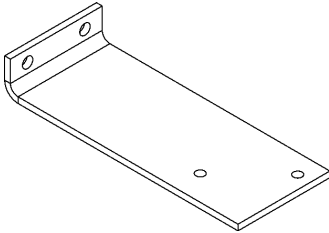
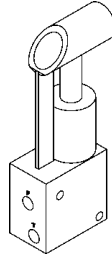


## INSTRUCTION, GPTLR HAND PUMP INSTALLATION, PD P/N 281285-01



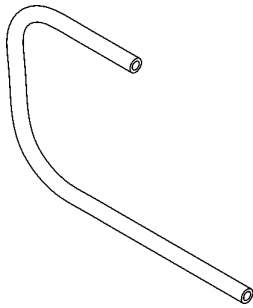
**HAND PUMP BRACKET**  
P/N 281286-01  
QTY. 1



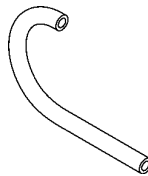
**HAND PUMP, SAE #4 PORTS**  
P/N 266588-01  
QTY. 1



**POPPET VALVE,  
FREE REVERSED FLOW**  
P/N 906768-01  
QTY. 1



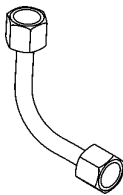
**HOSE 3/8" LP, 25" LG.**  
P/N 251855-06  
QTY. 1



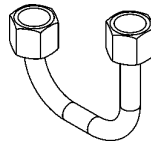
**HOSE 3/8" LP, 11-5/16" LG.**  
P/N 251855-05  
QTY. 1



**HOSE CLAMP, SCREW-TYPE**  
P/N 251854  
QTY. 4



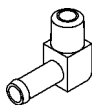
**TUBE ASSEMBLY**  
P/N 281284-01  
QTY. 1



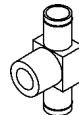
**TUBE ASSEMBLY (POWER DOWN)**  
P/N 281283-01  
QTY. 1



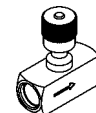
**ELBOW  
(9/16"-18 O.R. MALE TO  
11/16"-16 F.S. MALE)**  
P/N 906707-01  
QTY. 1



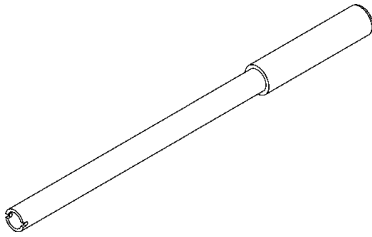
**ELBOW  
(1/4" MALE-3/8" TUBE)**  
P/N 251853  
QTY. 2



**MALE BRANCH TEE  
(1/4" NPT, 3/8" TUBE)**  
P/N 906758-01  
QTY. 1



**NEEDLE VALVE, ADJUSTER  
(9/16"-18 PORTS)**  
P/N 906739-01  
QTY. 2



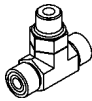
**HAND PUMP HANDLE**  
P/N 251407-02  
QTY. 1



**TEE**  
(11/16"-16 SWIVEL,  
11/16"-16 F.S. MALE)  
P/N 906750-01  
QTY. 1



**CONNECTOR**  
(11/16"-16 MALE TO  
7/16"-20 O.R. MALE)  
P/N 906759-01  
QTY. 1



**BRANCH TEE**  
(11/16"-16 F.S. MALE TO  
9/16"-18 O.R. MALE)  
P/N 906745-01  
QTY. 1



**ADAPTER**  
(9/16"-18 O.R. MALE - 1/4" FEMALE)  
P/N 228012  
QTY. 2



**ADAPTER**  
(7/16"-20 O.R. MALE TO  
1/4" NPT FEMALE)  
P/N 906756-01  
QTY. 1



**SWIVEL**  
(11/16"-16, 9/16"-18 O.R. MALE)  
P/N 906751-01  
QTY. 2



**SPRING CLIP HOLDER**  
P/N 227681  
QTY. 2



**POP RIVET 3/16" X 13/32" LG.**  
P/N 207644  
QTY. 2



**HEX BOLT, 1/4"-20 X 2-1/4" LG.,  
GRADE 8**  
P/N 900000-9  
QTY. 2



**CAP SCREW, 5/16"-18 X 1" LG.,  
GRADE 8**  
P/N 900009-2  
QTY. 2



**FLAT WASHER, 1/4", 9/16" WIDE**  
P/N 902007-1  
QTY. 2



**FLAT WASHER, 5/16"**  
P/N 902000-8  
QTY. 4



**FLAT WASHER, 1/4", 7/8" WIDE**  
P/N 902000-1  
QTY. 2

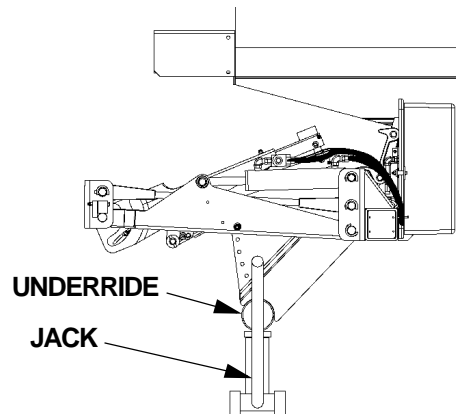


**LOCK NUT, 5/16"-18**  
P/N 901001  
QTY. 2



**NYLON NUT, 1/4"-20**  
P/N 901000  
QTY. 2

1. Position the Platform to gain access to hydraulic cylinders and hoses as follows. Lower the Platform to a comfortable work height (**FIG. 3-1**). Use floor jack & jack stands under the Underride to support the Lift.

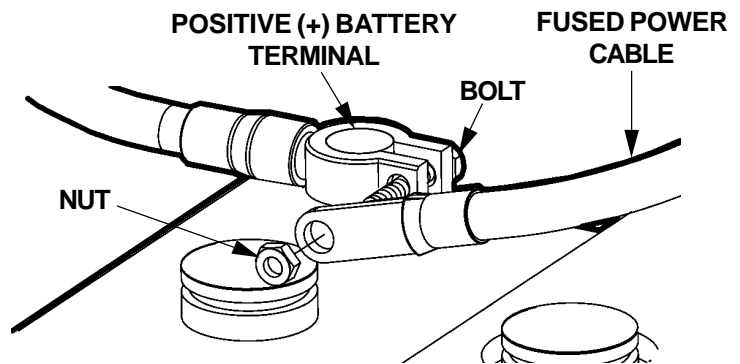


**SUPPORTING LIFT AT WORK HEIGHT  
(RH SIDE SHOWN)  
FIG. 3-1**

**⚠ WARNING**

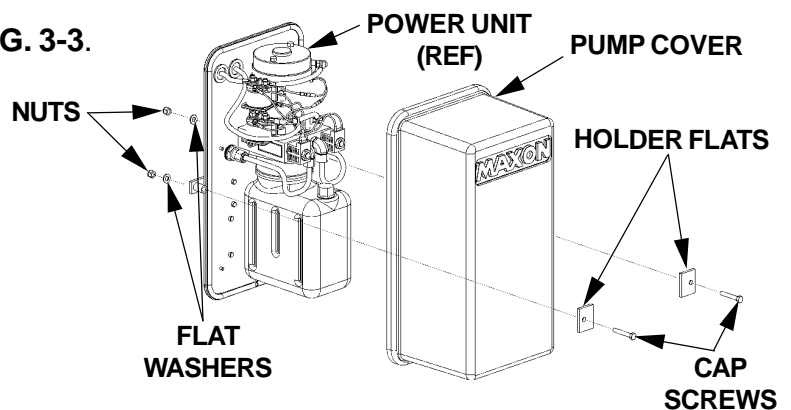
To prevent accidental personal injury and equipment damage, make sure power is disconnected from Liftgate while installing parts.

2. Disconnect power from Liftgate by removing nut from positive (+) battery terminal connector and disconnect Power Cable (**FIG. 3-2**). Reinstall nut on positive (+) battery terminal connector.



**DISCONNECTING BATTERY  
FIG. 3-2**

3. Unbolt the Pump Cover as shown in **FIG. 3-3**.

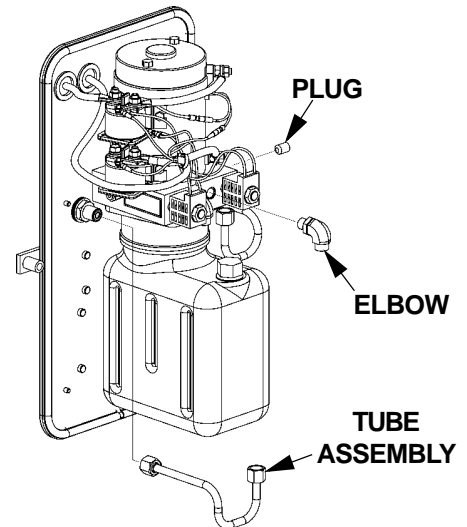


**REMOVING COVER  
FIG. 3-3**

## CAUTION

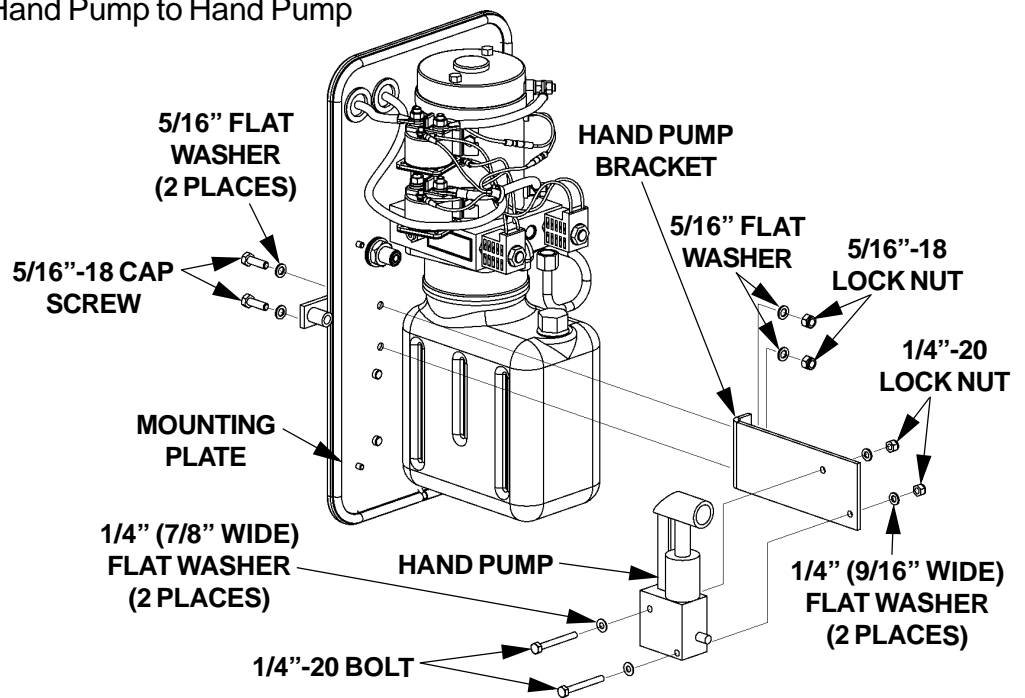
Keep dirt, water and other contaminants from entering the hydraulic system. Before opening the hydraulic fluid reservoir filler cap, drain plug and hydraulic lines, clean up contaminants that can get in the openings. Also, protect the openings from accidental contamination.

- Place a 5 gallon bucket under the Pump to catch fluid. Remove Elbow, Tube Assembly, and Plug as shown in FIG. 4-1.



**REMOVING EXISTING PARTS**  
**FIG. 4-1**

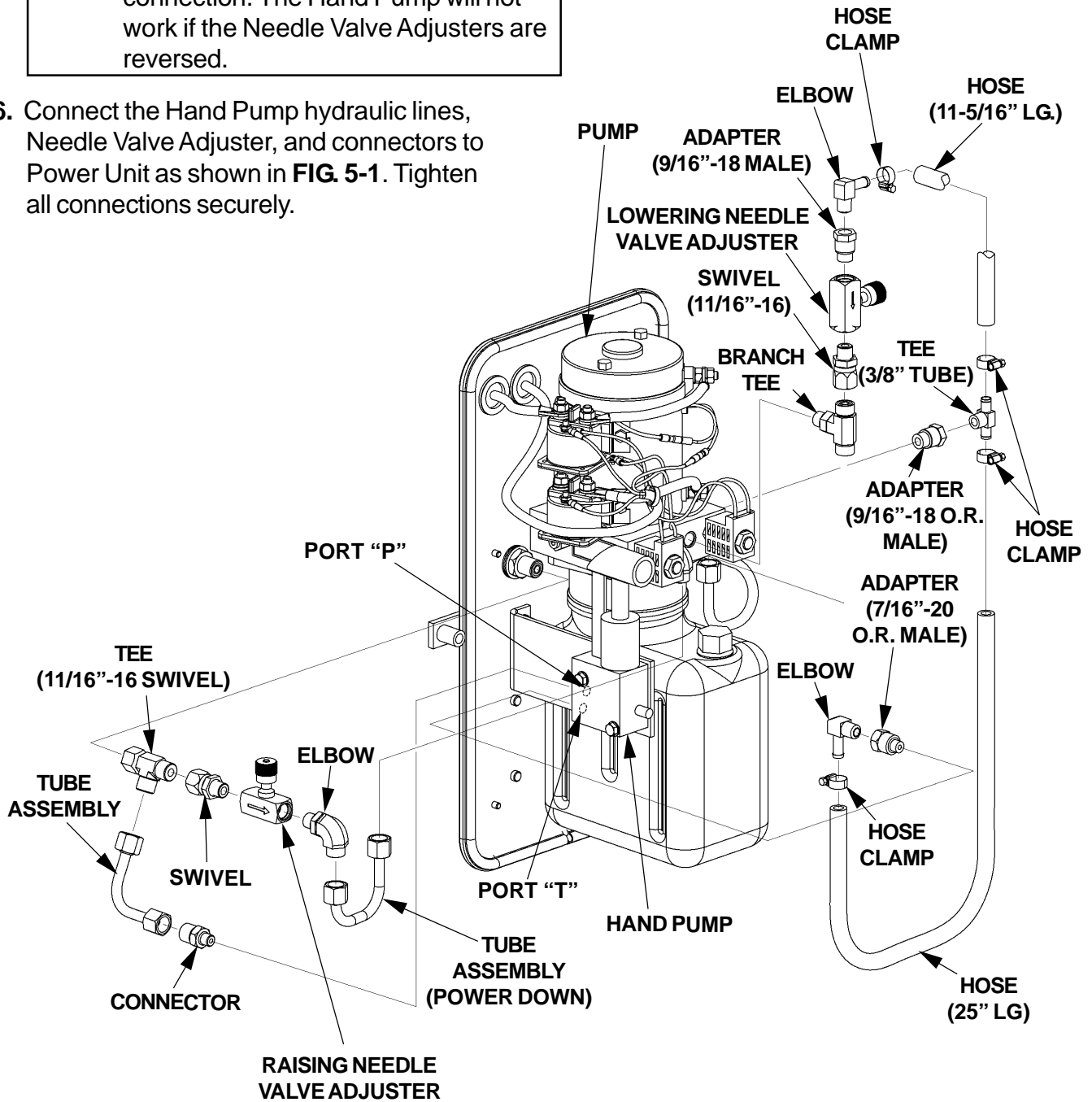
- Bolt the Hand Pump Bracket to the Mounting Plate (FIG. 4-2). Then bolt Hand Pump to Hand Pump Bracket (FIG. 4-2).



**BOLTING ON HAND PUMP**  
**FIG. 4-2**

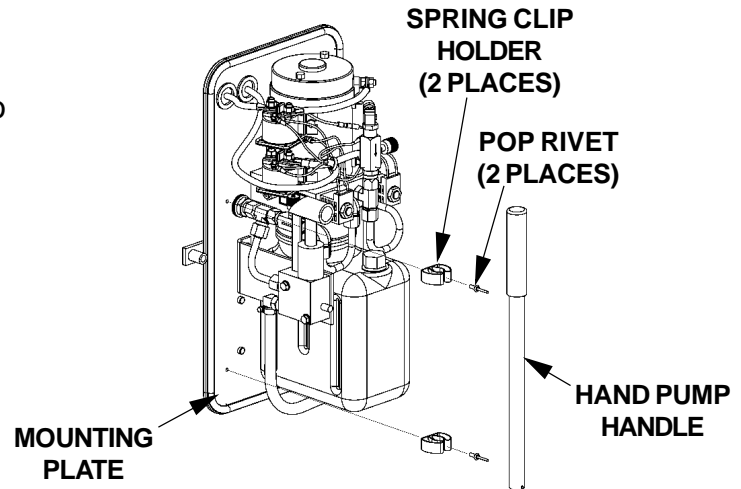
**NOTE:** Position the Raising Needle Valve Adjuster with arrow pointing toward elbow and the Lowering Needle Valve Adjuster with arrow pointing at the tee connection. The Hand Pump will not work if the Needle Valve Adjusters are reversed.

6. Connect the Hand Pump hydraulic lines, Needle Valve Adjuster, and connectors to Power Unit as shown in **FIG. 5-1**. Tighten all connections securely.



**CONNECTING HAND PUMP COMPONENTS**  
**FIG. 5-1**

7. Rivet the 2 Spring Clip Holders to Mounting Plate as shown in **FIG. 6-1**. Then secure the Hand Pump Handle to the Spring Clips Holders.



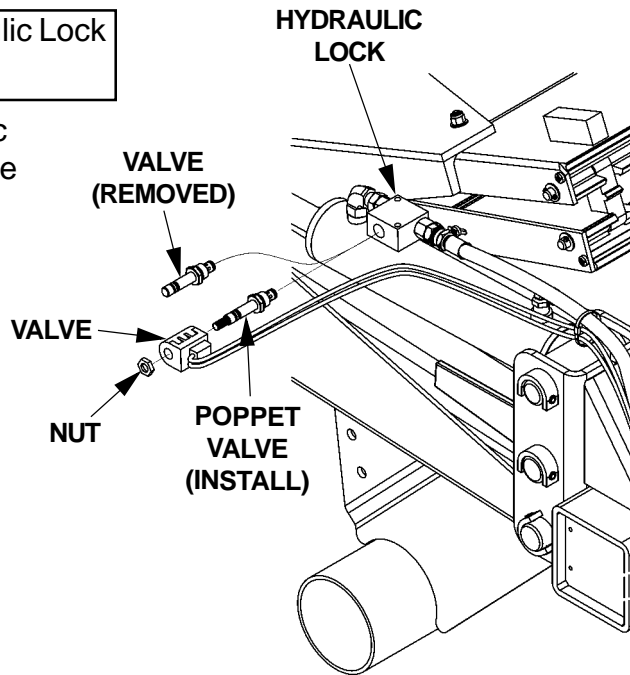
**HAND PUMP HANDLE**  
**FIG. 6-1**

## CAUTION

Small amount of torque is required for tightening the hex nut on Poppet Valve. Torque the Poppet Valve hex nut to 30 LB.-IN. Overtightening hex nut may damage Poppet Valve.

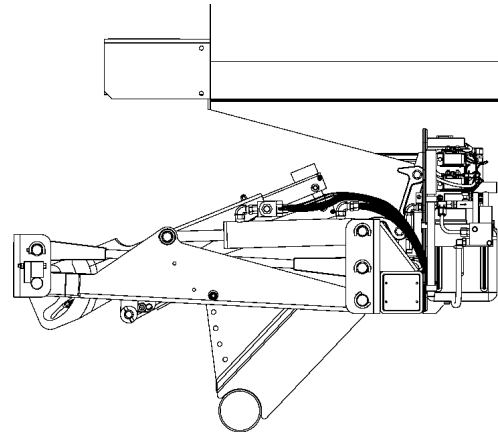
**NOTE:** Do not disconnect the Hydraulic Lock wiring.

8. Remove cartridge valve from Hydraulic Lock (**FIG. 6-2**). Install the Poppet Valve (Kit item) in the Hydraulic Lock.



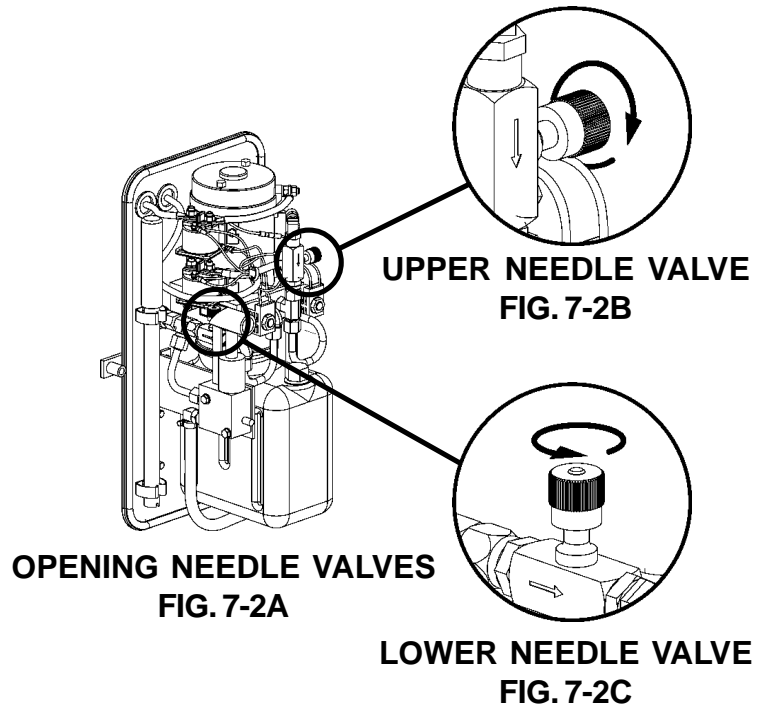
**REMOVING VALVE CARTRIDGE**  
**FIG. 6-2**

9. Use floor jack to raise Lift by the Underride enough to remove jack stands (**FIG. 7-1**). Lower and remove floor jack.



**FLOOR JACK REMOVED**  
**FIG. 7-1**

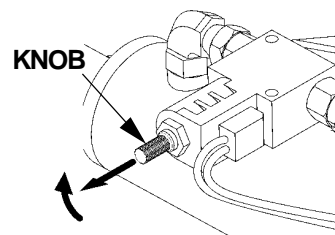
10. Open the 2 Needle Valve Adjusters by turning counterclockwise (**FIG. 7-2B & 2C**). Open the Hydraulic Lock by pulling and rotating knob 1/4 turn (**FIG. 7-3**).



**OPENING NEEDLE VALVES**  
**FIG. 7-2A**

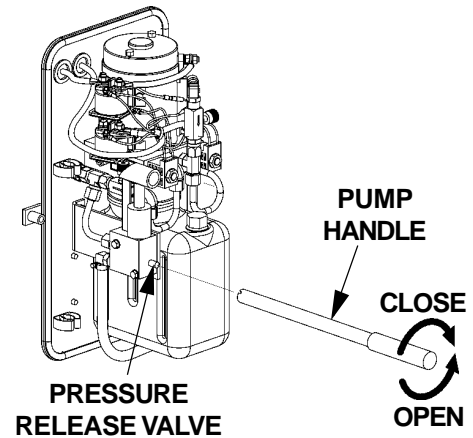
**UPPER NEEDLE VALVE**  
**FIG. 7-2B**

**LOWER NEEDLE VALVE**  
**FIG. 7-2C**



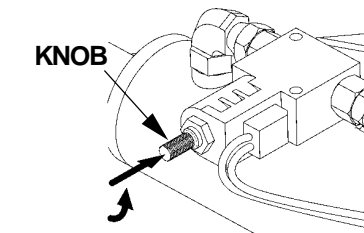
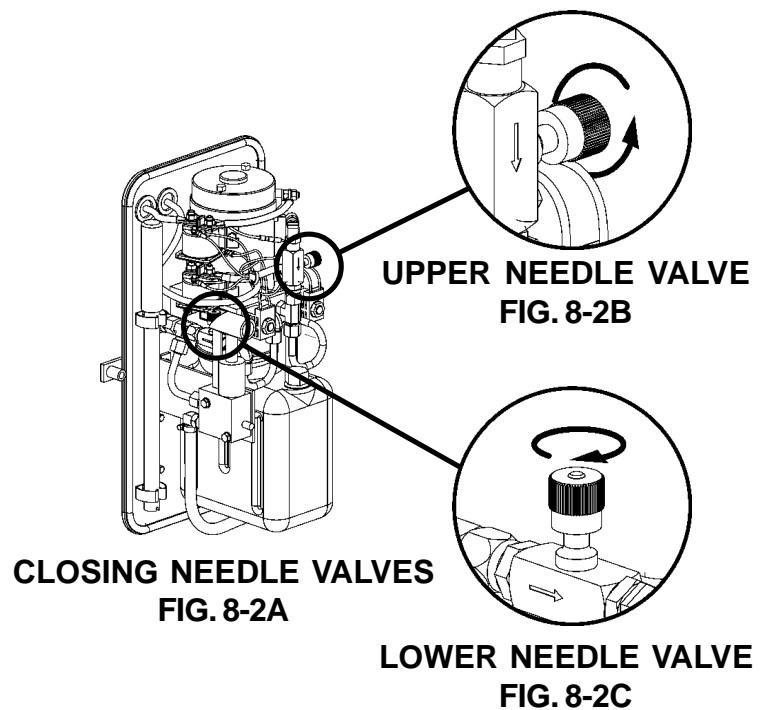
**OPENING HYDRAULIC LOCK**  
**FIG. 7-3**

11. Lower the Platform about 6" by opening the Pressure release Valve 1/2 turn counterclockwise with the Pump Handle (**FIG. 8-1**). Close the Pressure Release Valve by turning clockwise to stop the Platform from lowering.



**OPENING/CLOSING  
PRESSURE RELEASE VALVE  
FIG. 8-1**

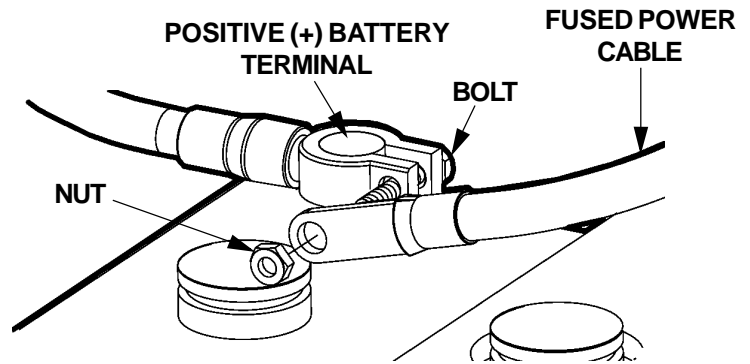
12. Close Needle Valve Adjusters (**FIG. 8-2B & 2C**) by turning clockwise. Then close Hydraulic Lock by turning Knob until it drops in the top of the Poppet Valve (**FIG. 8-3**).



**OPENING HYDRAULIC LOCK  
FIG. 8-3**

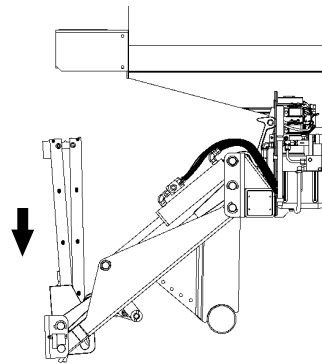


13. Reconnect power to Liftgate by removing nut from positive (+) battery terminal connector and connecting Power Cable (**FIG. 9-1**). Reinstall nut on positive (+) battery terminal connector.



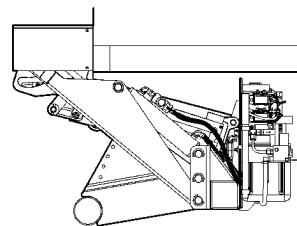
**CONNECTING BATTERY**  
**FIG. 9-1**

14. Use the Control Switch to **LOWER** Platform to the ground (**FIG. 9-2**).



**PLATFORM LOWERED TO THE GROUND**  
**FIG. 9-2**

15. Use Control Switch to Stow Liftgate (**FIG. 9-3**).



**LIFTGATE STOWED**  
**FIG. 9-3**

## CAUTION

Keep dirt, water and other contaminants from entering the hydraulic system. Before opening the hydraulic fluid reservoir filler cap, drain plug and hydraulic lines, clean up contaminants that can get in the openings. Also, protect the openings from accidental contamination.

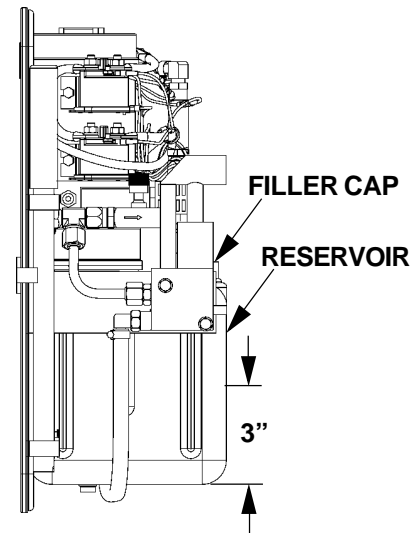
**NOTE:** Use correct grade of hydraulic fluid for your location.

+70 to +140 Degrees F - Grade ISO 32  
+40 to +105 Degrees F - Grade ISO 15  
Below + 70 Degrees F - Grade ISO 10 or MIL-H-5606

See TABLES 9-1, 9-2 & 9-3 on the next page for recommended brands.

16. Check the Hydraulic Fluid level in Reservoir. With Liftgate stowed, level should be 3" (FIG. 10-1). If needed, add fluid to the Reservoir as follows.

17. Pull out (no threads) Filler Cap (FIG. 10-1). Fill the Reservoir with Hydraulic Fluid to level shown in FIG. 10-1. Reinstall Filler Cap (FIG. 10-1)

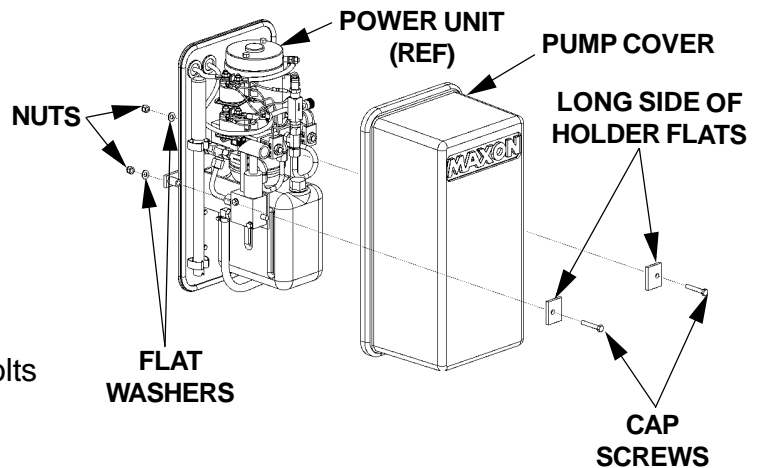


FLUID LEVEL  
FIG. 10-1

## CAUTION

Pump Cover must be correctly secured to prevent it from becoming a hazard. To secure Pump Cover, the long side of the Holder Flats must be installed as shown in the illustration.

18. Bolt on the Pump Cover as shown in FIG. 10-2. Torque the 5/16"-18 cover bolts 20 to 29 LBS.-FT.



BOLTING ON PUMP COVER  
FIG. 10-2

<b>ISO 32 HYDRAULIC OIL</b>	
<b>RECOMMENDED BRANDS</b>	<b>PART NUMBER</b>
AMSOIL	AWH-05
CHEVRON	HIPERSYN 32
KENDALL	GOLDEN MV
SHELL	TELLUS T-32
EXXON	UNIVIS N-32
MOBIL	DTE-13M, DTE-24, HYDRAULIC OIL-13

**TABLE 11-1**

<b>ISO 15 HYDRAULIC OIL</b>	
<b>RECOMMENDED BRANDS</b>	<b>PART NUMBER</b>
AMSOIL	AWF-05
CHEVRON	FLUID A, AW-MV-15
KENDALL	GLACIAL BLU
SHELL	TELLUS T-15
EXXON	UNIVIS HVI-13
MOBIL	DTE-11M

**TABLE 11-2**

<b>ISO-10 OR MIL-H-5606 HYDRAULIC FLUID</b>	
<b>RECOMMENDED BRANDS</b>	<b>PART NUMBER</b>
AMSOIL	N/A
CHEVRON	FLUID A, FLUID G
KENDALL	GLACIAL BLU
SHELL	AEROSHELL FLUID-41
EXXON	UNIVIS HVI-13
MOBIL	AERO HFA

**TABLE 11-3**