



# INSTALLATION INSTRUCTIONS

**DURACCLASS  
TELESCOPIC  
HOISTS**

**MODELS  
HPT 42TM  
HPT 53TM  
HPT 63TM**

## 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 THE INSTALLATION INSTRUCTIONS AND THE OPERATOR'S MANUAL BEFORE ATTEMPTING TO SET UP, OPERATE, ADJUST OR SERVICE THE EQUIPMENT.

## INTRODUCTION

This instruction manual contains installation procedures for the HPT 42TM, HPT 53TM, and HPT 63TM hoists.

## UNPACKING

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

#### IMPORTANT SAFETY NOTICE

Proper installation, service and repair are important to the safe, reliable operation of DuraClass'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 and as recommended. It is important to note that some warning 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 information and specifications included in this publication were in effect at the time of approval for printing. 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 42TM, HPT 53TM, HPT 63TM

The following is a list of parts that 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	HPT 42TM	HPT 53TM	HPT 63TM
001-5172	*		Inverted Cylinder 42-90TM	1	--	--
001-5173	*		Inverted Cylinder 53-120TM	--	1	--
001-5174	*		Inverted Cylinder 63-120TM	--	--	1
001-5175	*		Inverted Cylinder 63-140TM	--	--	1
003-2614	*		Bearing	4	4	4
003-4327	22	4	Bearing-Cyl., 42TM Hoist	2	--	--
003-4328	*		Bearing Assy. 42TM Hoist	2	--	--
003-4333	22	4	Bearing-Cyl. 53TM & 63TM	--	2	2
003-4334	*		Bearing Assy 53TM & 63TM	--	2	2
004-1182	9	1	Link	1	2	2
005-2706	3		Hinge Assy	1	1	--
005-2712	3		Hinge Assy	--	--	1
008-7231	7	1	Drive Shaft	1	1	1
011-4049	6	1	Bracket-Pump	1	1	1
013-4278	*		Lever	2	2	2
013-4293	*		Lever	--	1	1
013-4923	9	2	Lever	1	--	--
014-1553	5	1	Pad-Mounting HPT 53 Series	2	2	--
014-1554	5	1	HPT 63 Mounting Pad	--	--	2
019-1280	29	7	Spring	1	1	1
019-1389	23	5	Spring	2	2	2

\*As indicated in instructions.

Note: Dash number following hose part number indicates length of hose in inches.

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PART NO.	PAGE NO.	ITEM NO.	DESCRIPTION	HPT 42TM	HPT 53TM	HPT 63TM
020- 988	16	1	Oil Tank	--	1	1
020-1718	*		Oil Tank	1	--	--
021-1866	29	1	U-Bar	1	--	--
021-•1868	*		U-Bar	--	1	1
021-3366	26	1	Stop	2	2	2
027-3687	*		Rod	2	2	2
027-4833	23	2	Rod Assembly	2	2	2
030- 542	7	3	PTO U-Joint	1	1	1
030- 543	7	2	Slip U-Joint	1	1	1
031-2108	*		Valve	1	1	1
032-1020	*		Rod End	4	4	4
034-9394	*		Plate	2	2	2
047-1088	7	4	Set Screw	3	3	3
048-3127	*		Pin	2	--	--
048-3127-4	9	3	Pin	--	2	2
048-5751	22	1	Pin-42TM Lower Trunnion	1	--	--
048-5752	22	1	Pin-53TM Lower trunnion	--	1	--
048-5753	22	1	Pin-63TM Lower Trunnion	--	--	1
053-1379	15		Latch Assy	1	1	1
054-3340- 10	19	1	Elbow	1	1	1
054-4194- 13	18	7	Female Adapter 3/4 To 1-1/4	1	--	--

\*As indicated in instructions.

Note:Dash number following hose part number indicates length of hose in inches.



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PART NO.	PAGE NO.	ITEM NO.	DESCRIPTION	HPT 42TM	HPT 53TM	HPT 63TM
054-4194- 8	18	11	Adapter-Strt 1" o/r M*1NP	1	--	--
054-4307- 10	18	10	Elbow	1	1	1
054-4731	28		Tube	3	3	3
055-1065- 10	22	2	Washer	--	4	4
055-1065- 13	22	5	Washer	--	4	4
055-1065- 8	22	2	Washer	8	--	--
057- 426- 60	18	1	Hose 1-1/4 100R4-1-1/4"NPT"	1	1	1
057-1258- 36	*		Hose 1" Return 100R3Blank*1"NP	1	1	1
057-1848- 8	18	9	Hose Coupling	1	1	1
057-1848- 9	19	3	Coupling-Hose 1" 1"NPTF M	1	1	1
057-1853- 90	18	8	Hose-Press 3/4 Blank*3/4NPT	1	1	1
057-1858- 50	19	2	Hose	1	1	1
058-2468- 3	*		Fitting	1	1	1
058-2468- 4	18	5	Fitting	1	1	1
060- 100	*		Breather Cap	1	1	1
064-2339	5	1	Guide	4	4	4
70- 765	*		Handle	2	2	2
070-1230	*		Handle-Black	1	1	1
070-1231	*		Handle-Red	1	1	1
71- 326- 1	16	2	Straps	2	2	2
071- 836- 30	23	3	Cylinder Strap	1	1	1

\*As indicated in instructions.

Note:Dash number following hose part number indicates length of hose in inches.

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PART NO.	PAGE NO.	ITEM NO.	DESCRIPTION	HPT 42TM	HPT 53TM	HPT 63TM
074-2216- 3	*		Clamp	2	2	2
074-2216- 4	18	2	Clamp	2	2	2
074-3029- 10	19	4	Adapter. Union 1" To 1/2" NPT	1	--	--
074-3029- 9	18	6	Adapter Union	1	--	--
074-3059- 6	*		Union	1	1	1
074-3059- 7	18	6	Union	--	1	1
077-7396	28		Support	2	2	2
077-8762	*		Support RH & LH	2	2	2
097- 198	29	2	Wire Rope	1	1	1
097- 199	29	3	Clamp	1	1	1
111-1876	*		Bracket-Hose Support	1	1	1
111-8339	*		Lock Bracket	1	1	1
134-8353	23	4	Threading Plate	2	2	2
177-2841	22	6	Stop-Cyl. Bearing	2	2	2
177-2880	23	1	Cylinder Support	2	2	2
211- 242	4	1	Support Angle	3	4	3
211- 426	*		Brkt.,Body Prop.	2	2	2
211- 644	16	3	Bracket	2	2	2
211-2884	*		Bracket-Valve	1	1	1
212- 735	*		Decal	2	2	2
219-1742	6	2	Pump	1	1	1

\*As indicated in instructions.

Note:Dash number following hose part number indicates length of hose in inches.

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PART NO.	PAGE NO.	ITEM NO.	DESCRIPTION	HPT 42TM	HPT 53TM	HPT 63TM
219-1753	8	2	Pump-Direct Mt.	1	--	--
219-1842	8	2	Pump-Hyd Gear 42GPM Direct Mt.	--	1	1
237-4632	*		Lower Frame 42TM Hoist	1	--	--
237-4634	*		Lower Frame 53TM Hoist	--	1	--
237-4635	*		Lower Frame 63TM Hoist	--	--	1
252-3733	*		Lever Control Kit	1	1	1
252-8514	*		Body Support Kit	1	1	1
252-9407	*		Hoist Control Kit (Optional)	1	1	1
254- 710	*		Lever Control Kit (Optional)	1	1	1
254-1118	*		Lever Control Kit (Optional)	1	1	1
263- 41	7	6	16 Ga. Wire x 24"	1	1	1
272-1121	27		Body Prop Lit	1	1	1
272-1410	*		Body Prop Kit	1	1	1
272-1715	*		Hpt Cable Control (Optional)	1	1	1
272-3630	30		Back Up Alarm/Body Raise Ind Kt	1	1	1
272-4153	*		Decal Kit	1	1	1
272-4155	*		Decal Kit	1	1	1
272-4159	*		Decal Kit	1	1	1
272-4160	*		Decal Kit	1	1	1
272-4574	*		Mounting Kit	--	1	--
272-4575	*		Mounting Kit	1	--	--

\*As indicated in instructions.

Note:Dash number following hose part number indicates length of hose in inches.

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PART NO.	PAGE NO.	ITEM NO.	DESCRIPTION	HPT 42TM	HPT 53TM	HPT 63TM
272-4576	*		Mounting Kit	--	--	1
272-4577	*		Hydraulic Kit 53 & 63 Invert	--	1	1
272-4631	*		Hydraulic Kit	1	--	--
272-4635	*		Cylinder Support Kit	1	1	1
272-4640	*		Mounting Kit	1	--	--
272-4641	*		Mounting Kit	--	1	--
272-4642	*		Mounting Kit	--	--	1
701-5345	*		Installation HPT Body Prop	1	1	1
EMR- 71-875	*		Instruction Envelope	1	1	1
F - 71-205	*		Warranty Card	1	1	1
FS - 070-720	*		Cpscrw-Hex Hd GR5 1/4-20NC x I	4	4	4
FS - 070-826	*		Cpscr-HexHd GR5 5/16-18NCx1.75	2	2	2
FS - 070-924	*		3/8 16NC x 1-1/2 Hhcs, GR5	2	2	2
FS - 070-930	18	3	Cpscrw-Hex Hd GR5 3/8-16NC x 2	2	2	2
FS - 071-124	*		Cpscrw-Hex Hd GR5 1/2-13NCx1.5	9	9	9
FS - 071-142	*		Cpscr-Hex Hd GR5 1/2-13NCx3.25	3	3	3
FS - 071-160	23	6	Hex. Hd. Capscrew	2	2	2
FS - 071-322	6	3	Cpscrw-HexHd 5/8-11Nc x 1-3/4"	4	4	4
FS - 071-326	*		Cpscr-Hex Hd GR5 5/8-11NCx1.75	12	12	12
FS - 071-330	*		Cpscrw-Hex Hd Gr5 5/8-11NC x 2	20	20	20
FS - 071-564	*		3/4-10NC x 5-1/2 Hex Hd. Cpscrw	2	2	2

\*As indicated in instructions.

Note:Dash number following hose part number indicates length of hose in inches.

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PART NO.	PAGE NO.	ITEM NO.	DESCRIPTION	HPT 42TM	HPT 53TM	HPT 63TM
FS - 190-400	*		Fitting-Grease 1/8NPT Straight	5	5	5
FS - 190-490	*		Fitting-Grease 1/8NPT x 90 Deg	4	4	4
FS - 230-700	*		Nut-Lock Hex Nylok 1/4-20NC	4	4	4
FS- 230-900	*		Nut-Lock Hex Nylok 5/16-18NC	2	2	2
FS - 230-900	*		3/8 16NC Nylock Lock Nut	8	8	8
FS - 231-100	*		Nut-Lock Hex Nylok 1/2-13NC	10	10	10
FS - 231-301	*		Nut-Lock Hex Stovers 5/8-11NC	32	32	32
FS - 231-500	22	8	Nut-Lock Hex Nylok 3/4-10NC	2	2	2
FS - 270-800	*		Hex Nut 5/16-24NF	1	1	1
FS - 291-100	*		Nut-Jam Hex 1/2-13NC	4	4	4
FS - 340-212	*		Pin-Cotter 3/32 x 3/4	6	6	6
FS - 340-950	22	3	Pin-Cotter 3/8 x 4	4	4	4
FS - 510-700	*		Washer-Flat 1/4	4	4	4
FS - 510-900	*		Washer Flat 3/8	10	10	10
FS - 511-100	23	8	Washer	2	2	2
FS - 541-300	6	6	Washer-Lock 5/8"	2	2	2
FS - 592-215	18	7	Bushing-Pipe Blk Mi 1-1/4 x 3/4	--	1	1
FS - 592-220	*		Bushing-Pipe Blk MI 1-1/4 x 1	1	1	1
FS - 822-000	*		Elbow-Street 90 Deg 1" 150# MI	2	2	2
FS - 901-100	*		Plug-Pipe Sq Hd Blk	1	1	1
FS - 902-201	*		Plug-Pipe 1-1/4NPT Countersunk	1	1	1

\*As indicated in instructions.

Note:Dash number following hose part number indicates length of hose in inches.

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HPT 42TM, HPT 53TM, HPT 63TM

The following is a list of parts that 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	HPT 42TM	HPT 53TM	HPT 63TM
FS - 911-501	*		Plug-Pipe 3/4NPT Countersunk H	1	1	1

\*As indicated in instructions.

Note: Dash number following hose part number indicates length of hose in inches.

## BASIC DIMENSIONS

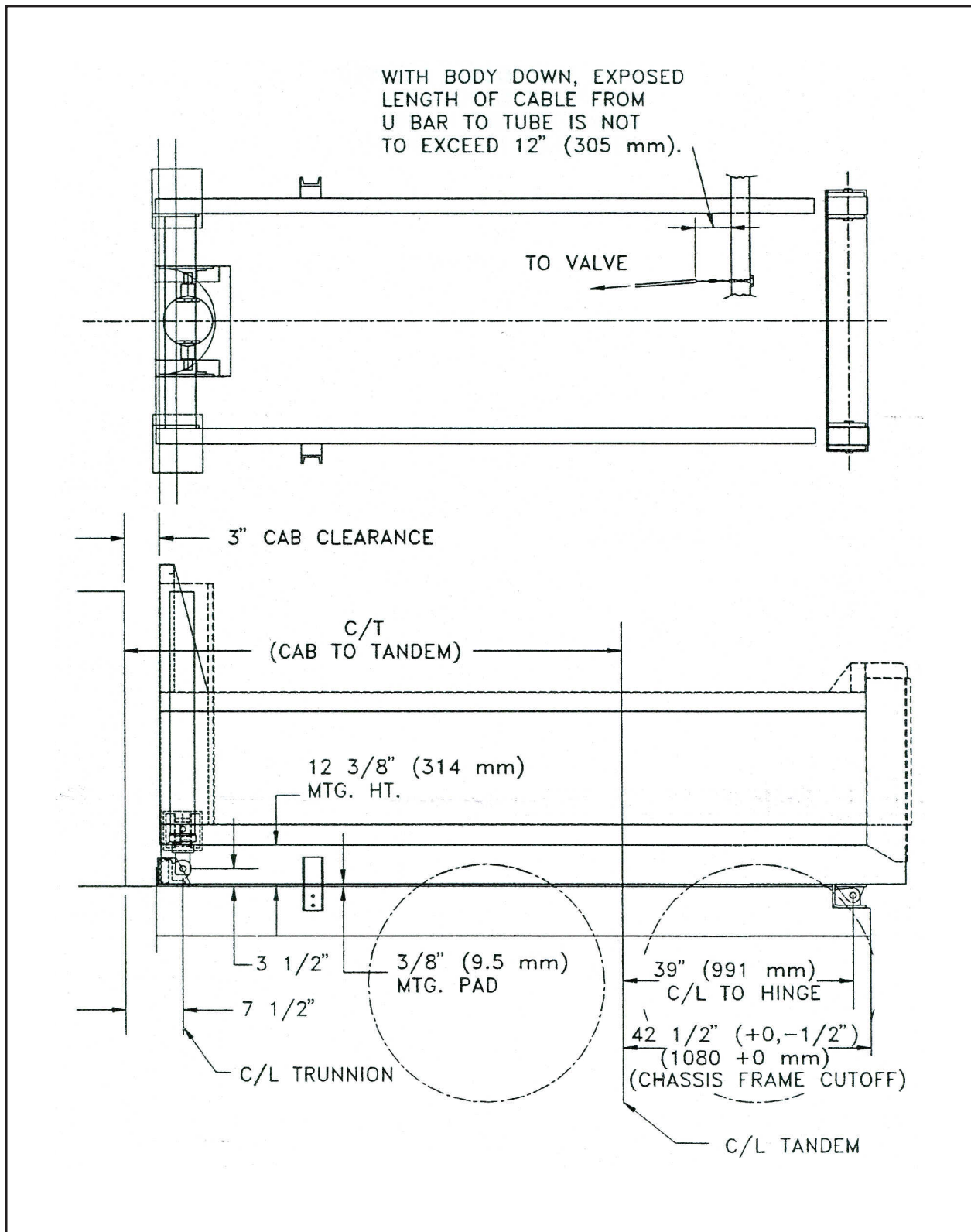


FIGURE 1. HPT 42TM AND HPT 53TM HOIST BASIC DIMENSIONS

## BASIC DIMENSIONS

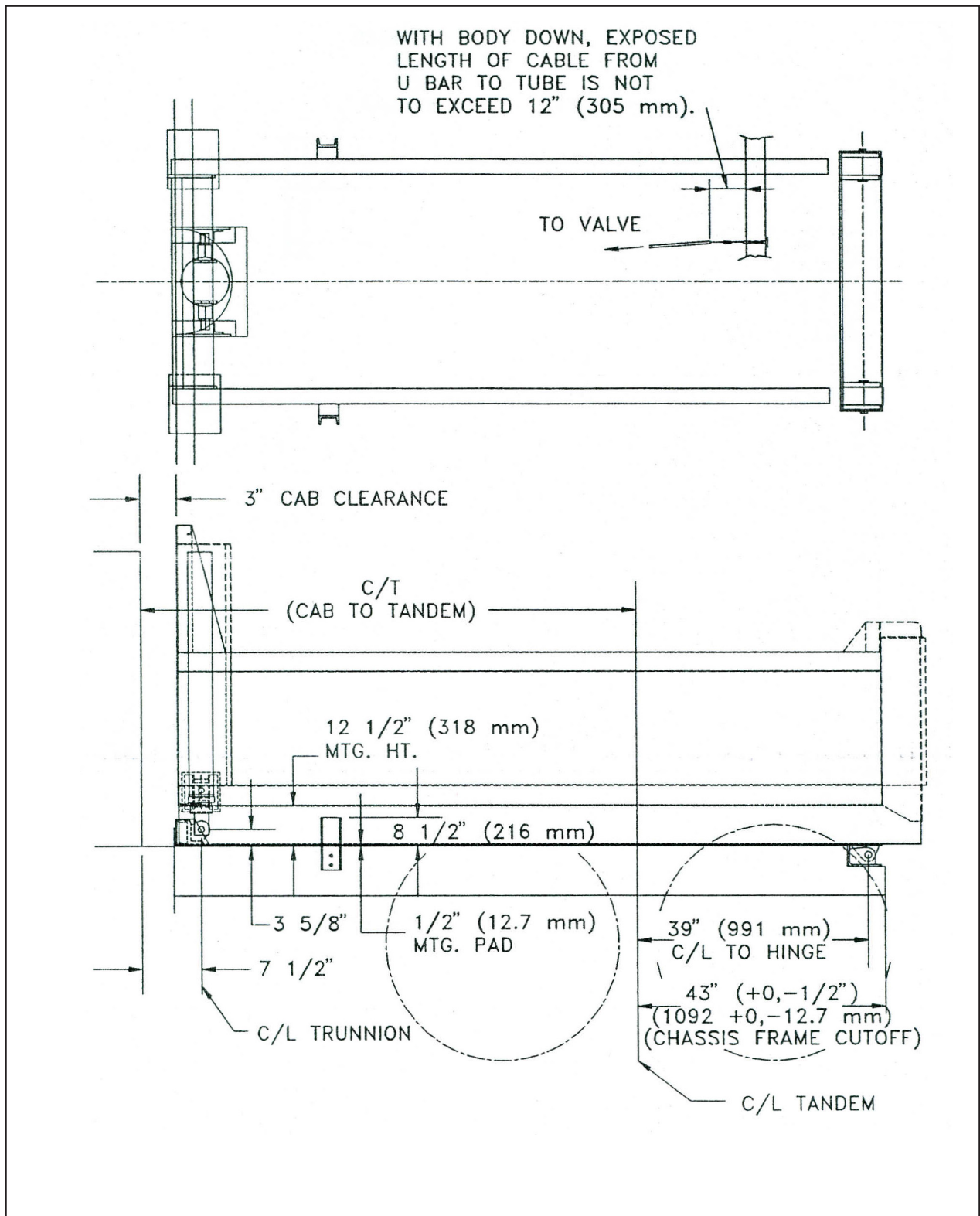


FIGURE 2. HPT 63TM BASIC HOIST DIMENSIONS



## 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.

Install grease fittings in hinges.

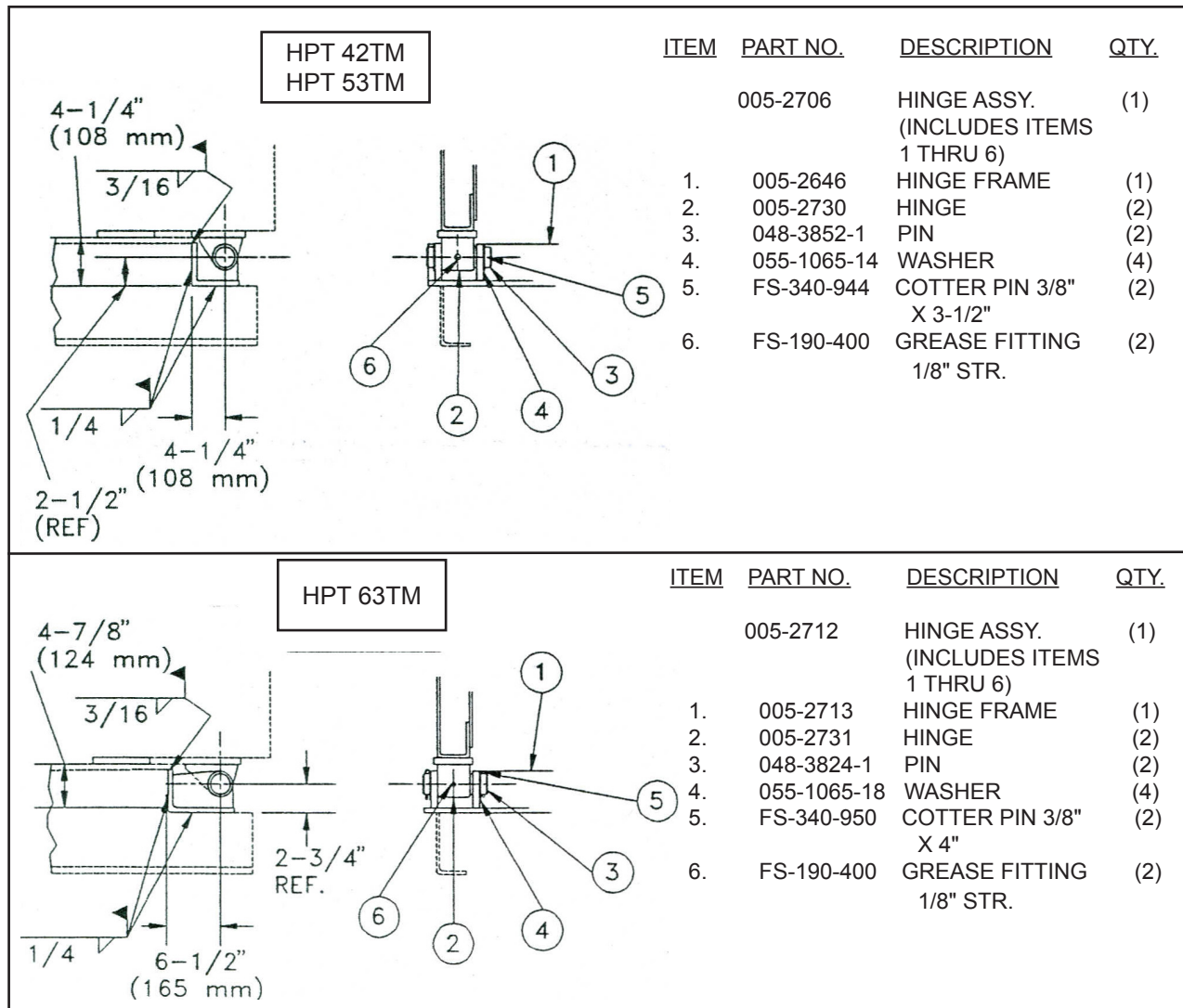


FIGURE 3. REAR HINGE ASSEMBLY

## CYLINDER SUPPORT FRAME AND TIE DOWNS

Place cylinder support frame back of cab as shown in Figure 4 so it fits squarely on the chassis. It may be necessary to drill holes in base of support frame to clear rivet heads. Clamp support frame to chassis rail temporarily. Tack weld frame tie downs to support frame. Drill four  $\frac{41}{64}$ " (16 mm) holes in chassis rail using holes in tie downs as a template. Bolt tie downs to chassis rail. Weld frame tie downs to support frame, three sides as shown. NOTE: DO NOT weld to chassis frame. Remove clamps. See Figure 5.

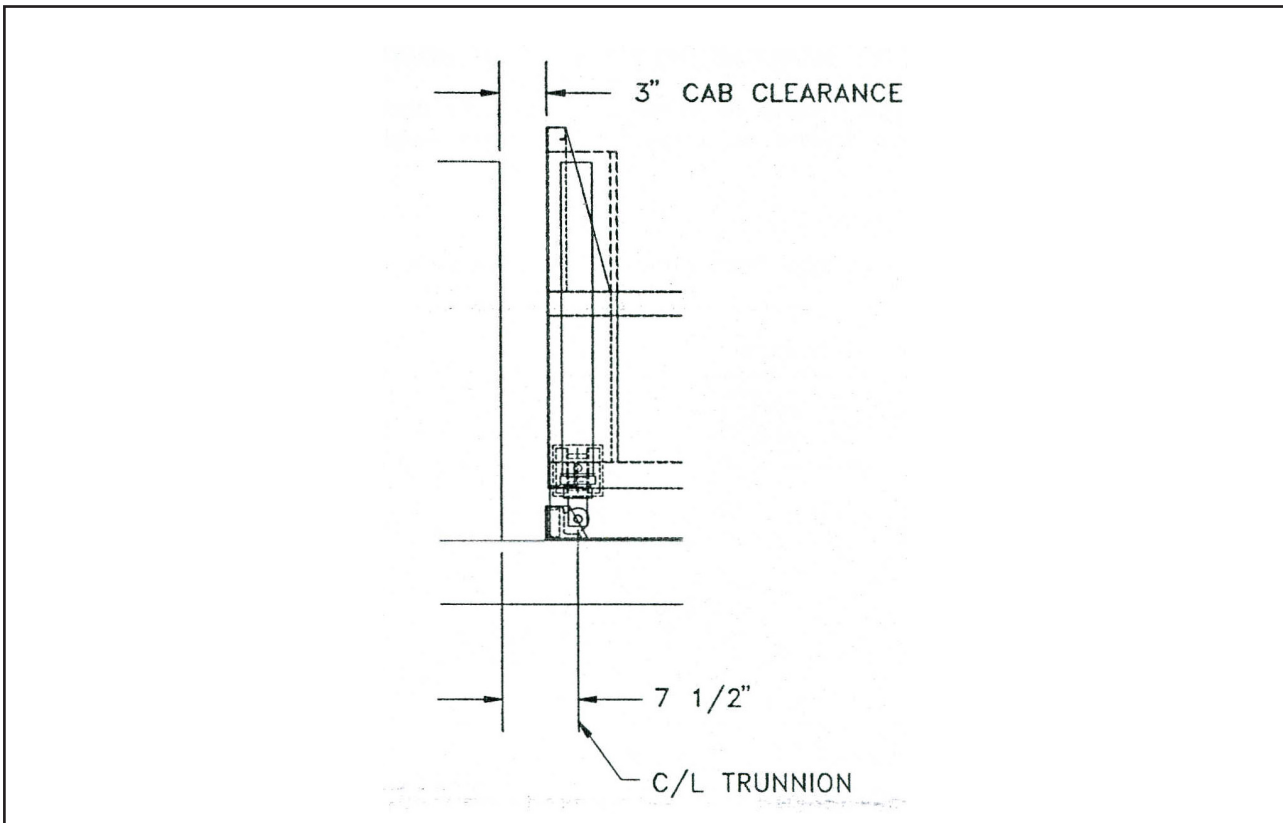


FIGURE 4. CYLINDER SUPPORT FRAME

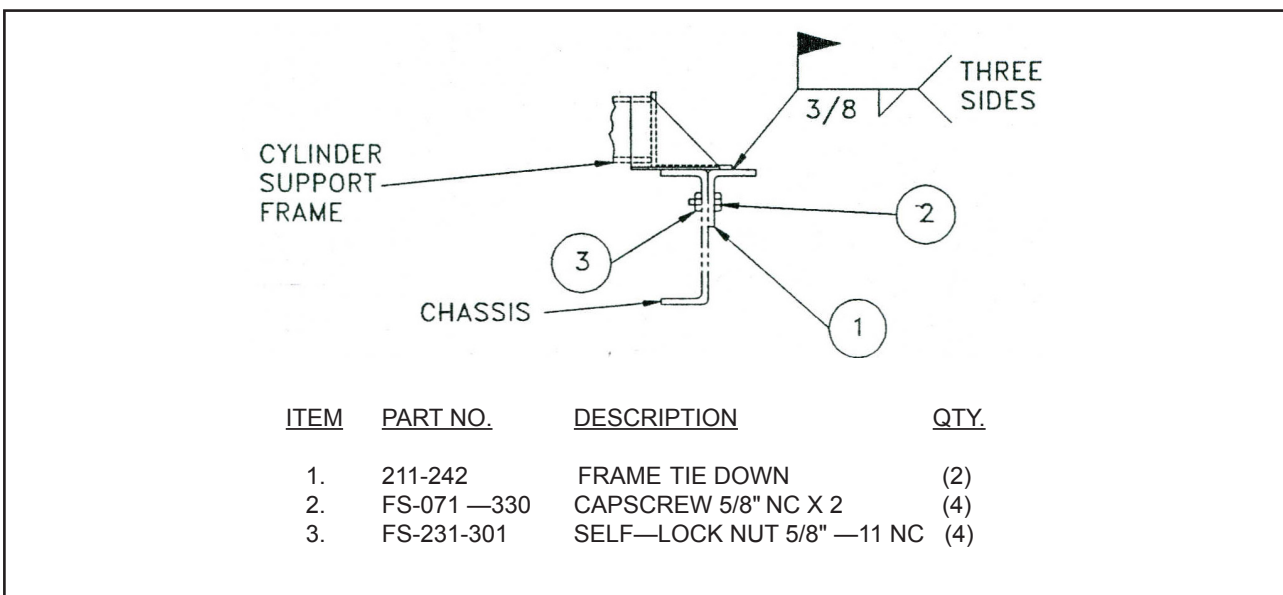


FIGURE 5. FRAME TIE DOWNS

## SILL SPACER PADS

Cut sill spacer pads to length and locate as shown in figure 6. Drill holes to clear rivet heads if necessary. Chamfer front end of pad to cylinder support frame at front and to chassis frame at rear.

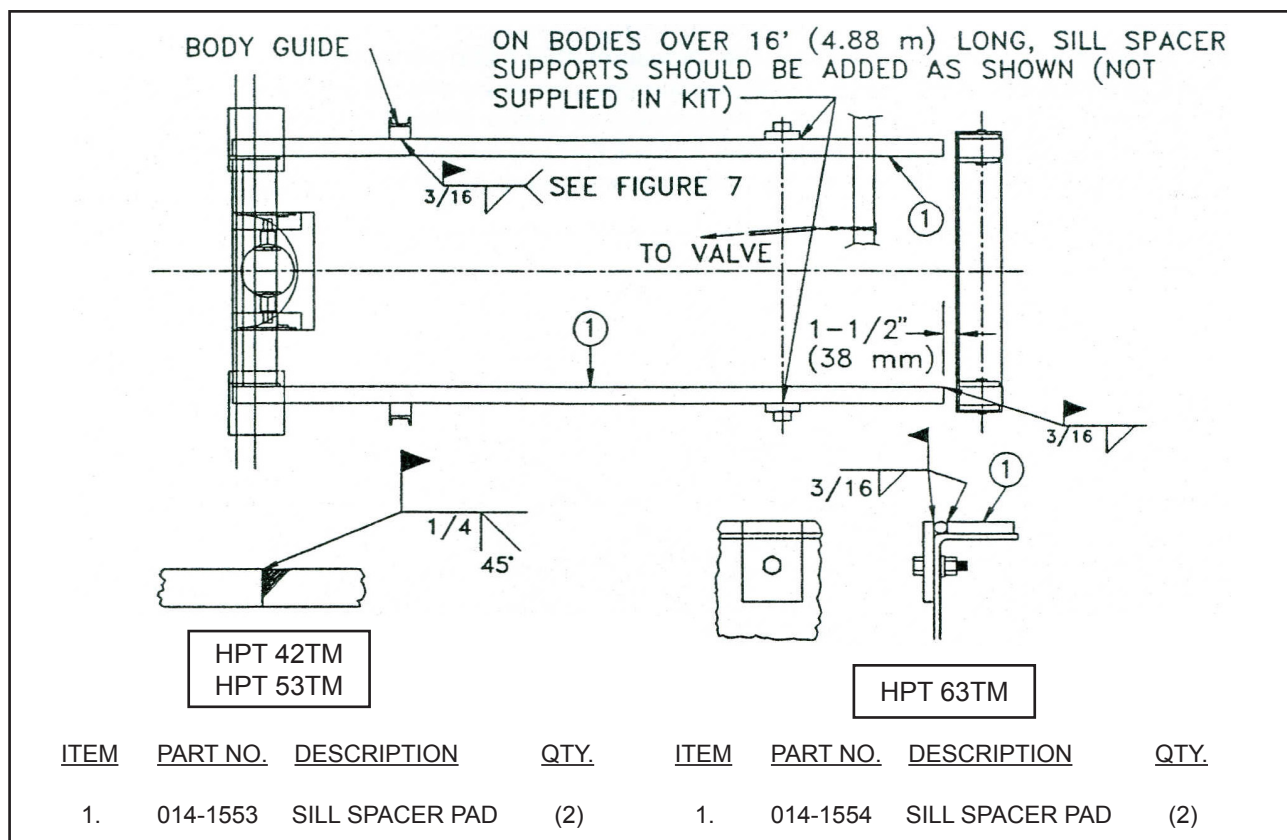


FIGURE 6. SILL SPACER PADS

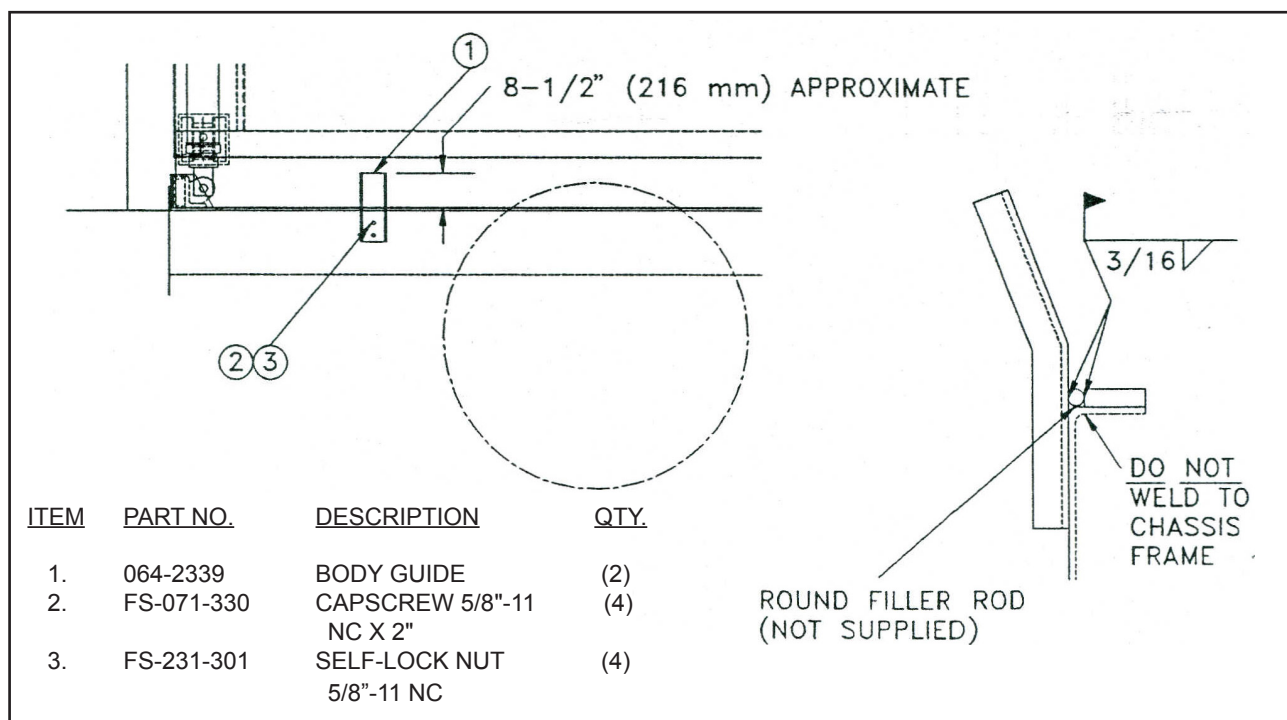


FIGURE 7. BODY GUIDES

## POWER TAKE-OFF AND PUMP

Select the correct Power Take-Off (PTO) to match the truck's transmission. The PTO output 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 connecting hoses are as far away from the muffler and exhaust tube as possible, (minimum clearance should be 2 1/2") 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 6. Drill four 41/64" (16.3 mm) holes in chassis rail to mount pump bracket using bracket as template. Bolt bracket and pump in place. See figure 8.

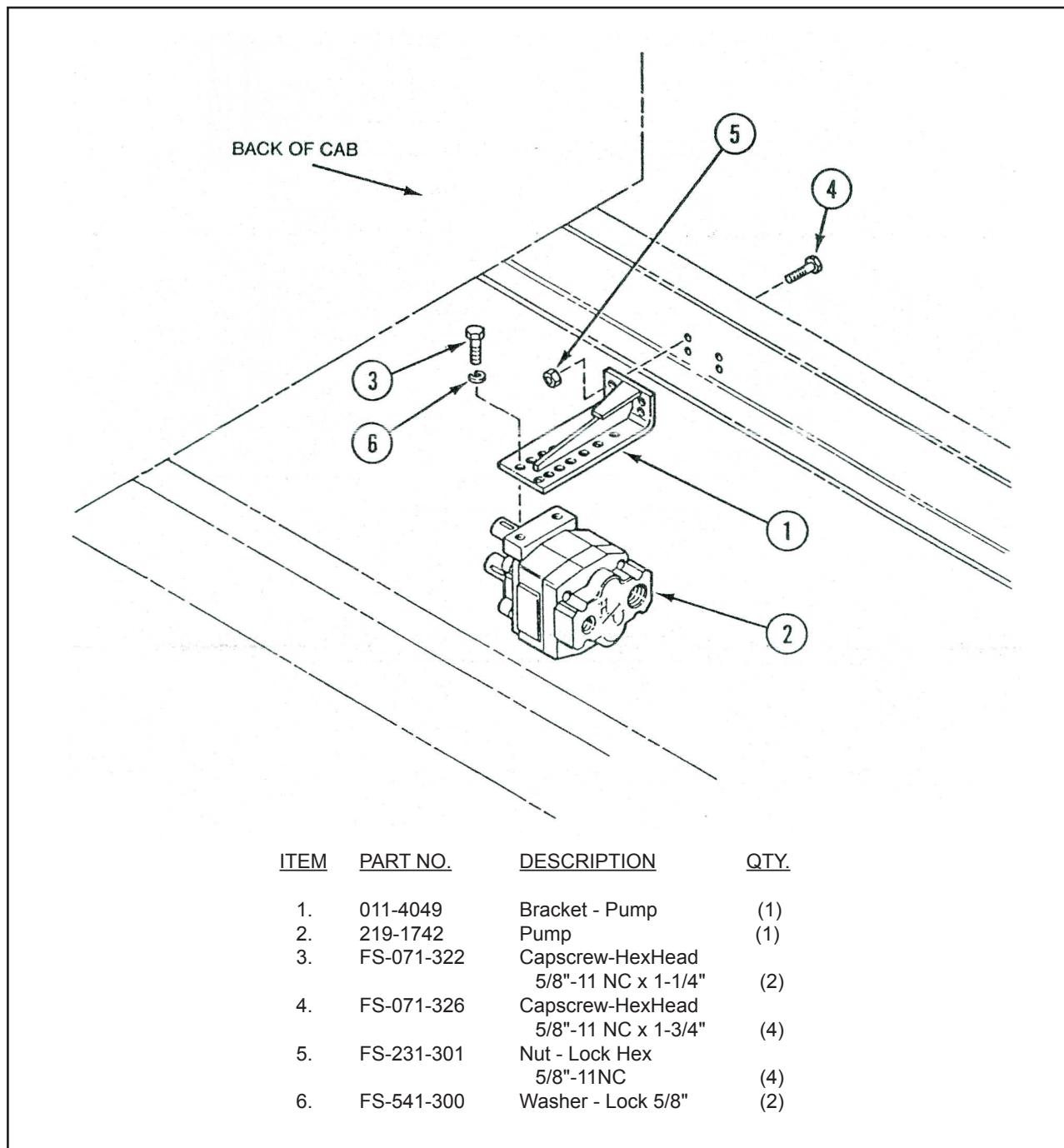
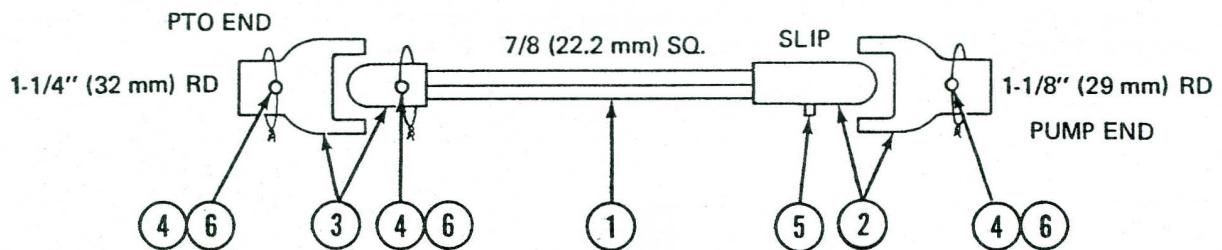


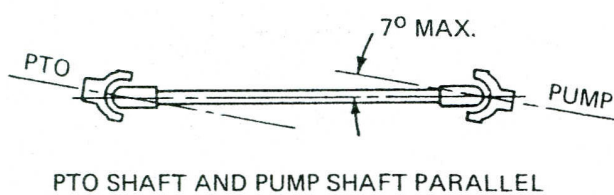
FIGURE 8. PUMP INSTALLATION

Cut drive shaft to the proper length to have maximum engagement in universal joints. Hand grease end of drive shaft and slip joints and install drive line. Install set screws and lock wire each, and grease fitting in slip joint. See figure 9 for installation recommendations.

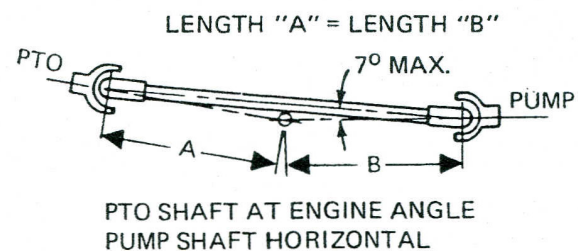


ITEM	PART NO.	DESCRIPTION	QTY.
1.	008-7231	DRIVE SHAFT	(1)
2.	030-543	SLIP U-JOINT	(1)
3.	030-542	PTO U-JOINT	(1)
4.	047-1088	SET SCREW	(3)
5.	FS-190400	GREASE FITTING 1/8" STR.	(1)
6.	263-41	16 GA. WIRE X 24" (CUT TO SUIT TO LOCK SET SCREWS)	(1)

NOTE: End yokes must be in line as shown.



TWO-JOINT DRIVE



TWO-JOINT DRIVE

FIGURE 9. DRIVE SHAFT

## 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” Z 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 connecting hoses as far away from the muffler and exhaust tube as possible (no closer than 2-1/2” (64 mm)).

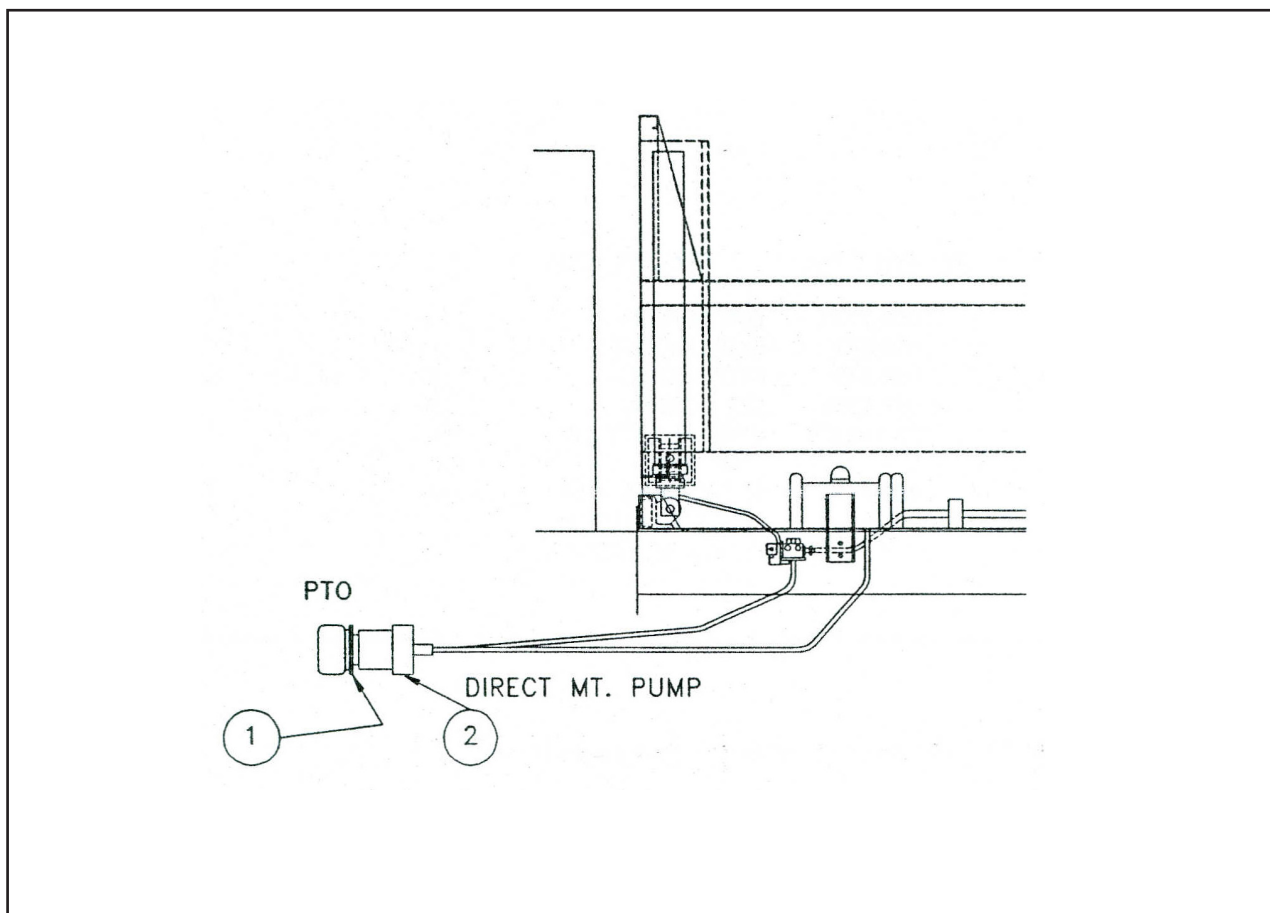


FIGURE 10. HPT 42TM, HPT 53TM, HPT 63TM

<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1.	FS-071-124	HEX. HEAD CAPSCREW 1/2-13NC X 1-1/2	(2)
2.	219-1753	PUMP (42-90TM)	(1)
2.	219-1842	PUMP (53 & 63TM)	(1)



## CONTROLS

Locate control lever on valve control shaft in any location so routing of the control linkage will be convenient (lever to hang vertically downwards). Weld lever to control shaft. See figure 1 1. Attach valve to valve control shaft as shown in figure 1 1.

Two lever round 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 12-

The recommended arrangement for the in 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, positioning them on the control levers so there is at least 6" (152 mm) of movement on cab levers.

Optional controls should be installed as shown in figures 12A, 12B, 12C, 12D.

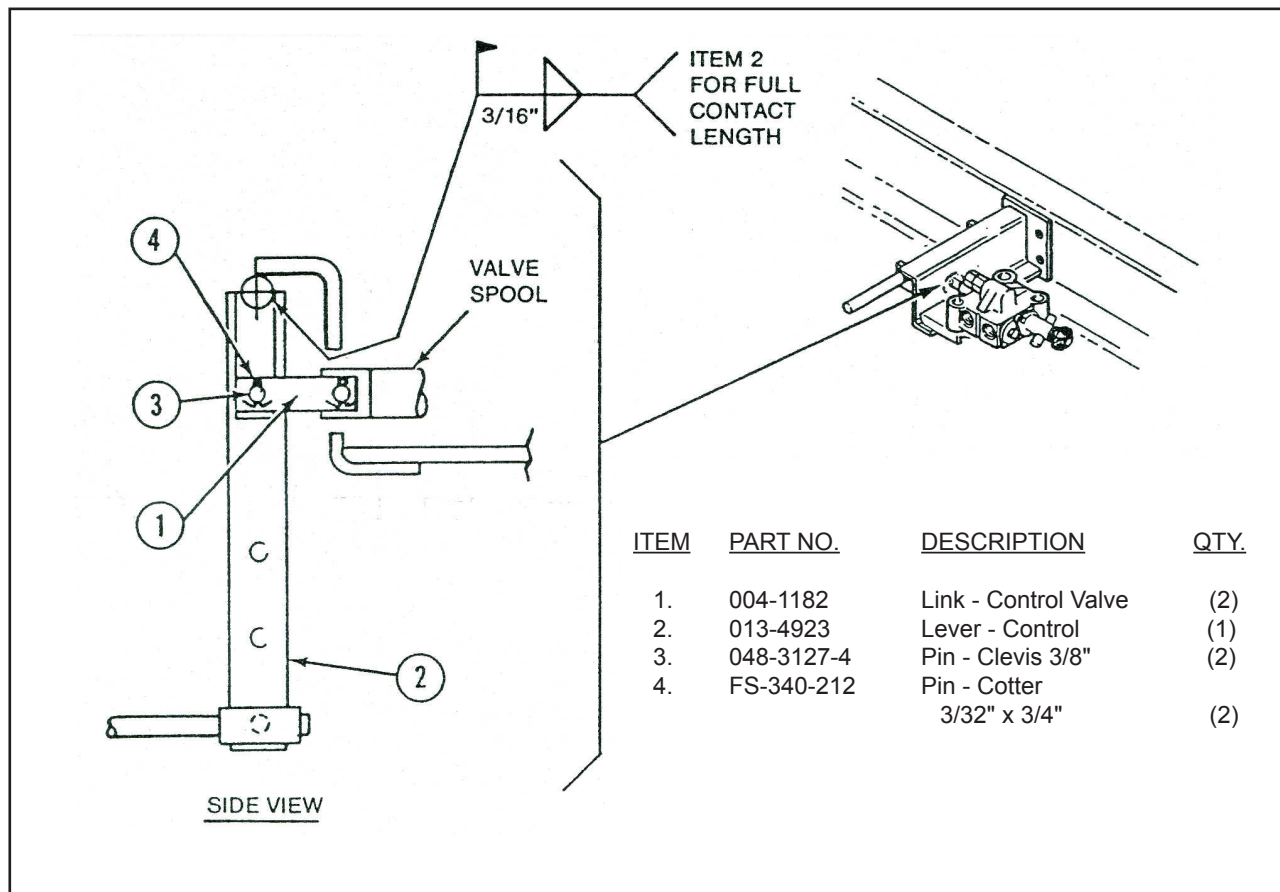
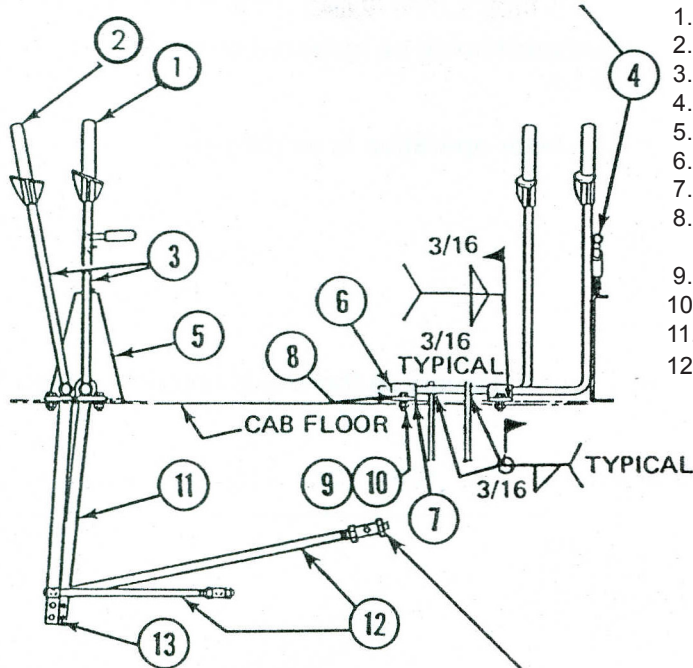


FIGURE 11. CONTROL VALVE LINKAGE

SEE FIGURE 12 FOR PROPER INSTALLATION

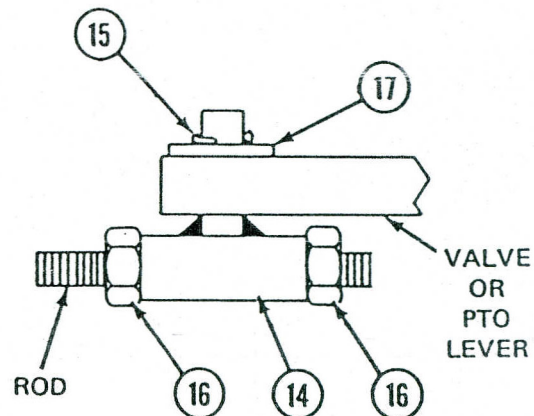
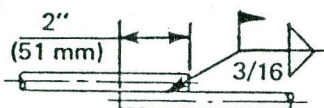


ITEM	PART NO.	DESCRIPTION	QTY.
1.	070-1231	HANDLE -PTO (RED)	(1)
2.	070-1230	HANDLE - HOIST (BLACK)	(1)
3.	070-765	HANDLE	(2)
4.	053-1379	LATCH	(1)
5.	111-8339	BRACKET	(1)
6.	003-2614	BEARING	(4)
7.	034-9394	PLATE	(2)
8.	FS-070720	CAPSCREW 1/4"-20 NC X1	(4)
9.	FS-230700	LOCK NUT 1/4"-20 NC	(4)
10.	FS-510700	FLAT WASHER 1/4"	(4)
11.	013-4278	LEVER	(1)
12.	027-3687	ROD	(2)

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.

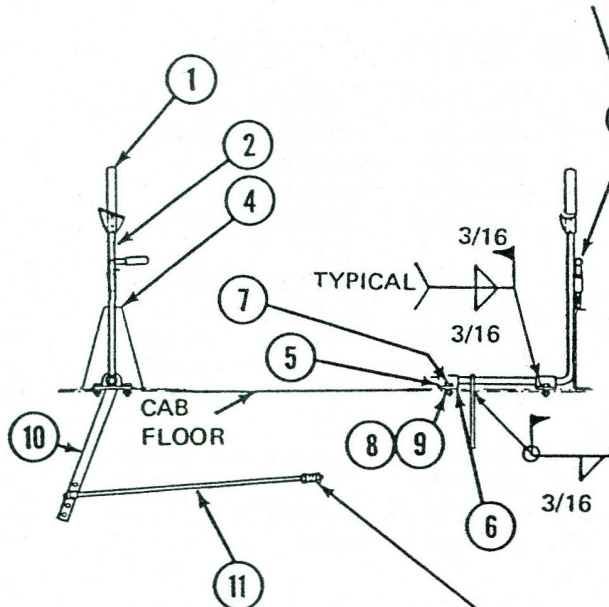


14.	032-1020	ROD END	(4)
15.	FS-340212	COTTER PIN 3/32" X 3/4	(4)
16.	FS-291100	JAM NUT 1/2"-13 NC	(4)
17.	FS-510900	FLATWASHER 3/8"	(4)

FIGURE 12. 252-3733 TWO LEVER CONTROL (ROUND)



SEE FIGURE 12 FOR PROPER INSTALLATION

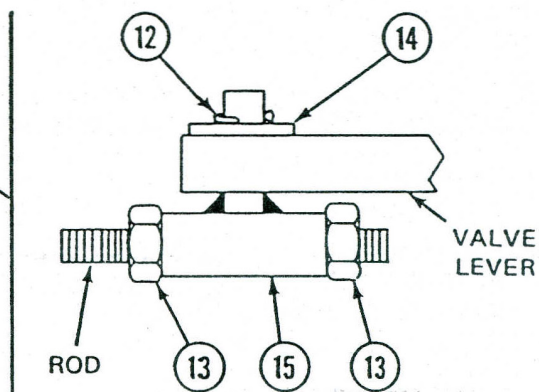
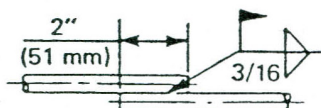


ITEM	PART NO.	DESCRIPTION	QTY.
1.	070-1230	HANDLE - HOIST (BLACK)	(1)
2.	070-765	HANDLE	(1)
3.	053-1379	LATCH	(1)
4.	111-8339	BRACKET	(1)
5.	003-2614	BEARING	(2)
6.	034-9394	PLATE	(2)
7.	FS-070720	CAPSCREW 1/4"-20 NC X1	(4)
8.	FS-230700	LOCK NUT 1/4"-20 NC	(4)
9.	FS-510700	FLAT WASHER 1/4"	(4)
10.	013-4278	LEVER	(1)
11.	027-3687	ROD	(2)

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.



12.	FS-340212	COTTER PIN 3/32" X 3/4	(2)
13.	FS-291100	JAM NUT 1/2"-13 NC	(2)
14.	FS-510900	FLATWASHER 3/8"	(2)
15.	032-1020	ROD END	(2)

FIGURE 12A. 2 54-1118 SINGLE LEVER CONTROL (ROUND)

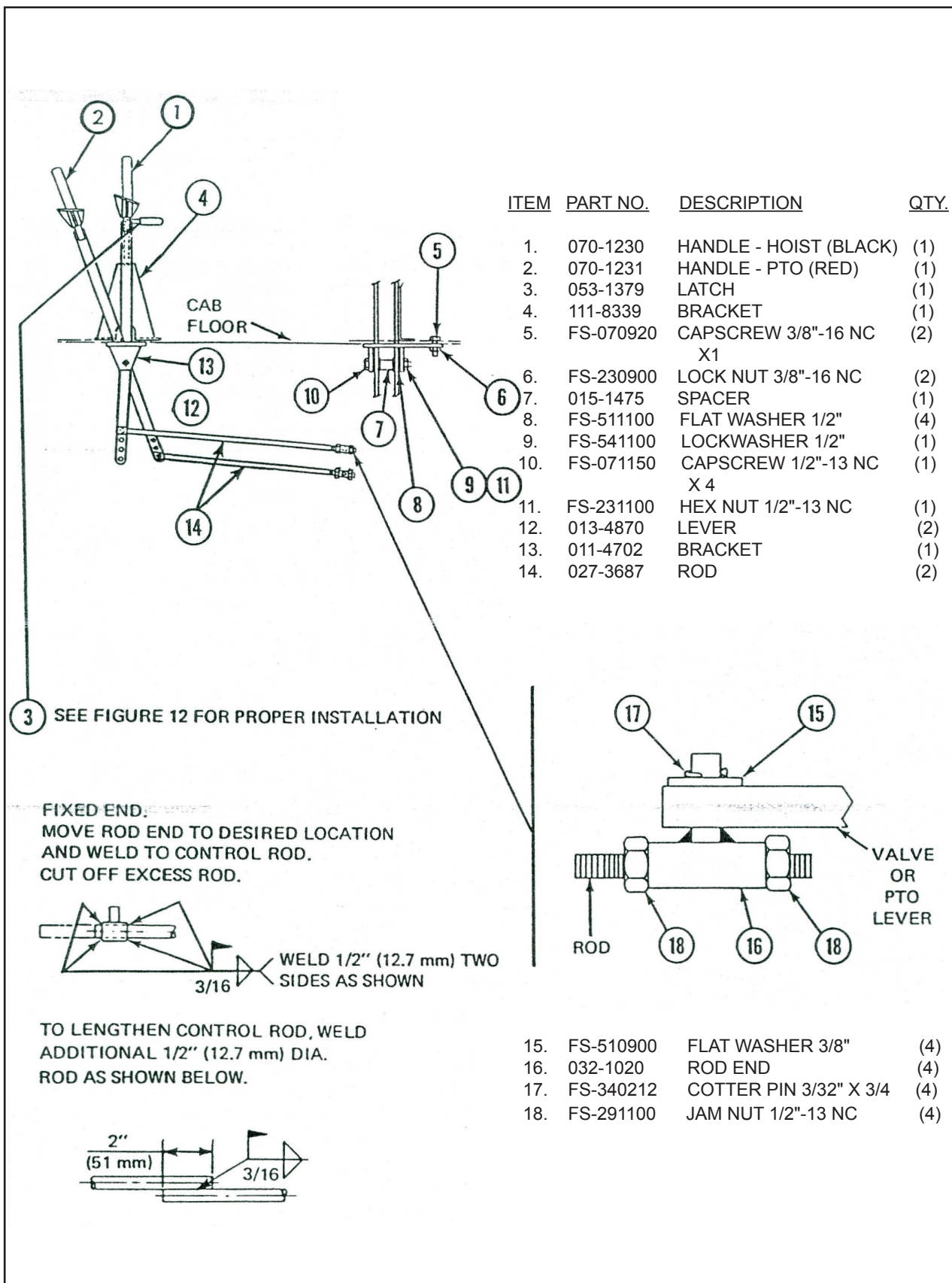
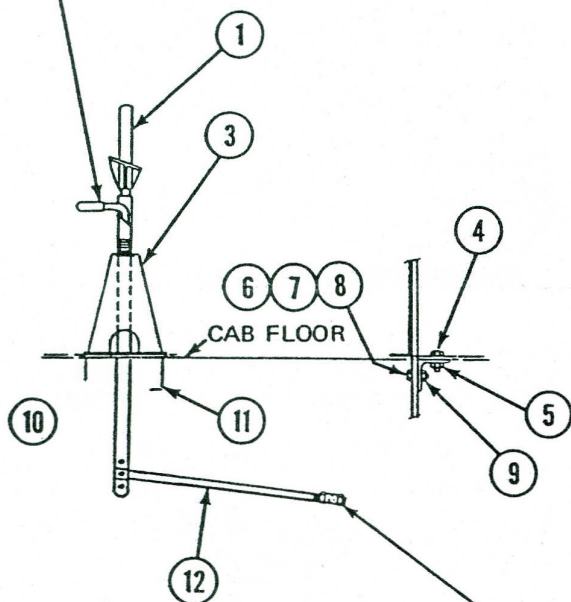


FIGURE 12B. 252-9407 TWO LEVER CONTROL (FLAT)

2 SEE FIGURE 12 FOR PROPER INSTALLATION

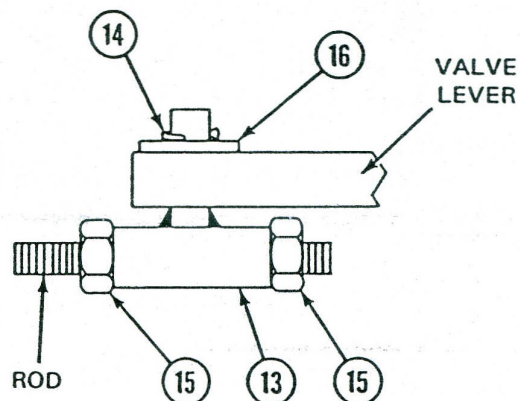
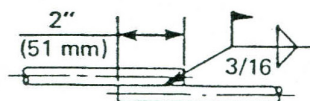


ITEM	PART NO.	DESCRIPTION	QTY.
1.	070-1230	HANDLE - HOIST (BLACK)	(1)
2.	053-1379	LATCH	(1)
3.	111-8339	BRACKET	(1)
4.	FS-070920	CAPSCREW 3/8"-16 NC	(2)
		X1	
5.	FS-230900	LOCK NUT 3/8"-16 NC	(2)
6.	003-2495	BUSHING	(1)
7.	FS-510900	FLAT WASHER 3/8"	(1)
8.	FS-070922	CAPSCREW 3/8"-16 NC	(1)
		X 1-1/4"	
9.	FS-230900	HEX NUT 3/8"-16 NC	(1)
10.	013-4870	LEVER	(1)
11.	011-9080	BRACKET	(1)
12.	027-3687	ROD	(1)

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.



13.	032-1020	ROD END	(4)
14.	FS-340212	COTTER PIN 3/32" X 3/4"	(4)
15.	FS-291100	JAM NUT 1/2"-13 NC	(4)
16.	FS-510900	FLAT WASHER 3/8"	(4)

FIGURE 12C. 254-710 SINGLE LEVER CONTROL (FLAT)

## 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 1 2D . Connect cables to PTO and hoist levers. Secure with cotter pins.

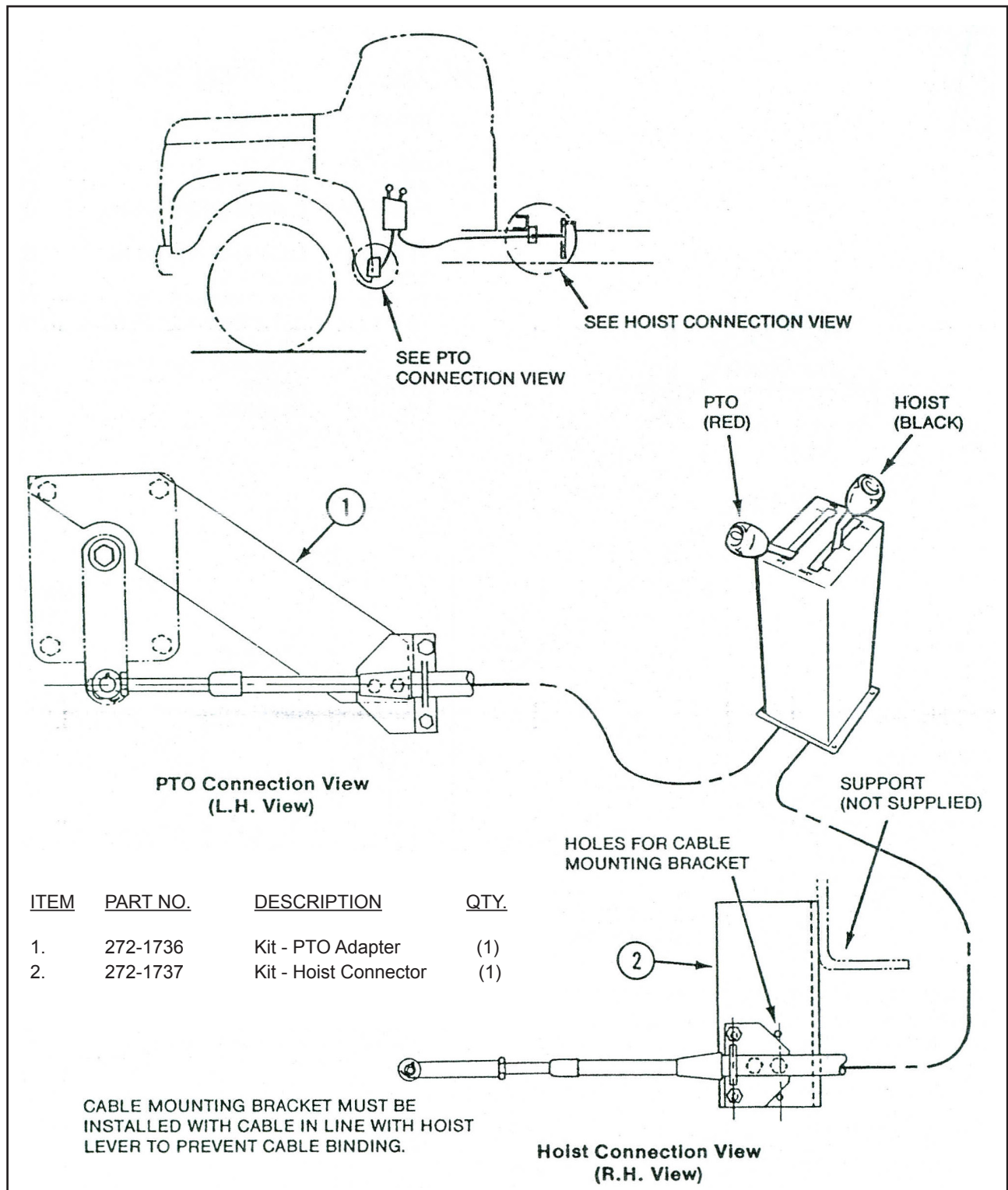


FIGURE 12D. 272-1715 DUAL CABLE CONTROLS



## VALVE CONTROL SAFETY LOCK

Install the lock, starting at step A, as shown in figure 13.

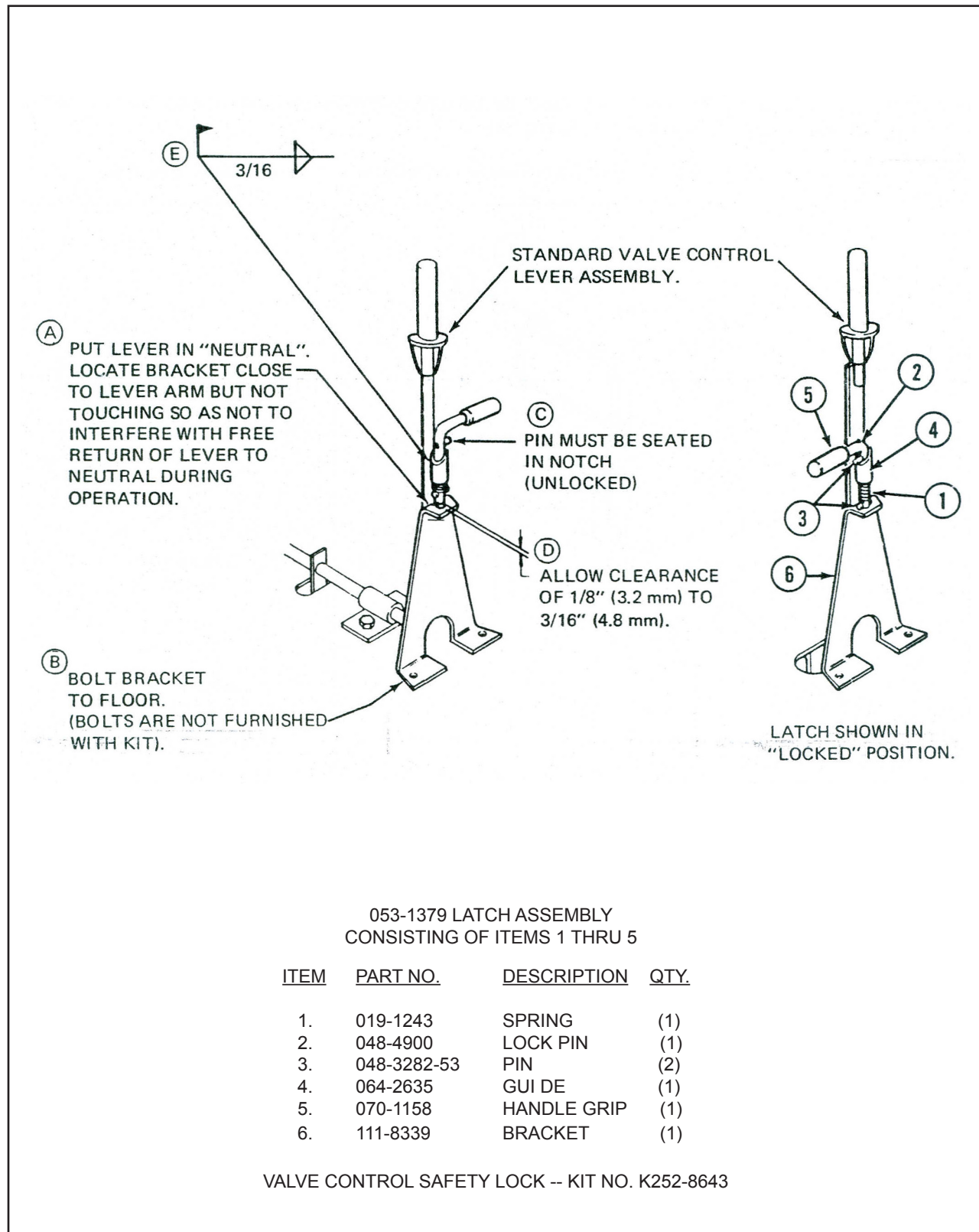


FIGURE 13. VALVE CONTROL SAFETY LOCK

## OIL TANK

The oil tank can be mounted either between or on the outside of the chassis rails. Mount the tank in a convenient location so that it and connecting hoses are as far away from the muffler and exhaust tube as possible, (minimum clearance should be 2 1/2") and so the hoses supplied will reach the pump and control valve adequately. (See figure 16A for hose plumbing.)

Locate oil tank brackets on chassis rail and drill 33/64" (13.1 mm) holes in chassis using brackets as templates. (When locating brackets, make sure that oil tank or its filler cap will not interfere with any of the body's crossmembers. See insert in figure 14)

Bolt brackets in place and position tank on brackets and secure with tank straps. See figure 14.

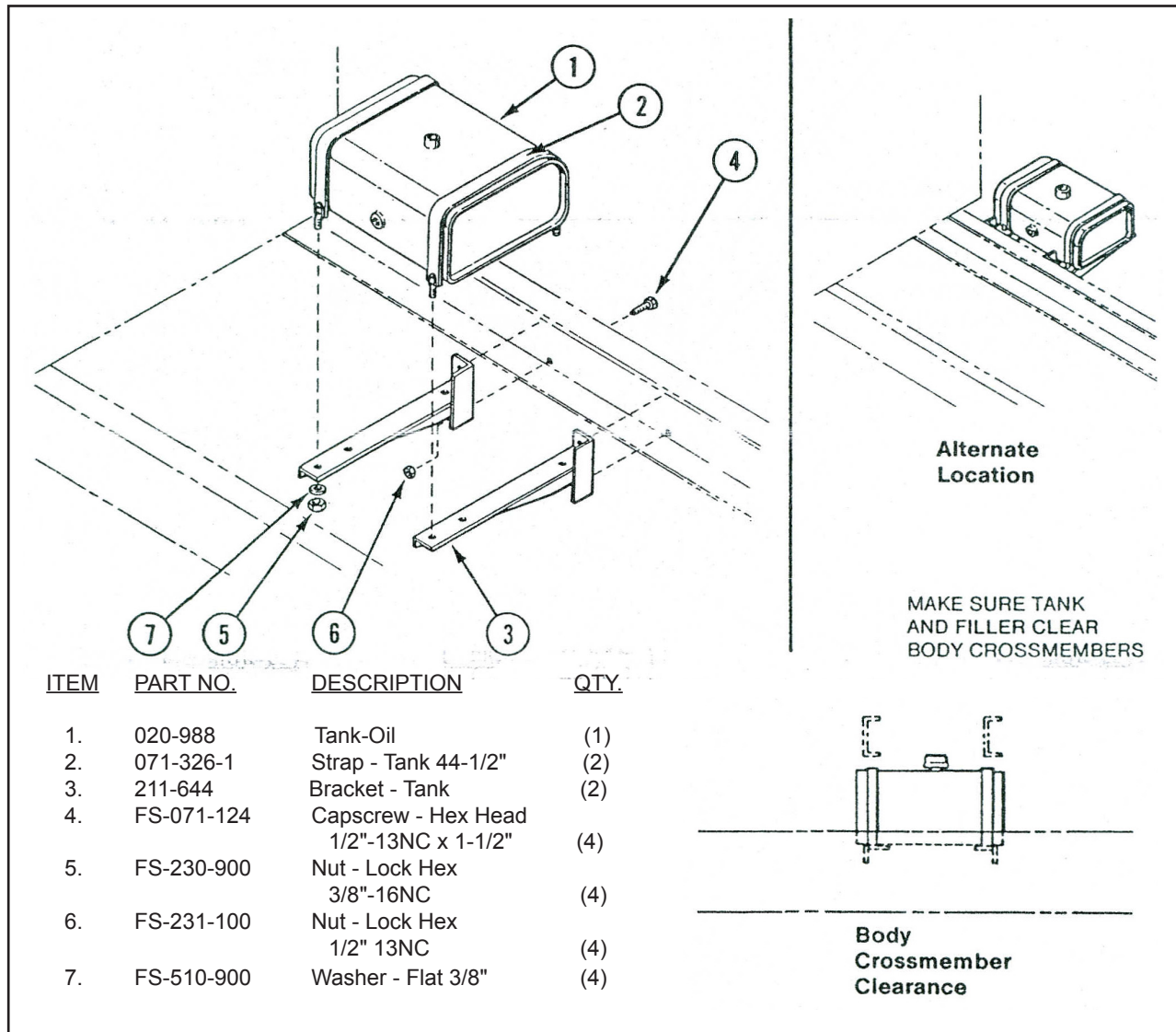


FIGURE 14. OIL TANK

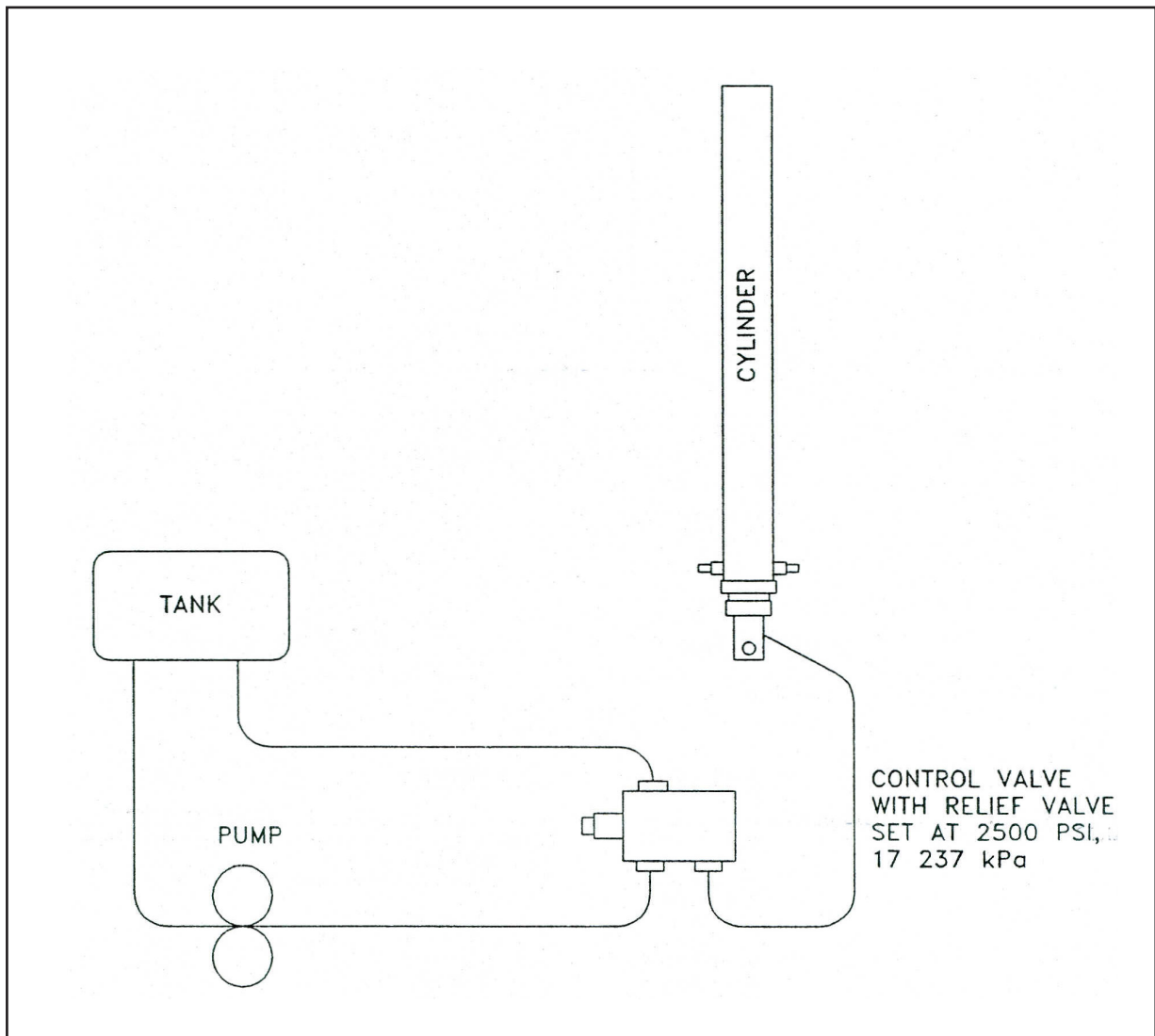
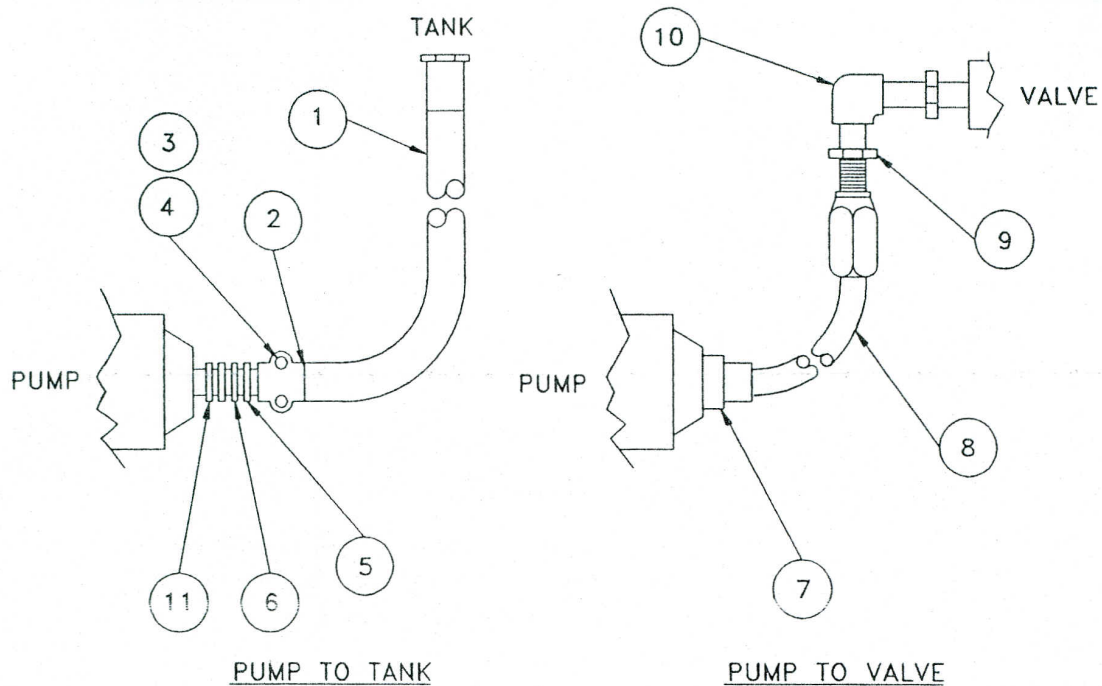


FIGURE 15. SCHEMATIC OF HYDRAULIC CIRCUIT

See Figure 15 for schematic of hydraulic circuit. Use thread sealing compound on the ends of all pipe threads. Compound not required on tube or o—ring fittings.



HPT 53TM  
HPT 63TM

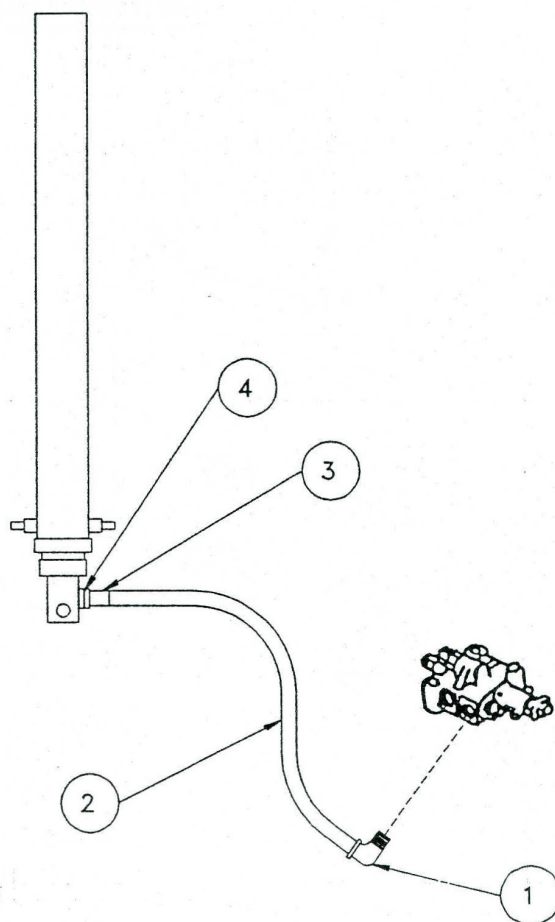
<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1.	057-426-60	HOSE 1-1/4 SUCTION	(1)
2.	074-2216-4	CLAMP HALF	(2)
3.	FS-070-930	CAPSCREW 3/8-16 X 2	(2)
4.	FS-230-900	SELF-LOCK NUT 3/8-16NC	(2)
5.	058-2468-4	FITTING	(1)
6.	074-3059-7	ADAPTER UNION	(1)
7.	FS-592-215	RED. BUSHING 1-1/4 X 3/4	(1)
8.	057-1853-90	HOSE 3/4 PRESS	(1)
9.	057-1848-8	HOSE COUPLING	(1)
10.	054-4307-10	SWIVEL ELBOW	(1)

HPT 42TM

<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1.	057-426-60	HOSE 1-1/4 SUCTION	(1)
2.	074-2216-4	CLAMP HALF	(2)
3.	FS-070-930	CAPSCREW 3/8-16 X 2	(2)
4.	FS-230-900	SELF-LOCK NUT 3/8-16NC	(2)
5.	058-2468-4	FITTING	(1)
6.	074-3029-9	ADAPTER 1-1/4 X 1"	(1)
7.	054-4194-13	ADAPTER 3/4-1" O'RING	(1)
8.	057-1853-90	HOSE 3/4 PRESS	(1)
9.	057-1848-8	HOSE COUPLING	(1)
10.	054-4307-10	SWIVEL ELBOW	(1)
11.	054-4194-8	FEMALE ADAPTER 1" PIPE 1" O'RING	(1)

FIGURE 16 PIPING DIAGRAM - DIRECT MOUNT PUMP





VALVE TO CYLINDER

HPT 42TM

<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1.	54-3340-10	ELBOW 90 DEG. MALE 1" -37 DEG X 1" O'RING	(1)
2.	57-1858-50	HOSE 1"	(1)
3.	57-1848-9	COUPLING 1"	(1)
4.	74-3029-10	ADAPTER UNION 1" X 1/2"	(1)

HPT 53TM

HPT 63TM

<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1.	54-3340-10	ELBOW 90 DEG. MALE 1" - 37 DEG X 1" O'RING	(1)
2.	57-1858-50	HOSE 1"	(1)
3.	57-1848-9	COUPLING 1"	(1)

## RETURN LINE FILTER KIT (Optional)

Locate and weld mounting plate to bottom of valve bracket as shown in figure 17. Bolt filter to mounting plate. Connect hydraulic lines as shown in figure 17. Use a thread sealing compound on all pipe threads.

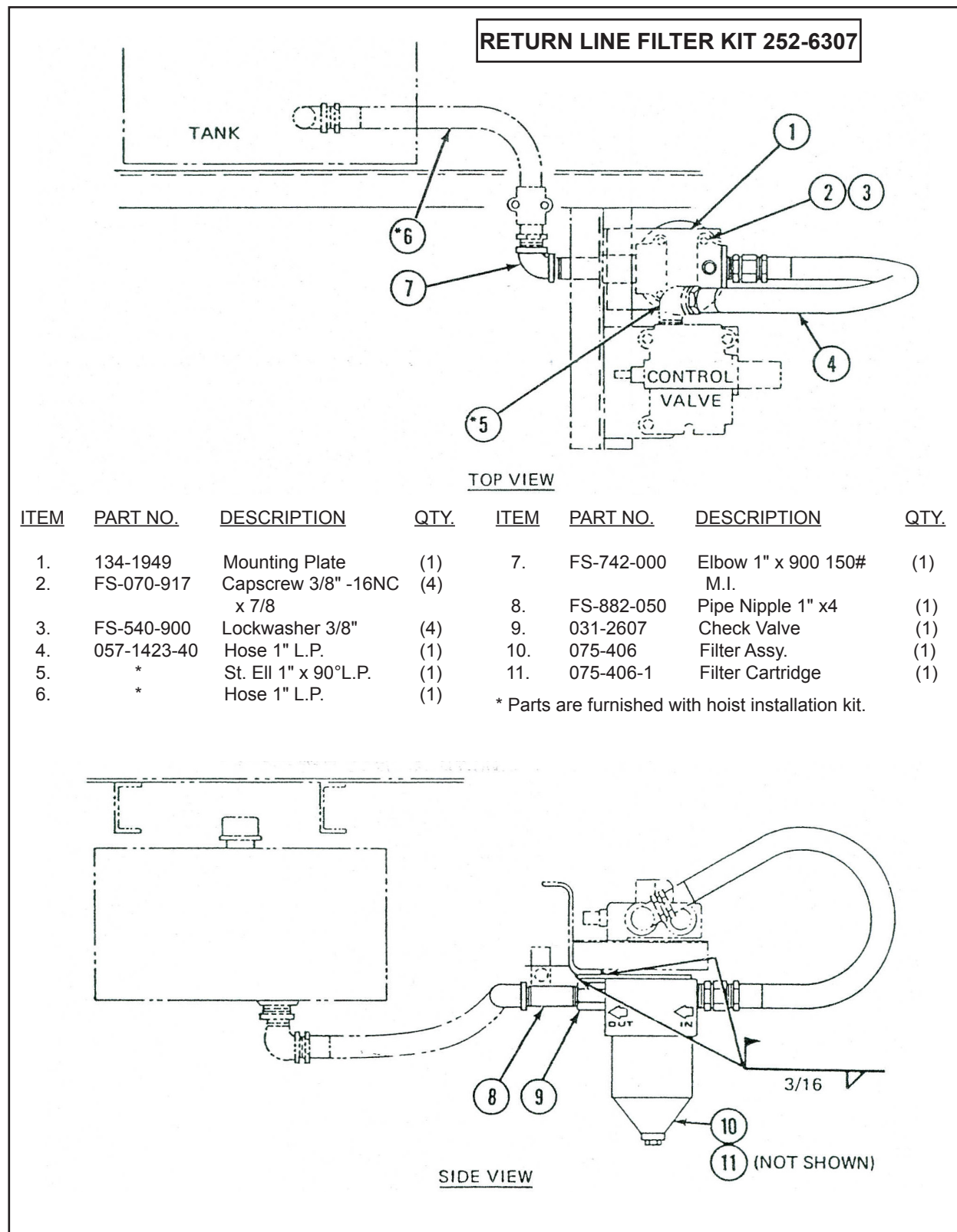


FIGURE 17. RETURN LINE FILTER KIT INSTALLATION (OPTIONAL)

## CYLINDER

Fill grease fittings in rod ends of cylinder and in trunnion brackets. Remove pipe plug from upper end of cylinder and replace with vent valve. Install cylinder in support frame so that port faces rearward. Make final hose connection from control valve to cylinder.

## FILLING SYSTEMS

Premeasure 22 gallons of hydraulic oil. Move control valve into HOLD position and fill tank to within 2-1/2" (64 mm) of top. Save the remainder of the oil to fill the system after purging as noted on page 30.

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 the API engine oil, designation SE, with an SAE viscosity rating of 10W.

DO NOT USE low viscosity naptha base motor oil, hydraulic brake fluid, HYTRAN or other transmission fluid.

# BEARING ASSEMBLY

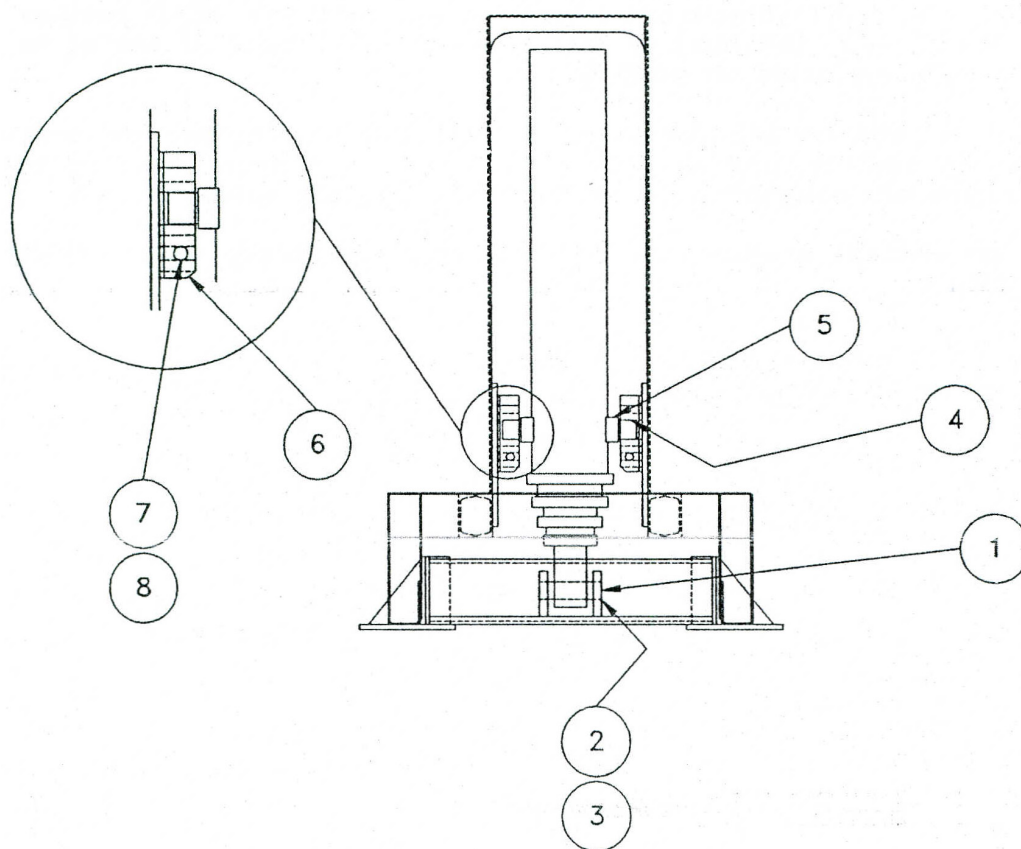


FIGURE 18.

## LOWER TRUNNION

## UPPER TRUNNION

ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.
1.	048-5751	PIN (42-90 ONLY)	(1)	4.	003-4327	BLOCK (42-90 ONLY)	(2)
	048-5752	PIN (53-ONLY)	(1)		003-4333	BLOCK (53 & 63) 3 X 3 X 2 1-25/32 DIA HOLE	(2)
	048-5753	PIN (63-ONLY)	(1)				
2.	55-1065-8	WASHER (42-90 ONLY)	(2)	5.	*55-1065-8	WASHER (42-90 ONLY)	(2)
	55-1065-10	WASHER (53 & 63)	(2)		*55-1065-13	WASHER (53 & 63)	(2)
3.	FS-340-950	COTTER PIN 3/8 X 4	(2)	6.	177-284	RETAINER BLOCK	(2)
				7.	FS-071-564	CAPSCREW 3/4-10 NC X 5-1/2	(2)
				8.	FS-231-500	NUT 3/4-10NC	(2)

\* IF NEEDED

Weld Cylinder Support Brackets to inner doghouse side panels so that strap will be close to top of cylinder. Adjust strap so that there is enough tension to dampen out movement of cylinder while truck is in transit.

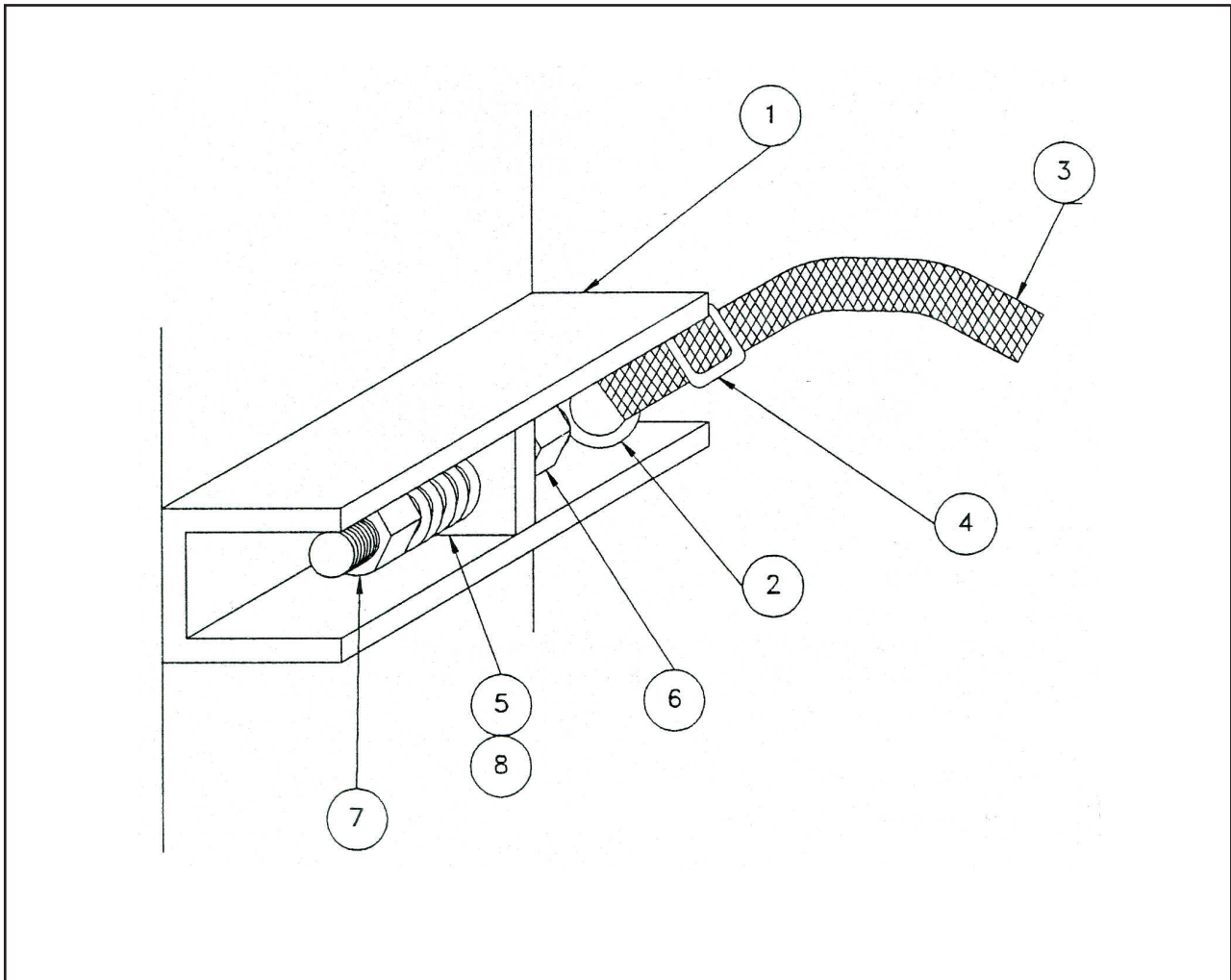


FIGURE 19. CYLINDER SUPPORT KIT

<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1.	177-2880	CYLINDER SUPPORT	(2)
2.	027-4833	ROD ASSEMBLY	(2)
3.	071-836-30	CYLINDER STRAP	(1)
4.	134-8353	THREADING PLATE	(2)
5.	019-1389	SPRING	(2)
6.	FS-071- 1,60	HEX. HD. CPSCREW	(2)
7.	FS-291-100	NUT	(2)
8.	FS-511-100	WASHER	(2)

## 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 20. Remove wedges.

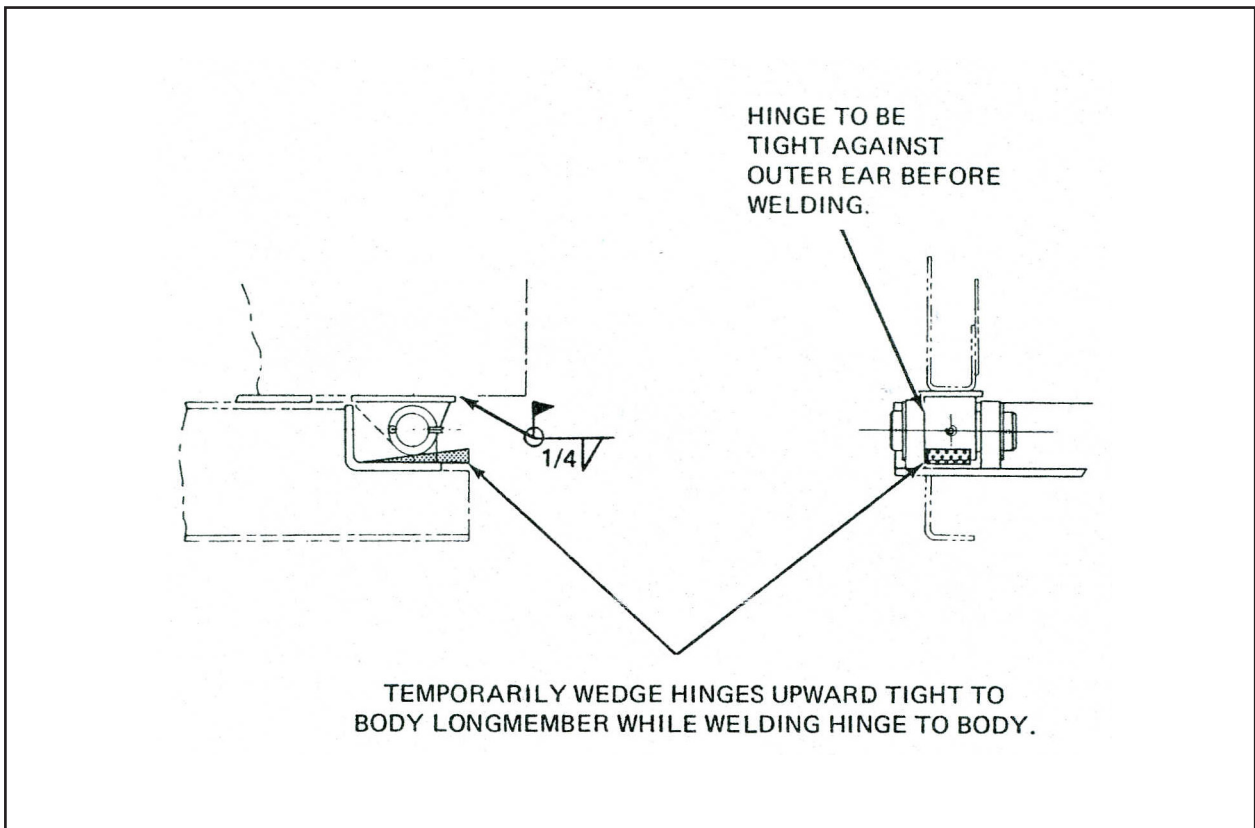


FIGURE 20. WELDING REAR HINGES TO BODY