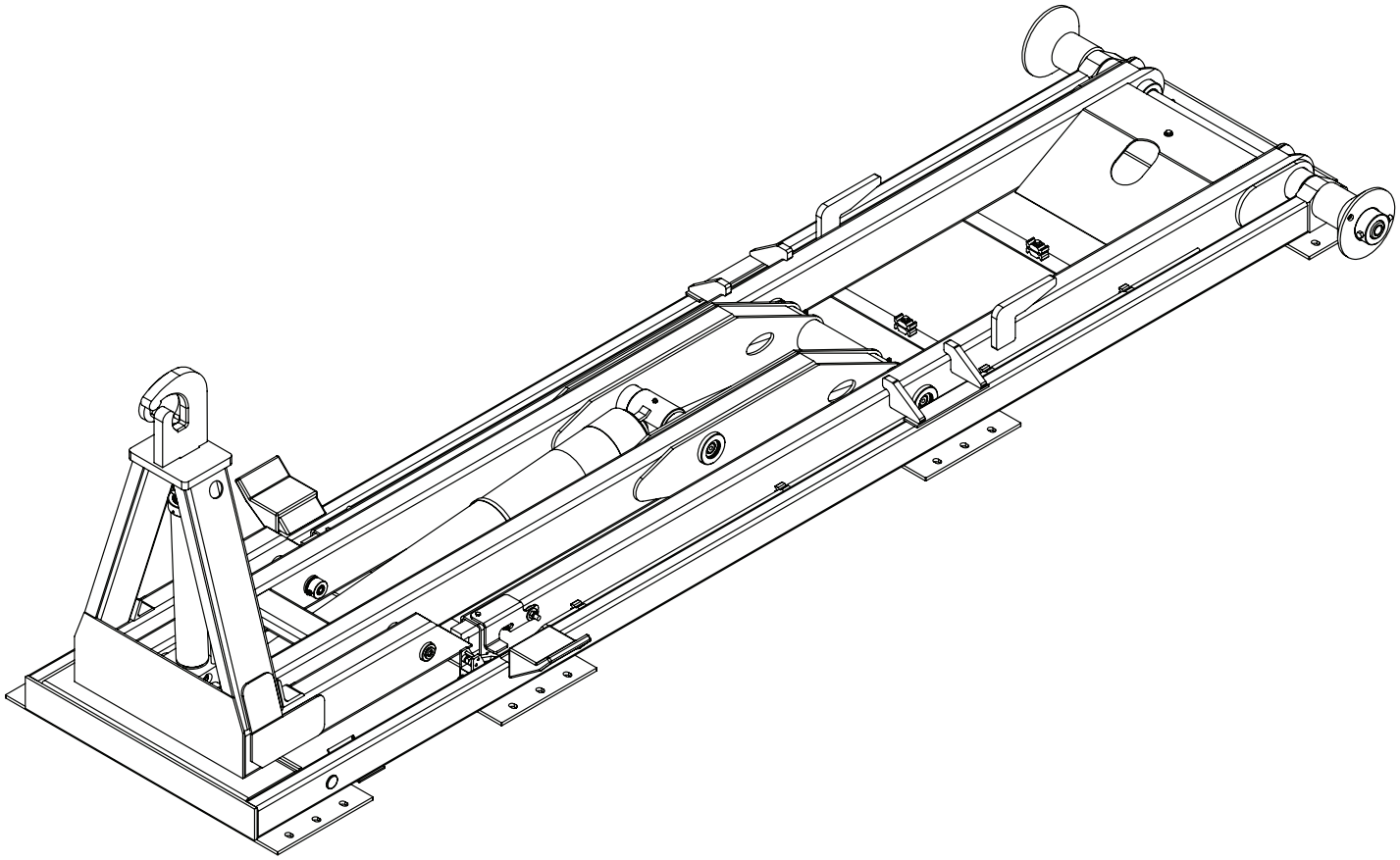
120-14 Flex Hooklift
Owner's Manual

Installation • Assembly Drawings • Parts



Stellar Industries, Inc.
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800-321-3741
Fax: 641-923-2811
www.stellarindustries.com

Subject to Change without Notification.
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Rev 3.9
PN 89078

Serial Tag Location

⚠ WARNING

Operating, maintaining, and servicing a Stellar product may expose you to chemicals including, but not limited to, engine exhaust, carbon monoxide, phthalates, and lead. These chemicals are known to the State of California to cause cancer and birth defects (or other reproductive harm). To keep your exposure to a minimum, be sure to avoid breathing exhaust and service your Stellar product in a well-ventilated area while wearing gloves or washing your hands frequently. For more information, go to www.P65Warnings.ca.gov/passenger-vehicle.

The serial tag should be located on the right side (passenger side) of the base assembly:

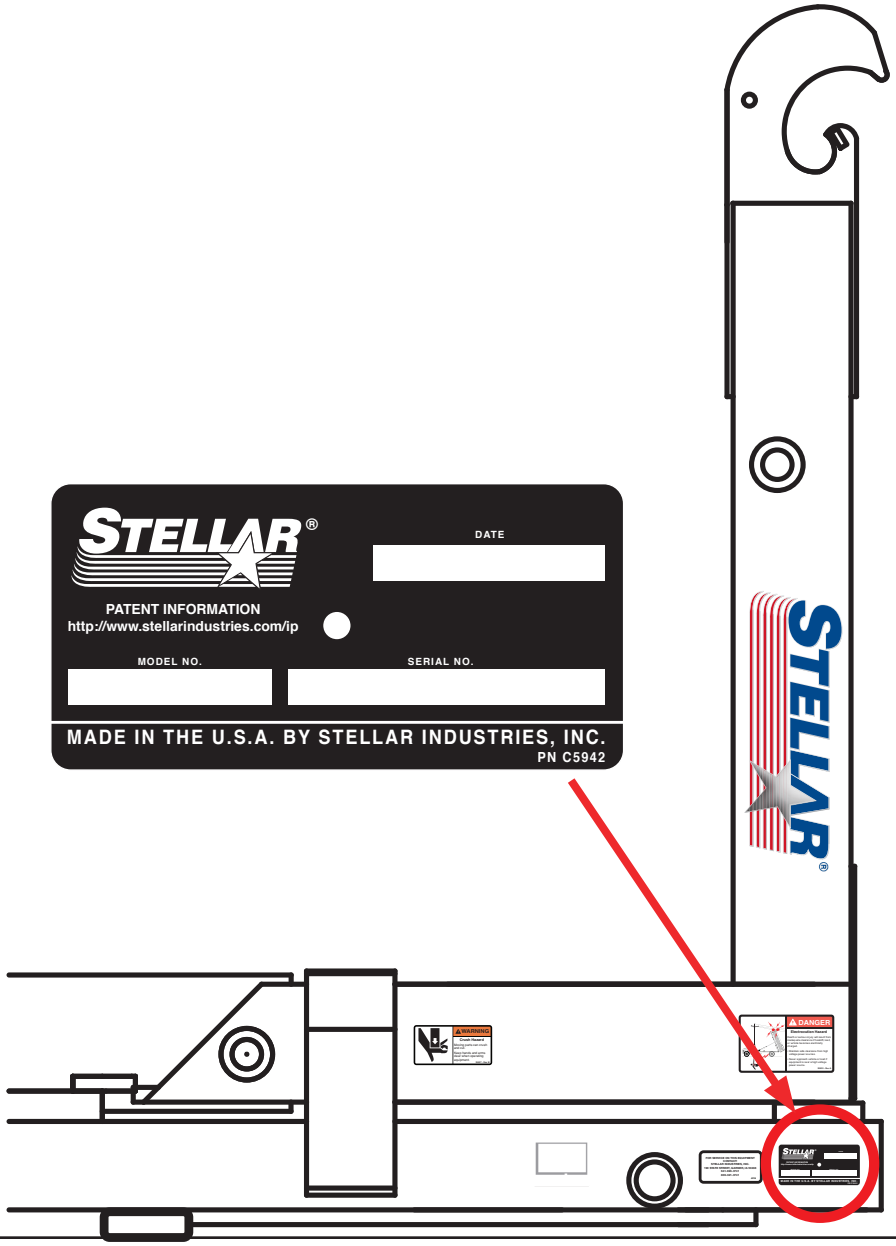


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NOTICE

Cold Weather Performance

Although clear data on cold weather performance from every steel manufacturer is not available for all types and thicknesses of steel, Stellar Industries is confident that the weldments on our products will operate to 100% of their intended purpose to temperatures down to -40° F / C.

It is recommended if Stellar manufactured equipment needs to be used in temperatures below -40° F / C, the operator should pull the unit into a climate-controlled area and allow the weldments to warm up to and then maintain a temperature above this level.

Introduction

A copy of this manual is provided with every hooklift and can be found in the hard plastic manual case that is installed on the chassis. A copy of this manual shall remain with the hooklift at all times.

Throughout the manual, three signal words will be used to bring attention to important items:

NOTICE A NOTICE signal word indicates a practice not related to physical injury.

⚠WARNING A WARNING signal word indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠ DANGER A DANGER signal word indicates a hazardous situation which, if not avoided, will result in death or serious injury.

Information contained within this manual does not cover operation, maintenance, or troubleshooting. Please refer to the General Shuttle Hooklift Manual for details on these items.

This manual is not binding. Stellar Industries, Inc. reserves the right to change, at any time, any or all of the items, components, and parts deemed necessary for product improvement or commercial/production purposes. This right is kept with no requirement or obligation for immediate mandatory updating of this manual.

If more information is required or technical assistance is needed, or if you feel that any part of this manual is unclear or incorrect, please contact the Stellar Customer Service Department by phone at 800-321-3741 or email at service@stellarindustries.com.

For Technical Questions, Information, Parts, or Warranty, Call Toll-Free at

800-321-3741

Hours: Monday - Friday, 8:00 a.m. - 5:00 p.m. CST

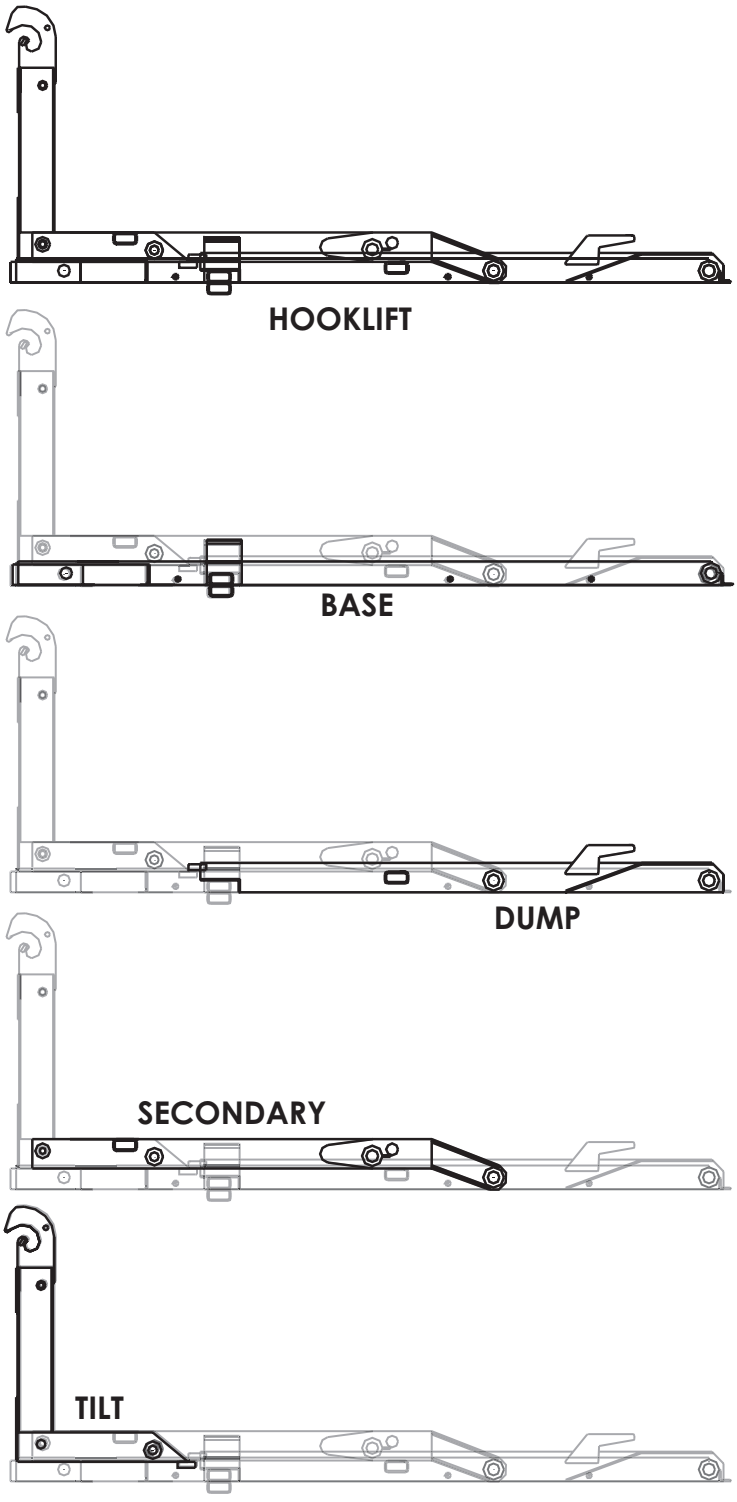
Or email at the following addresses:

Technical Questions, and Information	service@stellarindustries.com
Order Parts	parts@stellarindustries.com
Warranty Information	warranty@stellarindustries.com

Hooklift Nomenclature

The Stellar® Shuttle is a hydraulic, body-loading device when mounted on a truck chassis. It can handle a multitude of bodies ranging from flatbeds to recycling containers and dump bodies.

The Shuttle consists of four basic parts: the base, dump, secondary, and tilt sections. Please take the time to familiarize yourself with the various components. Knowing the proper terminology is necessary to get the full benefit of this manual.

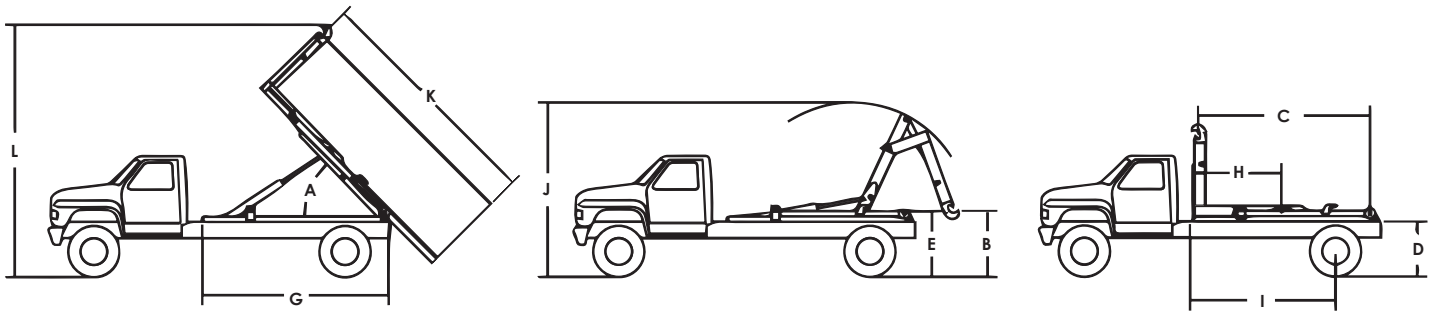


Chapter 1 - Specifications

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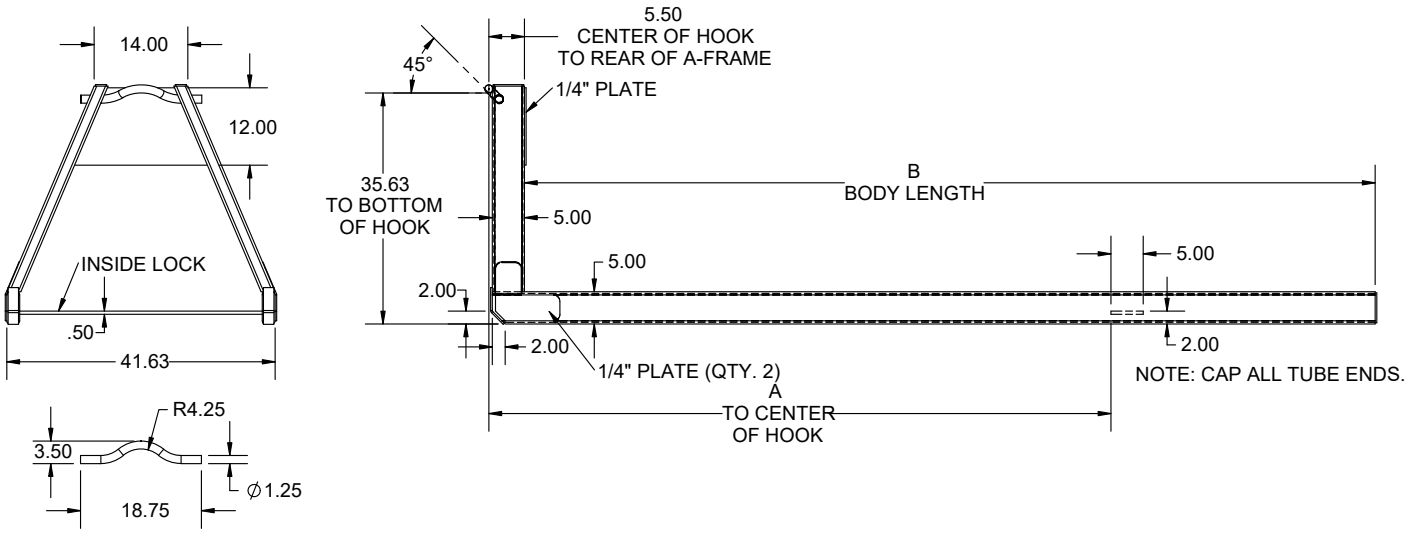
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Model 120-14 Flex Specifications



MODEL 120-14 FLEX		
	LIFTING / DUMPING CAPACITY:	UP TO 16,000 LB *(7,257 kg)*
A	DUMP ANGLE:	50°
B	LOWEST HOOK HEIGHT:	28*" (71 cm)*
C	EFFECTIVE LENGTH:	151" *(3,835 mm)*
D	TRUCK FRAME HEIGHT:	36" *(92 cm)*
E	HOOKLIFT HEIGHT:	41.5" *(105 cm)*
G	HOOKLIFT LENGTH:	161" *(409 cm)*
H	HOOKLIFT CENTER OF GRAVITY:	70" *(178 cm)*
I	CHASSIS CAB TO AXLE:	120" TO 130" *(305 to 330 cm)*
J	MAX HEIGHT WHEN LOADING:	136" *(345 cm)*
K	LONGEST BODY TO DUMP:	192" *(488 cm)*
L	MAX HEIGHT WHEN DUMPING:	187" *(475 cm)*
	OPERATING PRESSURE:	VARIABLE - SEE INSTALL CHAPTER
	HYDRAULIC FLOW:	NOT TO EXCEED 16 GPM
	SHIPPING WEIGHT:	1,650 LBS *(748kg)*
	HOOK HEIGHT:	35.63" *(90.5 cm)*
	SHIPPING DIMENSIONS (LXHXW):	161" X 49" X 47"
	MINIMUM TRUCK GVWR:	10,500 – 26,000 LB *(4,763 – 11,793 kg)*
	RBM:	510,000

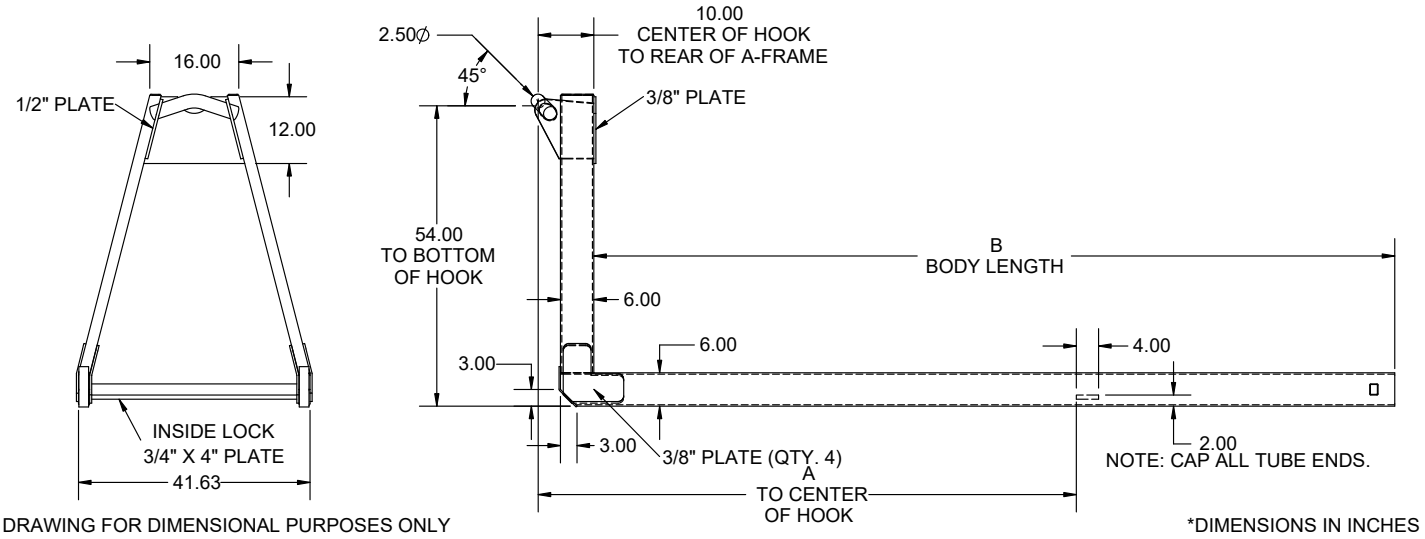
Acceptable Subframe Dimensions - Model 84-10 Flex



*DIMENSIONS IN INCHES

120-14 FLEX SKIDS			
PART	**DESCRIPTION**	**A**	**B**
8549	SKID 35.63HH 5X2 13’ 110” INSIDE LOCK	110.00	156.00
132927	SKID 35.63HH 5X2 14’ 110” INSIDE LOCK	110.00	168.00
8551	SKID 35.63HH 5X2 15’ 110” INSIDE LOCK	110.00	180.00

Skid Drawing Flex36 54.00HH - PN 135605



DRAWING FOR DIMENSIONAL PURPOSES ONLY

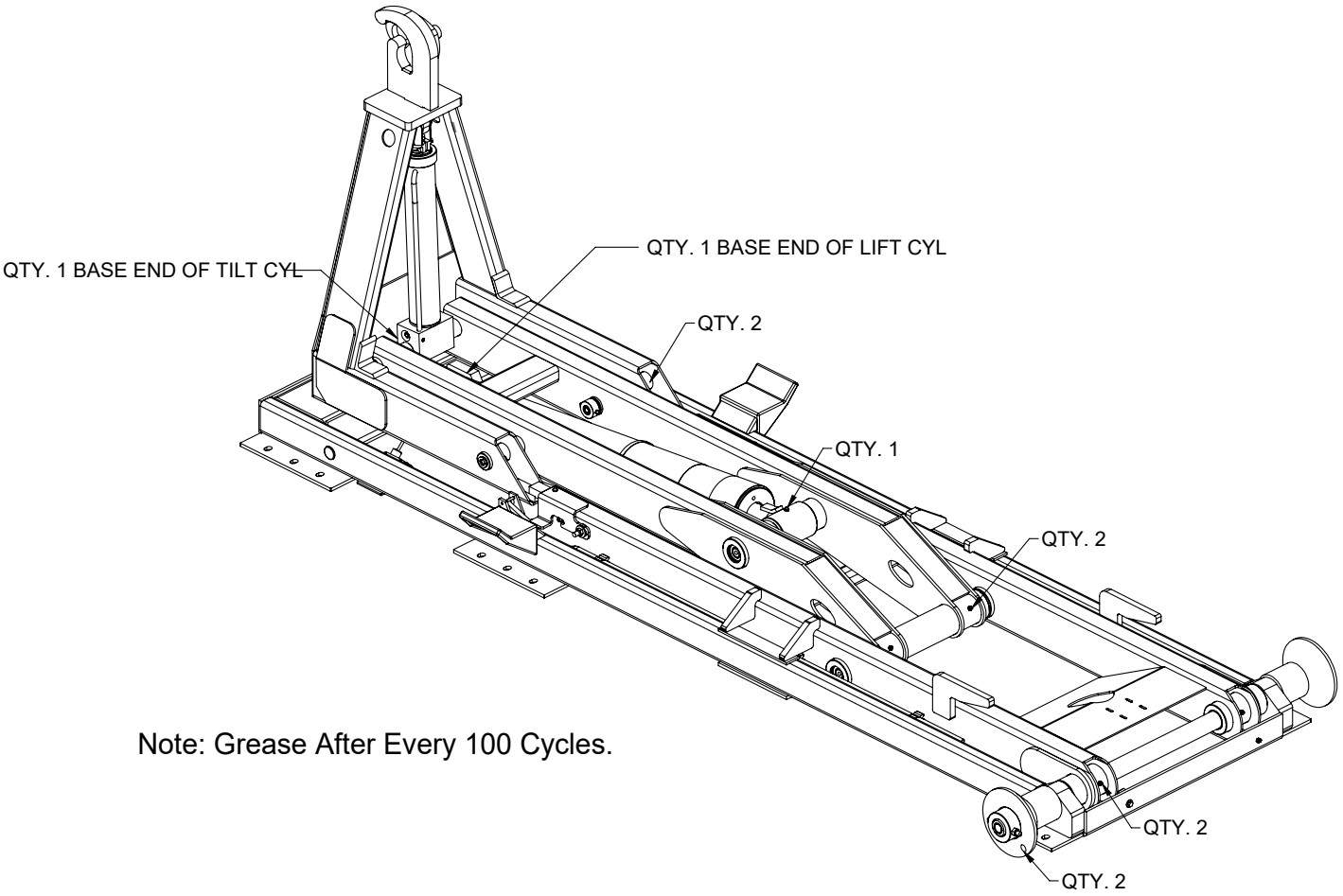
*DIMENSIONS IN INCHES

84-10 FLEX36 SKIDS			
PART NO	**DESCRIPTION**	**A**	**B**
8559	SKID 54.00HH 6X2 10’ 97.25” INSIDE LOCK	97.25	120
8560	SKID 54.00HH 6X2 11’ 97.25” INSIDE LOCK	97.25	132
132689	SKID 54.00HH 6X2 12’ 97.25” INSIDE LOCK	97.25	144

108-12 FLEX36 SKIDS			
PART NO	**DESCRIPTION**	**A**	**B**
8561	SKID 54.00HH 6X2 12’ 110” INSIDE LOCK	110	144
8562	SKID 54.00HH 6X2 13’ 110” INSIDE LOCK	110	156
8563	SKID 54.00HH 6X2 14’ 110” INSIDE LOCK	110	168

120-14 FLEX36 SKIDS			
PART NO.	**DESCRIPTION**	**A**	**B**
8562	SKID 54.00HH 6X2 13’ 110” INSIDE LOCK	110	156
8563	SKID 54.00HH 6X2 14’ 110” INSIDE LOCK	110	168
136863	SKID 54.00HH 6X2 15’ 110” INSIDE LOCK	110	180

Flex36 Grease Zerk Locations



Note: Grease After Every 100 Cycles.

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Chapter 2 - Installation

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General Installation

This chapter is designed to serve as a general guide for the installation of a Stellar® Flex 120-14 Hooklift. Each installation is considered unique so certain portions of this chapter may or may not apply to your direct application. If a question should arise during the installation process, please contact Stellar Customer Service at (800) 321 3741.

PTO and Pump installation instructions are provided by the corresponding manufacturers. For more information on which PTO and Pump fit your application, please contact your local Stellar Distributor or Stellar Customer Service.

⚠WARNING Do not install this hooklift on a chassis not capable of handling the loads imposed on it. Failure to do so may result in serious injury or death.

NOTICE Do not weld or drill holes into the side wall of the base tubes.

Hooklift Mounting and Assembly
Study names and locations of the parts and familiarize yourself with the hooklift before starting the assembly . Reading the step-by-step instructions that follow will be helpful.

Assembly
Select an area for assembly that will be large enough to accommodate the completed unit. The surface of the work area should be as level as possible. Use the proper hand tools to ensure proper bolt tightness. Refer to the torque data chart in this chapter for the recommended torque values for different sizes of bolts.

Model Number
Know the model number of the Stellar® Hooklift being mounted. Use this model number whenever referring to the assembly or parts listing pages. The number is stamped on the name plate which is located on the front frame member.

Installer Notice

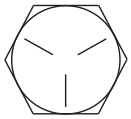
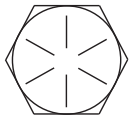
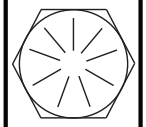
According to Federal Law (49 cfr part 571), each final-stage manufacturer shall complete the vehicle in such a manner that it conforms to the standards in effect on the date of manufacture of the incomplete vehicle, the date of final completion, or a date between those two dates. This requirement shall, however, be superseded by any conflicting provisions of a standard that applies by its terms to vehicles manufactured in two or more stages.

Therefore, the installer of Stellar® Hooklifts is considered one of the manufacturers of the vehicle. As such a manufacturer, the installer is responsible for compliance with all applicable federal and state regulations. They are required to certify that the vehicle is in compliance with the Federal Motor Vehicle Safety Standards and other regulations issued under the National Traffic and Motor Vehicle Safety Act.

Please reference the Code of Federal Regulations, title 49 - Transportation, Volume 5 (400-999), for further information, or visit http://www.gpoaccess.gov/nara/index.html for the full text of Code of Federal Regulations.

Torque Data Chart

When using the torque data in the chart, the following rules should be observed:

		GRADE 5		GRADE 8		GRADE 9
						
Size (DIA-TPI)	**Bolt DIA (Inches)**	**Plain (Ft-Lb)**	**Plated (Ft-Lb)**	**Plain (Ft-Lb)**	**Plated (Ft-Lb)**	**Plated (Ft-Lb)**
5/16-18	0.3125	17	13	25	18	22
3/8-16	0.3750	31	23	44	33	39
7/16-14	0.4375	49	37	70	52	63
1/2-13	0.5000	75	57	105	80	96
9/16-12	0.5625	110	82	155	115	139
5/8-11	0.6250	150	115	220	160	192
3/4-10	0.7500	265	200	375	280	340
7/8-9	0.8750	395	295	605	455	549
1-8	1.000	590	445	910	680	823
1 1/8-7	1.1250	795	595	1290	965	1167
1 1/4-7	1.2500	1120	840	1815	1360	1646
1 3/8-6	1.3750	1470	1100	2380	1780	2158
1 1/2-6	1.500	1950	1460	3160	2370	2865

- Bolt manufacturer's particular specifications should be consulted when provided.
- Flat washers of equal strength must be used.
- All torque measurements are given in foot-pounds. To convert to inch-pounds, multiply by 12.
- Torque values specified are for bolts with residual oils or no special lubricants applied. If special lubricants of high stress ability, such as Never-Seez compound graphite and oil, molybdenum disulphite, colloidal copper or white lead are applied, multiply the torque values in the charts by the factor .90. The use of Loctite does not affect the torque values listed above.
- Torque values for socket-head capscrews are the same as for Grade 8 capscrews.
- Do not use these values if a different torque value or tightening procedure is given for a specific application. Torque values listed are for general use only. Check tightness of fasteners periodically.
- Sheer bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade.
- Fasteners should be replaced with the same or higher grade. If higher grade fasteners are used, these should only be tightened to the strength of the original.
- Tighten plastic insert or crimped steel-type lock nuts to approximately 110 percent of the dry torque values shown in the chart below, applied to the nut, not to the bolt head. Tighten toothed or serrated-type lock nuts to the full torque value.

NOTICE

"Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings. "Dry" means plain or zinc plated without lubrication. Tighten lubricated bolts to approximately 80% of dry bolts.

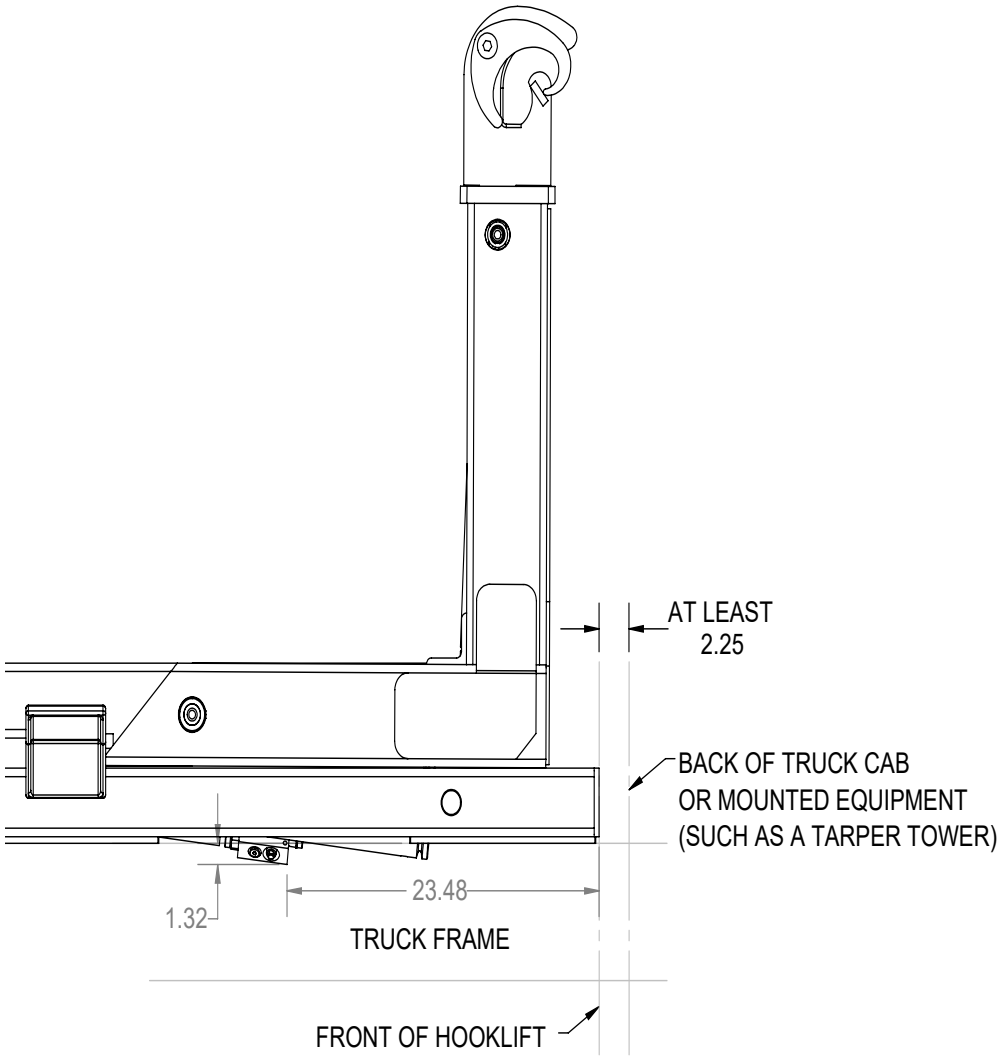
Installation Note

Every hooklift installation is unique. However, certain guidelines exist that apply to every model. Listed below is a general set of chronological steps that may be followed when installing a Stellar Hooklift. If any questions arise during the installation process, feel free to contact your local dealer or Stellar Customer Service at 800-321-3741.

Step 1: Set The Hooklift Onto The Truck Frame.

- Visually inspect the truck and look for any potential issues. For example: Clearance problems, cross members extending too high, insufficient room in front of the hooklift for tarpers, exhaust manifolds, etc., or insufficient room in the rear to allow for bumper selection. **NOTE: STELLAR INDUSTRIES RECOMMENDS ALLOWING 12" BEHIND THE START OF CLEAR TRUCK FRAME FOR INSTALLATION OF A TARPING SYSTEM.**

- Be sure to square the hooklift on the truck frame to allow for proper measurement. The front of the hooklift needs to be at least 2.50" behind the cab or any equipment mounted behind the cab.

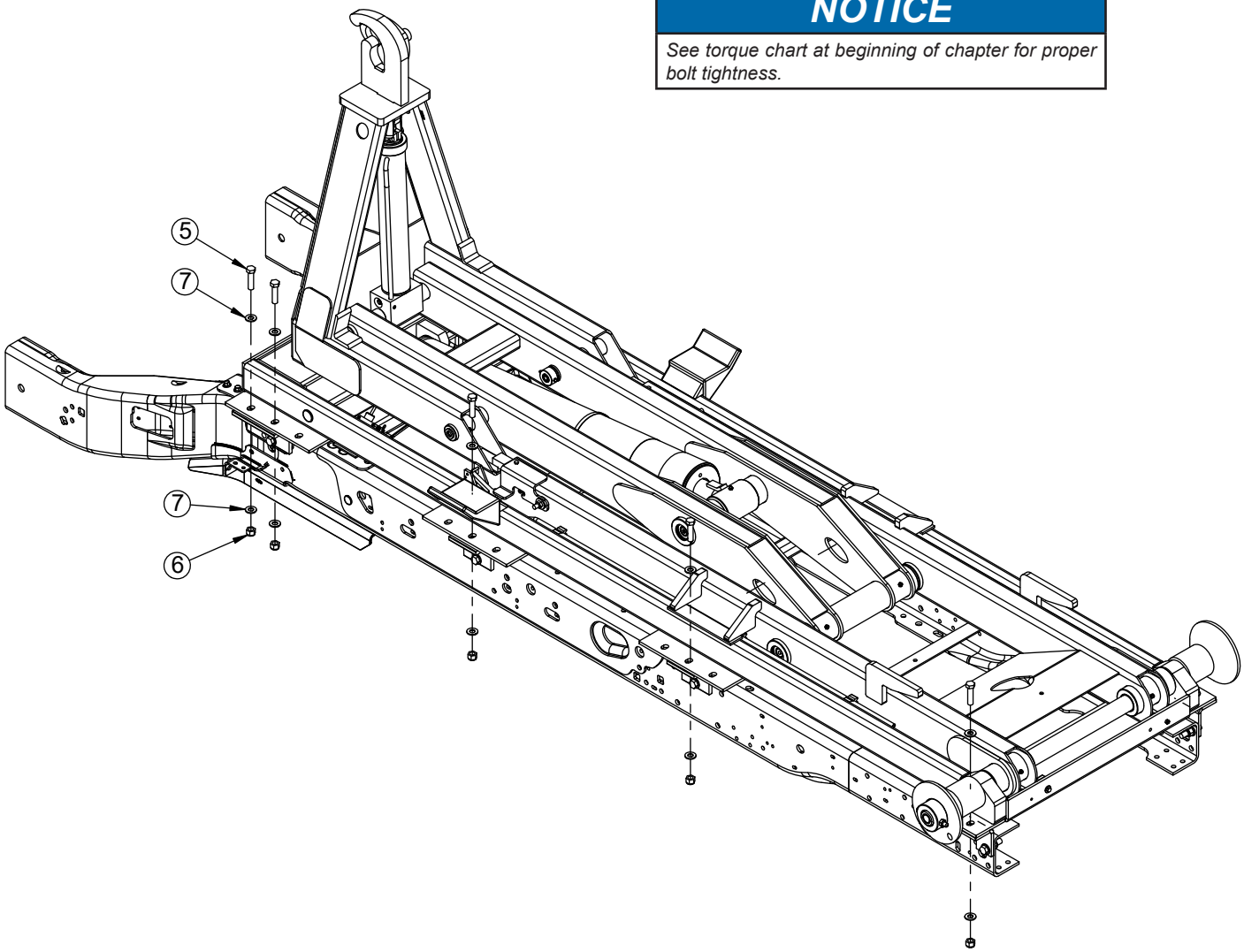


Step 2: Bolt Tie-Down Castings To Truck Frame.

Bolt each tie-down angle to the truck frame (both sides):

NOTICE

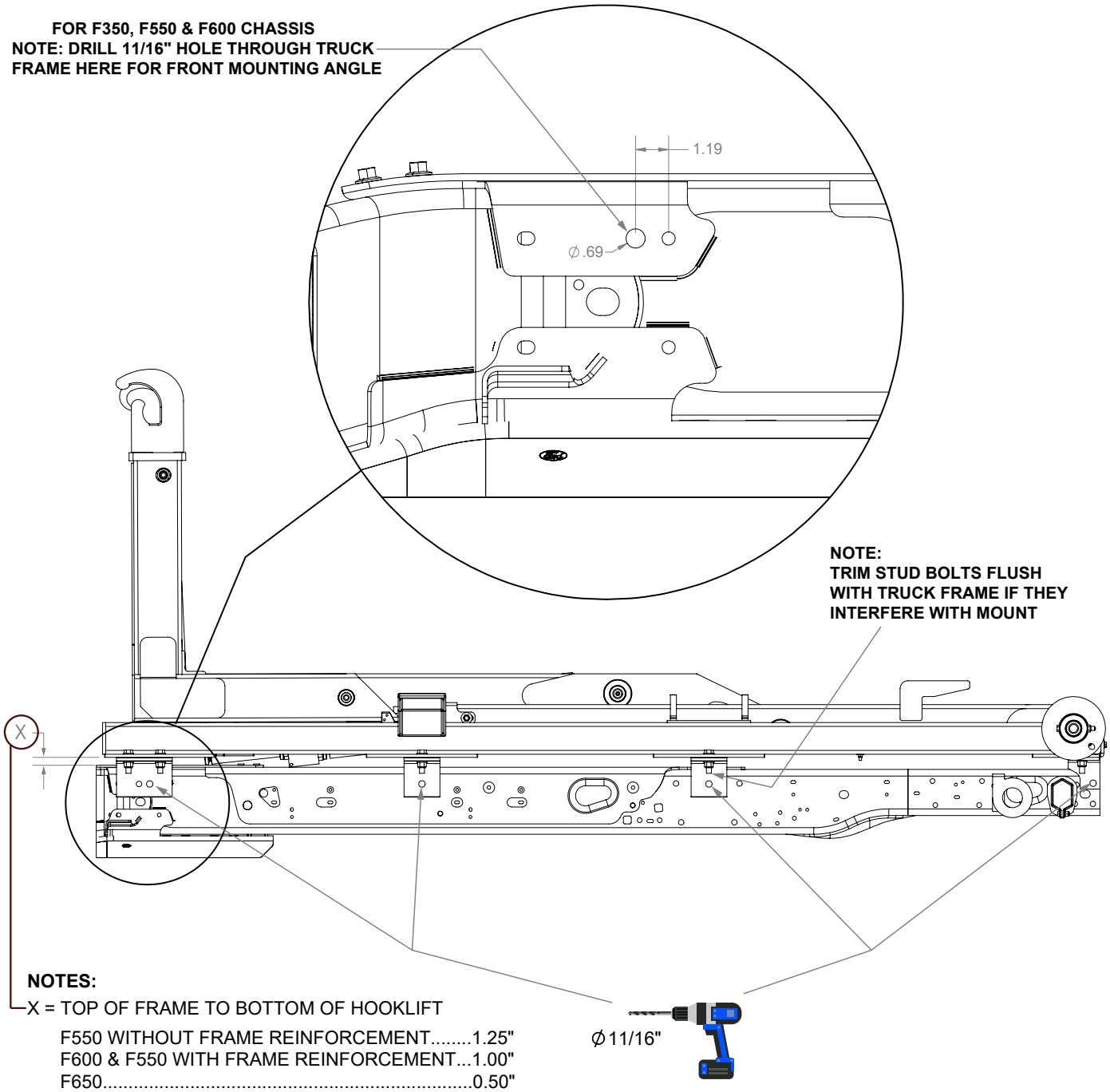
See torque chart at beginning of chapter for proper bolt tightness.



PN 114321			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	114322	ANGLE 5.00X3.00X0.50WX7.00 W/SLOTS TALL	2
2	114323	ANGLE FORMED FLEX BASE MNT SS TALL	1
3	114324	ANGLE FORMED ECCR BASE MNT CS TALL	1
4	114325	ANGLE 5.00X3.00X0.50WX4.50 W/SLOT	4
5	C1026	CAP SCR 0.63-11X2.50 HHGR8	18
6	24868	NUT 0.63-11 HHGR8 NYLOC	18
7	C5902	WASHER 0.63 SAE FLAT YELLOW GR8	36
REV. INITIAL RELEASE			

Step 3: Drill Mounting Holes Into Frame Rail.

Using the holes in the tie-down castings as guides, drill 11/16” mounting holes through the truck frame as shown (Both Sides):



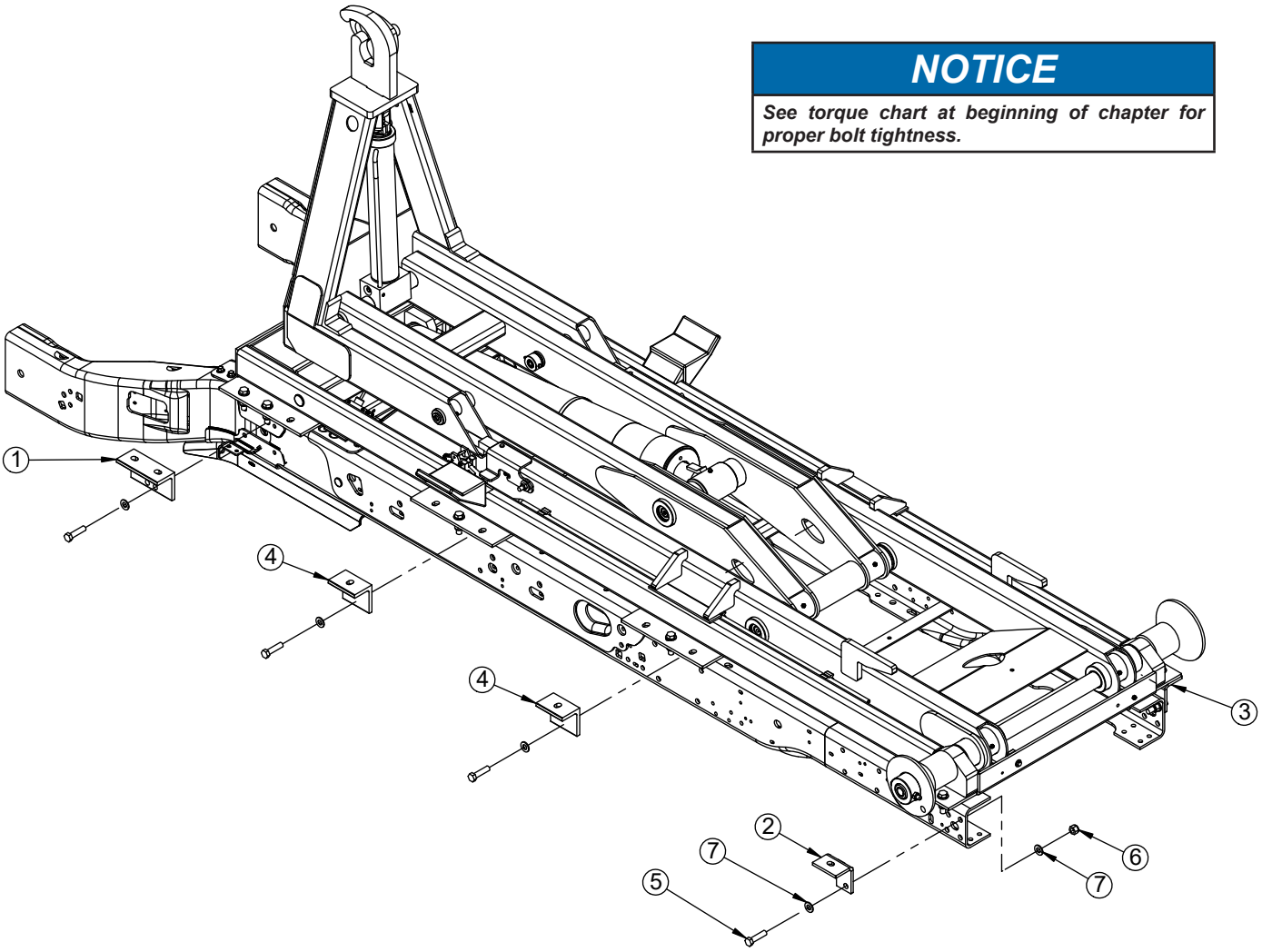
NOTES:

X = TOP OF FRAME TO BOTTOM OF HOOKLIFT

F550 WITHOUT FRAME REINFORCEMENT.....1.25"
F600 & F550 WITH FRAME REINFORCEMENT...1.00"
F650.....0.50"
RAM 5500.....1.25”
FLUSH TO FRAME FOR STRAIGHT FRAME TRUCKS

Step 4: Bolt Tie-Down Castings To Mounting Plates.

Bolt each tie-down casting to the underside of each mounting plate located on the outside of the main rails of the base (both sides):



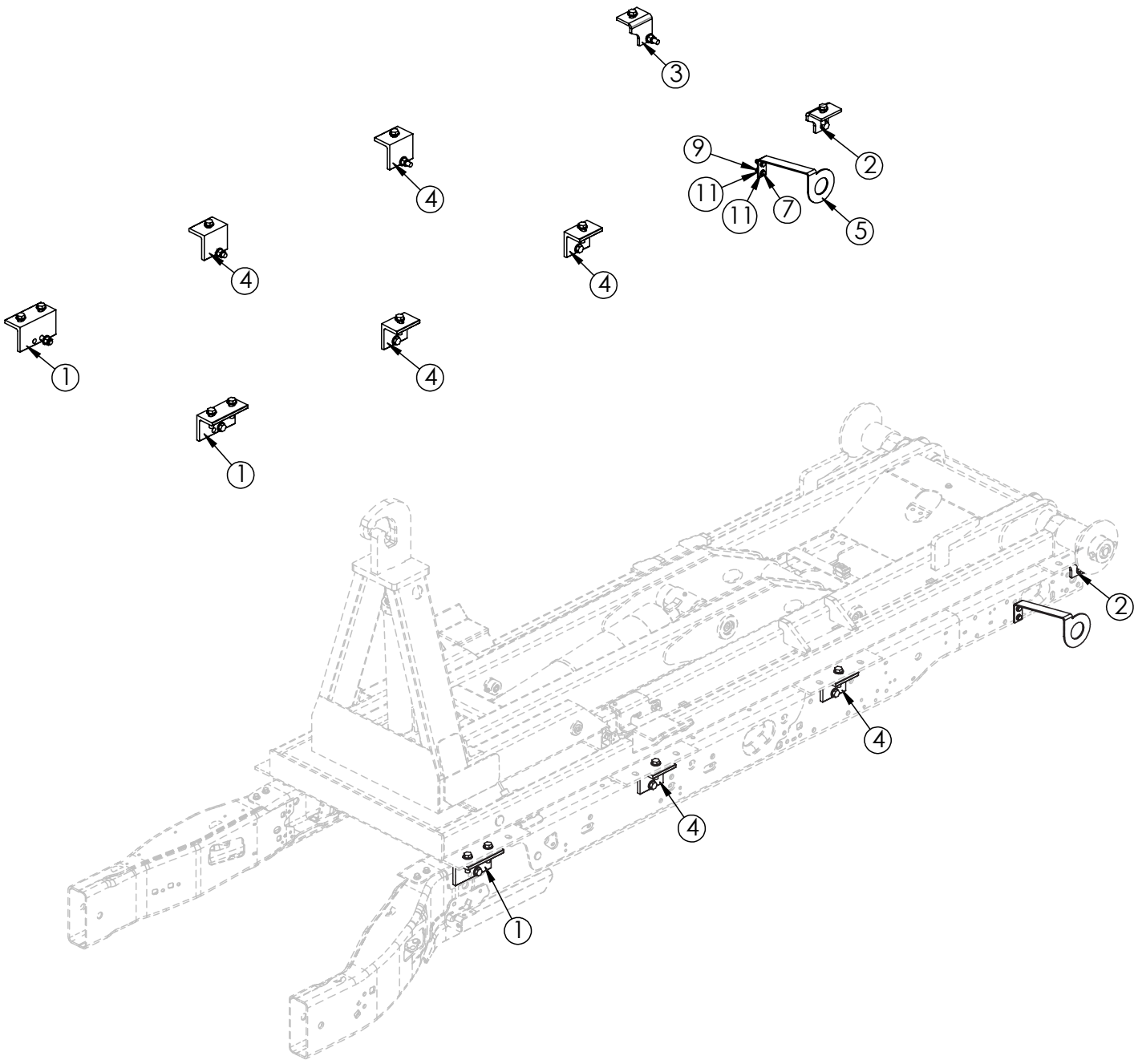
NOTICE

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5	C1026	CAP SCR 0.63-11X2.50 HHGR8	18
6	24868	NUT 0.63-11 HHGR8 NYLOC	18
7	C5902	WASHER 0.63 SAE FLAT YELLOW GR8	36
REV. INITIAL RELEASE			

NOTE:
THE MOUNTING PLATES ARE DESIGNED WITH MULTIPLE SLOTS TO OFFER MORE FLEXIBILITY IN MOUNTING LOCATIONS. ADDITIONAL HOLES MAY NOT BE ADDED.

Mounting Kit - PN 114321

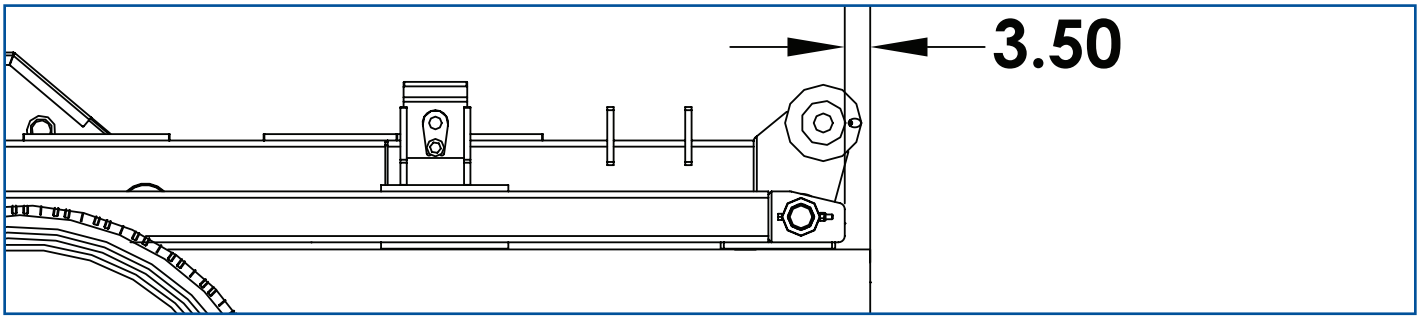


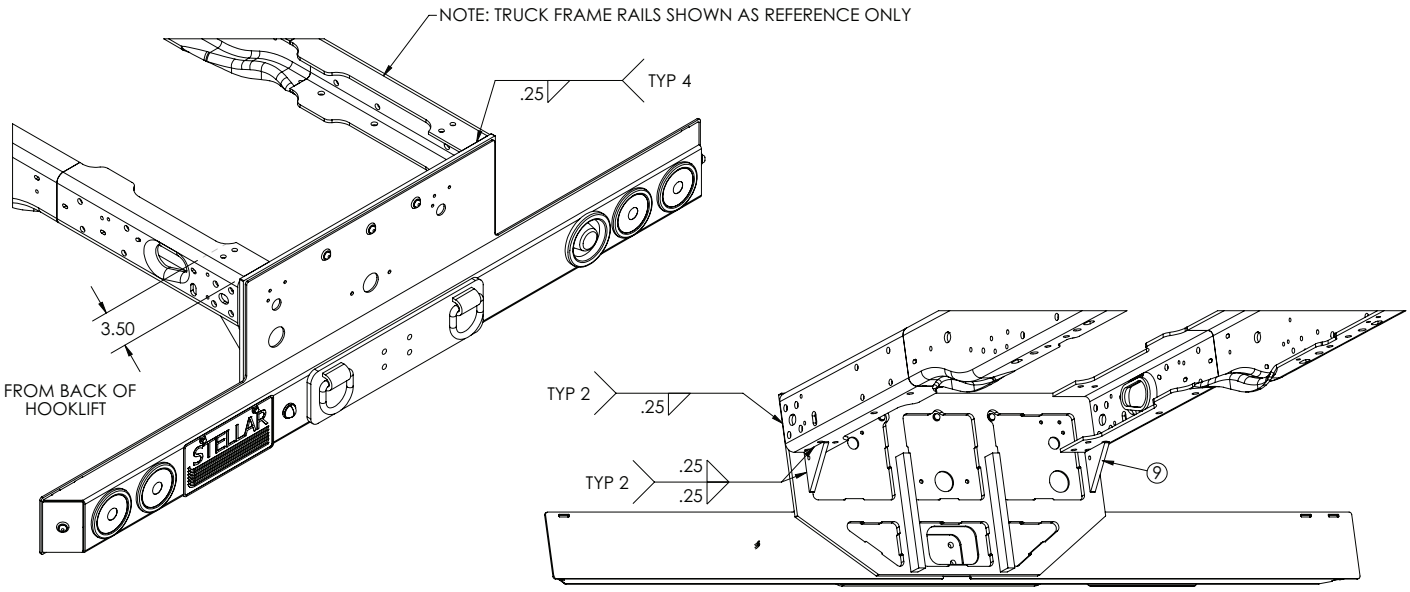
Mounting Kit - PN 114321

PN 114321			
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2	114323	ANGLE FORMED FLEX BASE MNT SS TALL	1
3	114324	ANGLE FORMED ECCR BASE MNT CS TALL	1
4	114325	ANGLE 5.00X3.00X0.50WX4.50 W/SLOT	4
5	62177	BRKT FUEL FILL	1
6	C1026	CAP SCR 0.63-11X2.50 HHGR8	18
7	13576	CAP SCR 0.38-16X1.25 HHGR8	2
8	24868	NUT 0.63-11 HHGR8 NYLOC	18
9	56673	NUT 0.38-16 HHGR8 NYLOC	2
10	C5902	WASHER 0.63 SAE FLAT YELLOW GR8	36
11	C6353	WASHER 0.38 SAE FLAT YELLOW GR8	4
REV. INITIAL RELEASE			

Step 5: Install Bumper.

•See NHTSA (National Highway Truck Safety Administration) Regulations for acceptable placement.
• Modify the truck frame as necessary so that it ends 3.50” from the rear of the hooklift.





Step 6: Install tarper tower (If applicable).

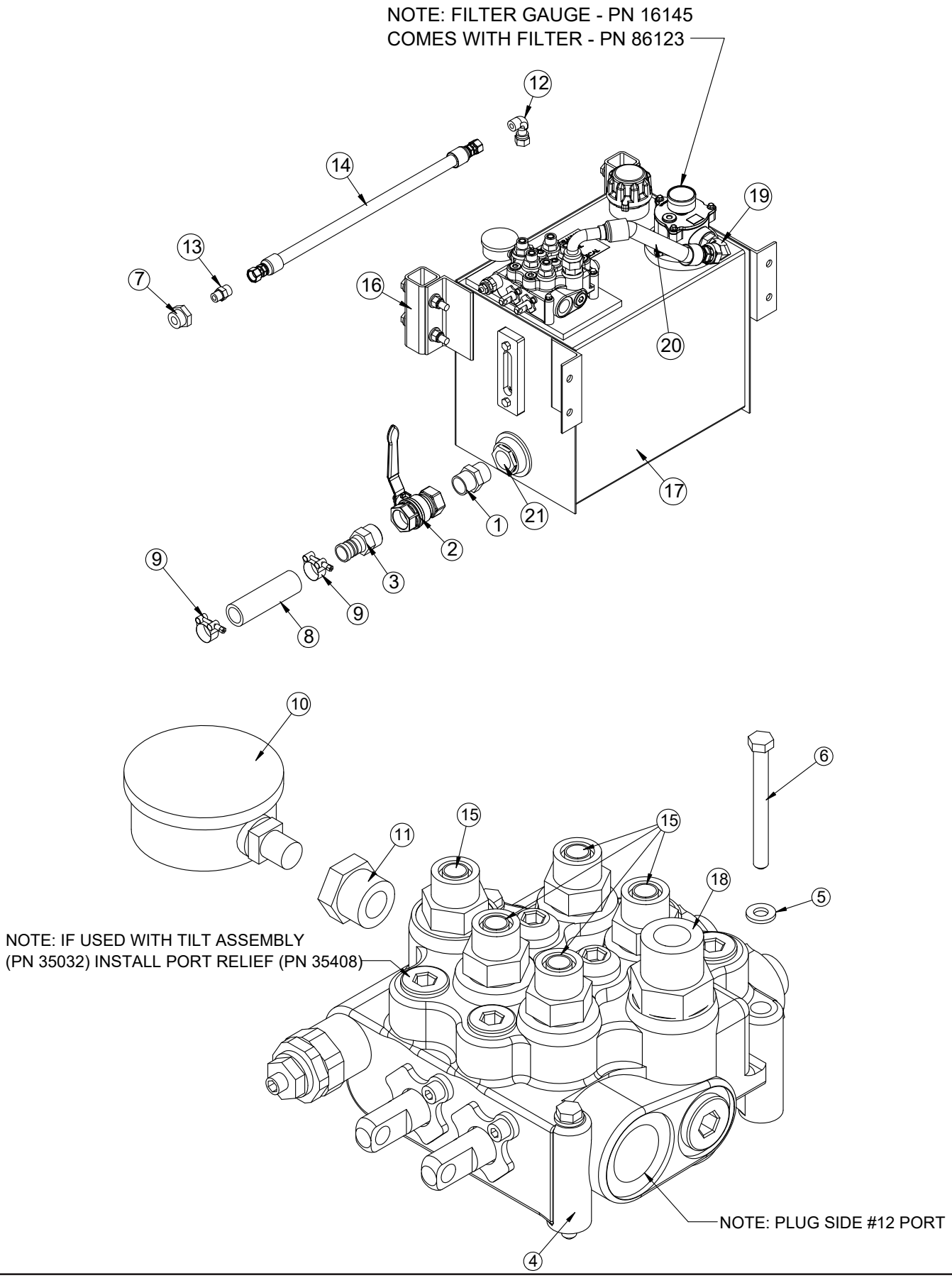
See brand specific installation instructions.

Step 7: Install hydraulic reservoir and valve bank.

• Before drilling and bolting to the frame, confirm adequate room for cable routing between in-cab controls and the valve bank. **Note: The top of the reservoir should not be above the truck frame. Refer to the Reservoir Assembly Drawings for details.**

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Reservoir Assembly (Cable Controls) - PN 87080

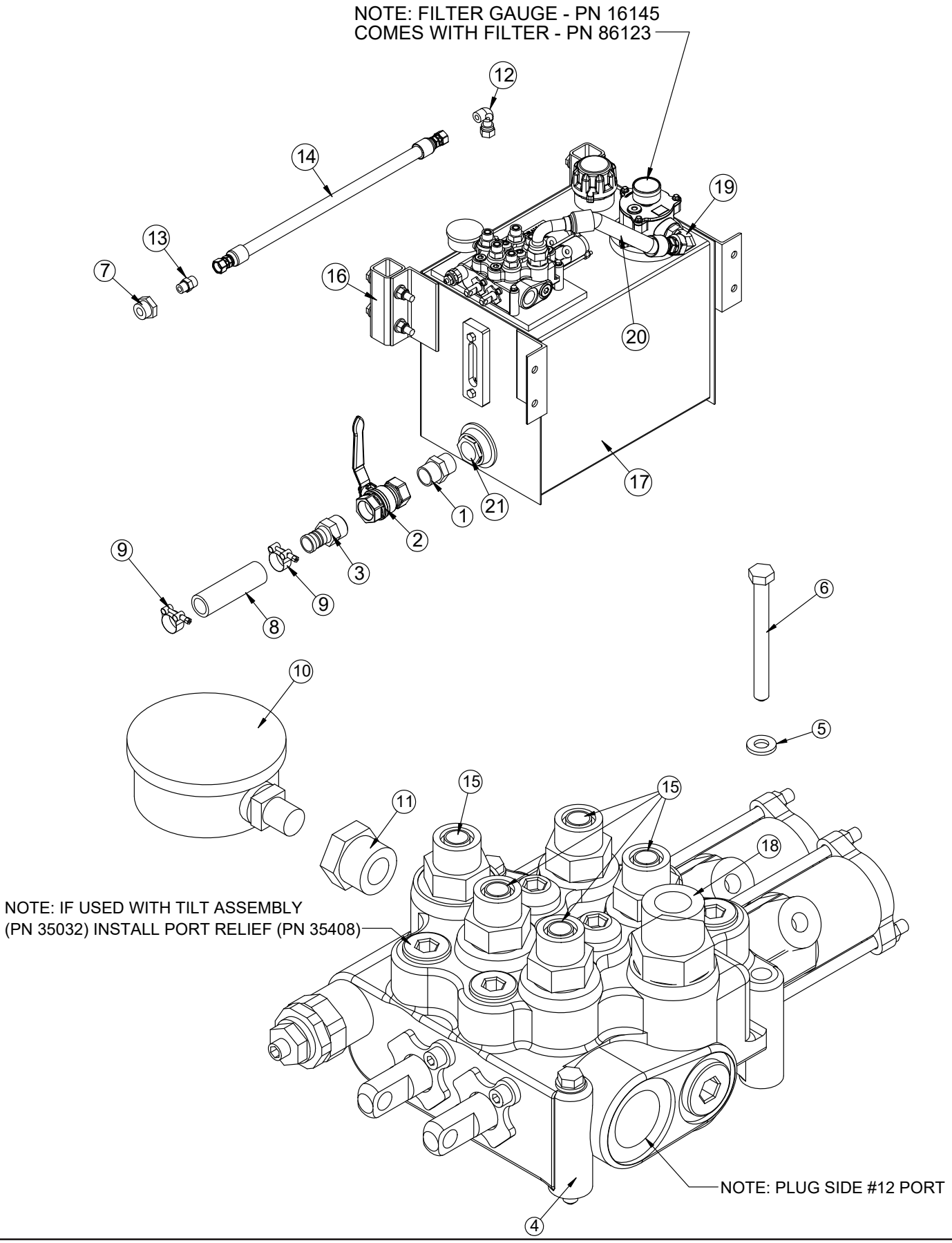


Reservoir Assembly (Cable Controls) - PN 87080 Parts List

PN 87080			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	1115	FTG 20-20 MP-MP HEX NIPPLE STRAIGHT	1
2	C5511	VALVE BALL 1.25	1
3	C2282	FTG 1.25 NPT TO 1.25 BARB	1
4	24611	VB 2-SECT VDM8 BS4-BS4-4200MRV-LCHA-ZNCT	1
5	0521	WASHER 0.25 LOCK	3
6	0339	CAP SCR 0.25-20X2.50 HHGR5	3
7	D0549	FTG 16-8 MORB-FORB STRAIGHT REDUCER	1
8	17767	HOSE SUCT 1.25 10FT	1
9	C0075	HOSE CLAMP HC125	2
10	10094	GAUGE OIL LF 2.5” 0-5000 BM	1
11	25630	FTG 10-4 MORB-FP STRAIGHT	1
12	C2376	FTG 8-8 MFS-FFSS 90	1
13	1554	FTG 8-8 MFS-MORB STRAIGHT	1
14	31676	HOSE 0.50(471TC-JC-JC-8-8-8-120)	1
15	C2252	FTG 8-10 MFS-MORB STRAIGHT	5
16	84341	MNT KIT RSRVR 10GAL	1
17	86117	RSRVR ASM 10GAL K MODEL W/ TANK TOP FILTER	1
18	C2142	FTG 12-12 MFS-MORB STRAIGHT	1
19	C5968	FTG 12-12 MFS-MAORB 90	1
20	87077	HOSE 0.75(300PSI)-12FFSS SHORT-12FFSS 90 SHORT-7.50CL	1
21	C5552	FILTER STRAINER TFS-1220-0	1

ITEMS NOT SHOWN		
PART	**DESCRIPTION**	**QTY**
25941	DECAL LOADER VB VDM8 HOSE LOCATION	1
42971	DECAL OIL FILTER CHANGE	1

Reservoir Assembly (Air Controls) - PN 87083

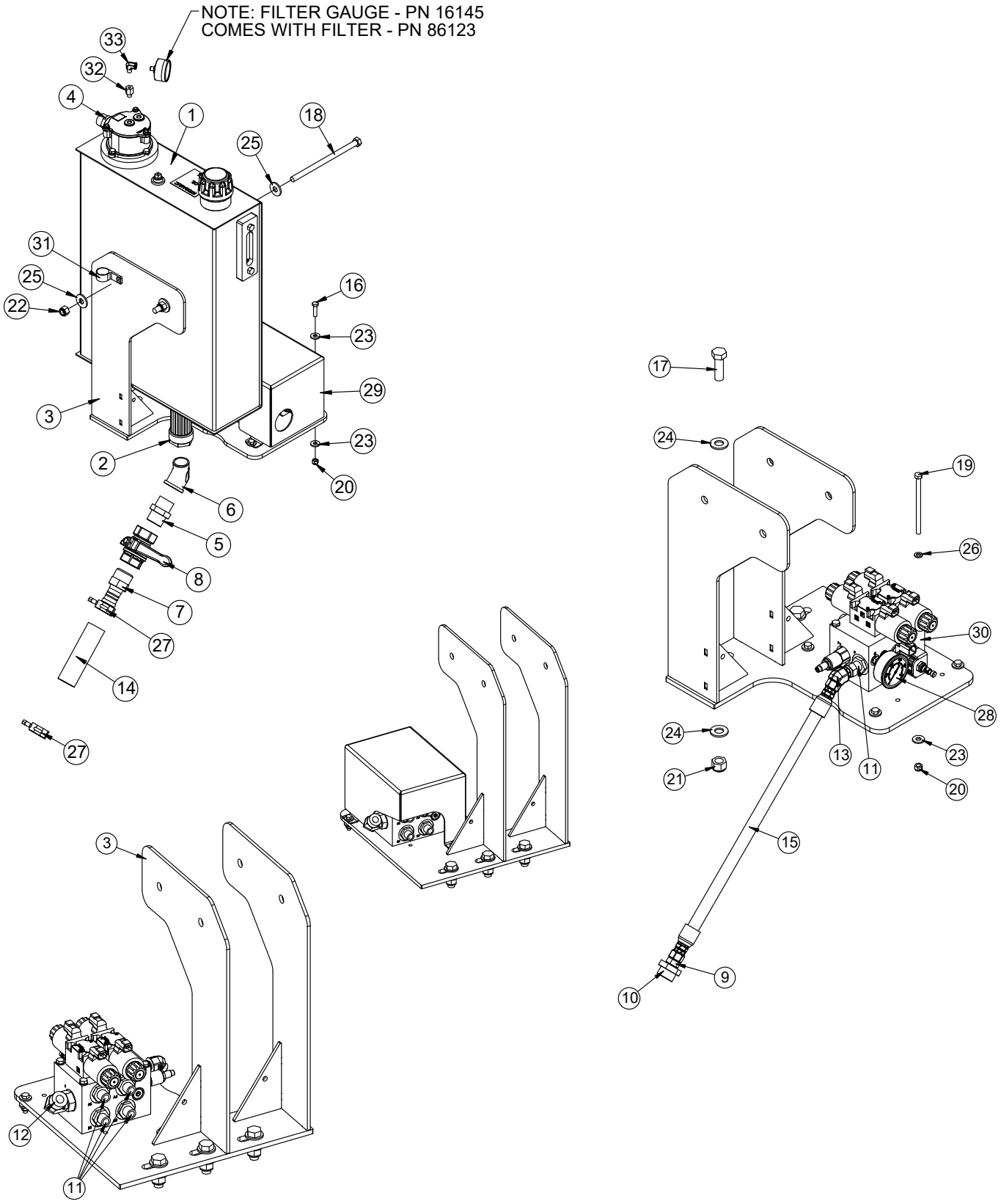


Reservoir Assembly (Air Controls) - PN 87083 Parts List

PN 87083			
ITEM	**PART**	**DESCRIPTION**	QTY
1	1115	FTG 20-20 MP-MP HEX NIPPLE STRAIGHT	1
2	C5511	VALVE BALL 1.25	1
3	C2282	FTG 1.25 NPT TO 1.25 BARB	1
4	25940	VB 2-SECTION VDM8 W/AIR ACTUATORS	1
5	0521	WASHER 0.25 LOCK	3
6	0339	CAP SCR 0.25-20X2.50 HHGR5	3
7	D0549	FTG 16-8 MORB-FORB STRAIGHT REDUCER	1
8	17767	HOSE SUCT 1.25 10FT	1
9	C0075	HOSE CLAMP HC125	2
10	10094	GAUGE OIL LF 2.5” 0-5000 BM	1
11	25630	FTG 10-4 MORB-FP STRAIGHT	1
12	C2376	FTG 8-8 MFS-FFSS 90	1
13	1554	FTG 8-8 MFS-MORB STRAIGHT	1
14	31676	HOSE 0.50(471TC-JC-JC-8-8-8-120)	1
15	C2252	FTG 8-10 MFS-MORB STRAIGHT	5
16	84341	MNT KIT RSRVR 10GAL	1
17	86117	RSRVR ASM 10GAL K MODEL W/ TANK TOP FILTER	1
18	C2142	FTG 12-12 MFS-MORB STRAIGHT	1
19	C5968	FTG 12-12 MFS-MAORB 90	1
20	87077	HOSE 0.75(300PSI)-12FFSS SHORT-12FFSS 90 SHORT-7.50CL	1
21	C5552	FILTER STRAINER TFS-1220-0	1
REV. A			

ITEMS NOT SHOWN		
PART	**DESCRIPTION**	**QTY**
25941	DECAL LOADER VB VDM8 HOSE LOCATION	1
42971	DECAL OIL FILTER CHANGE	1

Reservoir Assembly (Electric Controls) - PN 97093



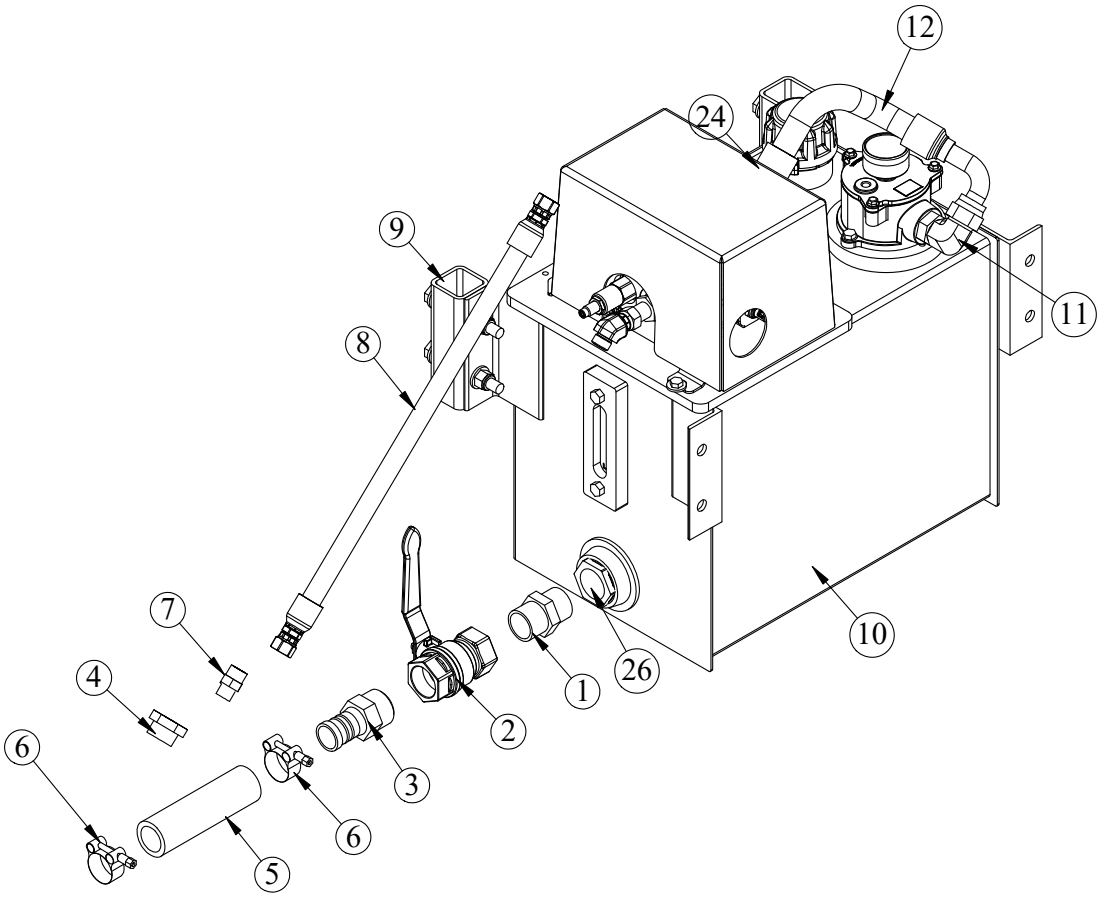
Reservoir Assembly (Electric Controls) - PN 97093 Parts List

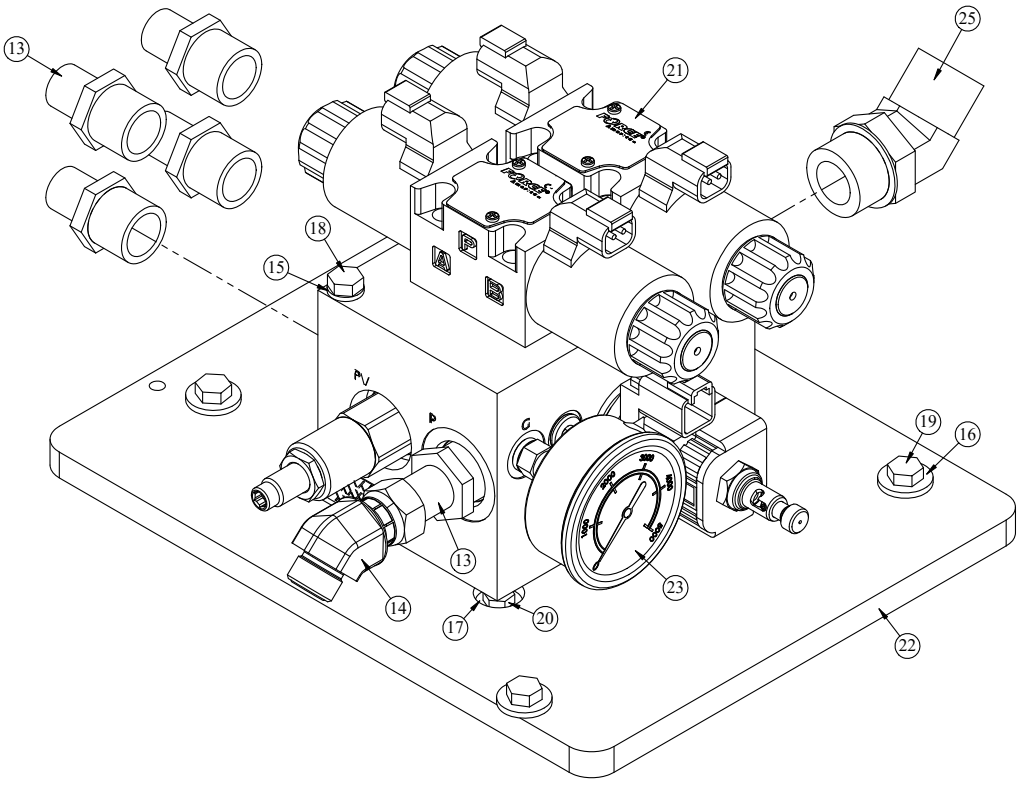
PN 97093			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	88147	RSRVR ASM 10GAL BLKHD/SIDE MNT	1
2	C5552	FILTER STRAINER TFS-1220-0	1
3	115847	BRKT WLDNT RSRVR 10GAL BLKHD/SIDE MNT GEN2	1
4	C2142	FTG 12-12 MFS-MORB STRAIGHT	1
5	1115	FTG 20-20 MP-MP HEX NIPPLE STRAIGHT	1
6	C2245	ST EL 1.25 45 DEG BLK	1
7	C2282	FTG 1.25 NPT TO 1.25 BARB	1
8	C5511	VALVE BALL 1.25	1
9	1554	FTG 8-8 MFS-MORB STRAIGHT	1
10	D0549	FTG 16-8 MORB-FORB STRAIGHT REDUCER	1
11	C1180	FTG 8-12 MFS-MORB STRAIGHT	5
12	C5968	FTG 12-12 MFS-MAORB 90	1
13	40298	FTG 8-8 MFS-FFSS 45	1
14	17767	HOSE SUCT 1.25 10FT	1
15	31676	HOSE 0.50(471TC-JC-JC-8-8-8-120)	1
16	485	CAP SCR 0.31-18X1.25 HHGR5	3
17	C1025	CAP SCR 0.63-11X2.00 HHGR8	3
18	48141	CAP SCR 0.50-13X8.50 HHGR5	2
19	C0934	CAP SCR 0.31-18X5.00 HHGR5	3
20	342	NUT 0.31-18 HHGR5 NYLOC	6
21	24868	NUT 0.63-11 HHGR8 NYLOC	3
22	C6106	NUT 0.50-13 HHGR5 NYLOC	2
23	343	WASHER 0.31 USS FLAT	9
24	C5902	WASHER 0.63 SAE FLAT YELLOW GR8	6
25	352	WASHER 0.50 USS FLAT	4
26	522	WASHER 0.31 LOCK	3
27	C0075	HOSE CLAMP HC125	2
28	39780	GAUGE OIL LF 2.5 0-6000 CBM SAE	1
29	100829	COVER VB D03 2 SECT FOR SIDE MNT TANK	1
30	97092	VB 2 SECT D03	1
31	C5586	CLAMP 1.38	1
32	25465	FTG 2-2 MP-FP STRAIGHT EXPANDER	1
33	C4692	FTG 2-2 MP-FP 90	1
REV.C			

ITEMS NOT SHOWN		
PART	**DESCRIPTION**	**QTY**
25941	DECAL LOADER VB VDM8 HOSE LOCATION	1
42971	DECAL OIL FILTER CHANGE	1

NOTE:
97555 - FROM VB RETURN TO RETURN FILTER

Reservoir Assembly 10Gal 25 D03 - PN 100826



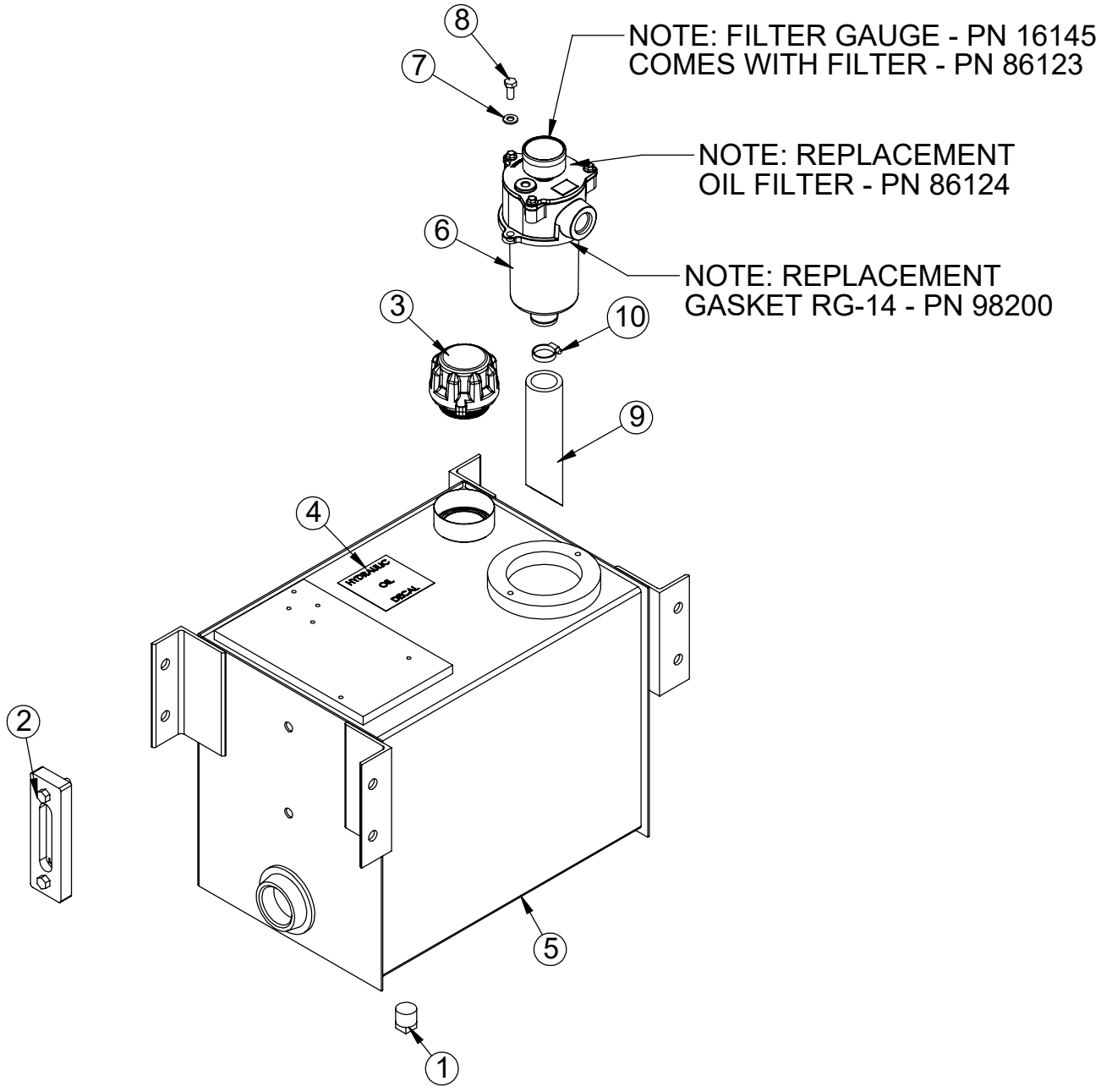


Reservoir Assembly 10Gal 25 D03 - PN 100826 Parts List

PN 100826			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	1115	FTG 20-20 MP-MP HEX NIPPLE STRAIGHT	1
2	C5511	VALVE BALL 1.25	1
3	C2282	FTG 1.25 NPT TO 1.25 BARB	1
4	D0549	FTG 16-8 MORB-FORB STRAIGHT REDUCER	1
5	17767	HOSE SUCT 1.25 10FT	1
6	C0075	HOSE CLAMP HC125	2
7	1554	FTG 8-8 MFS-MORB STRAIGHT	1
8	31676	HOSE 0.50(471TC-JC-JC-8-8-8-120)	1
9	84341	MNT KIT RSRVR 10GAL	1
10	86117	RSRVR ASM 10GAL K MODEL W/ TANK TOP FILTER	1
11	C5968	FTG 12-12 MFS-MAORB 90	1
12	87077	HOSE 0.75(300PSI)-12FFSS SHORT-12FFSS 90 SHORT-7.50CL	1
13	C1180	FTG 8-12 MFS-MORB STRAIGHT	5
14	40298	FTG 8-8 MFS-FFSS 45	1
15	0522	WASHER 0.31 LOCK	3
16	0343	WASHER 0.31 USS FLAT	3
17	0340	WASHER 0.25 USS FLAT	3
18	C0933	CAP SCR 0.31-18X4.50 HHGR5	3
19	0420	CAP SCR 0.31-18X0.75 HHGR5	3
20	0479	CAP SCR 0.25-20X0.75 HHGR5	3
21	97092	VB 2 SECT D03	1
22	100827	PLATE VB MTG ADAPT D03	1
23	39780	GAUGE OIL LF 2.5 0-6000 CBM SAE	1
24	100829	COVER VB D03 2 SECT FOR SIDE MNT TANK	1
25	7351	FTG ST TH ELBOW 45 DEG 12V5OLO	1
26	C5552	FILTER STRAINER TFS-1220-0	1
REV. A			

ITEMS NOT SHOWN		
PART	**DESCRIPTION**	**QTY**
25941	DECAL LOADER VB VDM8 HOSE LOCATION	1
42971	DECAL OIL FILTER CHANGE	1

Reservoir Subassembly - PN 86117



Reservoir Subassembly - PN 86117 Parts List

PN 86117			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	C2126	PLUG 0.75 NPT SQ HD MAGNETIC	1
2	15463	THERMO SIGHT GAUGE ZINGA SG-O5-A-T-N	1
3	73278	CAP 1PSI ZINGA THREADED	1
4	13002	DECAL HYD OIL SPECIFICATION MOBIL	1
5	86118	RSRVR 10GAL K MODEL W/ TANK TOP FILTER	1
6	86123	FILTER TANK TOP SMF 12 SAE	1
7	5591	WASHER 0.31 SAE FLAT YELLOW GR8	2
8	420	CAP SCR 0.31-18X0.75 HHGR5	2
9	86129	HOSE 1.25X7.50 DOWN TUBE	1
10	C4659	HOSE CLAMP #16 SS	1
REV A			

NOTES:

1. **ALL RESEVOIRS WILL NEED TO BE PESSURE TESTED WITH SOAPY WATER TO 5 PSI. THIS PRESSURE TEST WILL INCLUDE FILL CAP, SIGHT GAUGE, CLEAN OUT, ECT.**

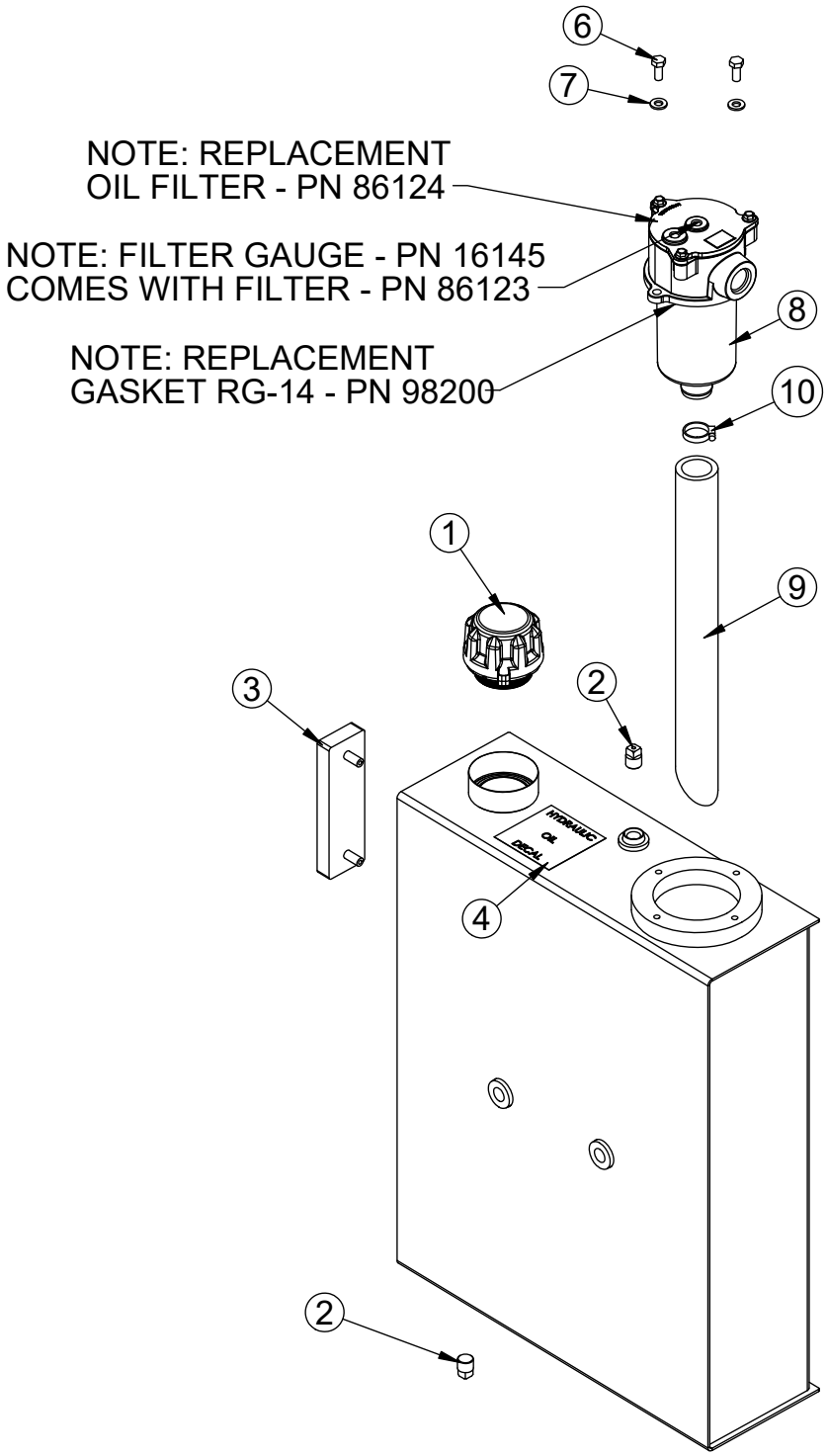
2. **ALL RESERVOIR CLEAN OUT CAP RETAINER BOLTS TORQUED TO A CONSTANT VALUE. STELLAR HAS FOUND 18-20 FT-LBS TO BE ADEQUATE HOWEVER THIS IS ONLY A RECOMMENDATION.**

3. **ALL RESERVOIRS WILL INCLUDE A QA CERTIFICATION PLACARD TO INCLUDE: BUILD DATE, BUILDER/WELDER/ASSEMBLER AND SERIAL NUMBER.**

4. **ALL THREADED HOLES SHOULD BE PLUGED BEFORE PAINT.**

5. **AFTER PAINTING CAULK BETWEEN WELDS OF MOUNTING ANGLES AND VALVE BANK MOUNTING PLATE AND TOUCH UP CAULK WITH PAINT.**

Side Mount Reservoir Subassembly - PN 88147



Side Mount Reservoir Subassembly - PN 88147 Parts List

PN 88147			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	73278	CAP 1PSI ZINGA THREADED	1
2	C4841	PLUG 0.38 NPT SQ HD BLK	2
3	15463	THERMO SIGHT GAUGE ZINGA SG-O5-A-T-N	1
4	13002	DECAL HYD OIL SPECIFICATION MOBIL	1
5	88148	RSRVR WLDMT 10GAL BLKHD/SIDE MNT	1
6	420	CAP SCR 0.31-18X0.75 HHGR5	2
7	5591	WASHER 0.31 SAE FLAT YELLOW GR8	2
8	86123	FILTER TANK TOP SMF 12 SAE	1
9	88321	HOSE 1.25X16.50 DOWN TUBE	1
10	C4659	HOSE CLAMP #16 SS	1
REV. A			

NOTES:

1. **ALL RESEVOIRS WILL NEED TO BE PESSURE TESTED WITH SOAPY WATER TO 5 PSI. THIS PRESSURE TEST WILL INCLUDE FILL CAP,SIGHT GAUGE, CLEAN OUT, ECT.**

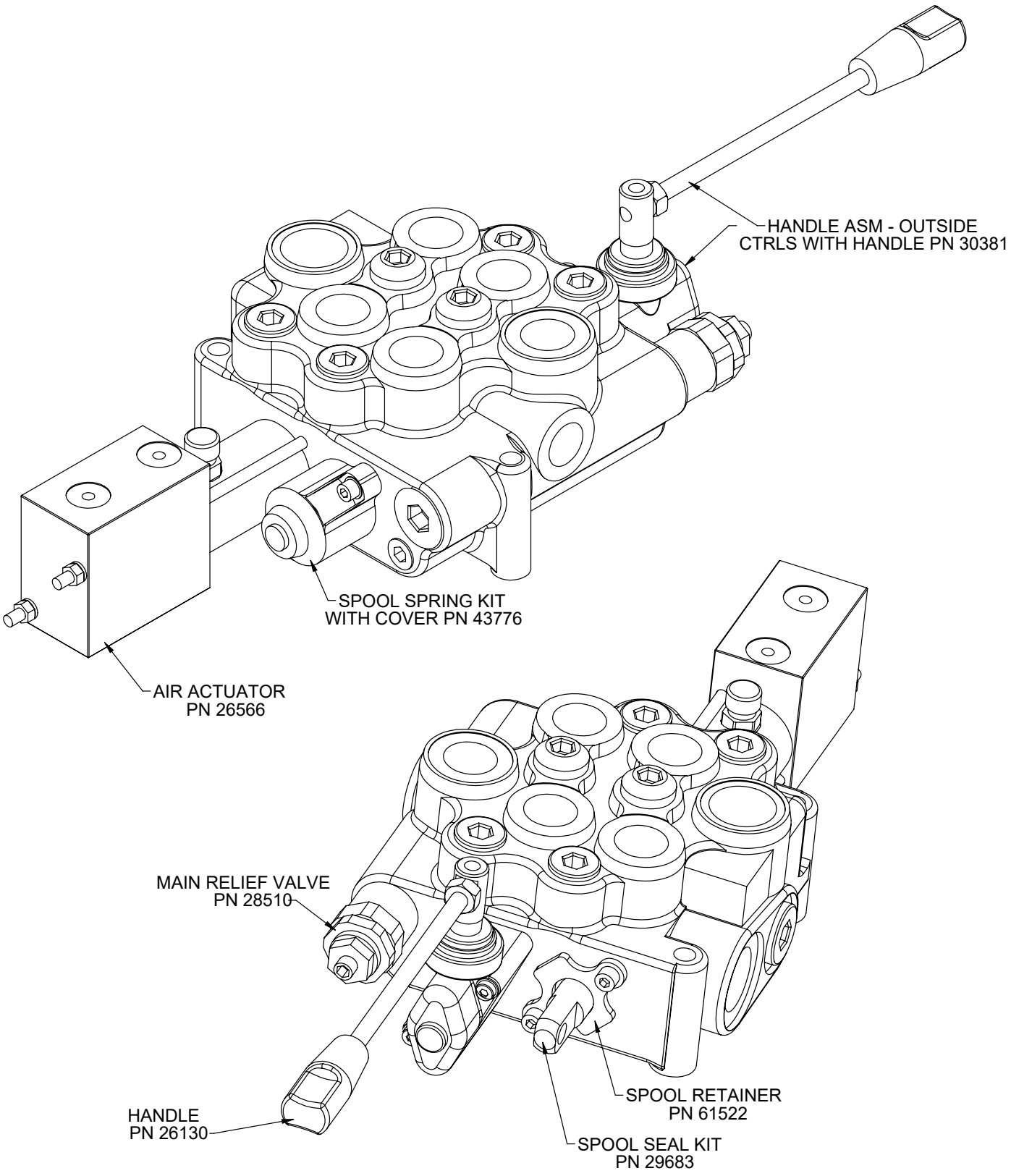
2. **ALL RESERVOIR CLEAN OUT CAP RETAINER BOLTS TORQUED TO A CONSTANT VALUE. STELLAR HAS FOUND 18-20 FT-LBS TO BE ADEQUATE HOWEVER THIS IS ONLY A RECOMMENDATION.**

3. **ALL RESERVOIRS WILL INCLUDE A QA CERTIFICATION PLACARD TO INCLUDE: BUILD DATE, BUILDER/WELDER/ASSEMBLER AND SERIAL NUMBER.**

4. **ALL THREADED HOLES SHOULD BE PLUGED BEFORE PAINT**

5. **AFTER PAINTING CAULK BETWEEN WELDS OF MOUNTING ANGLES AND VALVE BANK MOUNTING PLATE AND TOUCH UP CAULK WITH PAINT.**

Valve Bank Parts Drawing

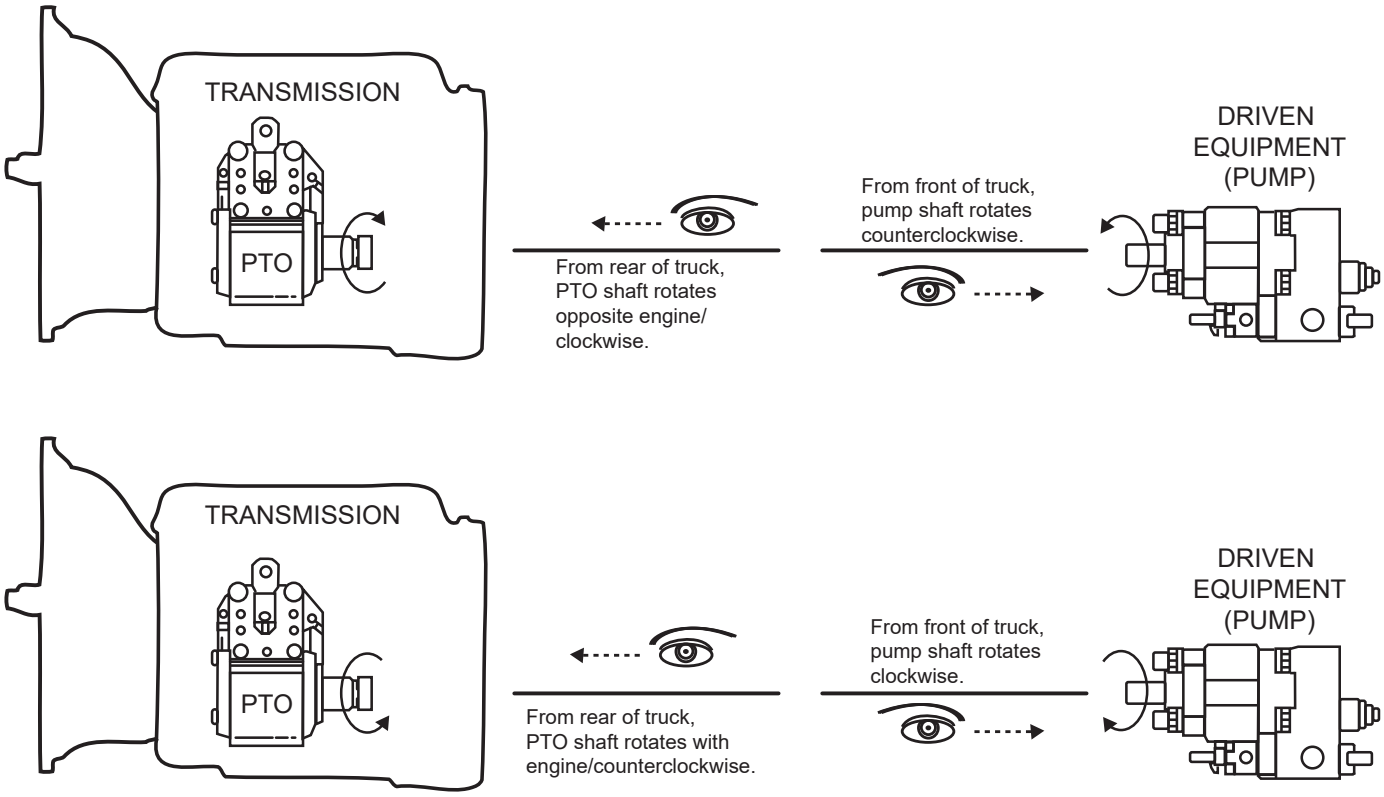


Step 8: Install PTO And Pump.

- Before installing the pump to the PTO, always check the direction of the PTO output shaft to determine which direction the hydraulic pump needs to rotate to operate the equipment. If this is not determined prior to installing the hydraulic pump, the hydraulic pump may rotate in the incorrect direction and damage the front shaft seal.

PTO Direction of Rotation Tip:
Viewed by standing at the rear of the vehicle, looking forward at the PTO shaft, with the PTO shaft pointing toward the rear of the vehicle:

PTO	DRIVEN EQUIPMENT
Rotates Opposite Engine (looks “clockwise)	Driven equipment must rotate counterclockwise (also called left-hand rotation, “A” for anti-clockwise or C.C.W. for counter clockwise).
Rotates With Engine (looks “counterclockwise”)	Driven equipment must rotate clockwise (also called right-hand rotation or “C” for clockwise).

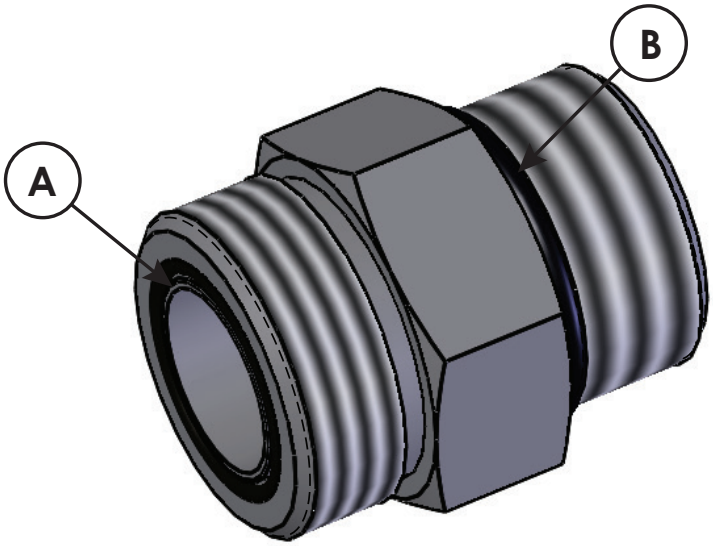


NOTICE

Remember that the PTO is specified by looking from the rear of the truck to the front of the truck. The driven equipment (pump) is specified by looking from the front of the truck to the rear of the truck.

- Use the brand specific PTO/Pump installation instructions. If the directions are not quite clear, contact Stellar® Customer Service or consult with a hydraulic specialty house or company prior to installation.

Face Seal/O-Ring Size Chart



Hose Size	Fitting Size	Face Seal (A) Stellar® PN	O-ring Boss (B) Stellar® PN
1/4"	#4	C2027	D1245
3/8"	#6	C2028	D1246
1/2"	#8	C2029	D1247
5/8"	#10	32223	D1248
3/4"	#12	D1244	D1249
1"	#16		D1250

Step 9: Route Hydraulic Hoses.

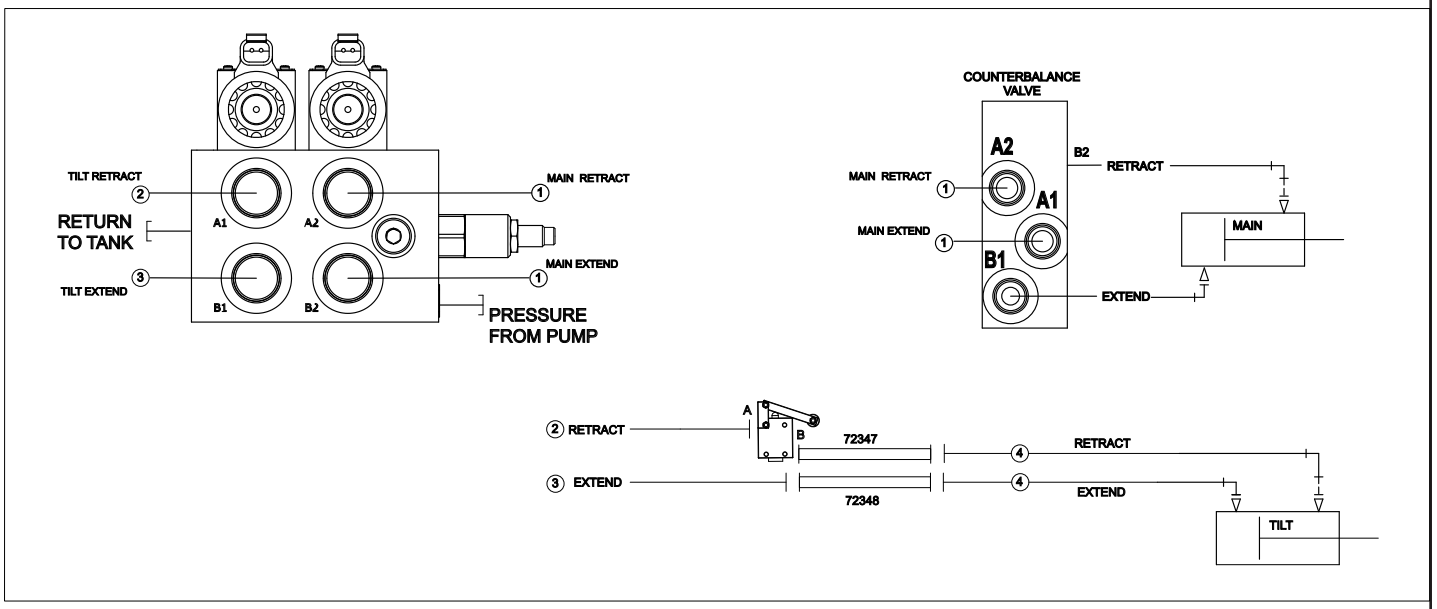
1. Route hose line from the reservoir to the pump (See hose kit drawing for details).
2. Route hose line from the pump to the valve bank (See hose kit drawing for details).
3. Route hose line from the valve bank to the reservoir (See hose kit drawing for details).
4. Route hose line from the valve bank and the hooklift (See hose kit drawing for details).

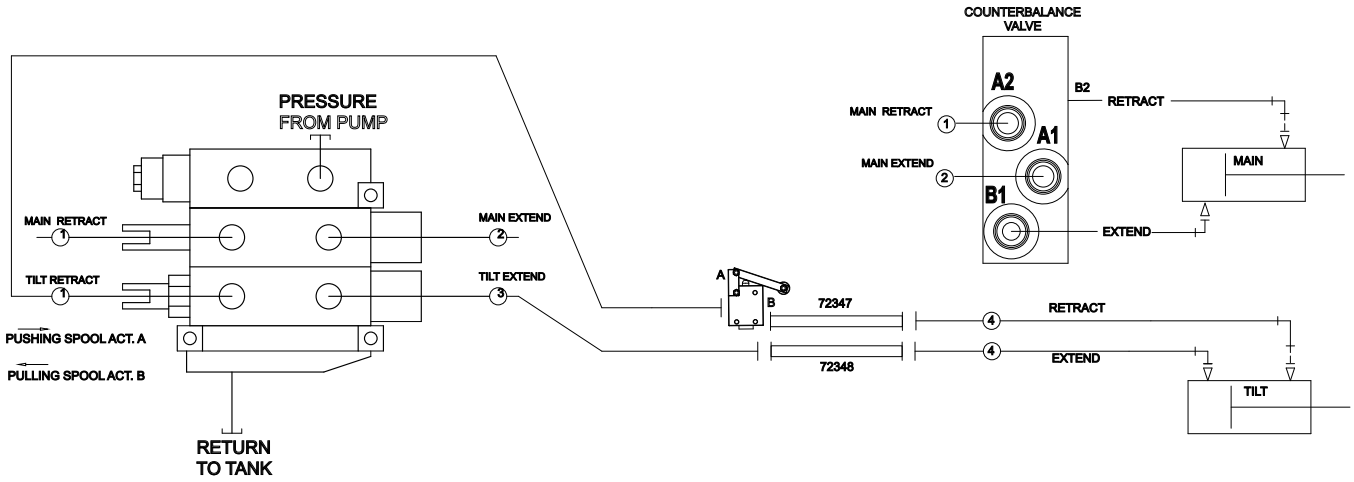
NOTE: IF USING THE POWER BEYOND FEATURE FOR ADDITIONAL FUNCTION, SEE "POWER BEYOND VDM8 VALVE" LATER IN THIS CHAPTER FOR FURTHER DETAILS.

Notes on hose line routing:

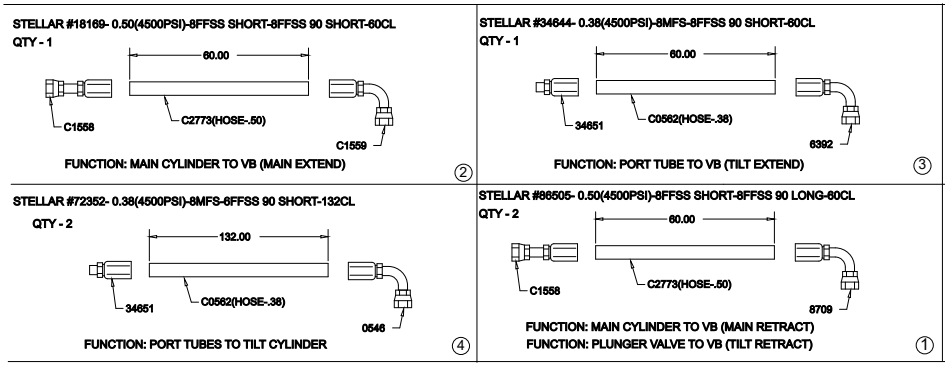
- Protect these lines with hose wrap when necessary.
- Keep these lines away from sharp edges.
- Keep these lines away from the exhaust or other temperature extreme items.
- Keep these lines away from the driveshaft or other moving items.

Hose Kit - PN 72353





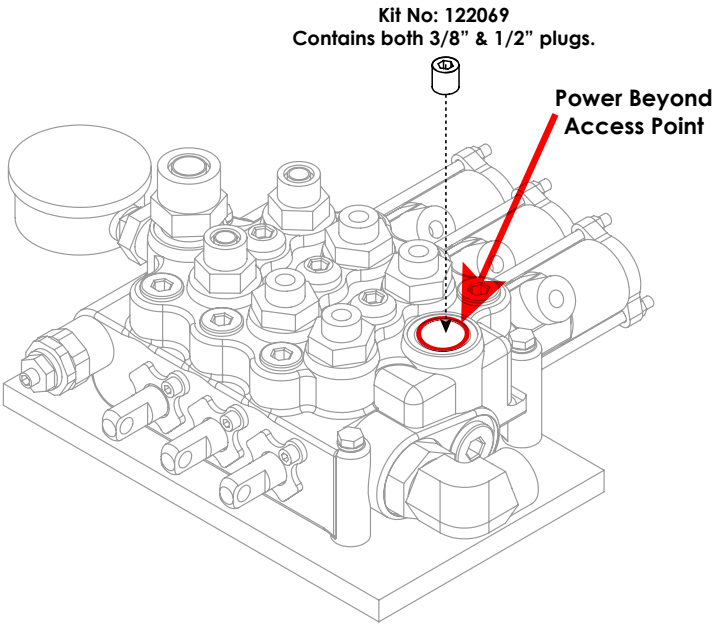
NOTE: SYSTEM PRESSURE IS 4500 P.S.I.



PN 72353			
ITEM	**PART**	**DESCRIPTION**	**QTY**
01	86505	HOSE 0.50(4500PSI)-8FFSS SHORT-8FFSS 90 LONG-60CL	2
02	18169	HOSE 0.50(4500PSI)-8FFSS SHORT-8FFSS 90 SHORT-60CL	1
03	34644	HOSE 0.38(4500PSI)-8MFS-8FFSS 90 SHORT-60CL	1
04	72352	HOSE 0.38(4500PSI)-8MFS-6FFSS 90 SHORT-132CL	2

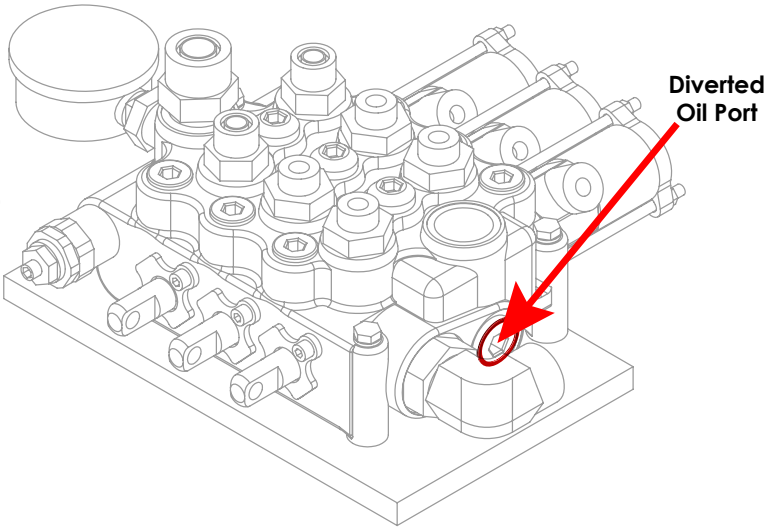
Power Beyond VDM8 Valve

These instructions are intended for correct installation of power beyond on a Salami VDM8 valve bank. If any hydraulic component is integrated after this valve the power beyond must be installed correctly, or serious damage may incur to the hydraulic system.



1. Remove cover / access plug to reveal the power beyond access point. Can also be used as the Return / Tank port.

2. Install one (either 1/2" or 3/8") plug from kit number:122069 into lower portion of cavity to activate the power beyond feature. Use thread sealer. (Tape sealers not recommended.)

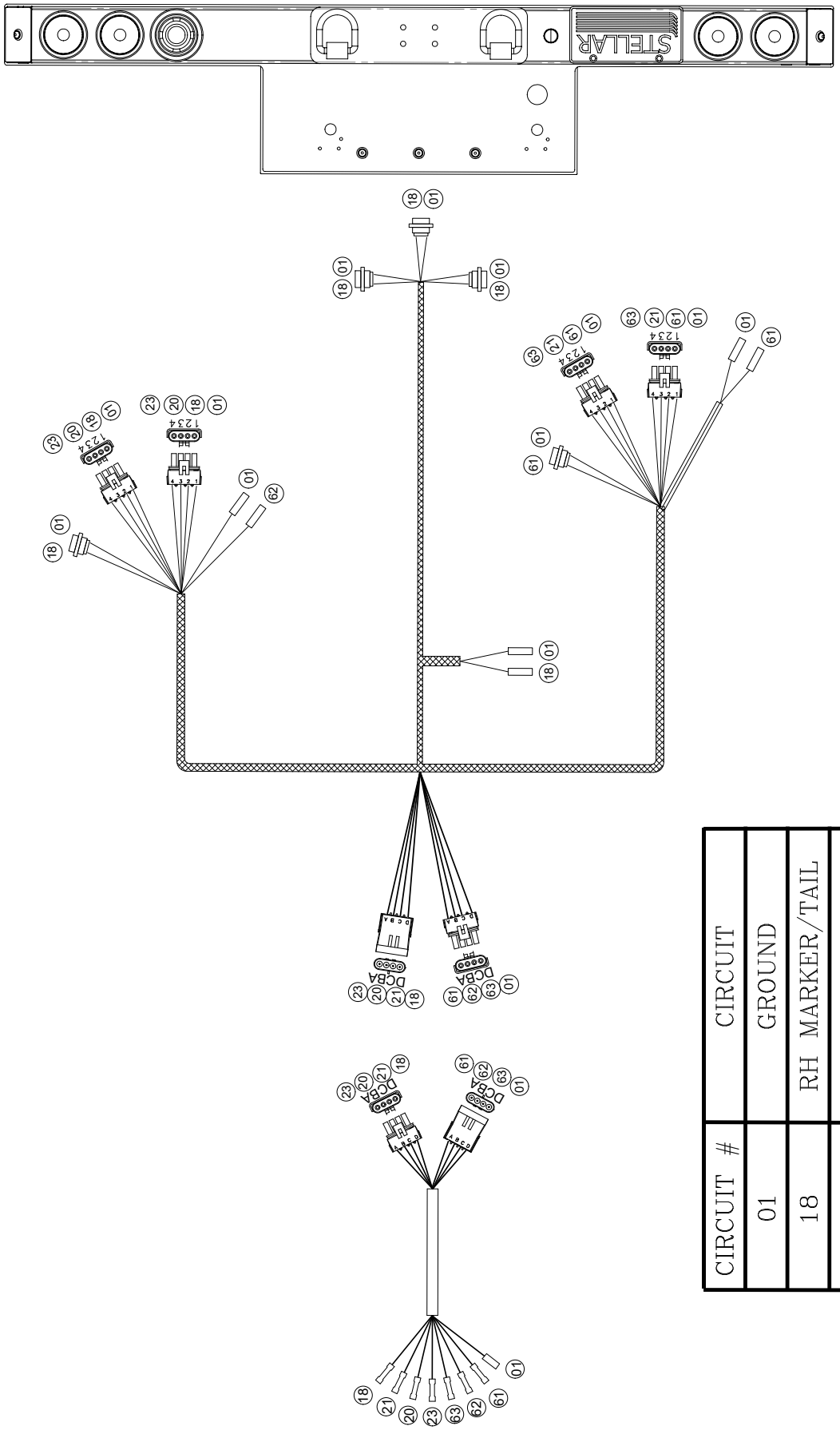


3. The Power Beyond feature is now activated and will divert oil to alternate system via the port shown.

NOTES:

- **THE RETURN / TANK LINE MUST BE CONNECTED TO THE TOP OR THE SIDE PORT, LABELED "T".**
- **USING THE RETURN LINE TO RUN AUXILIARY EQUIPMENT WILL DIRECTLY RESULT IN A FAILURE, AND WILL NOT IN ANY CIRCUMSTANCE, BE COVERED UNDER WARRANTY.**
- **A STANDARD STELLAR® HOOKLIFT WILL HAVE 6 HYDRAULIC LINES ATTACHED TO THE VALVE. WITH POWER BEYOND ACTIVATED, THEY WILL HAVE 7 HYDRAULIC LINES ATTACHED TO THE VALVE.**

Step 10: Route Electrical Components



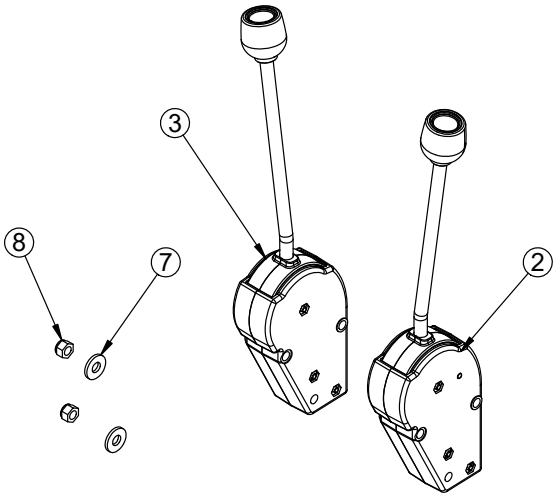
CIRCUIT #	CIRCUIT
01	GROUND
18	RH MARKER/TAIL
20	RH TURN SIGNAL
21	LH TURN SIGNAL
23	RH BACK UP LIGHT
61	LH MARKER/TAIL
62	BACK UP ALARM
63	LH BACK UP LIGHT

Step 11: Install Cab And PTO Controls.

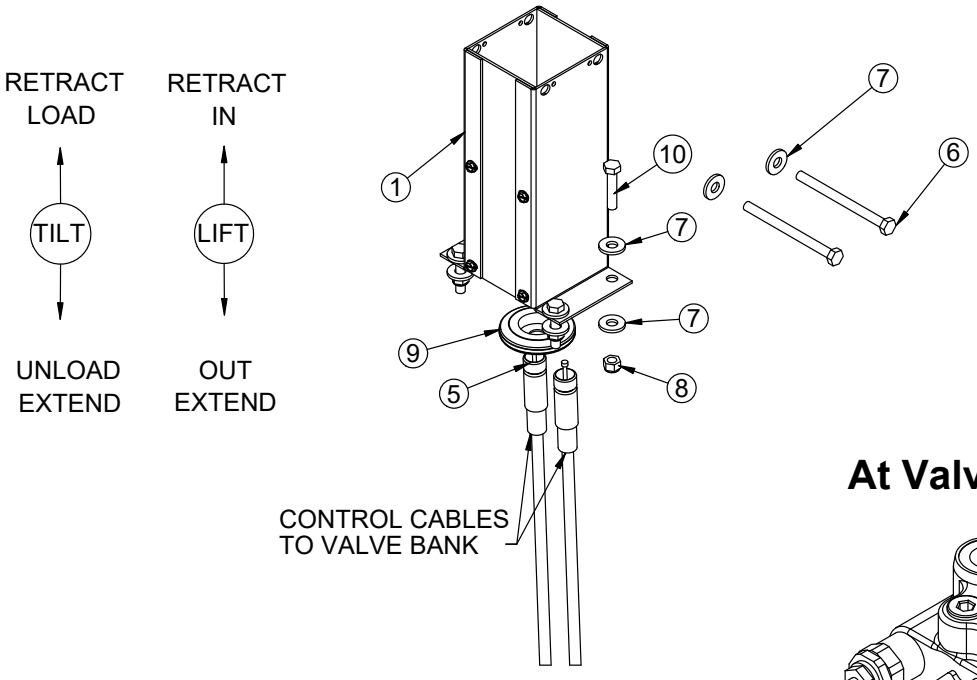
- Use PTO brand specific installation instructions.
- For cab controls, see controller assembly drawing for details:

Cable Controls

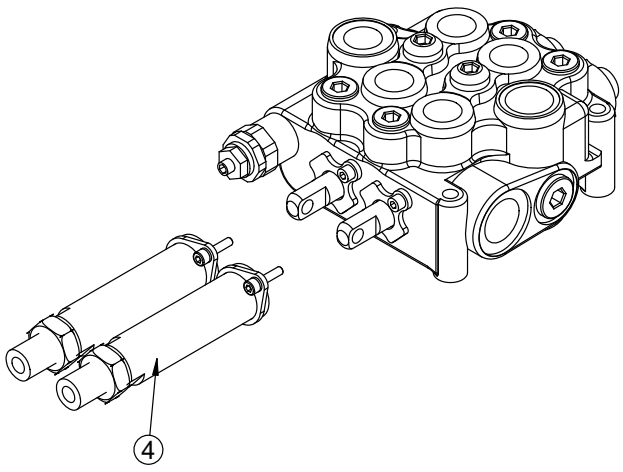
In Cab Installation



	2 SECTION
96 INCH	PN 50835
144 INCH	PN 53444
192 INCH	PN 50837



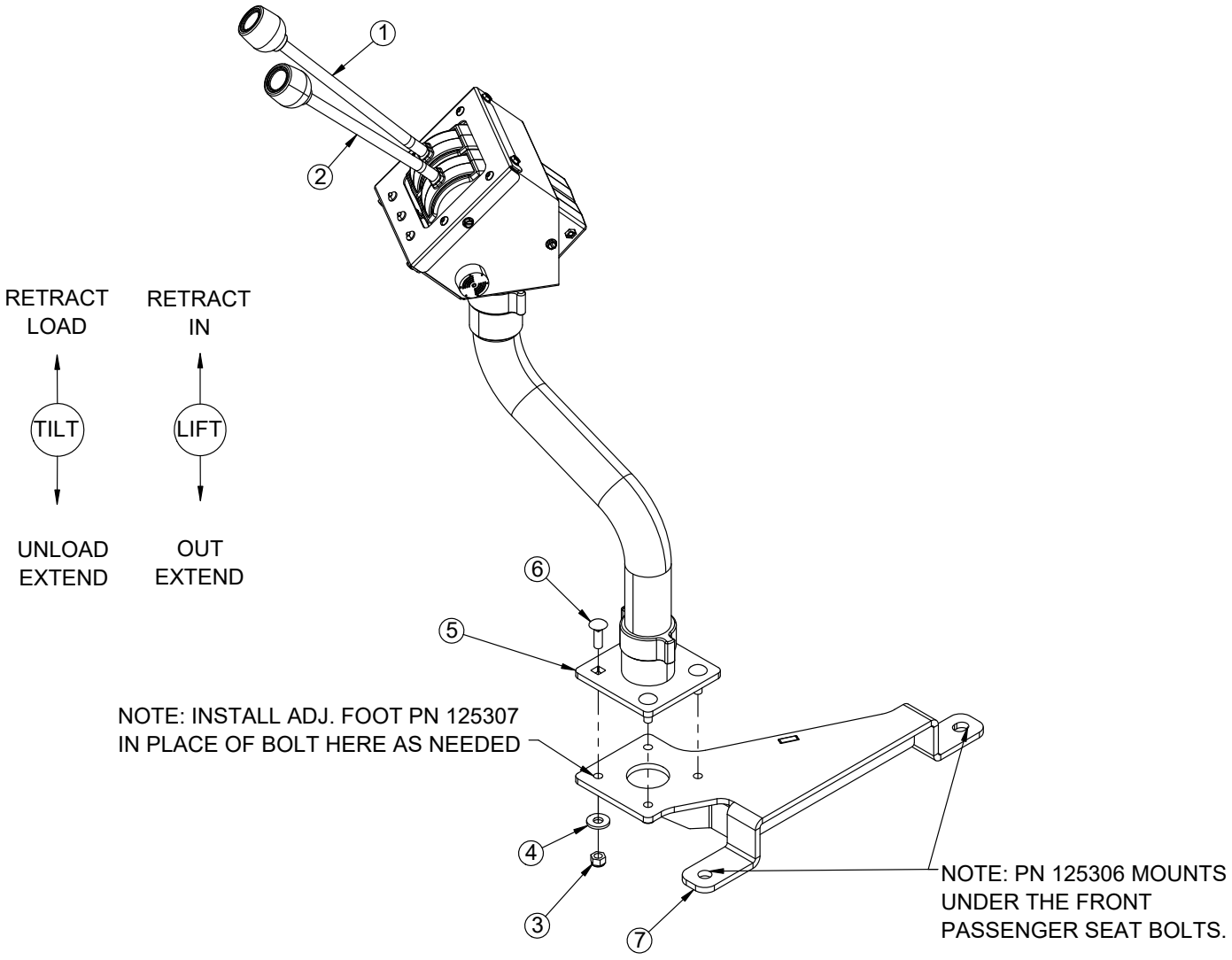
At Valve Installation



Cable Controls - PN 50835 Parts List

PN 50835			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	37470	VALVE CTRL CONSOLE 2LEVER RVC	1
2	37475	CTRL CNTR LOCK LEFT BEND	1
3	37474	CTRL CNTR LOCK RIGHT BEND	1
4	37469	CABLE CONN. KIT FOR VD8A/VDM8	2
5	37471	CONTROL CABLE 96 IN WESCON	2
	37472	CONTROL CABLE 144 IN WESCON	2
	37473	CONTROL CABLE 192 IN WESCON	2
6	0491	CAP SCR 0.31-18X4.00 HHGR5	2
7	0343	WASHER 0.31 USS FLAT	12
8	0342	NUT 0.31-18 HHGR5 NYLOC	6
9	16948	GROMMET 2.50ODX1.50GDX0.13X0.56ID	1
10	0486	CAP SCR 0.31-18X1.50 HHGR5	4
REV. C			

2 Section 120 in Loader w / Ram Mount - Ford F550



2 Section 120 in Loader w / Ram Mount - Ford F550 Parts List

PN125304			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	27981	MAST 9000	1
2	0635	BUSHING 40DXR32 GARLOCK	4
3	C6219	WASHER 0.75 SAE FLAT YELLOW GR8	18
4	4974	CAP SCR 0.75-10X2.50 HHGR8 ZY	18
5	0345	CAP SCR 0.38-16X1.50 HHGR5	2
6	71876	PIN 2.50X13.13 D&T SS	2
7	8377	PIN CAP 0.56X3.50X0.19 YZ	4
8	D0790	WASHER 0.50 FLAT GR8	4
9	10172	CAP SCR 0.50-13X1.00 HHGR8 ZY	4
10	0523	WASHER 0.38 LOCK	2
11	29352	CYLINDER ASM 6.00X28.63	1
12	30009	HOSE CLAMP 9000	1
REV. B			

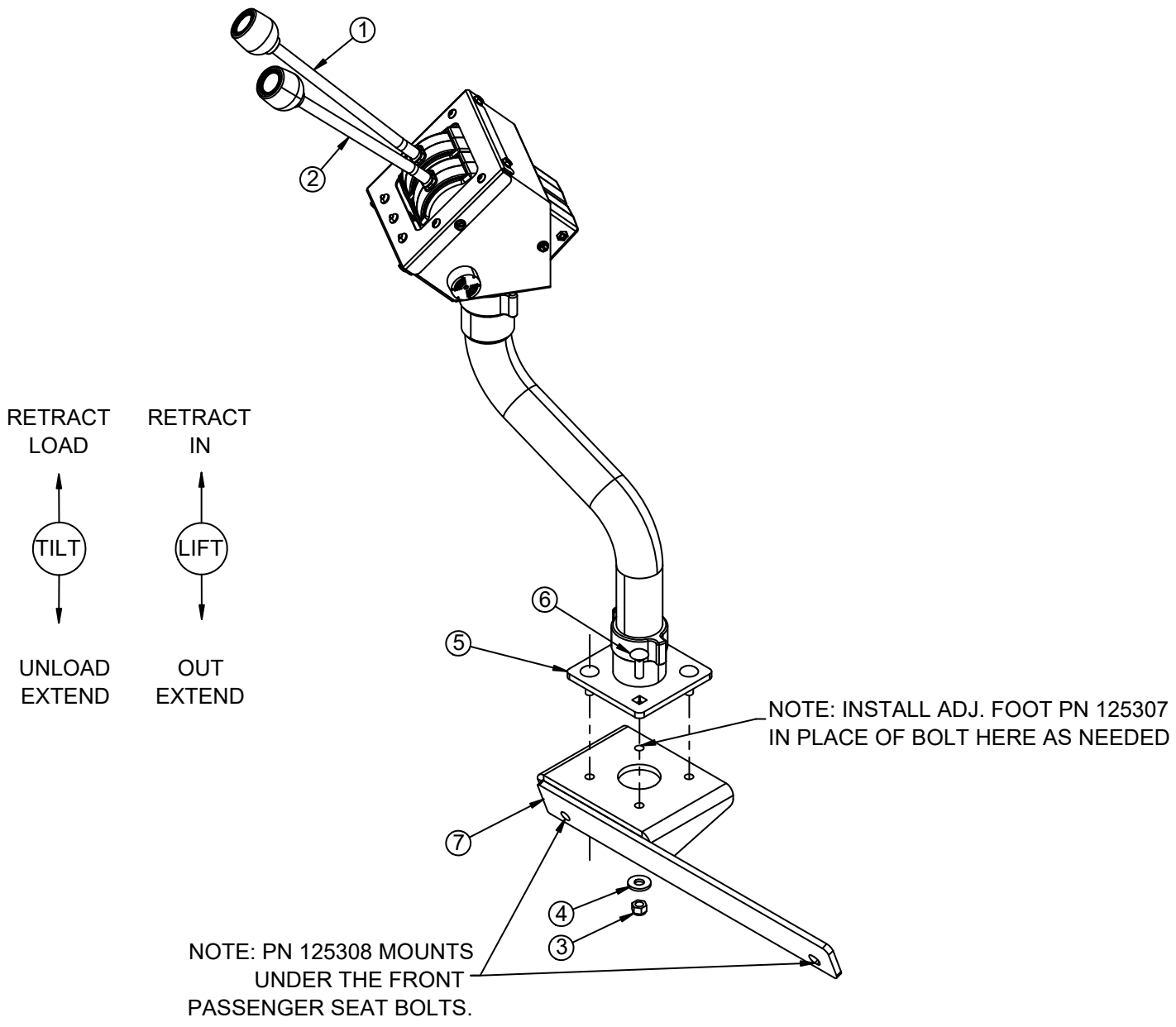
ITEMS NOT SHOWN		
PART	**DESCRIPTION**	**QTY**
C4739	TRIM EDGE 0.38X0.63 AL	0.66FT
C4758	TRIM EDGE 0.06X0.56 AL	0.79FT
37472	CONTROL CABLE 144 IN WESCON	2

NOTES:

INSTALL ADJ. FOOT PN 125307 IN PLACE OF BOLT HERE AS NEEDED.

PN 125306 MOUNTS UNDER THE FRONT PASSENGER SEAT BOLTS.

2 Section 120 in Loader w/Ram Mount - RAM 5500

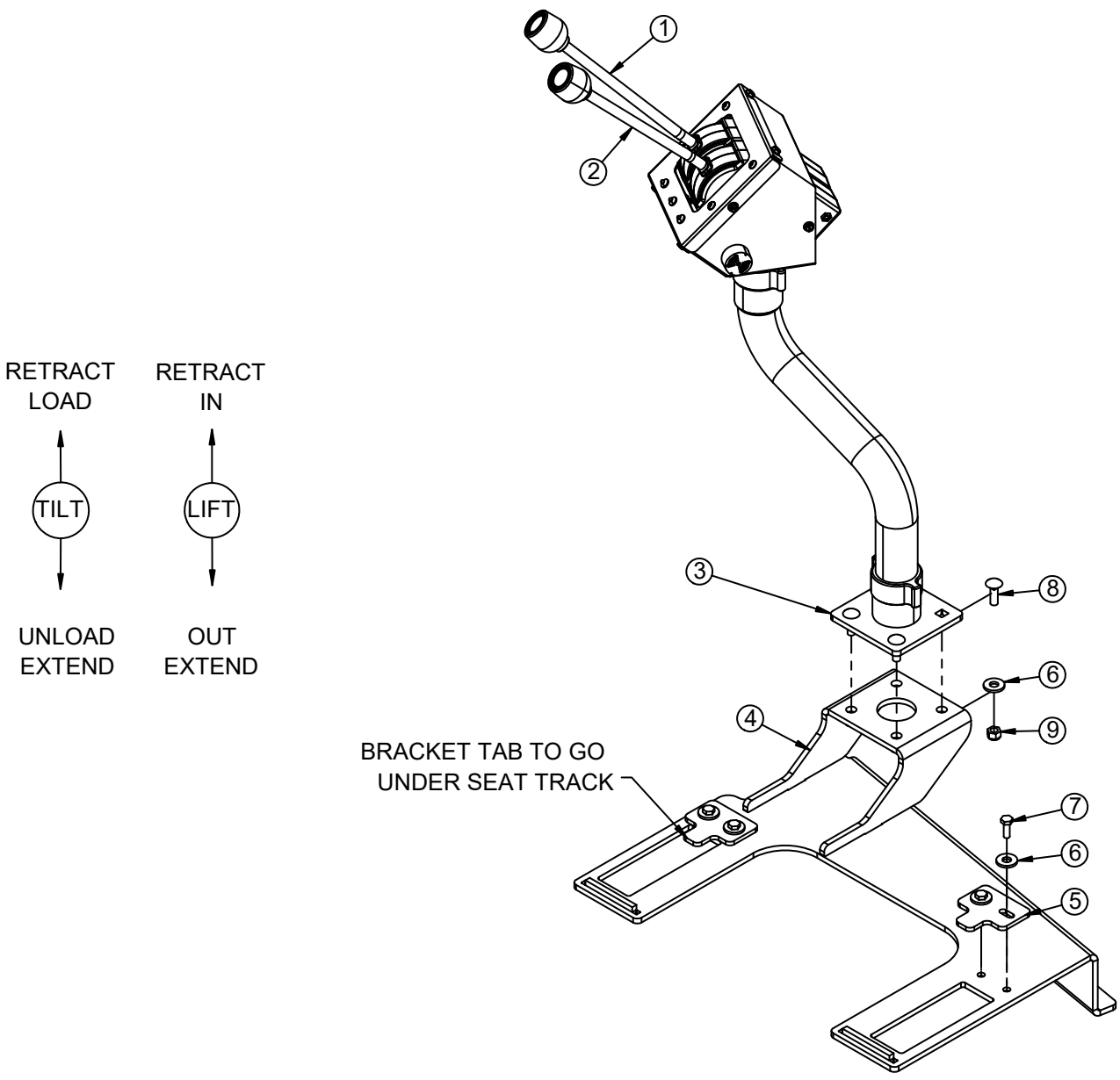


2 Section 120 in Loader w/Ram Mount - RAM 5500 - Parts List

PN 125305			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	37474	CTRL CNTR LOCK RIGHT BEND	1
2	37475	CTRL CNTR LOCK LEFT BEND	1
3	0342	NUT 0.31-18 HHGR5 NYLOC	4
4	0343	WASHER 0.31 USS FLAT	4
5	116593	CONTROLLER 2 SECT CABLE PED FLEX	1
6	18906	BOLT CARRIAGE 0.31-18X1.00 SS	4
7	125308	BASE PEDESTAL ADAPT RAM 1500-5500 2008-2014	1
REV. B			

ITEMS NOT SHOWN		
PART	**DESCRIPTION**	**QTY**
37469	CABLE CONN. KIT FOR VD8A/VDM8	2
99375	CONTROL CABLE 120 IN WESCON	2
16948	GROMMET 2.50ODX1.50GDX0.13X0.56ID	1
125307	STABILIZER RAM MOUNT ADJ FOOT	1
125248	WIRE HRNS CHAS FLEX 36 W/TAB	1
131713	ELEC SCHEM CONTROLLER ASM FLEX GEN2	1
37472	CONTROL CABLE 144 IN WESCON	2

2 Section 120 in Loader w / Ram Mount - Chevy

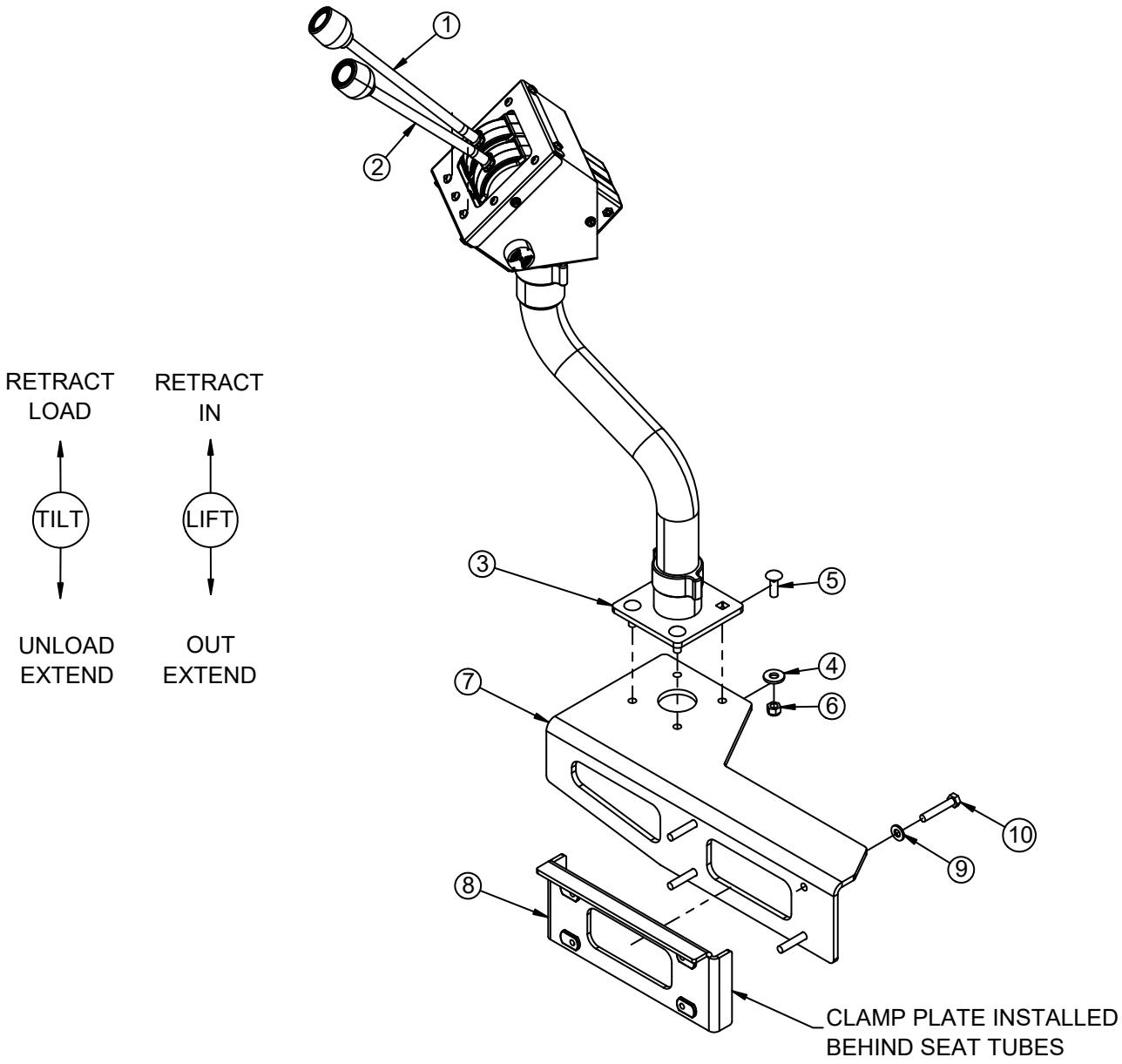


2 Section 120 in Loader w / Ram Mount - Chevy Parts List

PN 131082			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	37474	CTRL CNTR LOCK RIGHT BEND	1
2	37475	CTRL CNTR LOCK LEFT BEND	1
3	116593	CONTROLLER 2 SECT CABLE PED FLEX	1
4	131083	BASE RAM MOUNT 2017 CHEVY	1
5	131086	PLATE CLAMP BASE RAM MOUNT 2017 CHEVY	2
6	0343	WASHER 0.31 USS FLAT	8
7	0479	CAP SCR 0.25-20X0.75 HHGR5	4
8	18906	BOLT CARRIAGE 0.31-18X1.00 SS	4
9	0342	NUT 0.31-18 HHGR5 NYLOC	4

ITEMS NOT SHOWN		
PART	**DESCRIPTION**	**QTY**
37469	CABLE CONN. KIT FOR VD8A/VDM8	2
99375	CONTROL CABLE 120 IN WESCON	2
16948	GROMMET 2.50ODX1.50GDX0.13X0.56ID	1
125248	WIRE HRNS CHAS FLEX 36 W/TAB	1
131713	ELEC SCHEM CONTROLLER ASM FLEX GEN2	1
37472	CONTROL CABLE 144 IN WESCON	2

2 Section 120 in Loader w / Ram Mount - Freightliner

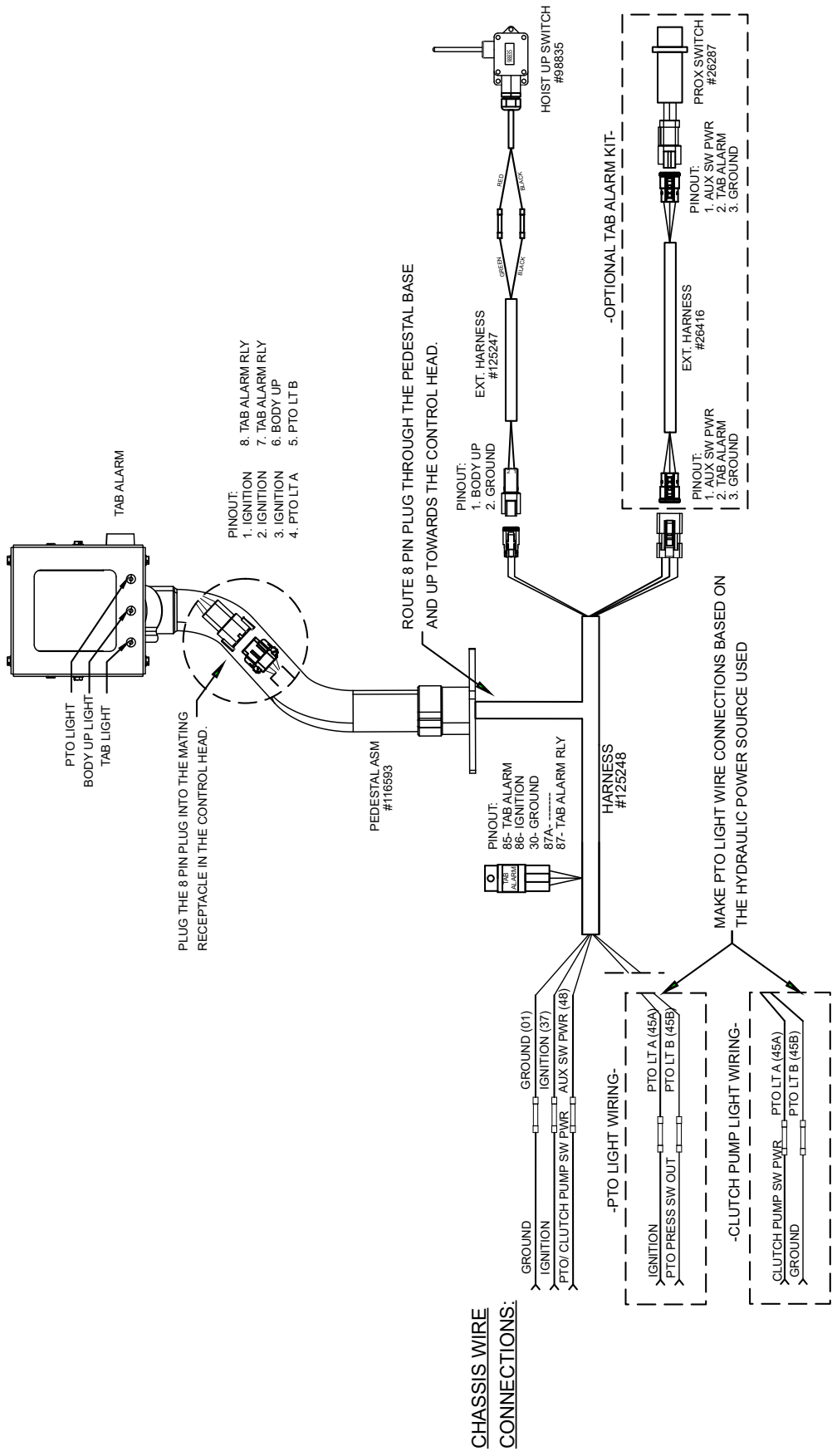


2 Section 120 in Loader w / Ram Mount - Freightliner Parts List

PN 131702			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	37474	CTRL CNTR LOCK RIGHT BEND	1
2	37475	CTRL CNTR LOCK LEFT BEND	1
3	116593	CONTROLLER 2 SECT CABLE PED FLEX	1
4	0343	WASHER 0.31 USS FLAT	4
5	18906	BOLT CARRIAGE 0.31-18X1.00 SS	4
6	0342	NUT 0.31-18 HHGR5 NYLOC	4
7	131700	BASE CONTROL TOWER FRTLNR M2 2023	1
8	131701	CLAMP BASE MOUNT FRTLNR M2 2023	1
9	5591	WASHER 0.31 SAE FLAT YELLOW GR8	4
10	0487	CAP SCR 0.31-18X1.75 HHGR5	4

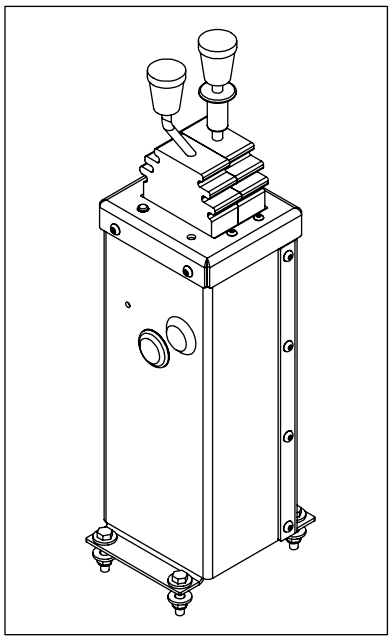
ITEMS NOT SHOWN		
PART	**DESCRIPTION**	**QTY**
37469	CABLE CONN. KIT FOR VD8A/VDM8	2
99375	CONTROL CABLE 120 IN WESCON	2
16948	GROMMET 2.50ODX1.50GDX0.13X0.56ID	1
125248	WIRE HRNS CHAS FLEX 36 W/TAB	1
131713	ELEC SCHEM CONTROLLER ASM FELX GEN2	1
37472	CONTROL CABLE 144 IN WESCON	2

Controller Assembly - PN 131713



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Air Controls - PN 87689

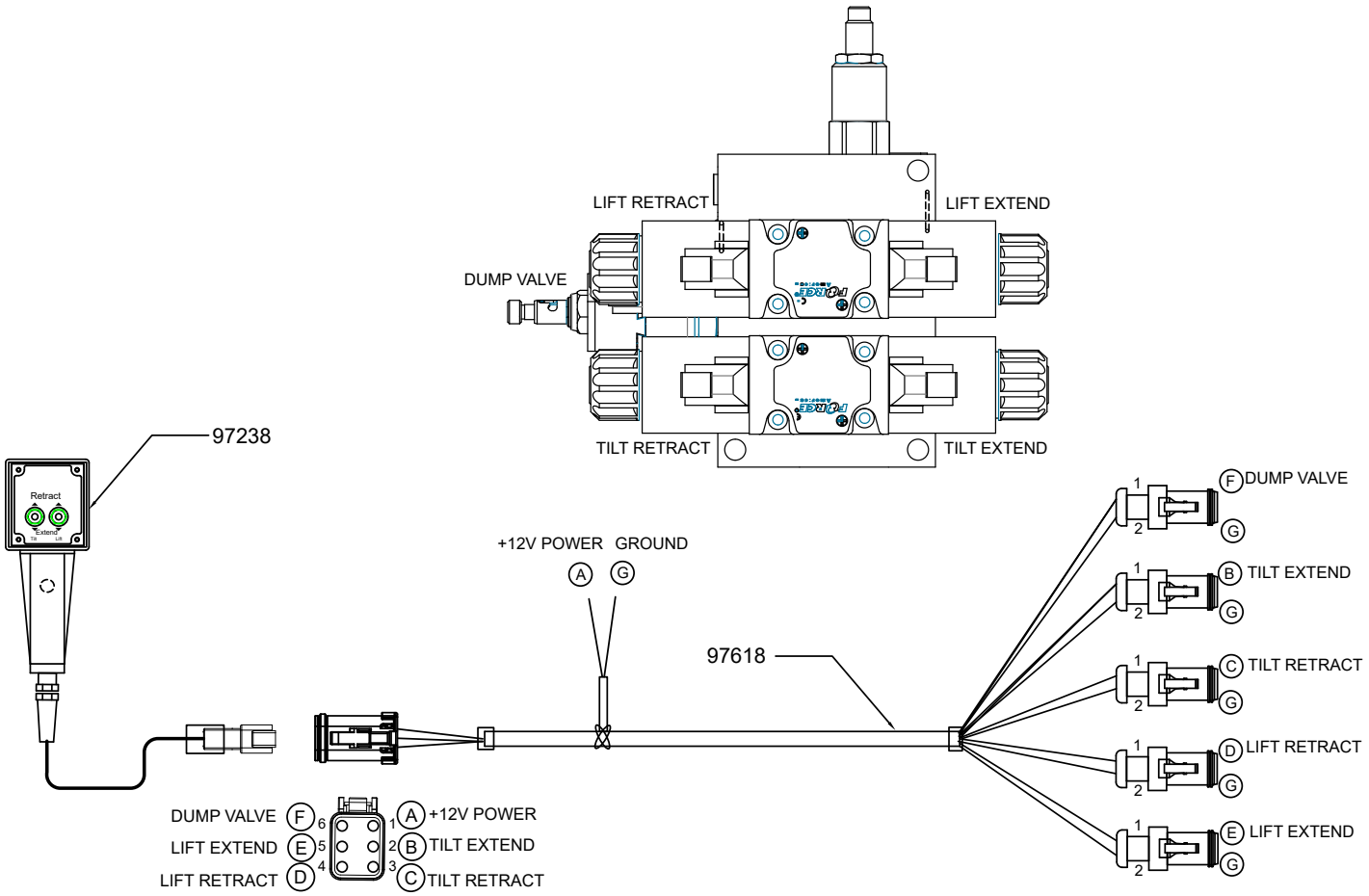


Air Controls - PN 87689 Parts List

PN 87689			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	41988	CTRL 2 BANK 4WAY AIR CNTR LOCK	1
2	45687	FTG 4-2 MP-PTC 90 BRASS 1169X4S	7
3	D1711	CAP SCR #10-24X0.50 BTNHD SS	4
4	C6021	CAP SCR 0.25-20X0.75 BTNHD SS	4
5	0486	CAP SCR 0.31-18X1.50 HHGR5	4
6	0343	WASHER 0.31 USS FLAT	8
7	0342	NUT 0.31-18 HHGR5 NYLOC	4
8	87691	CONTROL TOWER SUB-ASM 2-SECT HOOKLIFT	1
9	87688	LID CONTROL TOWER 2-SECT HOOKLIFT	1
10	16948	GROMMET 2.50ODX1.50GDX0.13X0.56ID	1
11	35211	PTO AIR REGULATOR 378414	1
12	45333	FTG 4-2 PC DOT-MP STRAIGHT	4
13	C5934	FTG 4-4XCLOSE MP-MP NIPPLE STRAIGHT BLK	1
14	C1065	BUSHING 0.50X0.25 BLK	1
15	86116	PLUG PLASTIC 1.13 HOLE BLK	2
16	67296	NUT CLIP ON .25X.025-.15X.53	4
17	12813	GROMMET 1.50ODX1.25GDX0.13X0.63ID	1
REV. A			

ITEMS NOT SHOWN		
PART	**DESCRIPTION**	**QTY**
88146	DECAL CONTROL TOWER LID SHUTTLE 2SEC	1
D1810	TBE AIR SAEJ844 TYPE A .25 (RM)	60FT

Electric Controls - PN 97617

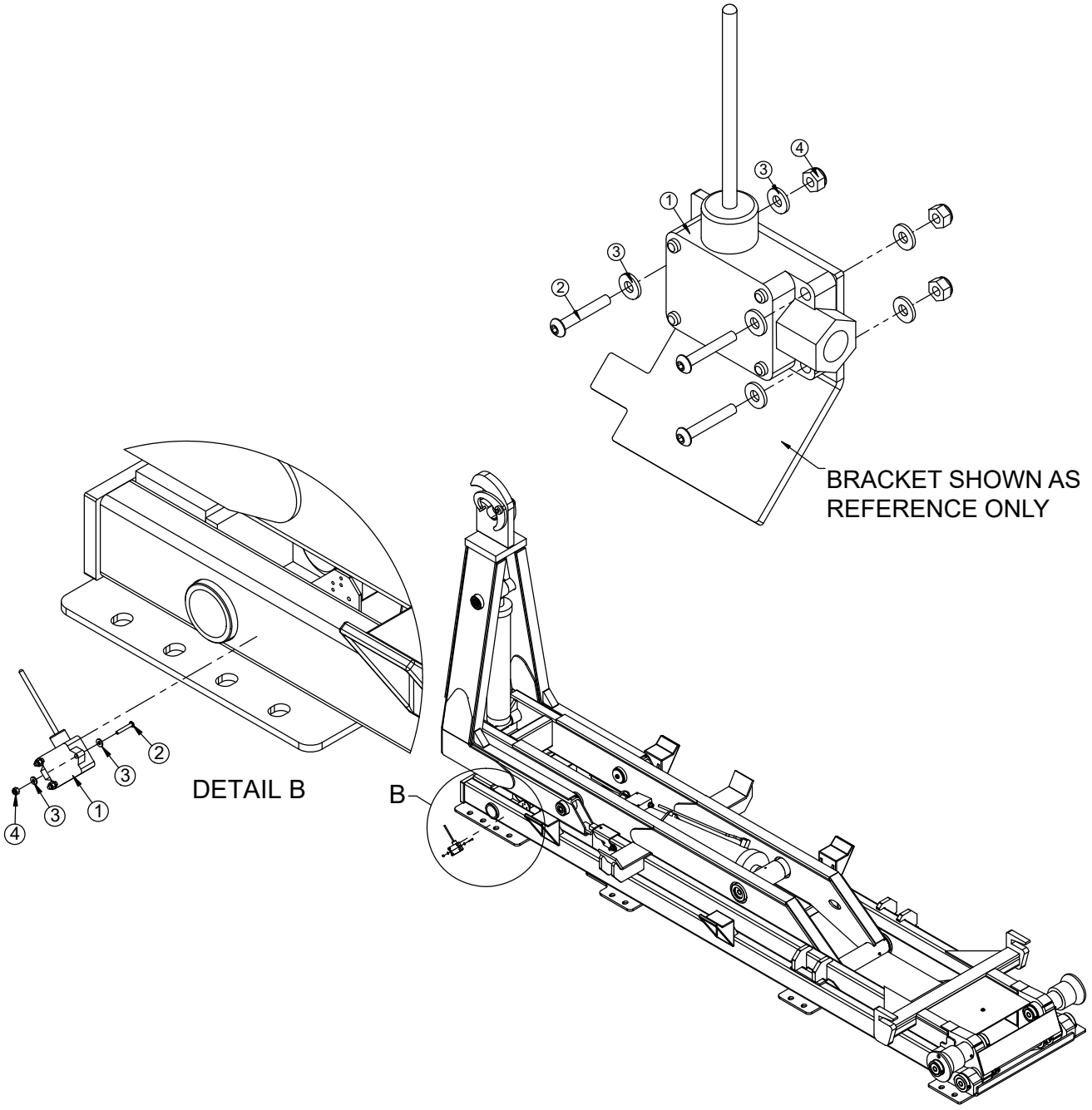


PN 97617	
CIRCUIT NO.	**CIRCUIT**
A	+12V POWER
B	TILT EXTEND
C	TILT RETRACT
D	LIFT RETRACT
E	LIFT EXTEND
F	DUMP VALVE
G	GROUND

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Step 12: Install Hoist Up Light Sensor - PN 83115

Install the hoist up light sensor onto the base of the hooklift as shown:



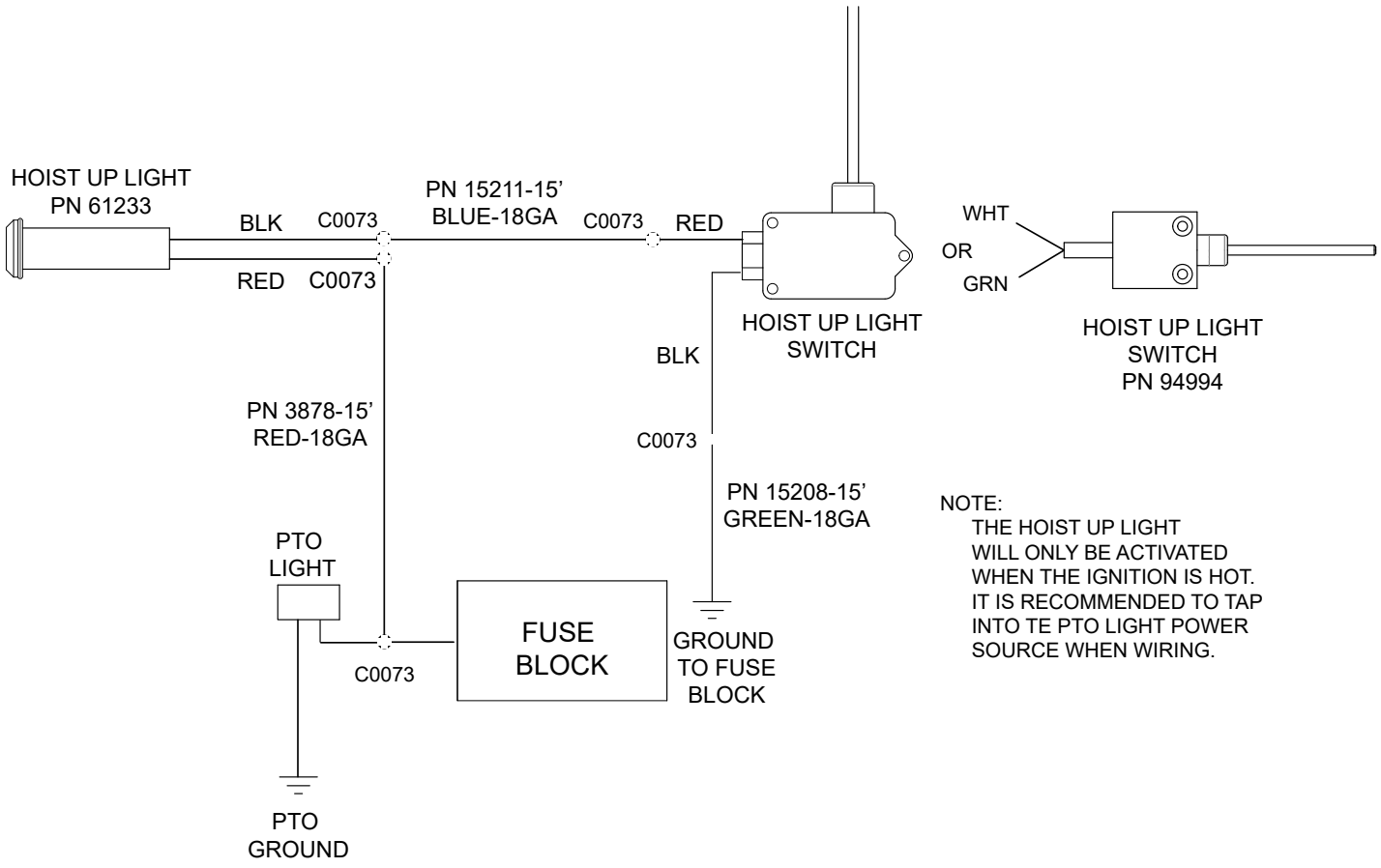
NOTE:
INSTALL DUMP-UP LIGHT (PN 61233) IN CONTROL TOWER IF AIR CONTROLS, AND IN-DASH ON STREET SIDE OF STEERING WHEEL IF CABLE OR ELECTRIC CONTROLS.

Hoist Up Light Sensor - PN 83115 Parts List

PN 83115			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	98835	SWITCH ASM HOIST UP W/ 2P DT	1
2	30472	CAP SCR #10-24X1.25 BTNHD SS	3
3	D0178	WASHER #10 SAE FLAT	6
4	26034	NUT #10-24 HH NYLOC	3

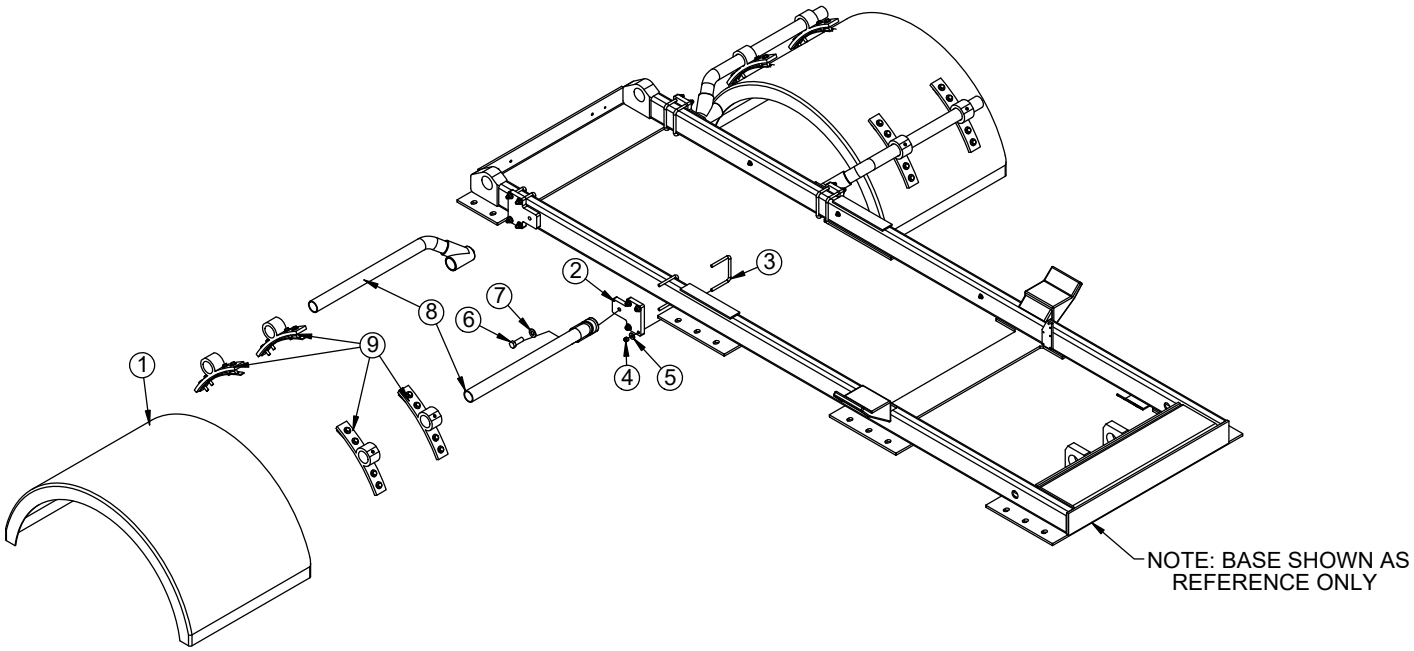
ITEMS NOT SHOWN		
PART	**DESCRIPTION**	**QTY**
C0073	TERML 16-14 BUTT WATER TIGHT	5
3878	WIRE 18GA (RM) RED (PRIMARY) SAE J-1128	15
15211	WIRE 18GA (RM) BLUE SAE J-1128	15
15208	WIRE 18GA (RM) GREEN SAE J-1128	15
61233	LIGHT LED CONTROL PANEL RED	1
88324	ELEC SCHEM CONTROL TOWER GEN2	1

Schematic PN 88324



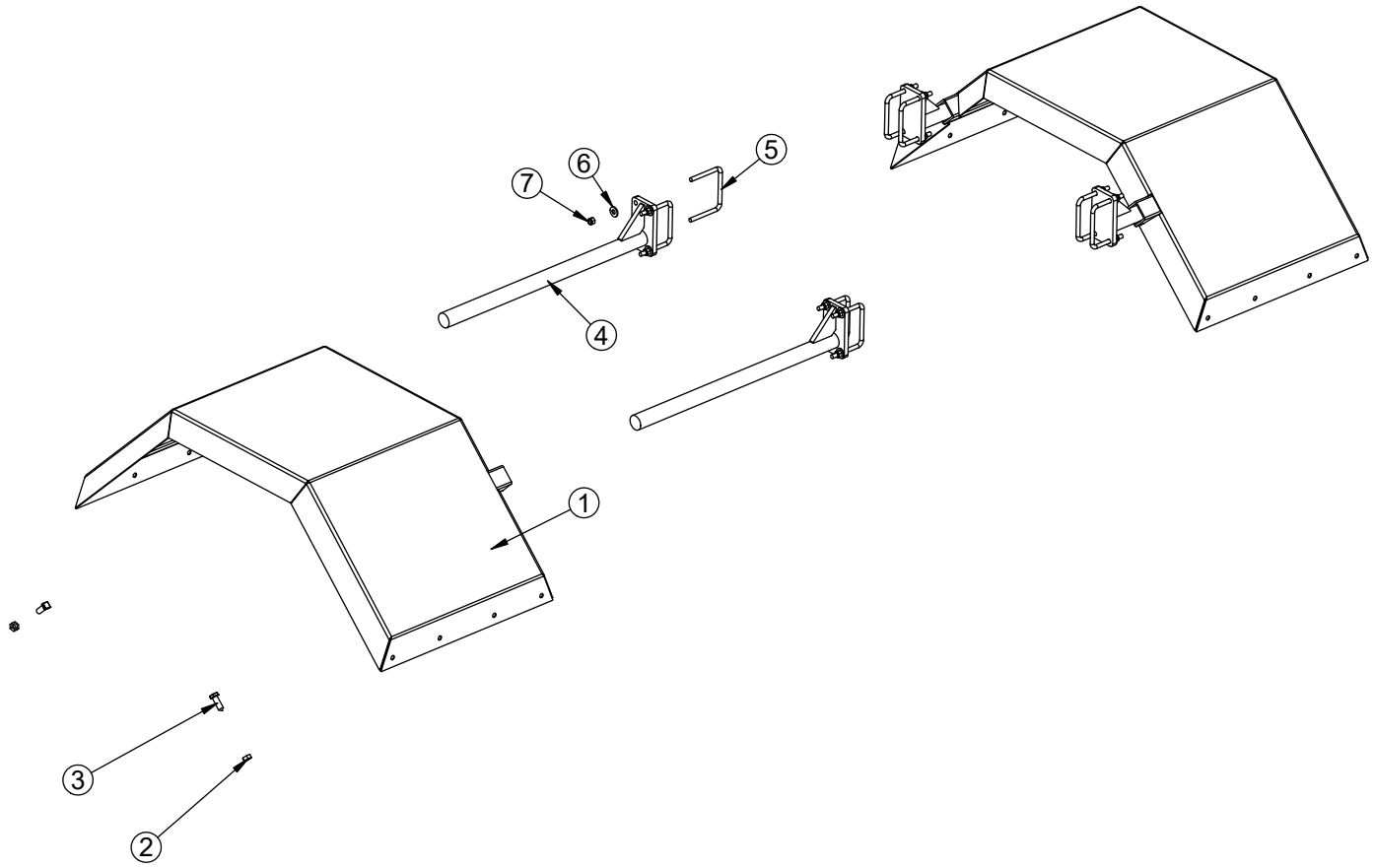
Step 13: Install Mud Flaps And Fenders.

Poly Fender Assembly - PN 96897



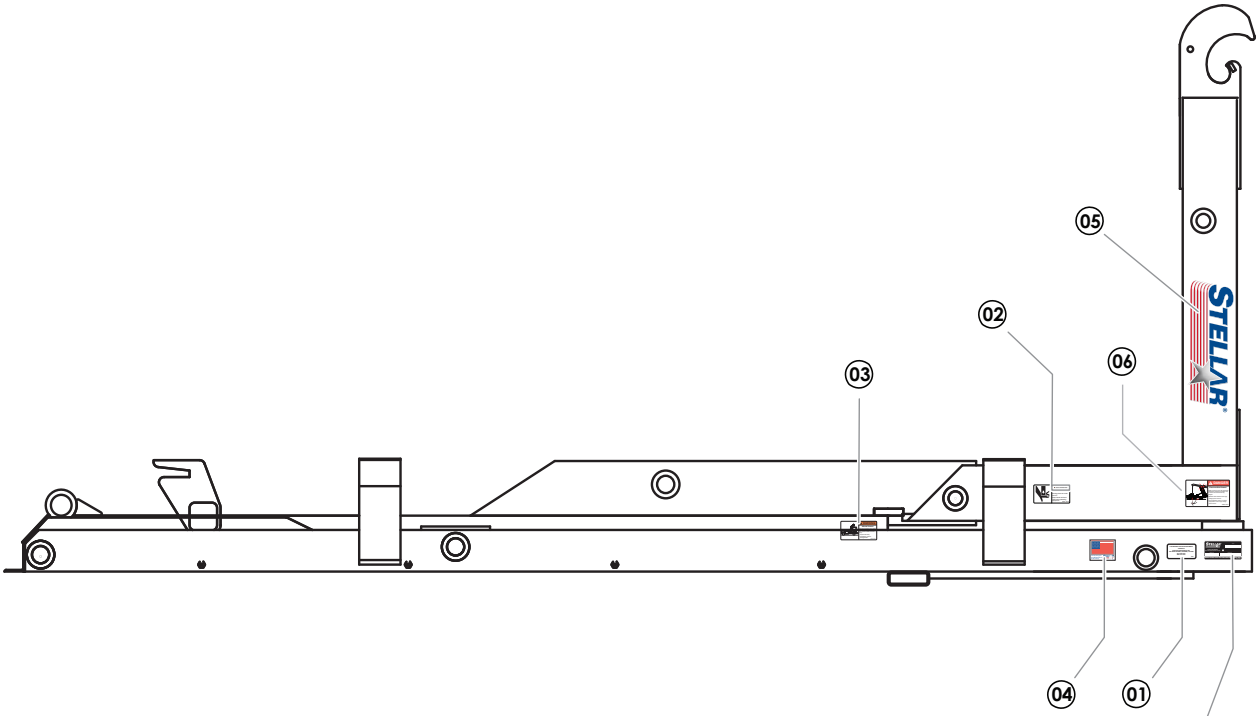
PN 96897			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	96896	FENDER SINGLE LOW PRO PLASTIC BLACK - MIN1900	2
2	123253	PLATE 0.75X6.00X5.38 W/HOLES	4
3	80044	U BOLT 0.38X4.00X4.00 ZP	8
4	0347	NUT 0.38-16 HHGR5 NYLOC	16
5	0346	WASHER 0.38 USS FLAT	16
6	11693	CAP SCR 0.63-11X1.75 HHGR8	4
7	C5902	WASHER 0.63 SAE FLAT YELLOW GR8	4
8	5733	MTG KIT OFFSET POLY FENDER (FLEET)	2
9	7633	FENDER MOUNT ASM KIT	2

Steel Fender Assembly - PN 89528



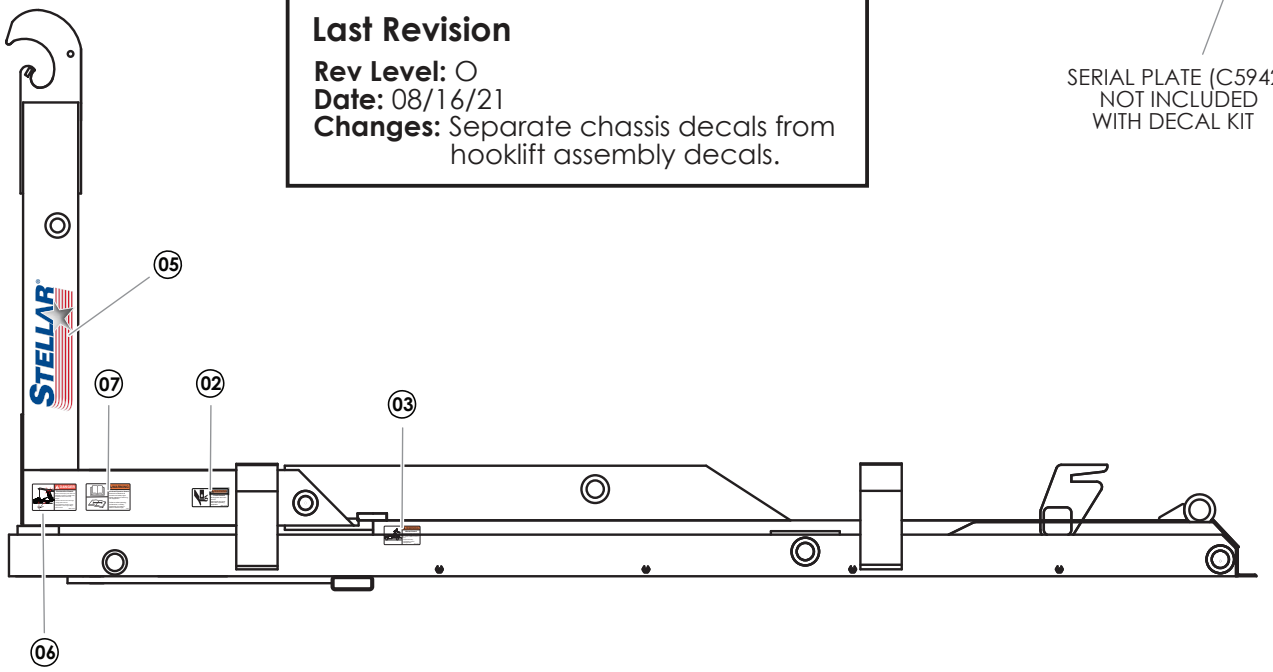
PN 89528			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	47991	FENDER WLDMT STEEL 43.00 KPAC	2
2	0537	NUT 0.50-13 HH	4
3	46590	CAP SCR 0.50X1.50 SQ HD CP SS	4
4	89527	FENDER SUPPORT WELDMENT FOR FLEX PC BLACK	4
5	80044	U BOLT 0.38X4.00X4.00 ZP	8
6	0346	WASHER 0.38 USS FLAT	16
7	0347	NUT 0.38-16 HHGR5 NYLOC	16

Step 14A: Apply Hooklift Assembly Decals



Last Revision

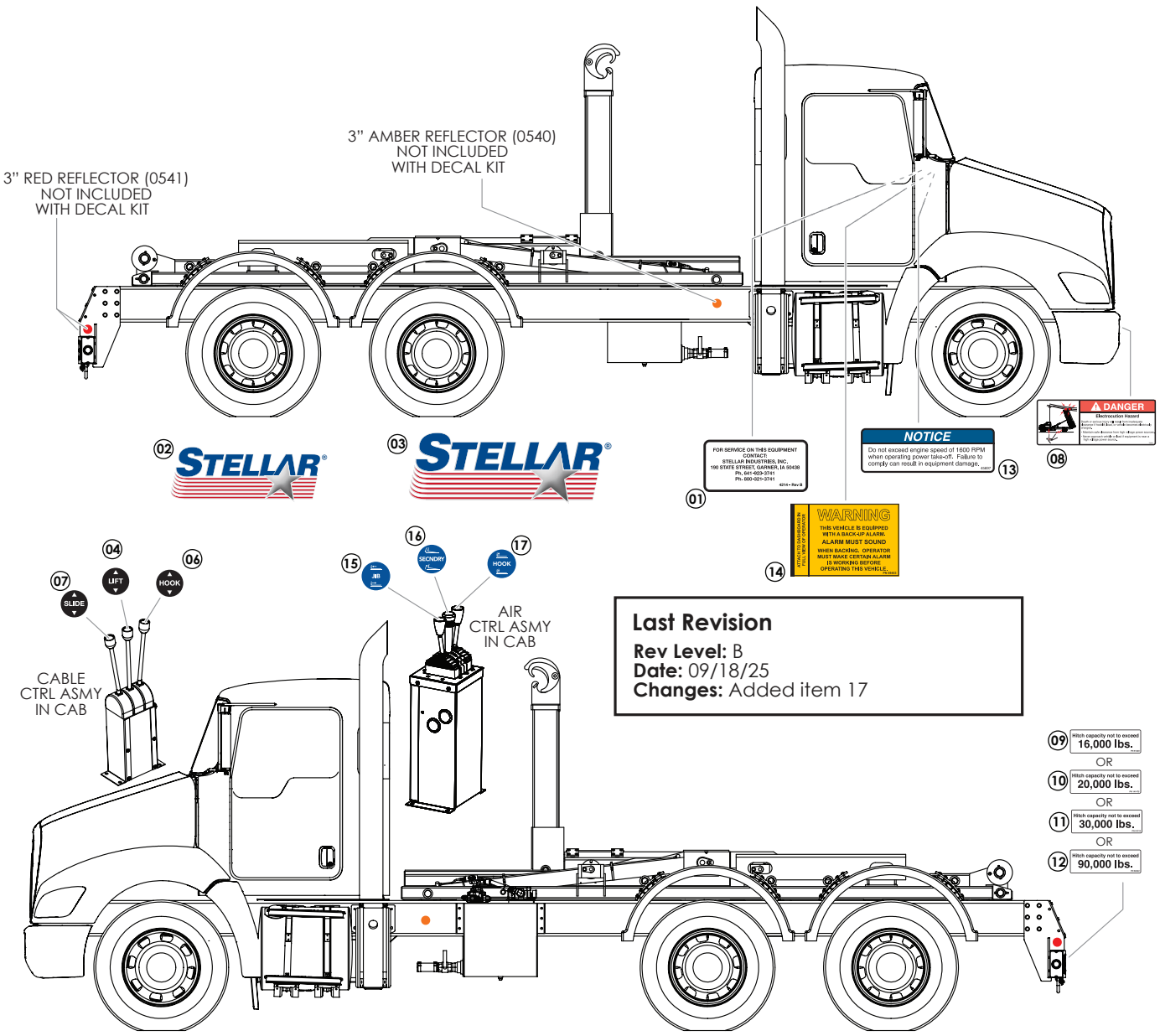
Rev Level: O
Date: 08/16/21
Changes: Separate chassis decals from hooklift assembly decals.



PN 35559

ITEM	PART No.	DESCRIPTION	QTY.
01	4214	DECAL CONTACT STELLAR	1
02	25627	DECAL WARNING CRUSH	2
03	26134	DECAL WARNING MISUSE TABS	2
04	35234	DECAL STELLAR MADE IN THE USA	1
05	53850	DECAL STELLAR LOGO 4.00X11.50	2
06	55832	DECAL DANGER ELECTROCUTION HOOK	2
07	68024	DECAL WARNING UNTRAINED OPERATOR	1

Step 14B: Apply Chassis Decals



Last Revision
Rev Level: B
Date: 09/18/25
Changes: Added item 17

PN 121012

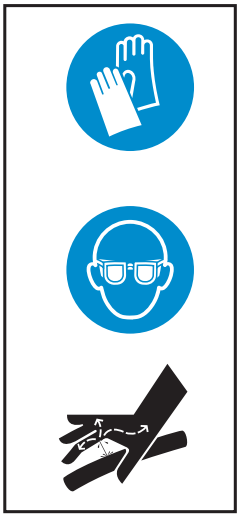
ITEM	PART No.	DESCRIPTION	SUGGESTED LOCATION	QTY.
01	4214	DECAL CONTACT STELLAR	IN CAB	1
02	53850	DECAL STELLAR LOGO 4.00X11.50	SHIPPED LOOSE - OPTIMAL PLACEMENT	1
03	52681	DECAL STELLAR LOGO 6.00X16.50	SHIPPED LOOSE - OPTIMAL PLACEMENT	1
04	39211	DECAL HOOKLIFT LEVER LIFT	CABLE CONTROL TOWER (IF INSTALLED, CONFIUGURATIONSVARIES)	2
05	39212	DECAL HOOKLIFT LEVER TILT	CABLE CONTROL TOWER (IF INSTALLED, CONFIUGURATIONSVARIES)	2
06	55414	DECAL HOOKLIFT LEVER HOOK	CABLE CONTROL TOWER (IF INSTALLED, CONFIUGURATIONSVARIES)	2
07	55754	DECAL HOOKLIFT LEVER SLIDE	CABLE CONTROL TOWER (IF INSTALLED, CONFIUGURATIONSVARIES)	2
08	79983	DECAL DANGER ELECTROCUTION	FRONT BUMPER - STREET SIDE OR REAR BUMPER - CURB SIDE	1
09	91220	DECAL HITCH CAPACITY 16K	SELECT APPROPRIATE CAPACITY; REAR BUMPER - ABOVE PINTLE LOCATION; DISCARD OTHERS	1
10	141745	DECAL HITCH CAPACITY 20K		1
11	91219	DECAL HITCH CAPACITY 30K		1
12	68222	DECAL HITCH CAPACITY 90K		1
13	45697	ENGINE SPEED PTO CAUTION	IN CAB	1
14	69463	DECAL BACK-UP ALARM VERIFY	IN CAB	1
15	135336	DECAL HOOKLIFT CONTROLLER JIB NXT	AIR CONTROL TOWER (IF INSTALLED, CONFIUGURATIONSVARIES)	1
16	135337	DECAL HOOKLIFT CONTROLLER SECONDARY NXT	AIR CONTROL TOWER (IF INSTALLED, CONFIUGURATIONSVARIES)	1
17	135335	DECAL HOOKLIFT CONTROLLER HOOK NXT	AIR CONTROL TOWER (IF INSTALLED, CONFIUGURATIONSVARIES)	1

Step 15: Fill Reservoir And Activate Hydraulic Flow.

- Fill reservoir to site gauge, within 3” from the top (Roughly 10 Gallons). Note: ISO 32 hydraulic oil is recommended.

- When connections are secure, activate hydraulic flow by opening the ball valve on the bottom of the reservoir. This will allow oil to flow from the reservoir to the pump.

WARNING



HYDRAULIC FLUID HAZARDS

- High pressure fluid leak will pierce skin.
- Release pressure before working on system.

STAND CLEAR OF POTENTIAL HIGH PRESSURE HYDRAULIC FLUID LEAKS

- Wear sturdy gloves and goggles. Detect leaks with wood or cardboard. NEVER use fingers.
- Fluid injected in skin will injure or kill and must be surgically removed by trained doctor immediately or gangrene will result.

BURN HAZARD

- Oil temperatures may exceed 120°F (35°C).
- Do not touch hydraulic system.
- Hot surface can burn

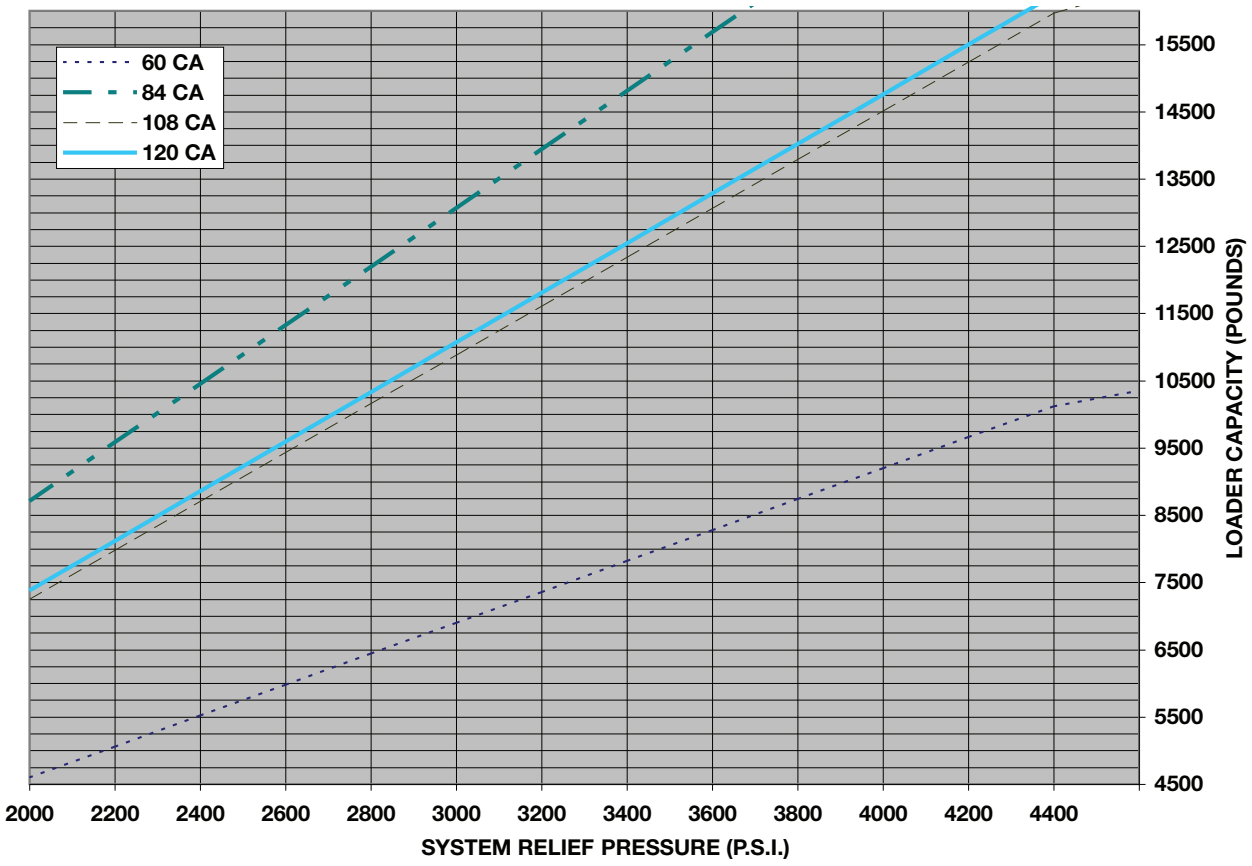
CHECK HYDRAULIC HOSES, TUBES, AND PIPES DAILY.

Step 16: Operate Hooklift.

⚠WARNING Stellar® Hooklift operators must conform to the qualifications specified in the *Slider Hooklift Safety, Operation, Maintenance, Troubleshooting Manual*. Read and understand all manuals and safety signs before operating or servicing this equipment.

- Bleed the air out of the hydraulic system.
- Check the hydraulic oil level and add oil if needed. When checking hydraulic oil level, make certain that **all system cylinders** are fully retracted.
- Calibrate dump light system.
- Be sure to check all clearances.
- Set/check relief pressure no higher than 4200 PSI (See procedure on next page).

Pressure vs. Capacity

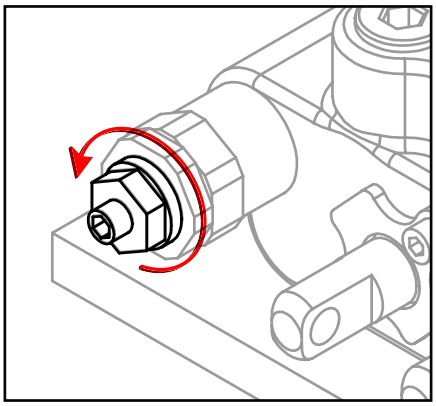


Set System Relief Pressure

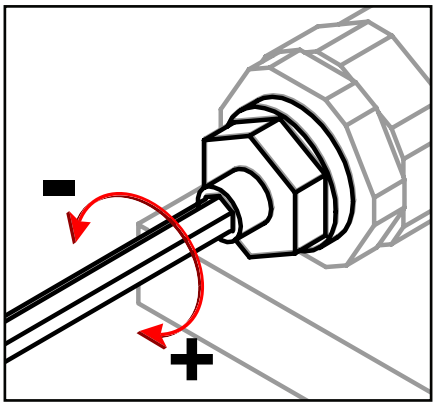
1. Engage the PTO. Run the PTO at 1200 RPM.

2. Push the lever labeled ‘lift’ until the boom bottoms out. Keep pushing the lever forward until the pressure is set.

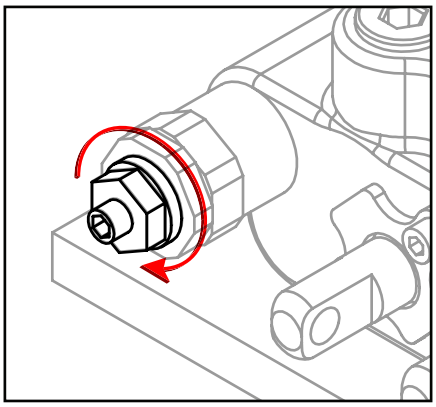
3. Locate the main relief valve and release the jam nut using a 13 mm wrench:



4. Adjust the system relief pressure using 4 mm allen wrench (See chart on previous page). Clockwise increases pressure, counter clockwise decreases pressure:



5. Once system pressure is set, tighten the jam nut to lock system pressure. Permanent thread lock should not be used:



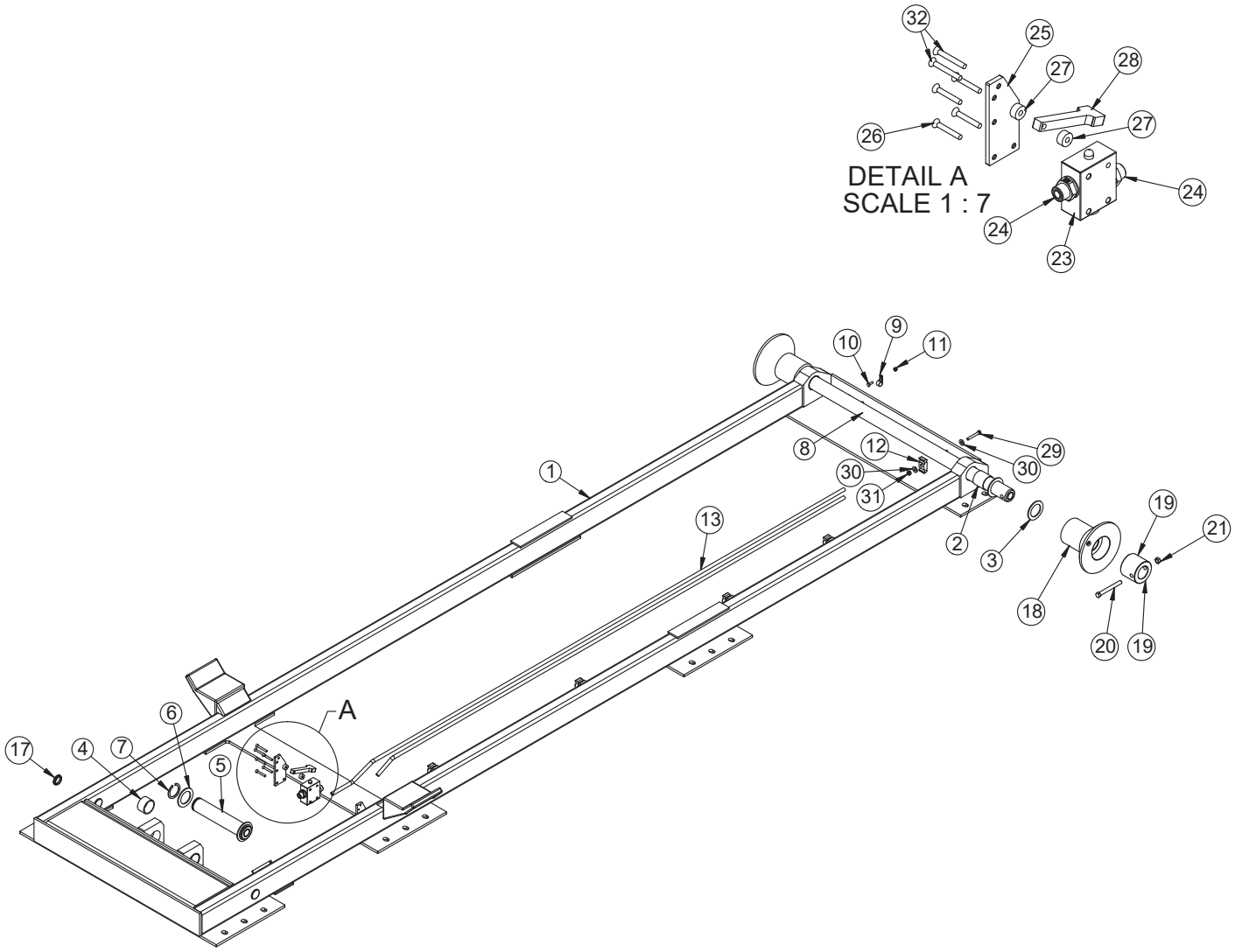
6. Release all functions and disengage the PTO. Snap tamper cap into position over the jam nut. The break away clip will be destroyed if the cap is removed.

Chapter 3 - Assembly Drawings

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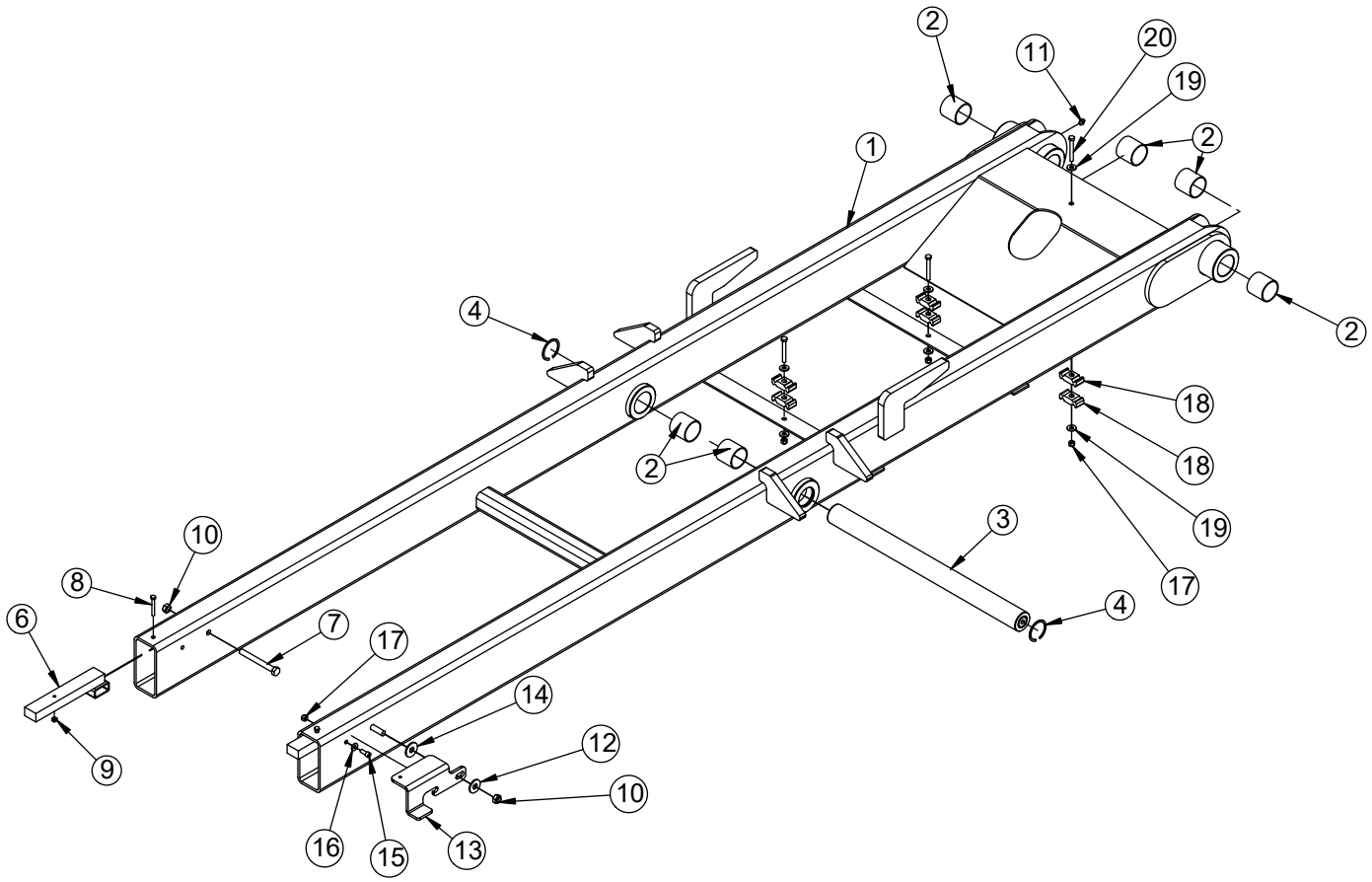
Base Assembly - PN 41773



Base Assembly - PN 41773 Parts List

PN 41773			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	33418	BASE 120-14 FLEX 36	1
2	4381	BUSHING 32DXR32 2.00X2.00 GARLOCK	2
3	1546	THRUST WASHER 2.01DIA UHMW .12THK	4
4	23699	BUSHING 32DXR20 2.00X1.25	2
5	33741CR	PIN 2.00X10.19 SR ZC	1
6	0427	MACHY WASHER 2.00ID 10GA	2
7	0108	SNAP RING 2.00 7200-200	2
8	41774CR	PIN 2.00X49.88 ZC	1
9	C0078	CLAMP 0.38 BLK VINYL	1
10	0479	CAP SCR 0.25-20X0.75 HHGR5	1
11	0333	NUT 0.25-20 HHGR5 NYLOC	1
12	8622	CLAMP HOSE/TUBE AG-2	9
13	70528	TUBE ASM 0.50 120-14 FLEX TILT RETRACT ZC	1
14	70529	TUBE ASM 0.50 120-14 FLEX TILT EXTEND ZC	1
15	0340	WASHER 0.25 FLAT	4
16	0220	CAP SCR 0.25-20 X 1.50 HHGR5	4
17	19112	PLUG PLASTIC CCF1.50-10-14	4
18	41776	ROLLER 2.00X4.00X3.81X8.00 PWDRCT YEL	2
19	0015	COLLAR 2.03X3.50X2.88 PC BLACK	2
20	0507	CAP SCR 0.50-13X4.50 HHGR5	2
21	C6106	NUT 0.50-13 HHGR5 NYLOC	2
22	0521	WASHER 0.25 LOCK	4
23	53853	VALVE PLUNGER VILLA HYD NORMALLY CLOSED	1
24	57735	FTG 8-8 MBSPP-MFS STRAIGHT	2
25	77784	PLATE MNT BRKT STOP SYSTEM CS HOLES	1
26	77785	CAP SCR 0.25-20X1.75 FHSH	4
27	70294	COLLAR 0.28X0.75X0.38 UHMW	2
28	70293	LEVER PLUNGER VALVE FINGER	1
29	C0927	CAP SCR 0.31-18X2.25 HHGR5	1
30	0343	WASHER 0.31 USS FLAT	2
31	0342	NUT 0.31-18 HHGR5 NYLOC	1
32	90740	CAP SCR 0.25-20X2.00 FHSH ZNCTS W/ RED PATCH	2
REV. C			

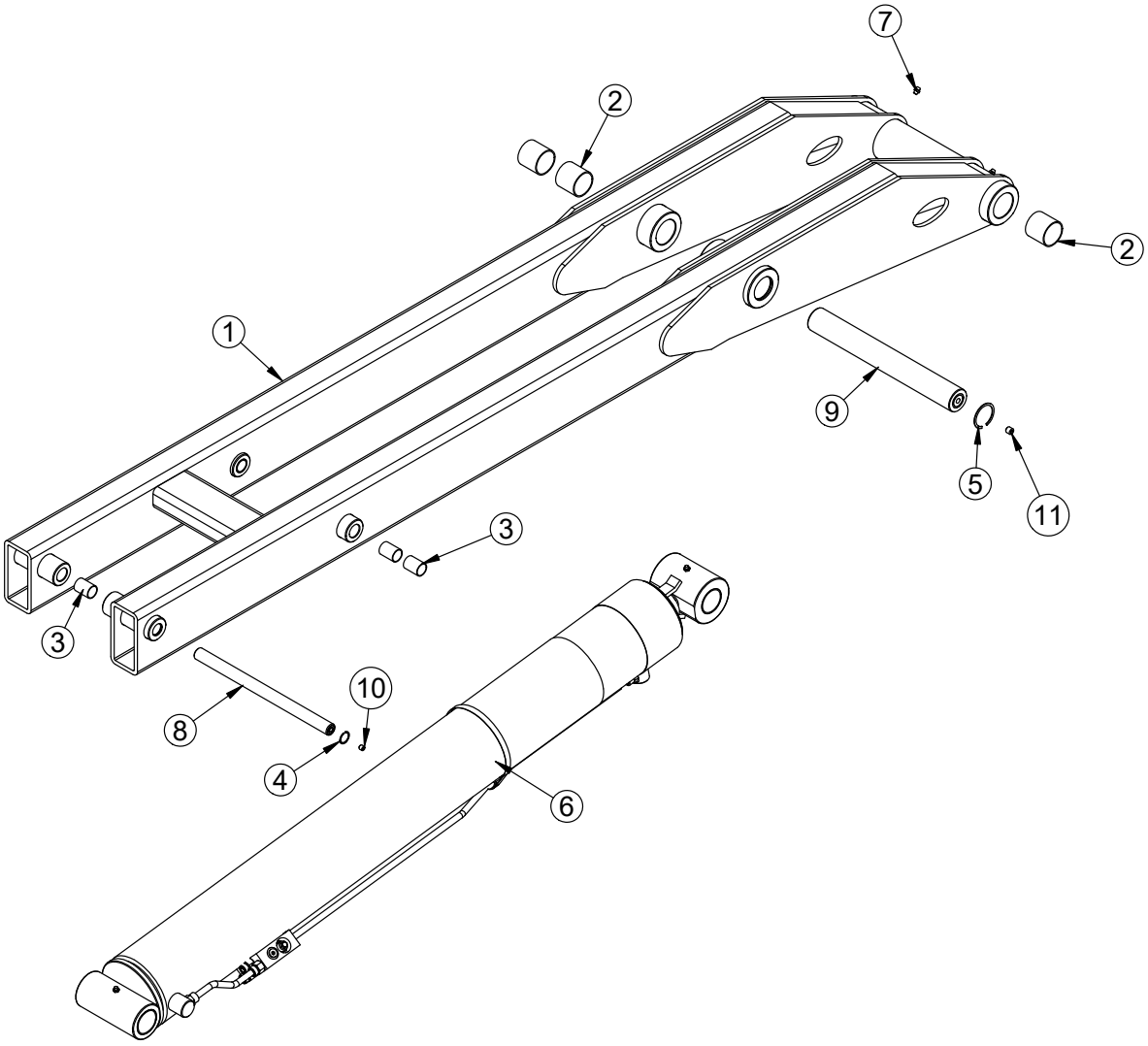
Dump Assembly - PN 33417



Dump Assembly - PN 33417 Parts List

PN 33417			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	33416	DUMP 120-14 FLEX 36	1
2	4381	BUSHING 32DXR32 2.00X2.00 GARLOCK	6
3	22227CR	PIN 2.00X25.25 ZC	1
4	2257	SNAP RING INSIDE 2.00	2
5	33062	TAB LOADER WLDMT BREAK AWAY	1
6	23301	TAB LOADER BREAK AWAY STRAIGHT PC B	1
7	0507	CAP SCR 0.50-13X4.50 HHGR5	2
8	0481	CAP SCR 0.25-20X2.00 HHGR5	2
9	0333	NUT 0.25-20 HHGR5 NYLOC	2
10	C6106	NUT 0.50-13 HHGR5 NYLOC	2
11	C1592	ZERK 1/8 NPT STRAIGHT	2
12	0352	WASHER 0.50 USS FLAT	1
13	65135	LEVER PLUNGER VALVE FORMED	1
14	C4516	WASHER 0.56IDX1.50ODX0.13 THK NYLON	1
15	38263	CAP SCR 0.31-18X0.75 SH	1
16	0340	WASHER 0.25 USS FLAT	1
17	0342	NUT 0.31-18 HHGR5 NYLOC	4
18	8622	CLAMP HOSE/TUBE AG-2	6
19	0343	WASHER 0.31 USS FLAT	6
20	0489	CAP SCR 0.31-18X2.50 HHGR5	3
REV. E			

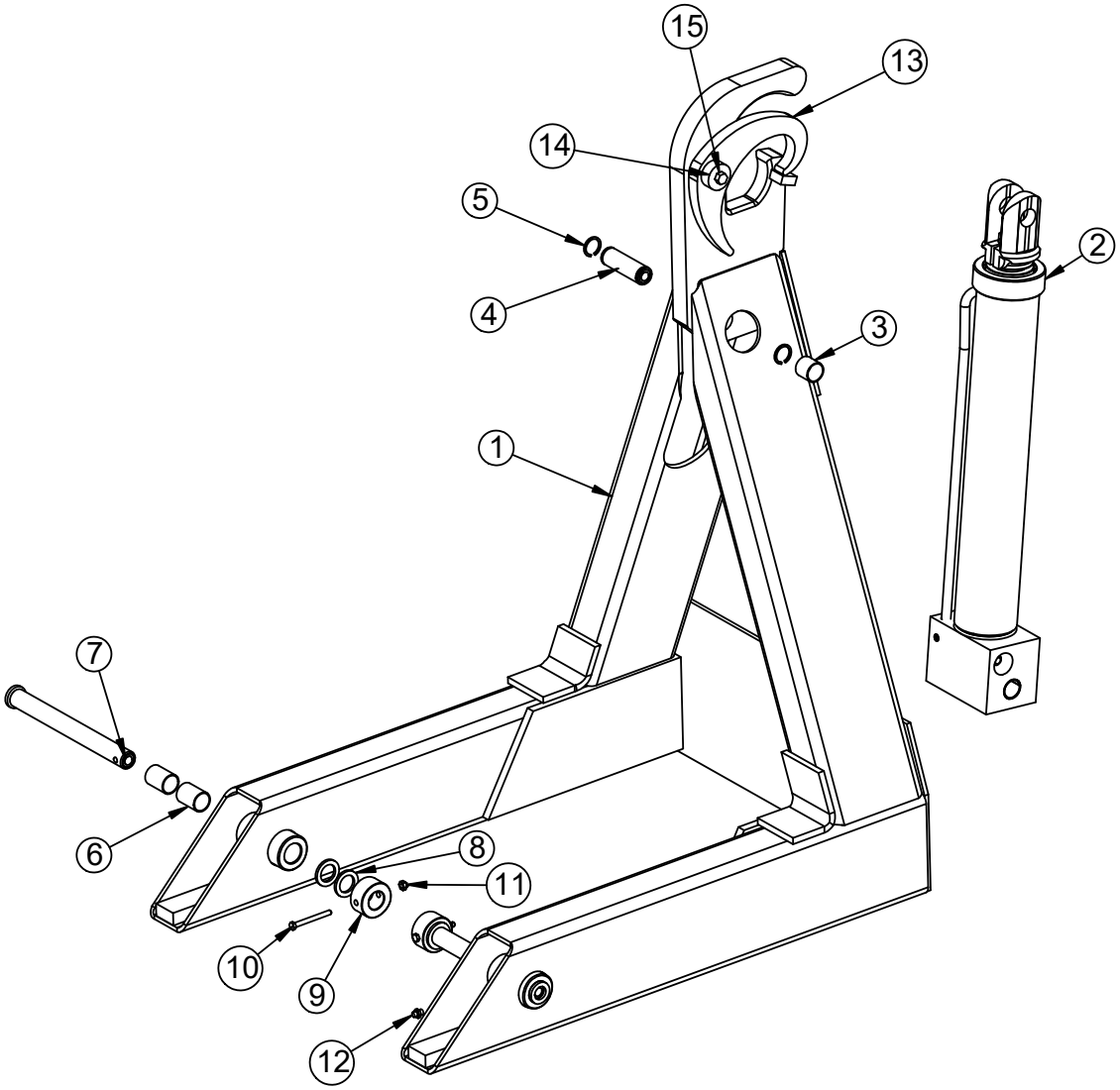
Secondary Assembly - PN 33415



Secondary Assembly - PN 33415

PN 33415			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	33414	SECONDARY 120-14 FLEX 36	1
2	4381	BUSHING 32DXR32 2.00X2.00 GARLOCK	6
3	0068	BUSHING QSI-1618-24	6
4	3875	SNAP RING 1.00 INTERNAL	2
5	2257	SNAP RING INSIDE 2.00	2
6	33462	CYLINDER ASM 5.50X52.38	1
7	C1592	ZERK 1/8 NPT STRAIGHT	2
8	22285CR	PIN 1.00X15.00 ZC	1
9	22286CR	PIN 2.00X16.00 ZC	1
10	C3397	SET SCREW 0.38-16X0.38 W/ RED PATCH	1
11	58052	SET SCREW 0.50-13X0.50 W/ RED PATCH	1
REV. C			

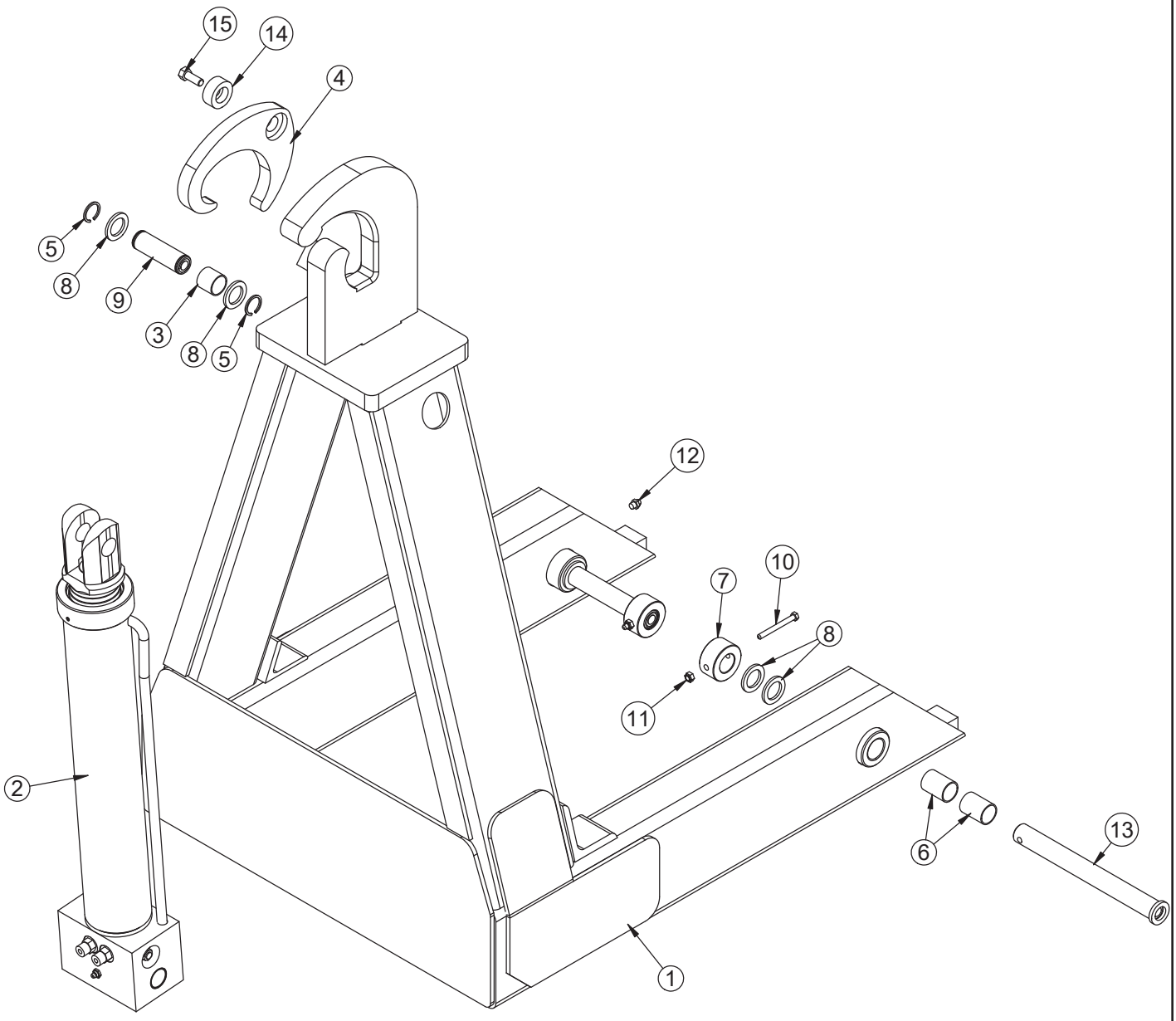
Tilt Assembly - PN 125017



Tilt Assembly - PN 125017 Parts List

PN 125017			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	125018	TILT 120-14 FLEX 36 NARROW TOP	1
2	23460	CYLINDER ASM 3.00X17.00	1
3	0069	BUSHING QSI-1618-16	1
4	4912CR	PIN 1.00X3.25 SR ZC	1
5	0110	SNAP RING 1.00 ID 7200-100	2
6	0068	BUSHING QSI-1618-24	4
7	33103CR	PIN WLDMT 1.00X9.81 ZC	2
8	0424	MACHY WASHER 1.00ID 10GA	4
9	33104	COLLAR 1.03X2.00X1.00 PC BLACK	2
10	0339	CAP SCR 0.25-20X2.50 HHGR5	2
11	0333	NUT 0.25-20 HHGR5 NYLOC	2
12	c1592	ZERK 1/8 NPT STRAIGHT	2
13	73542	LATCH SLIDER20S CS PC BLACK	1
14	14672	PIN CAP 0.44X1.50X0.63	1
15	9714	CAP SCR 0.38-16X1.00 SS	1

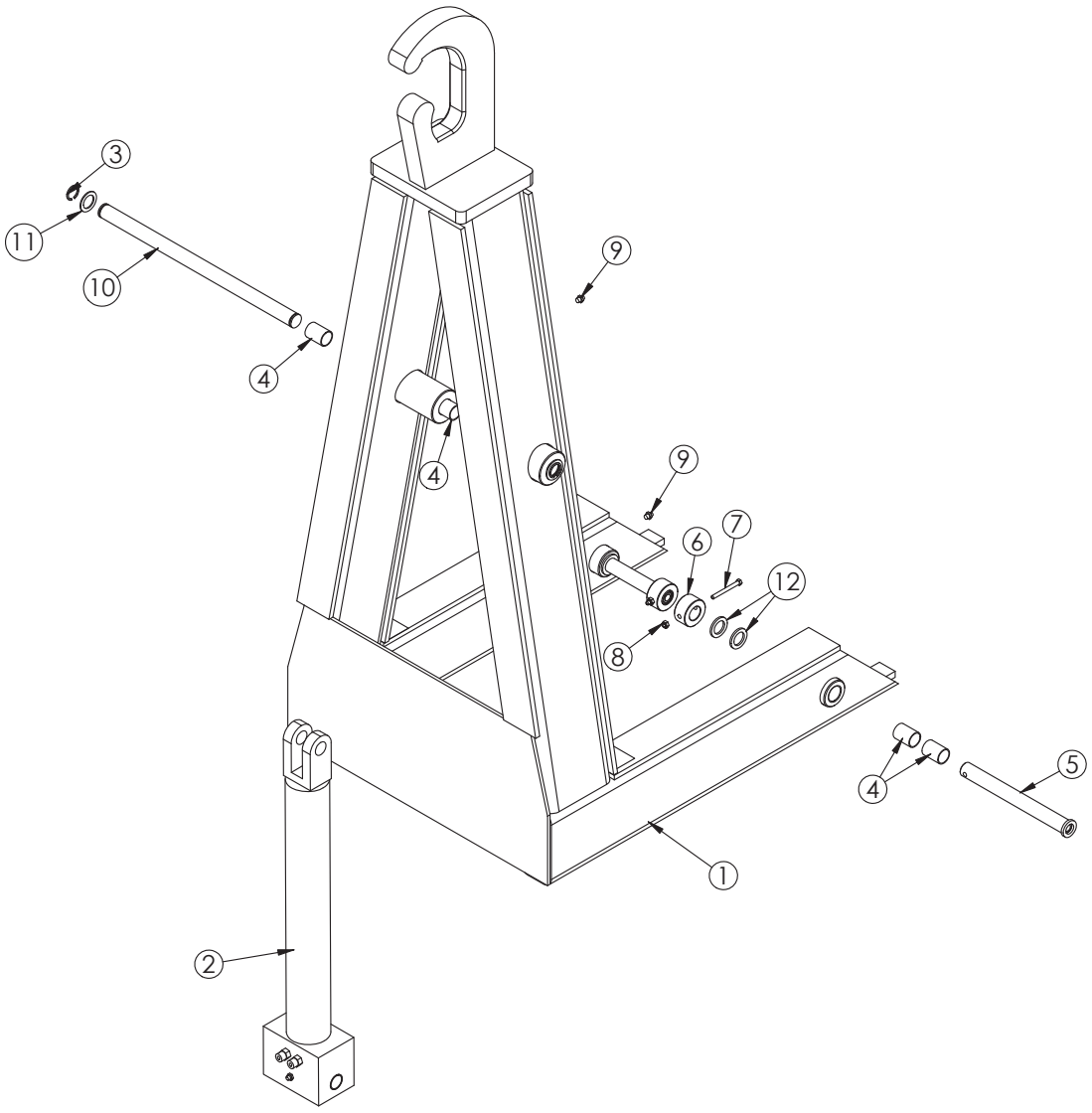
Tilt Assembly - PN 33049

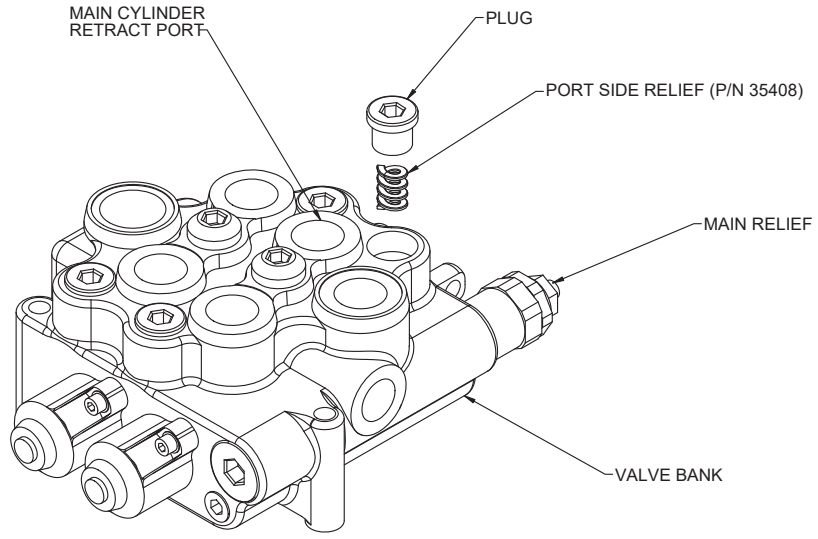


Tilt Assembly - PN 33049 Parts List

PN 33049			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	33050	TILT FLEX 36	1
2	23460	CYLINDER ASM 3.00X17.00	1
3	0069	BUSHING QSI-1618-16	1
4	0295	LATCH 12000# PC BLACK	1
5	0110	SNAP RING 1.00 ID 7200-100	2
6	0068	BUSHING QSI-1618-24	4
7	33104	COLLAR 1.03X2.00X1.00 PC BLACK	2
8	0424	MACHY WASHER 1.00ID 10GA	6
9	4912CR	PIN 1.00X3.25 SR ZC	1
10	0339	CAP SCR 0.25-20X2.50 HHGR5	2
11	0333	NUT 0.25-20 HHGR5 NYLOC	2
12	C1592	ZERK 1/8 NPT STRAIGHT	2
13	33103CR	PIN WLDMT 1.00X9.81 ZC	2
14	14672	PIN CAP 0.44X1.50X0.63	1
15	9714	CAP SCR 0.38-16X1.00 SS	1
REV C			

Optional Tall Tilt Assembly - PN 35032





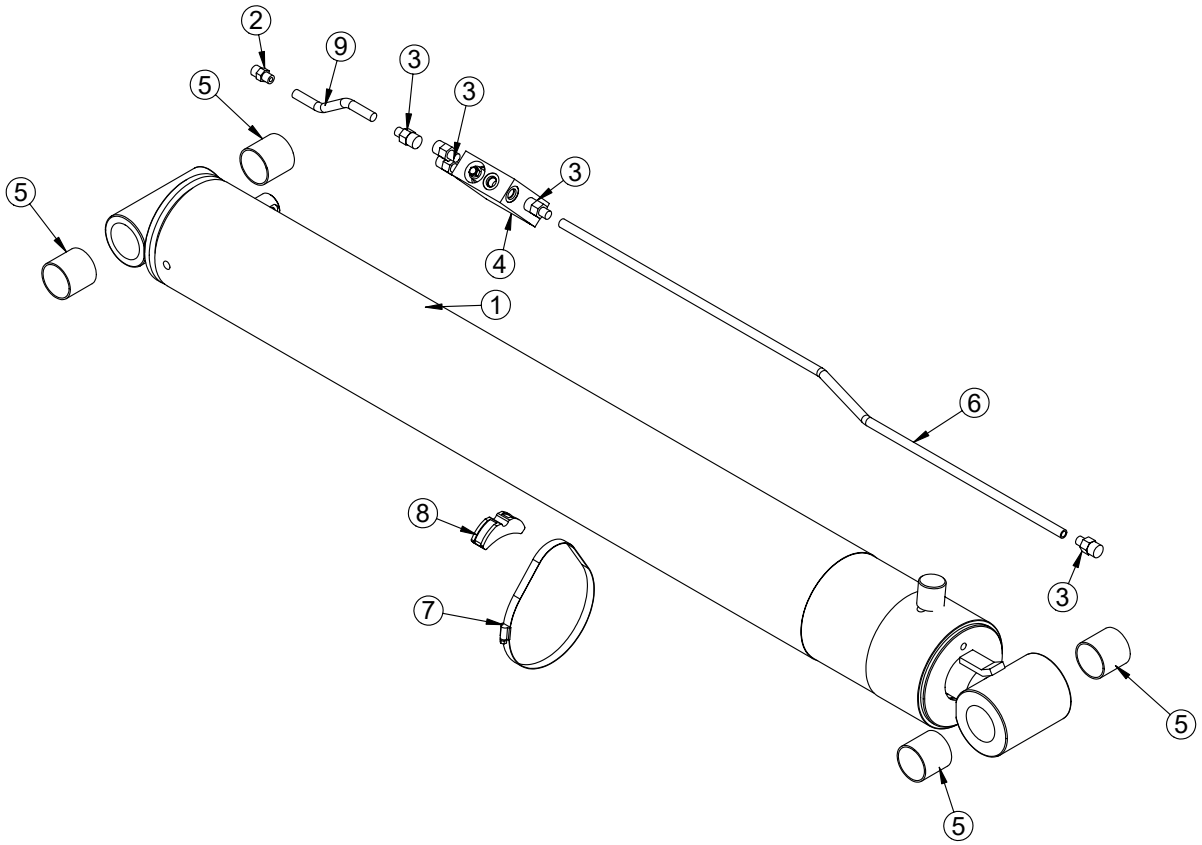
Optional Tall Tilt Assembly - PN 35032 Parts List

PN 35032			
ITEMS	**PART**	**DESCRIPTION**	**QTY**
1	35033	TILT FLEX 36 54HH	1
2	35169	CYLINDER ASM 3.00X10.00	1
3	0110	SNAP RING 1.00 ID 7200-100	2
4	0068	BUSHING QSI-1618-24	8
5	33103CR	PIN WLDMT 1.00X9.81 ZC	2
6	33104	COLLAR 1.03X2.00X1.00 PC BLA	2
7	0339	CAP SCR 0.25-20X2.50 HHGR5	2
8	0333	NUT 0.25-20 HHGR5 NYLOC	2
9	C1592	ZERK 1/8 NPT STRAIGHT	4
10	35066	PIN 1.00X18.38 SR SS	1
11	0867	MACHY WASHER 1.00ID 14GA	2
12	0424	MACHY WASHER 1.00ID 10GA	4
REV. B			

ITEMS NOT SHOWN		
PART	**DESCRIPTION**	**QTY**
35408	PORT RELIEF VDM8 2715 PSI	1

NOTES:
THIS TILT REQUIRES A PORT SIDE RELIEF (P/N 35408) INSTALLED IN THE VALVE BANK ON THE RETRACT SIDE OFTHE MAIN CYLINDER. PLEASE REFER TO THE PORT SIDE RELIEF DRAWING FOR INSTALLATION INSTRUCTION.

Main Cylinder Assembly - PN 33462

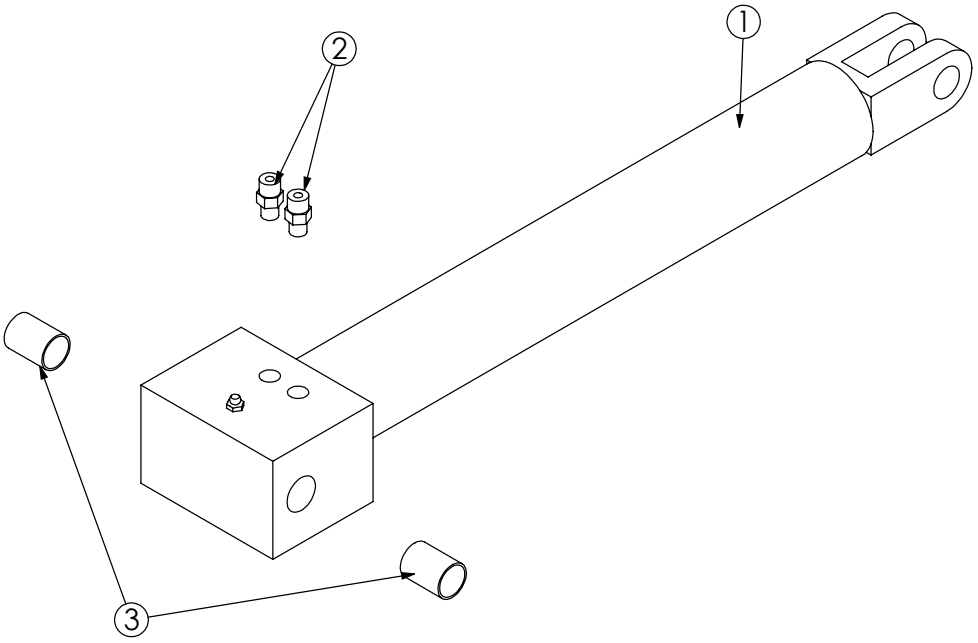


Main Cylinder Assembly - PN 33462 Parts List

PN 33462			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	33463	CYLINDER 5.50X52.38	1
2	1554	FTG 8-8 MFS-MORB STRAIGHT	2
3	D1290	FTG 8-6 MFS-MORB STRAIGHT	4
4	15822	MANIFOLD DOUBLE T11A 5000 PSI	1
5	4381	BUSHING 32DXR32 2.00X2.00 GARLOCK	4
6	33750	TUBE ASM 0.50X39.38 YZ	1
7	19369	HOSE CLAMP 4.13-7.00 5416K38	1
8	18701	CLAMP PORT TUBE ZR518	1
9	16256	TUBE ASM 0.50X6.25 YZ	1
REV. B			

NOTES:
SEAL KIT PN: 35546 - BOBALEE
SEAL KIT PN: 122705 - CLB
BUSHINGS SHOWN FOR REFERENCE ONLY.

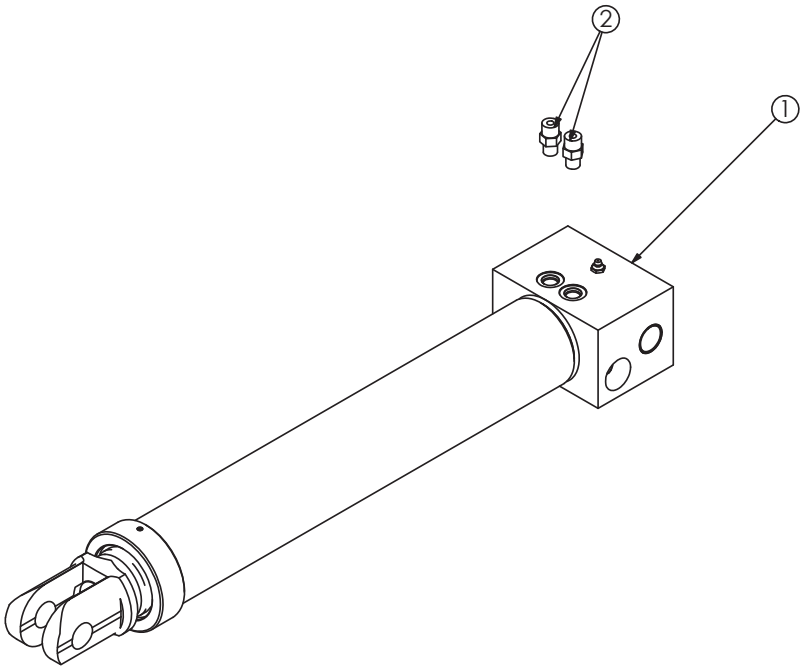
Tilt Cylinder - PN 35169



PN 35169			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	35170	CYLINDER 3.00X10.00	1
2	0279	FTG 6-6 MFS-MORB STRAIGHT	2
3	0068	BUSHING QSI-1618-24	2

NOTES:
SEAL KIT PN: C6301 - BOBALEE.
SEAL KIT PN: 122704.
BUSHINGS SHOWN AS REFERENCE

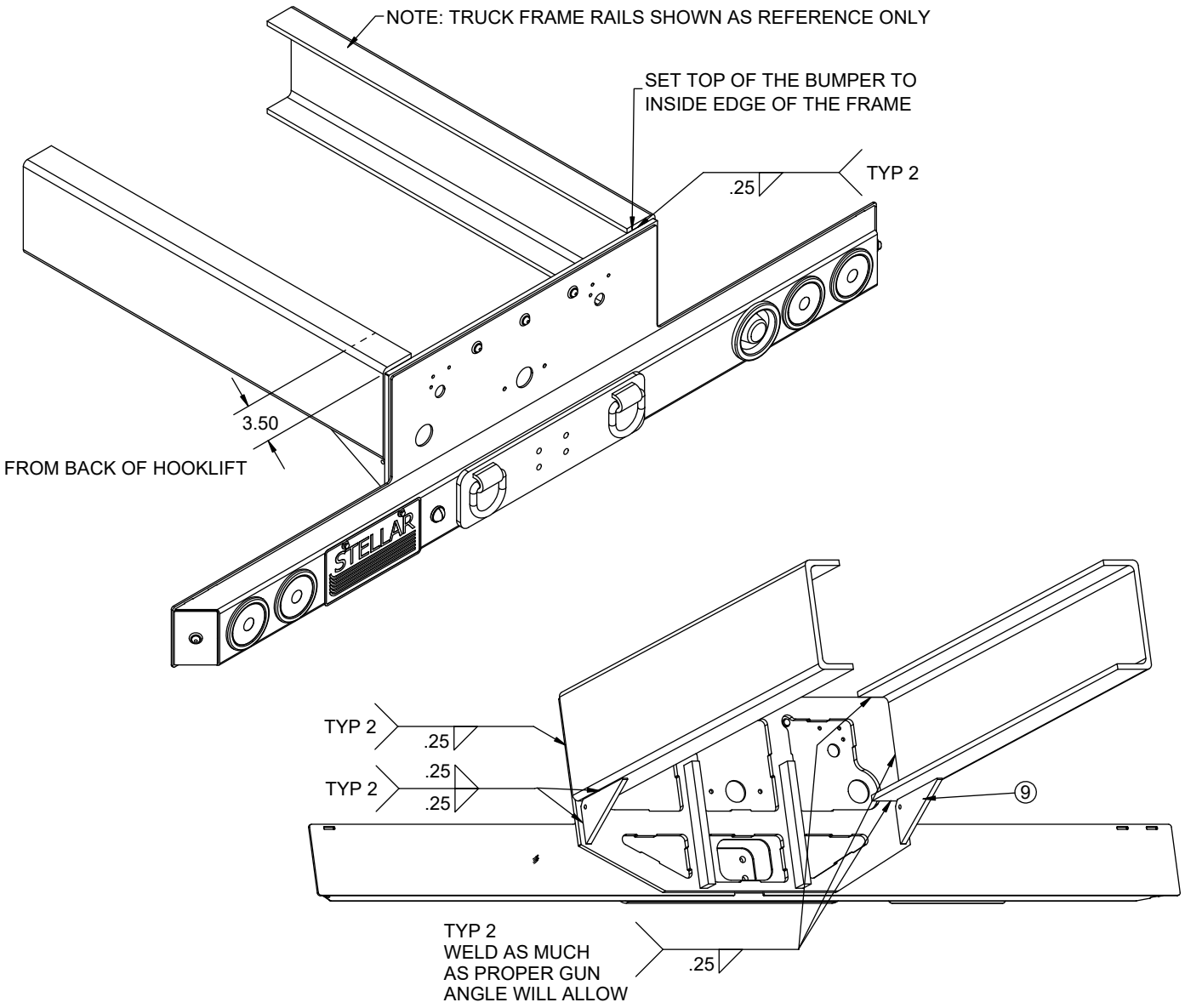
Tilt Cylinder - PN 23460



PN 23460			
ITEM	PART	DESCRIPTION	QTY
1	3767	13767CYLINDER 3.00X17.00	1
2	0279	FTG 6-6 MFS-MORB STRAIGHT	2

NOTES:
SEAL KIT PN: C6301 - BOBALEE.
SEAL KIT PN: 122704.

Bumper Assembly - PN 81300



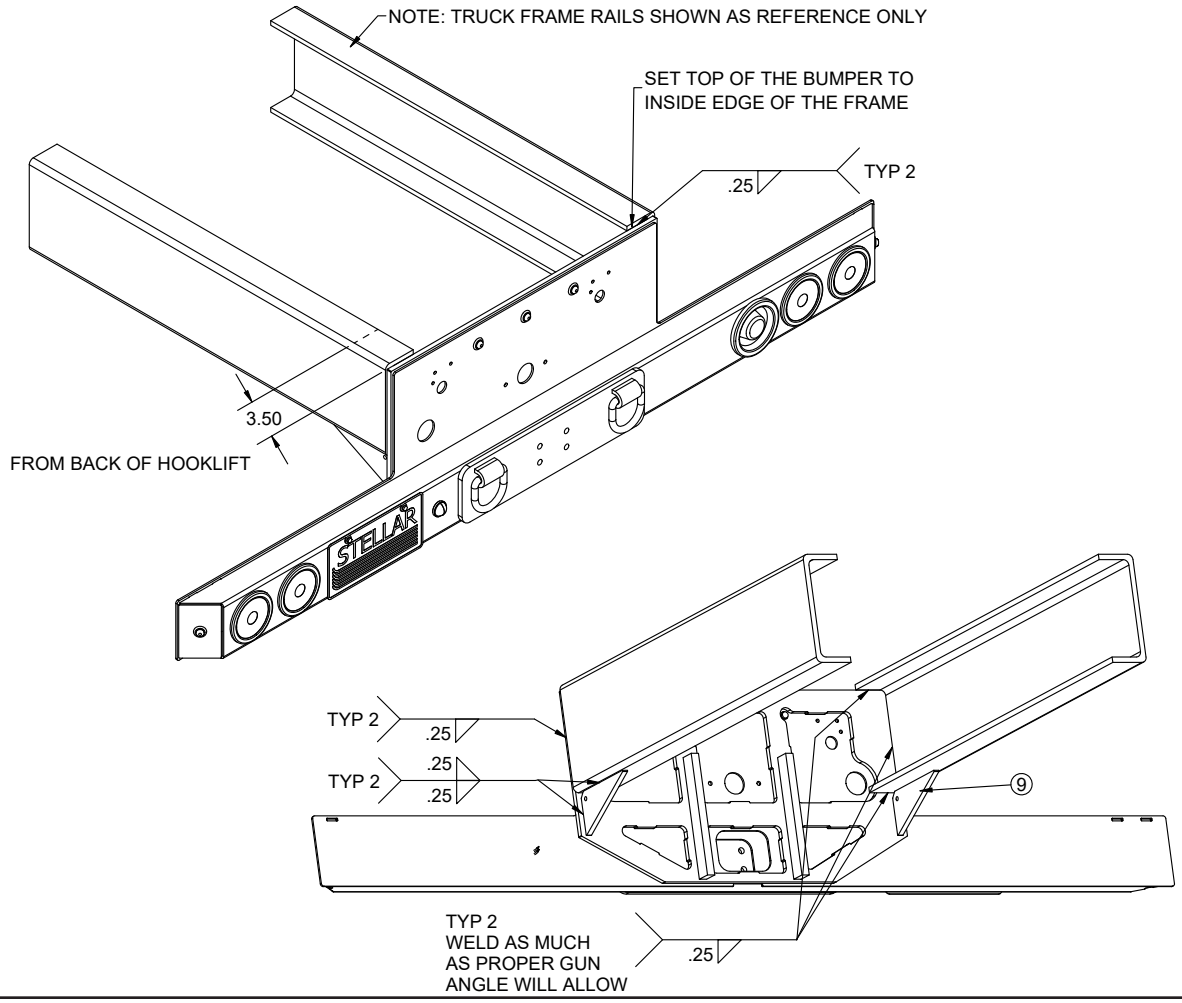
NOTES:
P/N 123761, LIGHT & INSTALL KIT BUMPER ASM 16K, INCLUDES ALL ITEMS EXCEPT BUMPER WELDMENT.

Bumper Assembly - PN 81300 Parts List

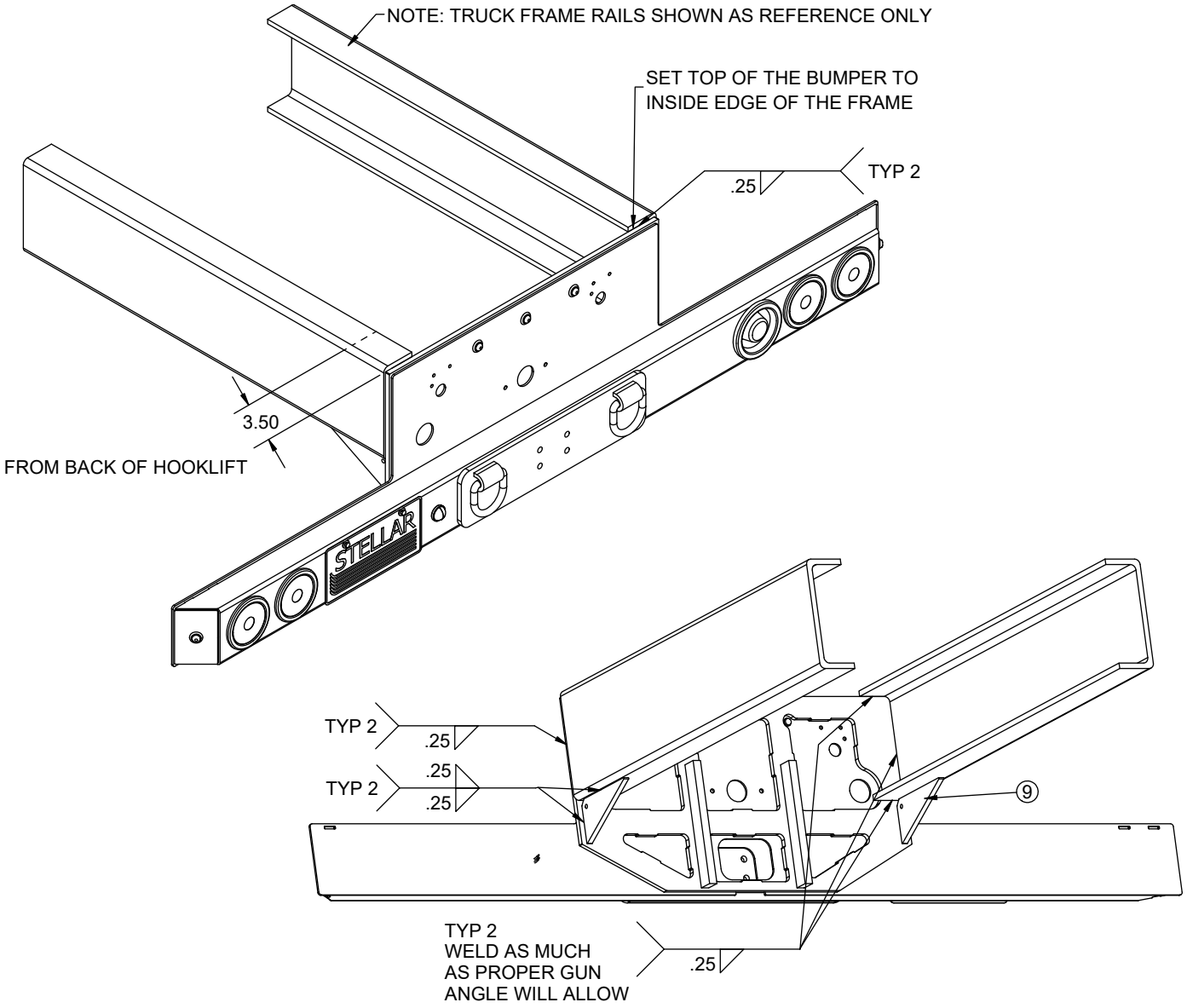
PN 81300			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	18742	BACKUP ALARM ACORN 97 DECIBAL	1
2	2320	LICENSE PLATE LIGHT ROUND 430 W	1
3	80563	BUMPER WLDMT FOR 16K PINTLE FLEX	1
4	479	CAP SCR 0.25-20X0.75 HHGR5	2
5	521	WASHER 0.25 LOCK	2
6	340	WASHER 0.25 USS FLAT	2
7	82431	LIGHT STOP/TURN/TAIL/REV 4 RND GROTE LED	4
8	82430	GROMMET 4.00 ROUND LAMP (GROTE)	4
9	112272	GUSSET 0.50X4.00X4.00 W/HOLE	2

ITEMS NOT SHOWN		
PART	**DESCRIPTION**	**QTY**
82429	WIRE HARNESS FMV108 HOOK LOADER GEN2	1
85371	WIRE HARNESS FMVSS108 CHASSIS GEN2	1
540	REFLECTOR 3.00 AMBER	2
541	REFLECTOR 3.00 RED	2

81300-1 Installation

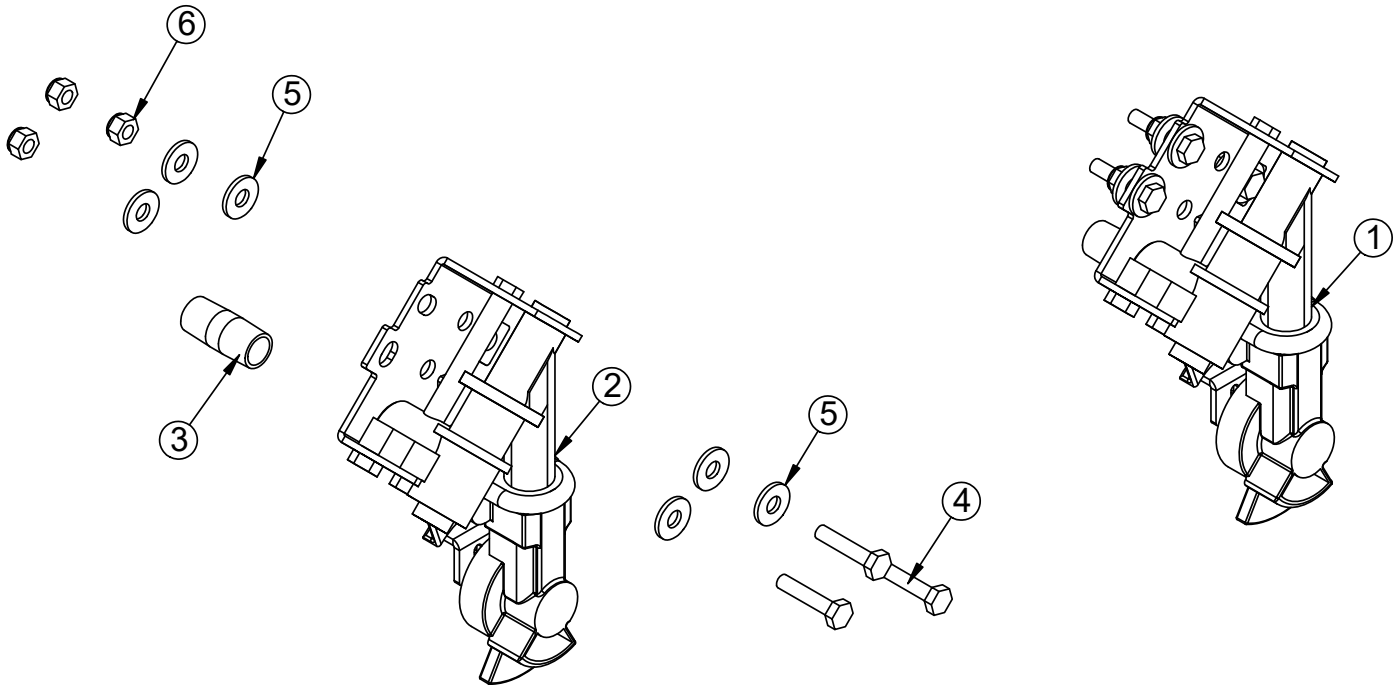


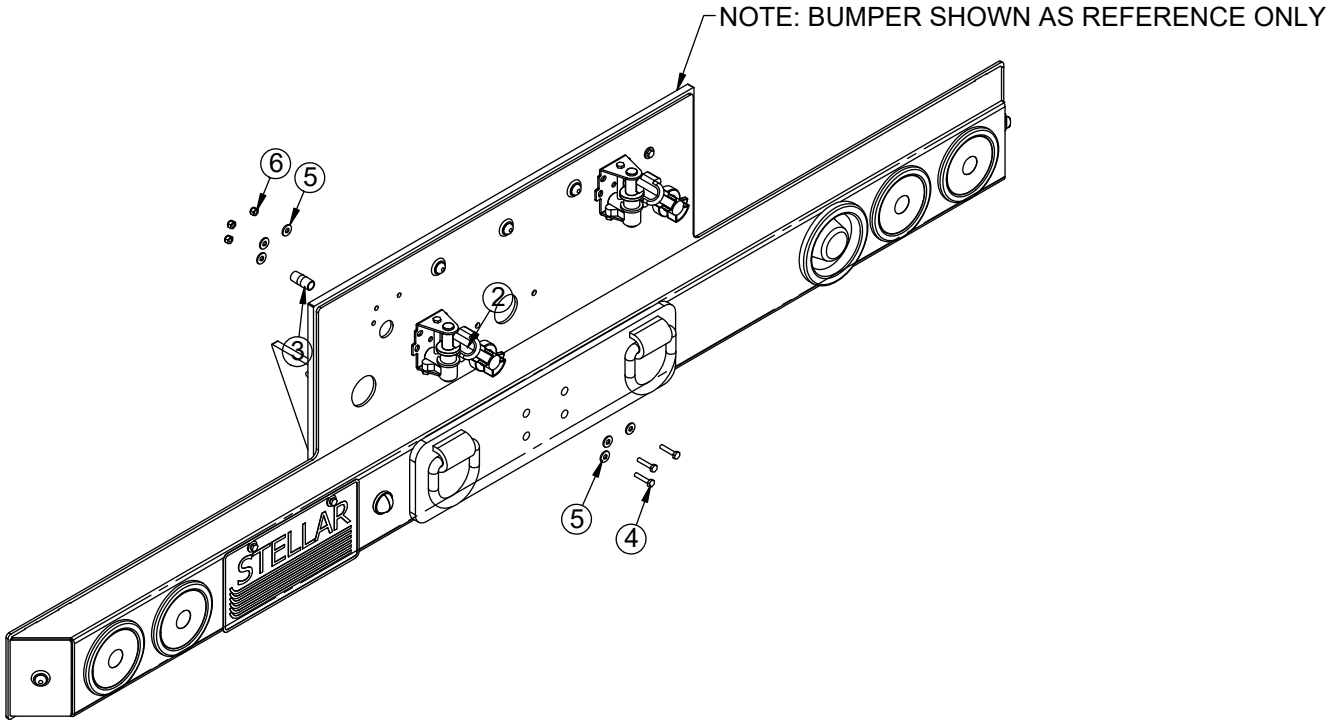
81300-2 Installation



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Optional Gladhand Assembly - PN 81908

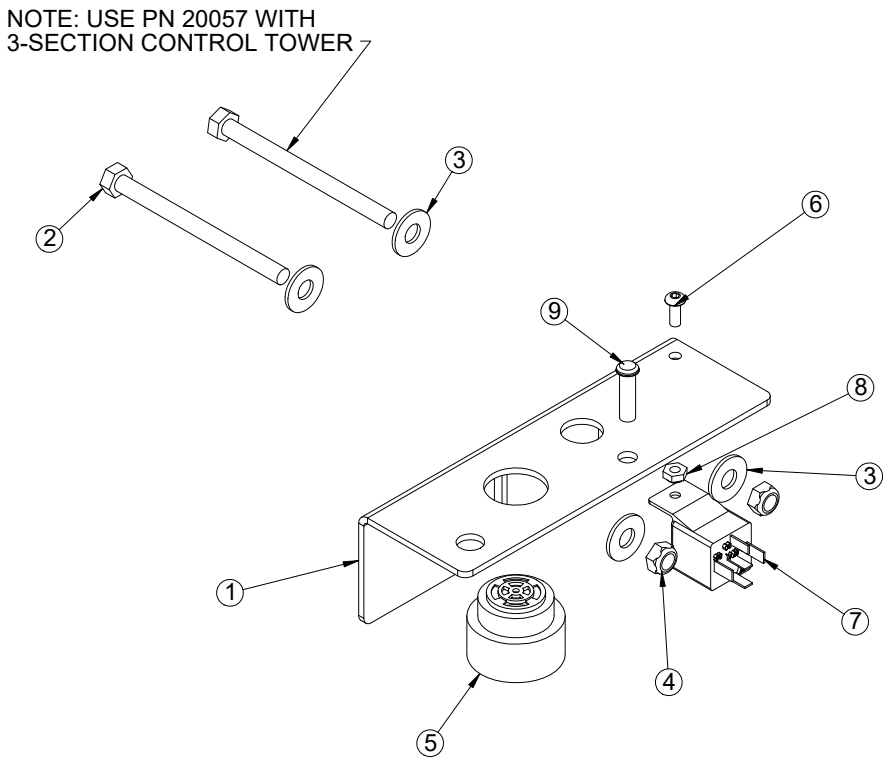




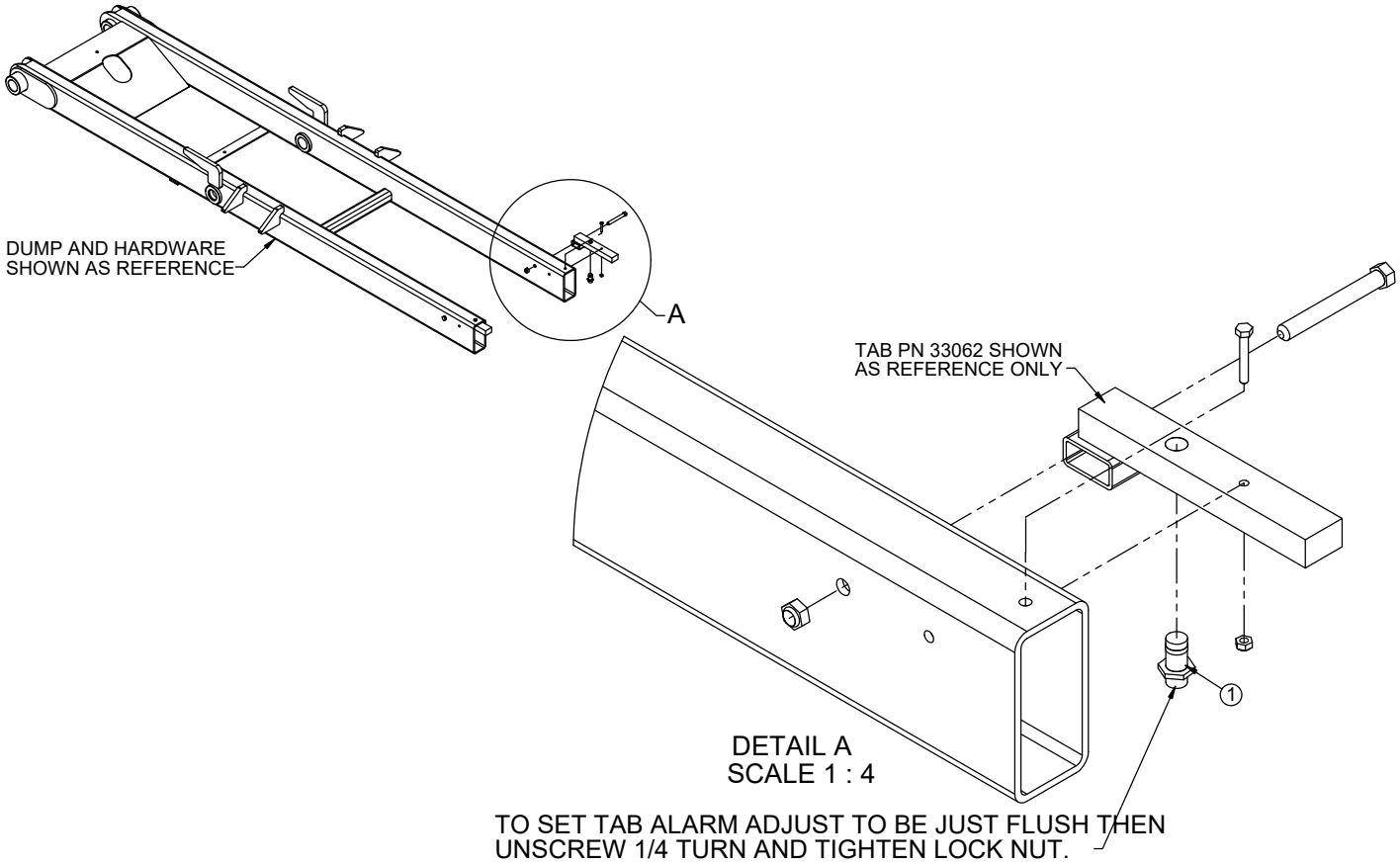
Optional Gladhand Assembly - PN 81908 Parts List

PN 81908			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	75646	GLAD HANDS EMER SERV(RED) 441105	1
2	75647	GLAD HANDS AIR SERV(BLUE) 45DEG 441106	1
3	21661	FTG 6-6XCLOSE MP-MP NIPPLE STRAIGHT BRASS	2
4	0437	CAP SCR 0.25-20X1.25 HHGR5	6
5	0340	WASHER 0.25 USS FLAT	12
6	0333	NUT 0.25-20 HHGR5 NYLOC	6

Optional Tab Alarm Kit - PN 43120



Optional Tab Alarm Kit - 43120-1



Optional Tab Alarm Kit - PN 43120 Parts List

PN 43120			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	26293	PLATE TAB ALARM MNT	1
2	0491	CAP SCR 0.31-18X4.00 HHGR5	2
3	0343	WASHER 0.31 USS FLAT ZINC	4
4	0342	NUT 0.31-18 HH NYLOC	2
5	26031	BACKUP ALARM PIEZO JAMECO 123537	1
6	D1711	CAP SCR #10-24X0.50 BTNHD SS	1
7	C6072	RELAY BOSCH 20-30 AMP	1
8	26034	NUT #10-24 HH NYLOC	1
9	61233	LIGHT LED CONTROL PANEL RED	1
REV. C			

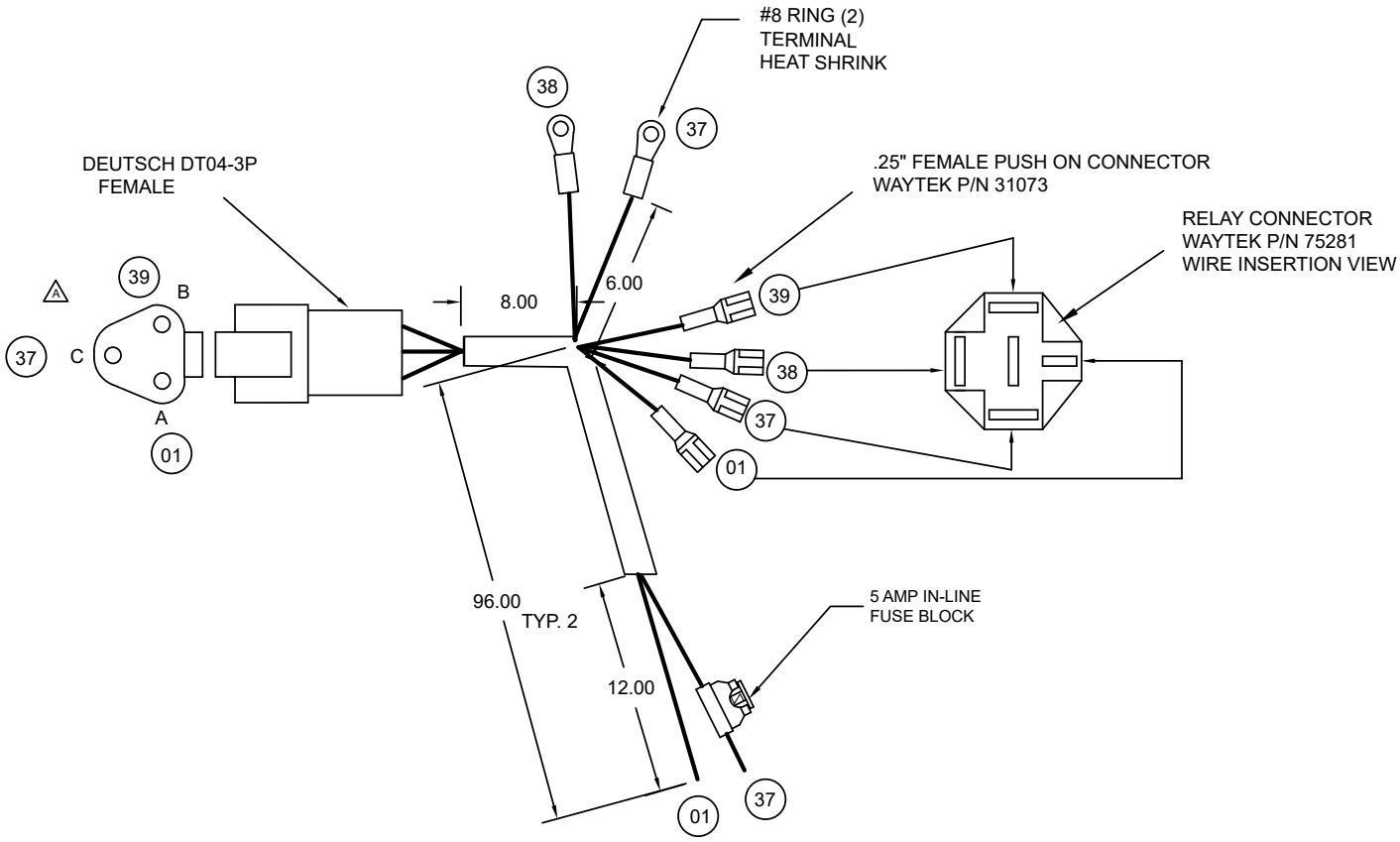
ITEMS NOT SHOWN			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	97097	INSTRUCTIONS TAB ALARM KIT	1

NOTES:
WHEN USED WITH AIR CONTROL TOWERS BRACKET (PN 26293) IS NOT USED B/C COMPONENTS ARE TO BE INSTALLED IN TOWER ASSEMBLY.

43120-1			
ITEM	**PART**	**DESCRIPTION**	**QTY**
1	97097	INSTRUCTIONS TAB ALARM KIT	1

NOTES:
WIRE HARNESS PN 26416, RUNS FROM THE PROX SWITCH THROUGH THE BACK OF THE DUMP TUBE AND OUT. FROM THERE THE HARNESS RUNS TO THE FRONT OF THE TRUCK ATTACHING TO THE BASE, OR IN BETWEEN THE TRUCK FRAME RAILS TO BE CONNECTED TO WIRE HARNESS PN 26291.

Optional Tab Alarm Wire Harness - PN 26291

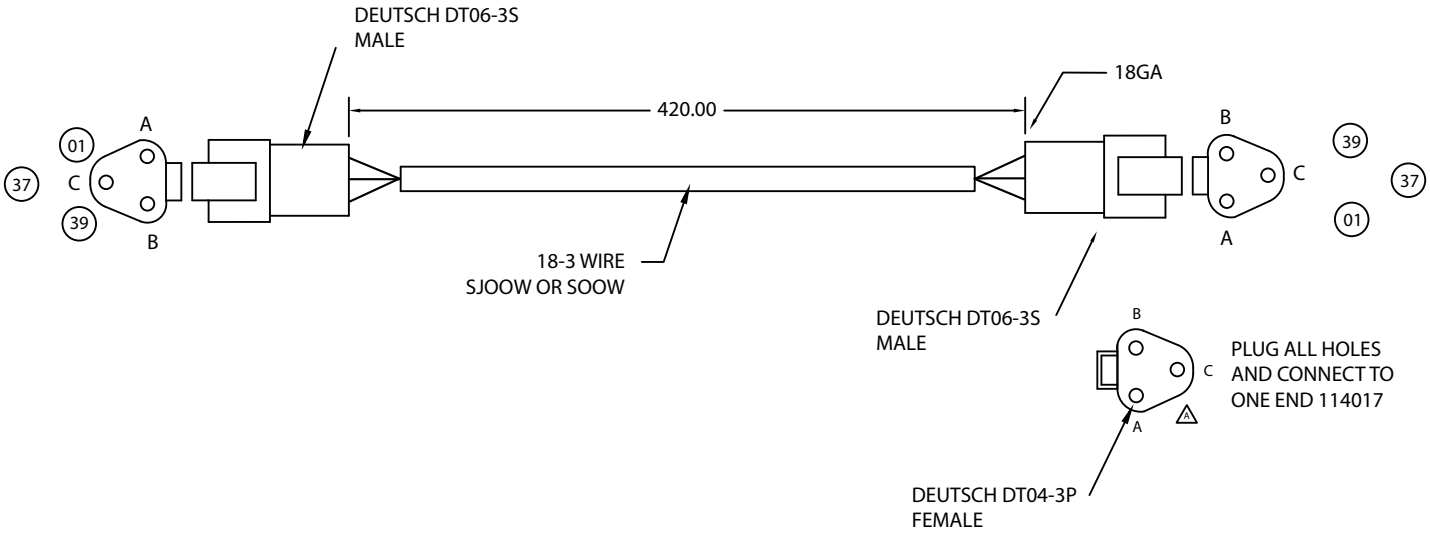


CIRCUIT #	CIRCUIT	WIRE GA	WIRE COLOR
01	GROUND	16 GA	BLACK WITH WHITE TEXT
37	IGNITION	16 GA	GREEN WITH WHITE TEXT
38	SAFETY GROUND	16 GA	GREEN WITH WHITE TEXT
39	SAFETY SWITCH	16 GA	GREEN WITH WHITE TEXT

NOTES:

1. **ALL MEASUREMENTS ARE IN INCHES.**
2. **ALL LOOM IS TO BE BRAIDED.**
3. **EXCEPT WHERE NOTED, ALL MEASUREMENTS ARE FROM THE BACK OF CONNECTORS TO THE CENTER OF HARNESS.**
4. **BRAIDING SHOULD BE 3” TO 4” BACK OF CONNECTORS EXCEPT WHERE NOTED SO THAT THE CIRCUIT STAMPS ON THE WIRE ARE READABLE.**
5. **ALL LEADS ARE TO BE 16GA AND 6INCHES UNLESS OTHERWISE NOTED.**

Optional Proximity Switch Wire Harness - PN 26416



CIRCUIT #	CIRCUIT	WIRE GA	WIRE COLOR
01	GROUND	18 GA	BLACK
37	IGNITION	18 GA	WHITE
39	SAFETY SWITCH	18 GA	GREEN

NOTES:

1. **ALL MEASUREMENTS ARE IN INCHES.**
3. **EXCEPT WHERE NOTED, ALL MEASUREMENTS ARE FROM THE BACK OF CONNECTORS TO THE CENTER OF HARNESS.**
4. **JACKET SHOULD BE 3” TO 4” BACK OF CONNECTORS.**



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