INSTALLATION INSTRUCTIONS

DURACLASS
TWIN ARM
DOUBLE ACTING
HOISTS

MODELS
1715 DA
1721 DA
1821 DA
1824 DA-HD

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 SFRVICE THE EQUIPMENT

INTRODUCTION

This instruction manual contains installation procedures for the 1715 DA, 1721 DA, 1821 DA, and 1824 DA-HD 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 kit 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 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 information and specifications included in this publication were in effect at the 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

1715 DA, 1721 DA, 1821 DA AND 1824 DA-HD

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

				MODEL/QTY.					
Part No.	Page No.	Item No.	Description	1715 DA	1715 DA-LWB	1721 DA	1821 DA	1824 DA-HD	Std. Lever Control
003-2614	*		Bearing	—	—	—	—	—	4
004-1643	17	5	Link	1	1	1	1	—	—
008-7231	16	1	Drive Shaft	1	1	1	1	1	—.
011-4049	15	1	Pump Bracket	1	1	1	1	1	—
013-1422	*		Valve Control Lever	—	—	—	—	—	1
013-4278	*		PTO Control Lever	—	—	—	—	—	1
013-4818	17	6	Lever	1	1	1	1	1	—
015-2566	12	1	Frame Extension Spacer	2	2	2	2	2	—
015-2567	13	1	Frame Extension Spacer	—	—	—	—	2	—
#020-1401	23 & 24	2	Oil Tank	1	1	1	1	1	—
027-3687			Control Rod	—	—	—	—	—	2
030-488	16	2	Slip U-joint	1	1	1	1	—	—
030-529	16	3	PTO U-joint	1	1	1	1	—	—
030-542	16	3	PTO U-joint	—	—	—	—	1	—
030-543	16	2	Slip U-joint	—	—	—	—	1	—
031-989	*		Vent Valve	1	1	1	1	1	—
031-1391	*		Check Valve	1	1	1	1	1	—
031-1891	17	4	Control Valve	—	—	—	—	1	—
031-1933	17	4	Control Valve	1	1	1	1	—	—
032-1020	*		Rod End	—	—	—	—	—	4
034-8956	14	6	Hold-Down Plate	—	—	2	2	2	—
034-9394	*		Brg. Mtg. Plate	—	—	—	—	—	2
047-1088	16	4	Set Screw	3	3	3	3	3	—
048-1254	30	1	Link Pin, 1-7/16 In	2	2	—	—	—	—
048-1326	30	1	Link Pin, 2-1/4 In	—	—	—	—	2	—
048-1604	30	1	Link Pin, 1-3/4 In	—	—	2	2	—	—
048-4044	17	7	Pin	1	1	1	1	—	—
053-1379	*		Latch Assy.	—	—	—	—	—	1
054-4194-12	28	4	Adapter, 3/4 In. Female	—	—	—	—	1	—
057-445-60	26	3	1 In. Suction Hose	—	1	—	—	—	—
057-1853-48	26	9	3/4 In. Pressure Hose	—	1	—	—	—	—
057-519-24	*		1/2 In. Pressure Hose	2	2	2(a)	2(a)	2	—
057-519-36	27	11	1/2 In. Pressure Hose	—	—	1(b)	1(b)	—	—
057-519-42	*		1/2 In. Pressure Hose	1	1	1(b)	1(b)	—	—

NOTE: Dash number following hose part number indicates length of hose in inches.
#Shipped loose — not in kit box.
* As indicated in instructions.
(a) 1 on 72” (1829 mm) C/A with side-mounted tank.
(b) 72” (1829 mm) C/A with side-mounted tank only.

PARTS LIST (CONT.)

Part No.	Page No.	Item No.	Description	MODEL/QTY. 1715 DA	1715 DA-LWB	1721 DA	1821 DA	1824 DA-HD	Std. Lever Control
057-519-48	*		1/2 In. Pressure Hose	—	—	1(c)	1(c)	1	—
057-1329-18	*		3/4 In. Return Hose	1	1	1(c)	1(c)	1	—
057-1329-36	27	5	3/4 In. Return Hose	—	—	1(b)	1(b)	—	—.
057-1422-20	*		3/4 In. Pressure Hose	1	—	1	1	1	—
057-1424-36	*		1 In. Suction Hose	1	—	1	1	1	—
057-1848-8	26	10	3/4 In. Hose Coupling	—	1	—	—	—	—
057-1853-48	26	9	3/4 In. Pressure Hose	—	1	—	—	—	—
058-2468-3	26	4	1 In. Pipe Fitting L.P	—	1	—	—	—	—
060-402	23 & 24	1	Filler Cap	1	1	1	1	1	—
070-765	*		Valve Control Handle	—	—	—	—	—	2
070-1230	*		Handle	—	—	—	—	—	1
070-1231	*		Handle	—	—	—	—	—	1
071-326-3	23 & 24	4	Tank Strap	2	2	2	2	2	—
074-2216-3	26	5	1 In. L.P. Clamp Half	—	2	—	—	1	—
074-3059-5	26	8	3/4 In. Adapter Union	—	1	—	—	1	—
074-3059-6	26	1	1 In. Adapter Union	—	1	—	—	1	—
077-6644	23 & 24	7	Oil Tank Support	2	2	2	2	2	—
077-9104	17	1	Valve Support Bracket	1	1	1	1	1	—
080-1258	*		Stop, Support Leg	2	2	4	4	4	—
108-1180	37	8	Connector	1	1	1	1	1	—
108-3991	38	1	Back-up Alarm	1	1	1	1	1	—
108-4571	36	11	Wire Terminal	4	4	4	4	4	—
108-4572	36	12	Wire Terminal	1	1	1	1	1	—
111-8339	*		Lock Bracket	—	—	—	—	—	1
111-8344	14	1	Frame Hold-Down	4	4	4	4	4	—
115-784	37	5	Indicator	1	1	1	1	1	—
211-2104	*		Tie Down	—	—	—	—	2	—
211-3184	37	1	Bracket	3	3	3	3	3	—
219-1742	15	4	Hydraulic Pump Assembly	—	—	—	—	1	—
219-1423	15	4	Hydraulic Pump Assembly	1	1	1	1	—	—
#239-1021			Hoist Assembly	—	—	—	—	1	—
#239-1007			Hoist Assembly	1	1	—	—	—	—
#239-1008			Hoist Assembly	—	—	1	—	—	—
#239-1009			Hoist Assembly	—	—	—	1	—	—
254-3431	36	4	Switch	1	1	1	1	1	—
263-42	16	6	16 ga. Wire x 16 In. Long	1	1	1	1	1	—
263-68-144	*		Wire	1	1	1	1	1	—
263-69.60	37	7	Wire	1	1	1	1	1	—
263-68-6	36	7	Wire	1	1	1	1	1	—
272-2842			Hoist Manual Kit	1	1	—	—	—	—
272-2362	38		Alarm Hardware	1	1	1	1	1	—
272-3630	*		Back-up Alarm Installation Kit	1	1	1	1	1	—
304-67	*		Front Crossmember	—	—	—	—	1	—
FS-070-720	*		Hex. Hd. Capscrew 1/4-20 NC x 1	—	—	—	—	—	4
FS-070-826	26	6	Hex. Hd. Capscrew 5/16-18 NC x 1-3/4	—	2	—	—	—	—

NOTE: Dash number following hose part number indicates length of hose in inches.
#Shipped loose — not in kit box.
* As indicated in instructions.
(b) 72” (1829 mm) C/A with side-mounted tank only.
(c) Except 72” (1829 mm) C/A with side-mounted tank.

PARTS LIST (CONT.)

Part No.	Page No.	Item No.	Description	MODEL/QTY. 1715 DA	1715 DA-LWB	1721 DA	1821 DA	1824 DA-HD	Std. Lever Control
FS-070-915	*		Hex. Hd. Capscrew 3/8-16 NC x 3/4	—	—	—	—	4	—
FS-070-924	*		Hex. Hd. Capscrew 3/8-16 NC x 1-1/2	2	2	2	2	2	2
FS-070-936	17	2	Hex. Hd. Capscrew 3/8-16 NC x 2-3/4	3	3	3	3	3	—
FS-071-124	*		Capscrew 1/2-13 NC x 1-1/2	4	4	—	4	4	—
FS-071-136	30	2	Hex. Hd. Capscrew 1/2-13 NC x 2-3/4	2	2	—	—	—	—
FS-071-140	30	2	Hex. Hd. Capscrew 1/2-13 NC x 3	—	—	2	2	—	—
FS-071-144	30	2	Hex. Hd. Capscrew 1/2-13 NC x 3-1/2	—	—	—	—	2	—
FS-071-322	15	5	Hex. Hd. Capscrew 5/8-11 NC x 1-1/4	—	—	—	—	2	—
FS-071-324	*		Hex. Hd. Capscrew 5/8-11 NC x 1-1/2	—	—	4(b)	4(b)	—	—
FS-071-326	*		Hex. Hd. Capscrew 5/8-11 NC x 1-3/4	14	16	16	16	20	—
FS-071-330	14	4	Hex. Hd. Capscrew 5/8-11 NC x 2	2	2	2	2	2	—
FS-079-409	36	5	Hex. Hd. Capscrew #10-32 x 3/8	2	2	2	2	2	—
FS-079-415	37	2	Hex. Hd. Capscrew #10-32x 3/4	2	2	2	2	2	—
FS-190-400	16	5	Grease Fitting 1/8 Str	1	1	1	1	1	—
FS-230-700	*		Self-lock Nut 1/4-20 NC	—	—	—	—	—	4
FS-230-800	26	7	Self-lock Nut 5/16-18 NC	—	2	—	—	—	—
FS-230-900			Self-lock Nut 3/8-16 NC	7	7	7	7	7	2
FS-231-100	*		Self-lock Nut 1/2-13 NC	4	4	4	4	4	—
FS-231-301	*		Self-lock Nut 5/8-11 NC	16	18	24	24	24	—
FS-280-400	37	4	Hex. Nut #10-32	2	2	2	2	2	—
FS-291-100	*		Jam Nut 1/2-13 NC	—	—	—	—	—	4
FS-340-108	17	8	Cotter Pin 1/16 x 1/2	1	1	1	1	—	—
FS-340-124	17	9	Cotter Pin 1/16 x 1-1/2	1	1	1	1	—	—
FS-340-212	*		Cotter Pin 3/32 x 3/4	—	—	—	—	—	4
FS-510-700	*		Flat Washer 1/4	—	—	—	—	—	4
FS-510-900	23 & 24	5	Flat Washer 3/8	4	4	4	4	8	4
FS-540-900	*		Lockwasher 3/8	—	—	—	—	4	—
FS-550-400	*		Lockwasher #10	4	4	4	4	4	—
FS-551-300	15	6	Lockwasher 5/8	—	—	—	—	2	—
FS-591-511	*		Red. Bush. 3/4 x 1/2 NPT	—	—	—	—	2	—
FS-592-011	*		Red. Bush. 1 x 1/2 NPT	1	1	1	1	1	—
FS-592-015	*		Red. Bush. 1 x 3/4 NPT	1	1	1	1	1	—
FS-592-400	28	3	Red. Bush. 1-1/2 x 1 NPT	—	—	—	—	1	—
FS-601-511	*		Red. Bush. 3/4 x 1/2 NPT	2	2	2	2	—	—

* As indicated in instructions.
(b) 72” (1829 mm) C/A with side-mounted tank only.

PARTS LIST (CONT.)

Part No.	Page No.	Item No.	Description	MODEL/QTY. 1715 DA	1715 DA-LWB	1721 DA	1821 DA	1824 DA-HD	Std. Lever Control
FS-821-500	*		Street Elbow 3/4 NPT x 90º	2	2	2(a)	2(a)	2	—
FS-822-000	*		Street Elbow 1 NPT x 90º	2	2	2(c)	2(c)	2	—
FS-831-100	*		H.P. Street Elbow 1/2 NPT x 90º	3	3	3(d)	3(d)	3	—
FS-831-500	*		H.P. Street Elbow 3/4 NPT x 90º	1	1	1	1	1	—
FS-891-100	*		H.P. Close Nipple 1/2 NPT	1	1	1	1	1	—
FS-900-700	23	3	Sq. Hd. Pipe Plug 1/4 NPT	—	—	—	—	2	—
FS-902-001	23 & 24	8	Sq. Hd. Pipe Plug 1 NPT	1	1	1	1	1	—
FS-910-701	23 & 24	3	Sq. Hd. Pipe Plug 1/4 NPT	2	2	2	2	—	—
FS-951-100	*		H.P. Tee 1/2 NPT	1	1	1	1	1	—

* As indicated in instructions.
(a) 1 on 72” (1829 mm) C/A with side-mounted tank.
(c) Except 72” (1829 mm) C/A with side-mounted tank
(d) 5 on 72” (1829 mm) C/A with side-mounted tank.

BASIC DIMENSIONS

Basic dimensions of the hoists are shown in figures 1, 1 A, 1 B and 1 C.

MODEL 1715 DA

BODY LENGTH		"A" MOUNTING HEIGHT		"B" LINK PIN TO BODY FLOOR	
ft.	m	in.	mm	in.	mm
8	2.438	13	330	1-1/2	38
9	2.743	14	356	2-3/4	70
10	3.048	14	356	2-3/4	70

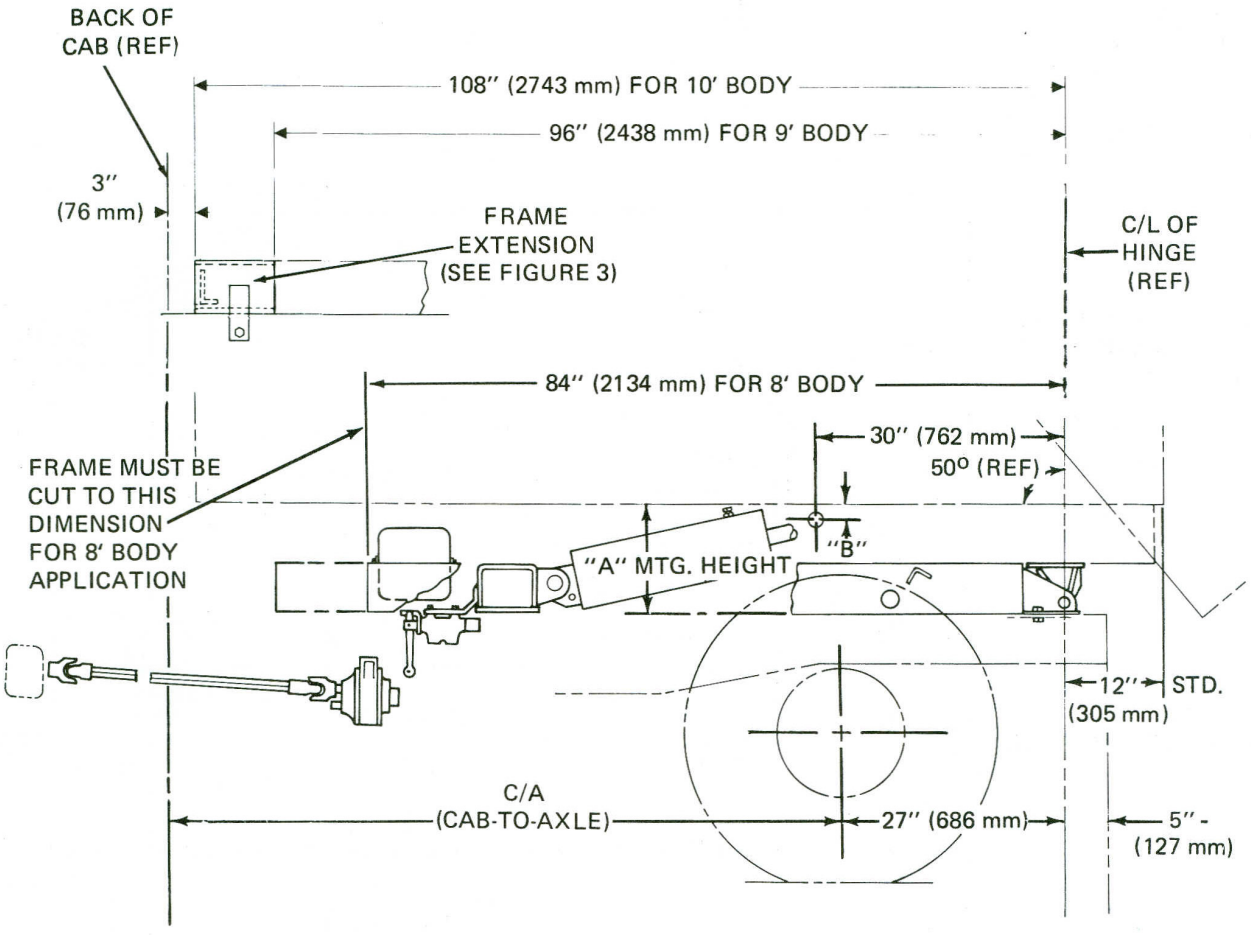


Figure 1. Model 1715 DA Basic Dimensions

MODEL 1721 DA

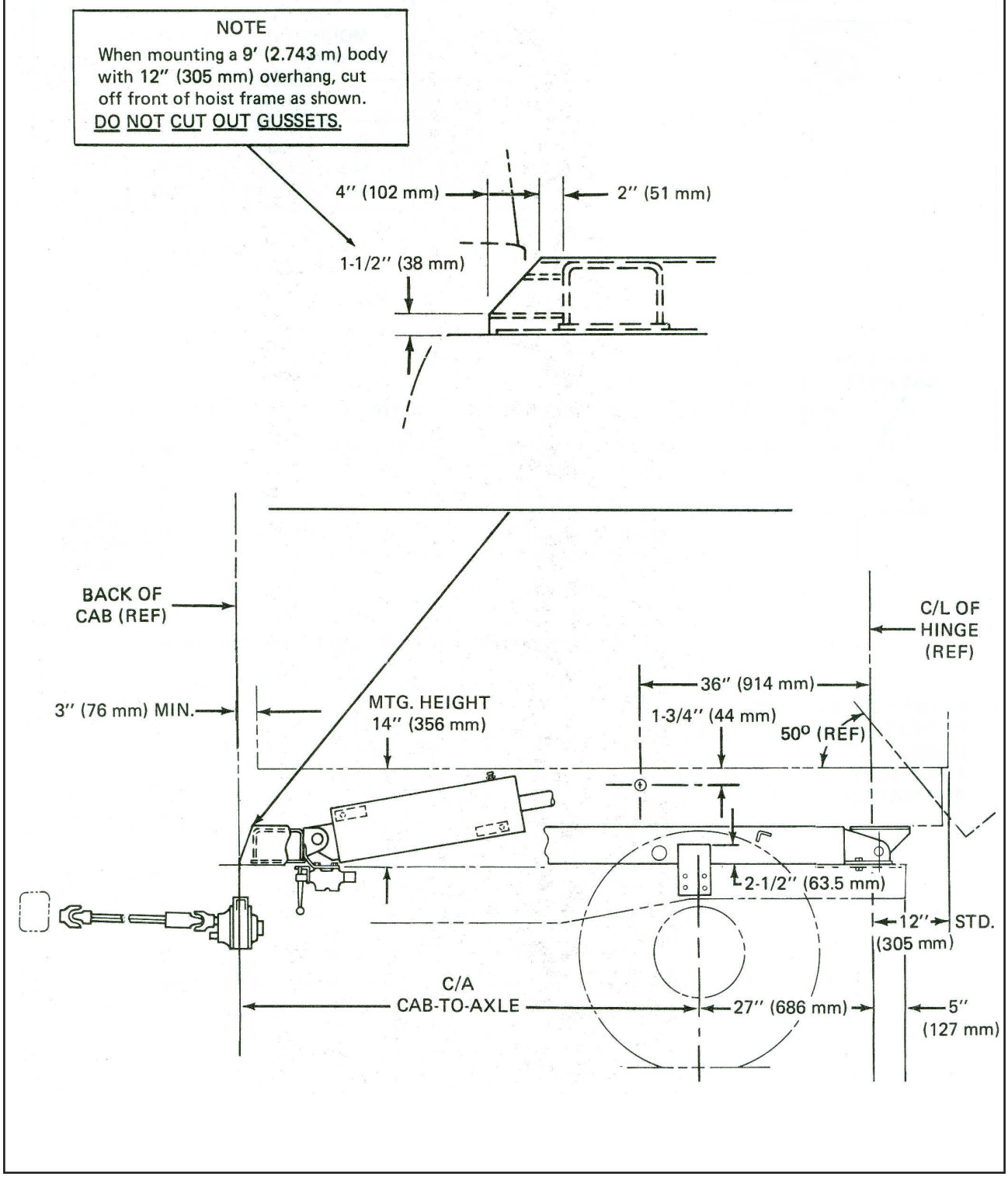


Figure 1A. Model 1721 DA Basic Dimensions

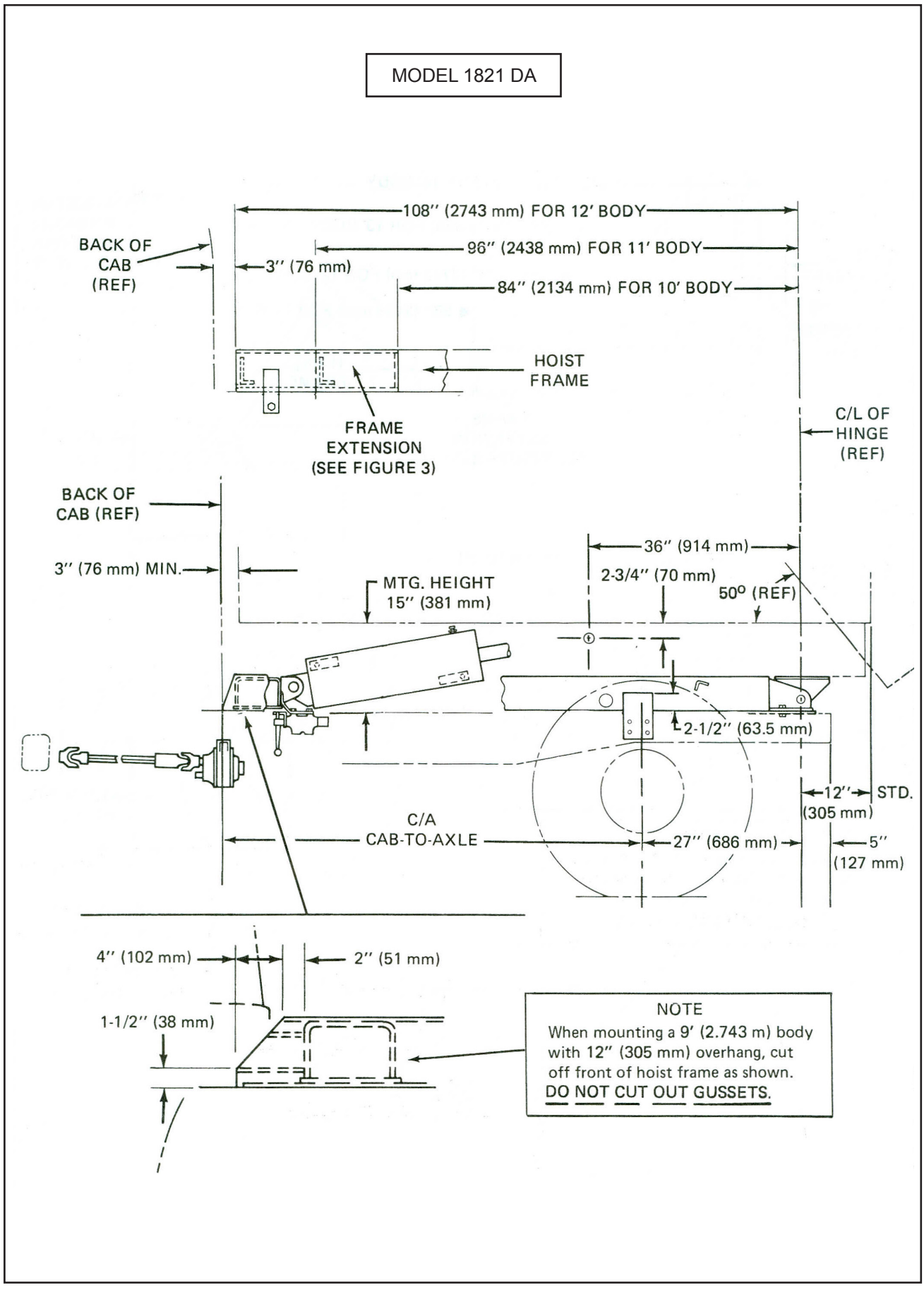


Figure 1B. Model 1821 DA Basic Dimensions

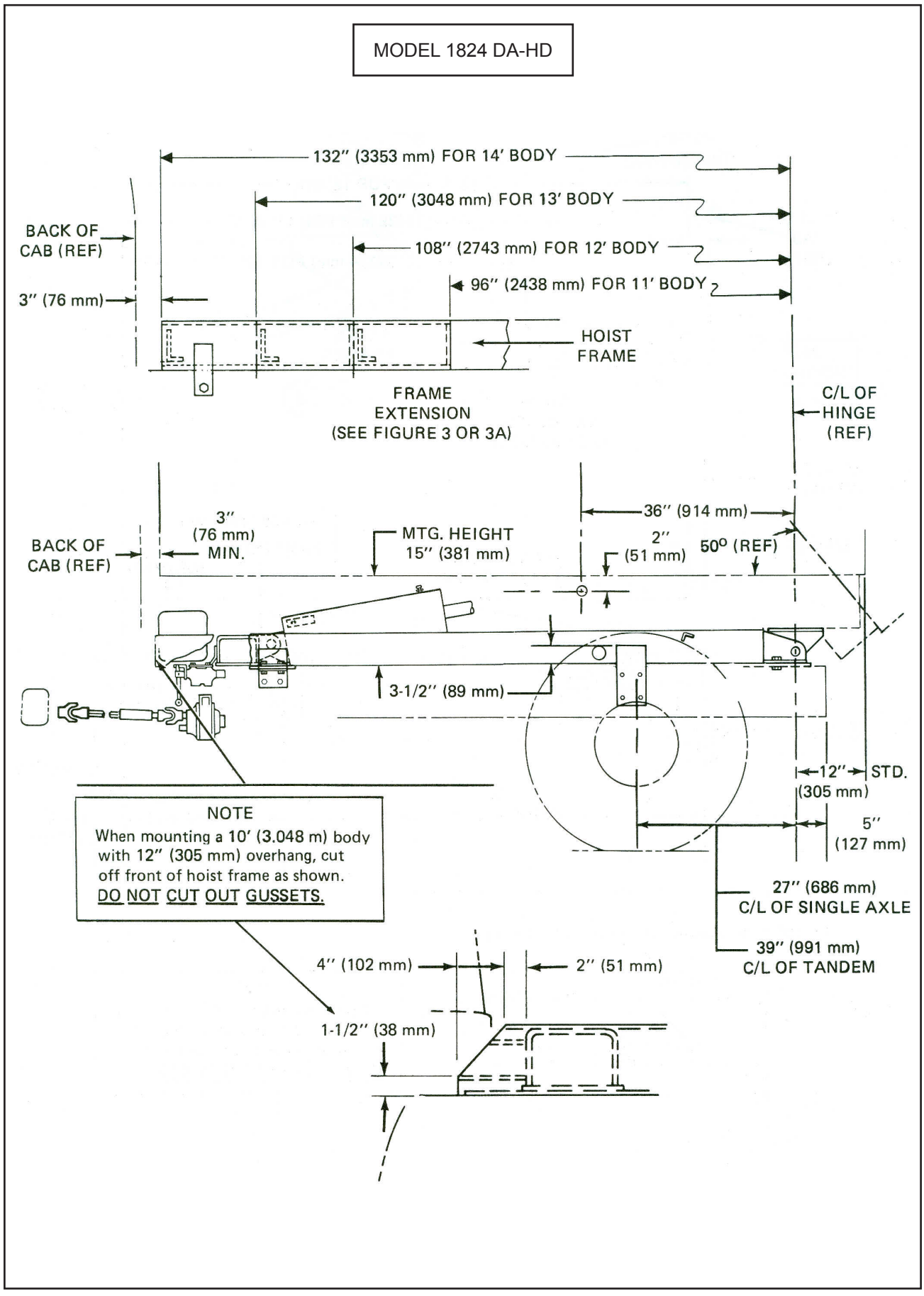
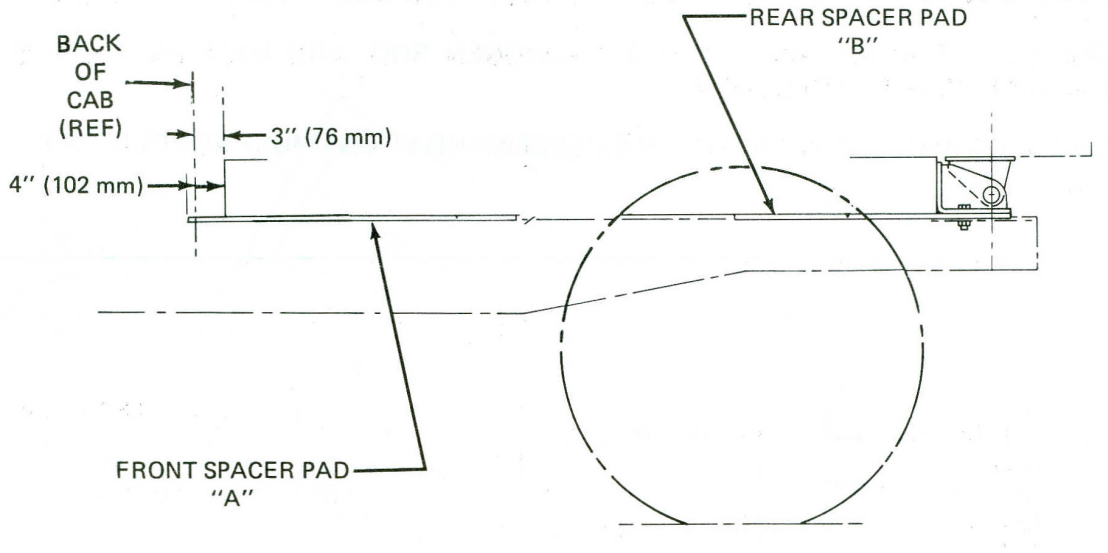


Figure 1C. Model 1824 DA-HD Basic Dimensions

SPACER PADS

When chassis has rivet heads protruding above the chassis frame, spacer pads 3/8” x 2-1/2” H.R.S. (not furnished with hoist) must be used. Temporarily locate front and rear pads on chassis rails as shown in figure 2 and mark them for rivet head interference. Remove pads and drill clearance holes for rivet heads. Place spacer pads on chassis rails. Spacer pads must support hoist frame at rear hinge, torque arm cross shaft and cylinder trunnion crossmember.



MODEL	LOC.	QTY.	LENGTH	
			in.	mm
1715 DA (SWB) Short wheel base	A	(2)	26	660
	B	(2)	26	660
1715 DA (LWB) Long wheel base	A	(2)	52	1321
	B	(2)	26	660
1721 DA 1821 DA 72” C/A w/side mount tank	A	(2)	30	762
	B	(2)	42	1067
1721 DA	A	(2)	36	914
1821 DA	B	(2)	42	1067
1824 DA-HD	A	(2)	42	1067
	B	(2)	42	1067

Figure 2. Spacer Pads

HOIST

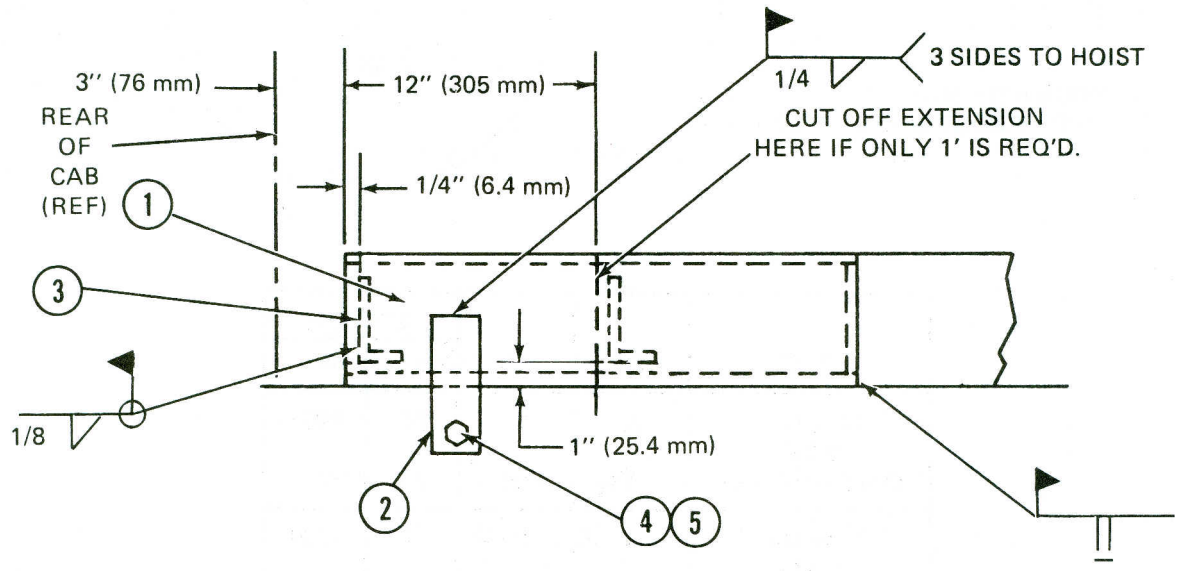
The front end of the hoist frame must be flush with the dump body and 3” (76 mm) behind the cab. Add frame extensions or cut off hoist frame as necessary. Refer to either figure 1A, 1B or 1C for frame cut off dimensions or to figure 3 or 3A if frame extensions are required.

WELD NOTE

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

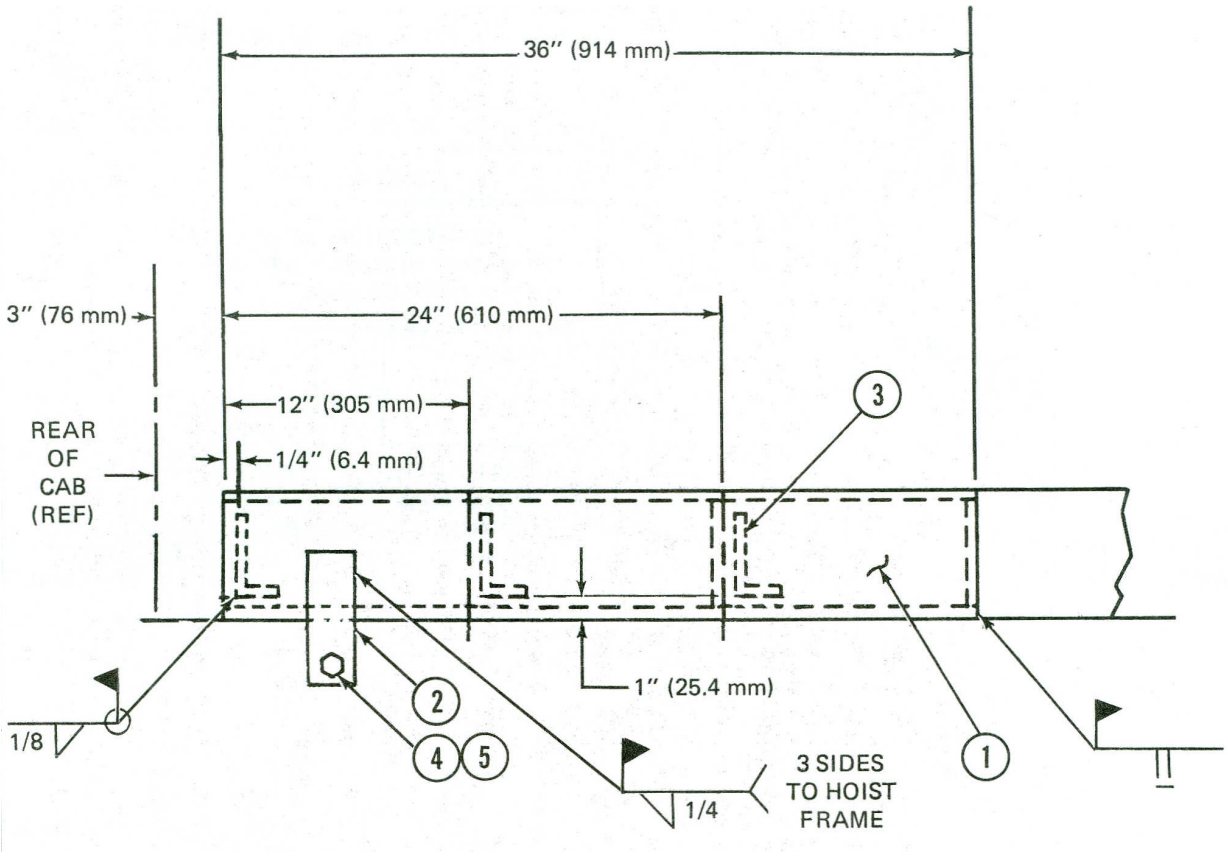
ELECTRODE — E-7018 (THIS IS A LOW HYDROGEN ROD, AND MANUFACTURER’S RECOMMENDATIONS MUST BE FOLLOWED.)

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



ITEM	PART NO.	DESCRIPTION	QTY.
1.	015-2566	FRAME EXTENSION SPACER	(2)
2.	211-2104	TIE DOWN	(2)
3.	304-67	FRONT CROSSMEMBER	(1)
4.	FS-071330	CAPSCREW 5/8”-11 NC x 2”	(2)
5.	FS-231301	SELF-LOCK NUT 5/8”-11 NC	(2)

Figure 3. 2’ Frame Extension



ITEM	PART NO.	DESCRIPTION	QTY.
1.	015-2567	FRAME EXTENSION SPACER	(2)
2.	211-2104	TIE DOWN	(2)
3.	304-67	FRONT CROSSMEMBER	(1)
4.	FS-071330	CAPSCREW 5/8"-11 NC x 2	(2)
5.	FS-231301	SELF-LOCK NUT 5/8"-11 NC	(2)

Figure 3A. 2' Frame Extension

Locate hoist assembly so that it is square on the chassis and so that the hinge centerline is properly located back of the axle (see figure 1, 1A, 1B or 1C). Drill holes in top of chassis rail at rear for a snug fit of bolt, using hole in rear apron of hoist frame as a guide. Locate front and intermediate hold-downs (Model 1715 DA does not have intermediate hold-downs, see figure 1) and drill holes in chassis for snug fit of bolts, using holes in hold-down as a guide.

Weld hold-downs to hoist frame as shown in figure 4. DO NOT weld to chassis frame.

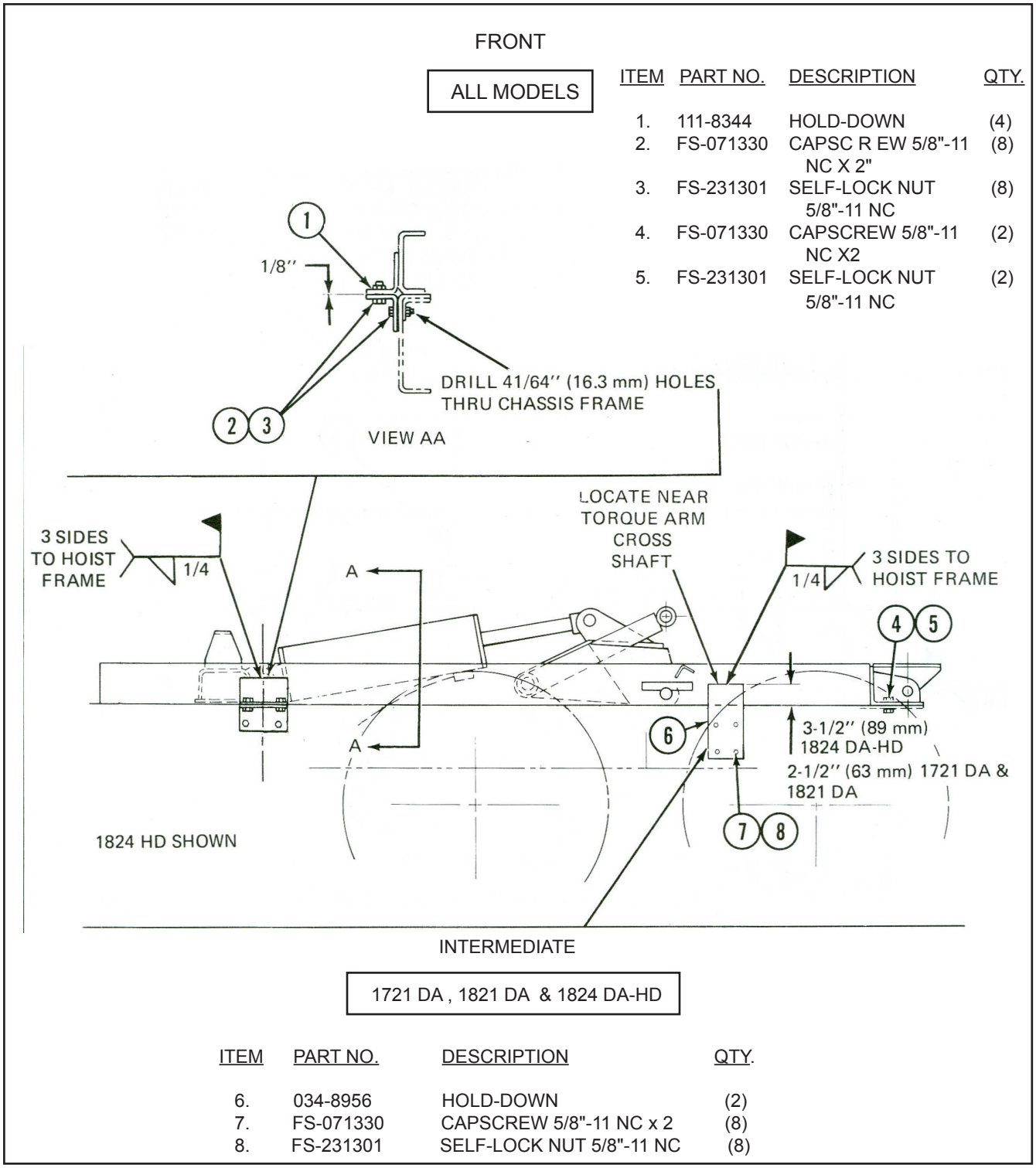


Figure 4. Hoist Frame Hold-Downs

When spacer pads are used skip weld (3/16” (4.8 mm) fillet x 2” (51 mm) long at 12” (305 mm) centers) spacer pads to hoist frame. DO NOT weld on truck chassis.

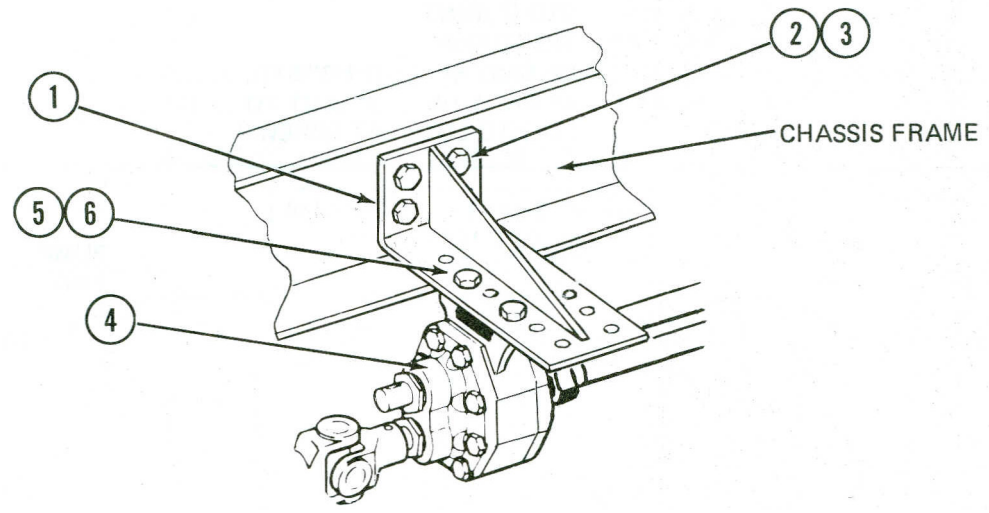
Cut off end of chassis frame 5” (127 mm) from hinge centerline. See figure 1, 1A, 1B or 1C.

POWER TAKE-OFF, PUMP AND DRIVE LINE

Select the correct Power Take-Off to match truck transmission. The PTO output shaft speed should range from 800 rpm to maximum of 1000 rpm (1800 rpm to maximum 2000 rpm 1824 DA-HD) 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, providing a minimum clearance of 1-1/2" (38 mm) and so that the drive line is as short as possible. In any case, the centerline to centerline of universal joints for a 2-joint, 1-shaft drive is not to exceed 42" (1066 mm) and the centerline to centerline of front and rear joints for a 3-joint, 2-shaft drive line is not to exceed 84" (2134 mm).

Drill four 41/64" (16 mm) holes in chassis rail to mount pump bracket, using holes in bracket as a guide. Bolt bracket and pump in place. See figure 5.

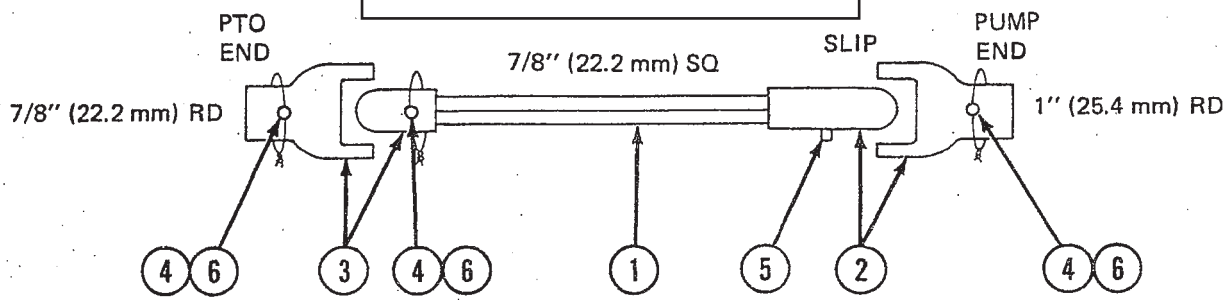


ITEM	PART NO.	DESCRIPTION	QTY.
1.	011-4049	PUMP BRACKET	(1)
2.	FS-071330	CAPSCREW 5/8"-11 NC X 2"	(4)
3.	FS-231301	SELF-LOCK NUT 5/8"-11 NC	(4)
4.	219-1423	PUMP (1715 DA, 1721 DA, 1821 DA)	(1)
	219-1742	PUMP (1824 DA-HD)	(1)
5.	FS-071330	CAPSCREW 5/8"-11 NC X 2" (1715 DA. 1721 DA, 1821 DA)	(2)
	FS-071324	CAPSCREW 5/8"-11 NC X 1-1/2" (1824 DA-HD)	(2)
6.	FS-231301	SELF-LOCK NUT 5/8"-11 NC (1715 DS, 1721 DA, 1821 DA)	(2)
	FS-551300	LOCKWASHER 5/8" (1824 DA-HD)	(2)

Figure 5. Pump Mounting

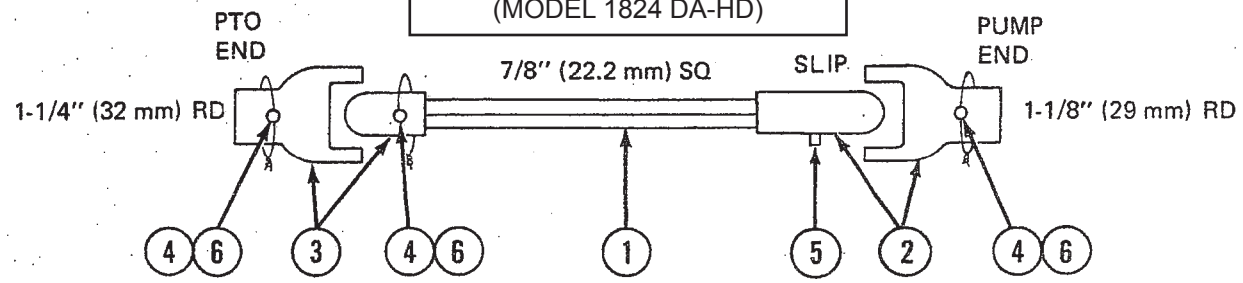
Cut drive shaft to the proper length to have maximum engagement in universal joints. Hand grease end of drive shaft and slip joint and install drive line. Install set screws and lock wire each, and install grease fitting in slip joint. See figure 6 for installation recommendations.

DRIVE SHAFT KIT K252-9480
MODELS 1715 DA, 1721 DA &1821 DA



ITEM	PART NO.	DESCRIPTION	QTY.
1.	008-7231	DRIVE SHAFT	(1)
2.	030-488	SLIP U-JOINT	(1)
3.	030-529	PTO U-JOI NT	(1)
4.	047-1088	SET SCREW	(3)
5.	FS-190400	GREASE FITTING 1/8" STR.	(1)
6.	263-41	16 GA. WIRE X 16" (CUT TO SUIT TO LOCK SET SCREWS)	(1)

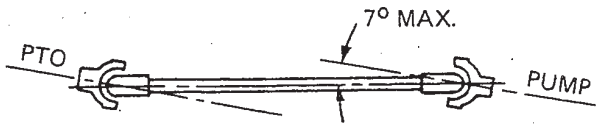
DRIVE SHAFT KIT K252-9488
(MODEL 1824 DA-HD)



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)

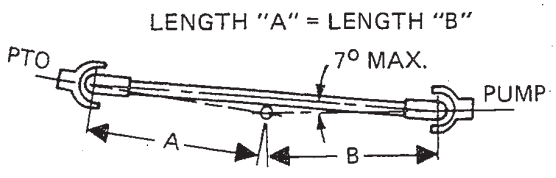
ITEM	PART NO.	DESCRIPTION	QTY.
1.	FS-190400	GREASE FITTING 1/8" STR.	(1)
2.	263-41	16 GA. WIRE X 16" (CUT TO SUIT TO LOCK SETSCREWS)	(1)

NOTE: End yokes must be in line as shown.



PTO SHAFT AND PUMP SHAFT PARALLEL

TWO-JOINT DRIVE



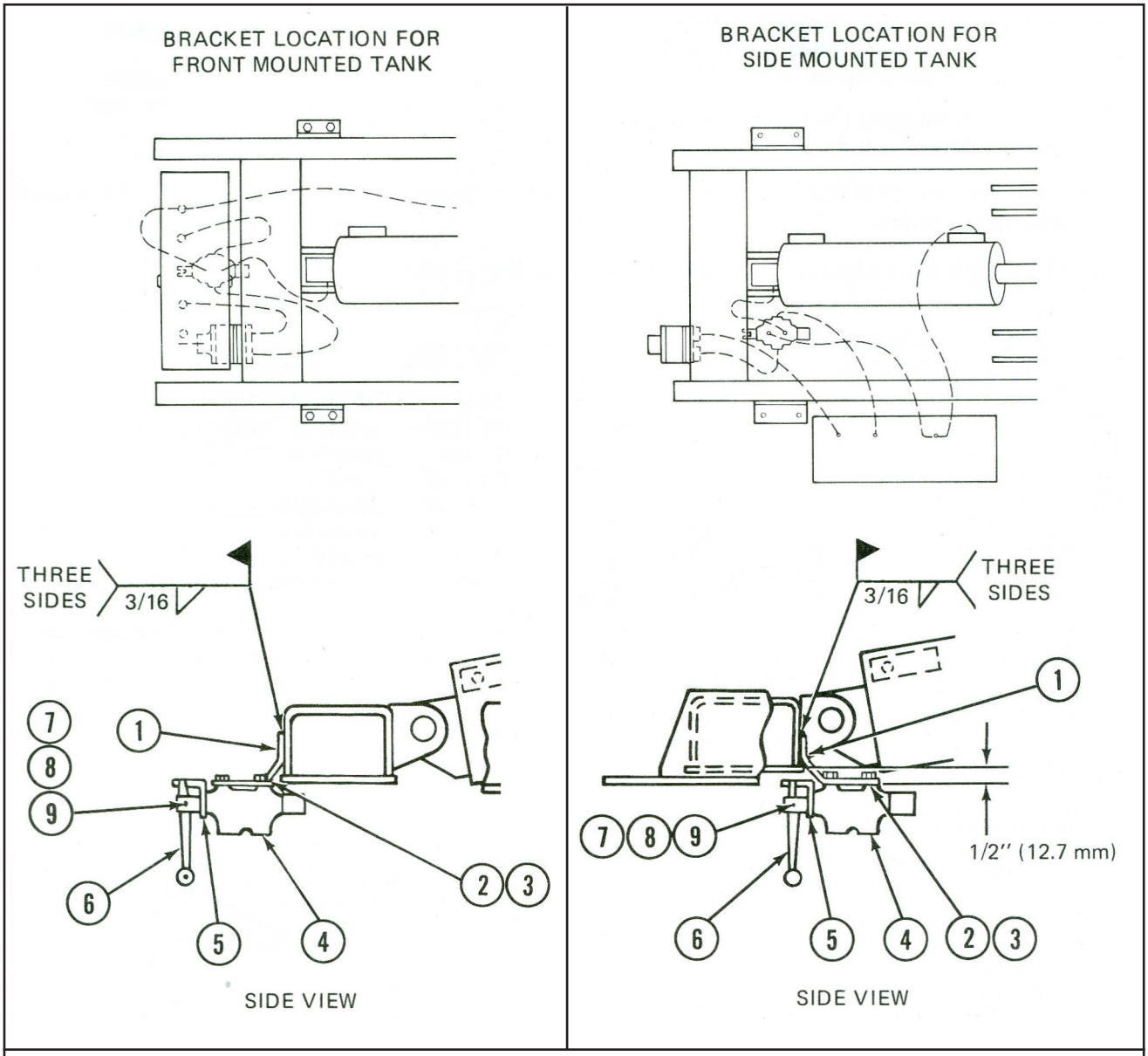
PTO SHAFT AT ENGINE ANGLE
PUMP SHAFT HORIZONTAL

TWO-JOINT DRIVE

Figure 6. Drive Line

CONTROL VALVE

Locate valve support bracket to suit and weld it to the hoist frame crossmember as shown in figure 7. Bolt control valve to valve support bracket and install lever.



ITEM	PART NO.	DESCRIPTION	QTY.
1.	077-9104	VALVE SUPPORT BRACKET	(1)
2.	FS-070936	CAPSCREW 3/8"-16 NC X 2-3/4	(3)
3.	FS-230900	SELF-LOCK NUT 3/8"-16 NC	(3)
4.	031-1933	CONTROL VALVE (ALL EXCEPT 1824 DA-HD)	(1)
	031-1891	CONTROL VALVE (1824 DA-HD)	(1)
5.	004-1643	LINK (ALL EXCEPT 1824 DA-HD)	(1)
6.	013-4818	LEVER	(1)
7.	048-4044	PIN (ALL EXCEPT 1824 DA-HD)	(1)
8.	FS-340108	COTTER PIN 1/16" X 1/2 (ALL EXCEPT 1824 DA-HD)	(1)
9.	FS-340124	COTTER PIN 1/16" X 1-1/2 (ALL EXCEPT 1824 DA-HD)	(1)

Figure 7. Control Valve Mounting

CONTROL LEVERS

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 8). Weld control lever to valve control shaft (lever to hang vertically downwards).

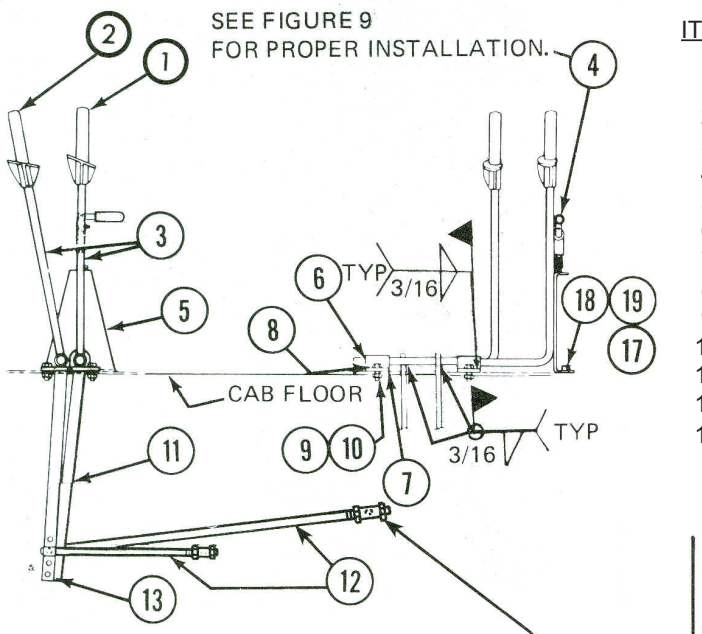
The recommended arrangement for the in cab control lever operation is as follows:

A) Hoist — Movement rearward — RAISE
Movement forward — LOWE R
Center position — HOLD (NEUTRAL)

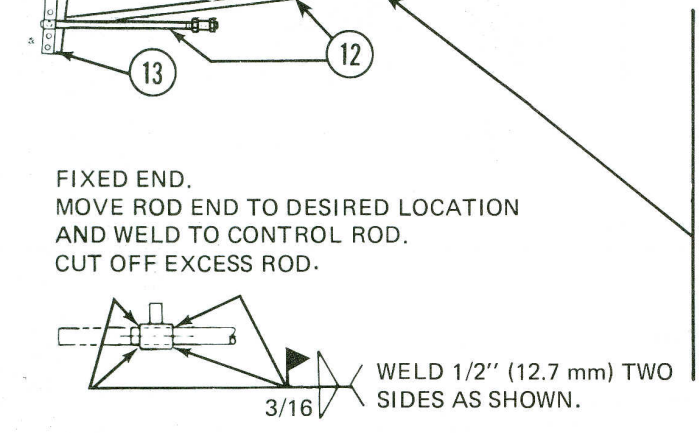
B) PTO — Movement rearward — ENGAGE
Movement forward — DISENGAGE

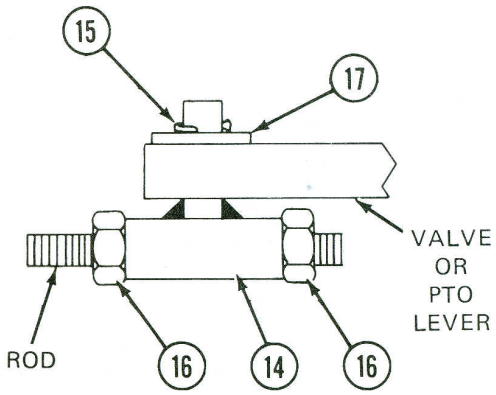
Install valve rod and PTO rod, positioning them on the control levers so there is at least 6” (152 mm) of movement on cab levers.

Optional controls should be installed as shown in figures 8A, 8B, or 8C.



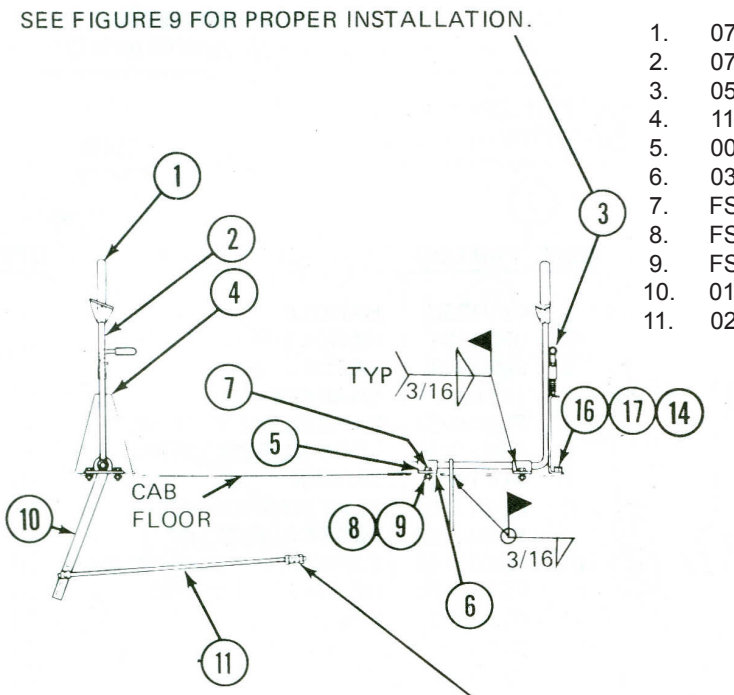
ITEM	PART NO.	DESCRIPTION	QTY.
1.	070-1231	HANDLE - PTO (RED)	(1)
2.	070-1230	HANDLE - HOIST (BLACK)	(1)
3.	070-765	HANDLE	(2)
4.	053-1379	LATCH	(1)
5.	111-8339	BRACKET	(1)
6.	003-2614	BEARING	(4)
7.	034-9394	PLATE	(2)
8.	FS-070720	CAPSCREW 1/4"-20 NC x 1	(4)
9.	FS-230700	SELF-LOCK NUT 1/4"-20 NC	(4)
10.	FS-510700	FLAT WASHER 1/4”	(4)
11.	013-4278	LEVER	(1)
12.	027-3687	ROD	(2)
13.	013-4278	LEVER	(1)



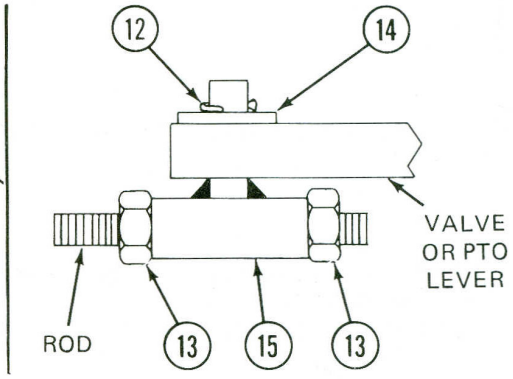


14.	032-1020	ROD END	(4)
15.	FS-340212	COTTER PIN 3/32" X 3/4	(4)
16.	FS-291100	JAM NUT 1/2"-13 NC	(4)
17.	FS-510900	FLAT WASHER 3/8"	(6)
18.	FS-070924	HEX. HD. CAPSCREW 3/8"-16 NC X 1-1/2	(2)
19.	FS-230900	LOCK NUT 3/8"-16 NC	(2)

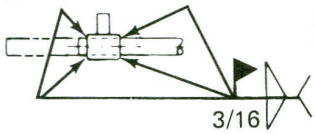
Figure 8. 252-3733 Two Lever Control (Round)



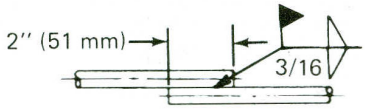
ITEM	PART NO.	DESCRIPTION	QTY.
1.	070-1230	HANDLE - HOIST (BLACK)	(1)
2.	070-765	HANDLE	(1)
3.	053-1379	LATCH	(1)
4.	111-8339	BRACKET	(1)
5.	003-2614	BEARING	(2)
6.	034-9394	PLATE	(2)
7.	FS-070720	CAPSCREW 1/4"-20 NC X 1	(4)
8.	FS-230700	SELF-LOCK NUT 1/4"-20 NC	(4)
9.	FS-510700	FLAT WASHER 1/4"	(4)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

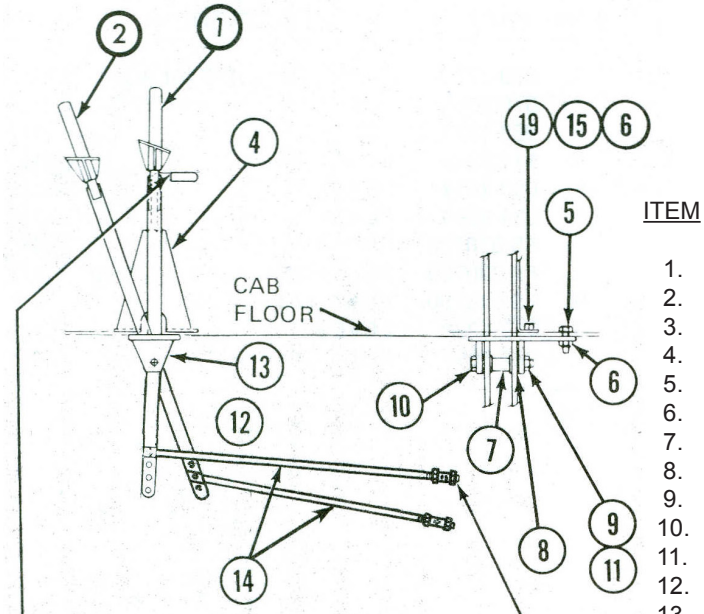


TO LENGTHEN CONTROL ROD, WELD ADDITIONAL 1/2" (12.7 mm) DIA. ROD AS SHOWN BELOW.



12.	FS-340212	COTTER PIN 3/32" X 3/4	(2)
13.	FS-291100	JAM NUT 1/2"-13 NC	(2)
14.	FS-510900	FLAT WASHER 3/8"	(4)
15.	032-1020	ROD END	(2)
16.	FS-070924	HEX HD CAPSCREW 3/8"-16 NC X 1-1/2	(2)
17.	FS-230900	SELF-LOCK NUT 3/8"-16 NC	(2)

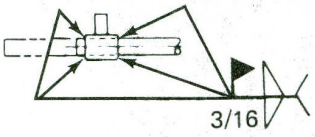
Figure 8A. 254-1118 Single Lever Control (Round)



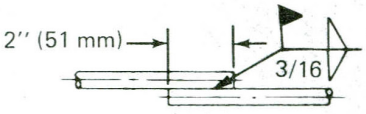
ITEM	PART NO.	DESCRIPTION	QTY.
1.	070-1230	HANDLE - HOIST (BLACK)	(1)
2.	070-1231	HANDLE - PTO (RED)	(1)
3.	053-1379	LATCH	(1)
4.	111-8339	BRACKET	(1)
5.	FS-070920	CAPSCREW 3/8"-16 NC X 1	(2)
6.	FS-230900	LOCK NUT 3/8"-16 NC	(4)
7.	015-1475	SPACER	(1)
8.	FS-511100	FLAT WASHER 1/2"	(4)
9.	FS-541100	LOCKWASHER 1/2"	(1)
10.	FS-071150	CAPSCREW 1/2"-13 NC X 4	(1)
11.	FS-231100	HEX.NUT 1/2"-13 NC	(1)
12.	013-4870	LEVER	(2)
13.	011-4702	BRACKET	(1)
14.	027-3687	ROD	(2)

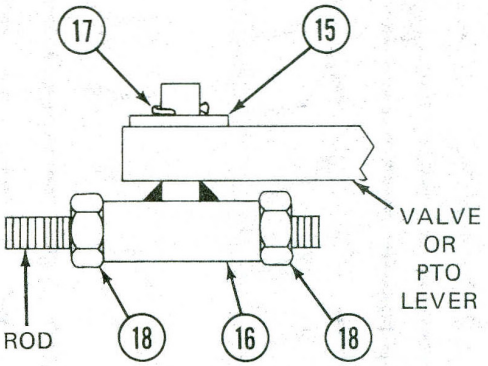
3 SEE FIGURE 9 FOR PROPER INSTALLATION.

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



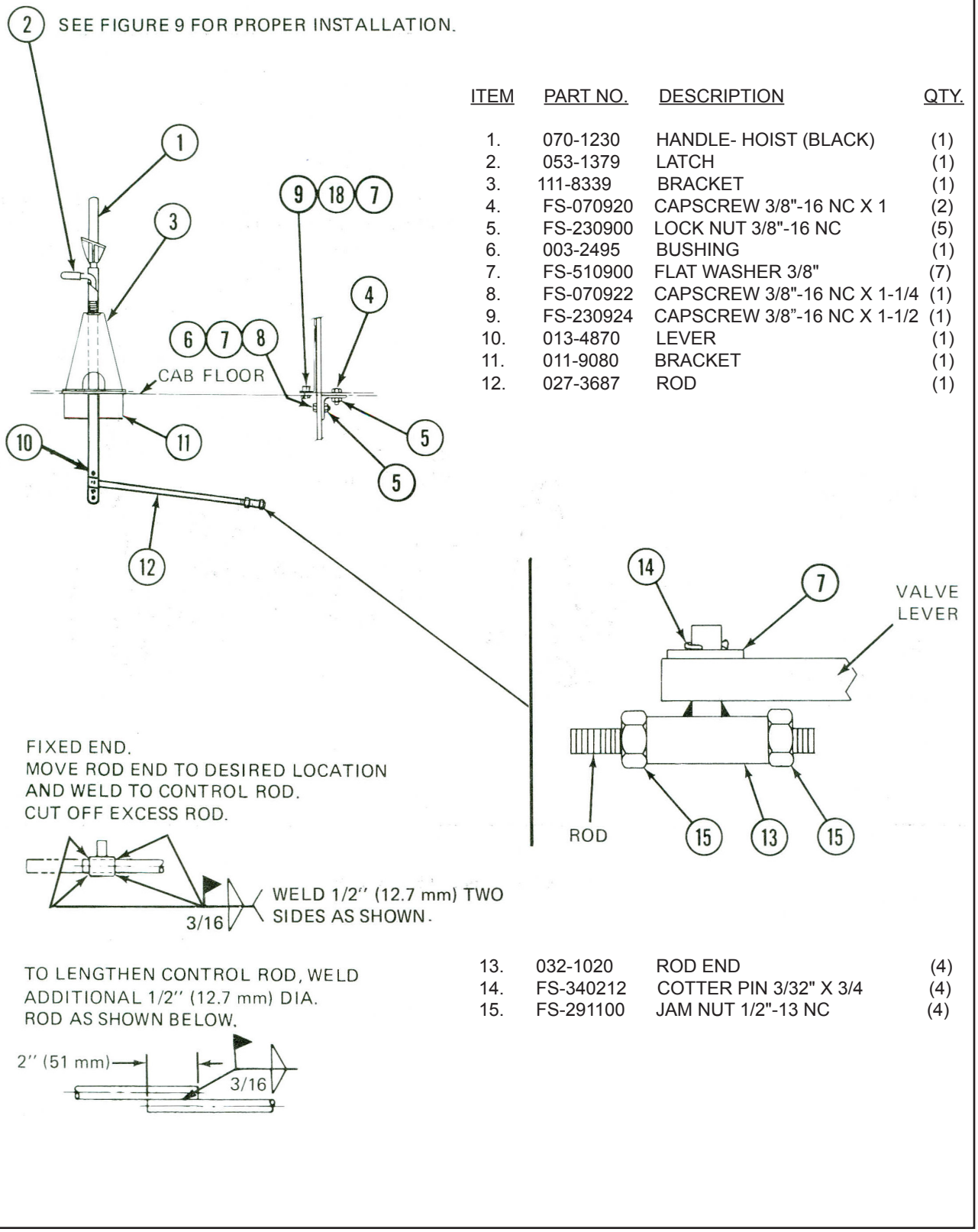
TO LENGTHEN CONTROL ROD, WELD
ADDITIONAL 1/2" (12.7 mm) DIA.
ROD AS SHOWN BELOW.





15.	FS-510900	FLAT WASHER 3/8"	(6)
16.	032-1020	ROD END	(4)
17.	FS-340212	COTTER PIN 3/32"X 3/4	(4)
18.	FS-291100	JAM NUT 1/2"-13 NC	(4)
19.	FS-070924	HEX.HD.CAPSCREW 3/8"-16 NC X 1-1/2	(2)

Figure 8B. 252-9407 Two Lever Control (Flat)



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 X 1	(2)
5.	FS-230900	LOCK NUT 3/8"-16 NC	(5)
6.	003-2495	BUSHING	(1)
7.	FS-510900	FLAT WASHER 3/8"	(7)
8.	FS-070922	CAPSCREW 3/8"-16 NC X 1-1/4	(1)
9.	FS-230924	CAPSCREW 3/8"-16 NC X 1-1/2	(1)
10.	013-4870	LEVER	(1)
11.	011-9080	BRACKET	(1)
12.	027-3687	ROD	(1)
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)

Figure 8C. 254-710 Single Lever Control (Flat)

VALVE CONTROL SAFETY LOCK

Install the lock, starting at step A, as shown in figure 9.

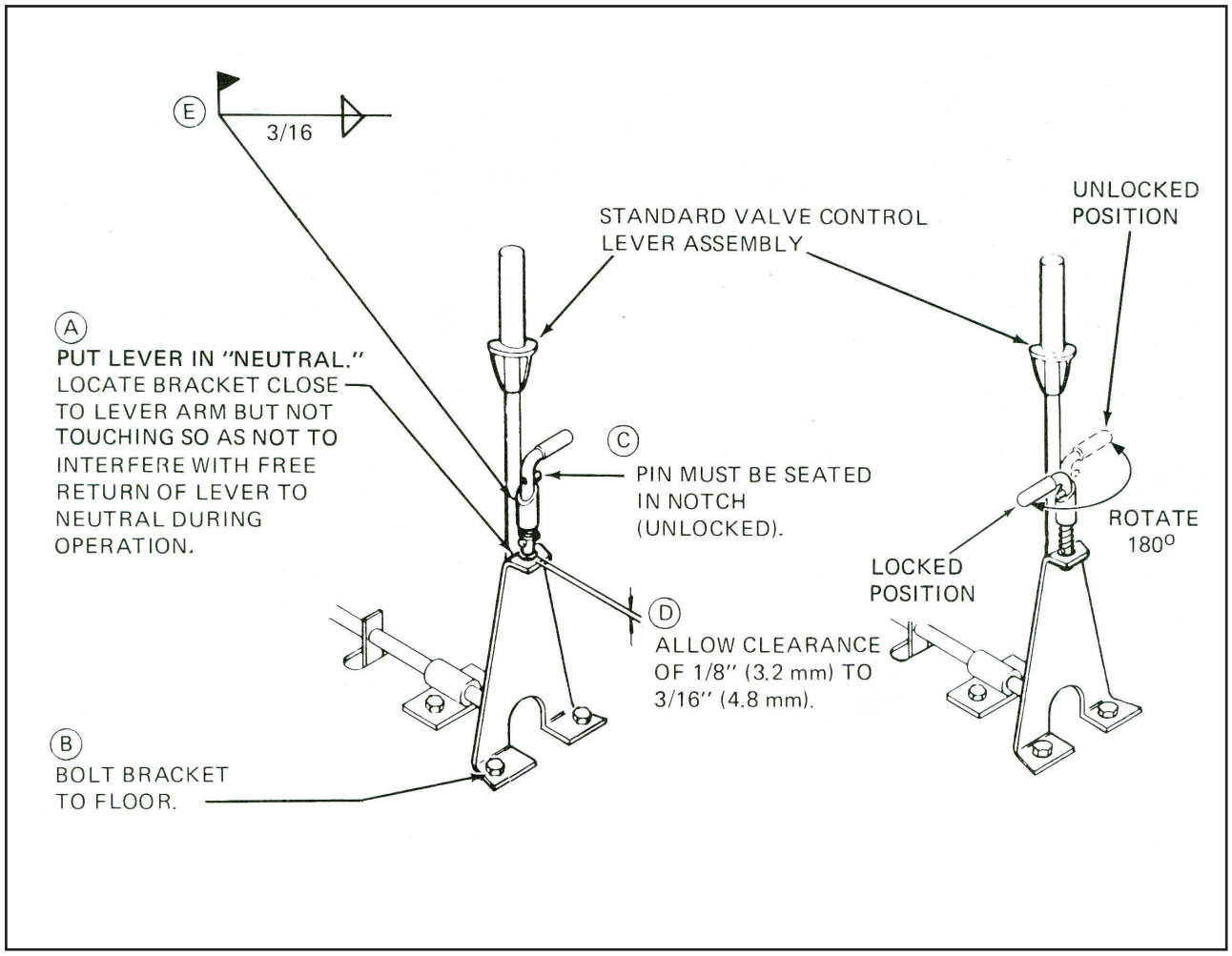


Figure 9. Valve Control Safety Lock

OIL TANK

NOTE

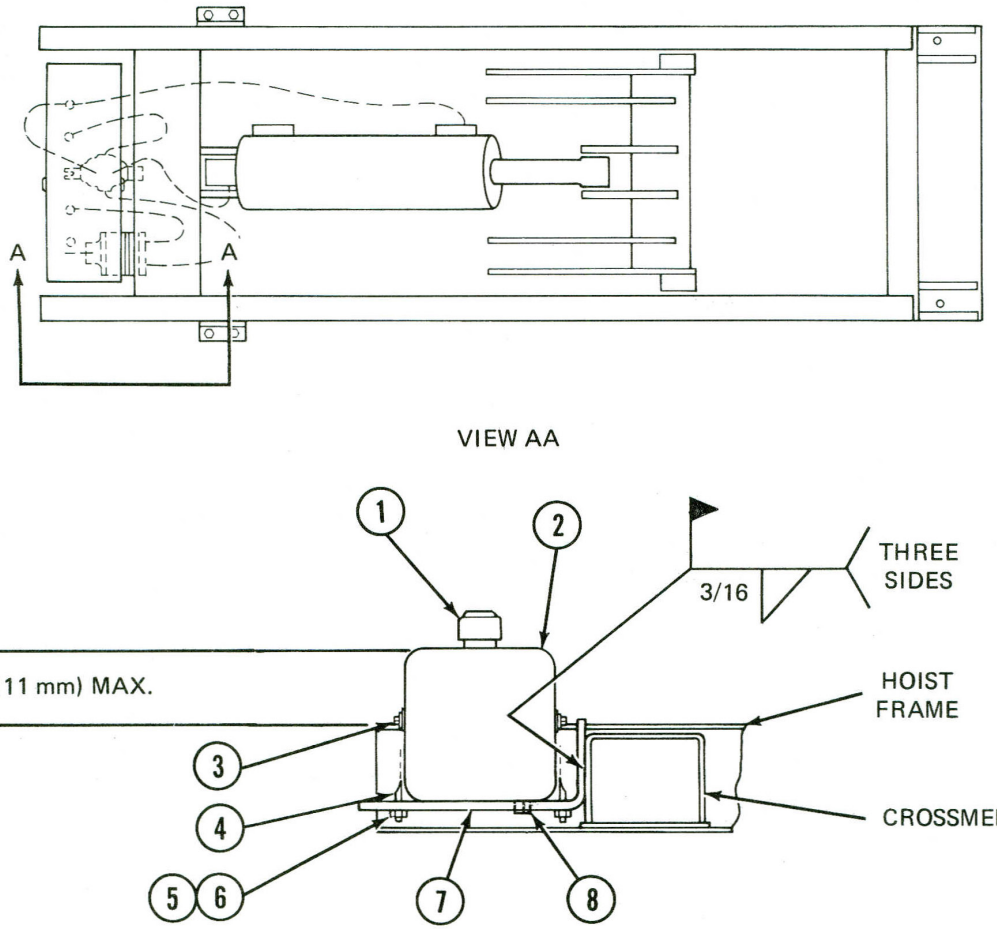
Side mounting of the oil tank is necessary when mounting a Model 1721 DA or 1821 DA hoist on a 72” (1829 mm) chassis.

Locate tank supports so that they clear openings in the bottom of the oil tank.

IMPORTANT

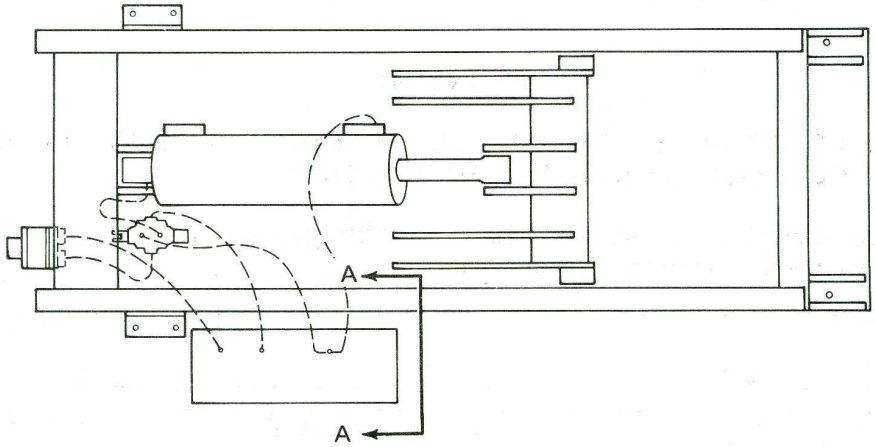
THE HEIGHT OF THE TANK ABOVE THE HOIST FRAME SIDE RAILS MUST BE HELD AS SHOWN IN FIGURE 10 OR 11.

Weld tank supports to hoist frame as shown in figure 10 for standard mounting or figure 11 for side mounting. Install tank on supports using straps, nuts and washers.

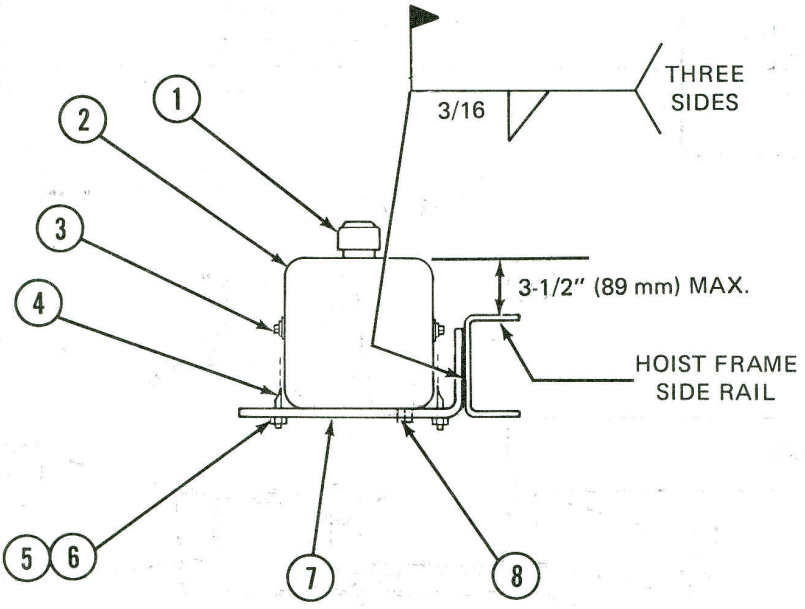


ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.
1.	060-402	FILLER CAP	(1)	5.	FS-510900	FLAT WASHER 3/8"	(4)
2.	020-1401	OIL TANK	(1)	6.	FS-230900	SELF-LOCK NUT 3/8"-16 NC	(4)
3.	FS-900700	PIPE PLUG 1/4" (1824 DA-HD)	(2)	7.	077-6644	SUPPORT	(2)
	FS-910701	PIPE PLUG 1/4" (EXCEPT 1824 DA-HD)	(2)	8.	FS-902001	PIPE PLUG 1" NPT	(1)
4.	071-326-3	STRAP	(2)				

Figure 10. Oil Tank - Standard Mounting



VIEW AA



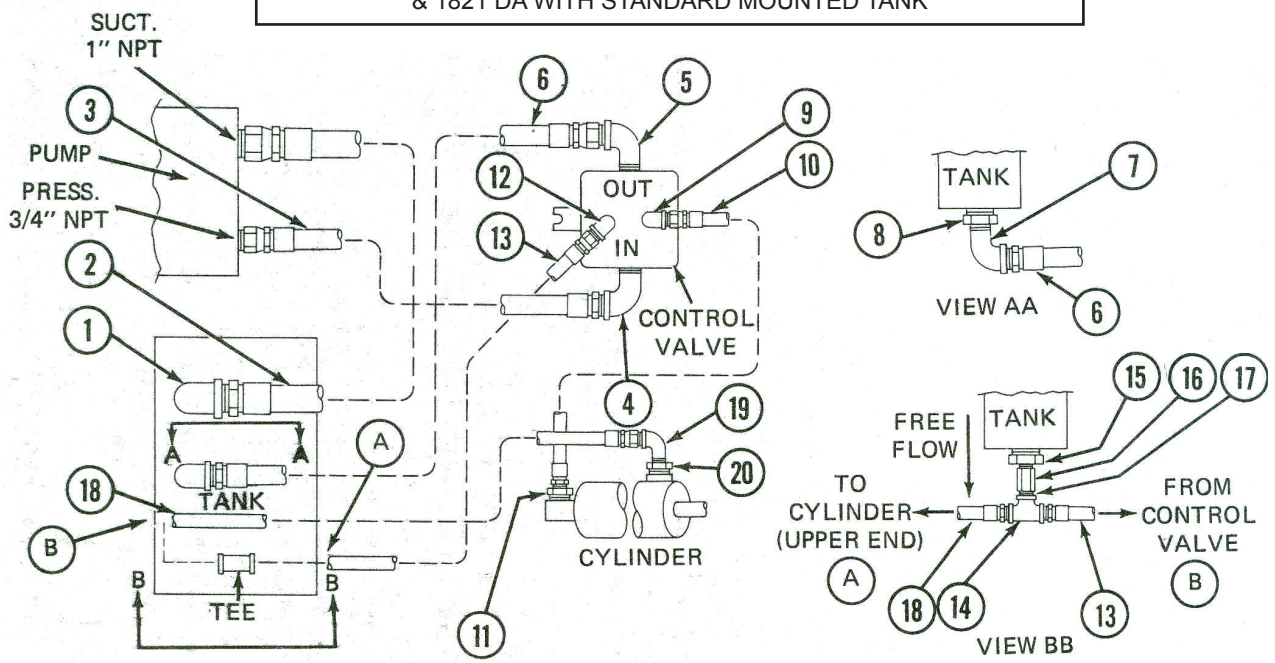
ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.
1.	060-402	FILLER CAP	(1)	5.	FS-510900	FLAT WASHER 3/8"	(4)
2.	020-1401	OIL TANK	(1)	6.	FS-230900	SELF-LOCK NUT 3/8"-16 NC	(4)
3.	FS-910701	PIPE PLUG 1/4" NPT	(2)	7.	077-6644	SUPPORT	(2)
4.	071-326-3	STRAP	(2)	8.	FS-902001	PIPE PLUG 1" NPT	(1)

Figure 11. Oil Tank - Side Mounting

HYDRAULIC LINES

Connect hydraulic lines in order as given in figure 12. See figure 13 for schematic of hydraulic system. Use a thread sealing compound on the ends of all pipe threads. Do not use sealing compound on tube fitting nuts or O-ring fittings. Make sure check valve is installed as shown in figure 13.

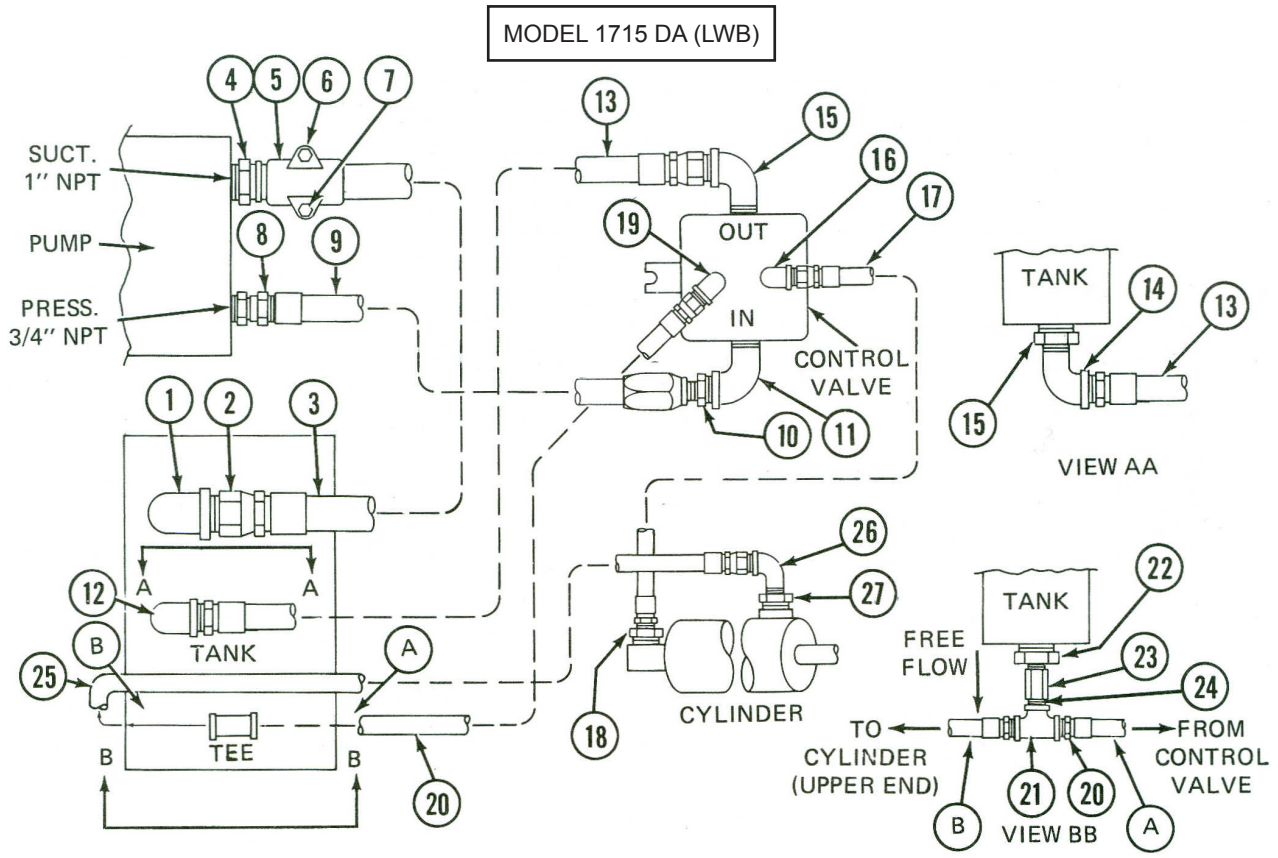
MODELS 1715 DA (SWB), 1721 DA WITH STANDARD MOUNTED TANK
& 1821 DA WITH STANDARD MOUNTED TANK



ITEM	PART NO.	DESCRIPTION	QTY.
		TANK TO PUMP	
1.	FS-822000	STREET ELBOW 1" X 90° (L.P.)	(1)
2.	057-1424-36	HOSE 1" X 36	(1)
		PUMP TO VALVE	
3.	057-1422-20	HOSE 3/4" X 20	(1)
4.	FS-831500	STREET ELBOW 3/4" X 90° (H.P.)	(1)
		VALVE TO TANK	
5.	FS-821500	STREET ELBOW 3/4" X 90° (L.P.)	(1)
6.	057-1329-18	HOSE 3/4" X 18	(1)
7.	FS-821500	STREET ELBOW 3/4" X 90° (L.P.)	(1)
8.	FS-592015	RED. BUSH. 1" X 3/4"	(1)
		VALVE TO CYLINDER - LOWER END	
9.	FS-831100	STREET ELBOW 1/2" X 90° (H.P.)	(1)
10.	057-519-24	HOSE 1/2" X 24	(1)
11.	FS-601511	RED. BUSH, 3/4" X 1/2	(1)

ITEM	PART NO.	DESCRIPTION	QTY.
		VALVE TO TEE	
12.	FS-831100	STREET ELBOW 1/2" X 90° (H.P.)	(1)
13.	057-519-24	HOSE 1/2" X 24	(1)
14.	FS-951100	TEE 1/2" (Hip.)	(1)
		TANK TO TEE	
15.	FS592011	RED. BUSH. 1" X 1/2	(1)
16.	031-1391	CHECK VALVE	(1)
17.	FS-891100	PIPE NIPPLE 1/2" X CLOSE (X-HVY)	(1)
		TEE TO CYLINDER - UPPER END	
18.	057-519-42	HOSE 1/2" X 42 (1715 DA)	(1)
	057-519-48	HOSE 1/2" X 48 (1721 DA & 1821 DA)	
19.	FS-831100	STREET ELBOW 1/2" X 90° (H.P.)	(1)
20.	FS-601511	RED. BUSH. 3/4" X 1/2	(1)

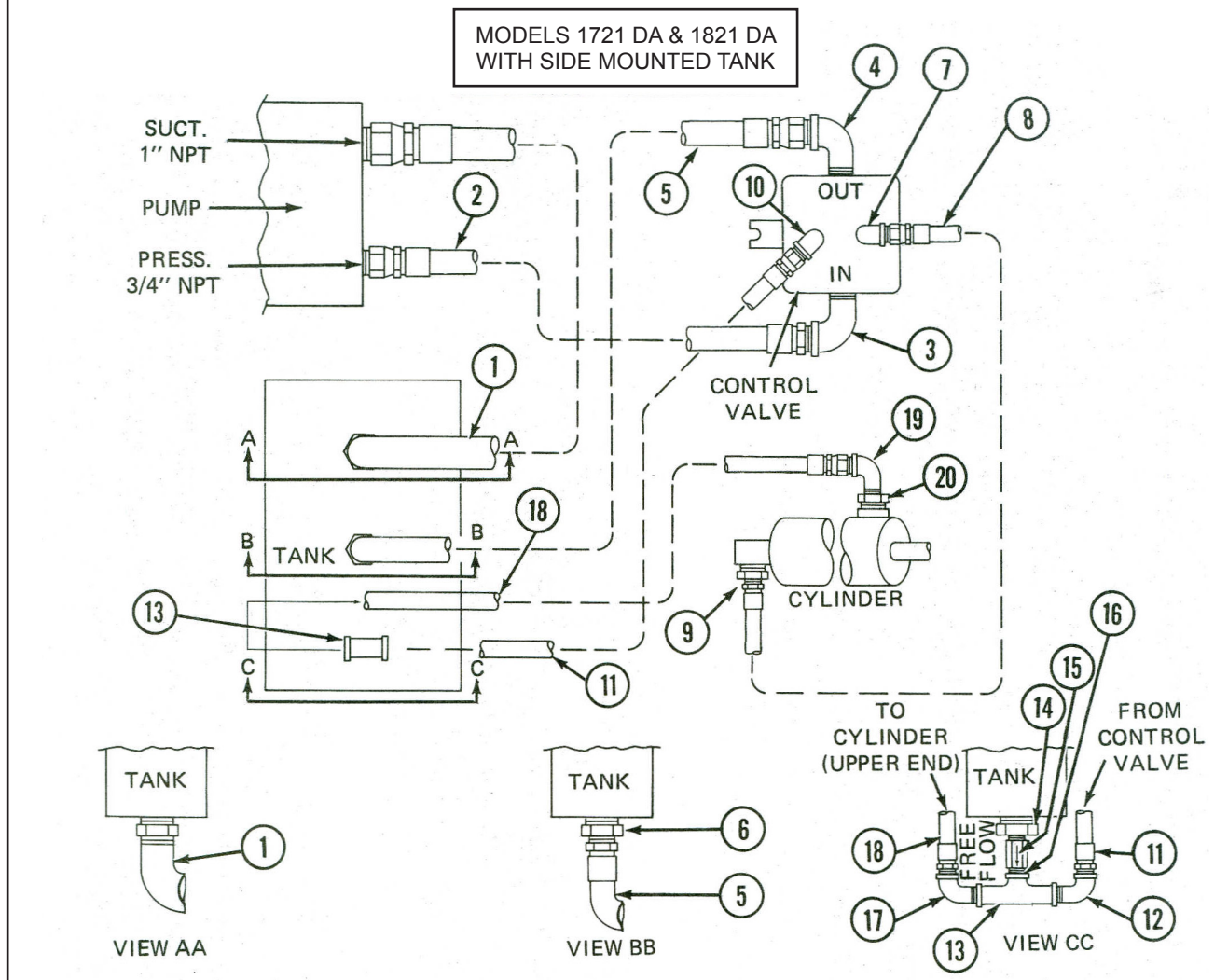
Figure 12. Hydraulic Lines (Sheet 1 of 4)



ITEM	PART NO.	DESCRIPTION	QTY.
		TANK TO PUMP	
1.	FS-822000	STREET ELBOW 1" X 90° (L.P.)	(1)
2.	074-3059-6	ADAPTER UNION	(1)
3.	057-445-60	HOSE 1" X 60	(1)
4.	058-2468-3	FITTING	(1)
5.	074-2216-3	CLAMP HALF 1"	(2)
6.	FS-070826	HEX HD CAPSCREW 5/16"-18 NC X 1-3/4	(2)
7.	FS-230800	SELF-LOCK NUT 5/16"-18 NC	(2)
		PUMP TO VALVE	
8.	074-3059-5	ADAPTER UNION	(1)
9.	057-1853-48	HOSE 3/4" X 48	(1)
10.	057-1848-8	FITTING 3/4"	(1)
11.	FS-831500	STREET ELBOW 3/4"X 90° (H.P.)	(1)
		VALVE TO TANK	
12.	FS-821500	STREET ELBOW 3/4" X 90° (L.P.)	(1)
13.	057-1329-18	HOSE 3/4" X 18	(1)
14.	FS-821500	STREET ELBOW 3/4" X 90° (L.P.)	(1)
15.	FS-592015	RED. BUSH. 1" X 3/4	(1)

ITEM	PART NO.	DESCRIPTION	QTY.
		VALVE TO CYLINDER - LOWER END	
16.	FS-831100	STREET ELBOW 1/2" X 90° (H.P.)	(1)
17.	057-519-24	HOSE 1/2" X 24	(1)
18.	FS-601511	RED. BUSH. 3/4" X 1/2	(1)
		VALVE TO CYLINDER - UPPER END	
19.	FS-831100	STREET ELBOW 1/2" X 90° (H.P.)	(1)
20.	057-519-24	HOSE 1/2" X 24	(1)
21.	FS-951100	TEE 1/2" (H.P.)	(1)
		TANK TO TEE	
22.	FS-592011	RED. BUSH. 1" X 1/2	(1)
23.	031-1391	CHECK VALVE	(1)
24.	FS-891100	PIPE NIPPLE 1/2" CLOSE (X-HVY)	(1)
		TEE TO CYLINDER - UPPER END	
25.	057-519-42	HOSE 1/2" X 42	(1)
26.	FS-831100	STREET ELBOW 1/2" X 90° (H.P.)	(1)
27.	FS-601511	RED. BUSH. 3/4" X 1/2	(1)

Figure 12. Hydraulic Lines (Sheet 2 of 4)

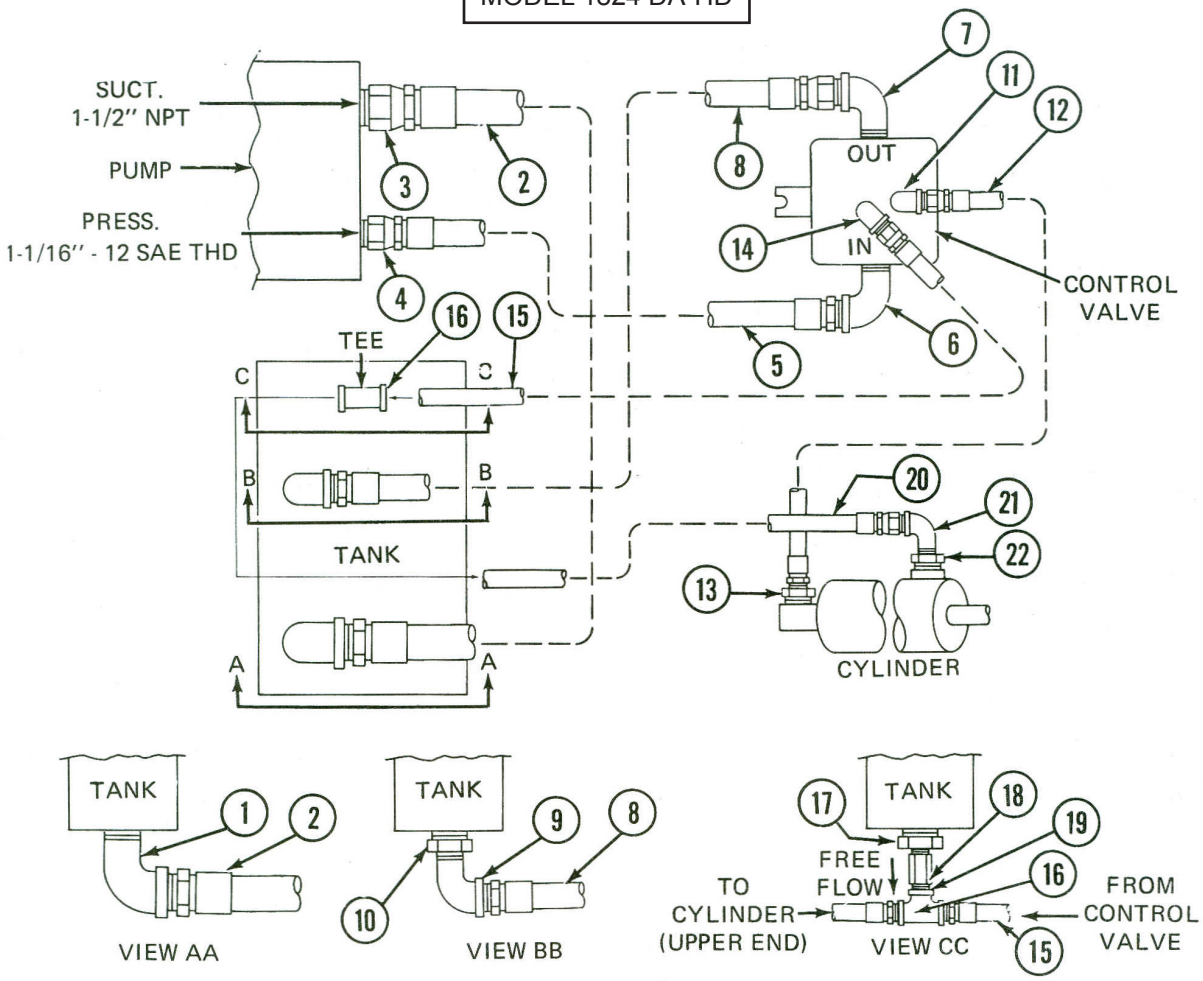


ITEM	PART NO.	DESCRIPTION	QTY.
		TANK TO PUMP	
1.	057-1424-36	HOSE 1" X 36	(1)
		PUMP TO VALVE	
2.	057-1422-20	HOSE 3/4" X 20	(1)
3.	FS-831500	STREET ELBOW 3/4" X 90° (H.P.)	(1)
		VALVE TO TANK	
4.	FS-821500	STREET ELBOW 3/4" X 90° (L.P.)	(1)
5.	057-1329-36	HOSE 3/4" X 36	(1)
6.	FS-592015	RED. BUSH. 1"X 3/4	(1)
		VALVE TO CYLINDER - LOWER END	
7.	FS-831100	STREET ELBOW 1/2"X 90° (H.P.)	(1)
8.	057-519-24	HOSE 1/2" X 24	(1)
9.	FS-601511	RED. BUSH. 3/4" X 1/2	(1)

ITEM	PART NO.	DESCRIPTION	QTY.
		VALVE TO TEE	
10.	FS-831100	STREET ELBOW 1/2"X 90° (H.P.)	(1)
11.	057-519-36	HOSE 1/2" X 36	(1)
12.	FS-831100	STREET ELBOW 1/2"X 90° (H.P.)	(1)
13.	FS-951100	TEE 1/2" (H.P.)	(1)
		TANK TO TEE	
14.	FS-592011	RED. BUSH. 1" X 1/2	(1)
15.	031-1391	CHECK VALVE	(1)
16.	FS-891100	PIPE NIPPLE 1/2" X CLOSE (X-HVY)	(1)
		TEE TO CYLINDER - UPPER END	
17.	FS-831100	STREET ELBOW 1/2"X 90° (H.P.)	(1)
18.	057-519-42	HOSE 1/2" X 42"	
19.	FS-831100	STREET ELBOW 1/2" X 90° (H.P.)	(1)
20.	FS-601511	RED. BUSH. 3/4" X 1/2	(1)

Figure 12. Hydraulic Lines (Sheet 3 of 4)

MODEL 1824 DA-HD



ITEM	PART NO.	DESCRIPTION	QTY.
		TANK TO PUMP	
1.	FS-822000	STREET ELBOW 1" X 90° (L.P.)	(1)
2.	057-1424-36	HOSE 1" X 36	(1)
3.	FS-592400	RED. BUSH. 1-1/2" X 1	(1)
		PUMP TO VALVE	
4.	054-4194-12	ADAPTER 3/4" FEMALE	(1)
5.	057-1422-20	HOSE 3/4" X 20	(1)
6.	FS-831500	STREET ELBOW 3/4"X 90° (H.P.)	(1)
		VALVE TO TANK	
7.	FS-821500	STREET ELBOW 3/4" X 90° (L P.)	(1)
8.	057-1329-18	HOSE 3/4" X 18	(1)
9.	FS-821500	STREET ELBOW 3/4" X 90° (L.P.)	(1)
10.	FS-592015	RED. BUSH. 1" X 3/4	(1)

ITEM	PART NO.	DESCRIPTION	QTY.
		VALVE TO CYLINDER - LOWER END	
11.	FS-831100	STREET ELBOW 1/2"X 90° (H.P.)	(1)
12.	057-519-24	HOSE 1/2" X 24	(1)
13.	FS-591511	RED. BUSH. 3/4" X 1/2	(1)
		VALVE TO TEE	
14.	FS-831100	STREET ELBOW 1/2"X 90° (H.P.)	(1)
15.	057-519-24	HOSE 1/2 X 24	(1)
16.	FS-951100	TEE 1/2" (H.P.)	(1)
		TANK TO TEE	
17.	FS-592011	RED. BUSH. 1" X 1/2	(1)
18.	031-1391	CHECK VALVE	(1)
19.	FS-891100	PIPE NIPPLE 1/2"X CLOSE (X-HVY)	(1)
		TEE TO CYLINDER - UPPER END	
20.	057-519-48	HOSE 1/2" X 48	(1)
21.	FS-831100	STREET ELBOW 1/2" X 90° (H.P.)	(1)
22.	FS-591511	RED. BUSH. 3/4" X 1/2	(1)

Figure 12. Hydraulic Lines (Sheet 4 of 4)

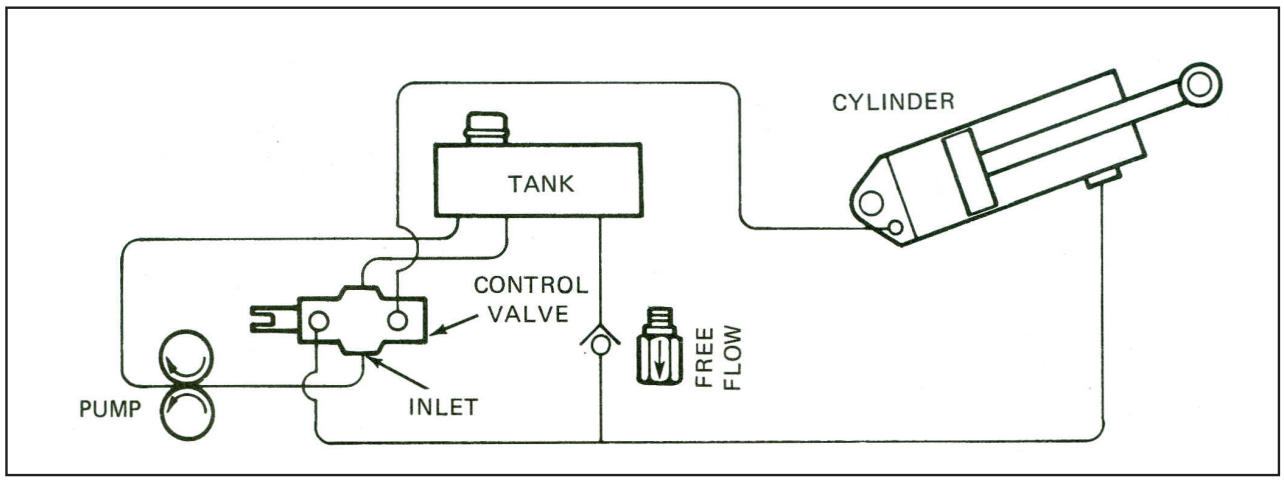


Figure 13. Hydraulic Schematic

FILLING SYSTEM

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

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

Remove pipe plug from upper end of cylinder and replace it with the vent valve supplied with the hoist (see figure 14).

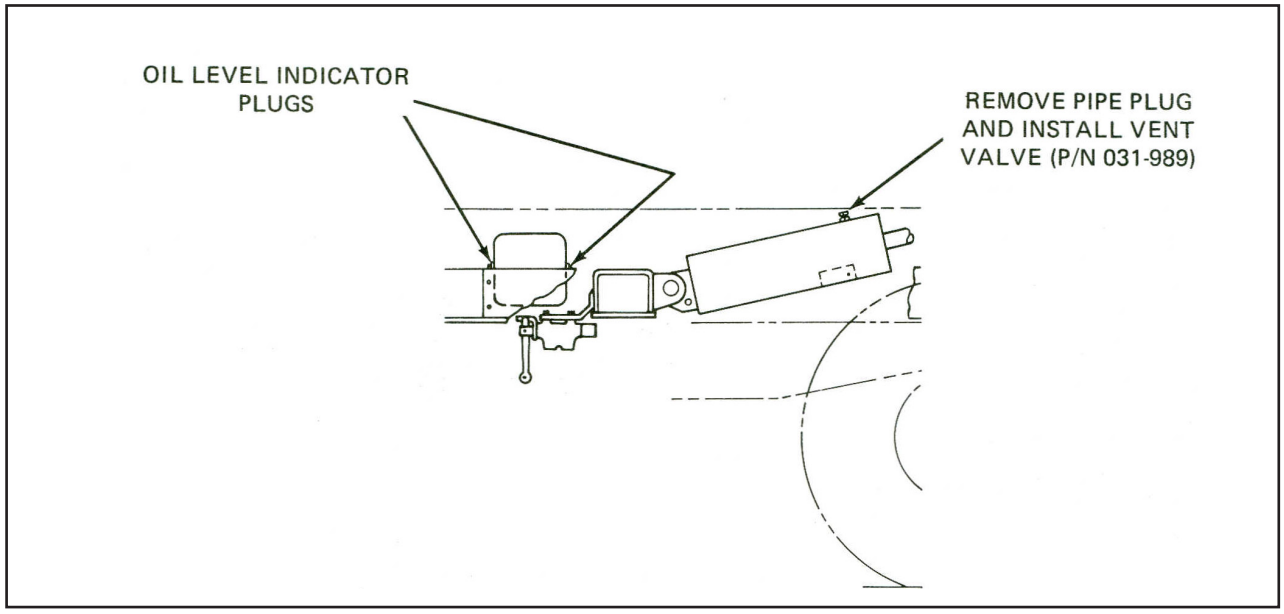


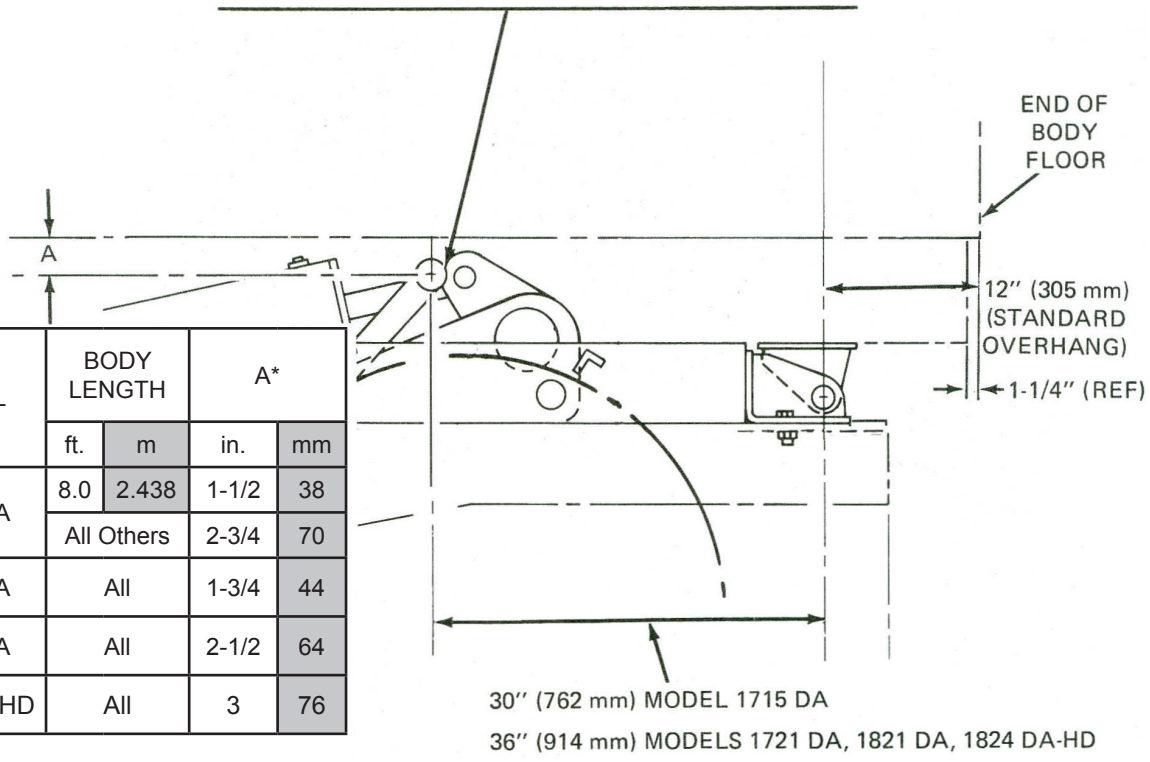
Figure 14. Filling Hydraulic System

Insert 1/4” NPT pipe plugs in oil level indicator holes in front and rear of tank (see figure 14, also figure 10 or 11). Fill tank with oil to within 2” (51 mm) of top. Open vent valve on top of cylinder and run pump slowly with the control lever in “BODY LOWER” position until oil flows out of vent valve. Close vent valve. Remove one of the oil level indicator plugs from the tank and add oil until it just starts to flow out of oil level plug opening. “RAISE” and “LOWER” hoist several times until all air is purged from the system. Then, with cylinders in fully extended position, add oil again until it begins to flow out of oil level hole. DO NOT OVERFILL. Insert oil level indicator plug.

MOUNTING BODY

Place body so that it is square on the hoist frame. Clearance from front of body to cab must be at least 3” (76 mm) minimum. Body overhang, hinge centerline, to end of body should be 12” (305 mm) (standard overhang). See figure 15. Attach hoist lifting links to underside of body using link pins and capscrews provided.

ITEM	PART NO.	DESCRIPTION	QTY.
		MODEL 1715 DA	
1.	048-1254	LINK PIN 1-7/16" DIA.	(2)
2.	FS-071144	CAPSCREW 1/2"-13 NC X 3-1/2	(2)
3.	FS-231100	SELF-LOCK NUT 1/2"-13 NC	(2)
		MODELS 1721 DA AND 1821 DA	
1.	048-1604	LINK PIN 1-3/4" DIA.	(2)
2.	FS-071144	CAPSCREW 1/2"-13 NC X 3-1/2	(2)
3.	FS-231100	SELF-LOCK NUT 1/2"-13 NC	(2)
		MODEL 1824 DA-HD	
1.	048-1326	LINK PIN 2-1/4" DIA.	(2)
2.	FS-071144	CAPSCREW 1/2"-13 NC X 3-1/2	(2)
3.	FS-231100	SELF-LOCK NUT 1/2"-13 NC	(2)



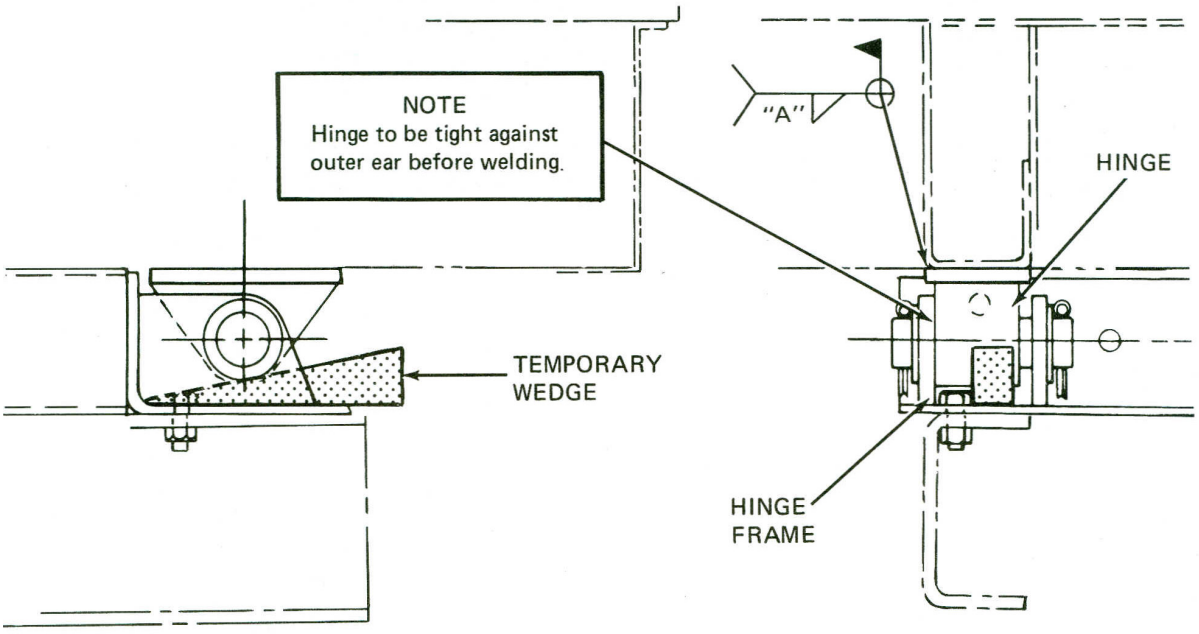
MODEL	BODY LENGTH		A*	
	ft.	m	in.	mm
1715 DA	8.0	2.438	1-1/2	38
	All Others		2-3/4	70
1721 DA	All		1-3/4	44
1824 DA	All		2-1/2	64
1824 DA-HD	All		3	76

*Center of link pin to dump body floor.

Figure 15. Lifting Links

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

Keep hinges tight against outer ears of hinge frame (see figure 16) and drive wedge under hinge so that hinge is tight against hinge pin. Shim if necessary, and weld hinges to body longmembers. Remove wedges.



MODEL	WELD SIZE "A"
1715 DA	1/4"
1721 DA	5/16"
1821 DA	5/16"
1824 DA-HD	3/8"

Figure 16. Rear Hinge Assembly

BODY PROPS

⚠ CAUTION

WHEN ANY WORK IS TO BE DONE ON BODY OR HOIST AND BODY IS FULLY OR PARTLY RAISED, BODY MUST BE PROPPED OR 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 17 FOR RECOMMENDED BLOCKING METHODS. READ AND STUDY THE OPERATOR'S MANUAL BEFORE PROCEEDING.

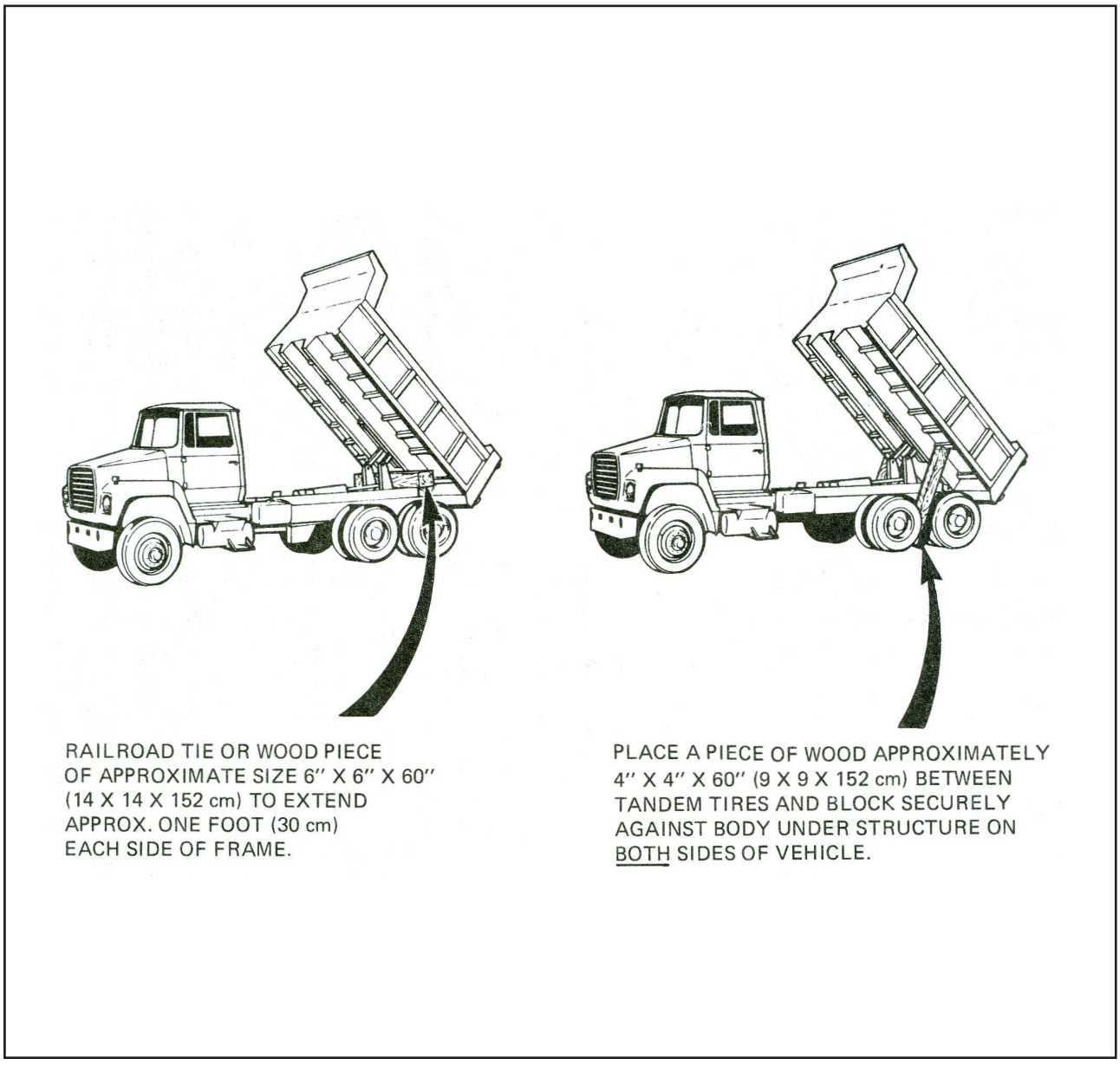


Figure 17. Blocking the Body

Install the body props as shown in figure 18 for SL body, 18A for HH body or 18B for LH body.

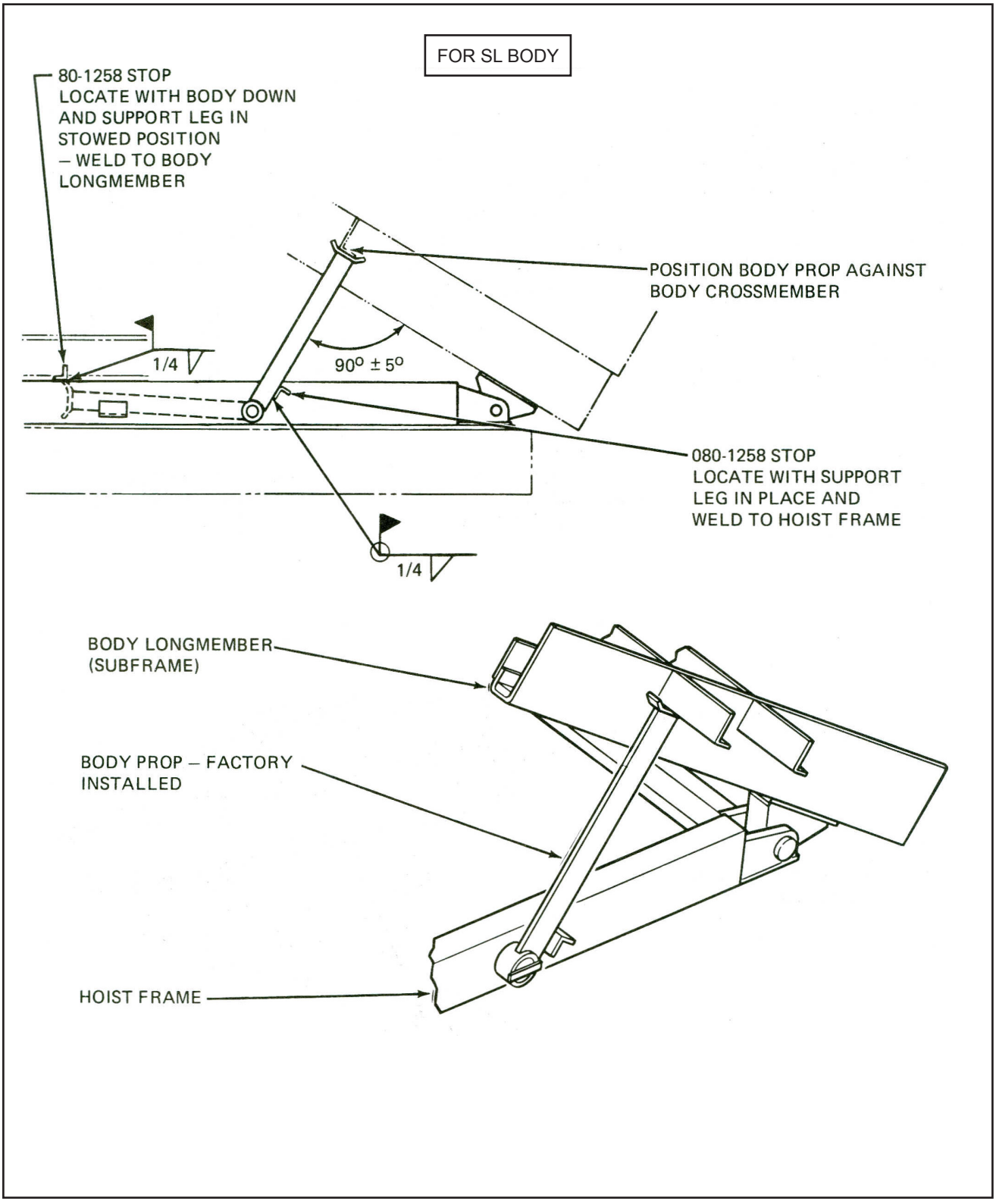


Figure 18. Body Prop Installation (SL Body)

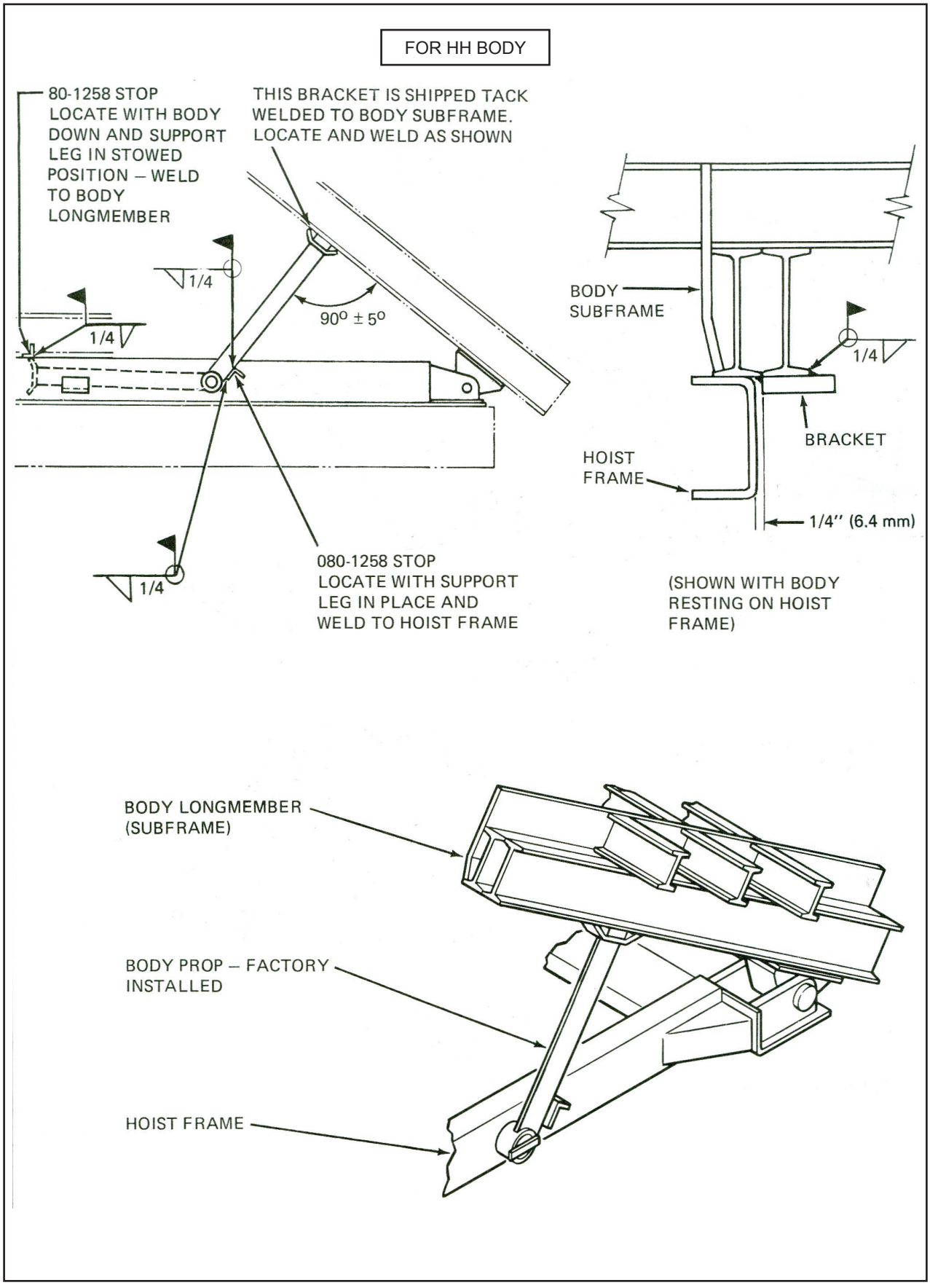


Figure 18A. Body Prop Installation (HH Body)

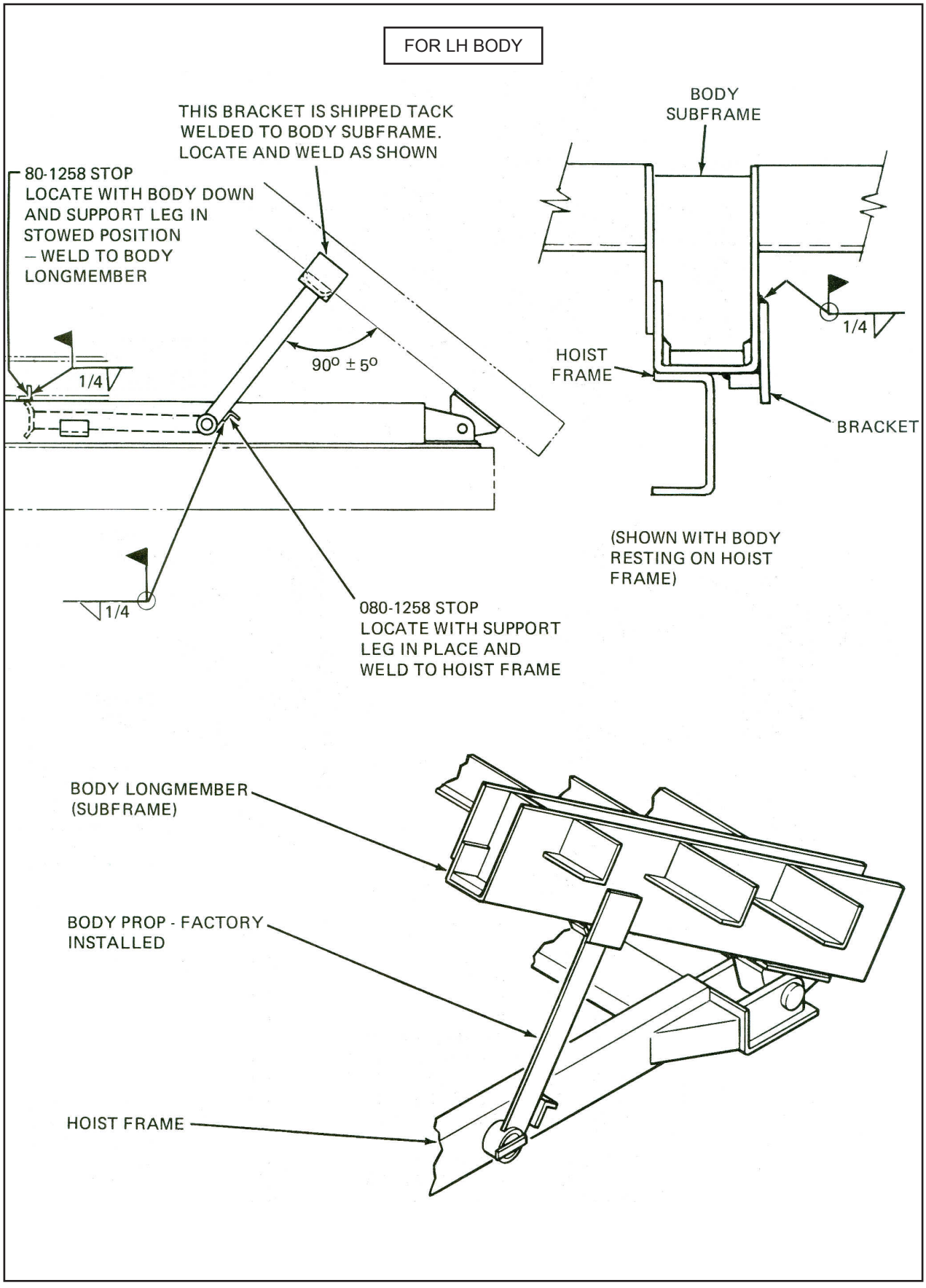
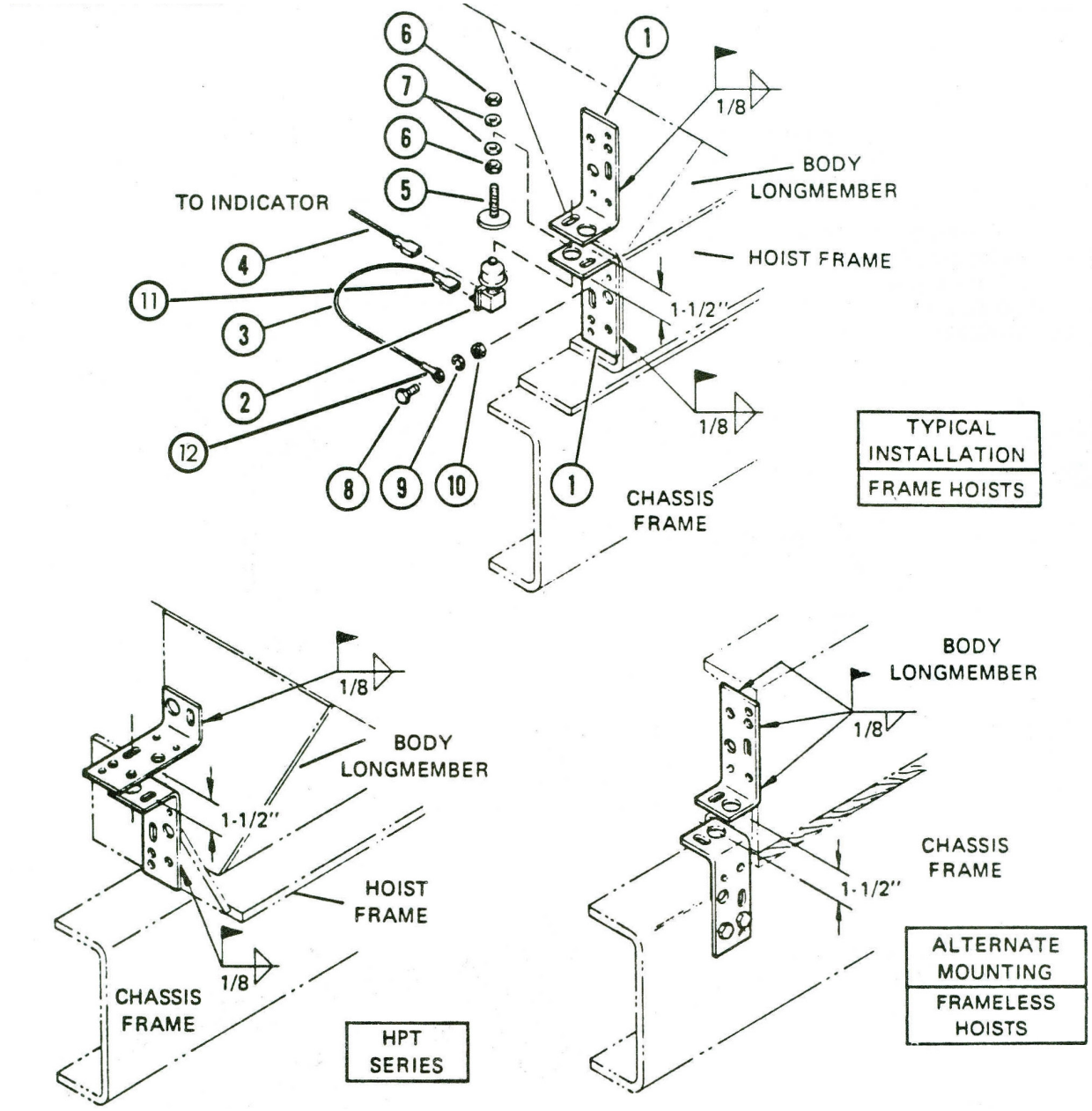
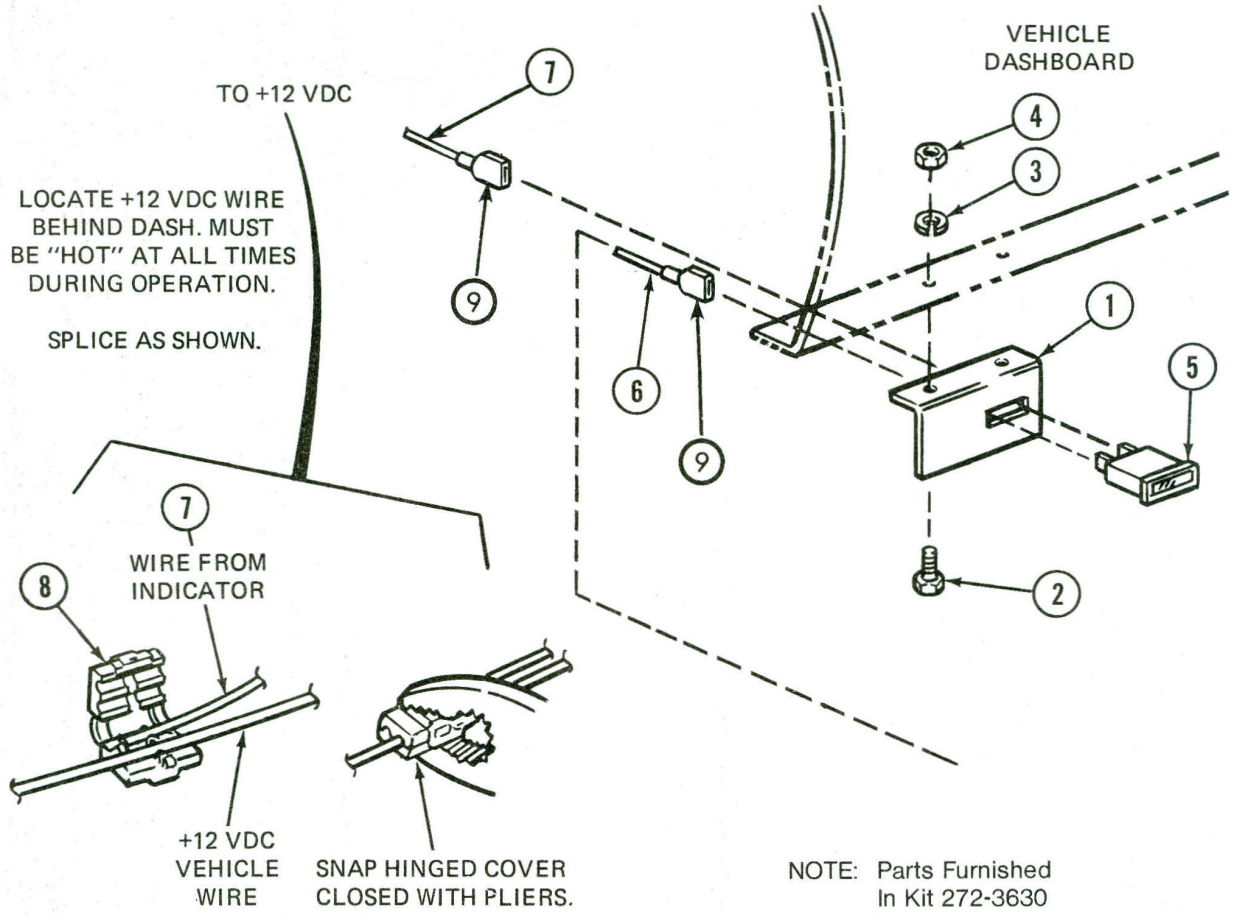


Figure 18B. Body Prop Installation (LH Body)



ITEM	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.	47-2249	Flat Head Elev. Bolt 1/4-20 NC x 1-1/2"	(1)	NOTE: Parts
6.	FS-280-700	Hex Nut 1/4 - 20 NC	(2)	Furnished In
7.	FS-510-700	Flat Washer 1/4"	(2)	Kit 272-3630
8.	FS-079-415	Hex Hd. Capscrew 10-24 NC x 3/4"	(1)	
9.	FS-550-400	Lockwasher No. 10	(1)	
10.	FS-280-400	Hex Nut 10-24 NC	(1)	
11.	108-4571	Terminal	(1)	
12.	108-4572	Terminal	(1)	

Figure 19. Body Raised Switch



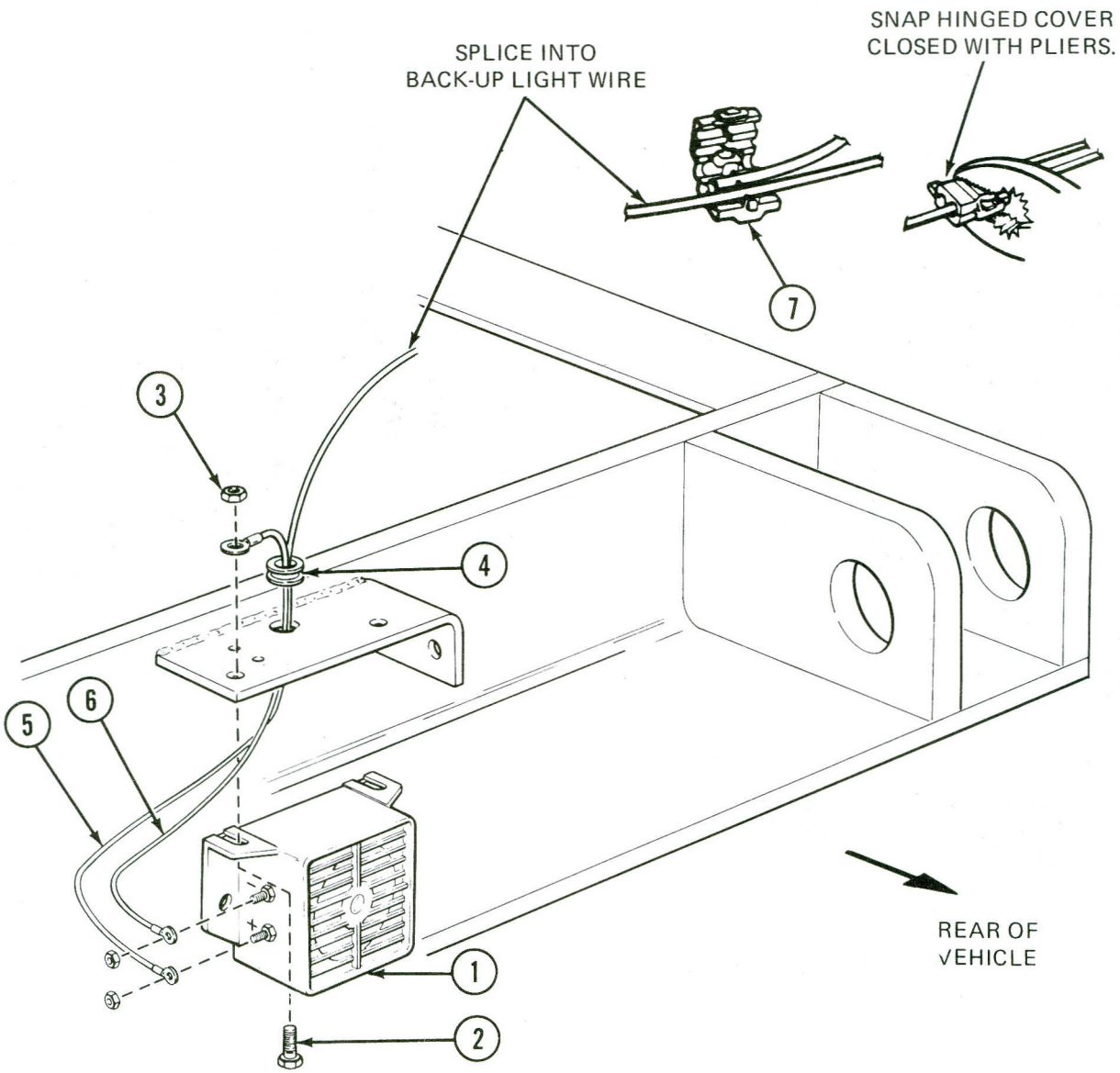
ITEM	PART NO.	DESCRIPTION	QTY.
1.	211-2191	BRACKET	(1)
2.	FS-079-415	HEX HD CAPSCREW #10-32 x 3/4	(2)
3.	FS-550400	LOCKWASHER #10	(2)
4.	FS-280400	HEX NUT #10-32	(2)
5.	115-784	INDICATOR	(1)
*6.	263-68-144	WIRE	(1)
7.	263-69-60	WIRE	(1)
8.	108-1180	CONNECTOR	(1)
9.	108-4571	TERMINAL	(3)

* Also shown in figure 19

Figure 20. Body Raised Indicator

BACK-UP ALARM INSTALLATION

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



ITEM	PART NO.	DESCRIPTION	QTY.	
1.	108-3991	BACK-UP ALARM	(1)	
2.		CAPSCREW 1/4"-20 NC x 3/4	(2)	
3.		LOCK NUT 1/4"-20 NC	(2)	
4.	272-2362	GROMMET	(1)	1
5.		WIRE-RED (36" LG.)	(1)	
6.		WIRE BLACK (6" LG.)	(1)	
7.		WIRE CONNECTOR	(1)	

Figure 21. Back-Up Alarm

BODY PROP OPERATION

BE SURE THAT BODY IS UNLOADED BEFORE USING PROP.

⚠ CAUTION

TWO PROPS ARE INSTALLED ON THE VEHICLE. **BOTH MUST BE USED**.

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

TO STORE:
4. RAISE BODY SLIGHTLY. BE SURE HOIST CONTROL VALVE IS IN HOLD POSITION.
5. RETURN PROPS TO TRANSIT POSITION.

DECALS AND SERIAL NUMBER PLATES

Install decals according to the instructions below. Refer to figure 21 for decal location. Model and serial numbers are located by manufacture as shown in figure 21.

1. WARNING DECAL #212A735 is 1-7/8” x 4-1/2” (48 mmx 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 21.

5. If the installation has the standard 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 21.

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 21.

8. CAUTION DECAL #212B1171 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.

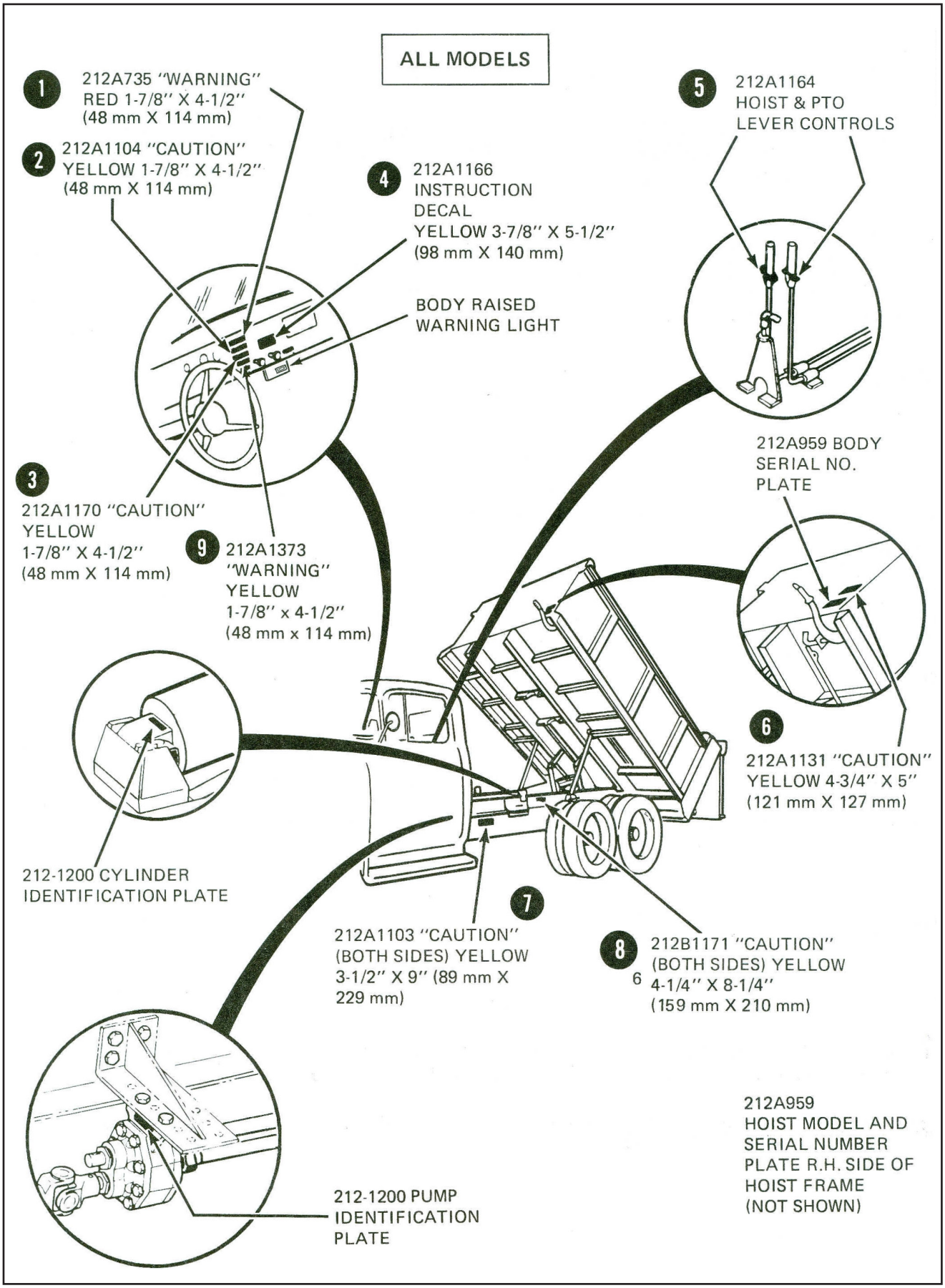


Figure 22. Decals and Serial Number Plates