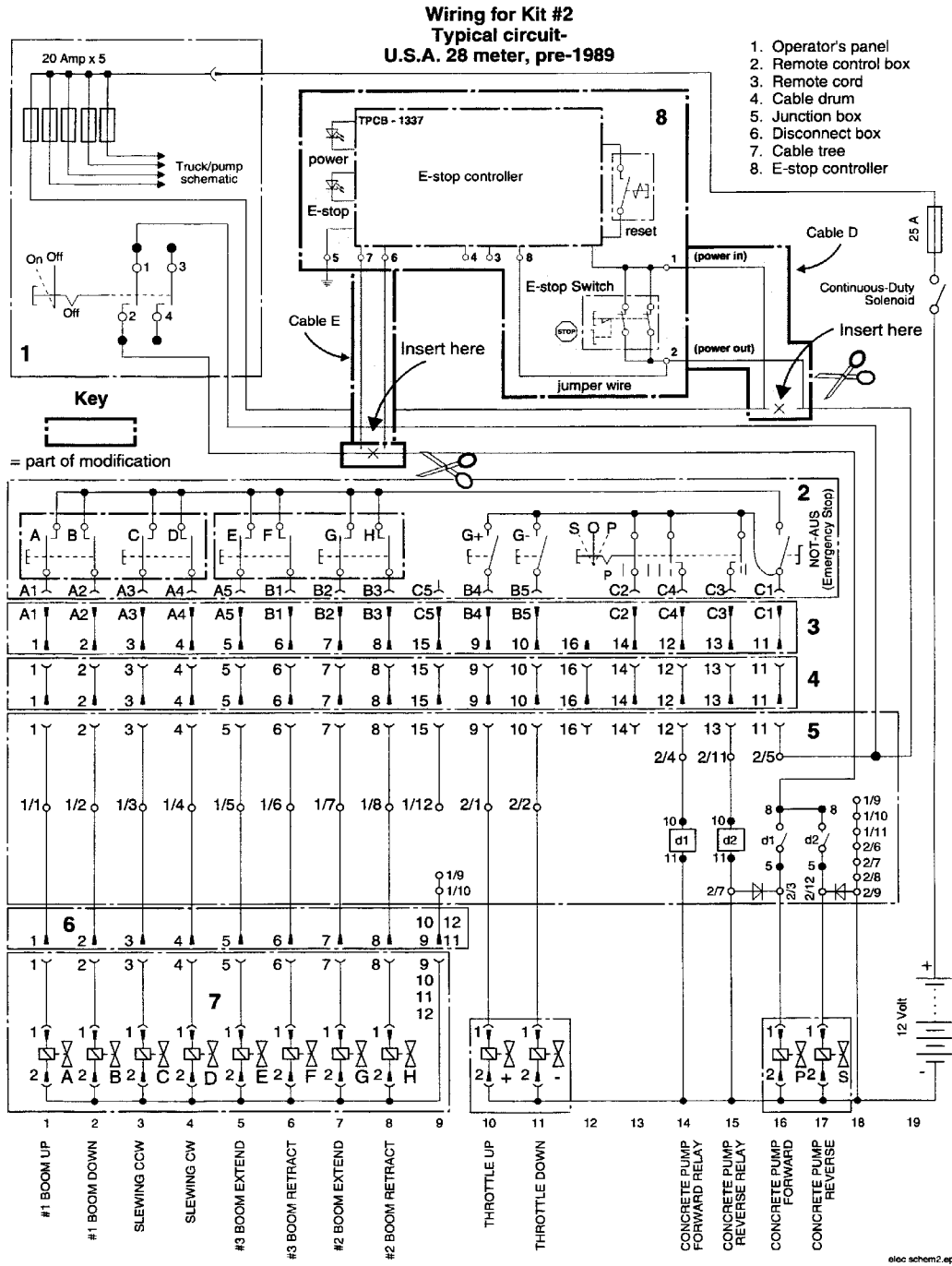
1. Operator's panel
2. Remote control box
3. Remote cord
4. Cable drum
5. Junction box
6. Disconnect box
7. Cable tree
8. E-stop station

Key

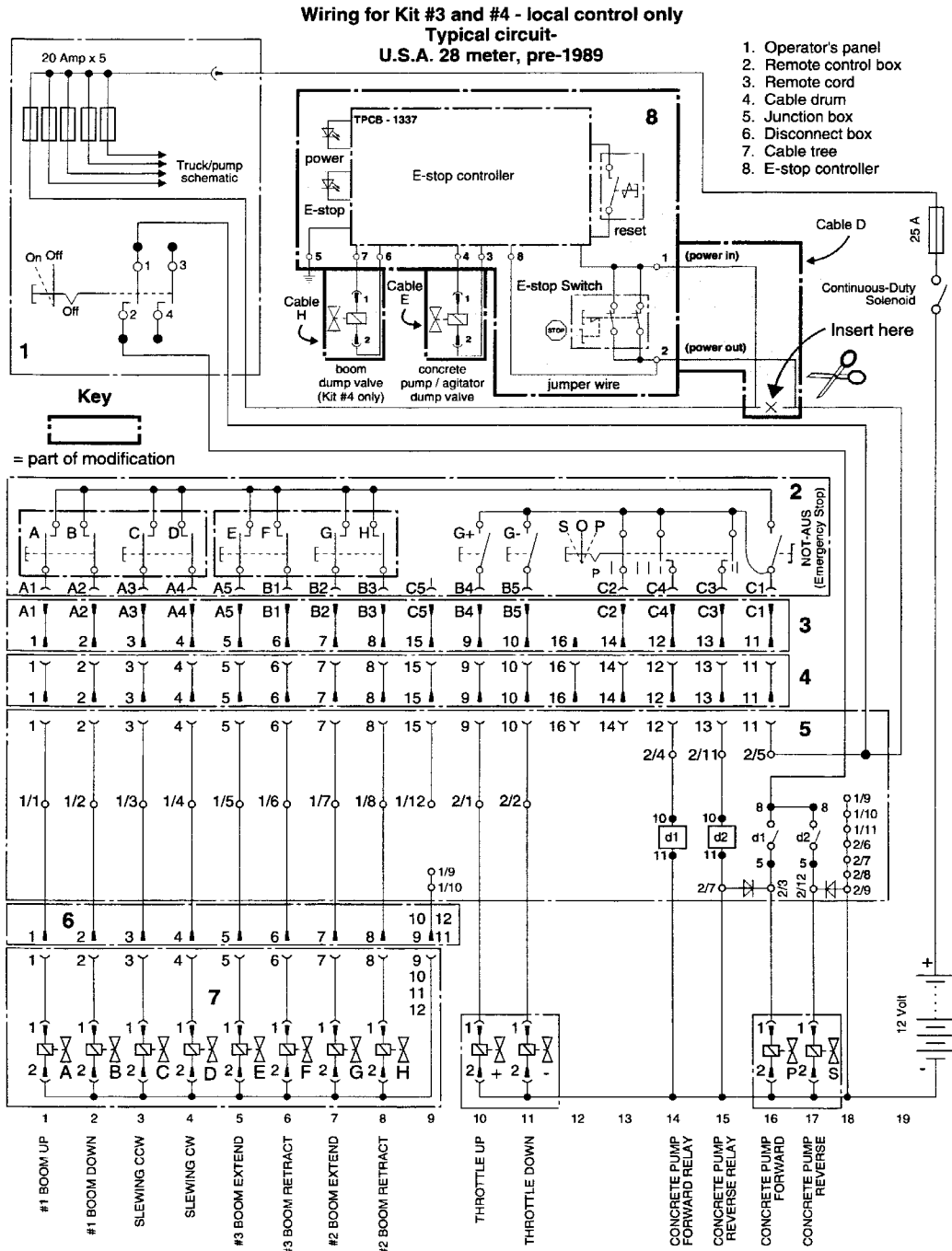

= part of modification



Typical Electric Schematic - Kit #2



Typical Electric Schematic - Kit #3 or #4 - Local Control Only



Bulletin#: G-105-99

Date: 08/24/99

Subject: New Safety Manual

August 24, 1999

Safety/Service Bulletin G-105/99

Subject: New Safety Manual

Dear Schwing Customer,

The *Safety Manual* has been updated. *Safety Manual* version 2.0.3 is the result of the combined experience of many people in the concrete pumping industry. It can be a valuable asset in the pursuit of a safe workplace.

In addition to the complete, paperback manual, we've included a sample of the laminated *Quick Index*, and a sample of the laminated *Co-worker Safety Rules*. Both of these publications are meant to be kept on the unit, for reference. *Co-worker Safety Rules* is intended to be read and understood by the placing crew, and the workers assigned to the pump. Please instruct your operators to make this information available to their co-workers, and to read the information to the workers if they believe the workers wouldn't understand the printed text.

It is our objective to get a copy of each of these publications into the hands of every operator. Please help us make these publications effective for jobsite safety by obtaining a copy for each of your operators, and encourage them to read and understand the rules.

To obtain more manuals, please fill out the attached form(s) and fax it to us at the number listed. We will ship one set of manuals free of charge for each unit that is listed with its serial number and current location. Additional manuals are available at a nominal fee for meetings, presentations, or any other reason.

Thank you in advance for your consideration in this matter.

Best Regards,



Robert Edwards
Manager, Product Safety Department
Schwing America, Inc.

Safety Manual v 2.0.3 Order Form



Please complete this form and mail to:
Or send via fax to: Fax # (651) 429 - 8261
(publications dept.)

5900 Centerville Road
White Bear, Mn. 55127
Telephone (651) 429-0999
Attention: Publications

Company: _____	
Street Address: _____ <small>We cannot ship manuals to a P.O. box</small>	
City, State, Zip: _____	
Attention: _____ Phone (_____) _____	
Please send a set of version 2.0.3 manuals for my unit(s).	
Model number: _____	Serial number: _____
Model number: _____	Serial number: _____
Model number: _____	Serial number: _____
Model number: _____	Serial number: _____
Model number: _____	Serial number: _____
Safety Manuals are free with an address and serial number extras are available for a nominal fee.	
Safety Manual v 2.0.3 , part number 30327535	
Quick Index v 2.0.3 , part number 30352798	
Co-worker Safety Rules v 2.0.3, part number 30352799	

Feel free to copy or otherwise reproduce this form if more copies are needed.

Bulletin#: 106-99

Date: 08/24/99

Subject: Boom Cylinder Inspection



5900 Centerville Road
St. Paul, Minnesota 55127
Phone: (651) 429-0999
Fax: (651) 429-3464
Subsidiary of: Schwing GmbH

August 24, 1999

SAFETY BULLETIN 106/99

Dear Schwing Concrete Pump Owner:

In 1995 and 1996, there was a campaign to repair the boom hydraulic cylinders on certain models. We have reason to believe that some additional cylinders may also have to be inspected, replaced, or both.

We are currently trying to determine which specific units are affected. We will complete this search within the next few days. In the meantime, if you or any of your customers have purchased a KVM 23-4, 24-4, 32XL, and/or 42 in 1994, 1995, or 1996, then complete the attached form and return it to SAI in the self-addressed envelope to the attention of Terry Atherton.

Until we can specifically identify which hydraulic cylinders are affected, everyone with the above-mentioned units **MUST READ AND FOLLOW THE ATTACHED INSTRUCTIONS CAREFULLY.**

Sincerely,

SCHWING AMERICA, INC.

A handwritten signature in black ink, appearing to read "T. Anderson", with a long horizontal line extending to the right.

Thomas M. Anderson
President

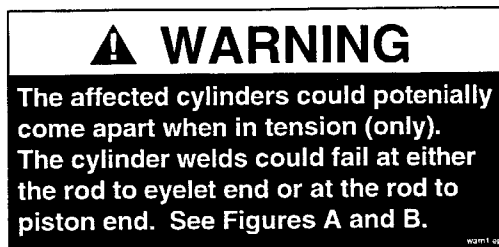


Use Instructions

for Units with Suspected Defective Welds on Hydraulic Boom Cylinders

Use these instructions until your unit(s) have been inspected and verified not in the list of suspect cylinders, or until the cylinders have been replaced.

Figure A shows the location of the welds in question.



Failures could occur while the boom is being folded or unfolded. During folding and unfolding, the following cylinders are in tension, or have a pulling force (see Figure B):

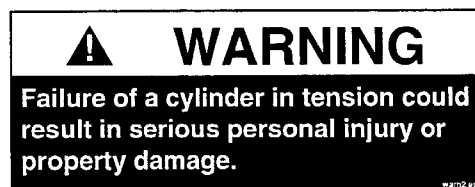
- On all three section booms: cylinders for #2 and #3 booms
- On all four section booms: cylinders for #2, #3, and #4 booms.

Figures C, D, and E show the danger zone while folding and unfolding the boom. **No one is allowed to stand under these areas during folding and unfolding.**

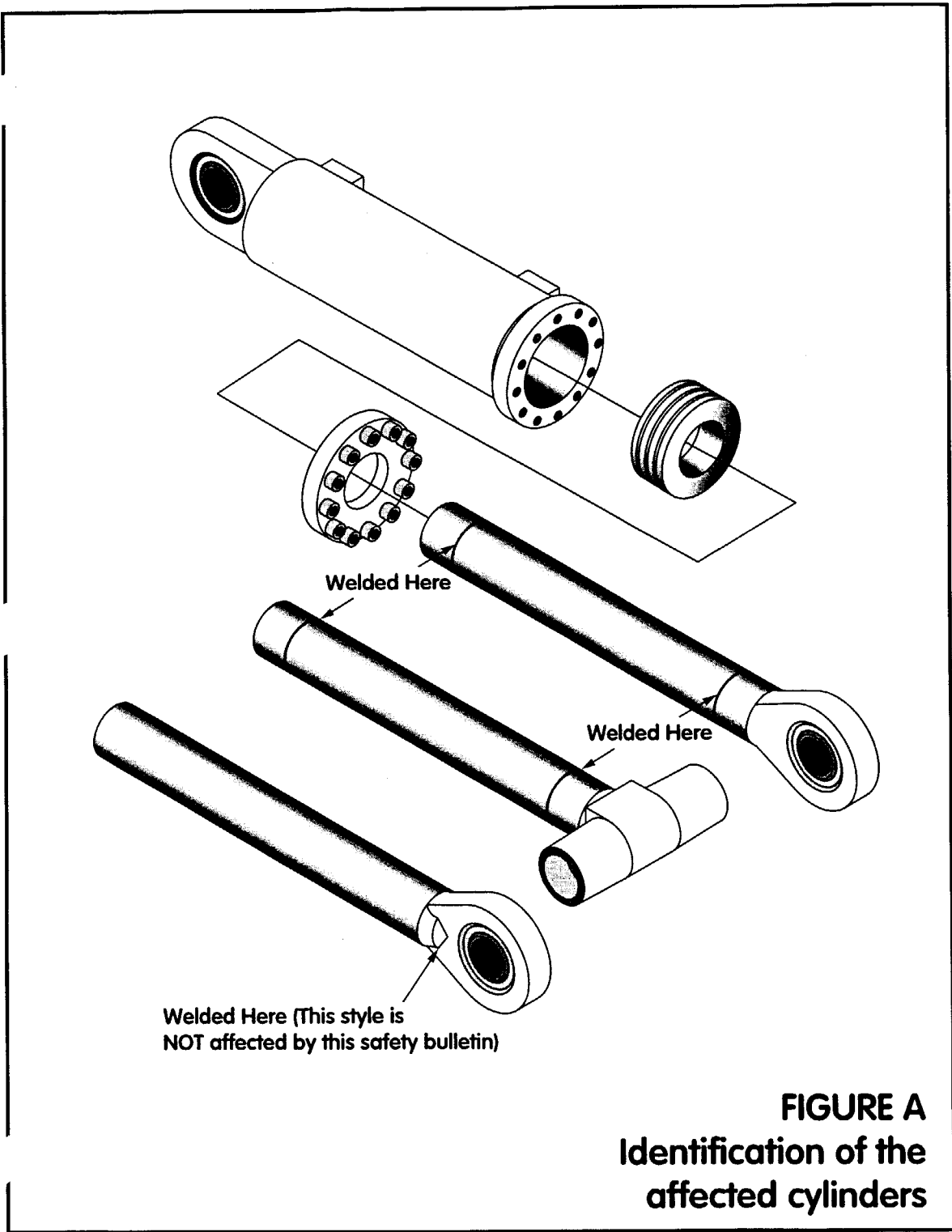
There are areas of boom movement while pumping that can potentially put the cylinders into the tension position. We have enclosed Figures F, H, and J showing those areas. **DO NOT USE THE BOOM IN THOSE POSITIONS.** Figures G, I, and K show the booms in positions which result in the cylinders being in compression only. You can still use the booms as normal in those positions.

The method for releasing the tip hose shown in the operation manual puts the boom cylinder into a tension position (Figure L). **Do not use the procedure for releasing the tip hose outlined in the operation manual until affected cylinders are inspected, repaired, or replaced.**

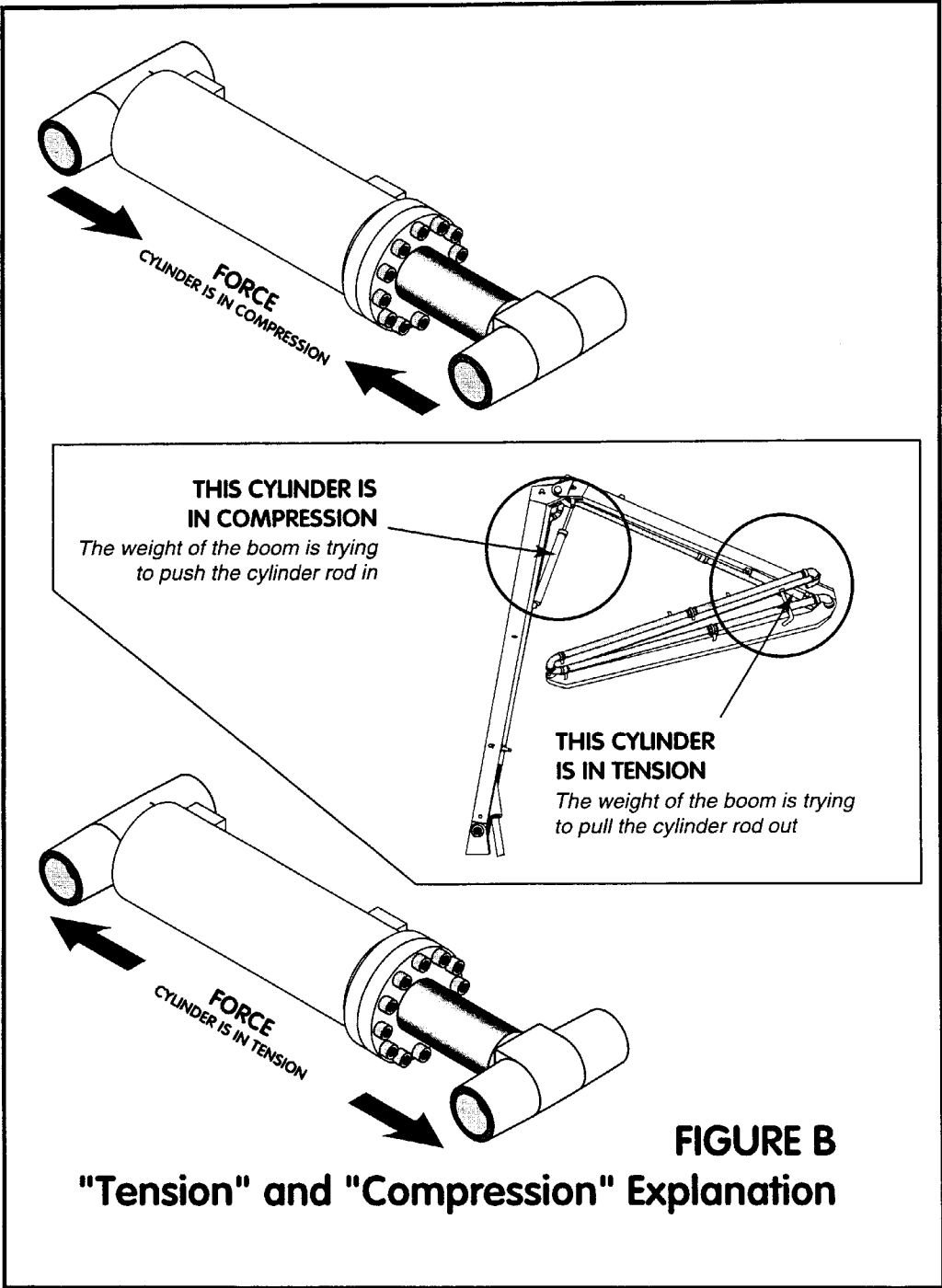
A representative of Schwing America, Inc. will contact you concerning the replacement procedure.



Your full cooperation through usage as outlined above is necessary as we undertake to replace these cylinders. Thank you for your assistance and cooperation in this matter.



Safety Bulletin 106/99



Clear all personnel from the grey areas before moving the boom!

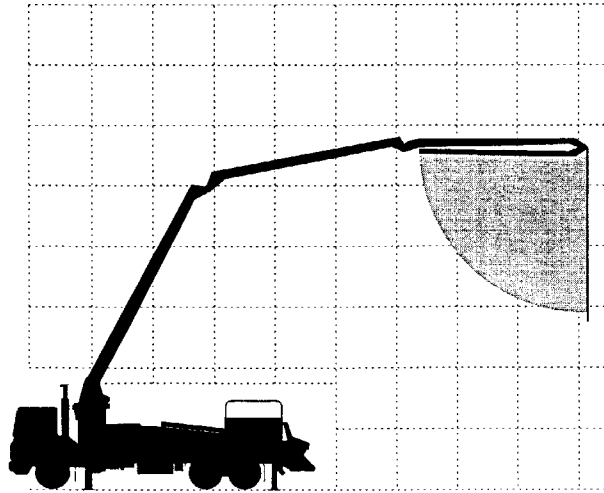
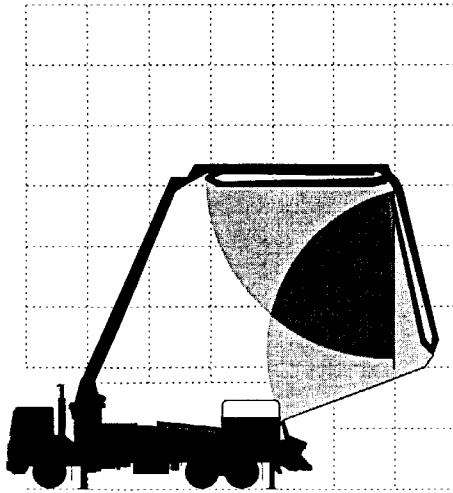
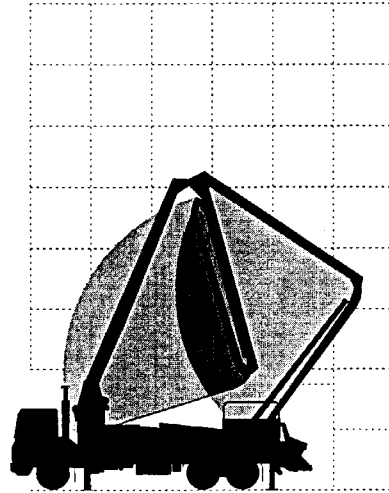
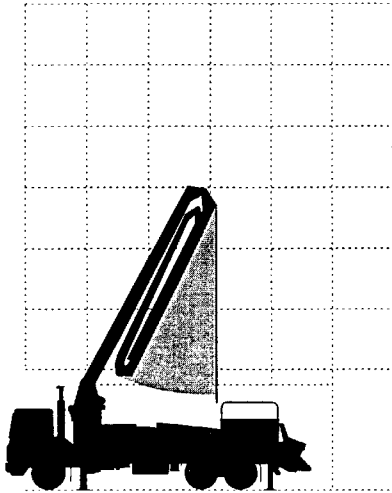


FIGURE D
Models: 26-4, 32XL, 36X, 42
Folding / Unfolding Danger zones

Clear all personnel from the grey areas before moving the boom!

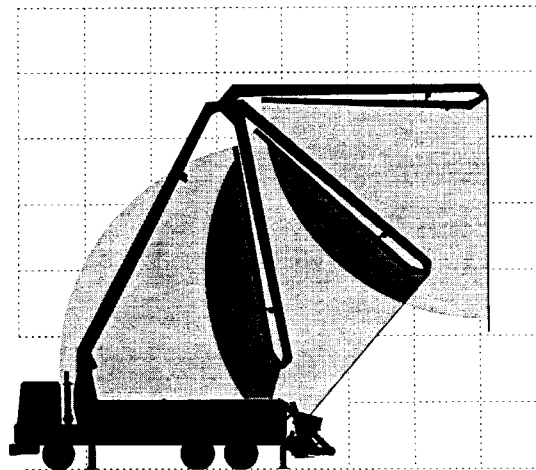
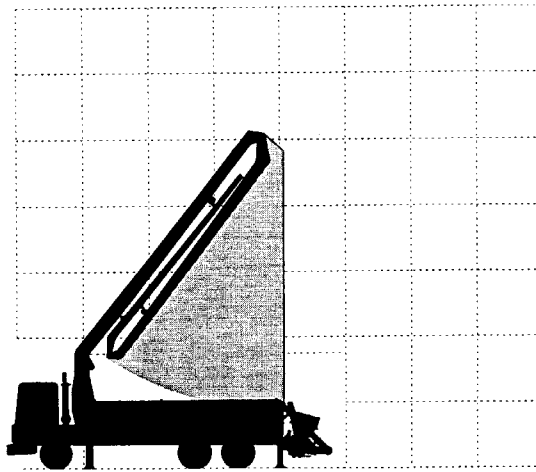
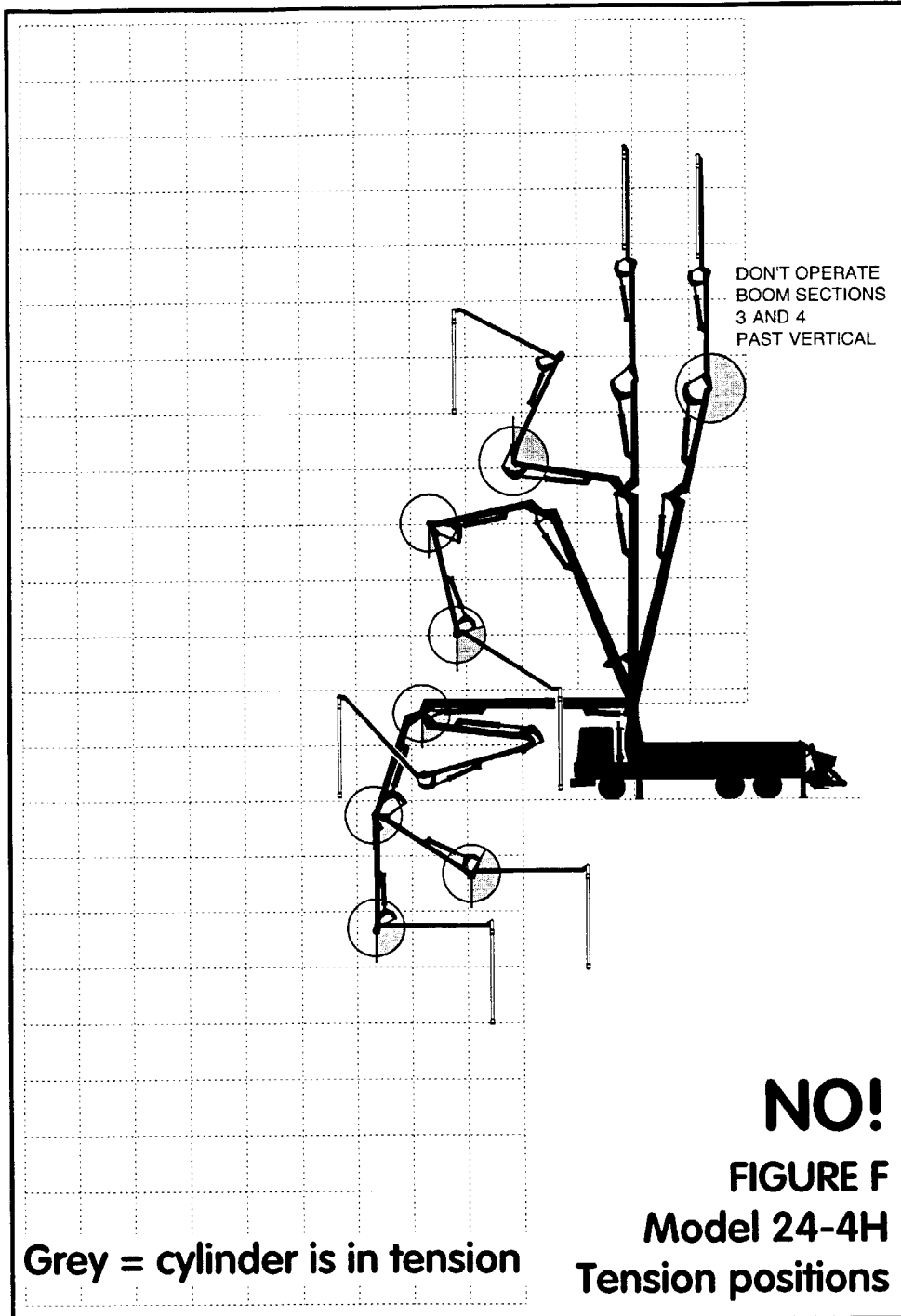
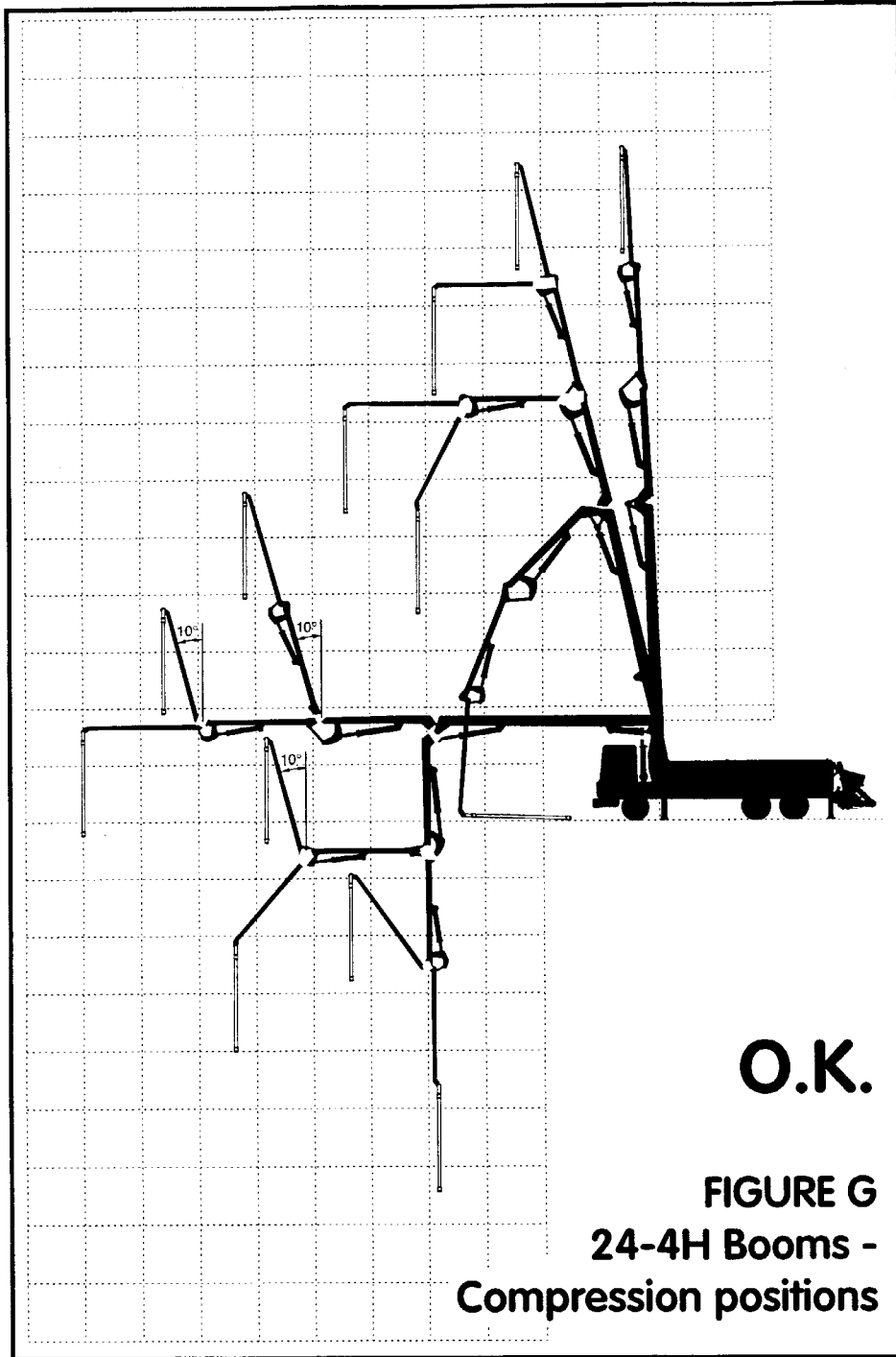
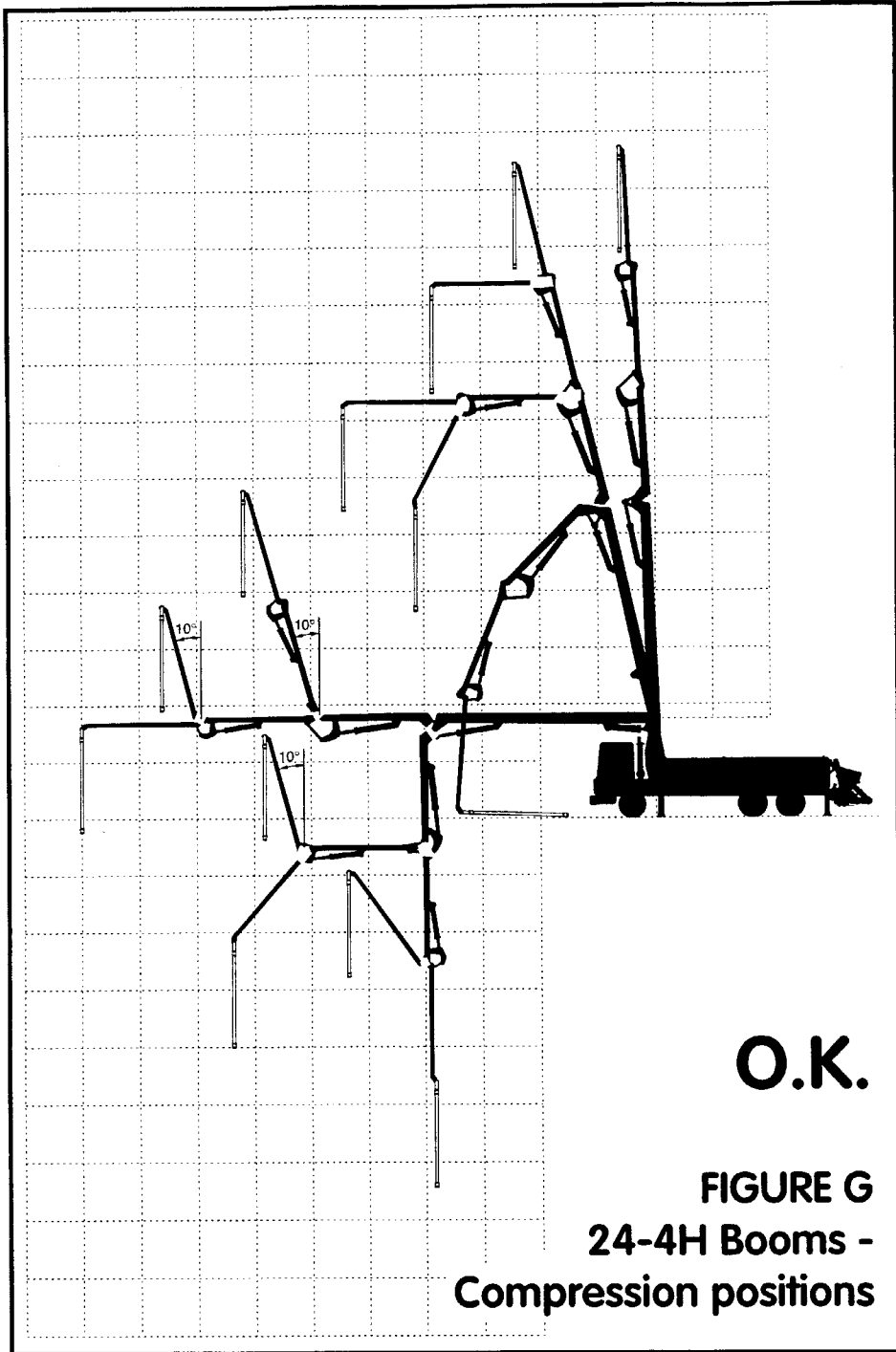


FIGURE E
3 section booms
Folding / Unfolding Danger zones

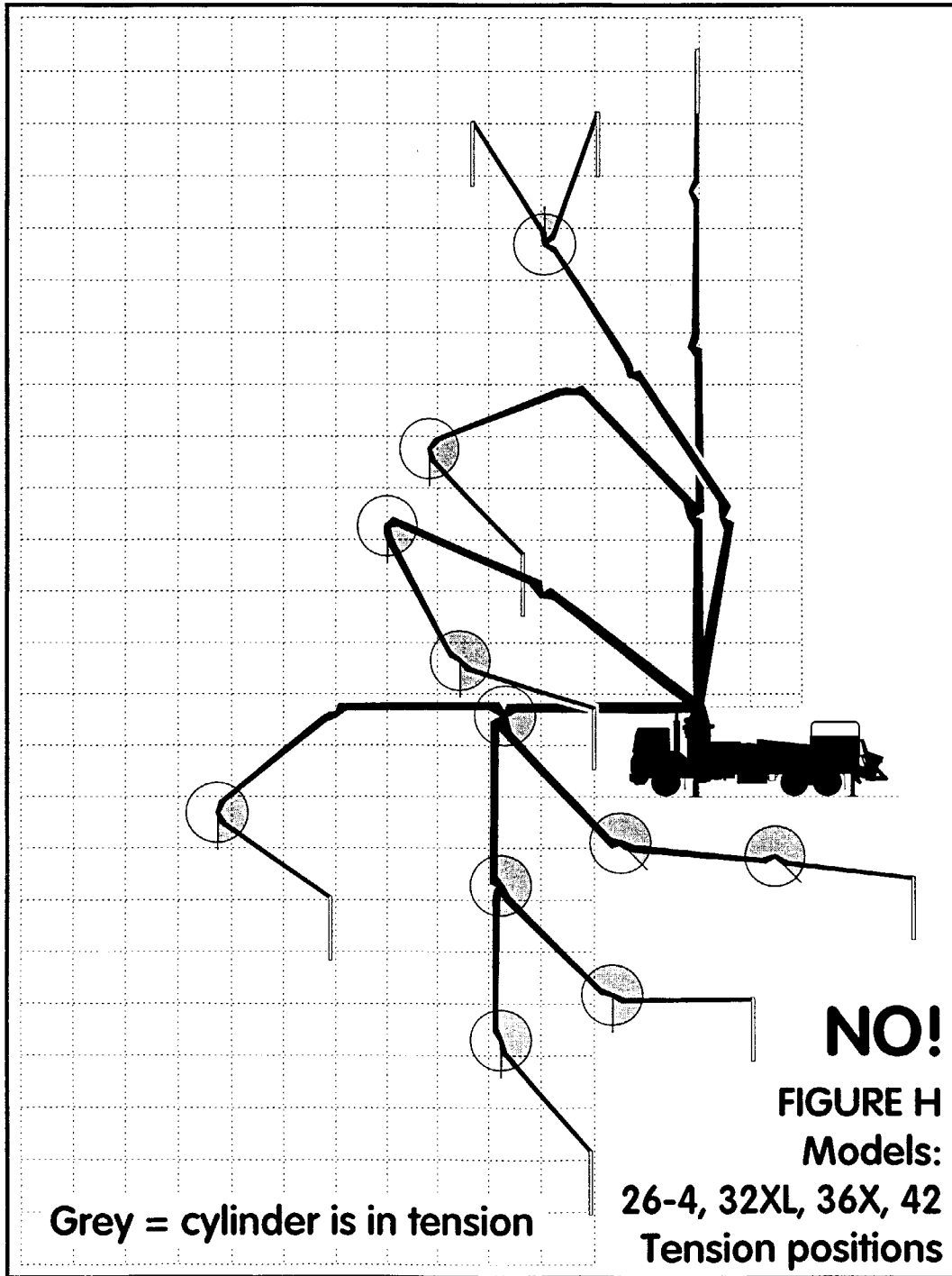


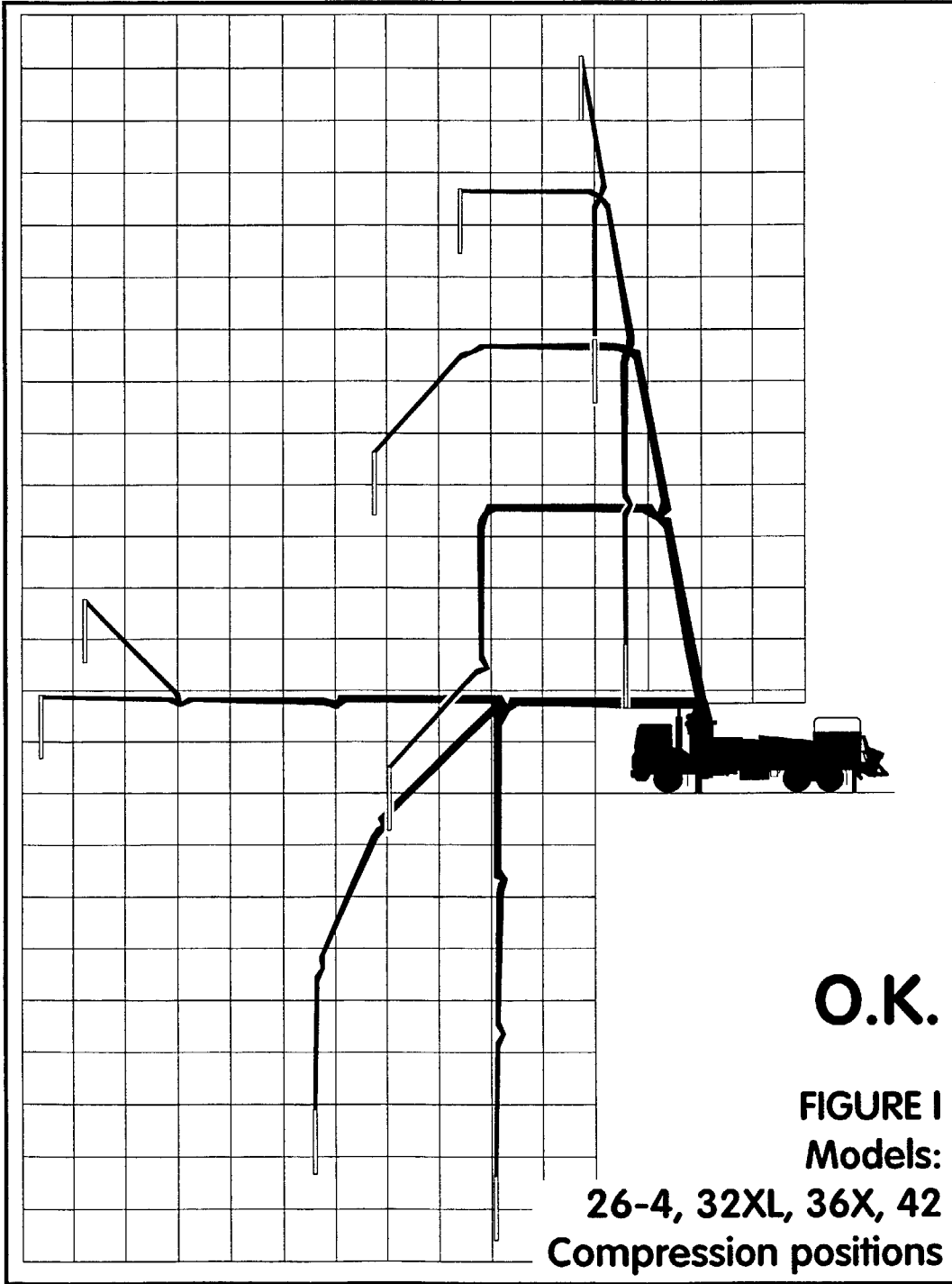


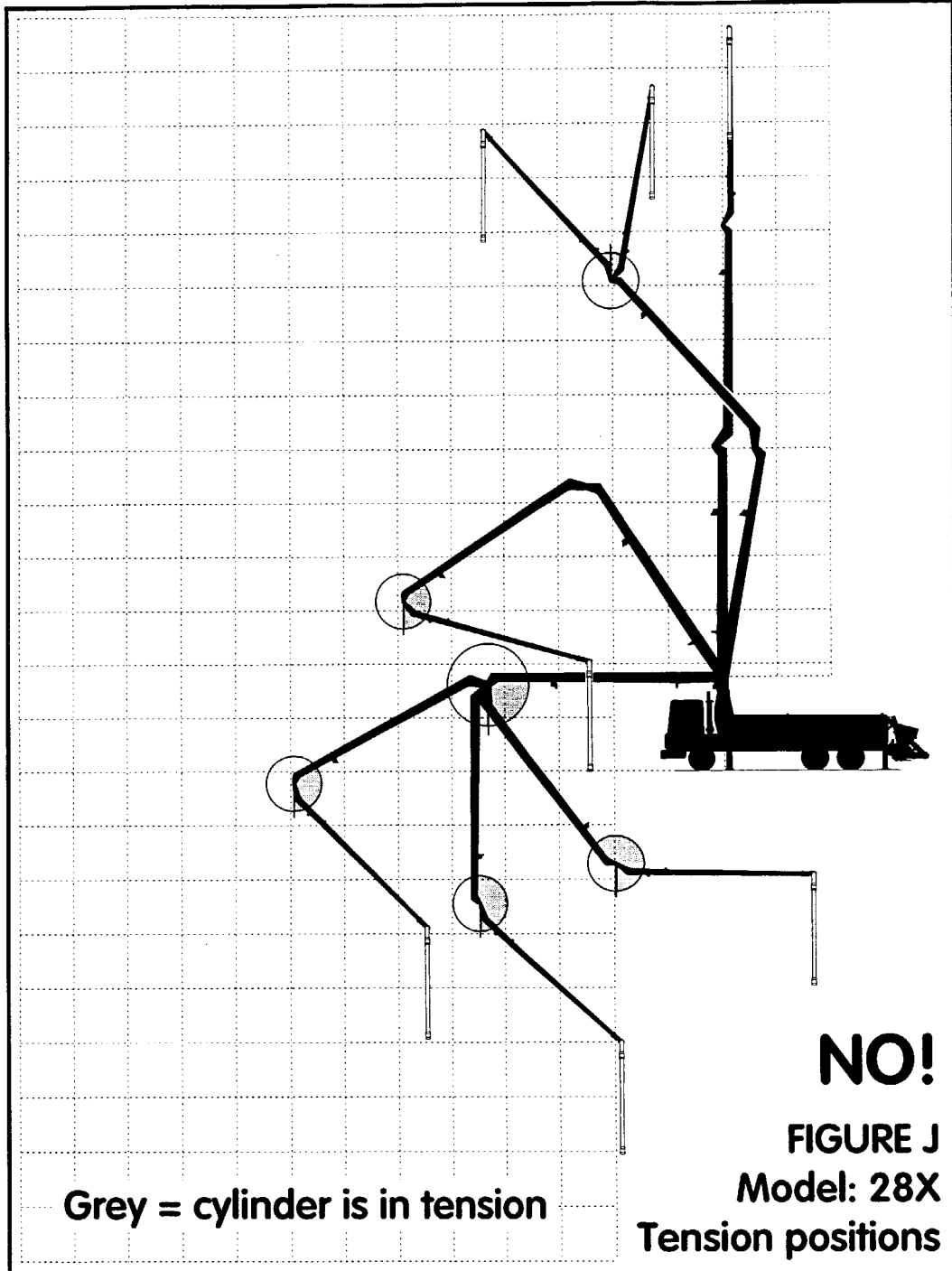


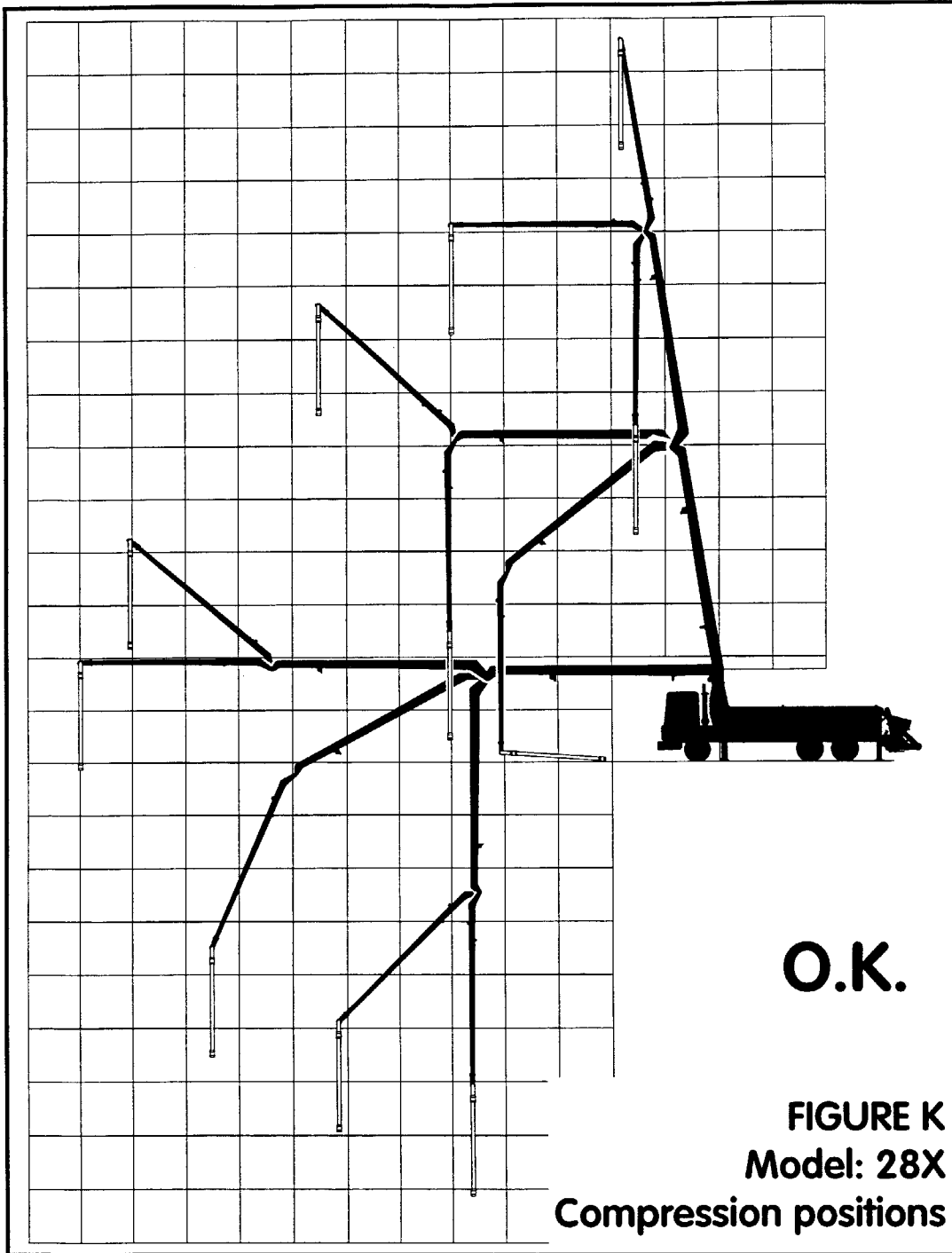
O.K.

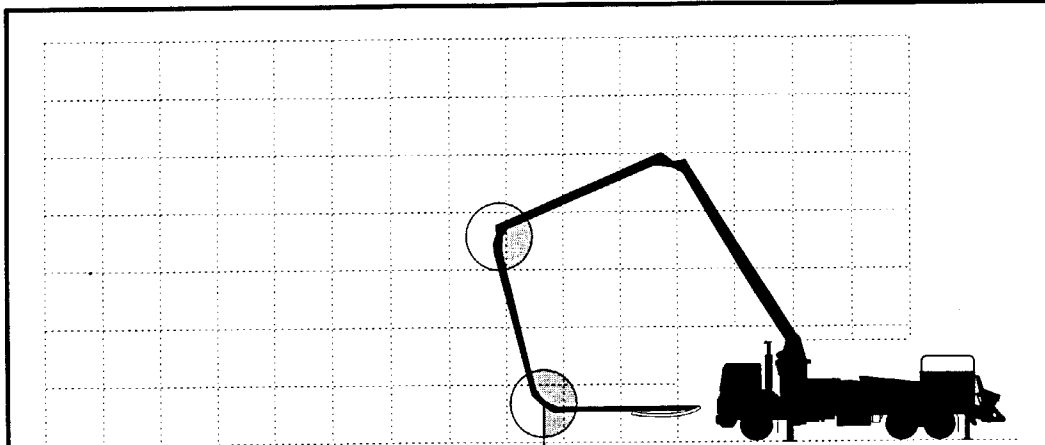
**FIGURE G
24-4H Booms -
Compression positions**



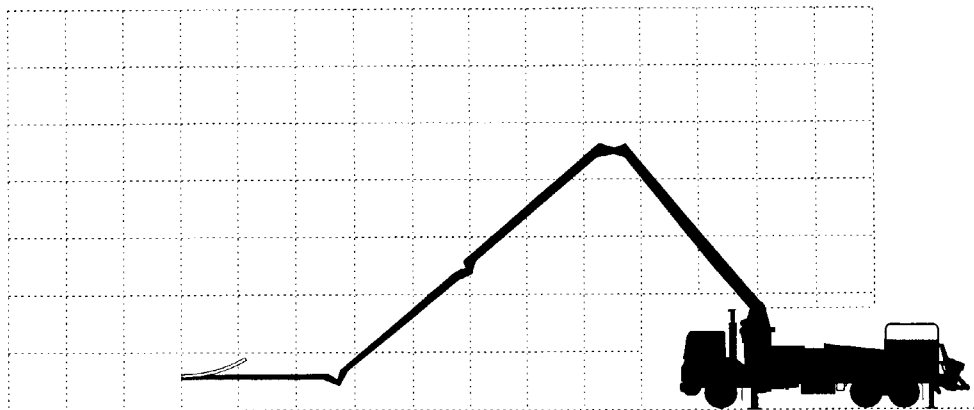








Normal - (DO NOT use this method until cylinders have been replaced)



Special - (PLEASE USE this method until cylinders have been replaced)

FIGURE L
Releasing the tip hose

Customer: _____

Serial Number: _____

Our records indicate that the above unit was sold to you. Please verify that this unit is in your fleet and the address where the unit is located.

YES, we still own this unit. It is located at:

NO, we sold this unit to:

Phone: _____

If you have sold this unit, return a copy of this form and forward both letters to your customer. If the unit has not been sold, please return a copy of this to Schwing America, Inc. We will be in further contact to replace your boom hydraulic cylinders.

It is important that a copy of this form be returned in the enclosed envelope to Schwing America, Inc., immediately.

Thank you for your prompt attention.

**Please make as many copies of
this form as is necessary for
your fleet.**

Bulletin#: G-107-99

Date: 12/18/99

Subject: Overweight Boom Elbows

Safety/Service Bulletin G-107/99

Subject: Overweight boom elbows

Dear Schwing Customer:

Schwing placing booms are engineered to be among the strongest in the world. It has come to our attention, however, that some after-market parts companies are offering boom elbows which are too heavy even for Schwing placing booms. These elbows are so heavy that using them can cause cracking of the boom and machine tipping. To be sure that you are aware of the maximum weight for each boom elbow and clamp used on Schwing booms, we are providing the information below:

	2-bolt coupling (swivel)	Snap
148mm clamp (Maximum weight): (used on 125 mm and 112 mm pipe)	10.0 lbs	9.8 lbs
	Weight empty	Weight with concrete
125mm elbow (Maximum weight):	36.2 lbs	64.7 lbs
112mm elbow (Maximum weight):	28.7 lbs	47.1 lbs

Sincerely,

Robert Edwards
Product Safety Manager
Schwing America, Inc.

Bulletin#: G-101-00

Date: 09/28/00

Subject: Correction in Service Bulletin: G-104/99



**SCHWING
AMERICA INC.**

Mr. Phil Serre

5900 Centerville Road
St. Paul, Minnesota 55127
Phone: (651) 429-0999
Fax: (651) 429-3464
Subsidiary of: Schwing GmbH

September 28, 2000

SAFETY/SERVICE BULLETIN: G-101/00

RE: CORRECTION IN SERVICE BULLETIN G-104/99

Dear Ladies & Gentlemen:

We have discovered an error in the schematic shown on page 14 of the above-mentioned bulletin. We are including an updated page 14, showing the correct wiring for that circuit. Please discard the old page 14 and replace with the enclosed new page 14. We apologize for any inconvenience this may have caused.

As always, I would be happy to address any questions or concerns, as would Schwing's Service Department. We may be reached at (651) 429-0999.

Sincerely,

SCHWING AMERICA, INC.

Robert Edwards
Manager, Product Safety Department

RE/di

Enclosure



Bulletin#: 103-02

Date: 06/14/02

Subject: Hydraulic Oil Maintenance

June 14, 2002

SERVICE BULLETIN: 103-02

RE: Hydraulic Oil Maintenance

Dear Schwing Customer:

This Service bulletin is being issued to remind you of the importance regarding the cleanliness of the hydraulic oil in your Schwing pump.

Studies from the Hydraulic Industry have shown 30% of component failure is caused from accidents or from age reasons and 70% of component failure is from surface degradation caused by contamination or corrosion.

After analyzing Schwing's failed Hydraulic components it has been determined that a very high percentage of the premature failures was due to improper lubrication, caused by excessive dirt and water contamination in the hydraulic systems.

Did you know that the Hydraulic oil from your supplier is not clean enough for use in a Schwing concrete pump? It will have an ISO cleanliness code of 16/18 to 20/18. Schwing America recommends that our equipment be operated with oil that has an ISO cleanliness code of 16/13. The hydraulic oil should be installed in the machine through a B10=200 or finer filter.

Particles that could damage the components are introduced into the oil by cylinder seals, valve seals, bearing seals, and reservoir breathing. Contaminants may also be introduced during maintenance, which would include disassembly / assembly of components and adding make up oil. Water enters the Hydraulic system through the water box when it is not drained daily after the pump is shut down, and also through the condensation process from dramatic heating / cooling cycles in the tank.

When to change your hydraulic oil. **Change your hydraulic oil at least once a year. If you use good filters and change them when they are dirty. the oil will look clean after a year, but the chemical additive packages that give the oil its properties will break down with time and No amount of filtration will bring them back.**

Below is a list of recommended maintenance that should be performed

- 1- Drain moisture from hydraulic tank (daily)
- 2- Drain Water Box (at the end of each work day)
- 3- Check oil level (daily)
- 4- Check if maintenance is due (daily)
- 5- Clean hydraulic cooler fins (daily)
- 6- Filter hydraulic oil (Every 500 hours or what the conditions warrants)
- 7- Change oil filter as indicated by the dirty oil filter alarm if equipped; or every 6 months

Preventive maintenance needs to be done on a regularly scheduled basis. That schedule may be daily, weekly, monthly, quarterly, semiannually, or annually. Keep accurate records of maintenance performed and when the work was completed. By doing this, you will know that all the necessary work has been completed on time. Complete maintenance records could also make the machine worth more money when the time comes to sell or trade it.

The maintenance section of your **Operation Manual** has an excellent maintenance section with guidelines and charts to assist you in performing good preventive maintenance.

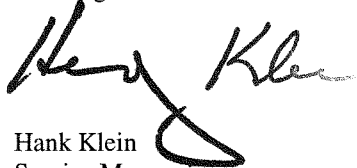
Filter carts are readily available from Schwing America's parts dept. or your local supplier like Granger etc. It is possible that your oil supplier would have a filter cart that you could rent.

Another option is to send out a sample of your oil to a testing lab, or sometimes your oil supplier can provide the service. Have the oil analyzed for a cleanliness code that does not exceed 16-13. The cost is around \$35 to \$50; this is a cheap investment that could save you expensive repairs later on.

If you have any questions about the above subjects, please feel free to call our service department at 888-292-0262 or 651-429-0999.

Sincerely,

Schwing America, Inc.



Hank Klein
Service Manager

HK/di

Bulletin#: 104-02

Date: 07/30/02

Subject: Water Reservoirs

July 30, 2002

SERVICE BULLETIN: 104-02

RE: WATER RESERVOIRS

Dear Schwing Customer,

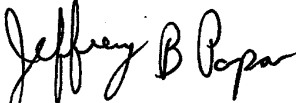
Schwing GmbH has issued an information bulletin, #K178, in regards to the filling of water reservoirs. Basically, the bulletin informs us that it is acceptable to fill the water reservoirs on all Schwing equipment from the bottom for faster filling, however when doing this you **MUST** make sure that you remove the fill cap on the top of the tank so that it is properly vented. Failure to remove the fill cap, when bottom filling, could cause damage to the reservoir.

This information refers to all Schwing equipment no matter where it was manufactured. Attached is a copy of bulletin K178 for your reference.

If you have any questions, please feel free to contact our Service department @ (651) 429-0999 or (888) 292-0262.

Sincerely,

Schwing America, Inc.



Jeff Papa

Technical Service Manager

JP/di

Enclosure



INFORMATION	Staff, agents, customers	K 178
Water reservoir	VKE / VVW	

FILLING OF THE WATER RESERVOIR

For fast filling and draining of the water reservoir, our truck-mounted concrete pumps are equipped with an inlet for the connection of hoses with a "C"-type coupling (example 1, Fig. 1).



ATTENTION: RISK OF ACCIDENT

When filling the reservoir through the "C" coupling, the reservoir can be damaged by the internal pressure produced if the filling procedure is not stopped in time.

The existing overflow cannot cope with the amount of water flowing into the reservoir in this case.

When "C" coupling is used for filling of the reservoir, it is therefore necessary to remove the cap on top of the reservoir (example Fig. 2).

Do not forget to reclose the cap before setting off.

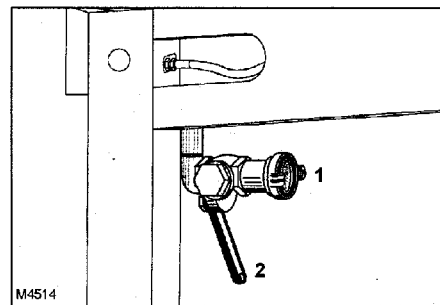


Fig. 1

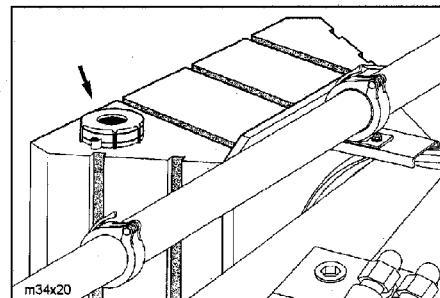


Fig. 2

Bulletin#: 105-02

Date: 08/05/02

Subject: Corrosion in electrical/electronic systems.

August 5, 2002

Service Bulletin G-105/02

Subject: Corrosion in electrical/electronic systems.

Dear Schwing Customer:

One of the most common reasons for electronic malfunctions is environmental contaminants and conditions. The vast majority, if not all electronic malfunctions are caused by corrosion.

The single most important environmental condition affecting corrosion is relative humidity or moisture. The combination of electrical fields and moisture leads to the corrosion of contacts, connectors and printed circuit boards. Over the past year Schwing America, Inc. has made several modifications in our assembly procedures to prevent the possibility of corrosion. The following procedures pertain to all electrical/electronic systems on all Schwing America boom pumps and trailer pumps to prevent malfunctions caused by corrosion.

1. E-stop contacts (see **Figure 1**): The original e-stop switches had contacts that were a nickel-plated copper which was much more susceptible to corrosion and tarnishing than gold plated contacts. Today Schwing America, Inc. uses e-stop switches that have gold plated contacts and the original switches may be retrofitted with these gold plated switches. The easiest way to determine what type of e-stop switch is on your machine is to look at the model number stamped on the side of the switch. Both model numbers are the same except the gold plated switches have a letter “Z” stamped on the end. Refer to **Figure 1** to view these differences. Schwing America, Inc. part number for these gold plated e-stop switches is 30338211.
2. Plug in connectors and screw terminal strips are also another spot where we see a lot of corrosion. To prevent corrosion in this area we have sourced a cleaner/corrosion protector in an aerosol spray that can be applied in these areas. The product is designed to protect outdoor electrical connections from corrosion, and it will not alter the resistance or electrical properties of electrical connections when properly applied.

For proper application you spray a light mist over the area needing protection. A heavy mist will result in a heavy film that sags and will remain wet, which could cause connection problems. **Figures 2,3,4** and **5** are examples of where this spray protector should be used. All printed circuit boards used by Schwing America, Inc. are coated with a protective coating and should need no further protection. Schwing’s part number for this corrosion protector is 30361591.

3. Another area that moisture can enter is through the cables that run to the controllers. Some of these cables are connected to the controller by a plug-in and some are hardwired into the controller. To prevent moisture in this area we have started using a flowable silicone. This silicone is less viscous than normal silicone and will flow around the wires to form a watertight seal. This sealant should be used where the wires are crimped or soldered onto the pins of the connector, and should not be used where the male and female pins are connected. This sealant can also be applied to the grommets where wires enter an electrical box. Refer to **Figures 6** and **7** for proper areas to apply this sealant.

-
4. Schwing America, Inc. also started installing corrosion inhibitor strips (part number 30346014) in the radio transmitter, corded remote box and the rear operator's panel, and main control panel. Refer to **Figure 8** and **9** for applications. These strips can also be installed into older units in the same areas. These corrosion inhibitor strips need to be replaced at least once a year.

If you take a little time and do these preventative measures to the electrical components on your machines you can be assured of increased reliability from your electrical systems.

Please feel free to contact the Schwing America service department at 1-888-292-0262 if you have any further questions.

Sincerely,

Jeff Popa
Technical Service Manager
Schwing America, Inc.

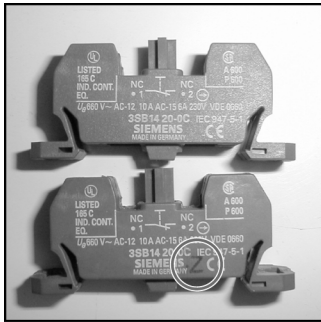


Figure 01

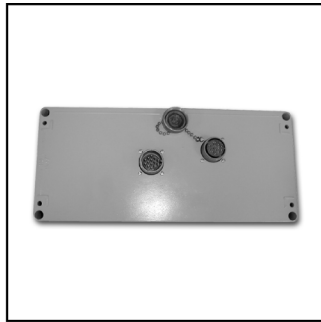


Figure 02

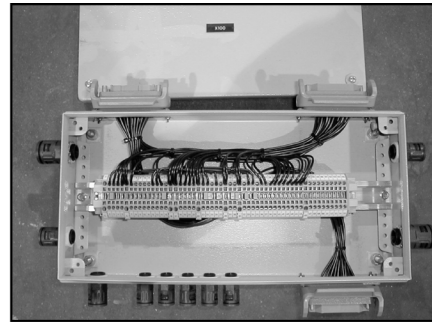


Figure 03

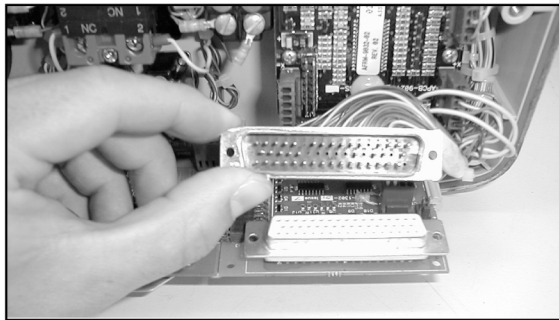


Figure 04

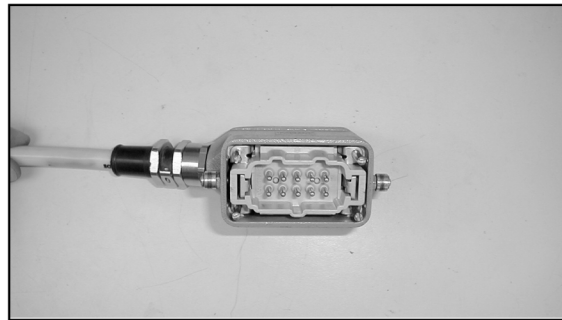


Figure 05

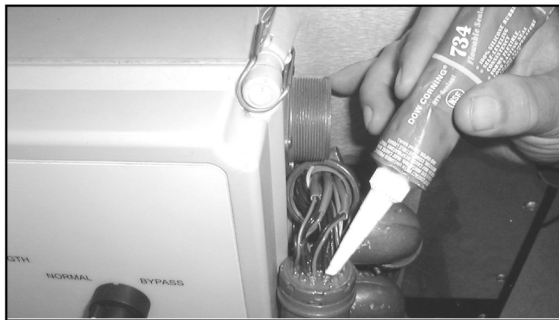


Figure 06

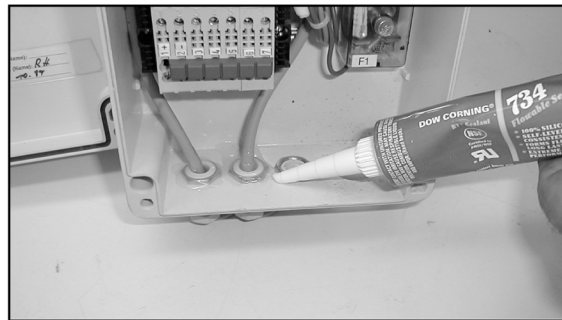


Figure 07



Figure 08



Figure 09

Bulletin#: 1001-03

Date: 09/09/03

Subject: Accumulator Bypass Retrofit - Kit P/N 30364723

September 4, 2003

Service Bulletin 1001-03

Subject: ACCUMULATOR BYPASS RETROFIT - KIT P/N 30364723

Dear Schwing Customer:

Schwing America Inc. is more committed than ever to ensure the highest level of customer safety, satisfaction and quality.

In our continuing effort to give our customers the very best, most reliable concrete pump, Schwing has developed the Accumulator Bypass Retrofit Kit that will allow for completion of the job in the event the accumulator pump cannot maintain proper pressure. This kit utilizes the agitator system to charge the accumulator system.

When the accumulator circuit loses pressure, the agitator return line in the forward mode is closed off redirecting oil to charge the accumulator circuit. This is an emergency measure to allow for completion of the current pump job. Proper repairs should be made as soon as possible.

The kit can be installed on all twin circuit accumulator units. List price for the kit is \$410.00 and estimated installation time is two hours.

Enclosed you will find instructions, an assembly parts list, and a hydraulic schematic detailing the installation of the kit.

This retrofit is considered a product enhancement and will not be included in a recall campaign or considered for warranty. It is up to the customers to actively participate in the suggestions contained within this Service Bulletin.

Please feel free to contact the Schwing Service Department at 1 888 292-0262 if you have any further questions.

Sincerely,

Schwing America, Inc.



INFORMATION	Staff members, dealers, customers	1001-03
Twin Circuit Models		

ACCUMULATOR BYPASS RETROFIT

Before installing this kit make sure that the engine is off, the key is removed, and the accumulator system is de-energized by confirming that the accumulator pressure gauge is at zero and the manual dump valve on the accumulator manifold is opened.

Install check valve and fittings, items 8, 9, and 10 in the pressure line from the outlet of the hydraulic pump. Make sure that the check valve is installed in the correct orientation (free flow from the pump) as shown in Figure 1. These items must be installed between the outlet of the pump and where the line is “Teed” for the e-stop manifold so that the accumulator system will be de-energized when an e-stop button is depressed or the machine is taken out of PTO mode. Reconnect all lines.

Confirm the _ turn valve shutoff on the agitator system is installed in the B line of the agitator system as shown in Figure 1. If your machine is not equipped with a _ turn shutoff, p/n 10004680, one must be installed. Disconnect the _ turn valve from the tube or hose going to the agitator hydraulic motor. Install items 5, 4, 3, 1, 2, and hose 11. Make sure that the check valve is installed in the correct orientation (free flow from agitator to accumulator system). Reconnect the tube or hose going to the agitator motor.

Route hose 11 under the deck and “T” it into the P port of the accumulator manifold using items 6 and 7.

After the installation is complete, you need to close the mechanical dump valve on the accumulator manifold, start the machine and engage the PTO, bring the oil up to operating temperature (60c – 80 c), and check all work for leaks.

To test the bypass operation you need to disconnect the pressure line from the accumulator hydraulic pump. Plug the hose and pump using items #12, 13, and 14 as in Figure 2.

Close the _ turn valve on the accumulator system and stroke the machine with water in the hopper. The accumulator gauge should respond very similar as it does with the accumulator pump. Also, you must confirm that the e-stop manifold does de-energize the accumulator system.

INFORMATION	Staff members, dealers, customers	1001-03
Twin Circuit Models		

ACCUMULATOR BYPASS RETROFIT

KIT – ACCUMULATOR BYPASS RETORFIT ASSEMBLY P/N: 30364723

SEQ NO.	QTY PER	PART NUMBER	DESCRIPTION
1	1.00 EA	10102204	VALVE CHECK S10A 0.0
2	1.00 EA	10008108	FITTING STR GES-16-SR _”
3	1.00 EA	10020109	FITTING STR EGESD-16-SR _” – WD
4	1.00 EA	10019122	FITTING EL EWSD-16-S
5	1.00 EA	10018848	FITTING TEE ELSD-16-S
6	1.00 EA	10018849	FITTING STR REDSD 20/16S
7	1.00 EA	10008033	FITTING TEE ELSD-20-S
8	1.00 EA	10019728	FITTING STR EGESD 20 SR _” –WD
9	1.00 EA	10008110	FITTING STR GES 20-SR _”
10	1.00 EA	10003861	VALVE CHECK S 15 A 2/0
11	1.00 EA	10049909	HOSE HIGH PRESSURE DN 13/4 X 1700 DKO-S
12	2.00 EA	10016789	FITTING PLUG VS 20 S
13	2.00 EA	10001741	CAP NUT M 20 S
14	1.00 EA	10008093	FITTING STR GS-20-S

Bulletin#: 1002-03

Date: 10/16/03

Subject: Double-ended hoses

Safety/Service Bulletin 1002-03

Subject: Double-ended hoses.

Dear Schwing Customer:

In the past, Schwing America has delivered machines from the factory with 125mm double-ended hoses. We did that so a dead plug could be clamped on the end of the hose to keep concrete from falling out when moving the boom over personnel or property.

Now that hose shut-off valves are widely available, we don't need the second end. Removing the second end and its related mass enhances safety for the hose person.

It is now our recommendation that you do NOT hang two-ended hoses from the boom. We have changed our supplied hose to a single-ended tip hose (known as a tip hose).

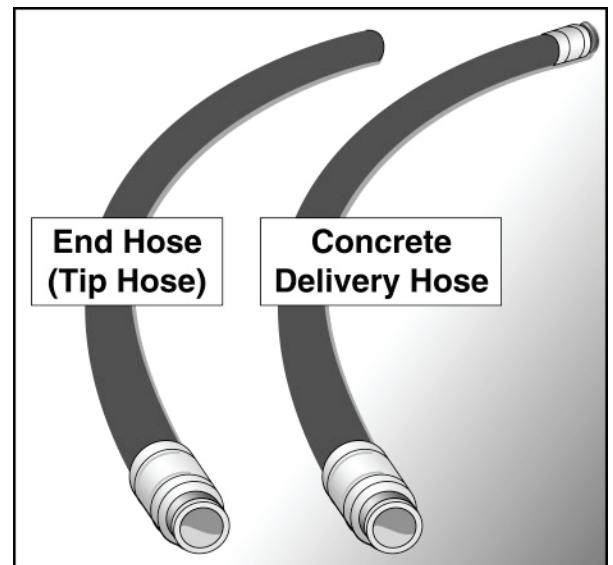
This obviously does not apply when you are connected from the boom pipe into system pipe. In that case a double-ended hose (known as a concrete delivery hose) is required.

Please don't hesitate to contact us if you have any questions.

Sincerely,



Robert Edwards
Manager, Product Safety Department
Schwing America, Inc.



Bulletin#: 1003--03

Date: 11/21/03

Subject: Yellox Box with LCD Readout - Factory Upgrade



Page 1 of 3

INFORMATION	Staff members, dealers, customers	1003-03
Yellow Box with LCD Readout	Canadian Version	November 21, 2003

Yellow Box with LCD Readout – FACTORY UPGRADE

Dear Schwing Canadian Customer:

Schwing America Inc. is more committed than ever to ensure the highest level of customer safety, satisfaction and quality.

In our continuing effort to give our customers the very best, most reliable concrete pump, Schwing America, Inc. is trying to be proactive in recognizing potential problems that may cause an inconvenience to our customers.

It has come to our attention that there may be a potential problem with all early version Yellow Box radio remotes equipped with the LCD screens. The potential problem is due to a possibility for leakage between the faceplate and the housing. Yellow Box cable remotes and Yellow Box conversions are not affected.

The e-stop buttonhole on the faceplate is larger than the base of the button. This is causing the top housing to separate from the faceplate when the e-stop button is pushed in. With faceplate being separated between the e-stop button and the LCD screen, the potential for moisture to enter the box is present.

A factory modification to correct this situation has been designed to make the diameter of the e-stop hole in the faceplate smaller, allowing the e-stop button to clamp the faceplate between the housing and the e-stop button, thus eliminating the potential for the faceplate to separate from the housing. A second panel of Plexiglas has been sealed into the top housing along with a stiffener plate to prevent the box from flexing. With this upgrade the enclosure is no longer dependent on the faceplate to seal it.

There are two criteria to identify if your Yellow Box radio remote qualifies for this Service Bulletin.

1. If you have a Yellow Box radio that has the LCD screen on it. (See Fig. 1)
 - And —
2. If you have any of the following assembly numbers: (see Fig. 2)
 - a. ASSY-1993-02 REV 3.5 and under (4 section yellow radio w/LCD)
 - b. ASSY-1993-03 REV 3.4 and under (5 section yellow radio w/LCD-31HT)
 - c. ASSY-1993-04 REV P2.1 and under (3 section yellow radio w/LCD)

Schwing Canadian customers with qualifying Yellow Box remotes must send their remotes directly to Omnex Control Systems, 74-1833 Coast Meridian Rd., Port Coquitlam, B.C. Canada V3C 6G5,



INFORMATION	Staff members, dealers, customers	1003-03
Yellow Box with LCD Readout	Canadian Version	November 21, 2003

Yellow Box with LCD Readout – FACTORY UPGRADE (continued)

Attention: Service Department. For additional information please contact the Service Department at 604 944-9247. Loaner remotes will not be provided.

The manufacturer will modify and return the remote directly to the address designated by the customer. The customer must identify on each remote the exact physical address for return shipment along with designated contact and phone information. Use the enclosed Schwing Remote Control Repair Request form to provide this information. Make separate copies when multiple remotes are involved. It is not necessary to fill out warranty claims for these factory upgrades. The goal is to have all remotes modified and returned within one week.

The manufacturer will pay for the modification and return shipment. Customers will pay for freight to Omnex.

If the manufacturer finds other problems during the factory upgrade, and the unit is still under warranty, repairs will be made free of charge without notice. Problems found on units out of warranty will be handled on a case-by-case basis. In these cases, an estimate of repairs will be made and the customer s designated contact will be contacted by Schwing America, Inc. to authorize repairs and agree to pay charges for additional repairs. If not agreed to the radio will be upgraded and returned without additional repairs.

This factory upgrade is considered a product enhancement and will not be included in a recall campaign. It is up to the customer to actively participate in the suggestions contained within this targeted Service Bulletin. Customers must act within 180 days of the date of this bulletin.

Please feel free to contact the Schwing Service Department at 1 888 292-0262 if you have any further questions.

Sincerely,

Schwing America, Inc.

1003-03



Figure 1



Figure 2

1. If you have a Yellow Box radio that has the LCD screen on it. (See Fig. 1)
- And -
2. If you have any of the following assembly numbers: (see Fig. 2)
 - a. ASSY-1993-02 REV 3.5 and under (4 section yellow radio w/LCD)
 - b. ASSY-1993-03 REV 3.4 and under (5 section yellow radio w/LCD-31HT)
 - c. ASSY-1993-04 REV P2.1 and under (3 section yellow radio w/LCD)

Bulletin#: 1004-03
Date: 11/07/03
Subject: Boom Inspection

November 7, 2003
SERVICE BULLETIN: 1004-03

Dear Schwing Customer:

Customer satisfaction and safety is number one priority at Schwing America, Inc. Our goal in the Boom Inspection and Repair Program is to provide a structurally safe unit for you to operate. With the extra long reaching booms of today, and with the higher strength steels being used, it is important to the industry that the equipment you use is safe and structurally sound.

As per the CPMA Safety Standard, the new revised recommended boom inspection intervals are:

1. First 5 years; at least once per year.
2. Five to ten years; every 6 months.
3. Ten years and older; every 500 working hours, or at least once per year, whichever occurs first.

We would like to emphasize that it is the owner's responsibility to insure that boom inspections are completed and that the equipment is operated only under safe conditions.

The boom inspection and repair rates are:

Boom Inspections

KVM 17, 23, 23-4, 24-4, 25, 26-4, 28, 28X	\$ 900.00
KVM 31, 31 HT, 32, 32XL, 34X	\$ 950.00
KVM 36, 36X, 39X, 42	\$1,050.00
KVM 45SX, 47SX, 52, 55, 58SX	\$1,150.00

We also have special rate packages available. Call your Schwing boom inspector or Hank Klein for details.

Repair Rates

Welding repair; \$85.00/hr. (8 hour minimum charge per day)

Wait time; \$85.00/hr (unless arrangements are made 24 hrs. in advance)

Special request travel time; \$65.00/hr travel time plus any additional cost such as airfare, car rentals, etc.

Per diem; \$115.00/day (food, lodging, etc.)

If you need boom inspections/structural repairs performed, contact Hank Klein or ask for the Service department. We have attached a Boom Inspection Request form that you can mail or fax. Contact by phone (651) 653-2299, contact by fax (651) 429-2112.

You also have the option of using Schwing America approved Independent Inspectors and Repair Centers. Give us a call for the most current list.

Thank you in advance for keeping the PUMPING INDUSTRY SAFE!

Sincerely,

SCHWING AMERICA, INC.

Dave Bissen
Structural Quality Control Manager

DB/jo



**SCHWING
AMERICA INC.**

BOOM INSPECTION REQUEST FORM

TODAY'S DATE: ____ / ____ / ____

COMPANY: _____

STREET ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

CONTACT: _____ PHONE: (____) _____

LIST ALL MACHINES REQUIRING INSPECTION(S)/REPAIR(S) BELOW:

MODEL	SERIAL NO.	LOCATION

PLEASE FILL OUT AND FAX OR MAIL THIS FORM TO:

SERVICE DEPARTMENT
SCHWING AMERICA INC.
5900 CENTERVILLE ROAD
WHITE BEAR, MN 55127

Bulletin#: 1010-04

Date: 04/08/04

Subject: Safety Manual version 4.0.2

April 8, 2004

Safety/Service Bulletin 1010-04

Subject: Release of *Safety Manual* version 4.0.2

Dear Schwing Customer,

The *Safety Manual* has been updated again. *Safety Manual* version 4.0.2 has two significant changes from previous versions; the new hand signals, adopted by the ACPA in late 2003, and an elaboration on the hazards present when removing blockages. In addition to the complete paperback manual, we are including a sample of the *Quick Index* (version 4.0.2) and a laminated edition of the *Co-worker Safety Rules* (version 4.0.2). Both of the laminated books are intended to be kept on the pump for easy reference. Please instruct your operators to make the co-worker information available to the placing crew and laborers, and to read the information to the workers if they believe the workers wouldn't understand the printed text. Spanish versions of the updated manual are being created now and will be available soon. Version 3.1.2 in Spanish will remain available until the new version is complete.

It is our objective to get a copy of each of these publications into the hands of every operator and the workers around the pump. Please help us make these publications effective for jobsite safety by obtaining a copy for each of your operators, and encourage them to read and understand the rules. Older versions of the manual should be discarded when the new version is in hand.

To obtain more manuals, please fill out the attached form(s) and fax it to us at the number listed. We will ship one set of manuals free of charge for each unit that is listed with its serial number and current location. Additional manuals are available at a nominal fee for meetings, presentations, or any other reason. If you are planning any safety training for your customers, the *Co-worker Safety Rules* booklet is also available in a non-laminated version at a fraction of the cost of the laminated version. Of course, the non-laminated version is not intended to be kept on the pump.

Thank you in advance for your consideration in this matter.

Best Regards,



Robert Edwards
Manager, Product Safety Department
Schwing America, Inc.

1010_04_402.fm

Safety Manual v 4.0.2 Order Form



Please complete this form and mail to:
Or send via fax to: Fax # (651) 429 - 8261
(publications dept.)

5900 Centerville Road
White Bear, Mn. 55127
Telephone (651) 429-0999
Attention: Publications

Company: _____	
Street Address: _____ <small>We cannot ship manuals to a P.O. box</small>	
City, State, Zip: _____	
Attention: _____	Phone (_____) _____
Please send a set of version 4.0.2 manuals for my unit(s).	
	Model number: _____
	Serial number: _____
	Model number: _____
	Serial number: _____
	Model number: _____
	Serial number: _____
	Model number: _____
	Serial number: _____
	Model number: _____
	Serial number: _____
Safety Manuals are free with an address, Schwing model number and valid serial number. Extras are available for a nominal fee. When ordering Co-worker (30352799) specify laminated or paper.	Safety Manual v 4.0.2 , part number 30327535 Quick Index v 4.0.2 , part number 30352798 Co-worker Safety Rules v 4.0.2, part number 30352799

Feel free to copy or otherwise reproduce this form if more copies are needed.

redward.servicebulletins:402order form.ai

Bulletin#: 1006-05

Date: 12/02/05

Subject: Mack Truck Service Bulletin SB210039 Oil Change Interval

December 2, 2005

Service Bulletin 1006-05

Subject: Mack Truck Service Bulletin SB210039 Oil Change Interval

Dear Schwing Customer:

Schwing America Inc. is more committed than ever to ensure the highest level of customer safety, satisfaction and quality.

In our continuing effort to give our customers the very best, most reliable equipment, Schwing America, Inc. is trying to be proactive in recognizing situations that may cause an inconvenience to our customers.

It has come to our attention that Mack Truck recently issued a service bulletin that may effect the service life of the Mack provided engines. Schwing America is passing this information on as an additional service to better serve our customers.

Please feel free to contact the Schwing Service Department at 1 888 292-0262 if you have any further questions.

To subscribe to Mack's Service Bulletins via e-mail:

1. Go to Mack's website at macktrucks.com
2. Click on Parts and Service
3. Under Service, click on Service E Mail Subscription
4. Follow instructions to sign up

Sincerely,

Schwing America, Inc.



Number: SB210039
Date: 10/19/05
Model: ASET™ AI,
AMI

(Does not apply to Mack Trucks Australia)

Oil Change Intervals for Chassis Equipped with ASET™ AI or AMI Engines

Modern diesel engines generate higher levels of combustion soot into the engine lubricating oil than previous engines. To keep engine wear to a minimum, it is extremely important that engine oil and filters be changed at regular intervals, before soot levels exceed the MACK specification of 5% maximum, and that oils meeting MACK specification EO-N Premium Plus 03 High-Performance Diesel Engine Oil be used along with MACK-approved oil filters.

Oil analysis programs are highly recommended for monitoring overall condition of the oil and for determining levels of soot. Oil testing laboratories, however, use a variety of methods to determine soot levels, and some of these methods can be very inaccurate. The only two soot measurement methods approved by Mack Trucks, Inc. are the TGA (thermogravimetric analysis) and LEM (Light Extinction Measurement) methods, as these two methods provide consistently accurate results. The MaxiGuard/2 Oil analysis program available through Mack Trucks, Inc., uses the LEM method to provide a cost effective and accurate method of measuring soot, which is essential for a beneficial oil monitoring program.

Mack Trucks, Inc. has reviewed the oil analysis reports for a significant number of ASET™ engines and has determined that it is necessary to revise the specified oil and filter change interval for all ASET™ AI-350 engines when used with an Allison automatic transmission. Chassis/engine/transmission combinations requiring the Extra Severe Service oil change intervals are outlined below:

Vocational Chassis — ASET™ AI and AMI Engines — Extra Severe Service Interval	
Time*	Distance*
250 Hours	8,000 Miles/13 000 Kilometers

* Whichever occurs first

- LE models WITH an ASET™ AI-350 engine and an Allison automatic transmission
- All MR models WITH an ASET™ AI or AMI engine and a manual transmission, or an ASET™ AI-350 engine in combination with an Allison automatic transmission
- CV and CT models WITH an ASET™ AI-350 engine (having the standard 36 qt. oil pan) in combination with an Allison automatic transmission

NOTE

The oil drain interval for CV and CT model chassis equipped with an ASET™ AI-350 engine and an Allison automatic transmission can be extended to 300 hours, 10,000 miles (16 000 km) only IF the engine has the optional 52 qt. oil pan. (The 52 qt. oil pan will not fit on MR or LE model chassis.)

- CV All-Wheel Drive models with an ASET™ AI or AMI engine WITHOUT the Luber-Finer® remote-mounted oil filter

Bulletin#: 1011-05

Date: 03/22/05

Subject: 39X Turret Bolt replacement

March 22, 2005

Service Bulletin 1011-05

Subject: KVM 39X Turret Bolt Replacement

Dear Schwing Customer:

Schwing America Inc. is more committed than ever to ensure the highest level of customer safety, satisfaction and quality.

It has come to our attention that some of the bolts sent in January 2005 Campaign as replacements for the turret bolts used to connect the slewing ring gear to the turret weldments on KVM 39X models built during 2004 may also have insufficient hardening properties.

We at Schwing America, Inc. apologize for the inconvenience this causes to replace the bolts for the second time.

As the owner of one of these identified units, you will receive a quantity of 68 replacement turret bolts and washers at no charge from Schwing America's Spare Parts Department. Schwing will pay for the replacement of the turret bolts, washers and freight. If the customer performs the replacement, a lump sum labor/freight credit of \$750.00 will be processed to your account upon return of the completed warranty claim form and original bolts and washers. A loaner torque wrench is available from Schwing Service. If you choose to rent one, Schwing will reimburse the cost provided a copy of the receipt is included with the warranty claim.

Enclosed you will find instructions, a turret bolt replacement illustration, a replacement parts list, and a warranty claim form.

NOTE:IT IS EXTREMELY IMPORTANT THAT YOU CHANGE THE BOLTS IMMEDIATELY. CONTINUED USE OF THE EXISTING BOLTS MAY RESULT IN FRACTURING, UNSCHEDULED DOWNTIME, DAMAGE TO THE TURRET, BOOM AND INJURY.

REMINDER: SAI SERVICE DEPARTMENT CAN ARRANGE TO CHANGE THE TURRET BOLTS IF YOU ARE UNABLE TO REPLACE THE BOLTS IMMEDIATELY.

Please feel free to contact the Schwing Service Department at 1 888 292-0262 if you have any further questions.

Sincerely,

Schwing America, Inc.



INFORMATION	Staff members, dealers, customers	1011-05
KVM 39X		January 19, 2005

TURRET BOLT REPLACEMENT

Before removing and replacing any bolts, make sure that the engine is off, the key is removed and in the mechanics pocket.

It is recommended the work be performed outside with the boom in the straight up position. Begin by removing the rear shroud (position 5) to expose turret bolts. It is permissible to use pneumatic tools to remove and install bolts as long as tool setting does not exceed 250 ft-lbs. Final torque must be performed manually by torque wrench capable of 376 ft-lbs.

NOTE: Only the bolts and washers (position h1 & h2) from the slewing ring gear to the turret are to be replaced. The bolts from the slewing ring gear (position h3) to the pedestal are to be inspected after final installation of turret bolts.

Remove and replace one bolt at a time. Make sure to use new washer on each new bolt. Orientate the washer so that the inside diameter bevel is toward the head of the bolt. Torque new bolt to 376 ft-lbs. Complete as many bolts as are accessible, then rotate boom to expose next group of bolts to be exchanged. Repeat this process until all bolts have been exchanged and torqued.

After the installation is complete, you must reinstall rear shroud cover.

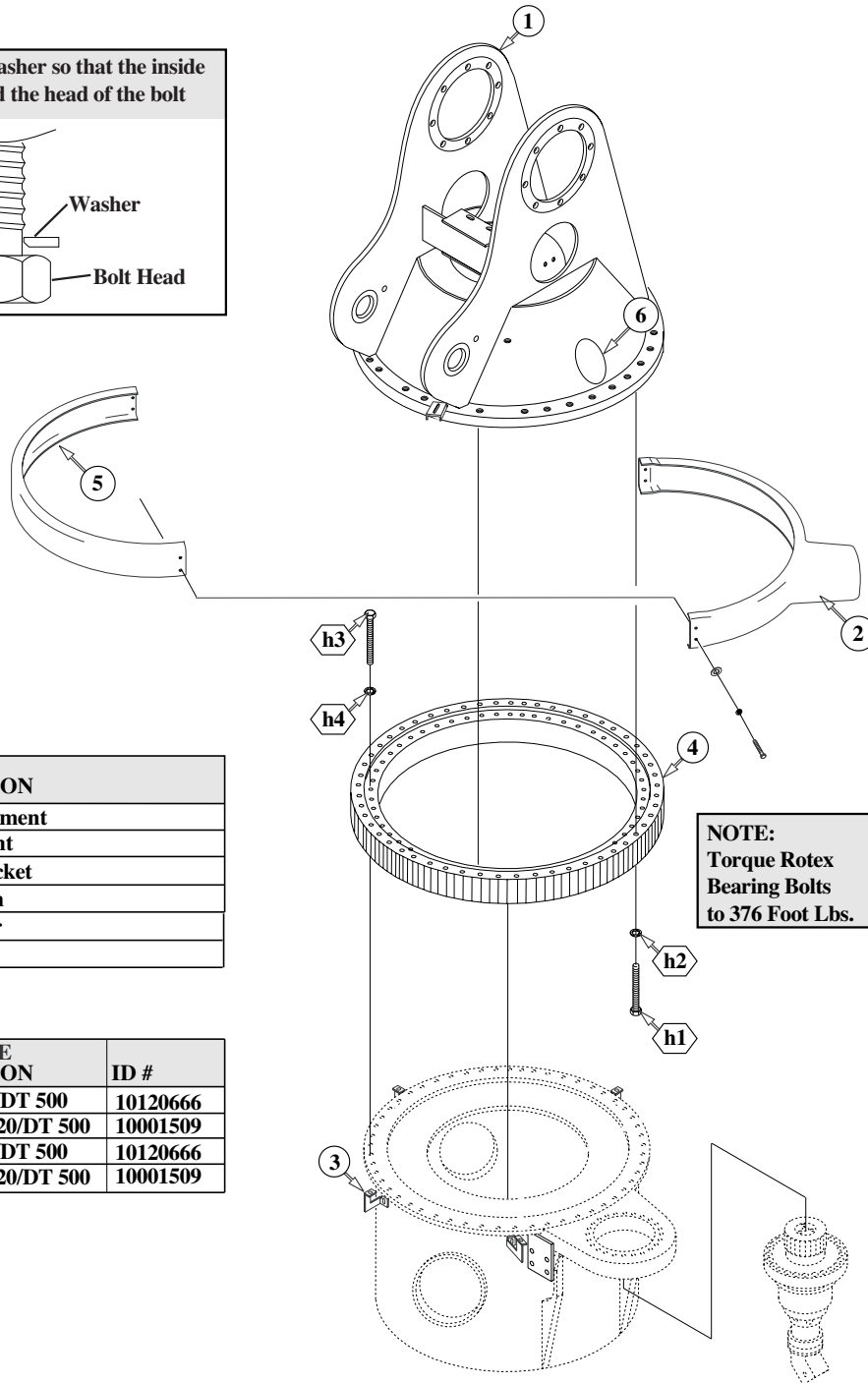
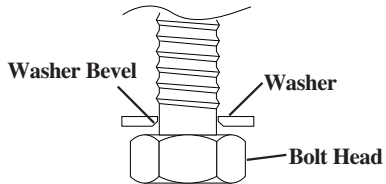
The final procedure is to inspect the pedestal bolts (position h3). From the access port (position 6), use a socket and breaker bar to check each bolt for tightness. It is not necessary to retorque these bolts. If any defects are found contact Schwing America and a complete set of replacement bolts will be sent.

KIT – 39X TURRET BOLT REPLACEMENT

SEQ NO.	QTY PER	PART NUMBER	DESCRIPTION
1	68.00 EA	10120666	BOLT 20x140/DT 500
2	68.00 EA	10001509	FLAT WASHER 20/DT 500

39 X TURRET BOLT REPLACEMENT

NOTE: Orientate the washer so that the inside diameter bevel is toward the head of the bolt



NOTE:
Torque Rotex
Bearing Bolts
to 376 Foot Lbs.

Pos	Qty	DESCRIPTION
1	1	Turret Weldment
2	1	Shroud Front
3	4	Shroud Bracket
4	1	Slewing Rim
5	1	Shroud Rear
6	1	Access Port

Pos	Qty	HARDWARE DESCRIPTION	ID #
h1	68	Bolt 20 x 140/DT 500	10120666
h2	68	Flat Washer 20/DT 500	10001509
h3	67	Bolt 20 x 140/DT 500	10120666
h4	67	Flat Washer 20/DT 500	10001509

Bulletin#: 1013-05

Date: 11/30/05

Subject: HAWE Actuator P/N 10203927 & Hydraulic Circuit Modifications

November 30, 2005

Service Bulletin 1013-05

Subject: HAWE Actuator P/N 10203927 & Hydraulic Circuit Modification

Dear Schwing S58/61SX Customer:

Schwing America Inc. is more committed than ever to ensure the highest level of customer safety, satisfaction and quality.

It has come to Schwing's attention that there are problems with the HAWE manufactured boom valve size 3 manual actuator leaking from the pivot shaft on the earlier version S58/61SX pumps. This condition is caused by internal pressure on the pilot circuit of the valve. The manufacturer has modified the seal in the latest version actuator to withstand this internal pressure. The updated actuator is easily identifiable by the absence of the small bleeder valve on the bottom of the actuator.

In addition, Schwing has come up with a hydraulic circuit modification that relieves the internal pressure.

Schwing requests affected customers to replace all six size 3 HAWE actuators with the current version and make the hydraulic circuit modification as detailed in the enclosed illustration.

Enclosed you will find instructions and an illustration detailing the installation of the hydraulic circuit modification kit and adjusting the manual stops on the actuators. Please note the boom and slew functions are adjusted differently than the water pump function.

This update and modification will to be sent to all S58/61SX customers along with an invoice that is reimbursable by exchanging the parts and sending the completed warranty claim form to Schwing. All HAWE actuators must be returned for credit to be granted.

Some customers have already installed the actuators and will only be sent the hydraulic circuit modification.

Labor will be granted at a flat rate of \$250.00 per 58/61 unit. This will be added to the warranty credit upon receipt of the completed warranty claim and the return parts to Schwing. Customers that are sent only the hydraulic update may still receive the labor credit by making the modification and sending the claim. No parts are required in this situation.

Please feel free to contact the Schwing Service Department at 1 888 292-0262 if you have any further questions.

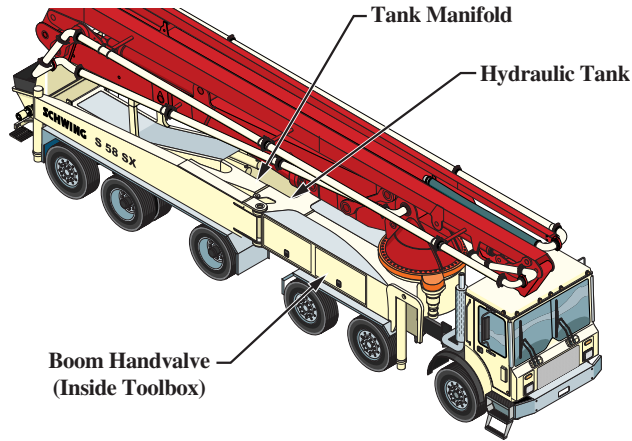
Sincerely,

Schwing America, Inc.

HAVE HANDVALVE

Service Bulletin 1013-05

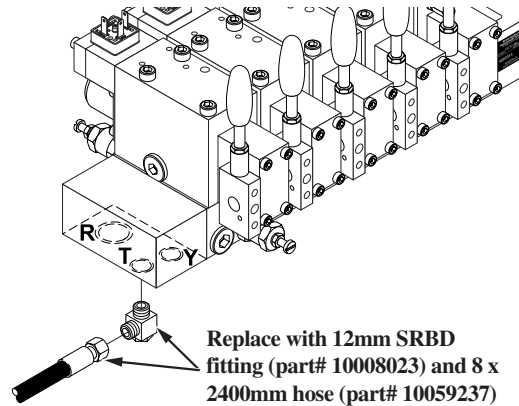
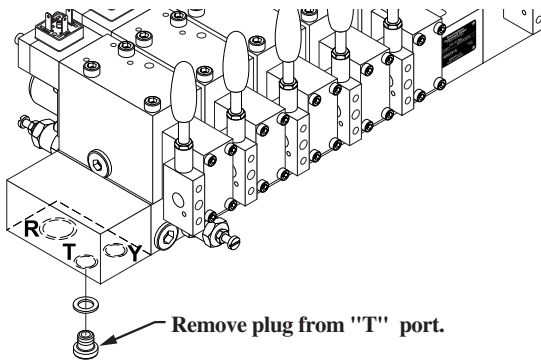
Parts Location



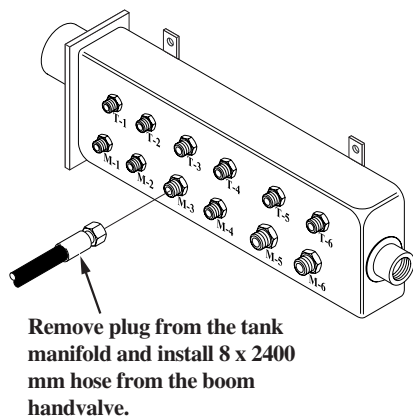
Parts Kit

- Qty. 6 10203927.....Actuator
(Item#1 Have breakdown)
- Qty. 1 10008023.....12mm SRBD Fitting
- Qty. 1 10059237.....Hose 8 x 2400
- Qty. 4 10203939.....Spare clips
(Item#16 Have breakdown)

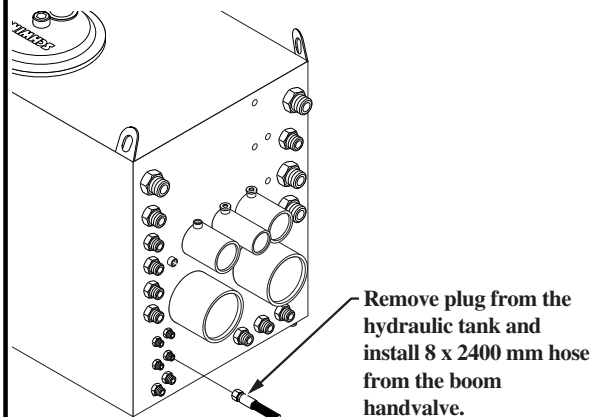
Boom Handvalve



Units with Tank Manifold



Units without Tank Manifold use



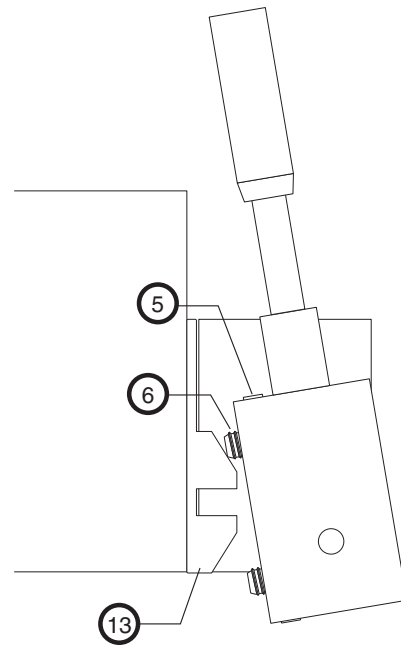
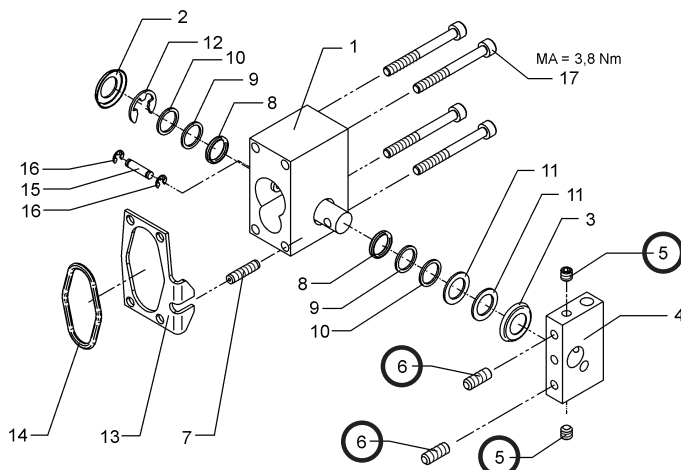
H A W E H A N D V A L V E

Service Bulletin 1013-05

Setting of the H A W E boom control manual lever limits

- 1) Setting of the H A W E boom control manual lever limits
- 2) Set the unit up in an area where the boom can be completely unfolded and operated safely.
- 3) Unfold the all the boom sections completely to the vertical position.
- 4) Operating one boom function at a time, choose a function and loosen the manual boom lever control stop limit locking screw, position #5 on the attached drawing.
- 5) Using the remote box, fully activate the boom function and while the actuator lever is in the maximum operating position, adjust the stop limit screw, position #6 on the below drawing, to the point where it just starts to contact the intermediate plate, position #13 on the illustration. At this point, tighten the control stop limit locking screw position #5 on the attached drawing.
- 6) Repeat step 4 on all the remaining boom and slew functions until all the stops are set. Once this is done, then the boom and slew adjustments are complete.

H A W E Lever Assembly breakdown



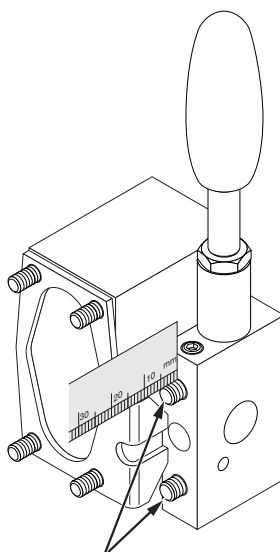
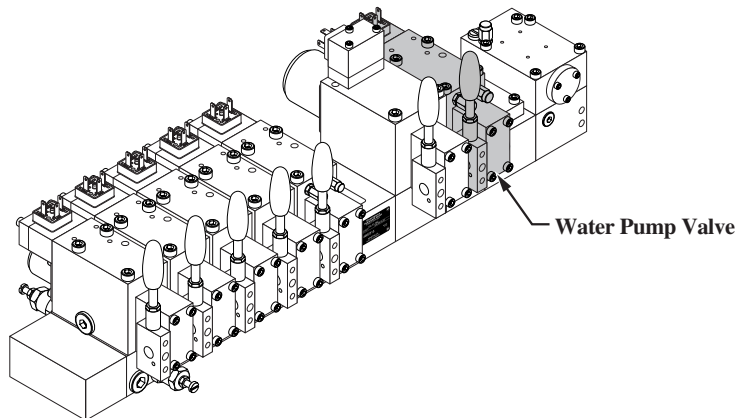
H A W E H A N D V A L V E

Service Bulletin 1013-05

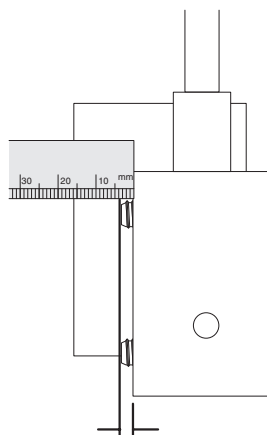
Setting of the H A W E Water Pump control manual lever limits

- 1) Before installing the new actuator, measure the distance the stop limit screws protrude from the back of the old actuator and duplicate these dimensions on the new stop limit screws. Refer to the illustration. At this point, tighten the control stop limit locking screw position #5 on the attached drawing.
- 2) If there are any questions and / or concerns regarding this procedure, please contact our service department at 888 292-0262

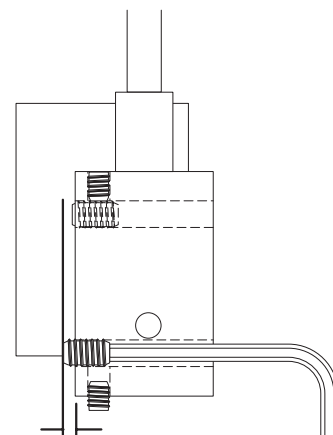
H A W E Water Pump control manual lever limits location



Stop Limit Screws



Original valve
Measure existing dimension



New valve
Set stop limit screws to
match the original dimension

Bulletin#: 1014-06

Date: 02/23/06

Subject: 28/31 Guide Levers

Safety Bulletin 1014-06

Reference: KVM 28, KVM 31 units manufactured before October, 1990

Dear Schwing Owner:

It has come to our attention that some of the guide levers between #1 and #2 booms on the models and years listed above have developed internal cracks. The tens of millions of fatigue cycles that come with twenty to thirty years of use could cause a crack to form on the inside of the guide lever, propagating to the outside. Because the cracks form on the inside, visual inspection does not reveal the irregularity until it has reached an advanced stage of cracking.

See the included illustrations showing the location of the subject guide lever and the area that may have cracks.

Please do an **immediate** visual inspection of any units you have that match the model and year(s) shown above. If any cracking is seen, you **MUST** take the machine out of service until the guide lever can be replaced. Remember, once the crack is visible from the outside, the crack is almost complete, and catastrophic component failure is imminent. If the guide lever fails, the boom **WILL** fall immediately. If the boom falls, there is no time for anyone standing under the boom to get out of the way.

Even if visual inspection doesn't reveal anything, there still may be cracks. The inspection methods for determining interior cracks are so difficult to accomplish in the field that it is more economical to replace the guide levers. **If you own one of the units listed above, we recommend that the guide lever attached to the #1 boom and the #2 cylinder be replaced as soon as possible, even if there's no visual evidence of cracking.**

To help with this endeavor, Schwing America will supply a replacement kit, at our cost, containing the guide lever, the pins, the bushings, and miscellaneous hardware, along with instructions for replacement. Details of the kit are shown on the next page.

Please note: Do not attempt to repair the guide levers, whether or not inspection reveals cracks. The methods needed to assure bore alignment and weld penetration will be significantly more expensive than simply replacing the lever. Similarly, if any 'do-it-yourself' repairs have already been made to any guide lever, that lever should be replaced immediately.

Machines of this age (17-29 years old) will begin having fatigue cracks wherever stress has been concentrated. For that reason, it is imperative that they be inspected every 500 working hours or at least once per year, (whichever comes first) as required by ASME B30.27. It is our intention that each pumping day ends safely for all those involved.

Because of the age of the units involved, very few of the subject machines are still owned by the original customer, therefore we are asking your assistance in locating them. If you know the whereabouts of any of the machines covered by this bulletin, please contact Schwing America's service department at 651 429-0999, extension 11491 and give us the name, address and/or phone number of the current owner. Even if your information is old, it may lead us to a trail that will locate the current owner. Your help in this important matter is greatly appreciated.

Figure 1 shows the location of guide lever covered by this bulletin. To see both sides of the guide lever, you may have to unfold the boom. As always, outriggers must be set before unfolding.

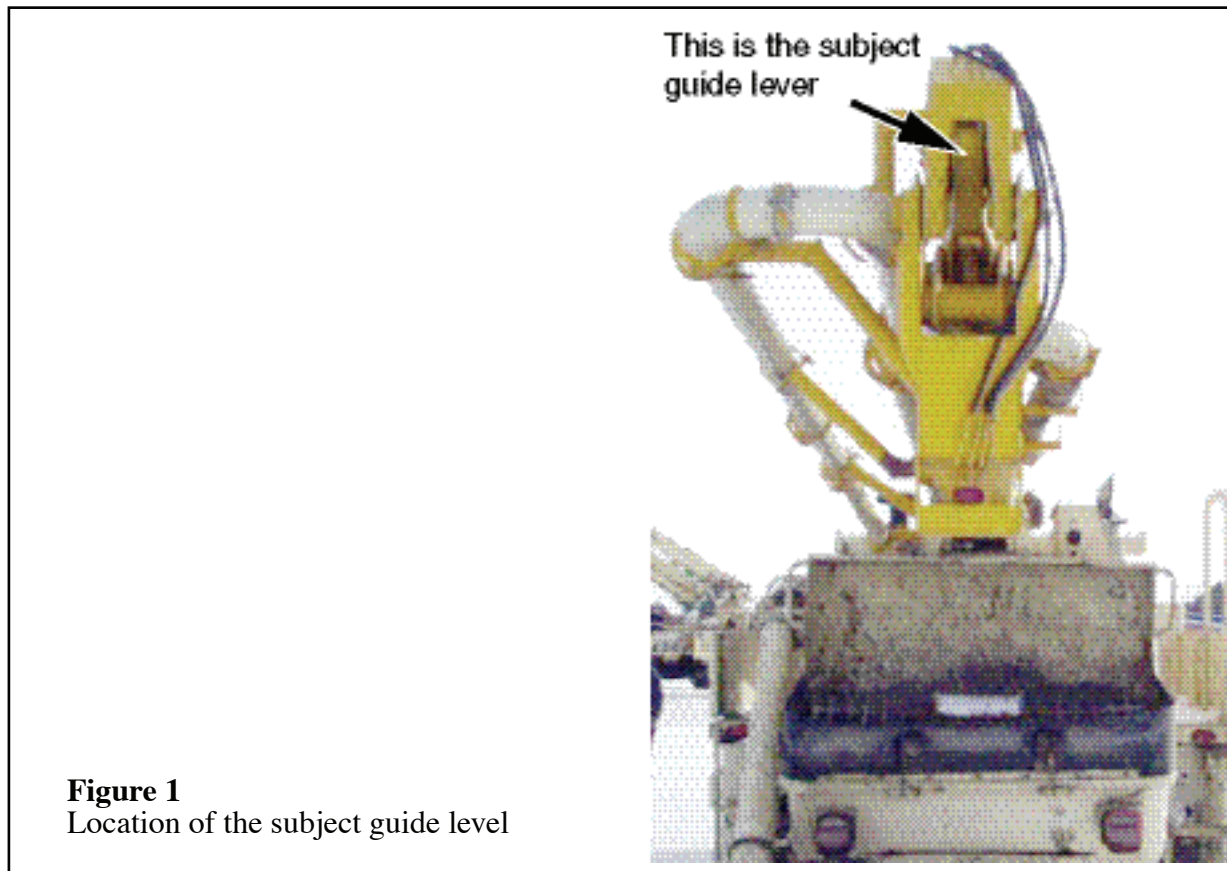
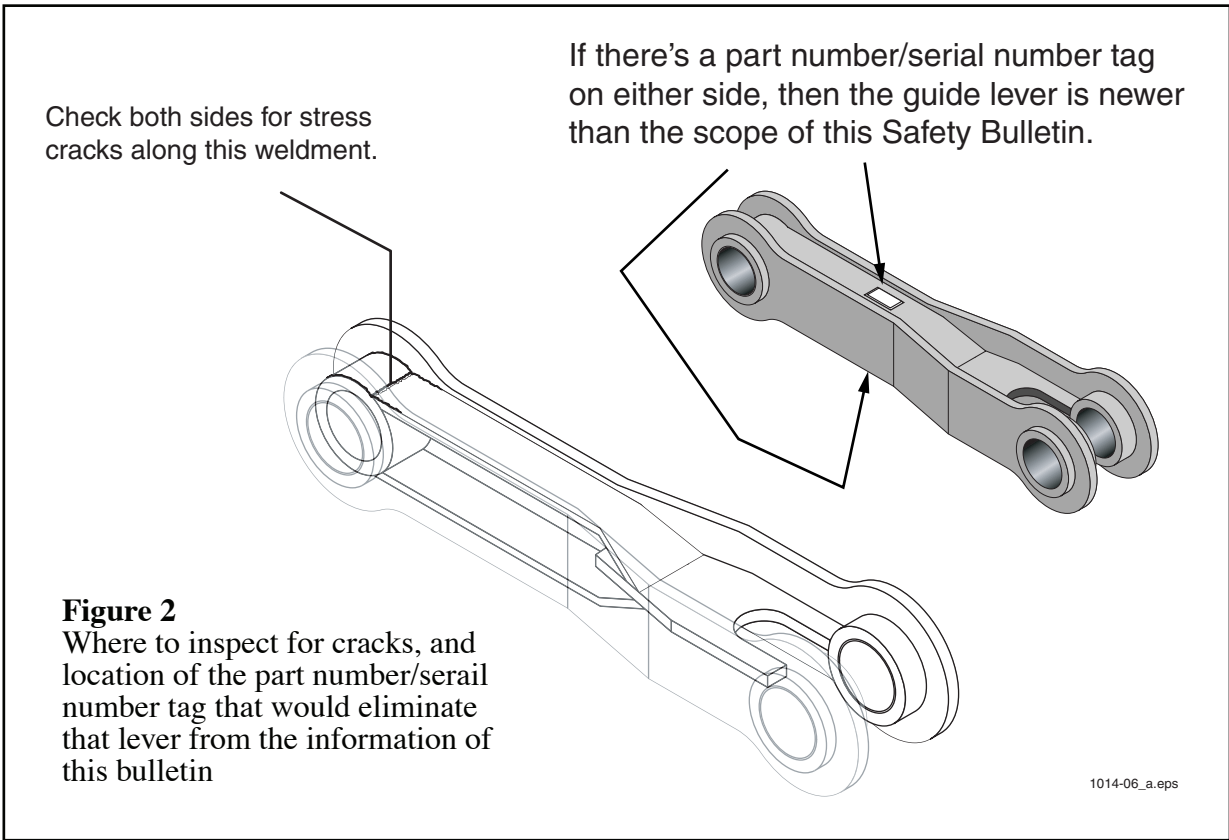


Figure 2 is a detail view of the guide lever, showing the area of possible cracking. Please note: If the guide lever on your machine has a part number/serial number tag on either side as shown, then that guide lever is NOT subject to the information contained in this bulletin, because it is newer than the units in question. We have made kits that include the parts necessary to exchange the old guide lever with the new one. See Figure 3. Each kit contains:

- the guide lever,
- the pin that attaches the guide lever to the #1 boom,
- the pin that attaches the guide lever to the #2 hydraulic cylinder,
- 4 bushings,
- 2 pin keepers (called axle guards),
- 4 keeper bolts,
- 4 lock-washers,
- 4 grease zerks (not shown in Figure 3).



The order number for the kit for 28 meter units is 30381014, and for the 31 meter units is 30381015.

Not included in the kit, but possibly required by a few units, is the articulated bearing that goes through the cylinder eye. If you discover you need this, the part number is 10002735 for either model.

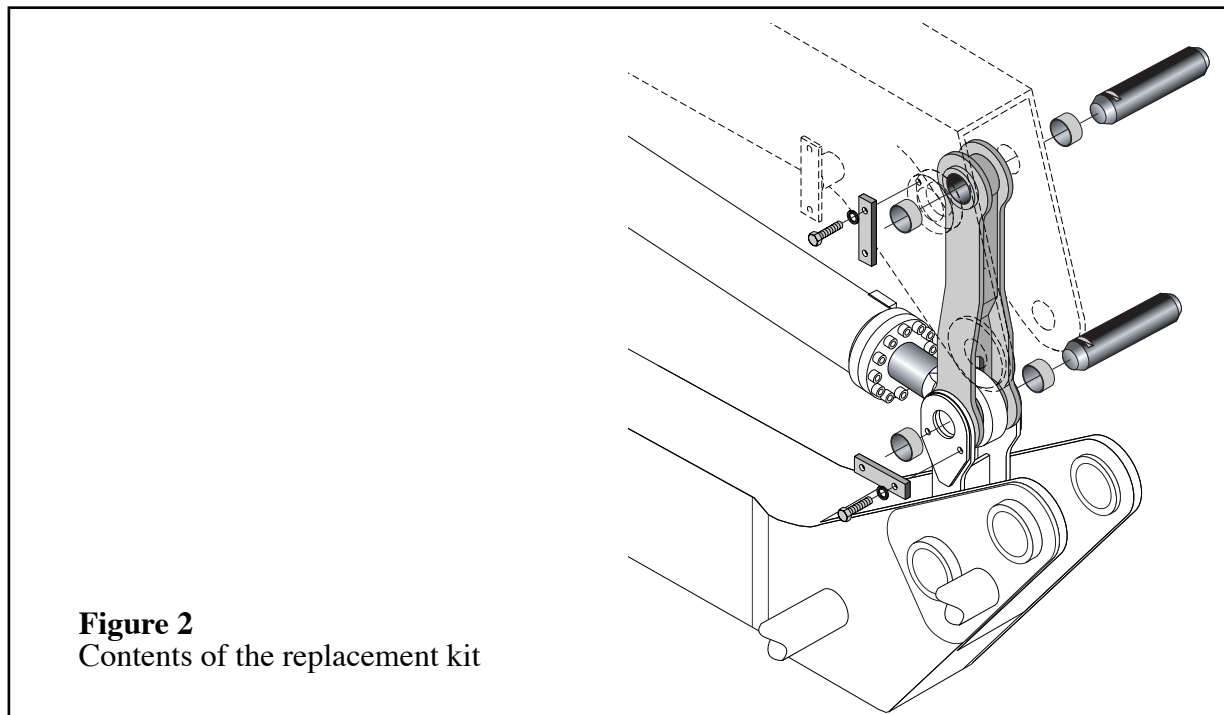


Figure 2
Contents of the replacement kit

If you have questions or concerns regarding the information in this bulletin, call Schwing America at 651 429-0999 and ask to speak to one of the following people/departments, depending on the nature of your question or concern:

- General information about this bulletin: Robert Edwards, Jeff Osbeck, Jeff Popa, Hank Klein.
- Structural concerns: Jim Mielke.
- Questions about the replacement procedure: Jeff Popa, Jim Mielke, Schwing Service Department.
- Questions about the parts kits: Schwing Parts Department, Hank Klein, Jeff Osbeck.

Remember— even if your units are excluded from the concerns of this bulletin, you must still have them inspected regularly as outlined in ASME B30.27.

Best Regards,

Robert Edwards
Manager, Product Safety Department
Schwing America, Inc.

Bulletin#: 1016-06

Date: 12/22/06

Subject: Tail light Replacement Kit - Part Number 30406840

December 8, 2006

Service Bulletin 1016-06

Subject: TAIL LIGHT REPLACEMENT KIT – P/N 30406840

Dear Schwing Customer:

Schwing America Inc. is more committed than ever to ensure the highest level of customer safety, satisfaction and quality.

In our continuing effort to give our customers the very best, most reliable concrete pump, Schwing has developed a tail light replacement that is not susceptible to deformation when concrete release agents are applied to prevent concrete build up. Currently the only product that Schwing recommends is Kleen Kote. This is a water based release agent that is OSHA compliant. Kleen Kote helps prevent concrete and dirt from sticking to treated surfaces. Schwing is an authorized dealer and sells 1 gallon bottles p/n 30346628 and 5 gallon pails p/n 30345066.

The tail lights can be retrofitted on all truck mounted Schwing concrete pumps that currently utilize the polycarbonate version p/n 30361258. List price for the replacement tail light kit number 30406840 is \$364.00 and estimated installation time is 1 hour. The kit will include taillights, brackets, wiring, and mounting hardware for both sides of the truck. Figures 1 shows the individual lights assembled in the bracket and figure 2 shows the license plate bracket and wiring.

The tail light kit p/n 30406840 contains the following items:

2 – 30380816 HARNESS	4 – 10001859 SCREW
2 – 30380817 RED LIGHT 6” OVAL	8 – 10129841 WASHER
2 – 30380818 AMBER LIGHT 6” OVAL	4 – 10001283 NUT
2 – 30380819 REVERSE LIGHT 6” OVAL	2 – 10001764 SCREW
6 – 30380820 GROMMET 6” OVAL	2 – 10134153 WASHER
2 – 30381409 BRACKET	2 – 10001244 NUT

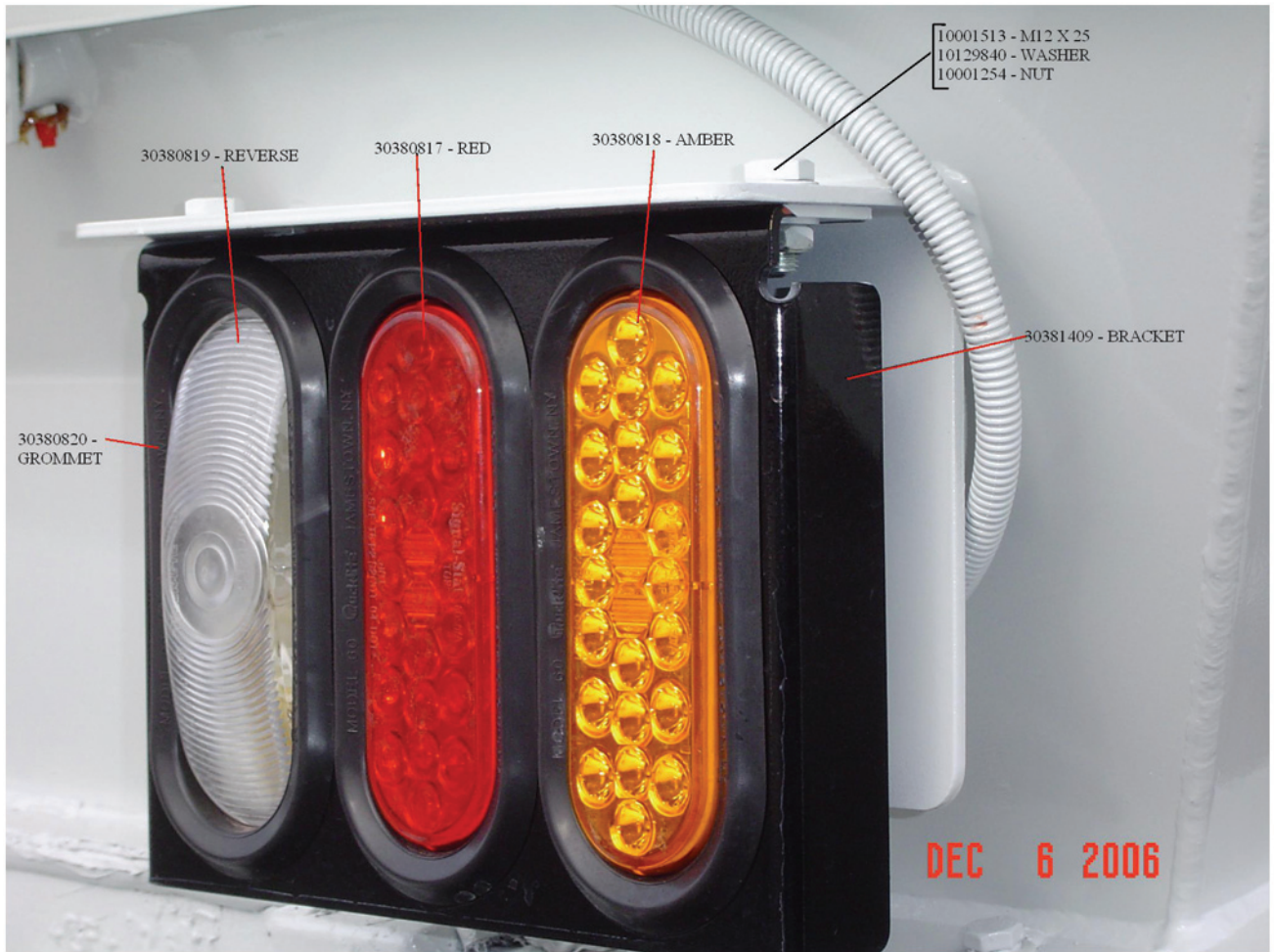
This retrofit is considered a product enhancement and will not be included in a recall campaign or considered for warranty for units out of Schwing warranty. For units in Schwing warranty, part reimbursement and flat rate labor of \$50.00 will be credited upon receipt of a completed warranty claim and return of old parts.

It is up to the customers to actively participate in the suggestions contained within this Service Bulletin.

Please feel free to contact the Schwing Call Center at 1 800 328-9635 if you have any further questions.

Sincerely,

Schwing America, Inc.



-
- **Concrete Pumping & Belt Trucks** - Spray “KLEEN KOTE” on once per job and do not clean the hopper till the end of the job. To polish truck, see Vehicle Instructions. **11** parts water to **1** part KLEEN KOTE

PREVENT CONCRETE, ASPHALT AND DIRT FROM STICKING TO EQUIPMENT.

“KLEEN KOTE” is a water based industrial release that is V.O.C. compliant. It helps prevent asphalt, concrete, dirt and other debris from sticking to treated equipment, forms, hand tools and trucks. “KLEEN KOTE” is an innovative release that deposits a very thin film causing the surface to become virtually non-stick. “KLEEN KOTE” is environmentally safe and does not contain any solvents or phosphates.

COVERAGE - 1 gallon of “KLEEN KOTE” is required to cover approx. 1,000 to 2,000 square feet, depending on the surface type. Spray on for best performance and ease of application.



You can keep your hopper and splash guard looking better and help yourself at cleanout time by spraying them with a release agent before the pour begins. Schwing recommends a product called *Kleen Kote*. *Kleen Kote* is specifically formulated to prevent concrete from sticking to forms. It also prevents concrete from sticking to any other surface. Areas such as the tapered bend and elbows and the back side of the outrigger beams are especially vulnerable to splashing concrete and should be sprayed. Spraying will save you a considerable amount of time during your cleanout process. Be aware that release agents make for slippery footing, so do not spray it directly on walking surfaces, and do not walk on surfaces that have been sprayed. **If you do get over-spray on a walking surface, clean it off immediately.** *Kleen Kote* is a 100% water soluble formula used in place of form oil or diesel fuel. It deposits a thin film that concrete, asphalt, dirt, or other debris will not stick to. *Kleen Kote* is environmentally safe and does not contain solvents, phosphates, or silicones. This product is biologically safe for use on all surfaces. Additionally, *Kleen Kote* has an added rust inhibitor and is an effective release alternative when diesel fuel and oils are not acceptable. This product is a non-hazardous material and meets or exceeds all OSHA standards on the MSDS Material Hazard Evaluation. Schwing is an authorized dealer of *Kleen Kot*, which can be ordered in concentrate through the Spare Parts Department at (651) 429-0999.

Bulletin#: 1017-06

Date: 12/22/06

Subject: Cable Operated Water Box Drain Modification Assembly - Part Number 30381207

December 8, 2006

Service Bulletin 1017-06

Subject: CABLE OPERATED WATER BOX DRAIN MODIFICATION – ASSEMBLY P/N 30381207

Dear Schwing Customer:

Schwing America Inc. is more committed than ever to ensure the highest level of customer safety, satisfaction and quality.

In our continuing effort to give our customers the very best, most reliable concrete pump, Schwing has developed a direct bolt-on field modification for the cable operated water box drain. Along with the cable assembly, the modified assembly utilizes a remote greasing system to fill the cavity in the ball valve to prevent water or grout buildup which causes the valve to seize up.

The kit can be installed on all Schwing concrete pump water boxes that utilize the remote cable control function. Reduced price for the assembly is \$383.63 and estimated installation time is two hours. This special reduced price is valid for a period of six months from the date of this service bulletin.

This retrofit is considered a product enhancement and will not be included in a recall campaign or considered for warranty for units out of Schwing warranty. It is up to the customers to actively participate in the suggestions contained within this Service Bulletin.

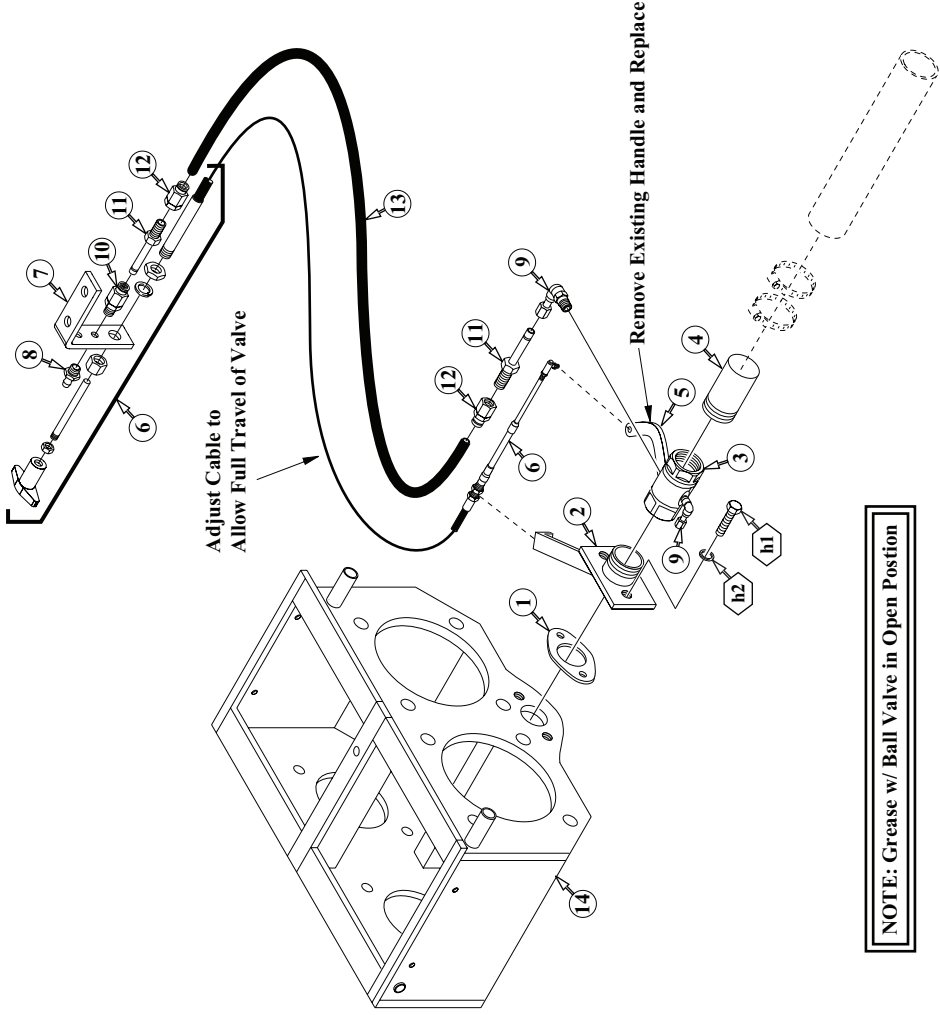
Please feel free to contact the Schwing Call Center at 1 800 328-9635 if you have any further questions.

Sincerely,

Schwing America, Inc.

WATER BOX DRAIN ASSEMBLY

Water Box Lubrication System Kit #30381207



	MOD STAND.	MODEL GENERAL	DRAWING NAME WATER BOX DRAIN ASSEMBLY .PDF	REV / DATE	DATE

Bulletin#: 1018-06

Date: 12/22/06

Subject: Mack Truck Service Bulletins

December 8, 2006

Service Bulletin 1018-06

Subject: Mack Truck Service Bulletins

Dear Schwing Customer:

Schwing America Inc. is more committed than ever to ensure the highest level of customer safety, satisfaction and quality.

In our continuing effort to give our customers the very best, most reliable equipment, Schwing America, Inc. is trying to be proactive in recognizing situations that may cause an inconvenience to our customers.

It has come to our attention that Mack Truck recently issued service bulletins that may effect your equipment. Schwing America is passing this information on as an additional service to better serve our customers.

Please feel free to contact the Schwing Call Center at 800/328/9635 if you have any further questions.

To subscribe to Mack's Service Bulletins via e-mail:

1. Go to Mack's website at macktrucks.com
2. Click on Parts and Service
3. Under Service, click on Service E Mail Subscription
4. Follow instructions to sign up

Sincerely,

Schwing America, Inc.

Enclosures:

- SB121032
- SB414005
- SB210041
- SB216003

SERVICE



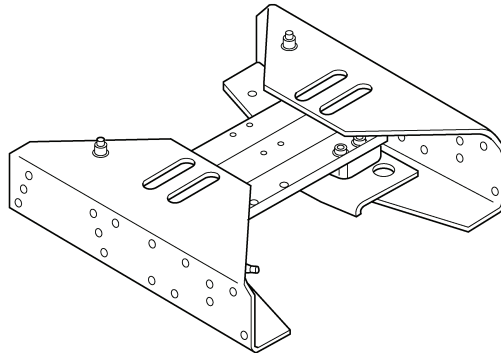
BULLETIN

Number: SB121032
Date: 07/17/06
Model: CV, CL, MR

(Does not apply to Mack Trucks Australia)

Suspension Crossmembers for CV, CL and MR Models Equipped with Raydan AL460/AL520 Vocational Air Suspension

On certain CV, CL and MR model chassis manufactured prior to March 6, 2006 and equipped with the Raydan AL460 or AL520 vocational air suspension, cracks may develop in the suspension crossmember, or failure of the crossmember vertical bolts may be experienced. Should either of these conditions be encountered, redesigned service replacement crossmembers are now available through the MACK Parts System. Part numbers are as follows:



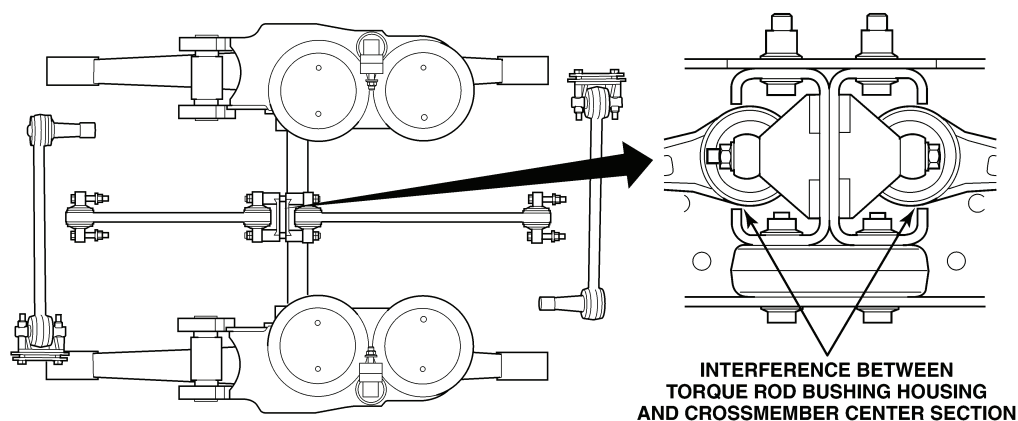
101757a

Figure 1 — Suspension Crossmember for Raydan AL460 and AL520 Vocational Air Suspension

Original Equipment Crossmember Part No.	Service Replacement Part No.	Description
9QL4736M or 9QL4757P3	9QL4839M	Suspension crossmember, CL without inside frame reinforcement
9QL4736M2 or 9QL4757P4	9QL4839M2	Suspension crossmember, CL with inside frame reinforcement
9QL4757	9QL4839M6	Suspension crossmember, CV and MR without inside frame reinforcement
9QL4757P2	9QL4839M7	Suspension crossmember, CV and MR with inside frame reinforcement

Reference the chassis build records for the original equipment crossmember part number to determine the service replacement part number from the chart above.

When the new crossmember is installed, interference between the crossmember center section and the bushing housings of the fore and aft torque rods may exist. If this is the case, replacement torque rods are available that will eliminate the interference.



101758a

Figure 2 — Fore and Aft Torque Rod Interference with Crossmember Center Section

Original Equipment Torque Rod Part No.	Service Replacement Torque Rod Part No.
17QF460P215	17QF473M5
17QF485M570	17QF473M7
17QF460P235	17QF473M9
17QF460P235	17QF473M10
17QF460P238	17QF473M10
17QF460P245	17QF473M11
17QF460P260	17QF473M12
17QF460P263	17QF473M13
17QF460P265	17QF473M14
17QF460P283	17QF473M16
17QF485M710	17QF473M16
17QF460P300	17QF473M17
17QF460P225	17QF473M18
17QF460P313	17QF473M18

Reference the chassis build records for the original equipment fore and aft torque rod part numbers to determine the service replacement part numbers from the chart above.

For warrantable repairs, the labor code and maximum labor allowances are as follows:

121 7F QC 80	25.0 hrs. —	Time allowed to remove and replace suspension crossmember on CV model chassis equipped with a Raydan AL460 or AL520 vocational air suspension. Does not include “take-charge” time.
121 7G QC 80	25.0 hrs. —	Time allowed to remove and replace suspension crossmember on CL model chassis equipped with a Raydan AL460 or AL520 vocational air suspension. Does not include “take-charge” time.
121 7H QC 80	25.0 hrs. —	Time allowed to remove and replace suspension crossmember on MR model chassis equipped with a Raydan AL460 or AL520 vocational air suspension. Does not include “take-charge” time.
121 7E QC 80.....	S.T. hrs. —	Additional time required for accessing suspension crossmembers due to body components.

Mack Trucks, Inc. engages in a continuous program of testing and evaluating to provide the best possible product. Mack Trucks, Inc., however, is not committed to, or liable for updating existing chassis.



Number: SB414005
Date: 08/10/06
Model: CV, CT, CL,
LE, MR, DM

(Does not apply to Mack Trucks Australia)

Failure of the Power Steering Pump to Prime at Cold Start-Up — CV, CT, CL, LE, MR and DM Models

Certain CV, CT, CL, LE, MR and DM model chassis equipped with single or dual steering gears and high volume TRW power steering pumps (part Nos. 38QC4141, P2, P3, P5, P7, P8, P10, P12, P13, P14 and P16) may experience a failure of the pump to prime at cold start-up. To eliminate this condition, the factory-fill 15W40 engine oil should be drained from the power steering system and replaced with a DEXRON®-type automatic transmission fluid. Procedures are as follows:

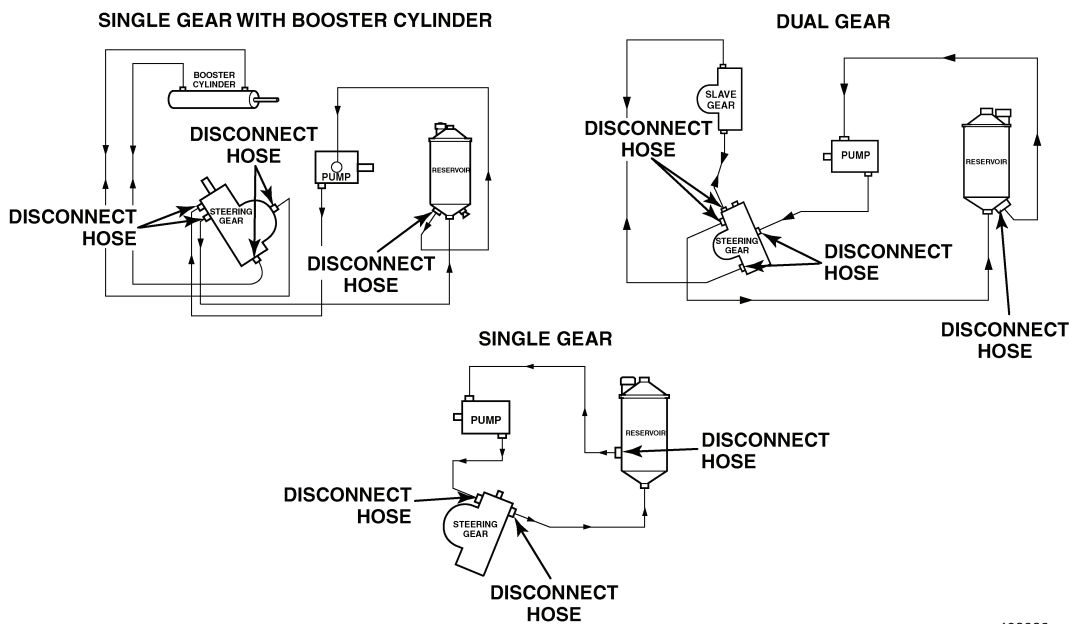
1. Operate the vehicle until the engine coolant reaches normal operating temperature.
2. Shut the engine off.
3. Secure the chassis for service, apply the parking brakes and block the rear wheels to prevent the vehicle from moving.
4. Raise the front of the vehicle so that the front wheels are off the ground and the wheels can be steered manually. Place jackstands of adequate capacity under the front axle to support the weight of the vehicle.

DANGER

Do not work on or around a vehicle supported only by a hydraulic jack as the jack can fail suddenly and unexpectedly, resulting in severe personal injury or death. Always support the vehicle on jackstands of adequate capacity.

5. Place a suitable drain pan under the hoses to catch the draining power steering fluid.

6. Clean the pressure and return hose connections at the main steering gear, and the suction hose connection at the reservoir. Disconnect the hoses from the gear and reservoir and allow the fluid to drain into the catch pans.



403636a

Figure 1 — Steering System Schematic Diagram

7. With the engine shut off, steer the front wheels several times from left to right steering stops to purge the remaining fluid from the reservoir and hoses.
8. Replace the power steering reservoir filter element.
9. Reconnect the pressure and return lines to the main steering gear.
10. Fill the reservoir with a DEXRON®-type automatic transmission fluid.

NOTE

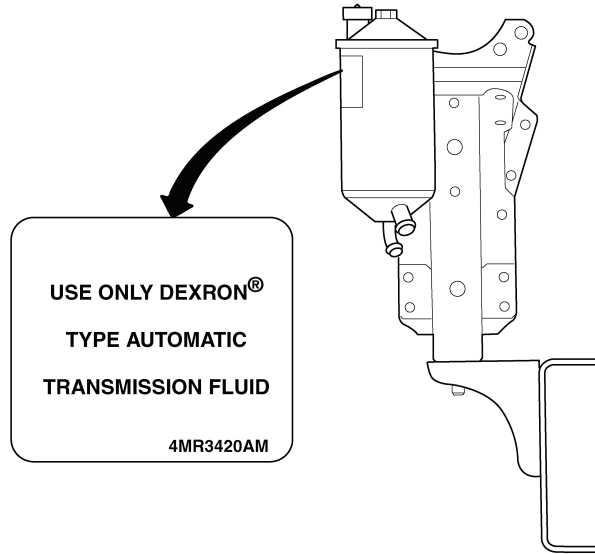
Completely flushing the engine oil from the power steering system is not necessary. As long as the oil is completely drained, DEXRON®-type automatic fluids will mix with any residual oil that may remain in the system.

11. Lower the chassis to the ground.
12. Start the engine and steer the wheels several times from the left steering stop to the right steering stop to bleed the air from the system.

NOTE

Do not allow the reservoir to go dry during the bleeding operation as air will be drawn into the system.

13. Recheck the level in the reservoir and add fluid as necessary.
14. Remove the existing "Recommended Oil" label from the power steering reservoir, and then clean the area where the label was applied to remove all oil, dirt and grease.
15. Apply a new label (part No. 4MR3420AM) to the side of the reservoir.



403631a

Figure 2 — Apply Label to Power Steering Reservoir

This label advises to use DEXRON®-type automatic transmission fluids in the power steering system.

NOTE

DEXRON® I, II and III fluids are all backward and forward compatible. Any DEXRON®-type fluid can be used in the power steering system.

For warrantable repairs, the labor code and maximum labor allowance are as follows:

414 BA ZG 90.....	CT, CV, CL, DM	1.0 hrs. —	Time allowed to drain 15W40 engine oil from the power steering system, refill with DEXRON®-type automatic transmission fluid, bleed system and replace "recommended fluid" label. Does not include "take-charge" time.
	MR, LE	1.1 hrs. —	Time allowed to drain 15W40 engine oil from the power steering system, refill with DEXRON®-type automatic transmission fluid, bleed system and replace "recommended fluid" label. Does not include "take-charge" time.

Mack Trucks, Inc. engages in a continuous program of testing and evaluating to provide the best possible product. Mack Trucks, Inc., however, is not committed to, or liable for updating existing chassis.



Number: SB210041

Date: 10/31/06

Model: All

(Also applicable to Mack Trucks Australia)

MACK EO-O Premium Plus High Performance Diesel Engine Oil Specification

A new high performance diesel engine oil specification, MACK EO-O Premium Plus, was issued in September 2006, and oils meeting this specification were introduced in October 2006. MACK EO-O Premium Plus oils meet or exceed the new API service category CJ-4. Diesel engine oils meeting the EO-O Premium Plus or VDS-4 specification are mandatory for use in the US07 emission compliant MP7 and all MP8 engines.

EO-O Premium Plus high performance diesel engine oils utilize important new chemical specifications required for compatibility with US07 emission compliant engine exhaust aftertreatment systems. EO-O Premium Plus oils are mandatory for use with MACK US07 emission compliant engines, and failure to use oils meeting this specification will require more frequent cleaning intervals to remove ash from the exhaust aftertreatment system. These new chemical specifications are as follows:

- Sulfated ash — 1.0% maximum (Test Method ASTM D874)
- Phosphorus — 0.12% maximum (Test Method ASTM D4951)
- Sulfur — 0.4% maximum (Test Method ASTM D4951)

EO-O Premium Plus Diesel Engine Oils Are:

- Factory Fill — In all MACK chassis whether equipped with a MACK MP7, MP8, ASET™ or vendor engine.
- Mandatory — For 2007 emission compliant MP7 and all MP8 engines. Chassis equipped with a 2007 emission compliant engine can be identified by the presence of a Diesel Particulate Filter (DPF) exhaust aftertreatment system, and require the use of Ultra Low Sulfur Diesel (ULSD) Fuel.
- Highly Recommended — For all MACK engine models regardless of vintage (2004 emission compliant MP7, ASET™, E-Tech™, E7, E6, etc.). Based on standard industry tests, EO-O Premium Plus engine oil promotes longer engine life with less component wear.

EO-O Premium Plus oil provides a higher oil film thickness, better wear performance and improved oxidation control at higher oil temperatures. These oils will also handle a greater amount of combustion soot in the oil, and have improved shear stability for better viscosity control.

EO-O Premium Plus engine oils have demonstrated high performance capabilities in laboratory and field tests. The applicable performance specifications are:

- The MACK T-12 Test, which measures resistance of the oil to oxidation at higher oil temperatures, and the ability of the oil to control abrasive wear. The T-12 test also measures cylinder wear and bearing corrosion protection.
- The MACK T-12 is a 300-hour test at 2007 engine EGR flow rates, and is the most severe test of this type in the industry.
- The MACK T-11 Test, which measures the ability of the oil to resist soot-related oil thickening.

EO-O Premium Plus diesel engine oil meets or exceeds other industry standard tests which determine soot-related wear and resistance to oxidation at higher temperatures.

To determine if the oil being purchased meets the new EO-O Premium Plus specification:

- Use **Bulldog® EO-O Premium Plus** — available through the MACK Parts System. Bulldog EO-N Premium Plus 03 engine oil was upgraded to EO-O Premium Plus effective October 2006.
- **All other oils** — contact the oil supplier for specific information as to when a given oil meets the new specification.

EO-O Premium Plus diesel engine oils are available in SAE grades 15W40 and 5W40.

A list of approved lubricants is posted on the Mack Trucks, Inc. web site. To access the list, proceed as follows:

1. Type *www.macktrucks.com* in the address block of your web browser.
2. At the home page, click on *Parts & Service*.
3. In the *Parts & Service* menu, click on *Service*, then locate *Approved Lubricants* on the left-hand side of the screen.
4. Click on *Approved Lubricants* to access the listing of all lubricants approved by Mack Trucks, Inc.
5. Scroll down the list to locate “EO-O Premium Plus Engine Oil.” Clicking on the selection will display the current list of approved EO-O Premium Plus diesel engine oils.

MACK dealers can also access the list from the Trucks Dealer Portal. To access, proceed as follows:

1. Type *www.trucksdealerportal.com* in the address block of your web browser.
2. At the login screen, enter your user name and password.
3. At the Trucks Dealer Portal home page, click on *Service* in the menu bar located at the top of the home page.
4. At the Service home page, click on the word *Mack* which is located on the left-hand side of the screen below the menu bar located at the top of the screen.
5. Click on *Publications* to expand the menu, and then click on *Approved Lubricants*.
6. Click on *Engine Oil Mack Trucks Approved EO-O Premium Plus List* to display the current list of EO-O Premium Plus diesel engine oils.

NOTE

The list of approved EO-O Premium Plus diesel engine oils was made available on the Trucks Dealer Portal and the internet site on October 27, 2006.

SERVICE



BULLETIN

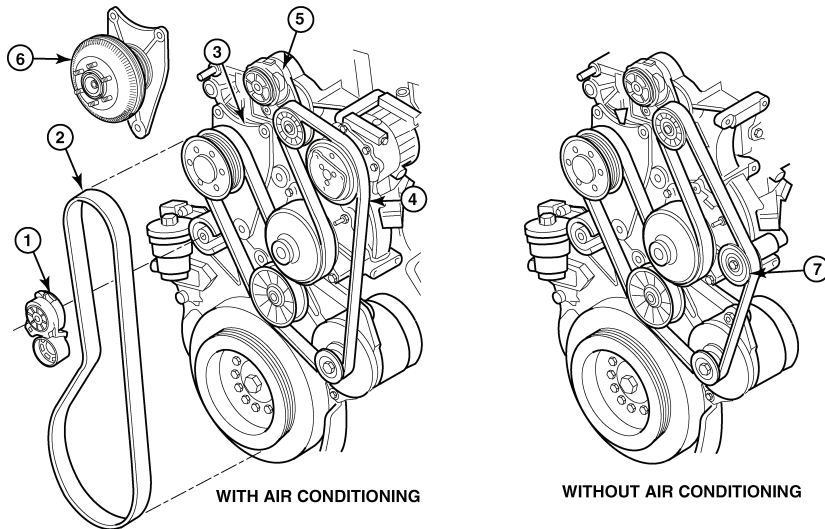
Number: SB216003
 Date: 11/16/06
 Model: ASET™

(Not applicable to Mack Trucks Australia)
 (Supersedes SB216003 dated 08/18/06)

Improved Fan Drive System Components — ASET™ Engines

Mack Trucks, Inc. has instituted an on-going program of continual improvement to the design of the fan drive system components. As improved components become available, this service bulletin is updated with the current part number information. The part numbers outlined in this bulletin are available through the MACK Parts System and should be used for any replacement needs.

REV



269330e

Figure 1 — Fan Drive System

REV

Key	Qty.	Part No.	Description	Replaces
1	1	87GB41C	Belt tensioner, main drive belt, all chassis equipped with an automatic belt tensioning system except CX with ASET™ AC engine and MR and LE with ASET™ AI/AMI engines with ASET™ AC style water pump.	87GB41 87GB41A 87GB41B
	1	87GB414AM	Belt tensioner, main drive belt, CX, CXN and CHN* models with ASET™ AC engine, and MR and LE models with ASET™ AI/AMI engine with ASET™ AC-style water pump.	87GB45 87GB45A 87GB45B 87GB45C

* Effective July 24, 2006 (beginning with engine serial No. 6P0930), main drive belt tensioner part No. 87GB45C was implemented into production on CHN model chassis, replacing the 87GB41C tensioner. The 87GB414AM tensioner should be used as the service replacement on any CHN model chassis.

Key	Qty.	Part No.	Description	Replaces
2	1	88GB458P555	Main drive belt, CX with ASET™ AC engine regardless of fan drive model and type.	88GB449P555 88GB452P555
	1	88GB458P678	Main drive belt, CH with ASET™ AC engine regardless of fan drive model and type	88GB449P678
	1	88GB458P579	Main drive belt, CXN with ASET™ AC engine and Horton DriveMaster® or BorgWarner K26RA ON/OFF fan drive with 1.39:1 fan drive ratio	88GB449P579
	1	88GB458P565	Main drive belt, CXN with ASET™ AC engine and Behr electronically modulated fan drive with 1.51: 1 fan drive ratio	88GB449P565
	1	88GB458P687	Main drive belt, CHN with ASET™ AC engine regardless of fan drive model and type (Behr electronically modulated, Horton DriveMaster® or BorgWarner K26RA ON/OFF fan drives)	88GB449P687
	1	88GB458P615	Main drive belt, CV with ASET™ AMI engine above 300 horsepower and Horton DriveMaster® ON/OFF fan drive having 1.63:1 pulley ratio	88GB449P615
	1	88GB458P605	Main drive belt, CV with ASET™ AI engine above 300 horsepower and Horton DriveMaster® ON/OFF fan drive having 1.77:1 pulley ratio	88GB449P605 88GB447P605
	1	88GB458P661	Main drive belt, CV with ASET™ AI-300 and an air-sensing viscous fan drive with a 1.63:1 pulley ratio Main drive belt, CV with ASET™ AI/AMI engines, beginning with implementation of ASET™ engines through January 2004 (prior to implementation of front engine redesign having the cartridge-style water pump) and air-sensing viscous fan drive with a 1.63:1 pulley ratio,	88GB447P661
	1	88GB458P650	Main drive belt, CT with ASET™ AI engine and Behr electronically modulated fan drive with a 1.68:1 pulley ratio	88GB449P650
	1	88GB458P657	Main drive belt, CT with ASET™ AMI engine and Behr electronically modulated fan drive with a 1.56:1 pulley ratio Main drive belt, CT with ASET AI engine and Horton DriveMaster® or Borg-Warner K26 ON/OFF fan drives with a 1.56: pulley ratio	88GB449P657
	1	88GB458P666	Main drive belt, CT with ASET™ AMI engine and Horton DriveMaster® or Borg-Warner K26 ON/OFF fan drive with a 1.44:1 pulley ratio Main drive belt, CV with ASET™ AMI-300 engine and air-sensing viscous fan drive with a 1.56:1 pulley ratio	88GB449P666
	1	88GB458P555	Main drive belt, MR and LE with ASET™ AI/AMI engine and ON/OFF fan drive with a 1.68:1 or 1.77:1 pulley ratio	88GB452P555 88GB449P555
3	1	134GB349M	Fan drive idler hub, CH and CX with ASET™ AC engine and Behr electronically modulated fan drive.	134GB380 134GB335M 134GB335AM 134GB335BM 134GB335CM 3912-992029 3912-992035 3912-992039





Key	Qty.	Part No.	Description	Replaces
3	1	134GB359M	Fan drive idler hub, CHN and CXN with ASET™ AC engine and Behr electronically modulated fan drive.	134GB381M 134GB342M 134GB342AM 3912-992036 3912-992044
	1	134GB382M	Fan drive idler hub, CT with ASET™ AMI engine and Behr electronically modulated fan drive having 1.56:1 pulley ratio	134GB343M 134GB343AM 3912-992033 3912-992046
	1	134GB383M	Fan drive idler hub, CT with ASET™ AI engine and Behr electronically modulated fan drive having 1.68:1 pulley ratio	134GB344M 134GB344AM 3912-992034 3912-992047
4	1	88GB459P735	Accessory drive belt, CX with ASET™ AC engine and air conditioning.	88GB450P735 88GB453P735
	1	88GB459P585	Accessory drive belt, CX with ASET™ AC engine without air conditioning.	88GB450P585 88GB453P585
	1	88GB459P847	Accessory drive belt, CH with ASET™ AC engine and air conditioning.	88GB450P847 88GB453P847
	1	88GB459P670	Accessory drive belt, CH with ASET™ AC engine without air conditioning.	88GB450P670 88GB453P670
	1	88GB459P738	Accessory drive belt, CXN with ASET™ AC engine with air conditioning and Behr electronically modulated fan drive with 1.51:1 fan drive ratio	88GB453P738
	1	88GB459P746	Accessory drive belt, CXN with ASET™ AC engine with air conditioning and Horton DriveMaster® or BorgWarner K26RA ON/OFF fan drive and 1.39:1 fan drive ratio	88GB453P746
	1	88GB459P847	Accessory drive belt, CHN with ASET™ AC engine with air conditioning regardless of fan drive model and type (Behr electronically modulated, Horton DriveMaster® ON/OFF or Borg-Warner K26 ON/OFF fan drives)	88GB453P847 88GB450P847
	1	88GB459P625	Accessory drive belt, CV with ASET™ AI/AMI engine and Horton DriveMaster® ON/OFF fan drive, without air conditioning	88GB453P625 88GB450P625
	1	88GB459P795	Accessory drive belt, CV with ASET™ AI/AMI engine and Horton DriveMaster® ON/OFF fan drive, with air conditioning	88GB453P795 88GB450P795
	1	88GB459P648	Accessory drive belt, CT with ASET™ AI engine and Behr electronically modulated fan drive, without air conditioning	88GB450P648
	1	88GB459P654	Accessory drive belt, CT with ASET™ AI/AMI engine and Behr electronically modulated, Horton DriveMaster® or Borg-Warner K26 ON/OFF fan drive with a 1.56:1 pulley ratio, without air conditioning	88GB450P654
1	88GB459P659	Accessory drive belt, CT with ASET™ AMI engine and Horton DriveMaster® or Borg-Warner K26 fan drive with a 1.44:1 pulley ratio, without air conditioning	88GB450P659	

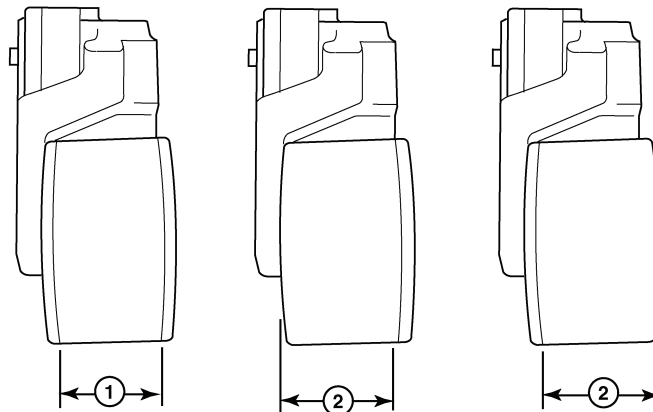
Key	Qty.	Part No.	Description	Replaces
4	1	88GB459P831	Accessory drive belt, CT with ASET™ AI/AMI engine and Behr electronically modulated fan drive with a 1.56:1 pulley ratio, with air conditioning	88GB453P831 88GB450P831
	1	88GB459P825	Accessory drive belt, CT with ASET™ AI engine and Behr electronically modulated fan drive with a 1.68:1 pulley ratio, with air conditioning	88GB450P825
	1	88GB459P839	Accessory drive belt, CT with ASET™ AMI engine and Horton DriveMaster® ON/OFF or Borg-Warner K26 ON/OFF fan drive with a 1.44:1 pulley ratio, with air conditioning	88GB450P839
	1	88GB459P712	Accessory drive belt, MR and LE with ASET™ AI engine and Horton DriveMaster® ON fan drive with a 1.77:1 pulley ratio, with or without air conditioning	88GB453P712 88GB450P712
	1	88GB459P716	Accessory drive belt, MR and LE with ASET™ AMI engine and Horton DriveMaster® ON/OFF fan drive with a 1.68:1 pulley ratio, with or without air conditioning	88GB453P716 88GB450P716
5	1	87GB44A	Accessory drive belt tensioner, CHN, CXN, CH, CX with ASET™ AC without air conditioning, and CV, CT and RB with ASET™ AI/AMI engine manufactured January 1, 2004 and later, without air conditioning.	87GB44
	1	87GB46A	Accessory drive belt tensioner, CHN, CXN, CH, CX with ASET™ AC with air conditioning, and CV, CT and RB with ASET™ AI/AMI engine manufactured January 1, 2004 and later, with air conditioning.	87GB46
	1	87GB47A	Accessory drive belt tensioner, MR and LE with ASET™ AI/AMI engine manufactured January 1, 2004 and later, with or without air conditioning.	87GB47
6	1	40MH437M	Fan drive complete, Horton DriveMaster® On/Off, ASET™ AC engines used in CX and CH models with 1.68:1 fan drive ratio	40MH414M 3912-999247 40MH414AM 3912-999470
	1	40MH439M	Fan drive complete, Horton DriveMaster® On/Off, ASET™ AC engines used in CXN models with 1.39:1 fan drive ratio	40MH424M 3912-999400 40MH424AM 3912-999471
	1	40MH438M	Fan drive complete, Horton DriveMaster® On/Off, ASET™ AC engines used in CHN models with 1.51:1 fan drive ratio	40MH425M 3912-999399 40MH425AM 3912-999472
	1	40MH440M	Fan drive complete, Horton DriveMaster® On/Off, ASET™ AI engines used in CV (except 300 horsepower) and RB models with 1.77:1 fan drive ratio	40MH413M 3912-999347 40MH413AM 3912-999473
	1	40MH441M	Fan drive complete, Horton DriveMaster® On/Off, ASET™ AMI engines used in CV (except 300 horsepower) and RB models with 1.63:1 fan drive ratio	40MH415M 3912-999348 40MH415AM 3912-999474

Key	Qty.	Part No.	Description	Replaces
6	1	40MH442M	Fan drive complete, Horton DriveMaster® On/Off, ASET™ AI engines used in CT models with 1.56:1 fan drive ratio	40MH421M 3912-999423 40MH421AM 3912-999475
	1	40MH443M	Fan drive complete, Horton DriveMaster® On/Off, ASET™ AMI engines used in CT models with 1.44:1 fan drive ratio	40MH426M 3912-999407 40MH426AM 3912-999476
	1	40MH444M	Fan drive complete, Horton DriveMaster® On/Off, ASET™ AI engines used in MR and LE models with 1.77:1 fan drive ratio	40MH418M 3912-999357 40MH418AM 3912-999427 40MH418BM 3912-999477
	1	40MH445M	Fan drive complete, Horton DriveMaster® On/Off, ASET™ AMI engines used in MR and LE models with 1.68:1 fan drive ratio	40MH419M 3912-999356 40MH419AM 3912-999426 40MH419BM 3912-999478
7	1	786GB43M	Idler pulley, accessory drive belt, ASET™ AI/AMI without air conditioning	786GB42M

REV

Main Drive Belt Tensioner Inspection

At each D inspection or once per year (whichever occurs first), the belt tensioner pulley should be checked for proper belt tracking. Belt tracking can be determined by looking at the witness mark on the pulley (the shiny area on the pulley where the belt rides). The witness mark should be approximately the same width as the belt. If the witness mark is considerably wider than the belt and extends past either the front or back edge of the pulley, the tensioner must be replaced. (Refer to the following illustration.)



270338a

Figure 2 — Belt Tracking Witness Marks

1. Witness Mark Same Approximate Width as Belt — ACCEPTABLE	2. Witness Considerably Wider than Belt (extends off edge of pulley) — UNACCEPTABLE
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CAUTION

Two different tensioner part numbers (87GB41[A][B][C] and 87GB45[A][B][C]) are used for ASET™ and E-Tech™ engines. The outward appearance of these tensioners is the same; the difference between the two part numbers is the amount of spring tension. The correct tensioner must be used for the proper application. Do not substitute one tensioner part number for the other, as drive belt failure can result.

Mack Trucks, Inc. engages in a continuous program of testing and evaluating to provide the best possible product. Mack Trucks, Inc., however, is not committed to, or liable for updating existing chassis.

Bulletin#: 1019-06

Date: 12/22/06

Subject: Hydraulic Tank Collector Filter for S41SX

December 8, 2006

Service Bulletin 1019-06

Subject: HYDRAULIC TANK COLLECTOR FILTER FOR S41SX

Dear Schwing Customer:

Schwing America Inc. is more committed than ever to ensure the highest level of customer safety, satisfaction and quality.

In our continuing effort to give our customers the very best, most reliable concrete pump, Schwing has equipped the S41SX with a hydraulic pump case drain leakage oil collector and filter on the underside of the hydraulic oil reservoir. (Figure 1).

In the future, other newly designed hydraulic tanks will also have this feature.

Please feel free to contact the Schwing Call Center at 1 800 328-9635 if you have any further questions.

Sincerely,

Schwing America, Inc.

HYDRAULIC TANK COLLECTOR

Service Bulletin 1019-06

The collector is equipped with a filter element (Item 2, Figure 2) which must be replaced during each oil change.

The filter must also be replaced after severe damage to the hydraulic pump or major components.

After contamination of the hydraulic oil by abraded metal, the hydraulic system needs to be flushed out. Replace all filters. Replace the hydraulic oil, if it was not possible to achieve sufficient purity by the flushing procedure.

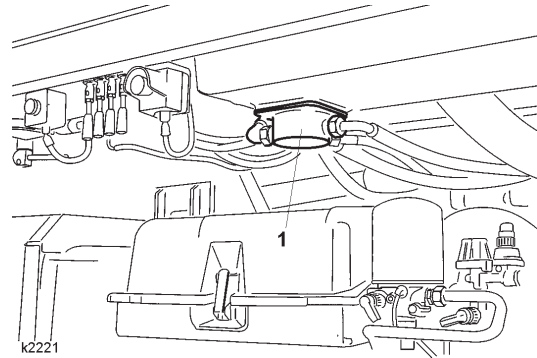


Figure 1

REPLACING THE LEAKAGE OIL FILTER

- Completely drain the hydraulic oil reservoir.
- Have a suitable container ready to collect residual oil in the collector.
- Loosen the four retaining screws of the collector.
- Pull the collector downwards until the filter element can be unscrewed. The hoses connected to the collector should not have to be removed.
- Screw on a new filter element (Item 2, Figure 3) and tighten by hand.
- Clean the sealing surfaces of collector and oil reservoir.
- Re-assemble the collector with a new seal (Item 3, Figure 3) and tighten the bolts to 25 ft/lbs (34 Nm)

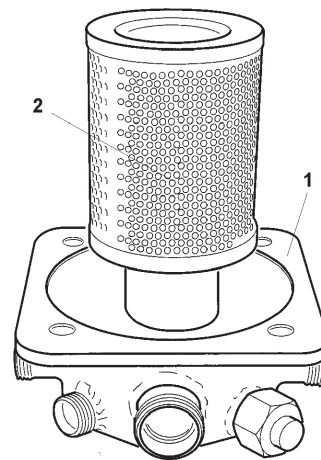


Figure 2

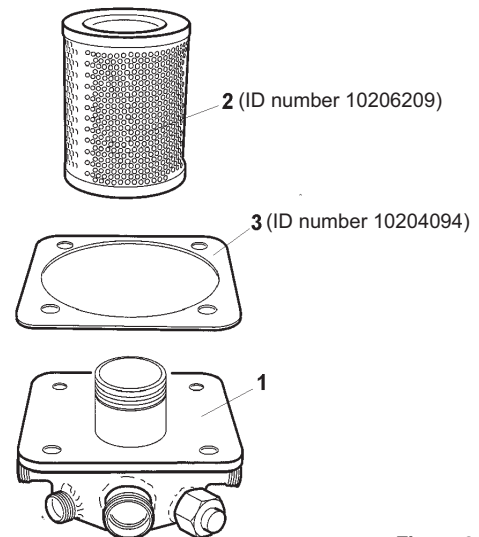


Figure 3

Bulletin#: 1020-07

Date: 04/04/07

Subject: Esser 14 Degree Heavy Duty Outlet P/N 30369361

Dear Schwing Customer:

Schwing America Inc. is more committed than ever to ensure the highest level of customer safety, satisfaction and quality.

In our continuing effort to give our customers the very best, most reliable concrete pump, Schwing America, Inc. is trying to be proactive in recognizing potential problems that may cause an inconvenience to our customers.

It has come to our attention that there may be a potential problem with an earlier version of Esser's 14 Degree Heavy Duty Outlet, P/N 30369361.

Your company has been identified as recently purchasing one or more of these outlet flanges. If your company has any of these heavy duty outlets, either on a unit or in inventory, please use the replacement(s) provided immediately. Use the attached photograph to identify the heavy duty casting by the presence of the casting numbers.

Schwing America will provide replacements along with freight to your location. An invoice will be generated at list minus any applicable discount. Please return the old outlet(s) along with a completed warranty claim form and Schwing will reimburse for the part(s), freight, and a lump sum labor / return freight rate of \$75.00. Schwing must receive all earlier shipped outlets as a safety measure to assure they do not remain in use.

For unused elbows from inventory, a Part Return form may be completed and credit for parts and freight both ways will be granted.

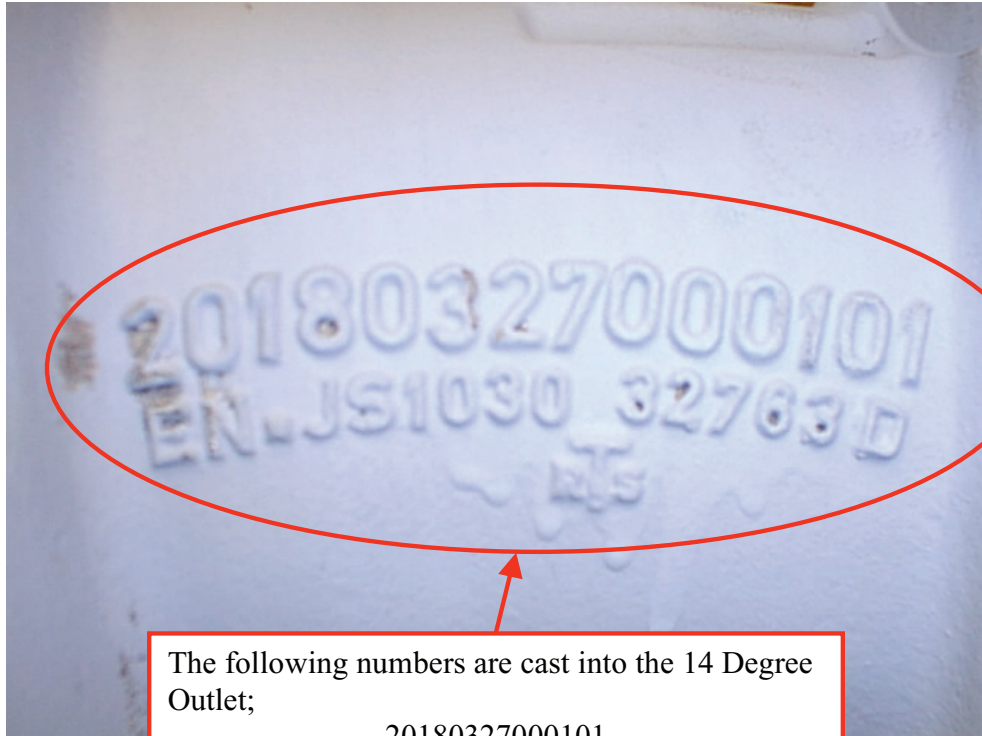
You have 45 days from the date of the shipment to return the earlier shipped version heavy duty outlet.

This is considered a safety campaign. It is up to the customer to actively participate in the suggestions contained within this Safety Bulletin. Customers must act immediately.

Please feel free to contact the Schwing Service Department at 1 888 292-0262 if you have any further questions.

Sincerely,

Schwing America, Inc.

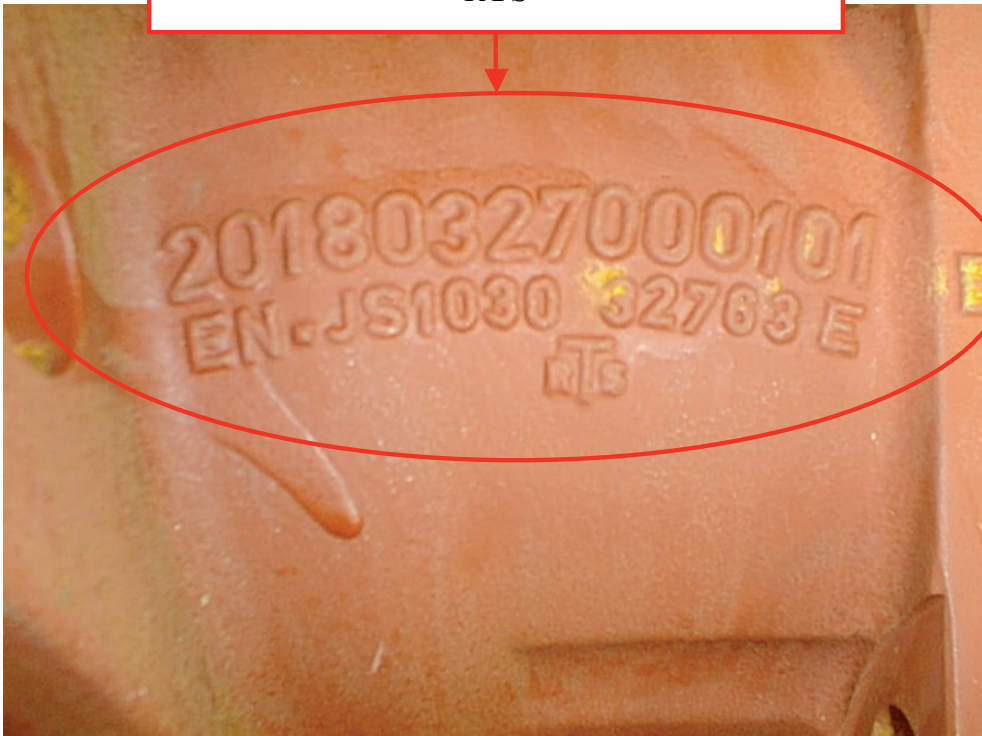


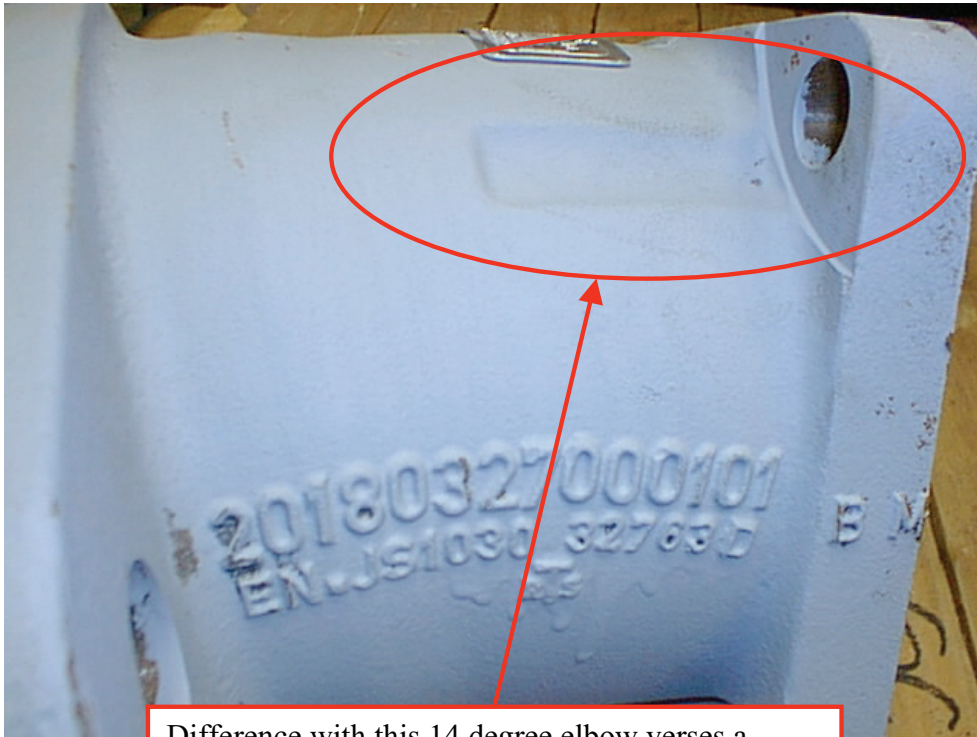
The following numbers are cast into the 14 Degree Outlet;

20180327000101

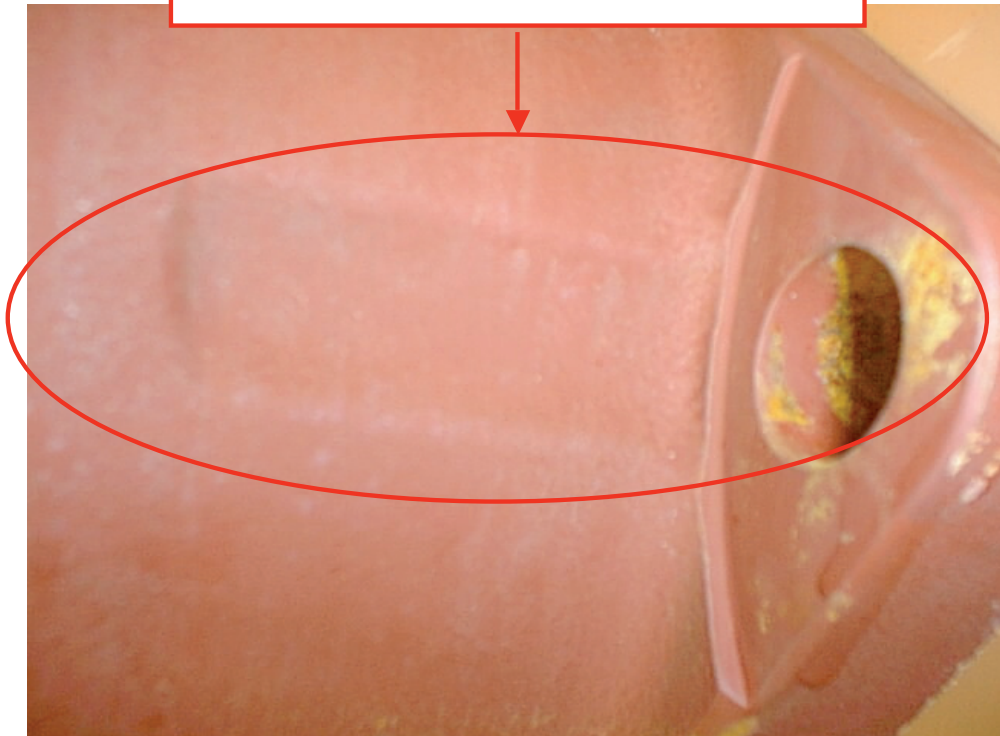
EN.JS1030 32763 (Letter Can be Different)

RTS





Difference with this 14 degree elbow verses a standard 14 degree elbow is the indentation in the casting where the head of the bolt needs clearance to be installed.



Bulletin#: 1021-07

Date: 05/11/07

Subject: Aluminum Chute Lock P/N 30386457

Dear Schwing Transit Mixer Customer:

Schwing America Inc. is more committed than ever to ensure the highest level of customer safety, satisfaction and quality.

It has come to Schwing's attention that there are problems with the holding force of the aluminum version Chute Lock P/N 30386457 that were delivered on the units referenced on the attached sheet. This condition is caused by inadequate gripping force of the lock mechanism on the pivot ring.

Schwing has provided in this crate enough current version brake chamber style chute locks, P/N 30389189, to replace the aluminum version referenced on the list. Schwing requests your company to replace all aluminum versions with the current version using the enclosed illustration. The only units involved in this the serial numbers are listed in the paperwork.

Enclosed you will find instructions and an illustration detailing the installation of the brake chamber style chute locks and how to make adjustments.

This update and modification will be invoiced and is reimbursable by exchanging the parts and sending the completed warranty claim form to Schwing. All aluminum version chute locks must be returned for credit to be granted.

One warranty claim form can be used, providing the serial number sheet is returned with an initial beside each unit that had the chute lock exchanged.

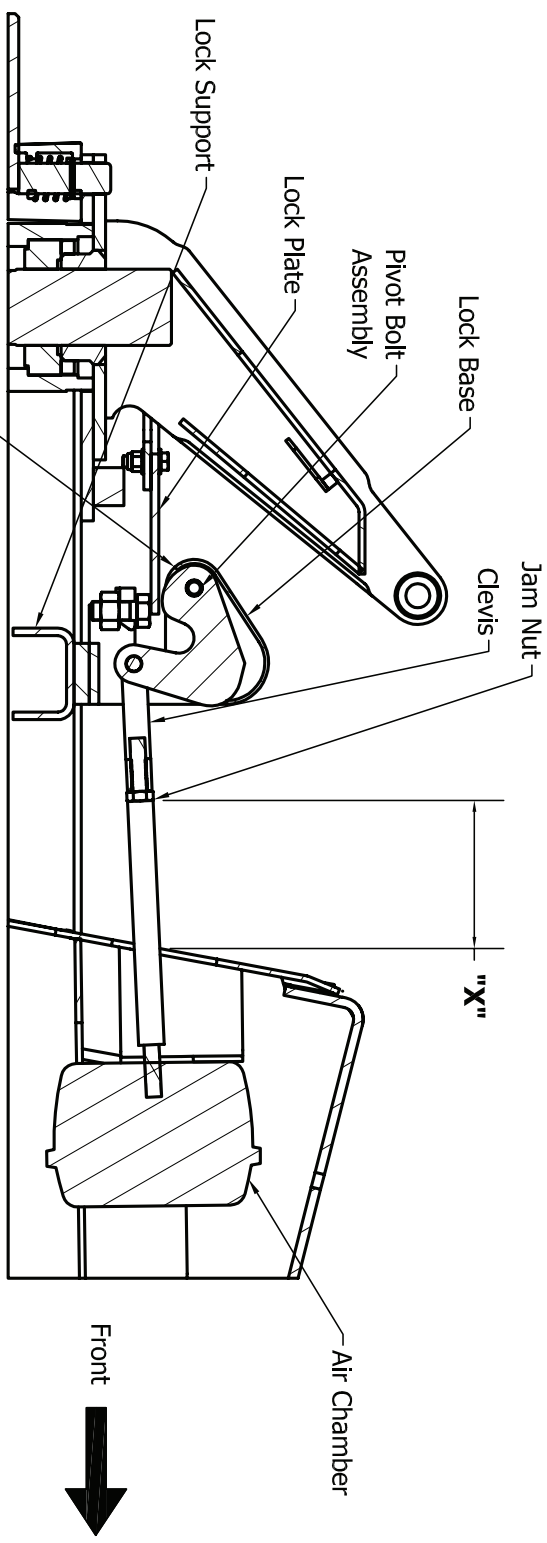
Labor will be granted at a flat rate of \$50.00 per unit. Return freight will be credited at \$25.00 per unit. This total of \$75.00 will be added to the warranty credit upon receipt of the completed warranty claim and the return of the aluminum parts to Schwing. All aluminum part must be returned.

You have 45 days from the date of the shipment to return the earlier shipped version heavy duty outlet.

Please feel free to contact the Schwing Service Department at 1 888 292-0262 if you have any further questions.

Sincerely,

Schwing America, Inc.



Chute Lock Assembly
Pn: 30389067

As Viewed from the right side

Known Field Issue

The field issue as it has been identified is as follows; the pneumatic chute lock does not always hold the chute from moving left to right.

- The following outlines the steps needed to install the Chute Lock
1. Remove the Old Chute Lock and Return to Schwing.
 2. Retain Nuts, and Bolts.

3. Installation of New Chute Lock.
 - a. Remove new pivot bolt assembly from new lock base.
 - b. Fasten new lock base to A-Frame with spacer if needed, an additional 1/16 in thick spacer may be needed (not provided).
 - c. Adjust clevis to new pivot bolt to allow 1/2" TO 5/8" maximum stroke of the air chamber rod when chute lock is engaged.
4. Final adjustment of the lock assembly may be required.

NOTE:
 "X" LOCKED - "X" UNLOCKED = 1/2" TO 5/8"

Bulletin#: 1022-07

Date: 04/19/07

Subject: Boom Inspection and Structural Repair

Dear Schwing Customer:

Customer satisfaction and safety is number one priority at Schwing America, Inc. Our goal in the Boom Inspection and Structural Repair Program is to provide a structurally safe unit for you to operate. With the extra long reaching booms of today, and with the higher strength steels being used, it is important to the industry that the equipment you use is safe and structurally sound.

The recommended CPMA (Concrete Pump Manufacturers Association) Safety Standard boom inspection intervals are as follows:

1. First 5 year; every 2,000 working hours, or at least once per year, whichever occurs first.
2. Five to ten years; every 1,000 working hours or at least once per year, whichever occurs first.
3. Ten years and older, every 500 working hours, or at least once per year, whichever occurs first.

We would like to emphasize that it is the owner's responsibility to insure that boom inspections are completed and that the equipment is operated only under safe conditions.

The boom inspection and repair rates are:

Boom Inspections

KVM 17, 23, 23-4, 24-4, 25, 26-4, 28, 28X	\$ 950.00
KVM 31, 31 HT, 32, 32XL, 34X	\$1000.00
KVM 36, 36X, 39X, 41 SX, 42	\$1,100.00
KVM 45SX, 47SX, 52, 55, 58SX, 61SX	\$1,200.00

Repair Rates

Welding repair; \$105.00/hr, plus consumable supplies

Wait time; \$105.00/hr (unless prior arrangements are made).

Travel time; \$105.00/hr plus expenses

Per Diem; \$150.00 per day

If you need Boom Inspections/Structural Repairs performed, contact Hank Klein by phone (651) 653-2289, cell (612) 963-2032 / Jim Mielke (651)653-2261, cell (612)845-8286 or call the Call Center at (800) 328-9635. We have attached a Boom Inspection Request form that you can mail to the above address or fax to (651) 429-2112.

You also have the option of using Schwing America approved Independent Inspectors and Structural Repair Centers. See enclosed list

Thank you in advance for keeping the PUMPING INDUSTRY SAFE!

Sincerely,

Hank Klein

“SCHWING APPROVED” BOOM INSPECTION COMPANIES ARE LISTED BELOW

Schwing America
Hank Klein/Jim Mielke
5900 Centerville Rd
St. Paul, MN 55127
651-429-0999

Chuck Witte Inspections Inc
Chuck Witte
1596 Sauders Ave.
St. Paul, MN 55116
651-271-2601

Industrial Repair Services Inc
Mike Ifko
PO Box 16252
Chesapeake, VA 23328-6552
756-630-3000

Brundage Bone
Jeff Labounty
10374th Avenue North
Kent, WA 98032
253-854-3333

Concrete Pump Repair
Jerry Anderson
39347 Flink Avenue
North Branch, MN 55056
651-674-4481

Howard Concrete Pumping
Mark Poole
701 Millers Run Road
Cuddy, PA 15031
413-257-1800

Mobile Concrete Pump Repair
Adam Klein
2333 West Oxford
Englewood, CO 80110
303-249-9771

Concrete Pump Equipment
Ken Spader
4321 Oakwood
Melvindale, MI 48122
313-386-7918

Concrete Pump Inspections, Inc
Mark Phipps
20320 Deerhorn Valley Road
Jamul, CA 91935
619-246-7405

Star Equipment Ltd
Brett Bowman
1401 2nd Avenue
Des Moines, IA 50314
515-283-2215

Pumpcrete Services Corporation
Ken Williams Jr.
6000 Progress Street
Niagara Falls, Ontario, Canada L2E 6X8
905-354-3855



**SCHWING
AMERICA INC.**

BOOM INSPECTION REQUEST FORM

TODAY'S DATE: ____ / ____ / ____

COMPANY: _____

STREET ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

CONTACT: _____ PHONE: (____) _____

LIST ALL MACHINES REQUIRING INSPECTION(S)/REPAIR(S) BELOW:

MODEL	SERIAL NO.	LOCATION

PLEASE FILL OUT AND FAX OR MAIL THIS FORM TO:

SERVICE DEPARTMENT
SCHWING AMERICA INC.
5900 CENTERVILLE ROAD
WHITE BEAR, MN 55127

FAX: 651/429-2112

SAISVC 018REV05/03/00

Bulletin#: 1024-08

Date: 08/20/08

Subject: SPB Shackle S39SX Gen 2 Power Pack

Dear Schwing Customer:

Schwing America Inc. is more committed than ever to ensure the highest level of customer safety, satisfaction and quality.

In our continuing effort to give our customers the very best, most reliable concrete pump, Schwing America, Inc. is trying to be proactive in recognizing potential problems that may cause an inconvenience to our customers.

Schwing America has sourced a higher grade forged allow steel shackle for lifting the S39SX Gen 2 Power Pack. The earlier version shackle, p/n 30333612, has now been replaced by a new stronger version, p/n 98324566.

The new version will be standard on all newly delivered S39SX Gen 2 Power Packs and are recommended for earlier delivered S39SX Gen 2 Power Packs. Newer version shackle will be a direct replacement with no alteration required.

The manufacturer will pay for the modification and return shipment. Schwing America, Inc. will pay for freight to the manufacturer. Customers will pay for freight to Schwing.

If the manufacturer finds other problems during the factory upgrade and the unit is still under warranty, repairs will be made free of charge without notice. Problems found on units out of warranty will be handled on a case-by-case basis. In these cases, an estimate of repairs will be made and the customer's designated contact will be contacted by the manufacturer to authorize repairs and agree to pay charges for additional repairs. Schwing America, Inc. will invoice charges on a pass through basis.

This factory upgrade is considered a product enhancement and will not be included in a recall campaign. It is up to the customer to actively participate in the suggestions contained within this targeted Service Bulletin. Customers must act within 180 days of the date of this bulletin.

Additional Schwing Service Bulletins can be found on line at, www.schwing.com. Go to the Service tab, then to Schwing Service On-Line. Follow instructions to register and access the Service Bulletins.

Please feel free to contact the Schwing Service Department at 1 888 292-0262 if you have any further questions.

Sincerely,

Schwing America, Inc.

Bulletin#: 1025-08

Date: 09/12/08

Subject: Self Climbing Octagonal Mast

Dear Schwing Customer:

Schwing America Inc. is more committed than ever to ensure the highest level of customer safety, satisfaction and quality.

It has come to our attention that the two cylinders used for the “self climbing device” on the Octagonal Mast as shown in Figure 1 need 20 LPM (5.28 GPM) of oil to function properly. Typically the hand valve section used in to operate this function will deliver more oil than needed therefore it is necessary to add an orifice to limit the flow. Separate placing boom schematic number 10302084 on the last page shows a 1.3mm orifice in the piston side line of these cylinders. Orifice part number 10010120 is the proper fitting to install in that location. Refer to figure 2 for orifice location.

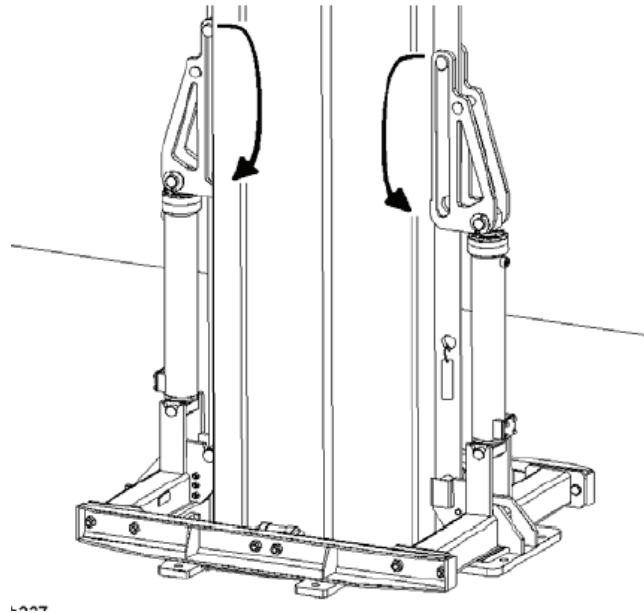


Figure 1

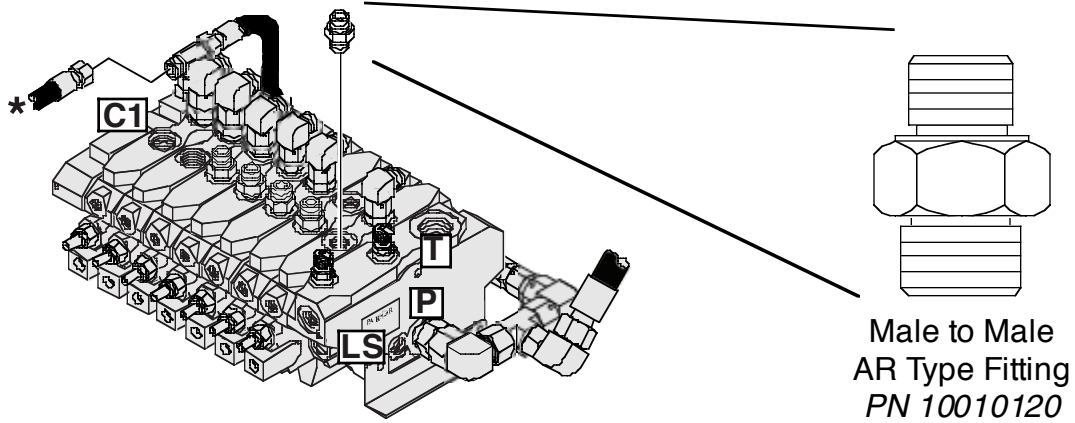


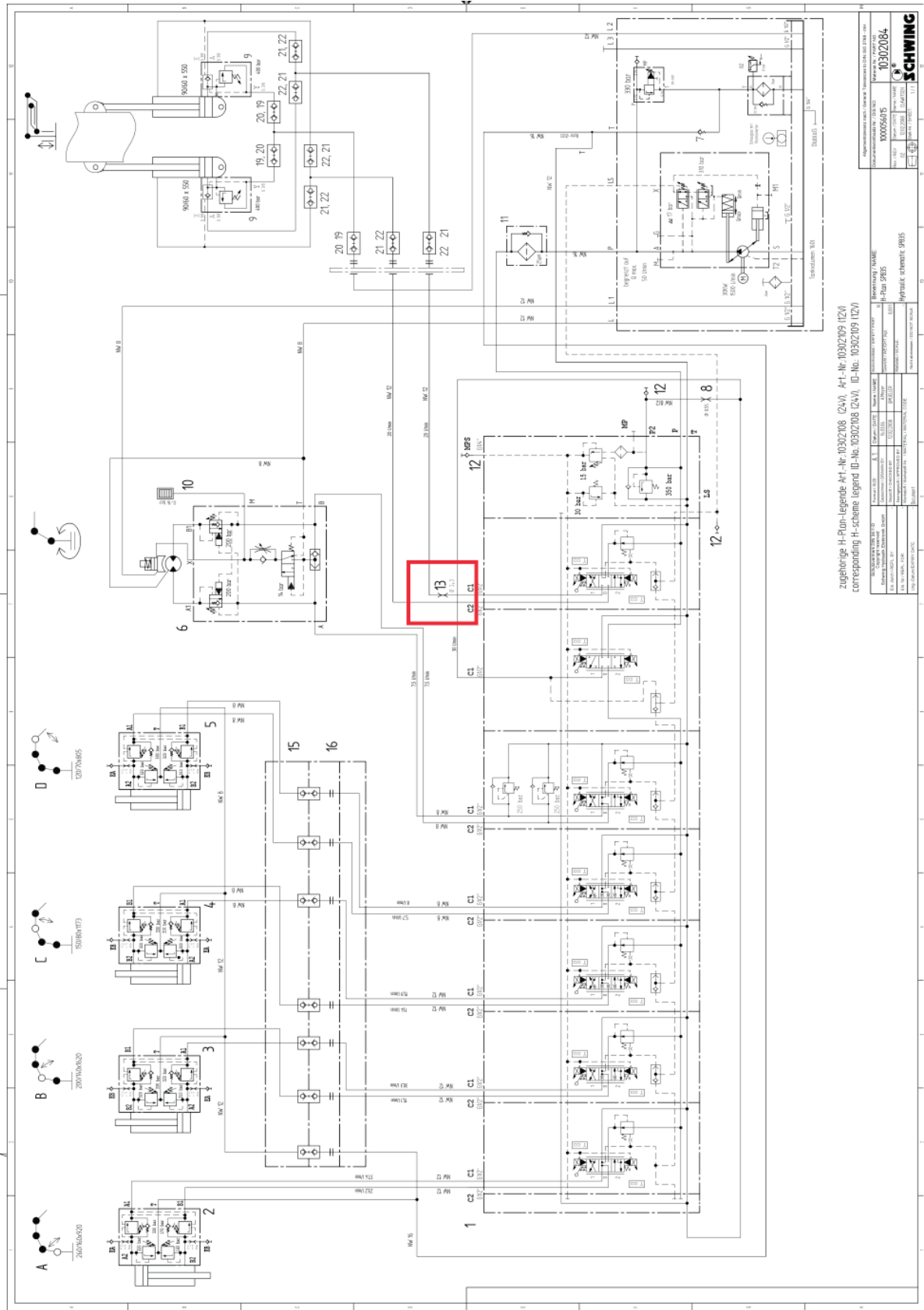
Figure 2

Additional Schwing Service Bulletins can be found on line at, www.schwing.com. Go to the Service tab, then to Schwing Service On-Line. Follow instructions to register and access the Service Bulletins.

Please feel free to contact the Schwing Service Department at 1 888 292-0262 if you have any further questions.

Sincerely,

Schwing America, Inc.



zugehörige H-Run-Legende A11-Nr. 1030208 (2x), A11-Nr. 1030209 (2x)
 corresponding H-scheme legend ID-No. 1030208 (2x), ID-No. 1030209 (2x)

Schwing Hydraulik GmbH Industriestraße 1 42699 Solingen Germany Tel. +49 212 2400-0 Fax +49 212 2400-200 E-Mail: schwing@schwing-hydraulik.de		Schwing Hydraulik GmbH Industriestraße 1 42699 Solingen Germany Tel. +49 212 2400-0 Fax +49 212 2400-200 E-Mail: schwing@schwing-hydraulik.de	
Schwing Hydraulik GmbH Industriestraße 1 42699 Solingen Germany Tel. +49 212 2400-0 Fax +49 212 2400-200 E-Mail: schwing@schwing-hydraulik.de	Schwing Hydraulik GmbH Industriestraße 1 42699 Solingen Germany Tel. +49 212 2400-0 Fax +49 212 2400-200 E-Mail: schwing@schwing-hydraulik.de	Schwing Hydraulik GmbH Industriestraße 1 42699 Solingen Germany Tel. +49 212 2400-0 Fax +49 212 2400-200 E-Mail: schwing@schwing-hydraulik.de	Schwing Hydraulik GmbH Industriestraße 1 42699 Solingen Germany Tel. +49 212 2400-0 Fax +49 212 2400-200 E-Mail: schwing@schwing-hydraulik.de

Bulletin#: 1026-08

Date: 09/15/08

Subject: SPB Floor Frame Dimensions Correction to Pages

Dear Schwing Customer:

Schwing America Inc. is more committed than ever to ensure the highest level of customer safety, satisfaction and quality.

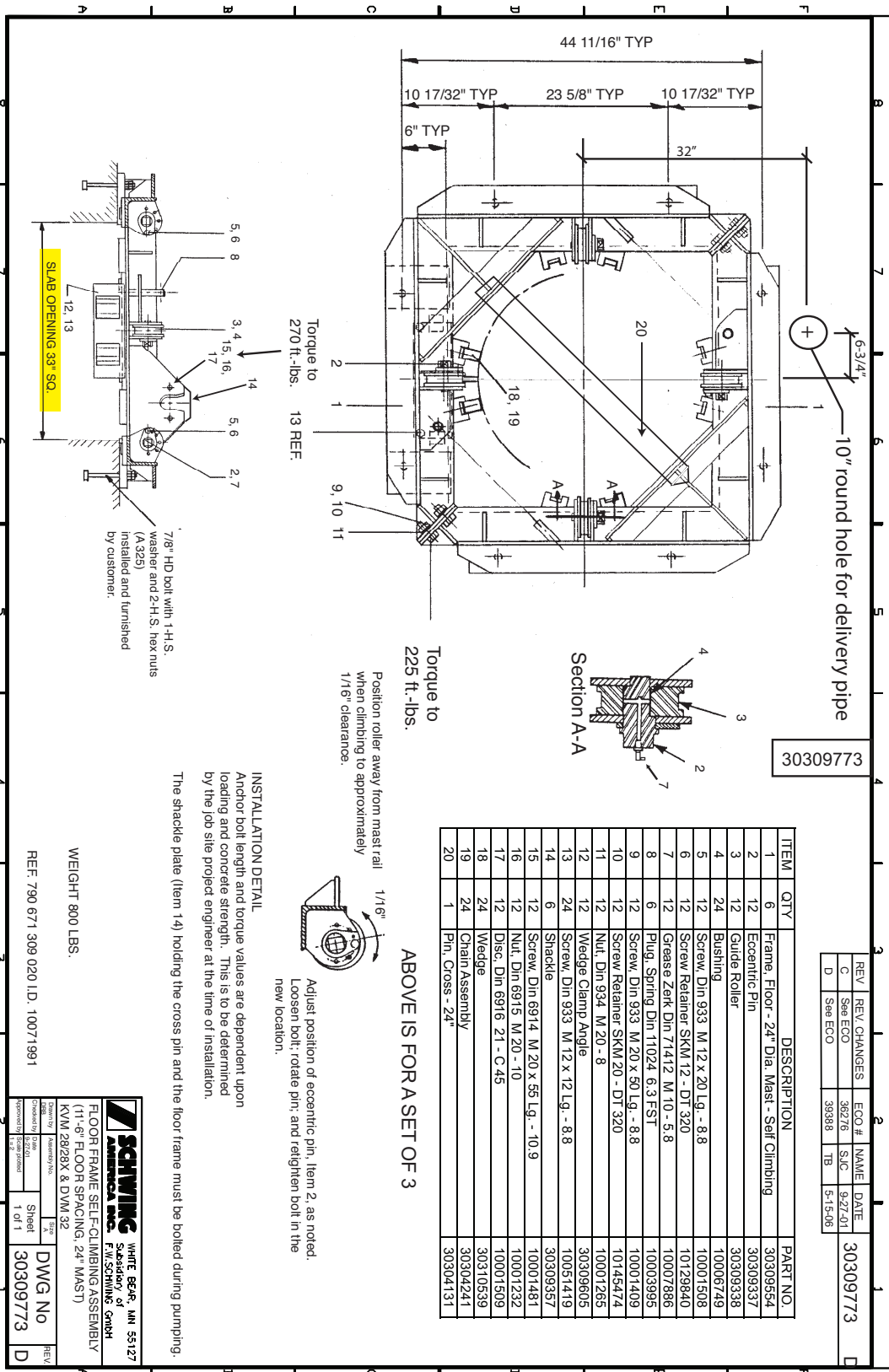
The slab opening dimensions for drawing 30309773 has been corrected to 33” and for drawing 30356755 has been corrected to 37”. Please insert the enclosed drawing into your SPB book and discard the earlier versions of these drawings.

Additional Schwing Service Bulletins can be found on line at, www.schwing.com. Go to the Service tab, then to Schwing Service On-Line. Follow instructions to register and access the Service Bulletins.

Please feel free to contact the Schwing Service Department at 1 888 292-0262 if you have any further questions.

Sincerely,

Schwing America, Inc.

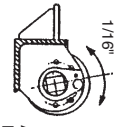


30309773

REV	REV. CHANGES	ECO #	NAME	DATE
C	See ECO	36276	SJC	9-27-01
D	See ECO	39388	TB	5-15-06

ITEM	QTY	DESCRIPTION	PART NO.
1	6	Frame, Floor - 24" Dia. Mast - Self Climbing	30309594
2	12	Eccentric Pin	30309337
3	12	Guide Roller	30309338
4	24	Bushing	10006749
5	12	Screw, Din 933 M 12 x 20 Lg. - 8.8	10001508
6	12	Screw Retainer SKM 12 - DT 320	10129840
7	12	Grease Zerk Din 71412 M 10 - 5.8	10007886
8	6	Plug, Spring Din 11024 6.3 FST	10003995
9	12	Screw, Din 933 M 20 x 50 Lg. - 8.8	10001409
10	12	Screw Retainer SKM 20 - DT 320	10145474
11	12	Nut, Din 934 M 20 - 8	10001265
12	12	Wedge Clamp Angle	30309605
13	24	Screw, Din 933 M 12 x 12 Lg. - 8.8	10051419
14	6	Shackle	30309357
15	12	Screw, Din 6914 M 20 x 55 Lg. - 10.9	10001481
16	12	Nut, Din 6915 M 20 - 10	10001232
17	12	Disc, Din 6916 Z1 - C 45	10001509
18	24	Wedge	30310539
19	24	Chain Assembly	30304241
20	1	Pin, Cross - 24"	30304131

ABOVE IS FOR ASSET OF 3



Adjust position of eccentric pin, Item 2, as noted. Loosen bolt; rotate pin; and retighten bolt in the new location.

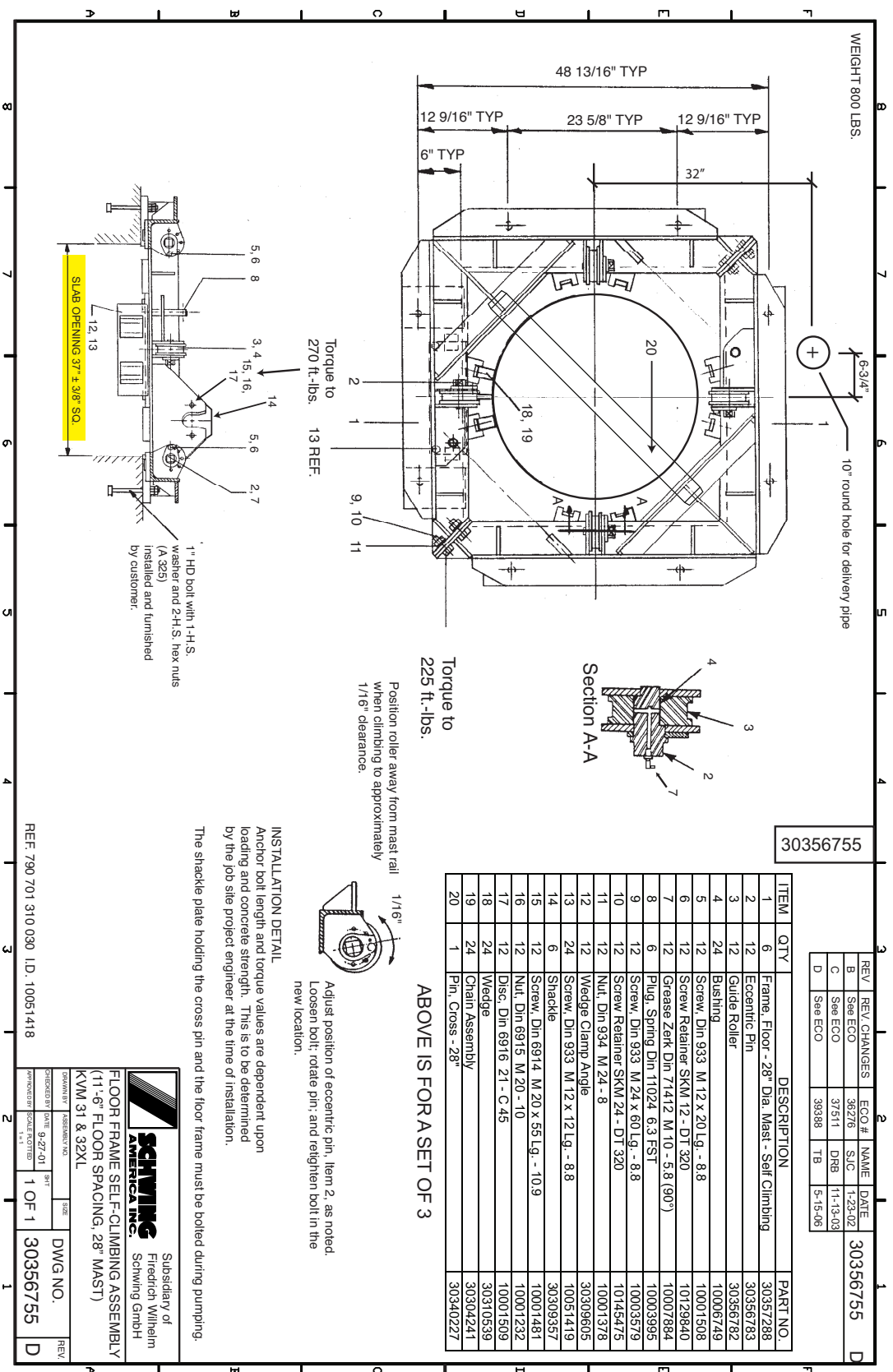
Torque to 225 ft.-lbs. Position roller away from mast rail when climbing to approximately 1/16" clearance.

INSTALLATION DETAIL
Anchor bolt length and torque values are dependent upon loading and concrete strength. This is to be determined by the job site project engineer at the time of installation.

The shackle plate (Item 14) holding the cross pin and the floor frame must be bolted during pumping.

WEIGHT: 800 LBS.
REF: 790 671 309 020 I.D. 10071991

SCHWING Scaffolding of AMERICAN MADE. F.W./SCHWING GmbH
WHITE BEAR MN 55127
 FLOOR FRAME SELF-CLIMBING ASSEMBLY
 (11'-6" FLOOR SPACING, 24" MAST)
 KVM 28/28X & DVM 32
 Drawn by: [Signature] Size: [Blank]
 Checked by: [Signature] Scale: [Blank]
 Approved by: [Signature] Date: [Blank]
 SHEET 1 of 1 DWG No 30309773 REV D

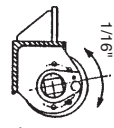


30356755

REV	REV CHANGES	ECO #	NAME	DATE
B	See ECO	36276	SJC	11-23-02
C	See ECO	37511	DRB	11-13-03
D	See ECO	39388	TB	5-15-06

ITEM	QTY	DESCRIPTION	PART NO.
1	6	Frame, Floor - 28" Dia. Mast - Self Climbing	30357288
2	12	Eccentric Pin	30356783
3	12	Guide Roller	30356782
4	24	Bushing	10006749
5	12	Screw, Din 933 M 12 x 20 Lg. - 8.8	10001508
6	12	Screw Retainer SKM 12 - DT 320	10129840
7	12	Grease Zerk Din 71412 M 10 - 5.8 (90°)	10007884
8	6	Plug, Spring Din 11024 6.3 F51	10003995
9	12	Screw, Din 933 M 24 x 60 Lg. - 8.8	10003579
10	12	Screw Retainer SKM 24 - DT 320	10145475
11	12	Nut, Din 934 M 24 - 8	10001378
12	12	Wedge Clamp Angle	30309605
13	24	Screw, Din 933 M 12 x 12 Lg. - 8.8	10051419
14	6	Shackle	30309357
15	12	Screw, Din 6914 M 20 x 55 Lg. - 10.9	10001481
16	12	Nut, Din 6915 M 20 - 10	10001232
17	12	Disc, Din 6916 21 - C 45	10001509
18	24	Wedge	30310539
19	24	Chain Assembly	30304241
20	1	Pin, Cross - 28"	30340227

ABOVE IS FOR A SET OF 3



Adjust position of eccentric pin, Item 2, as noted. Loosen bolt; rotate pin; and reighten bolt in the new location.

INSTALLATION DETAIL

Anchor bolt length and torque values are dependent upon loading and concrete strength. This is to be determined by the job site project engineer at the time of installation.

The shackle plate holding the cross pin and the floor frame must be bolted during pumping.

REF: 790 701 310 030 I.D. 10051418

Subsidiary of
SCHWING
 Friedrich Wilhelm
 Schwing GmbH

FLOOR FRAME SELF-CLIMBING ASSEMBLY
 (11'-6" FLOOR SPACING, 28" MAST)
 KVM 31 & 32XL

DESIGNED BY	DATE	REV	SIZE	DWG NO.	REV
APPROVED BY	9-27-01	1 OF 1	1/8"	30356755	D


Bulletin#: 1027-08

Date: 09/15/08

Subject: Boom cylinders: with Articulated Bearings

INFORMATION	Staff members, dealers, customers	1027-08
Boom cylinders: with articulated bearings		September 16, 2008

FIXING OF THE ARTICULATED BEARINGS

 <p>ATTENTION: RISK OF ACCIDENT AND DAMAGE</p> <p>The work described in the following text may only be performed by duly qualified personnel.</p> <p>For this reason, the following text does not describe basic working procedures.</p>
--

For fixing the articulated bearings by means of punch marks, the cylinder pin must be withdrawn and the cylinder lowered

For carrying out this work, the boom and the cylinder must be secured in an appropriate manner.

It may be the case that the articulated bearings of the boom cylinders are not secured by punch marks (Fig. 1).

Bearings not secured can "move out of their seat" and cause damage, to weldments.

Please look for defects during visits to customers, maintenance work, **safety inspections**, etc.

If a bearing has moved out of its seat, it must be repaired after discussing the matter with our Service department.

If no damage is apparent, please secure the bearings as described in the extract of the factory standard overleaf.

Please check **all** boom cylinders of a machine since **one** correctly secured bearing does not mean that **all** the bearings are correctly secured.

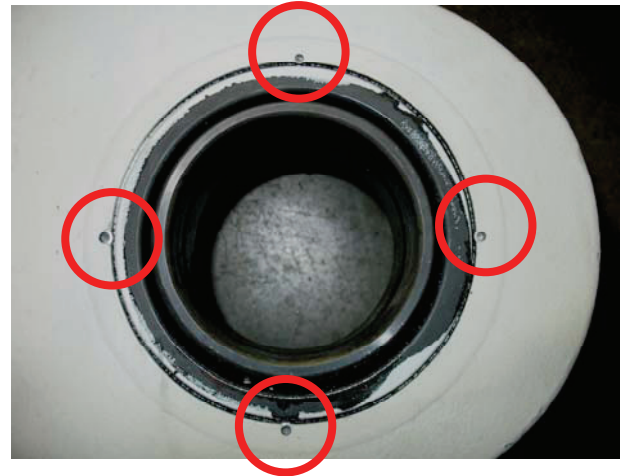
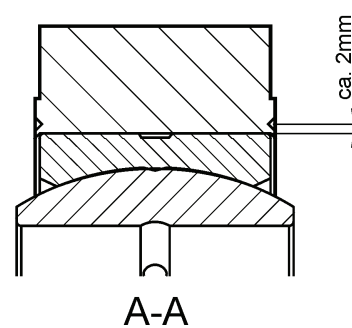
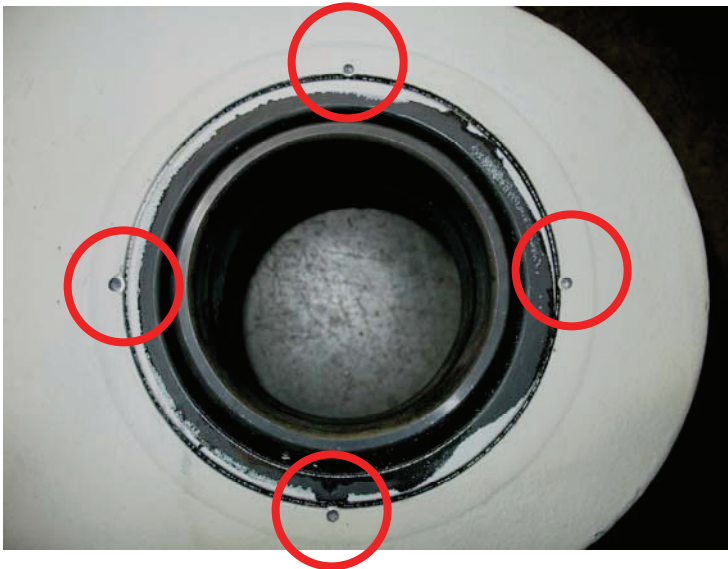
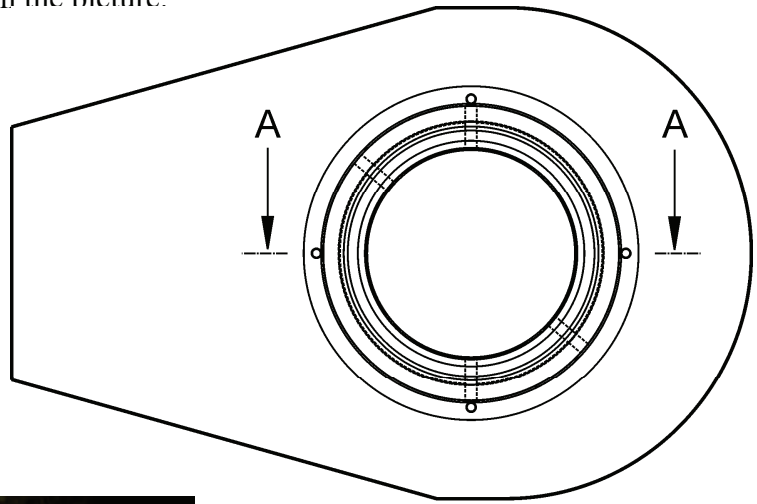


Fig. 1

For fixing the articulated bearing in axial direction, the bearing eye must be notched by means of a punch. Apply four punch marks as shown in the picture.



Additional Schwing Service Bulletins can be found on line at, www.schwing.com. Go to the Service tab, then to Schwing Service On-Line. Follow instructions to register and access the Service Bulletins.

Please feel free to contact the Schwing Call Center at 1 888 292-0262 if you have any further questions.

Sincerely,

Schwing America, Inc.

Bulletin#: 1028-08

Date: 09/15/08

Subject: Bolts at Hollow Pins

Dear Schwing Customer:

Schwing America Inc. is more committed than ever to ensure the highest level of customer safety, satisfaction and quality.

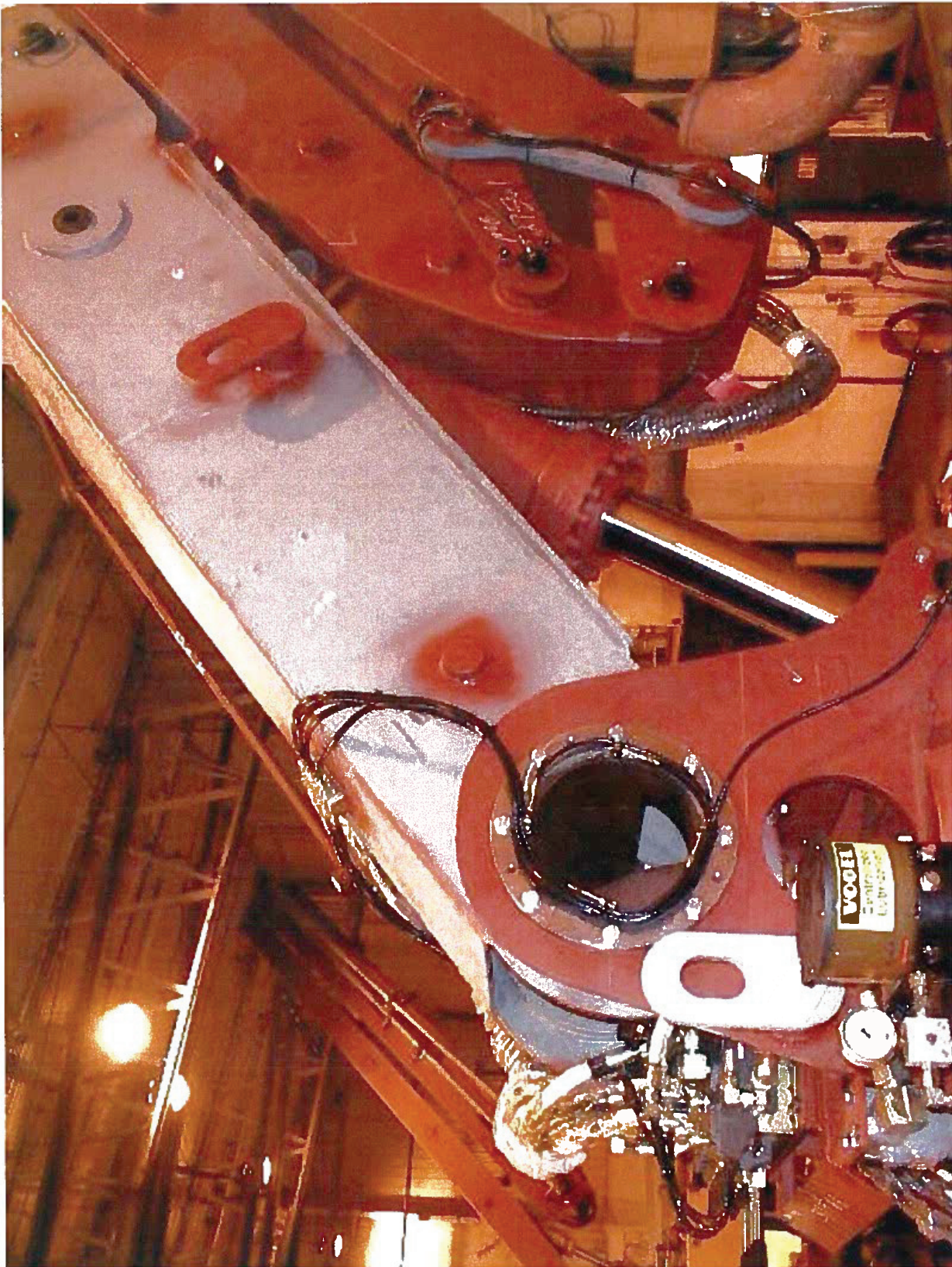
It has come to our attention that the hollow pin mounting bolts at both the turret hollow pins and the boom hollow pins are frequently found loose on all models by our inspectors in the field. To remedy this problem Schwing America recommends using Loctite High Strength for Large Bolts Series 277™ thread locker. After the threaded holes are cleaned and prepped per Loctite recommendations, apply a uniform, thin coating of loctite 277 thread locker to the bolts and the bolt holes. Do not disturb assembly and allow 24 hours for a full cure of retaining adhesive.

Additional Schwing Service Bulletins can be found on line at, www.schwing.com. Go to the Service tab, then to Schwing Service On-Line. Follow instructions to register and access the Service Bulletins.

Please feel free to contact the Schwing Service Department at 1 888 292-0262 if you have any further questions.

Sincerely,

Schwing America, Inc.



LOCTITE[®] 277

Directions for use

For Assembly

1. For best results, clean all surfaces (external and internal) with a Loctite cleaning solvent and allow to dry.
2. If the material is an inactive metal or the cure speed is too slow, spray all threads with Activator 7471 or 7649 and allow to dry.
3. To prevent the product from clogging in the nozzle, do not allow the tip to touch metal surfaces during application.
4. **For Thru Holes**, apply several drops of the product onto the bolt at the nut engagement area.
5. **For Blind Holes**, apply several drops of the product down the internal threads to the bottom of the hole.

For Disassembly

1. Apply localized heat to nut or bolt to approximately 250 °C. Disassemble while hot.

For Cleanup

1. Cured product can be removed with a combination of soaking in a Loctite solvent and mechanical abrasion such as a wire brush.

Bulletin#: 1029-08

Date: 09/15/08

Subject: Weep Hole Maintenance

Dear Schwing Customer:

Schwing America Inc. is more committed than ever to ensure the highest level of customer safety, satisfaction and quality.

Weep Hole maintenance:

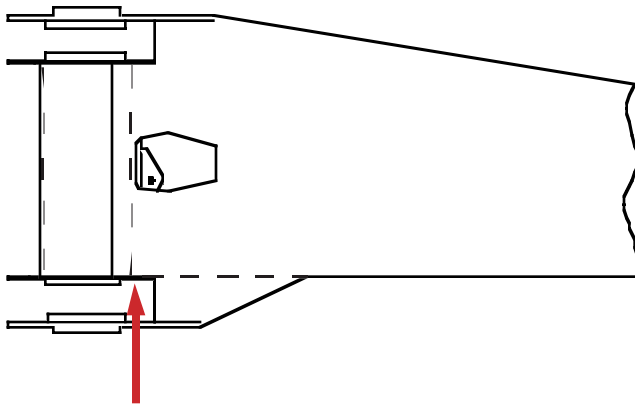
Weep holes are found on outrigger vertical tubes and some outrigger push boxes. The sole purpose of the weep holes is to allow for drainage of moisture and can also alert the customer to a leaking packing in the hydraulic cylinder. Over time these weep holes can become plugged, which in turn; in the case of water can result in excessive corrosion. Excessive corrosion in outriggers in most cases cannot be repaired, resulting in very expensive replacement costs. Avoiding these costs is as simple as keeping all weep holes free and clear of debris.

Additional Schwing Service Bulletins can be found on line at, www.schwing.com. Go to the Service tab, then to Schwing Service On-Line. Follow instructions to register and access the Service Bulletins.

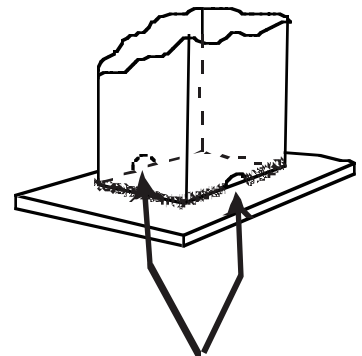
Please feel free to contact the Schwing Service Department at 1 888 292-0262 if you have any further questions.

Sincerely,

Schwing America, Inc.



42m outriggers have 3 weep holes in this location to allow water drainage.



The outrigger vertical tubes have 2 weep holes located opposite each other.

Bulletin#: 1030-08

Date: 09/15/08

Subject: SPB Technical Data

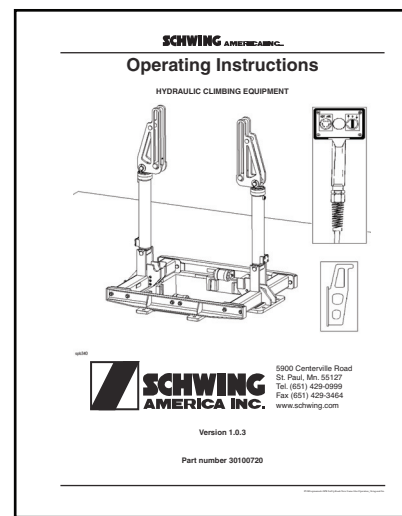
Dear Schwing Customer:

Schwing America Inc. is more committed than ever to ensure the highest level of customer safety, satisfaction and quality.

New documentation has been completed for the Separate Placing Boom product line. This information will ship with each new placing boom and/or accessory order. All customers that received a placing boom or accessory order in 2007 will receive two copies of these manuals for each order placed. Additional copies can be purchased through the Schwing Parts Department using the information below.

Part number 30100588; SPB - OCTAGONAL MAST TECHNICAL DATA contains detailed technical information on the Octagonal Mast accessories. List Price = \$60

Part number 30100720; DOCUMENT - O & M OCTAGONAL MAST contains operating instructions for the Octagonal Mast climbing system. List Price = \$50



Additional Schwing Service Bulletins can be found on line at, www.schwing.com. Go to the Service tab, then to Schwing Service On-Line. Follow instructions to register and access the Service Bulletins.

Please feel free to contact the Schwing Call Center at 1 888 292-0262 if you have any further questions.

Sincerely,

Schwing America, Inc.

Bulletin#: 1031-08

Date: 09/15/08

Subject: Drill a Drain Hole in Option Box P/N 10209161

Dear Schwing Customer:

Schwing America Inc. is more committed than ever to ensure the highest level of customer safety, satisfaction and quality.

On all Schwing Concrete Pumps with the Vector control system we use an Option Box, PN10209161, as an interface device between the truck and the concrete pump. We also use this Option Box to control the optional End Hose Shutoff System, and Night Light Package.

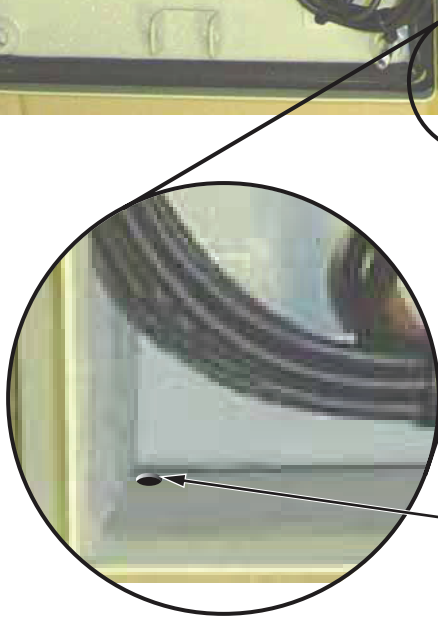
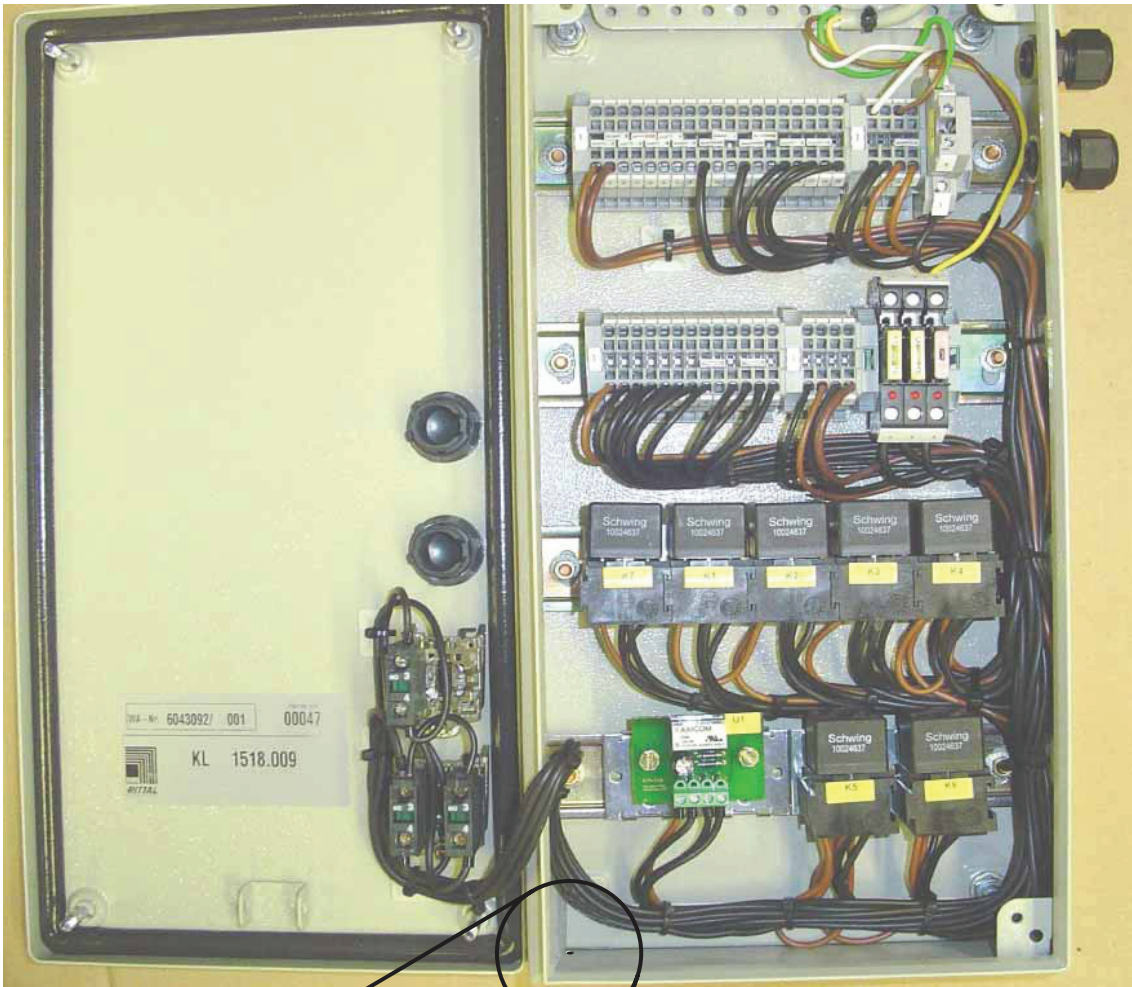
We have seen problems with these functions due to moisture being collected in this enclosure. To alleviate the accumulation of moisture we have begun drilling a hole in the bottom of the enclosure. This should also be done to all option box enclosures you have in your fleet. Please refer to the figure on the next page a picture of drilling the _” hole in the bottom of the enclosure.

Additional Schwing Service Bulletins can be found on line at, www.schwing.com. Go to the Service tab, then to Schwing Service On-Line. Follow instructions to register and access the Service Bulletins.

Please feel free to contact the Schwing Service Department at 1 888 292-0262 if you have any further questions.

Sincerely,

Schwing America, Inc.



Drill 1/4 inch hole