



INSTALLATION INSTRUCTIONS

**DURACCLASS
TELESCOPIC
HOISTS**

**MODELS
HPT53
HPT63**



WARNING

IF INCORRECTLY USED, THIS EQUIPMENT CAN CAUSE SEVERE INJURY. THOSE WHO USE AND MAINTAIN THE EQUIPMENT SHOULD BE TRAINED IN ITS PROPER USE, WARNED OF ITS DANGERS, AND SHOULD READ AND FULLY UNDERSTAND THE INSTALLATION INSTRUCTIONS AND THE OPERATOR'S MANUAL AND ANY OTHER INFORMATION PROVIDED WITH THIS VEHICLE BEFORE ATTEMPTING TO SET UP, OPERATE, ADJUST OR SERVICE THE EQUIPMENT.

KEEP THIS MANUAL FOR FUTURE REFERENCE.



IMPORTANT

FOR ADDITIONAL SAFETY AND OPERATION MESSAGES AND INSTRUCTIONS, SEE THE OPERATORS AND MAINTENANCE MANUAL INCLUDED WITH THIS UNIT.

INTRODUCTION

This instruction manual contains installation procedures for the, **HPT53**, and **HPT63** series hoists.

UNPACKING

When you receive your hoist, make sure you have received all of your parts by checking them against the following list. Parts marked with a "*" sign are shipped loose and are not in the kit box.

TED73707-0301

IMPORTANT SAFETY NOTICE

Proper installation, service and repair are important to the safe, reliable operation of The DuraClass's products. Installation and service procedures recommended by DuraClass are described in this service manual and are effective for performing installation and service operations. Some of these operations may require the use of tools or blocking devices specially designed for the purpose. Special tools should be used when recommended. It is important to note that some warnings against the use of specific methods that can damage the product or render it unsafe are stated in this manual. It is also important to understand these warnings are not exhaustive. DuraClass could not possibly know, evaluate and advise the service trade of all conceivable ways in which service might be done or of the possible hazardous consequences of each way. Consequently, DuraClass has not undertaken any such broad evaluations. Accordingly, anyone who uses installation and service procedures or tools which are not recommended by DuraClass must first satisfy himself thoroughly that neither his safety nor the product safety will be jeopardized by the method he selects.

"The DuraClass as manufacturer of the equipment that is covered by this manual, is providing a product to the user who has acknowledged to have superior knowledge of the conditions of the use to which the product will be put. The DuraClass relies upon the user's superior knowledge in specifying any changes or modifications including but not limited to the inclusion or noninclusion of options that are required by the user and the DuraClass product, and for the particular application of the user relative to the DuraClass Product."

The information and specifications included in this publication were in effect at this time of approval for printing. The DuraClass, Tishomingo, MS, reserves the right, however, to discontinue or change specifications or design at any time without notice and without incurring any obligation whatsoever.

PARTS LIST HPT 53 and HPT 63

The following is a list of parts you should have received with your hoist kit.
The list does not include accessory items or controls other than standard.

MODEL/QTY.							
Part No.	Page No.	Item No.	Description	HPT 53	HPT 63	HPT 53 Dir. Mt.	HPT 63 Dir. Mt.
001-4138	18	4	Cylinder	1(a)	-	1(a)	-
001-4139	18	4	Cylinder	1 (b)	-	1(b)	-
001-4140	18	4	Cylinder	1(c)	-	1(c)	-
001-4141	19	4	Cylinder	-	1(d)	-	1(d)
001-4142	19	4	Cylinder	-	1(e)	-	1(e)
001-4143	19	4	Cylinder	-	1(f)	-	1(f)
001-4144	19	4	Cylinder	-	1(g)	-	1(q)
001-4159	*	-	Cylinder	1(h)	-	1(h)	-
001-6155	19	4	Cylinder	-	1(l)	-	1(l)
003-2853	18	6	Bushing	2	-	2	-
004-2504	8	3	Nut, Self-Lock 1/2"-13NC	3	3	3	3
005-2706-Q	3	-	Rear Hinge	1	-	1	-
005-2712-Q	3	-	Rear Hinge	-	1	-	1
005-2730	3	3	Hinge, Body	2	-	2	-
005-2731	3	3	Hinge, Body	-	2	-	2
005-4606	3	1	Frame, Hinge	-	1	-	1
005-4608	3	1	Frame, Hinge	1	-	1	-
013-5306	8	7	Lever, Control	1	1	1	1
014-1553	*	-	Pad, Mounting	2	-	2	-
014-1554	*	-	Pad, Mounting	-	2	-	2
014-2060	4	2	Pad, Spacer	2	-	2	-
015-1810	*	-	Spacer	2	2	2	2
015-3183	24	17	Plate, Body raised-Indicator	1	1	1	1
019-1243	12	1	Spring	1	1	1	1
020-2359	*	-	Tank	-	1	-	1
020-2417	*	-	Tank	1	-	1	-
021-1875	3	6	Bar, Lock	2	-	2	-
021-1876	3	6	Bar, Lock	-	2	2	1
021-3366	22	1	Stop	2	2	2	2
031-0989	18	2	Valve, Vent	1	1	1	1
031-2907	17	9	Valve, Check	1	1	1	1
031-6131	8	1	Valve, Detent Up/Spring	1	1	1	1
036-1872	*	-	Block, Clamp	6	6	6	6
036-1872	4	6	Clamp Block	6	6	6	6
037-8738	18	5	Trunnion Assembly	1	1	1	1
047-2249	24	1	Bolt, Elevator, 1/4"-20NC x 1-1/2"	1	1	1	1
047-2249	25	5	Bolt, Elevator, 1/4"-20NC x 1-1/2"	1	1	1	1
048-2932	18	8	Pin	1	-	1	-
048-3127-004	8	5	Pin, Clevis	2	2	2	2
048-3282-053	12	2	Pin	2	2	2	2
048-3531	*	-	Pin	1	-	1	-

*As indicated in instructions

NOTE: Dash number following part number indicated length of hose in inches.

(a) HPT 53-110 ONLY
(b) HPT 53-120 ONLY
(c) HPT 53-130 ONLY
(d) HPT 63-120 ONLY

(e) HPT 63-130 ONLY
(f) HPT 63-140 ONLY
(g) HPT 63-160 ONLY
(h) HPT 53-144 ONLY

(i) HPT 63-150 ONLY

PARTS LIST (Continued)
HPT 53 and HPT 63

The following is a list of parts you should have received with your hoist kit.
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MODEL/QTY.

Part No.	Page No.	Item No.	Description	HPT 53	HPT 63	HPT 53 Dir. Mt.	HPT 63 Dir. Mt.
048-3532	*	-	Pin	-	1	-	1
048-4900	12	2	Pin, Lock	1	1	1	1
048-5094	*	-	Pin	-	1	-	1
048-5944	3	2	Pin, Hinge	2	-	2	-
048-5945	3	2	Pin, Hinge	-	2	-	2
053-1379	12	-	Latch Assembly	1	1	1	1
054-3340-010	14	3	Fitting	1	1	1	1
054-3340-010	15	3	Fitting	1	1	1	1
054-4307-010	14	7	Elbow, Swivel	1	1	1	1
054-4307-010	15	7	Elbow, Swivel	1	1	1	1
054-4307-010	16	10	Elbow, Swivel	1	1	1	1
055-1065-017	*	-	Washer	-	2	-	2
057-0426-060	16	1	Hose, Hydraulic	1	-	1	-
057-0427-036	14	14	Hose, Hydraulic	1	1	1	1
057-0427-036	15	14	Hose, Hydraulic	1	1	1	1
057-0427-060	16	1	Hose, Hydraulic	-	1	-	1
057-0714-001	14	4	Hose, Hydraulic	1	1	1	1
057-0714-001	15	4	Hose, Hydraulic	1	1	1	1
057-1423-020	14	2	Hose, Hydraulic	2	2	2	2
057-1423-020	15	2	Hose, Hydraulic	2	2	2	2
057-1423-040	17	4	Hose, Hydraulic	1	1	1	1
057-1846-060	14	5	Hose, hydraulic	1	1	1	1
057-1846-060	15	5	Hose, hydraulic	1	1	1	1
057-1848-008	14	6	Coupling, Hose	1	1	1	1
057-1848-008	15	6	Coupling, Hose	1	1	1	1
057-1848-008	16	9	Coupling, Hose	1	1	1	1
057-1853-090	16	8	Hose, Hydraulic	1	1	1	1
058-2468-004	16	5	Fitting	1	-	1	-
058-2468-005	14	10	Fitting	1	1	1	1
058-2468-005	15	10	Fitting	1	1	1	1
058-2468-005	16	5	Fitting	-	1	-	1
060-0402	13	3	Cap, Filler	1	1	1	1
064-2339	4	1	Body Guide	2	2	2	2
064-2635	12	4	Guide	1	1	1	1
070-1158	12	5	Handle Grip	1	1	1	1
074-2216-004	16	2	Clamp Half	2	-	2	-
074-2216-005	14	11	Clamp Half	2	2	2	2
074-2216-005	15	11	Clamp Half	2	2	2	2
074-2216-005	16	2	Clamp Half	-	2	-	2
074-3059-007	16	6	Union, Adapter	1	1	1	1
074-3059-008	14	9	Union, adapter	1	1	1	1
074-3059-008	15	9	Union, adapter	1	1	1	1
075-0406	17	10	Filter Assembly	1	1	1	1
075-0406-001	17	11	Filter Cartridge	1	1	1	1

*As indicated in instructions

NOTE: Dash number following part number indicated length of hose in inches.

- (a) HPT 53-110 ONLY
- (b) HPT 53-120 ONLY
- (c) HPT 53-130 ONLY
- (d) HPT 63-120 ONLY

- (e) HPT 63-130 ONLY
- (f) HPT 63-140 ONLY
- (g) HPT 63-160 ONLY
- (h) HPT 53-144 ONLY

- (i) HPT 63-150 ONLY

PARTS LIST (Continued)
HPT 53 and HPT 63

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Part No.	Page No.	Item No.	Description	MODEL/QTY.			
				HPT 53	HPT 63	HPT 53 Dir. Mt.	HPT 63 Dir. Mt.
108-1180	24	7	Connector, Wire	7	7	7	7
108-3991	26	1	Backup Alarm	1	1	1	1
108-4571	24	15	Terminal, Tab	4	4	4	4
108-4571	25	11	Terminal, Tab	1	1	1	1
108-4572	24	16	Terminal, Ring	1	1	1	1
108-4572	24	16	Terminal, Ring	1	1	1	1
115-1164	24	8	Light, Body Raised-Round	1	1	1	1
134-1949	17	1	Plate, Mounting	1	1	1	1
211-3184	24	10	Bracket	1	1	1	1
211-3184	25	1	Bracket	2	2	2	2
212-0735	27	1	Warning Decal	1	1	1	1
212-1103	27	7	Caution Decal	1	1	1	1
212-1104	27	2	Caution Decal	1	1	1	1
212-1131	27	6	Caution Decal	1	1	1	1
212-1164	27	5	Lever Control Decal	1	1	1	1
212-1166	27	4	Instruction Decal	1	1	1	1
212-1167	27	5	Hoist Control Decal	1	1	1	1
212-1168	27	5	PTO Control Decal	1	1	1	1
212-1168-001	27	5	PTO Decal	1	1	1	1
212-1168-002	27	5	PTO Decal	1	1	1	1
212-1170	27	3	Caution Decal	1	1	1	1
212-1186	27	8	Caution Decal	1	1	1	1
212-1373	27	9	Warning Decal	1	1	1	1
219-1842	5	2	Pump, Direct Mount	1	1	1	1
237-8342	4	1	Trunnion	-	1	-	1
237-8465	4	1	Trunnion	1	-	1	-
252-8514	*	-	Body Prop Kit (Struct, Subfr.)	1	1	1	1
252-8643	12	-	Valve Control Safety Lock Kit	1	1	1	1
254-3431	24	11	Switch	1	1	1	1
254-3431	25	2	Switch	1	1	1	1
263-0068-006	24	13	Wire, Black	1	1	1	1
263-0068-006	25	3	Wire, Black	1	1	1	1
263-0068-144	24	12	Wire, Black	1	1	1	1
263-0068-144	25	4	Wire, Black	1	1	1	1
263-0069-060	24	14.	Wire, Red	1	1	1	1
272-1410	*	-	Body Prop Kit	1	1	1	1
272-2362	26	4	Backup Alarm Part Kits	1	1	1	1
272-2843	*	-	Hoist Manual Kit HPT53 & 63	1	1	1	1
272-3094	26	8	Body Raised Indicator Kit	1	1	1	1
272-3630	25	-	Backup Alarm/Body Raise Indicator Kit	1	1	1	1
272-3890	*	-	Additional Hydraulic Kit HPT53	1	-	1	-
272-3895	*	-	Additional Hydraulic Kit HPT63	-	1	1	1
272-9216	*	-	Direct Mount Hydraulic Kit	-	-	1	-

*As indicated in instructions

NOTE: Dash number following part number indicated length of hose in inches.

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- (h) HPT 53-144 ONLY

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272-9217	*	-	Direct Mount Hydraulic Kit	-	-	-	1
272-9219	*	-	Common Parts Kit	1	1	1	1
272-9600	4	-	Mounting Kit	1	-	-	-
272-9784	4	-	Mounting Kit	1	-	-	-
311-1089	4	5	Bracket, anchor	2	2	2	2
311-1146	24	9	Bracket, Body Raised-Indicator	1	1	1	1
372-0125	9	1	Single Lever Tower	1	1	1	1
FS070915	18	7	Capscrew, 3/8"-16NC x 3/4"	2	2	2	2
FS070917	17	2	Capscrew, 3/8"-16NC x 7/8"	4	4	4	4
FS070930	14	12	Capscrew, 3/8"-16NC x 2"	2	2	2	2
FS070930	15	12	Capscrew, 3/8"-16NC x 2"	2	2	2	2
FS070930	16	3	Capscrew, 3/8"-16NC x 2"	2	2	2	1
FS071124	5	1	Capscrew, Hex Hd 1/2"-13NC x 1-1/2"	2	2	2	2
FS071134	13	4	Capscrew, 1/2"-13NC x 2-1/2"	4	4	4	4
FS071140	8	2	Capscrew, 1/2"-13NC x 3"	1	1	1	1
FS071144	3	4	Capscrew, Hex. 1/2"-13NC x 3-1/2"	2	-	2	-
FS071146	3	4	Capscrew, Hex. 1/2"-13NC x 3-3/4"	-	2	-	2
FS071324	6	4	Capscrew, 5/8"-11 NC x 1-1/2"	2	2	2	2
FS071330	*	-	Capscrew, hex 5/8"-11NC x 2"	4	4	4	4
FS079415	24	2	Screw, Hex #10-24NC x 3/4"	3	3	3	3
FS079415	25	8	Screw, Hex #10-24NC x 3/4"	1	1	1	1
FS082054	4	3	Capscrew, hex 1"-8NC x 4-1/2"	6	6	6	6
FS190400	18	3	Fitting, Grease 1/8" Str.	2	2	2	2
FS190490	18	1	Fitting, Grease 1/8"-90Q	1	1	1	1
FS220900	18	12	Nut, Acorn 3/8"-16NC	2	2	2	2
FS222000	4	7	Nut, Stovers-Lock 1"-8NC	6	6	6	6
FS230900	14	13	Nut, Self Lock 3/8"-16NC	2	2	2	2
FS230900	15	13	Nut, Self Lock 3/8"-16NC	2	2	2	2
FS230900	16	4	Nut, Self Lock 3/8"-16NC	2	2	2	2
FS231100	8	3	Nut, Lock 1/2"-13NC	2	2	2	2
FS231100	13	5	Nut, Lock 1/2"-13NC	4	4	4	4
FS231300	*	-	Nut, Lock 5/8"-11	4	4	4	4
FS231301	4	3	Nut, Lock 5/8"-11 NC	4	4	4	4
FS280400	24	3	NUT, #10-24NC	3	3	3	3
FS280400	25	10	NUT, #10-24NC	1	1	1	1
FS280700	24	4	NUT, 1/4"-20NC	2	2	2	2
FS280700	25	6	NUT, 1/4"-20NC	2	2	2	2
FS340212	8	6	Pin, Cotter 3/32 x 3/4"	2	2	2	2
FS340950	18	10	Pin, Cotter 3/8" x 4"	2	2	2	2
FS510700	24	5	Washer, Flat 1/4"	2	2	2	2
FS510700	25	7	Washer, Flat 1/4"	2	2	2	2

*As indicated in instructions

NOTE: Dash number following part number indicated length of hose in inches.

(a) HPT 53-110 ONLY
(b) HPT 53-120 ONLY
(c) HPT 53-130 ONLY
(d) HPT 63-120 ONLY

(e) HPT 63-130 ONLY
(f) HPT 63-140 ONLY
(g) HPT 63-160 ONLY
(h) HPT 63-144 ONLY

(i) HPT 63-150 ONLY

PARTS LIST (Continued)
HPT 53 and HPT 63

The following is a list of parts you should have received with your hoist kit.
The list does not include accessory items or controls other than standard.

Part No.	Page No.	Item No.	Description	MODEL/QTY.			
				HPT 53	HPT 63	HPT 53 Dir. Mt.	HPT 63 Dir. Mt.
FS511100	13	6	Washer, Flat 1/2"	4	4	4	4
FS513000	18	9	Washer, Flat 2"	2	-	2	-
FS522000	4	4	Washer, Flat 1"	12	12	12	12
FS540900	18	11	Washer, Lock 3/8"	2	2	2	2
FS550400	24	6	Washer, Lock #10	3	3	3	3
FS550400	25	9	Washer, Lock #10	1	1	1	1
FS592215	16	7	Bushing, Reducer	1	1	1	1
FS742000	17	7	Elbow, 1" x 90° 150# M.I.	1	1	1	1
FS822000	14	1	Elbow, Str. 1" x 904 LP	2	2	2	2
FS822000	15	1	Elbow, Str. 1" x 90° LP	2	2	2	2
FS822400	14	8	Elbow, Str. 1-1/2" x 90° LP	1	1	1	1
F5822400	15	8	Elbow, Str. 1-1/2" x 90° LP	1	1	1	1
FS882050	17	8	Nipple, Pipe 1" x 4"	1	1	1	1
FS902200	13	7	Plug, Pipe 1-1/4" Sq. Hd.	1	-	1	-
FS902400	13	7	Pipe, Plug 1-1/2" Sq. Hd.	-	1	-	1
FS910701	13	2	Plug, Pipe-1/4"	1	1	1	1

*As indicated in instructions

NOTE: Dash number following part number indicated length of hose in inches.

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- (b) HPT 53-120 ONLY
- (c) HPT 53-130 ONLY
- (d) HPT 63-120 ONLY

- (e) HPT 63-130 ONLY
- (f) HPT 63-140 ONLY
- (g) HPT 63-160 ONLY
- (h) HPT 53-144 ONLY

- (i) HPT 63-150 ONLY

BASIC DIMENSIONS

Basic dimensions for the HPT53 and 63 hoists are shown in figures 1 and 2 respectively.

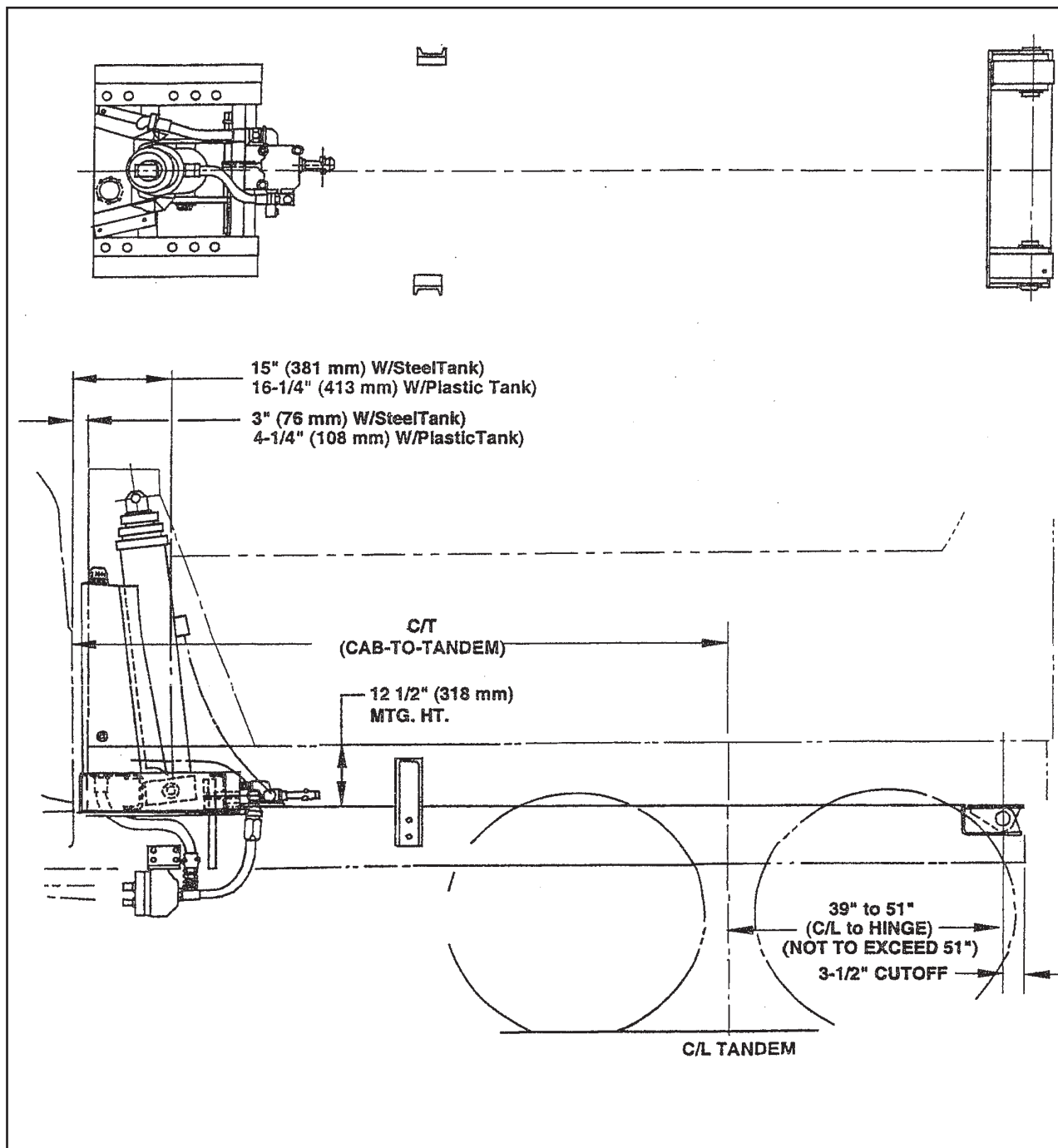


Figure 1. HPT53 Hoist Basic Dimensions

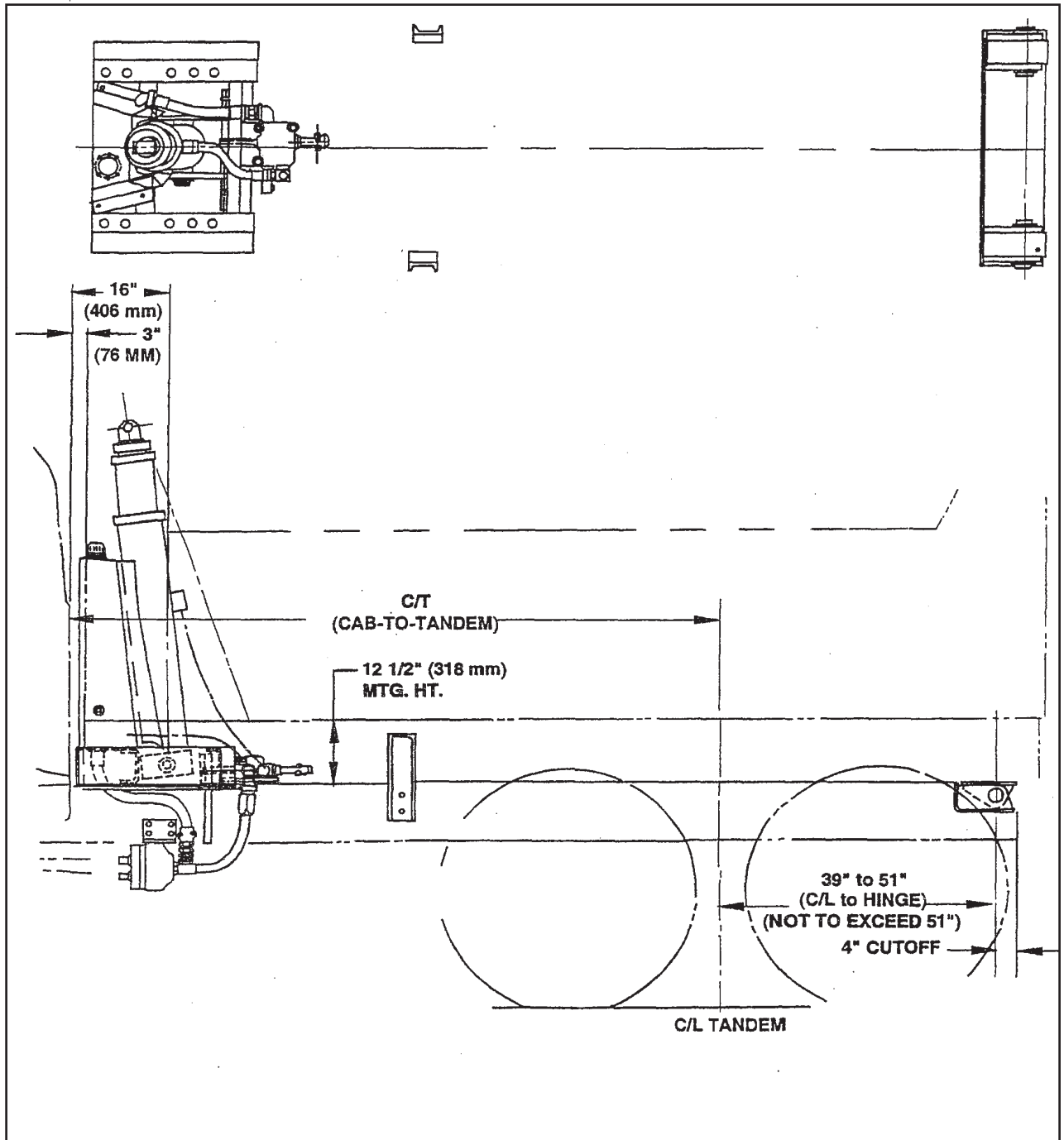


Figure 2. HPT63 Hoist Basic Dimensions

REAR HINGE ASSEMBLY

WELD NOTE

ALL STRUCTURAL WELDING DONE IN THE INSTALLATION OF THE HOIST AND BODY SHOULD BE PERFORMED USING ONLY THE FOLLOWING RECOMMENDED WELD ELECTRODE AND WIRE.

ELECTRODE - E-7018 (THIS IS A LOW HYDROGEN ROD, AND MANUFACTURER'S RECOMMENDATIONS MUST BE FOLLOWED.)

WIRE - E-70S-3 (WIRE MANUFACTURER'S RECOMMENDATIONS MUST BE FOLLOWED.)

Cut off end of chassis frame to dimension and to contour as shown in figures 1, 2, and 3. Square hinge frame on chassis and then weld hinge assembly in place as shown in figure 3.

NOTE

Hinge frame must be square to chassis.

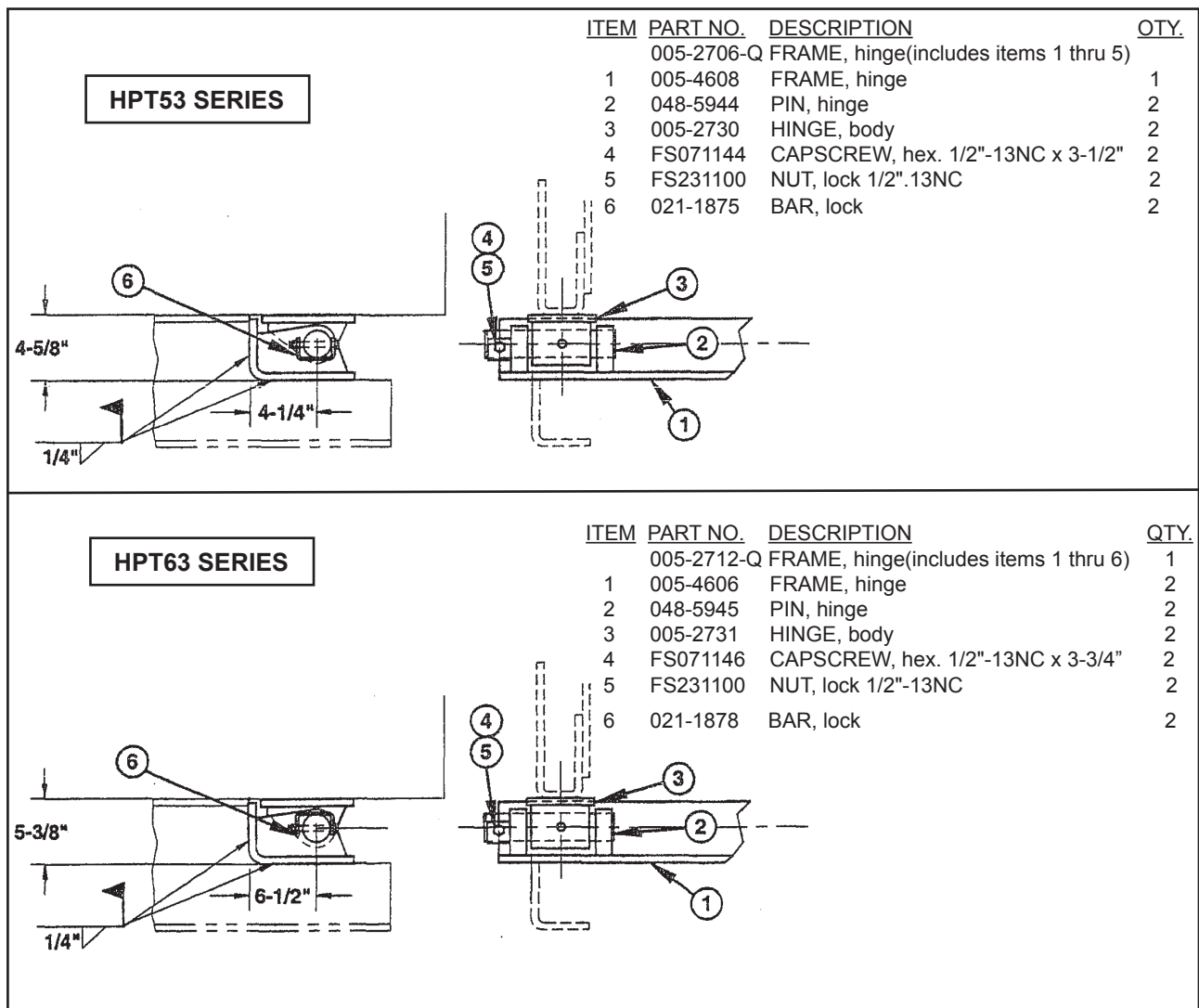


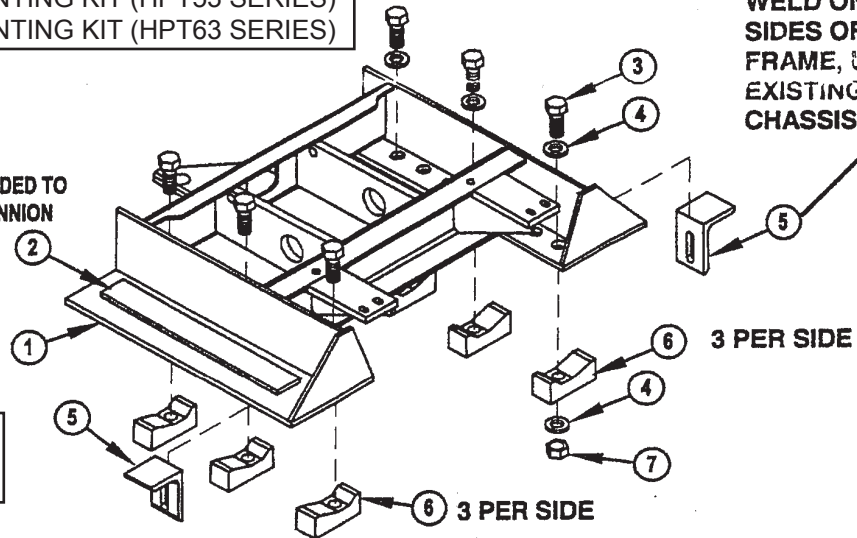
Figure 3. Rear Hinge Assembly

272-9784 QUICK MOUNTING KIT (HPT53 SERIES)
272-9600 QUICK MOUNTING KIT (HPT63 SERIES)

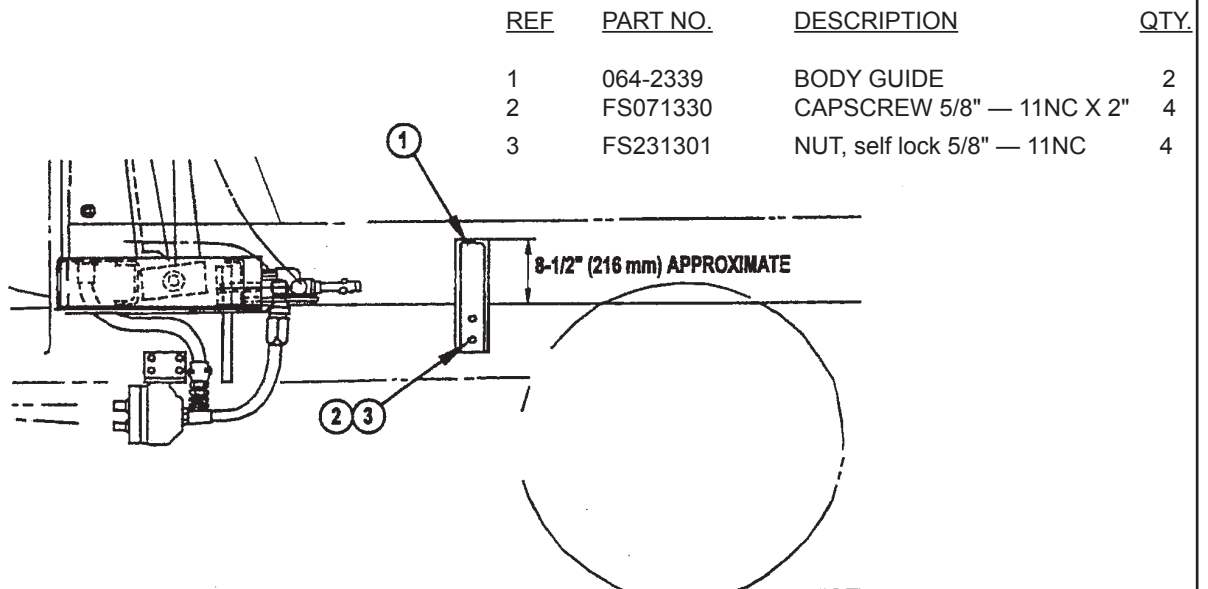
**WELD ON BOTH
SIDES OF HOIST
FRAME, USE
EXISTING BOLT IN
CHASSIS**

**WELDED TO
TRUNNION
HPT53 ONLY**

**TORQUE BOLTS TO:
500 FT.LB.**



REF	PART NO.	DESCRIPTION	QTY.
1	237-8465	TRUNNION (53 series hoist)	1
	237-8342	TRUNNION (63 series hoist)	1
2	014-2060	PAD (53 series hoist only)	2
3	FS082054	CAPSCREW, hex 1"-8NC x 4-1/2"	6
4	FS522000	WASHER, flat-1"	12
5	311-1089	BRACKET, anchor	2
6	036-1872	CLAMP BLOCK	6
7	FS222000	NUT, lock 1"-8NC	6



BODY GUIDES

Position body guides to clear body crossmembers. Drill four 41/64" (16 mm) holes in chassis rail, using holes in body guide as template. Bolt body guides in place.

Figure 4. Body Guides

DIRECT MOUNT PUMP

Select the correct power take-off to match truck transmission and mounting flange on direct mount pump. The mounting flange should be S.A.E. Class "B" 2 bolt mounting flange. The PTO output shaft should range from 1500 RPM to a maximum of 2000 RPM to provide satisfactory hoist performance. Mount PTO according to manufacturer's recommendation.

Mount pump to PTO keeping the connection hoses as far away from the muffler and exhaust tube as possible (no closer than 2-1/2" (64 mm))

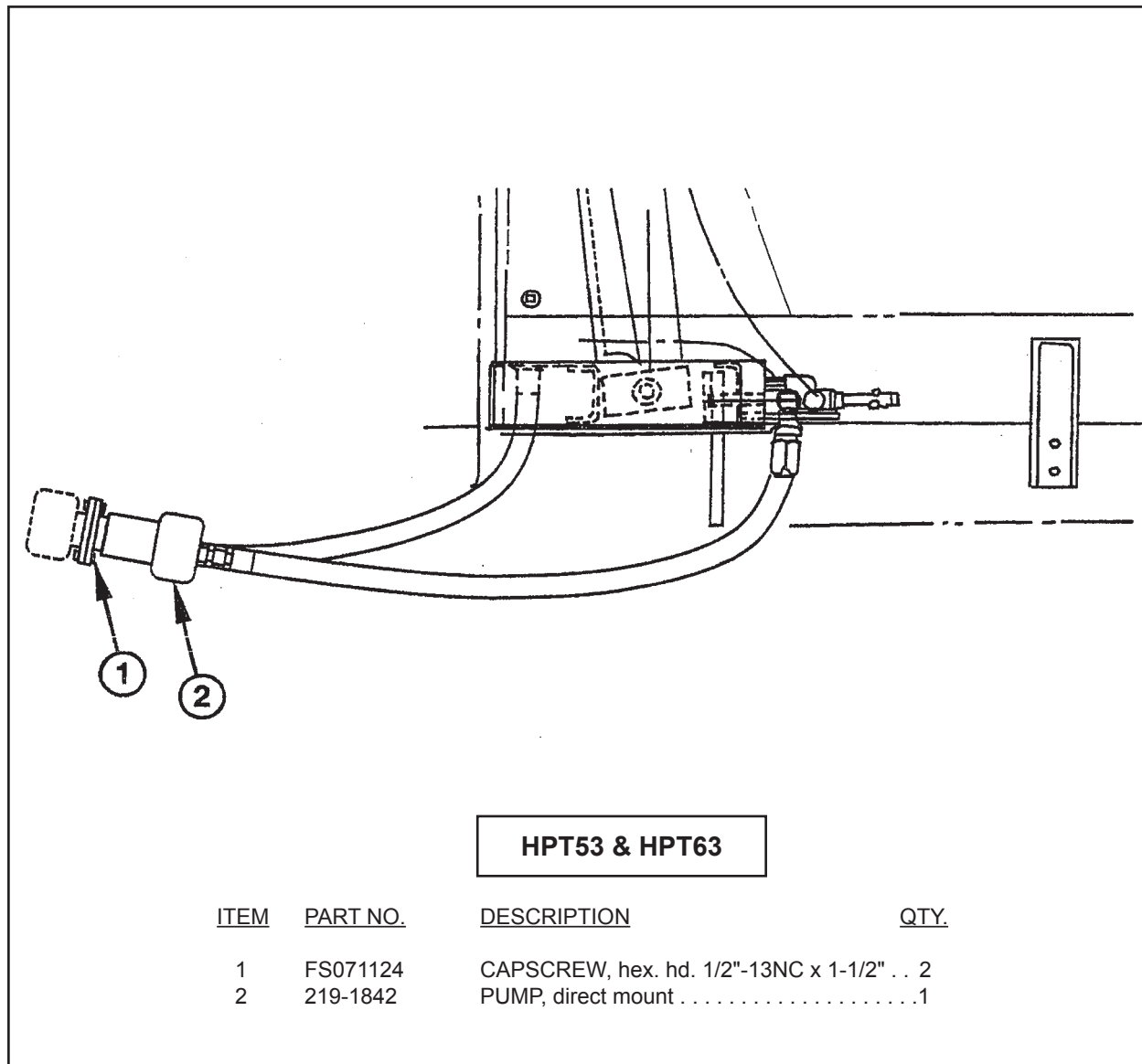


Figure 5. Direct Mount Pump

POWER TAKE-OFF, PUMP AND DRIVE LINE (OPTIONAL)

Select the correct Power Take-Off to match truck transmission. The PTO output shaft speed should range from 1500 rpm to a maximum of 2000 rpm to provide satisfactory hoist performance. Mount PTO according to manufacturer's recommendation.

Mount pump in a convenient location in the chassis so that it and connection hoses are as far away from the muffler and exhaust tube as possible (no closer than 2-1/2" (64 mm) and so that the drive line is as short as possible, in any case the centerline to centerline of universal joints is not to exceed 44-1/2" (1130 mm). Refer to figure 7. Drill four 41/64" (16 mm) holes in chassis rail to mount pump bracket using bracket as template. Bolt bracket and pump in place. See figure 6.

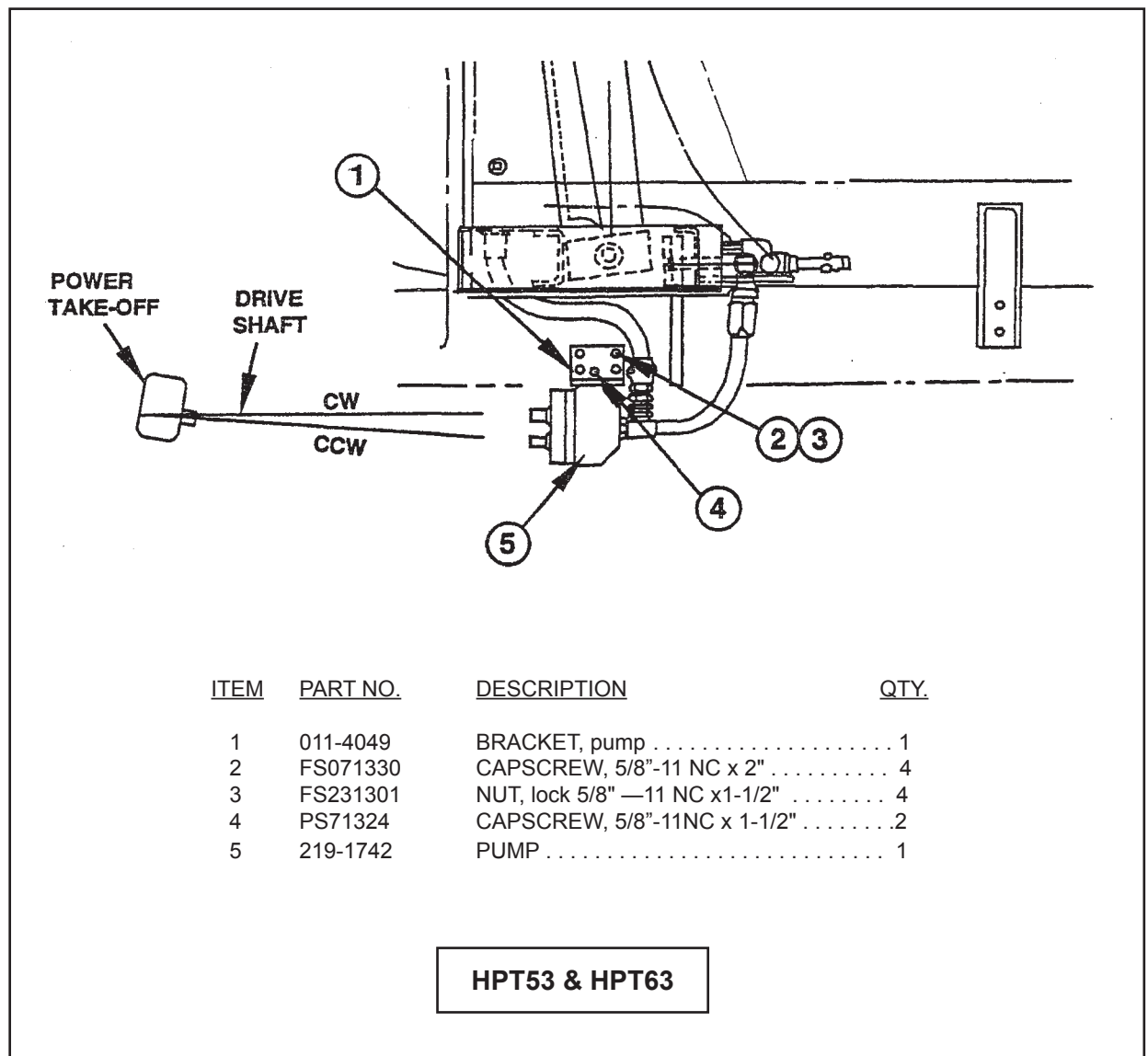


Figure 6. Power Take-Off and Pump

Cut drive shaft to the proper length to have maximum engagement in universal joints. Hand grease end of drive shaft and slip joint drive line. Install set screws and lock wire each, and install grease fitting in slip joint. See Figure 7 for installation recommendations.

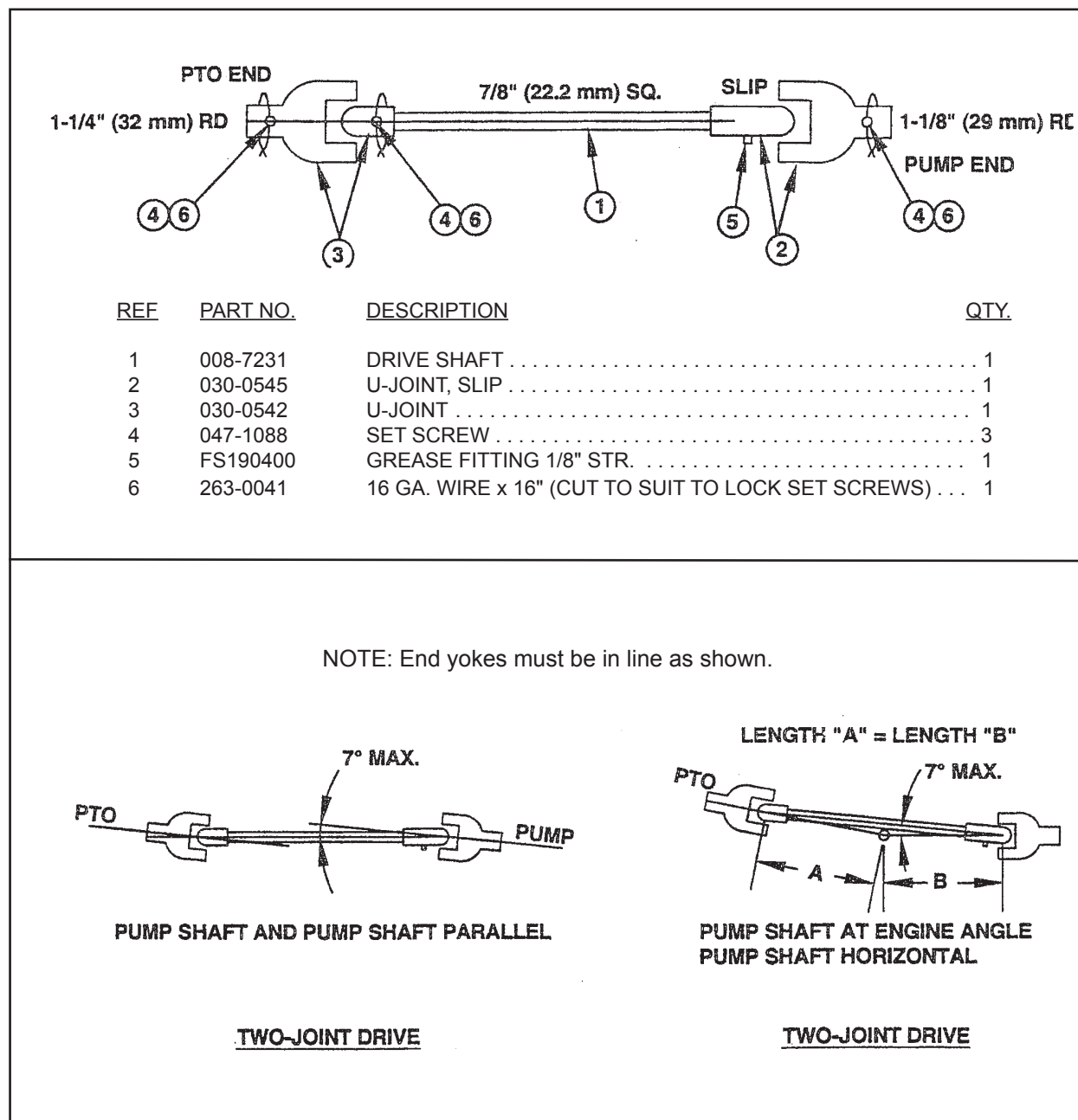


Figure 7. Drive Line

CONTROL VALVE AND CONTROLS

Bolt control valve to cylinder support frame as shown in figure 8, and connect valve spool to lever on valve control shaft with links and pins furnished.

Lever controls to valve and PTO are standard and should be mounted on the floor of the cab in a position convenient for the operator (see figure 9). Weld control lever to valve control shaft (lever to hang vertically downwards) both sides for full contact area.

The recommended arrangement for the cab control lever operation is as follows:

- A) Hoist — Movement rearward — RAISE
Movement forward — LOWER
Center Position — HOLD (NEUTRAL)
- B) PTO — Movement rearward — ENGAGE
Movement forward — DISENGAGE

Install valve rod and PTO rod. Position them on the control levers so there is at least 6" (152 mm) of movement on cab levers.

Optional lever and console controls should be installed as shown in figure 11.

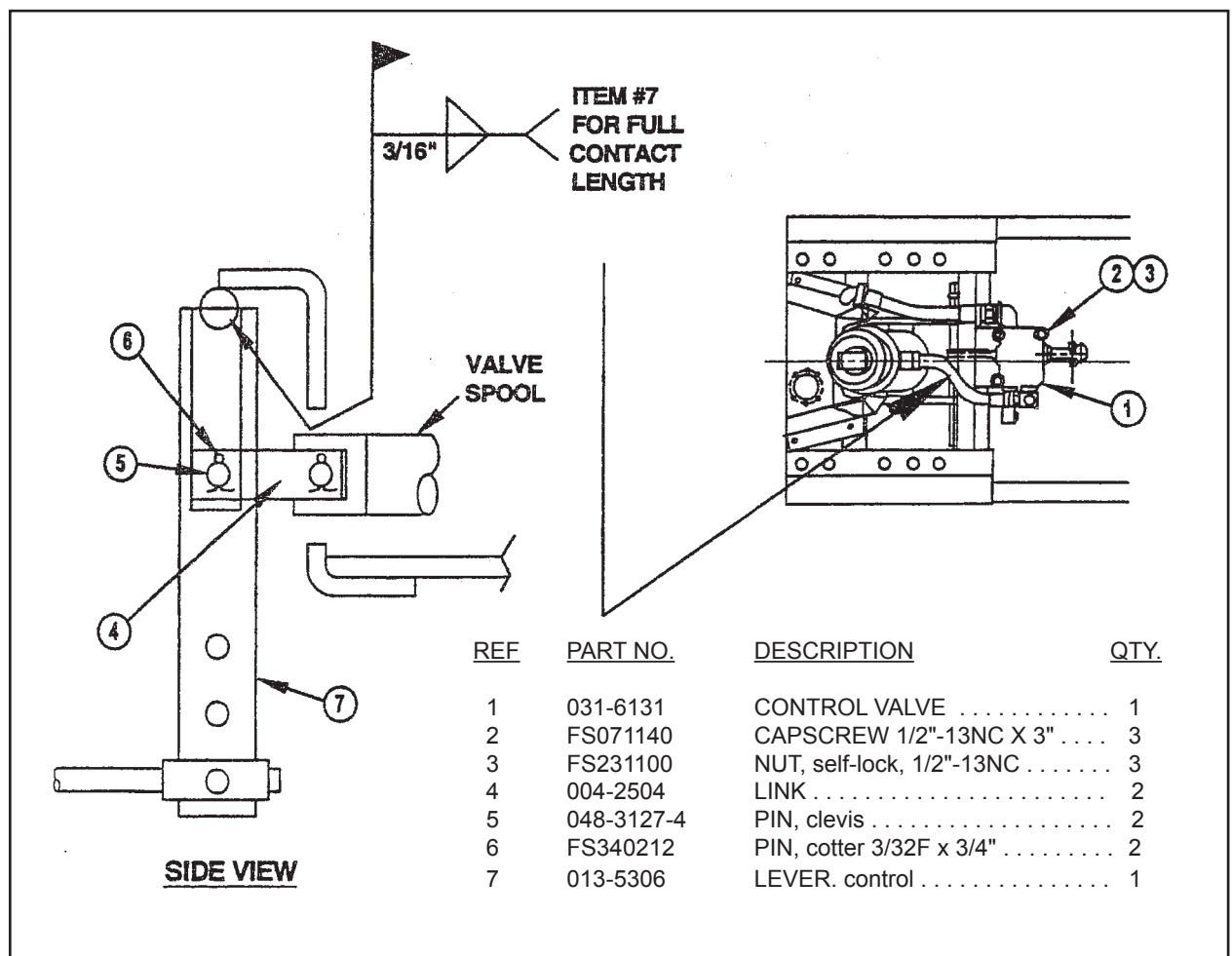


Figure 8. Control Valve

Install cables inside control console and then mount console on the cab floor in a position convenient for the operator.



DUAL CABLE CONTROL (Optional)

Install cables inside control console and then mount console on the cab floor in a position convenient for the operator.

Install PTO adapter and hoist connector kits as shown in figure 6. Connect cables to PTO and hoist levers. Secure with cotter pins.

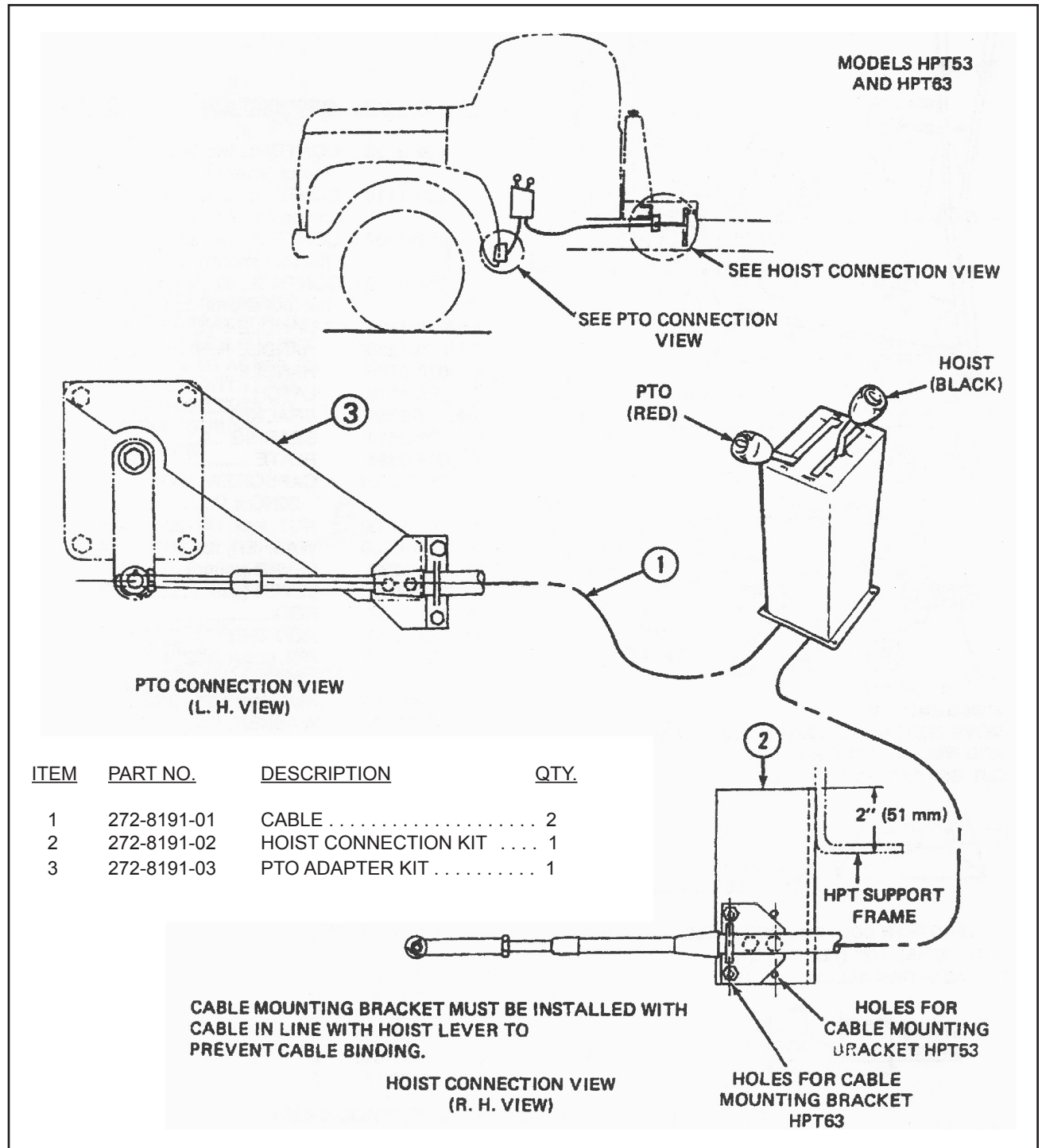
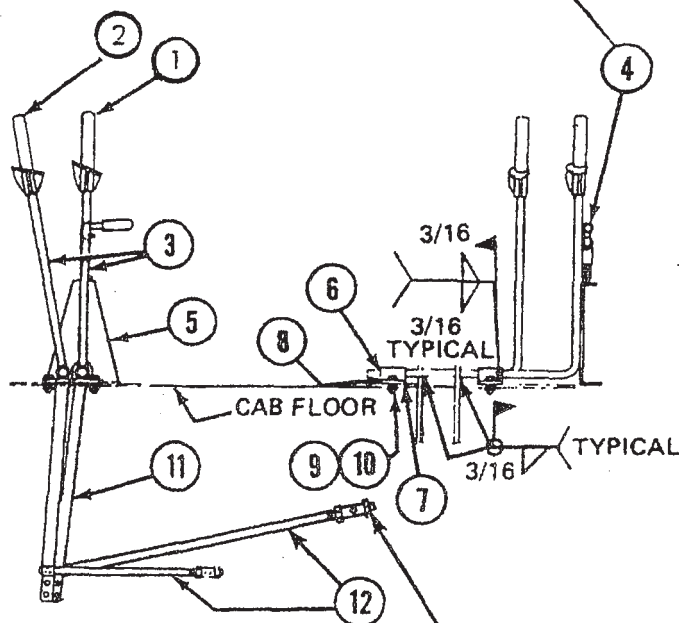
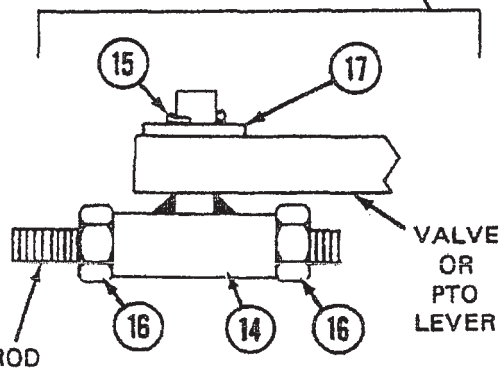


Figure 10. 272-8192 Dual Lever Control

SEE FIGURE 12 FOR PROPER INSTALLATION



ITEM	PART NO.	DESCRIPTION	QTY
-	252-3733	CONTROL, two lever round (shown)	1
-	254-1118	CONTROL, single lever round (not shown)	1
-	252-9407	CONTROL, two lever flat (not shown)	1
-	254-0710	CONTROL, single lever flat (not shown)	1
1	070-1231	HANDLE-PTO (red)	1
2	070-1230	HANDLE-hoist (black)	1
3	070-0765	HANDLE	2
4	053-1379	LATCH	1
5	111-8339	BRACKET	1
6	003-2614	BEARING	4
7	034-9394	PLATE	2
8	FS070720	CAPSCREW 1/4"-20NC x 1'	4
9	FS230700	NUT, lock 1/4"-20NC	4
10	FS510700	WASHER, flat 1/4"	4
11	013-4278	LEVER (round)	A/R
	013-4870	LEVER (flat)	A/R
12	027-3687	ROD	2
14	032-1020	ROD END	4
15	FS340212	PIN, cotter 3/32" x 3/4"	4
16	FS291100	NUT, jam 1/2"-13NC	4
17	FS510900	WASHER, flat 3/8"	4



FIXED END.
MOVE ROD END TO DESIRED LOCATION
AND WELD TO CONTROL ROD.
CUT OFF EXCESS ROD.



TO LENGTHEN CONTROL ROD, WELD
ADDITIONAL 1/2" (12.7 mm) DIA.
ROD AS SHOWN BELOW.



Figure 11. Optional Control Levers

VALVE CONTROL SAFETY LOCK

Install the lock, starting at step A, as shown in Figure 12.

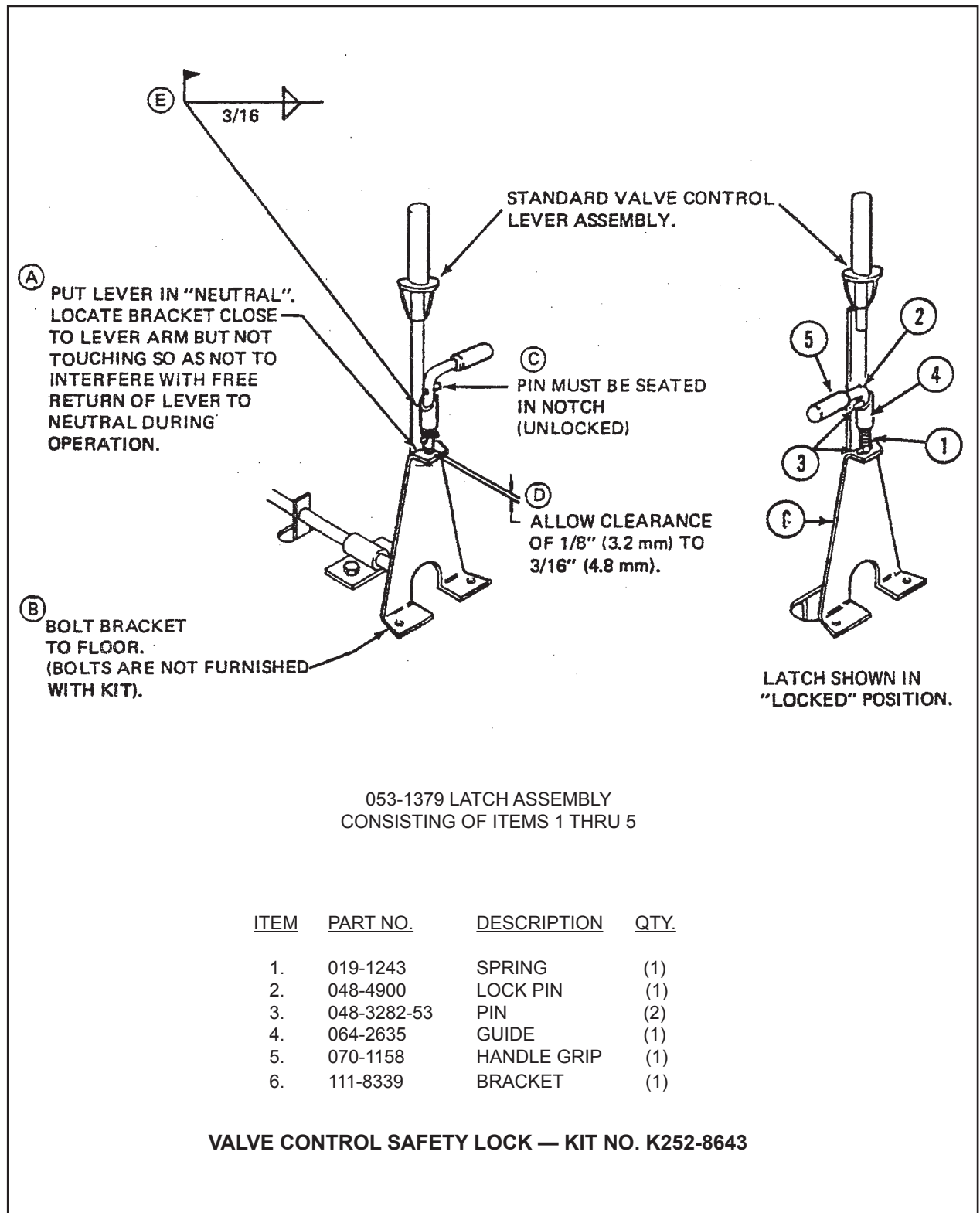


Figure 12. Valve Control Safety Lock

OIL TANK AND PIPING

Install pipe plug in bottom of tank, and install filler-vent unit at top of tank. Bolt tank to cylinder support frame.

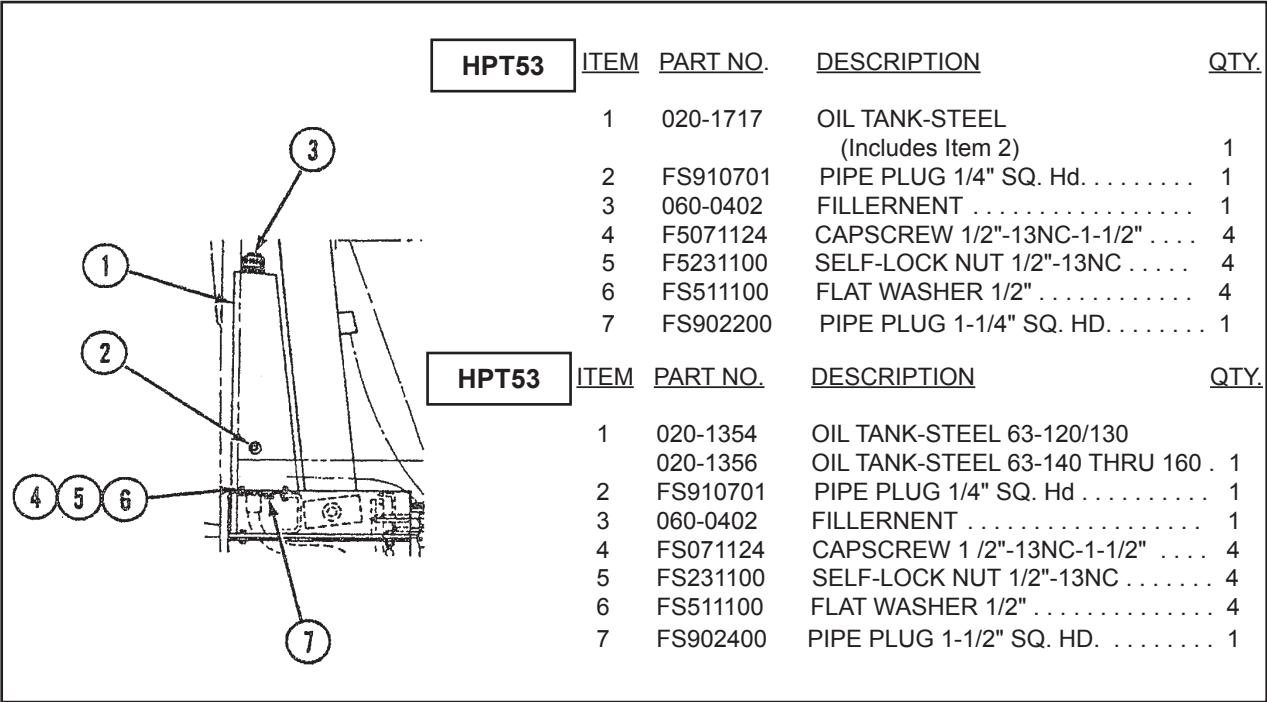


Figure 13. Oil Tank
NOTE

If an optional return line filter kit is to be installed, refer to page :17 before connecting hydraulic lines. Connect hydraulic lines as shown in figure 15 for HPT53 or figure 16 for HPT63. See figure 14 for schematic of hydraulic circuit. Use a thread sealing compound on the ends of all pipe threads. Compound not required on tube fitting nuts or O-ring fittings.

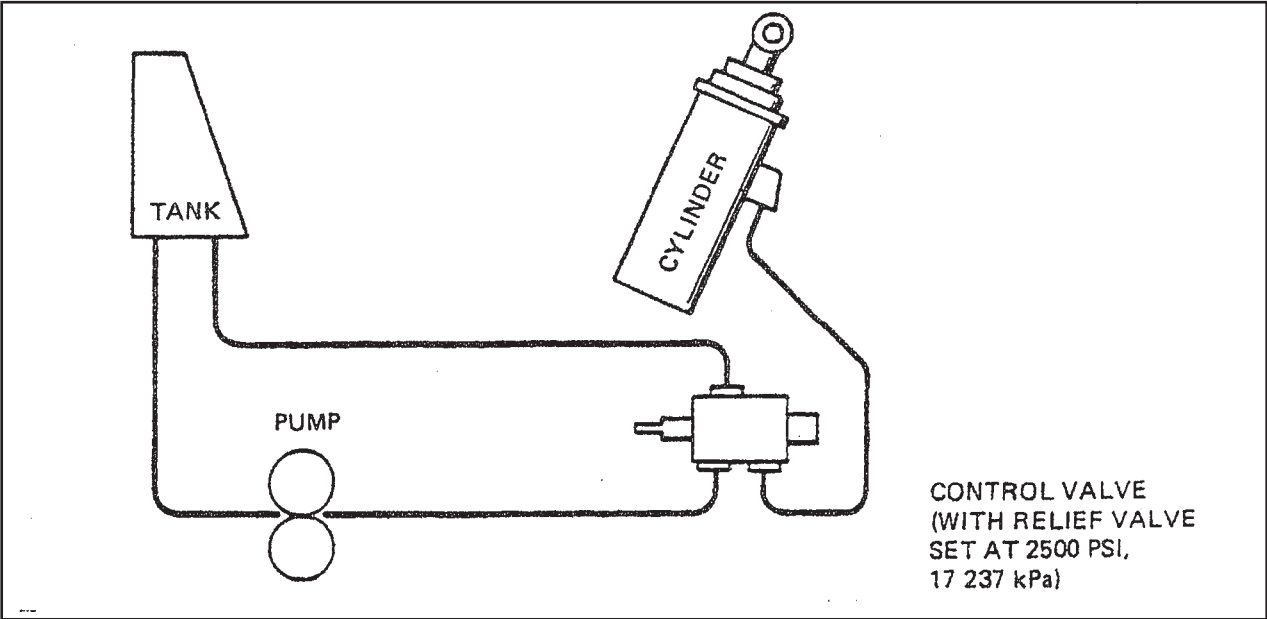


Figure 14. Piping Schematic

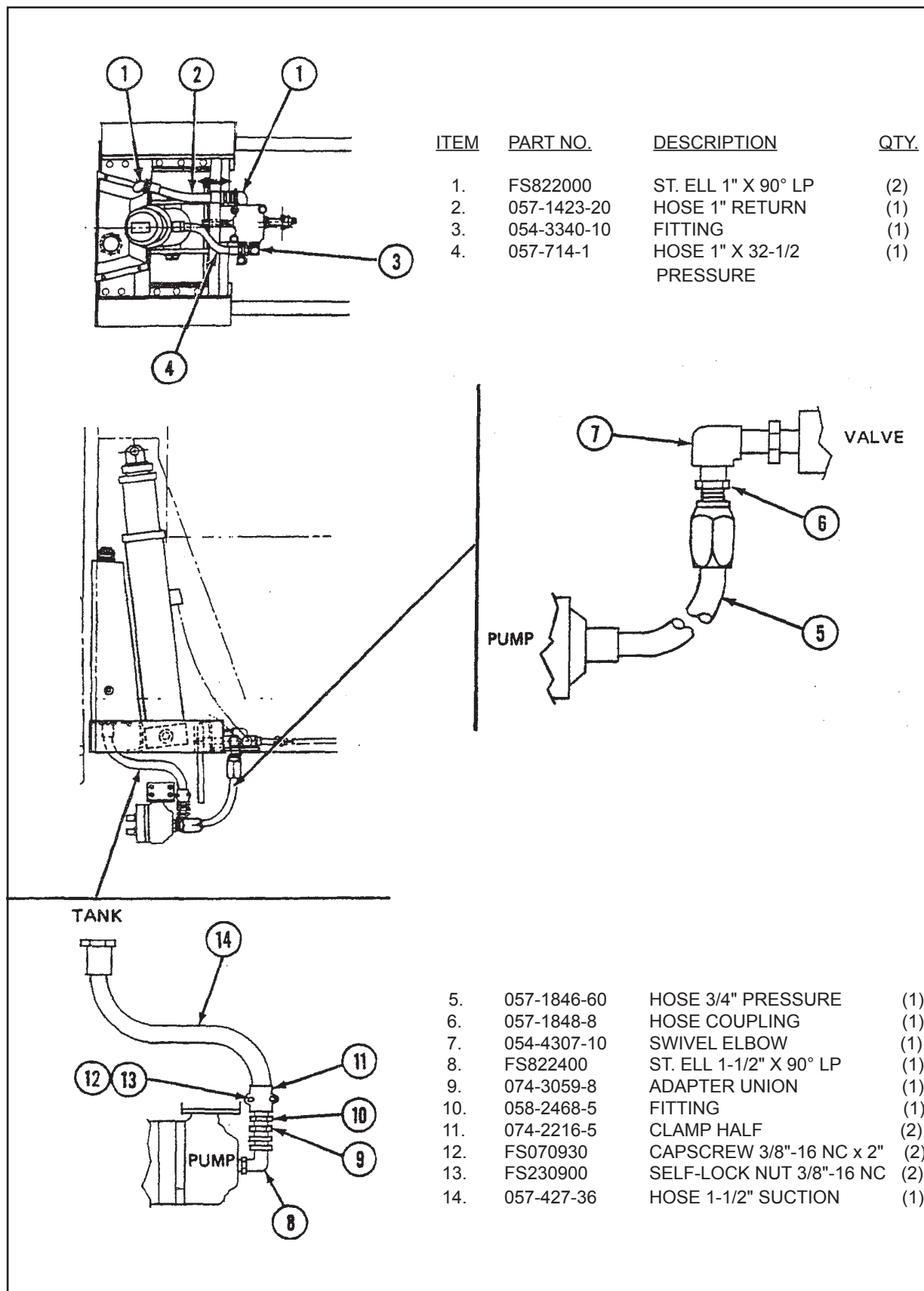
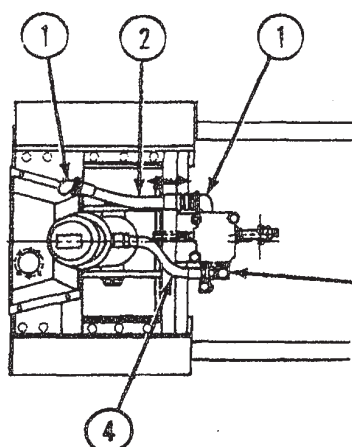
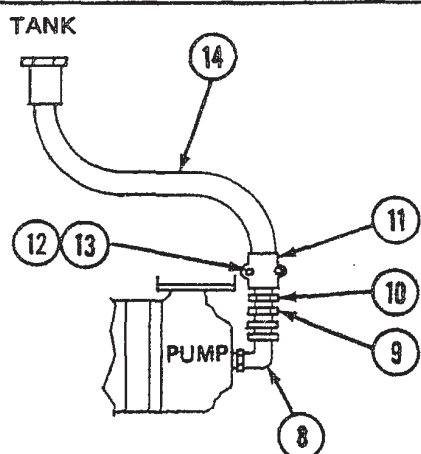
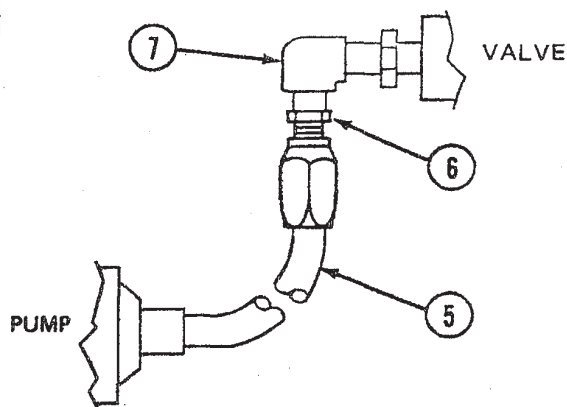
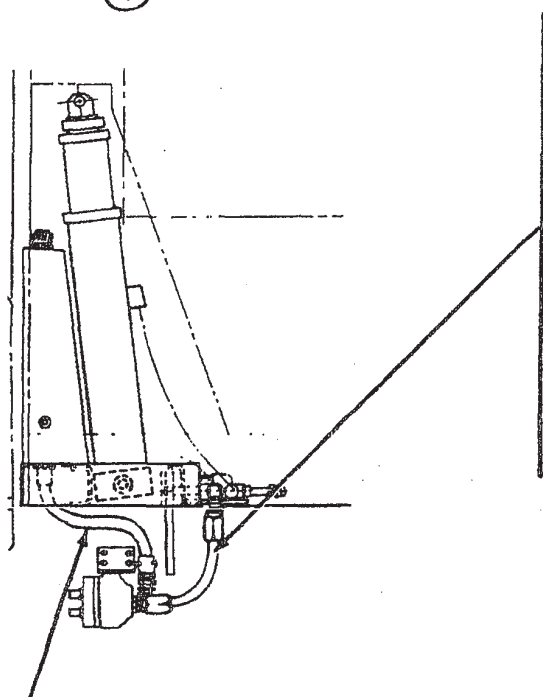


Figure 15. HPT53 Piping Diagram

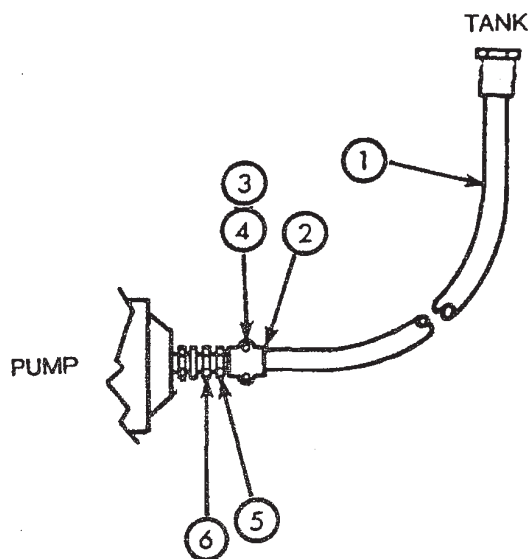


ITEM	PART NO.	DESCRIPTION	QTY.
1.	FS822000	ST. ELL 1" X 90° LP	(2)
2.	057-1423-20	HOSE 1" RETURN	(1)
3.	054-3340-10	FITTING	(1)
4.	057-714-1	HOSE 1" X 32-1/2 PRESSURE	(1)



5.	057-1846-60	HOSE 3/4" PRESSURE	(1)
6.	057-1848-8	HOSE COUPLING	(1)
7.	054-4307-10	SWIVEL ELBOW	(1)
8.	FS822400	ST. ELL 1-1/2" X 90° LP	(1)
9.	074-3059-8	ADAPTER UNION	(1)
10.	058-2468-5	FITTING	(1)
11.	074-2216-5	CLAMP HALF	(2)
12.	FS070930	CAPSCREW 3/8"-16 NC x 2"	(2)
13.	FS230900	SELF-LOCK NUT 3/8"-16 NC	(2)
14.	057-427-36	HOSE 1-1/2" SUCTION	(1)

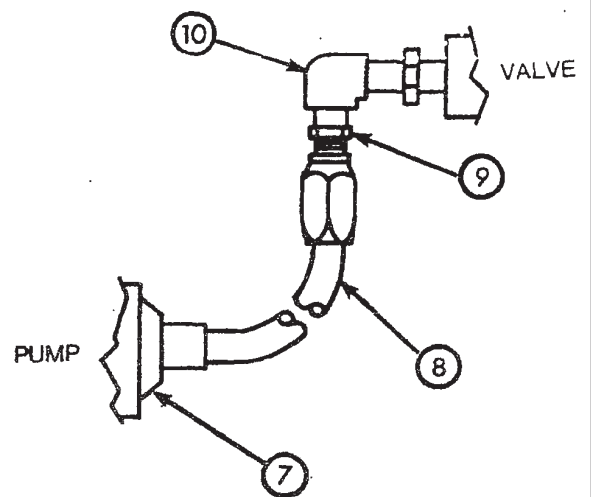
Figure 16. HPT63 Piping Diagram



TANK TO PUMP

HPT 53

ITEM	PART NO.	DESCRIPTION	QTY.
1	057-426-60	HOSE 1-1/4 SUCTION	(1)
2	074-2216-4	CLAMP HALF	(2)
3	FS070930	CAPSCREW 3/8-16 NC	(2)
		x2	
4	FS230900	SELF-LOCK NUT	(2)
		3/8-16 NC	
5	058-2468-4	FITTING	(1)
6	074-3059-7	ADAPTER UNION	(1)
7	FS592215	RED. BUSHING	(1)
		1-1/4 x 3/4	
8	057-1853-90	HOSE 3/4" PRESS	(1)
9	057-1848-8	HOSE COUPLING	(1)
10	054-4307-10	SWIVEL ELBOW	(1)



PUMP TO VALVE

HPT 63

ITEM	PART NO.	DESCRIPTION	QTY.
1	057-427-60	HOSE 1-1/2 SUCTION	(1)
2	074-2216-5	CLAMP HALF	(2)
3	FS070930	CAPSCREW 3/8-16 NC	(2)
		x2	
4	FS230900	SELF-LOCK NUT	(2)
		3/8-16 NC	
5	058-2468-5	FITTING	(1)
6	074-3029-7	ADAPTER UNION	(1)
7	FS592215	RED. BUSHING	(1)
		1-1/4x 3/4	
8	057-1853-90	HOSE 3/4" PRESS	(1)
9	057-1848-8	HOSE COUPLING	(1)
10	054-4307-10	SWIVEL ELBOW	(1)

Figure 17. Piping Diagram — Direct Mount Pump

RETURN LINE FILTER KIT (Optional)

Locate and weld mounting plate to bottom of support frame as shown in figure 18. Bolt filter to mounting plate. Connect hydraulic lines as shown in figure 18. Use a thread sealing compound on all pipe threads.

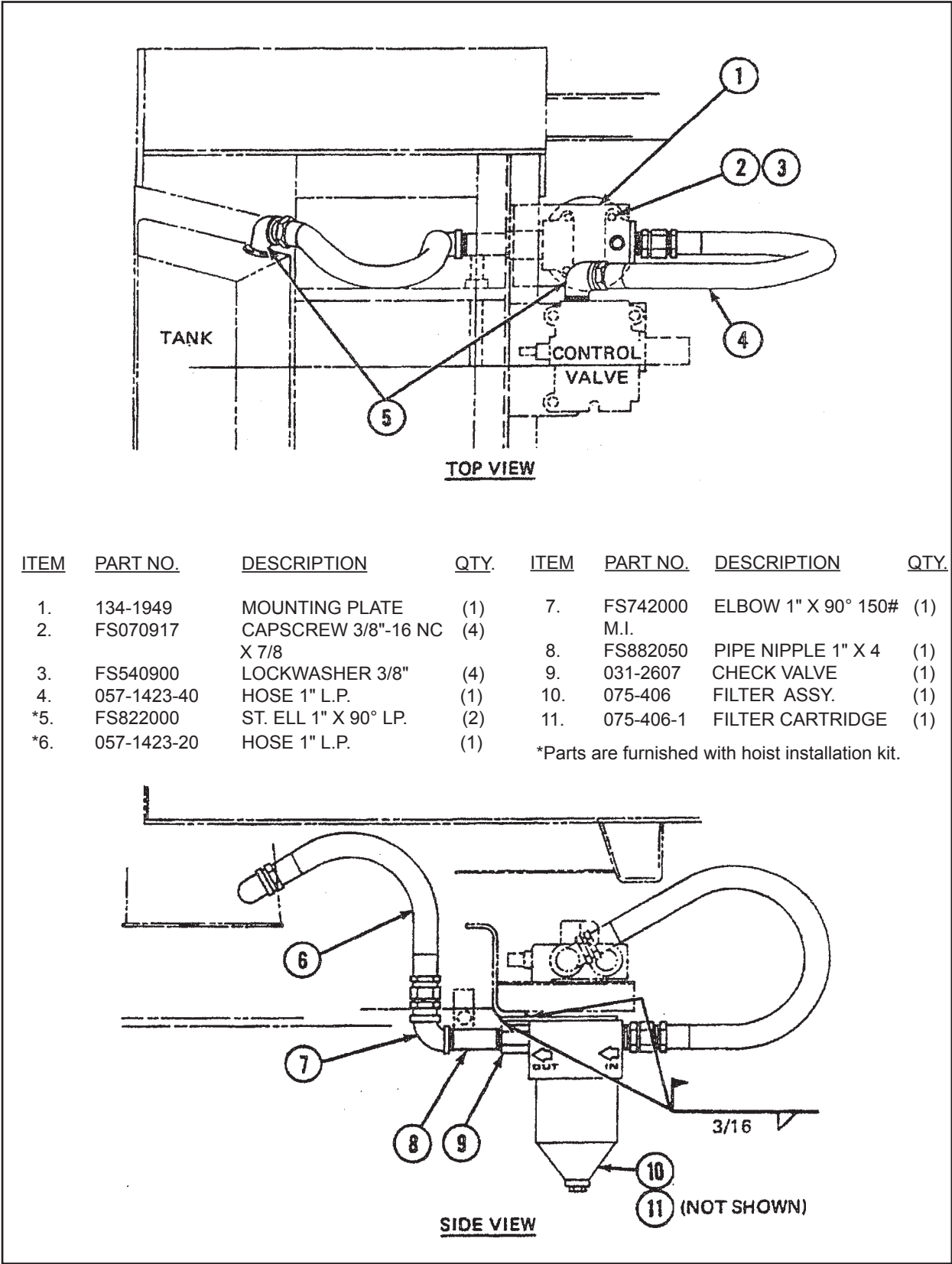


Figure 18. Return Line Filter Kit installation (Optional)

CYLINDER

Install grease fittings in both ends of cylinder. See figures 19 and 20. Remove pipe plug from upper end of cylinder and replace with vent valve. Install cylinder in support frame so that manifold block faces rearward. Turn inner sleeve so that vent valve also faces rearward. Make final hose connection from control valve to cylinder. Rest cylinder against tank temporarily.

Refer to Hydraulic system oil capacity chart (page 19) and premeasure the gallons of oil to fill the full system (add 1/2 gallon when system has filter).

Move control valve into the HOLD position and fill oil tank to within 5" (127 mm) of the top for the HPT 53 hoists, and to within 6" (152 mm) of the top of the HPT63 hoists. Save remainder of oil to fill system after purging as noted on page 23.

Use a hydraulic oil with an SAE viscosity rating of 10W that contains an antifoamant, rust and oxidation inhibitor, and an antiwear additive. If a hydraulic oil is not available use an AP1 engine oil, designation SE, with an SAE viscosity rating of 10W.

DO NOT USE low viscosity naphtha base motor oil, hydraulic brake fluid, aircraft hydraulic fluid. HY-TRAN or other transmission fluid.

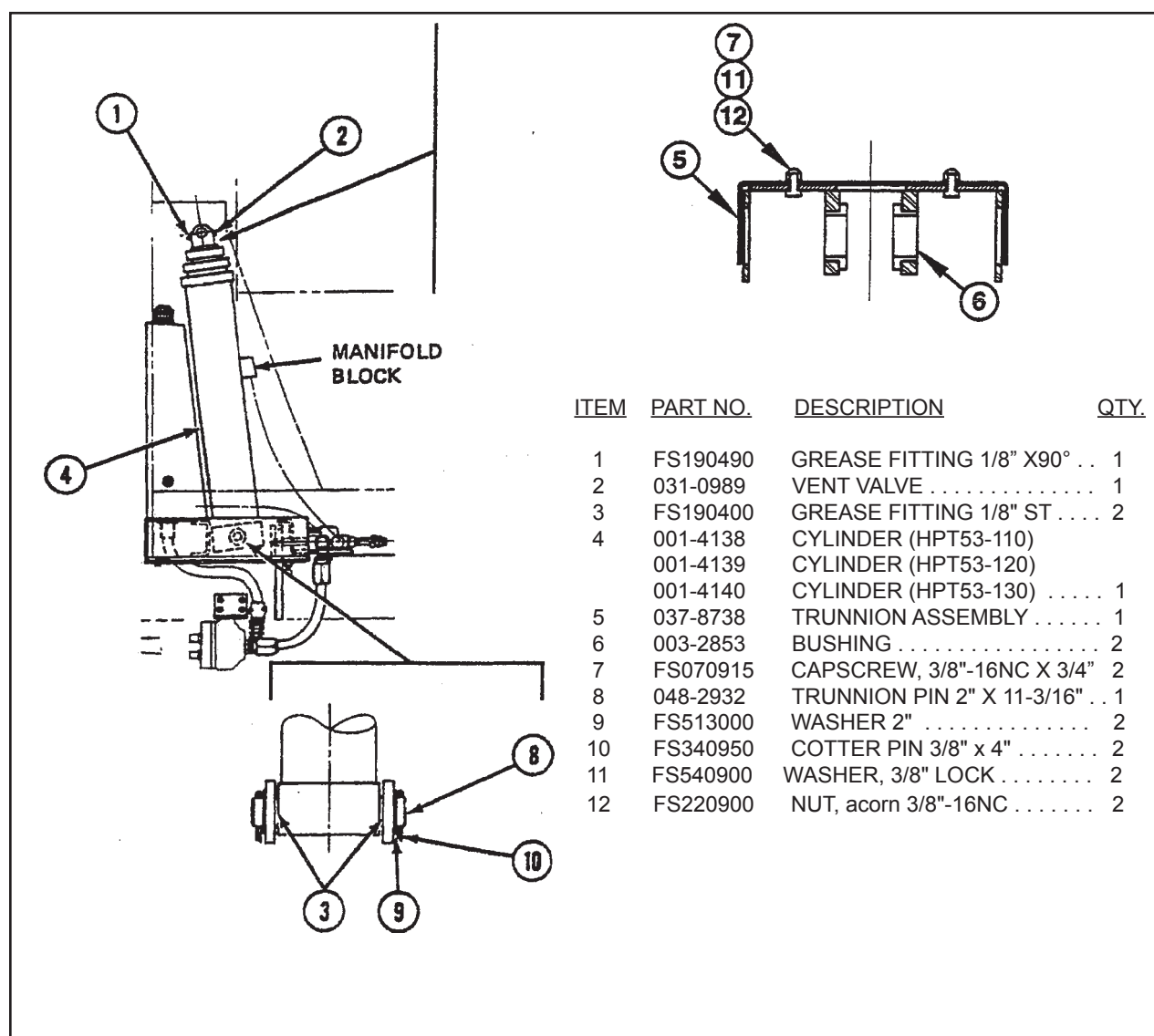


Figure 19. HPT53 Cylinder

HYDRAULIC SYSTEM OIL CAPACITY

Hoist		Full System	
HPT53		15 Gallons	56.8 Liters
HPT63-	120	20.5 Gallons	77.6 Liters
	130		
	140		
HPT63-	150	27.5 Gallons	104.1 Liters
	160		

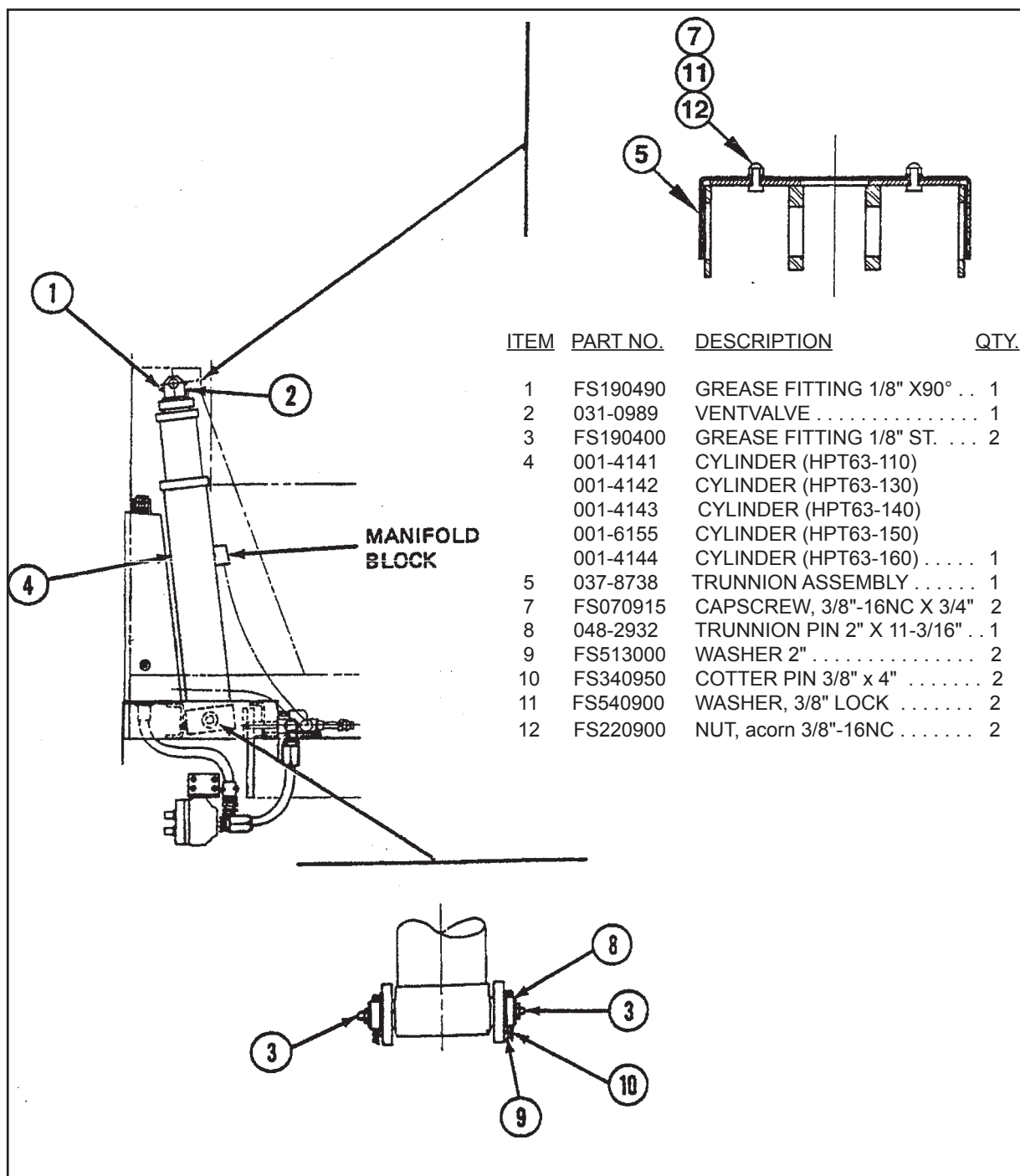


Figure 20. HPT63 Cylinder

BODY

Grease rear hinges and rotate pins by hand to obtain grease flow around pins.

Place body so that it fits squarely on the chassis and so that it has the correct cab clearance and the correct body overhang back of the hinge centerline. See figures 1 and 2.

Keep hinges tight against outer ears of hinge frame, and drive wedge under hinge so that hinge is tight against hinge pin and/or body longmember. Weld hinges to body longmember as shown in figure 21. Remove wedges.

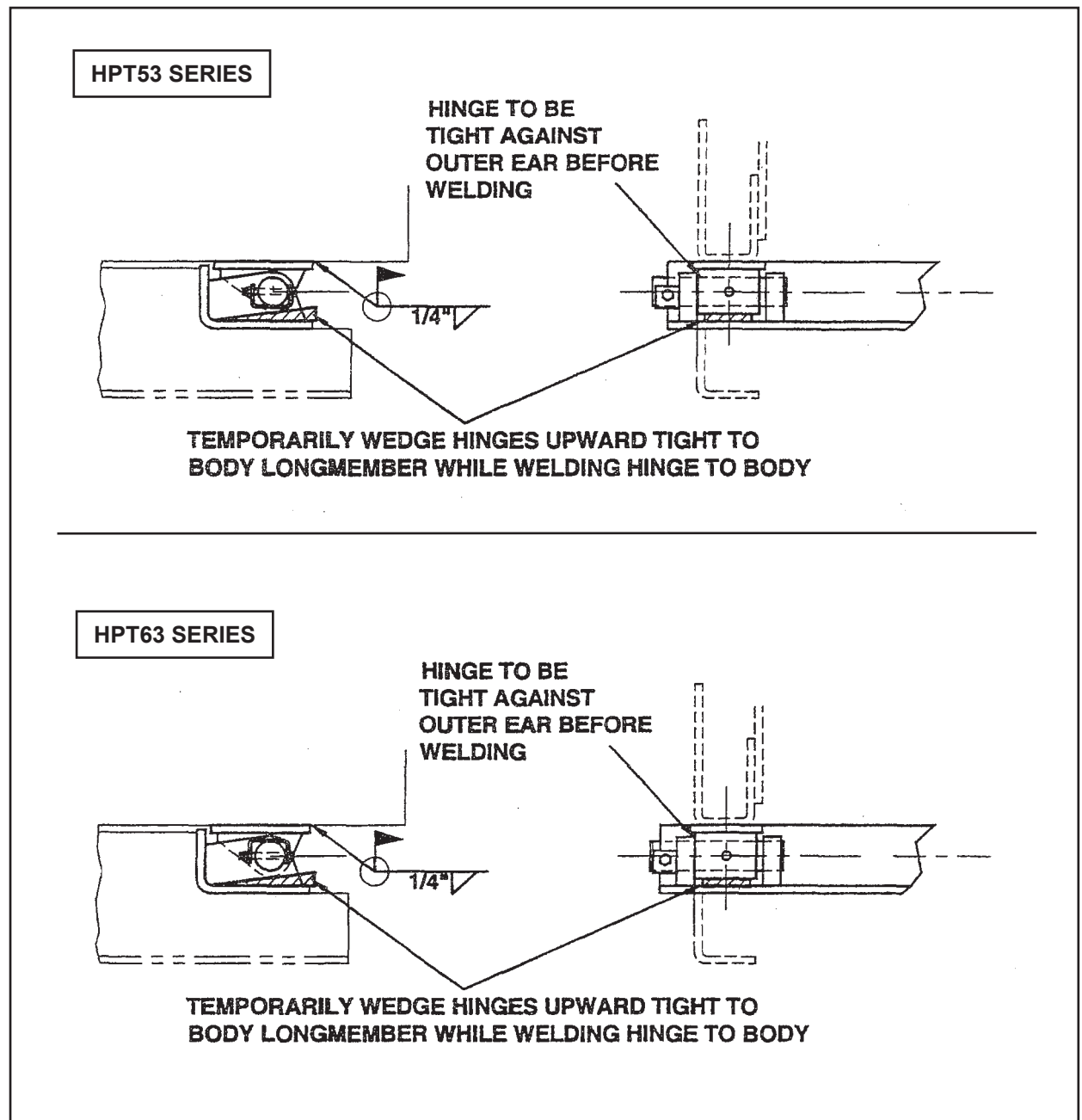


Figure 21. Rear Hinge Assembly

Lift front end of body so that it is 18" (450 mm) above the support frame.

WARNING

BLOCK BODY SECURELY. SEE FIGURE 22 FOR RECOMMENDED BLOCKING PROCEDURES.

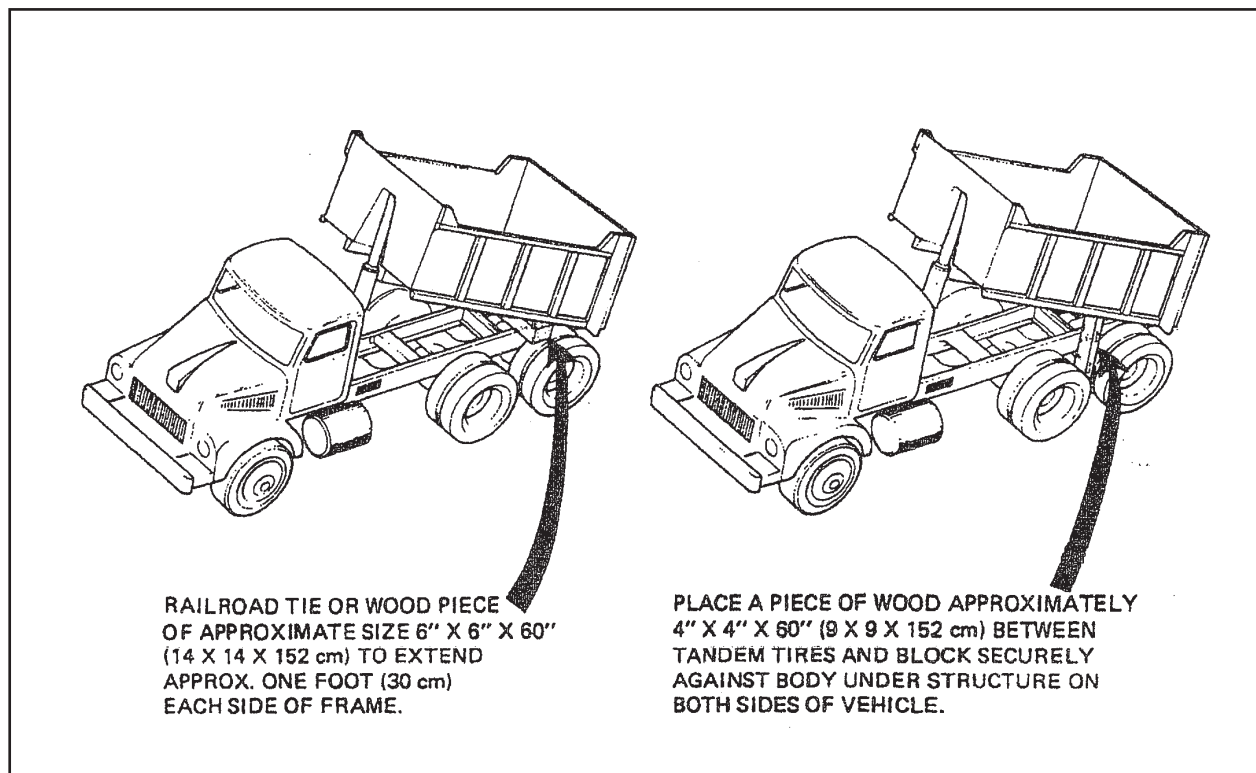


Figure 22. Blocking the Body



CAUTION

DO NOT GET HANDS OR ARMS BETWEEN CYLINDER AND BODY DOGHOUSE WHILE CYLINDER IS EXTENDING.

With one man in the cab operating the hoist and another man guiding the cylinder into the doghouse, extend the cylinder slowly until the hole in the cylinder sleeve lines up with the hole in the body bracket.

Install upper trunnion pin and rubber washers. See figures 19 and 20.

Apply grease to upper and lower grease fittings on cylinder.

BODY PROP

CAUTION

WHEN ANY WORK IS TO BE DONE ON BODY OR HOIST AND BODY IS FULLY OR PARTLY RAISED, BODY MUST BE BLOCKED SECURELY SO IT CANNOT FALL IN ADDITION, THE HOIST CONTROL LEVER MUST BE IN NEUTRAL WITH THE HOIST LEVER LOCKOUT ENGAGED IN THE "LOCK" POSITION AND THE PTO DISENGAGED.

Install stops on the body props as shown in figure 22.

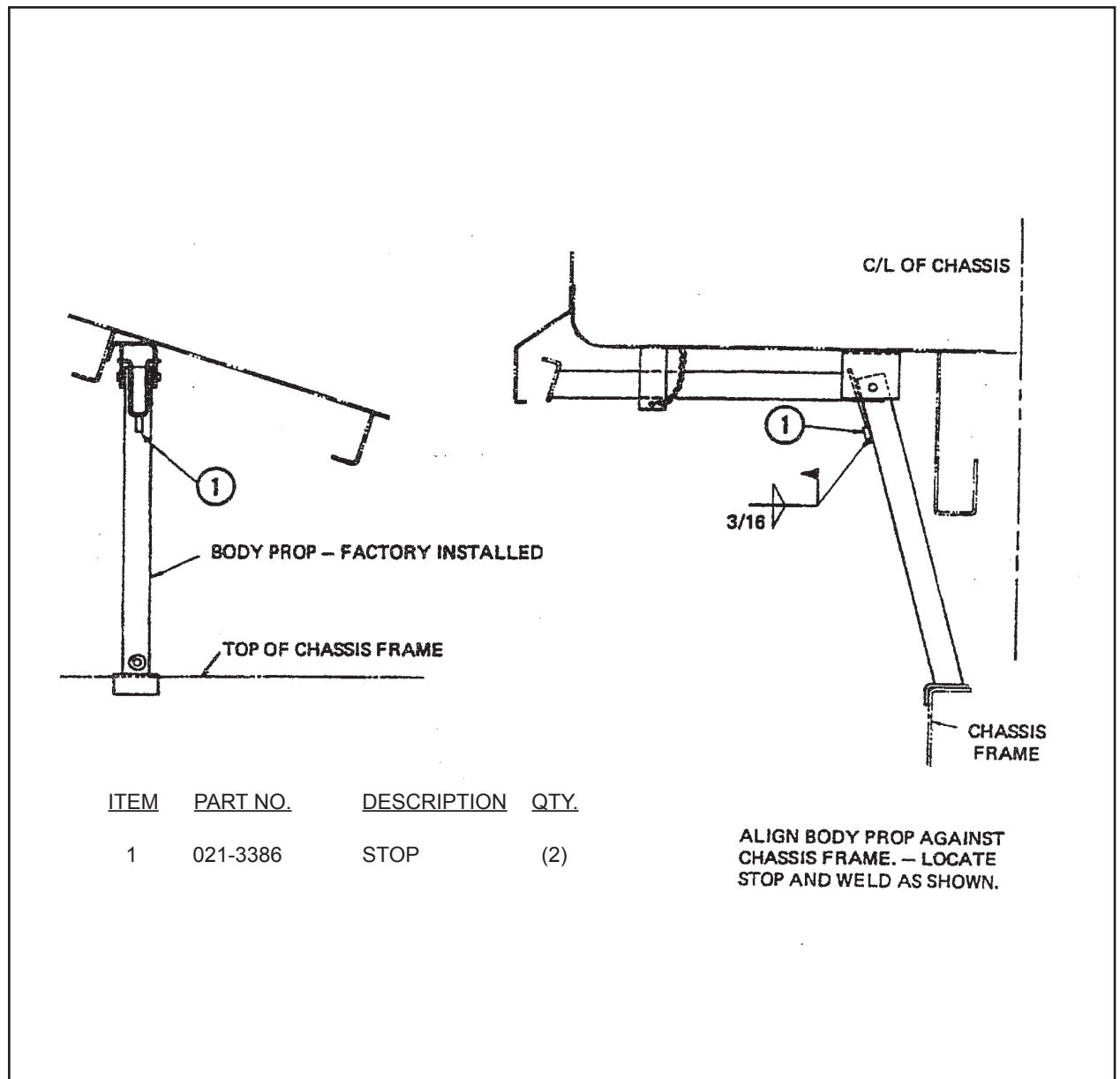


Figure 23. Body Prop installation

PURGING HYDRAULIC SYSTEM



WHEN ANY WORK IS TO BE DONE ON BODY OR HOIST AND BODY IS FULLY OR PARTLY RAISED, BODY MUST BE BLOCKED SECURELY SO IT CANNOT FALL. IN ADDITION, THE HOIST CONTROL LEVER MUST BE IN NEUTRAL WITH THE HOIST LEVER LOCKOUT ENGAGED IN THE "LOCK" POSITION AND THE PTO DISENGAGED.

SEE FIGURE 24 FOR RECOMMENDED BLOCKING METHODS. READ AND STUDY THE OPERATOR'S MANUAL BEFORE PROCEEDING.

Purge hydraulic system of entrapped air. With vent valve on cylinder closed and top doghouse cover removed, raise body slowly until body is approximately 12" (305 mm) above chassis at the front. Place operating valve in neutral. With another man in the body, open the vent valve at the top of the cylinder until all air is purged. Close vent valve. Extend first stage of cylinder, block body securely. Refill tank with remainder of oil that was premeasured as noted on page 18. Run body up and down several cycles. If body goes up jerky it may be necessary to repeat the purging procedure until all air is removed from the system. If additional purging is required check oil level again. Reinstall top doghouse cover.

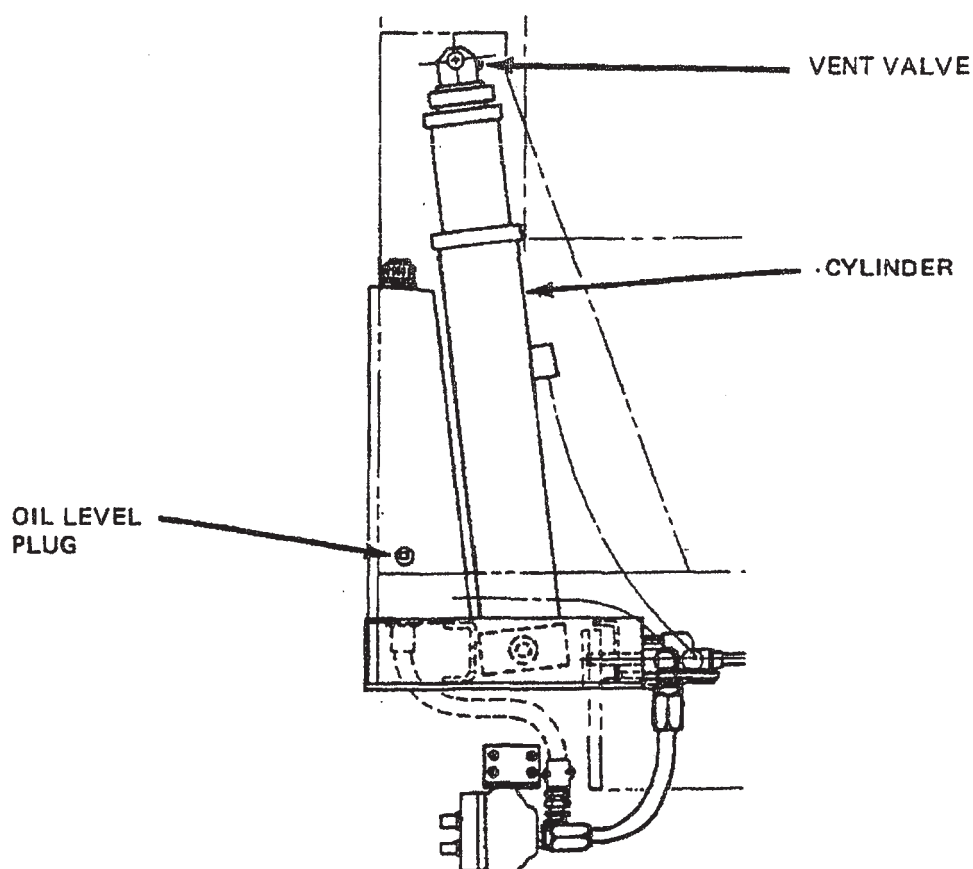


Figure 24. Purging Hydraulic system

BODY RAISED INDICATOR KIT

Position body raised switch on the left side on the front of the hoist frame or to the chassis frame, if attached to the hoist frame., the bracket may be welded or bolted in place. If mounted to the chassis frame, use the bracket as a template and kill two holes for 3/8" bolts. See Figure 25.

Adjust the activating screw so that switch button is depressed about 3/16" and test for proper operation.

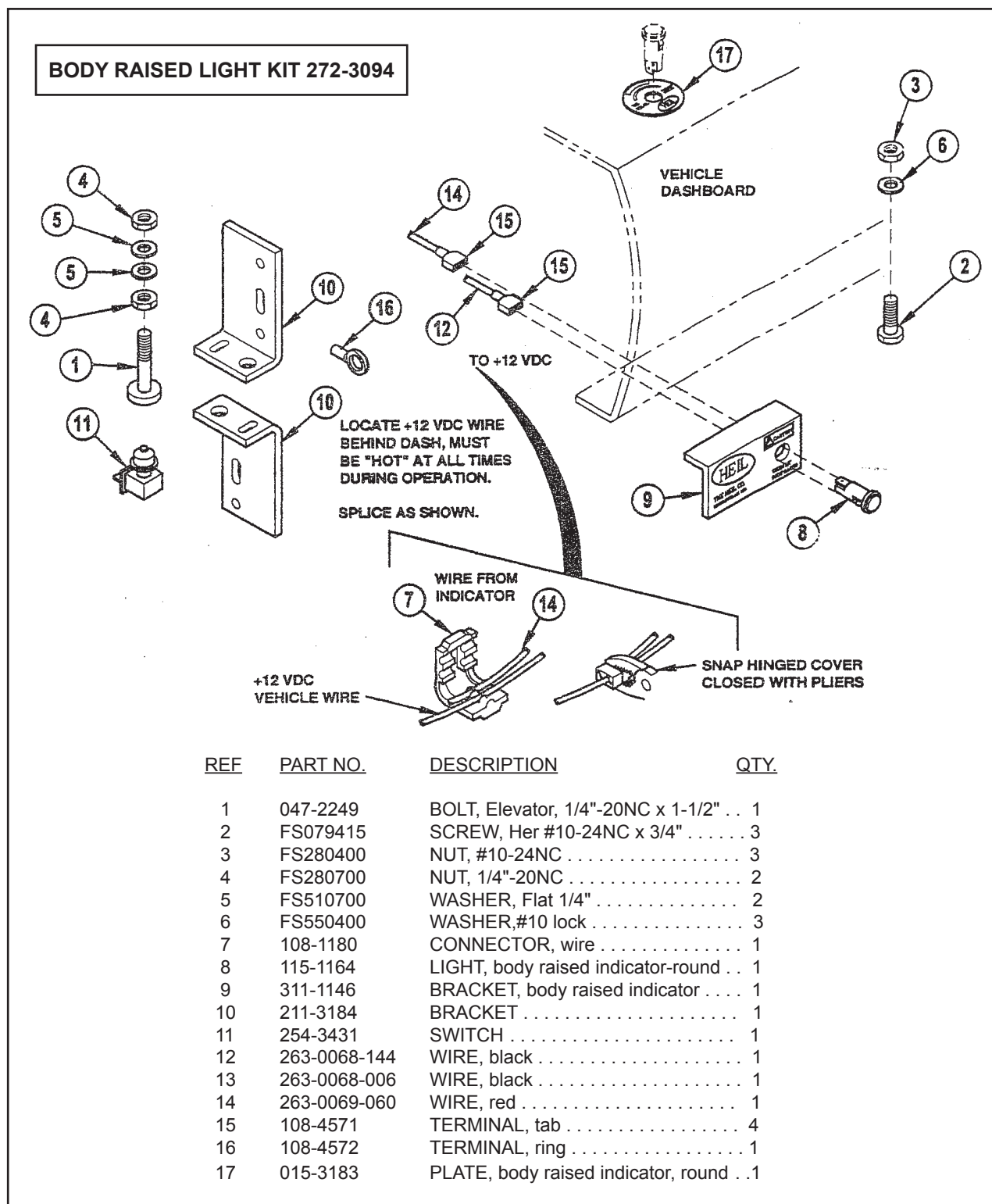
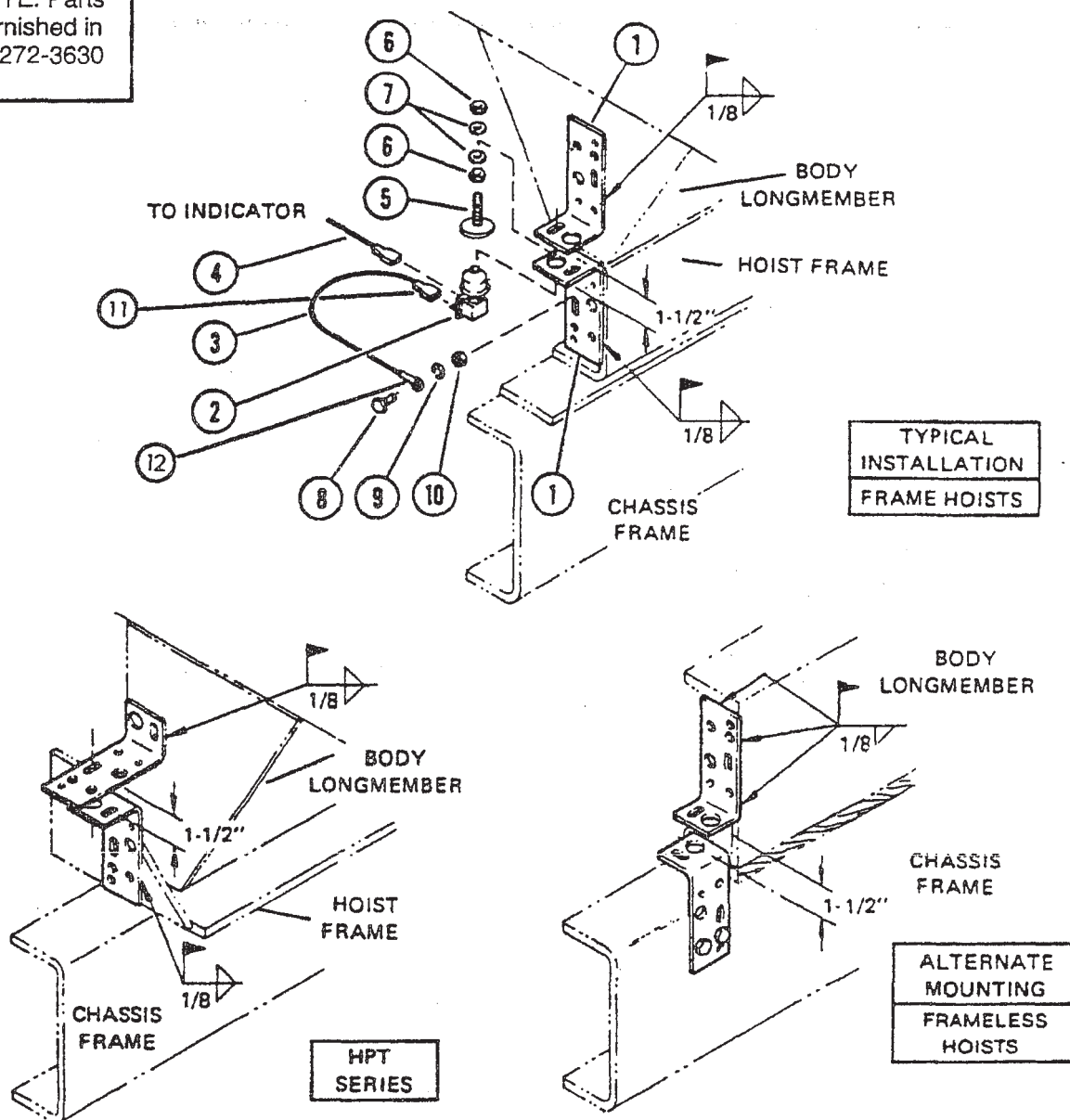


Figure 25. Body Raised Indicator

NOTE: Parts
Furnished in
Kit 272-3630



REF	PART NO.	DESCRIPTION	QTY.
1	211-3184	BRACKET	2
2	254-3431	SWITCH	1
3	263-68-6	WIRE	1
4	263-68-144	WIRE	1
5	047-2249	BOLT, flat head elev. bolt 1/4"-20NC x 1-1/2" ...	1
6	FS280700	NUT, hex 1/4"-20NC	2
7	FS510700	WASHER, flat 1/4"	2
8	FS079415	CAPSCREW, hex hd. 10-24NC x 3/4"	1
9	FS550400	WASHER, lock No. 10	1
10	FS280400	NUT, hex 10-24NC	1
11	108-4571	TERMINAL	1
12	108-4572	TERMINAL	1

Figure 26. Body Raised Switch

BACK-UP ALARM INSTALLATION

Mount back-up alarm as shown below using existing holes in bracket on rear hinge frame.

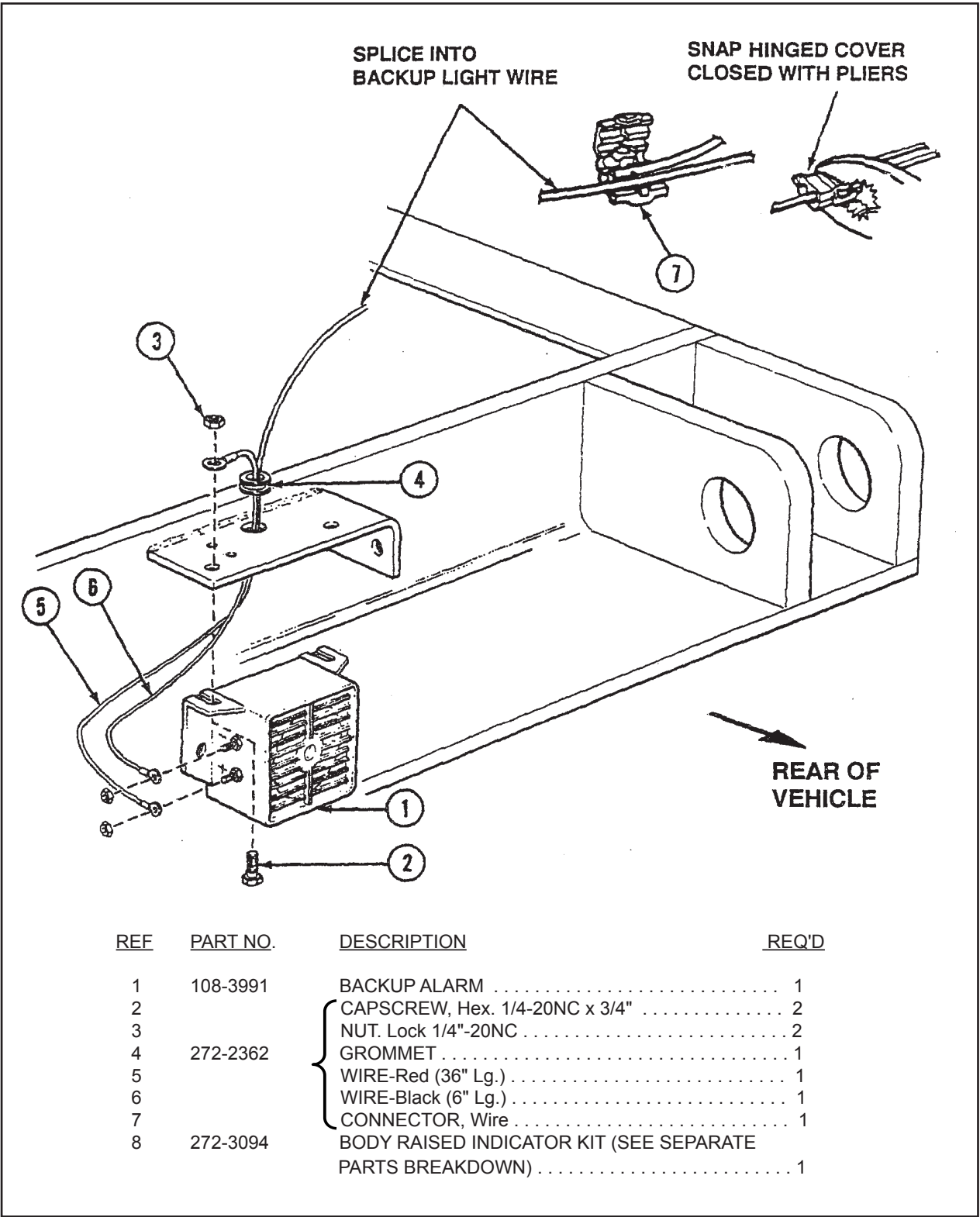


Figure 27. Back-Up Alarm

BODY PROP OPERATION

BE SURE THAT BODY IS UNLOADED BEFORE USING PROP.



CAUTION

TWO PROPS ARE INSTALLED ON BODIES OVER 16 FEET. BOTH MUST BE USED.

TO USE:

1. RAISE BODY TO A HEIGHT WHERE PROPS CAN BE SWUNG INTO POSITION.
2. SWING BODY PROP(S) TO SUPPORT POSITION.
3. LOWER BODY ONTO THE BODY PROP(S) AND VISUALLY INSPECT TO SEE THAT PROP(S) ARE SECURE BEFORE PERFORMING ANY WORK

TO STORE:

4. RAISE BODY SLIGHTLY. BE SURE HOIST CONTROL VALVE IS IN HOLD POSITION.
5. RETURN PR OP(S) TO TRANSIT POSITION.

DECALS AND SERIAL NUMBER PLATES

Install decals according to the instructions below. Refer to figure 28 for decal location. Model and serial numbers are located by manufacture as shown in figure 28.

- 1 **WARNING DECAL #212A735** is 1-7/8" x 4-1/2" (48 mm x 114 mm). It must be placed on the dash above decal #212A1104.
- 2 **CAUTION DECAL #212A1104** is 1-7/8" x 4-1/2" (48 mm x 114 mm). It must be placed on the dash below decal #212A735 and above decal #212A1170.
- 3 **CAUTION DECAL #212A1170** is 1-7/8" x 4-1/2" (48 mm x 114 mm). It must be placed on the dash below decal #212A1104.
- 4 **INSTRUCTION DECAL #212A1166** is 3-7/8" x 5-1/2" (98 mm x 140 mm). It must be placed on the dash next to the WARNING and CAUTION decals as shown in figure 28.
- 5 If installation has the standard cable controls, use decal **#212A1167** for hoist control and decal **#212A1168** for PTO control. Based on the controls installation for this specific hoist, select and install the PTO decal (#212A1168-1 or #212A1168-2) that corresponds to the direction of travel of the cable control for the PTO IN and OUT.

If the installation has the optional lever controls, use decals **#212A1164**. Select and install the decal that corresponds to the direction of travel for PTO lever IN and OUT and for hoist control UP and DOWN.

- 6 **CAUTION DECAL #212A1131** is 4-3/4" x 5" (121 mm x 127 mm). It must be placed on the front left hand corner of the body as shown in figure 28.
- 7 **CAUTION DECAL #212A1103** is 3-1/2" x 9" (89 mm x 229 mm). It must be placed on the chassis frame (one on each side) as shown in figure 28.
- 8 **CAUTION DECAL #212B1186** is 6-1/4" x 8-1/4" (159 mm x 210 mm). It must be placed on the hoist frame (one on each side) near the body prop, clearly visible to the operator.
- 9 **WARNING DECAL #212A1373** is 1-7/8" x 4-1/2" (48 mm x 114 mm). It must be placed on the dash below decal #212A1170.

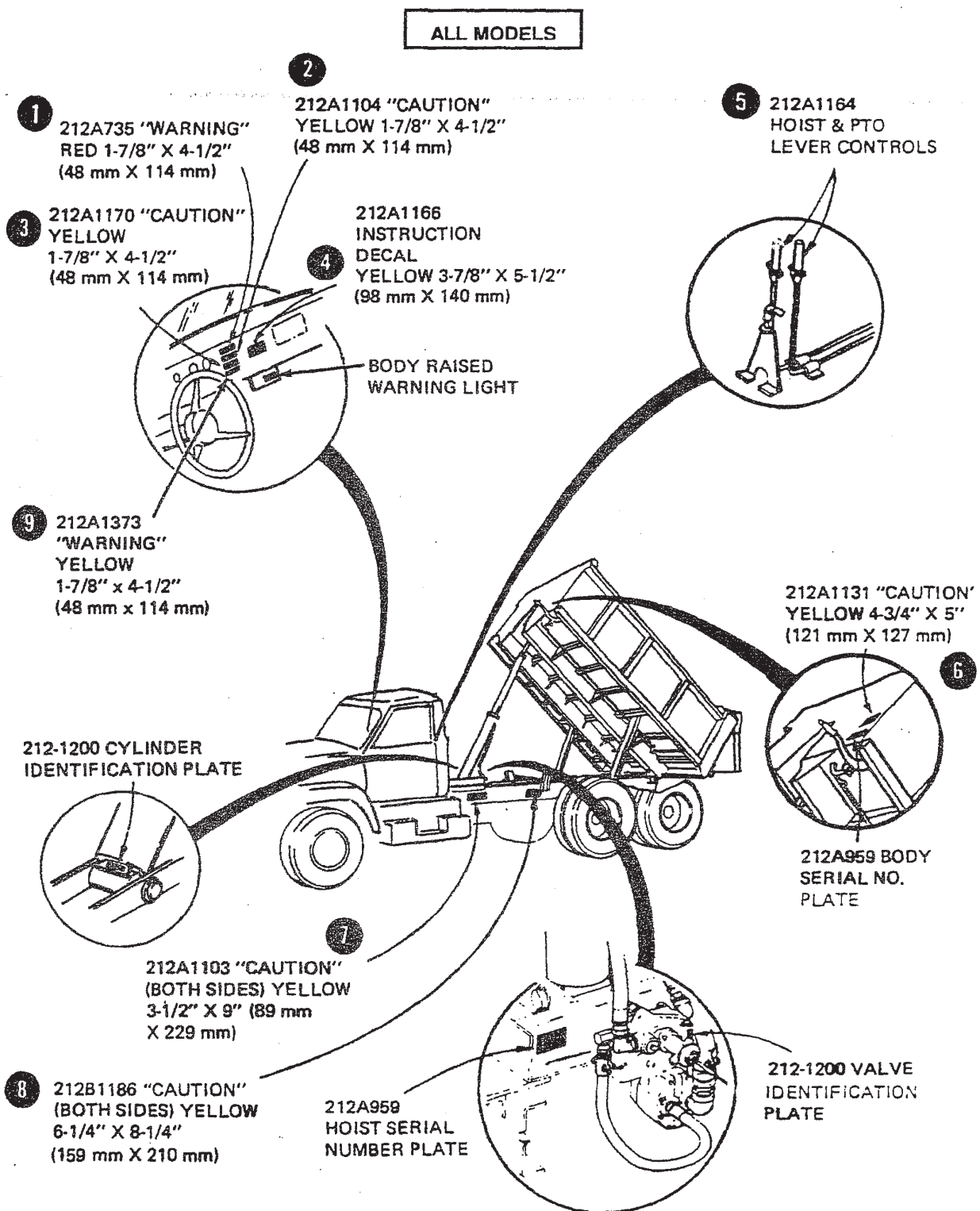


Figure 28. Decals and Serial Number

“The DuraClass, as manufacturer of the equipment that is covered by this manual, is providing a product to the user who has acknowledged to have superior knowledge of the conditions of the use to which the product will be put. The DuraClass relies upon the user’s superior knowledge in specifying any changes or modifications including, but not limited to, the inclusion or non-inclusion *of options that are required by the user and the DuraClass product, and for the particular application of the user relative to the DuraClass product.”