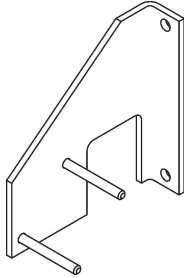
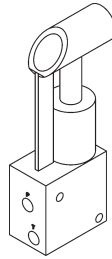


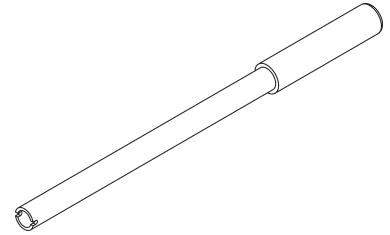
INSTRUCTION, VERTICAL PUMP HAND PUMP INSTALLATION, GRAVITY DOWN P/N 281614-01



HAND PUMP MOUNT BRACKET
P/N 267634-01
QTY. 1



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



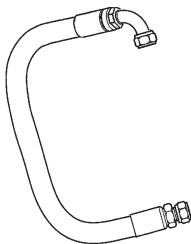
HAND PUMP HANDLE
P/N 251407-02
QTY. 1



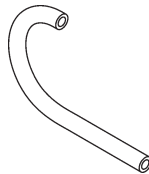
SPRING CLIP HOLDER
P/N 227681
QTY. 2



POP RIVET 3/16" X 7/16" LG.
P/N 904005-1
QTY. 2



HOSE 3/8" MP, 12" LG.
P/N 267635-01
QTY. 1



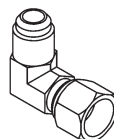
HOSE 3/8" LP, 7-1/2" LG.
P/N 251855-07
QTY. 1



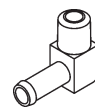
HOSE CLAMP, SCREW-TYPE
P/N 251854
QTY. 2



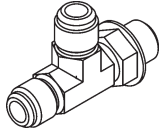
**ELBOW, 90 DEGREE,
#4 JIC MALE**
P/N 905064
QTY. 1



**ELBOW, 90 DEGREE, SWIVEL
(9/16"-18 MALE TO 9/16"-18 FEMALE)**
P/N 905154
QTY. 1



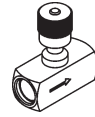
**ELBOW
(1/4" MALE-3/8" TUBE)**
P/N 251853
QTY. 2



TEE, STRAIGHT THD, O-RING
P/N 264180
QTY. 1



SWIVEL
(11/16\"-16, 3/8\" O-RING MALE)
P/N 905181
QTY. 1



NEEDLE VALVE, ADJUSTER
(9/16\"-18 PORTS)
P/N 906739-01
QTY. 1



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



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



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



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



HEX NUT, 1/4\"-20
P/N 901011-1
QTY. 2



FLAT WASHER, 5/16\"
P/N 902000-8
QTY. 2

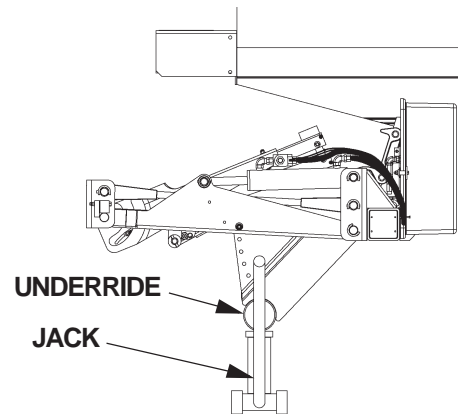


FLAT WASHER, 1/4\", 7/8\" WIDE
P/N 902000-1
QTY. 2



LOCK WASHER, 1/4\"
P/N 902011-2
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.

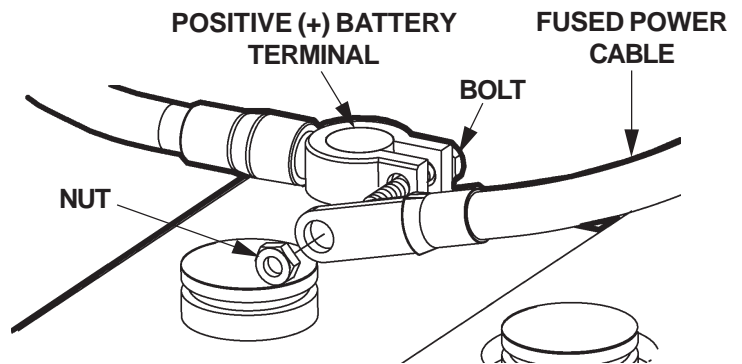


**SUPPORTING LIFT AT WORK HEIGHT
(GPTLR RH SIDE SHOWN)
FIG. 3-1**

⚠ WARNING

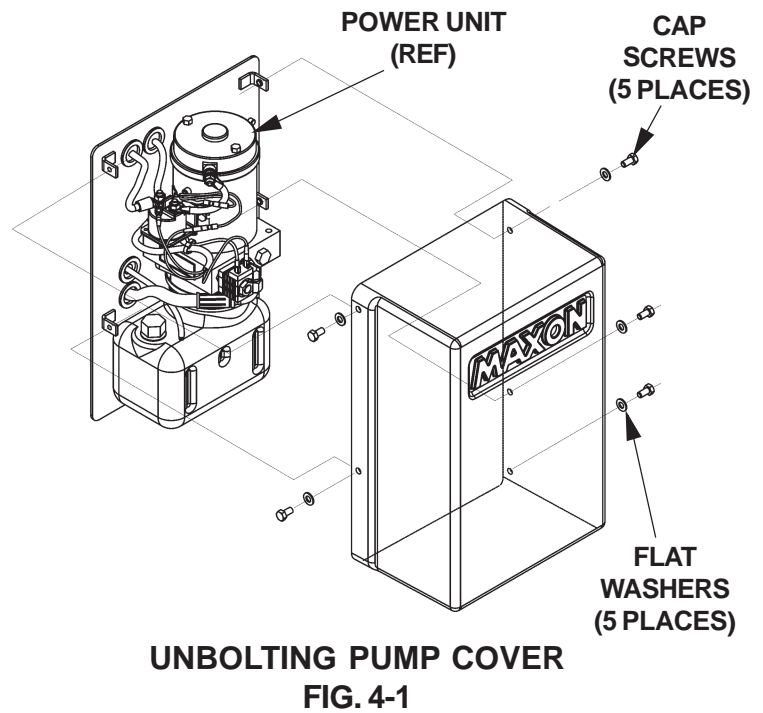
To prevent accidental personal injury and equipment damage, make sure power is disconnected from Liftgate while installing parts.

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**

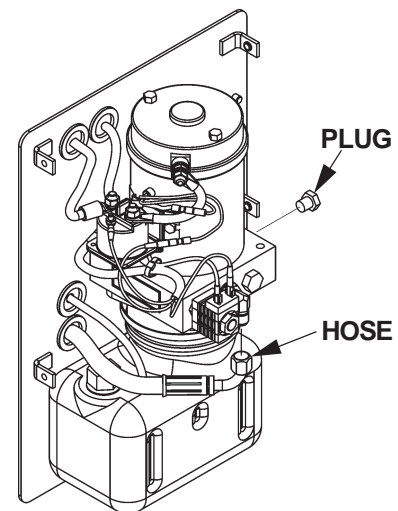
3. Unbolt the Pump Cover as shown in **FIG. 4-1**.



CAUTION

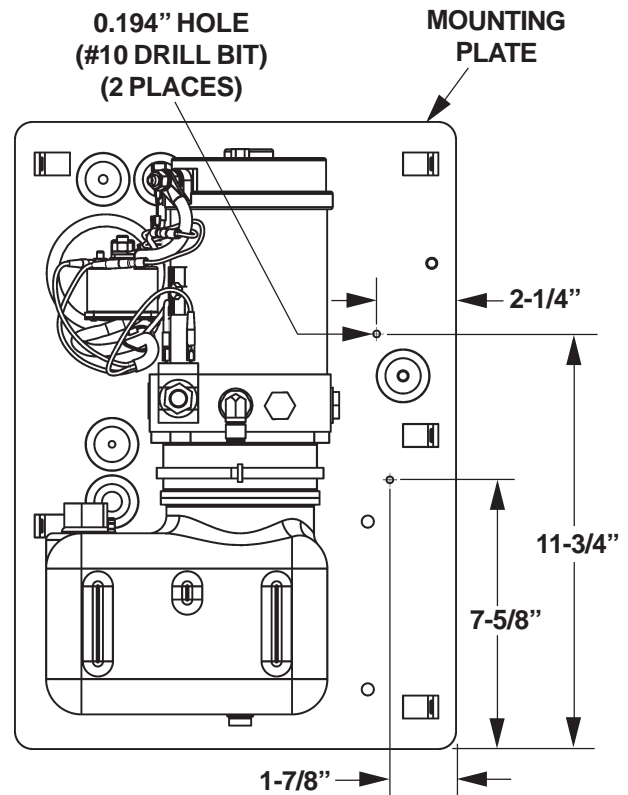
Keep dirt, water and other contaminants from entering the hydraulic system. Before opening the hydraulic fluid reservoir filler cap, drain plug and hydraulic lines, clean up contaminants that can get in the openings. Also, protect the openings from accidental contamination.

4. Place a 5 gallon bucket under the Pump to catch fluid. Remove Hose Assembly and Plug as shown in **FIG. 4-2**.



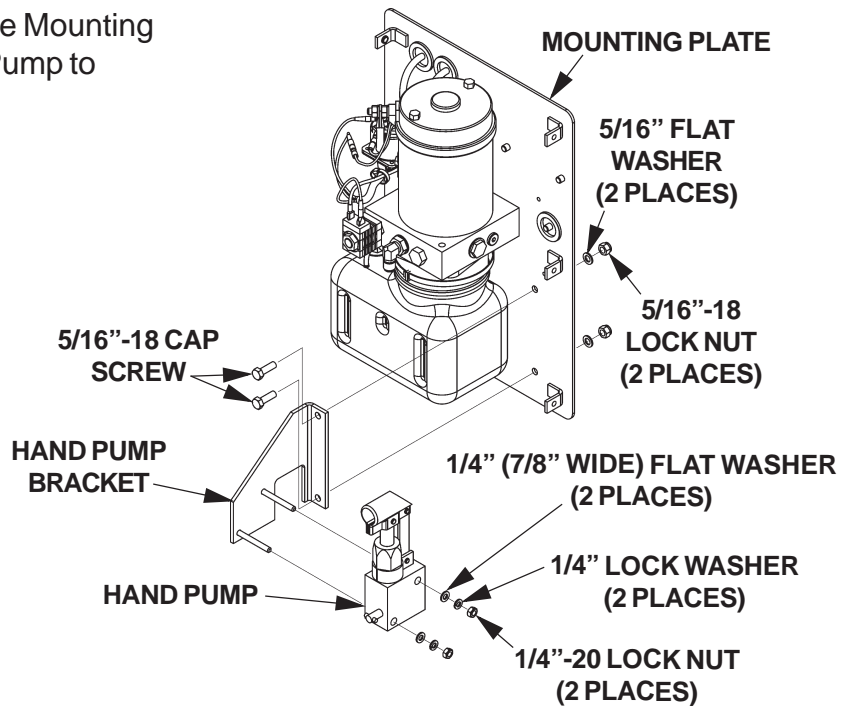
DISCONNECTING HOSE & PLUG
FIG. 4-2

5. Measure, mark, and drill two 3/16" holes on Mount Plate as shown in **FIG. 5-1**.



DRILLING HOLES
FIG. 5-1

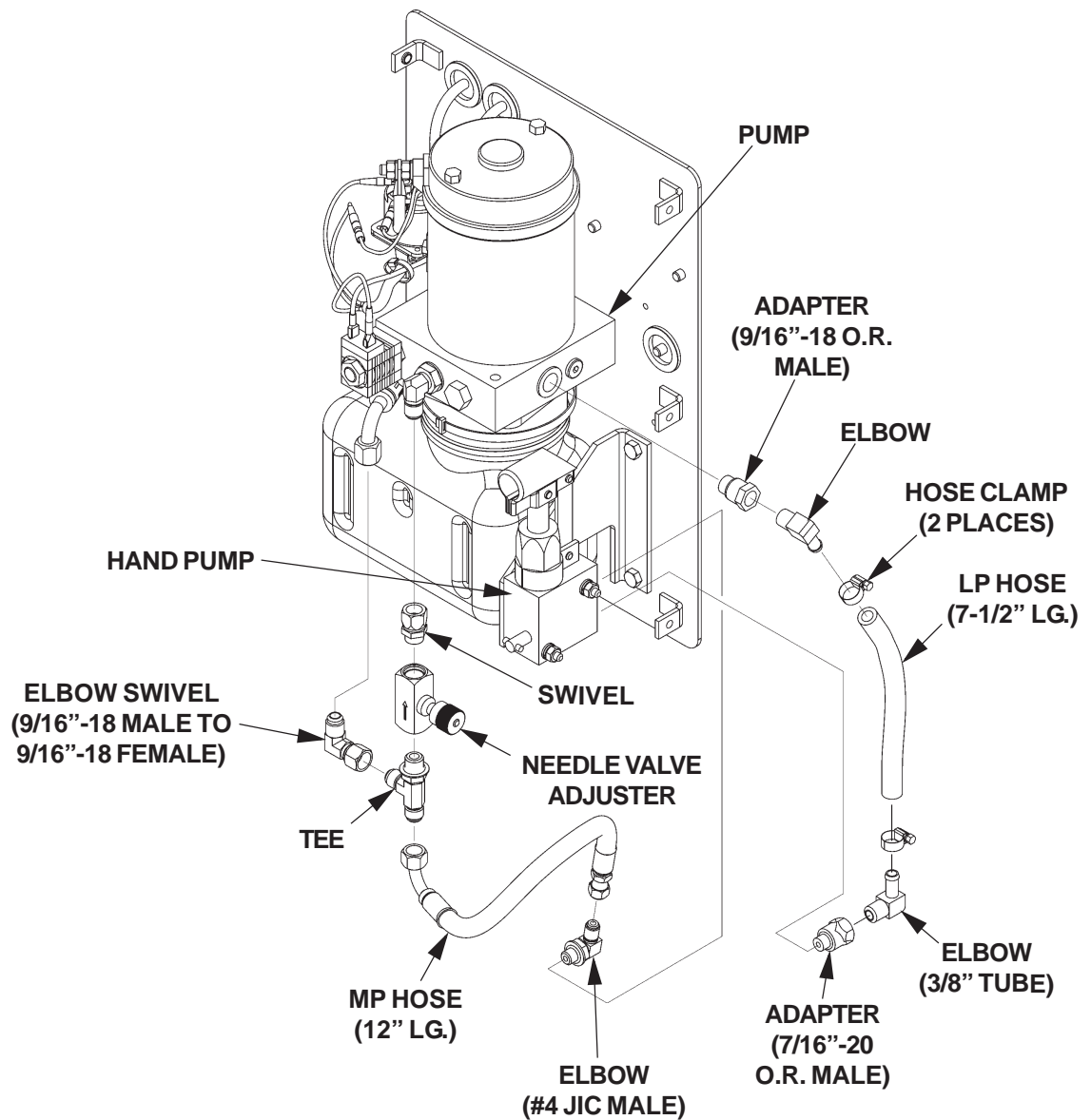
6. Bolt the Hand Pump Bracket to the Mounting Plate (**FIG. 5-2**). Then bolt Hand Pump to Hand Pump Bracket (**FIG. 5-2**).



BOLTING ON HAND PUMP
FIG. 5-2

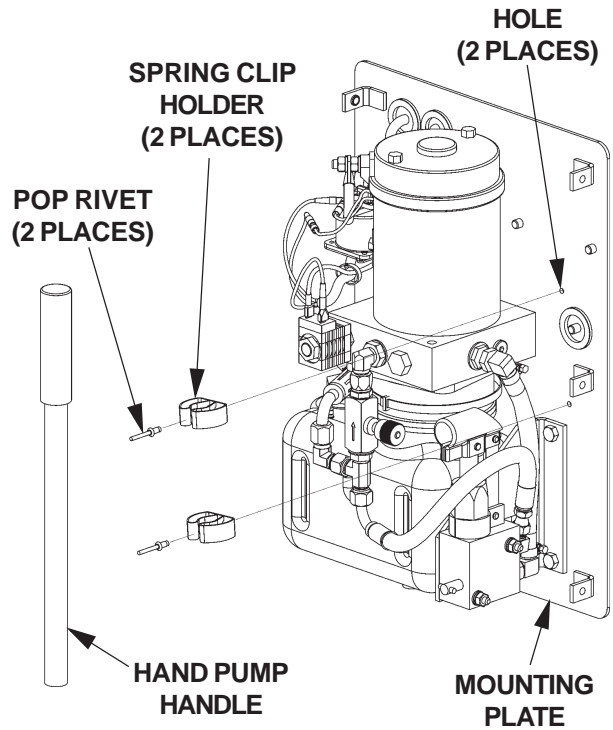
NOTE: Position the Needle Valve Adjuster so the arrow points to the elbow on the Pump. The Hand Pump will not work if the Needle Valve Adjuster is reversed.

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



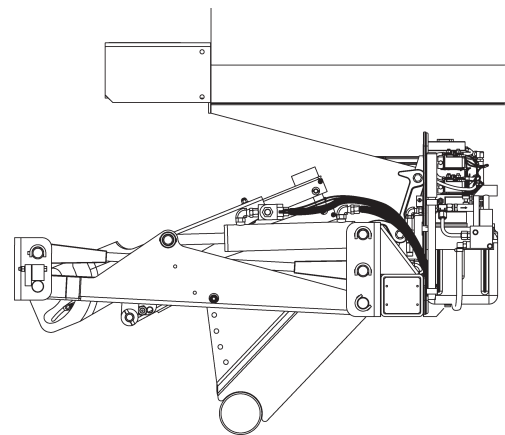
**CONNECTING HAND PUMP COMPONENTS
FIG. 6-1**

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



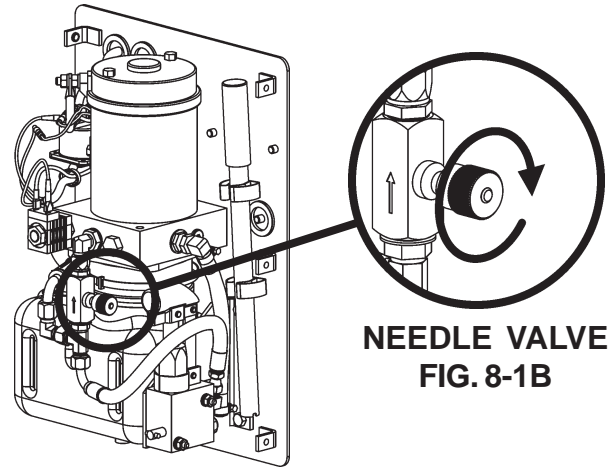
**HAND PUMP HANDLE
FIG. 7-1**

8. Use floor jack to raise Lift by the Underride enough to remove jack stands (**FIG. 7-2**). Lower and remove floor jack.



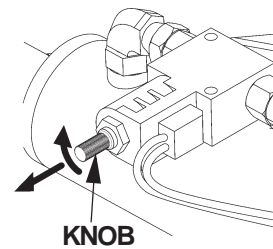
**FLOOR JACK REMOVED
(GPTLR SHOWN)
FIG. 7-2**

9. Close the Needle Valve Adjuster by turning clockwise (**FIG. 8-1B**). If the Liftgate is a **GPTLR**, open the Hydraulic Lock by pulling and rotating knob 1/4 turn (**FIG. 8-2**).



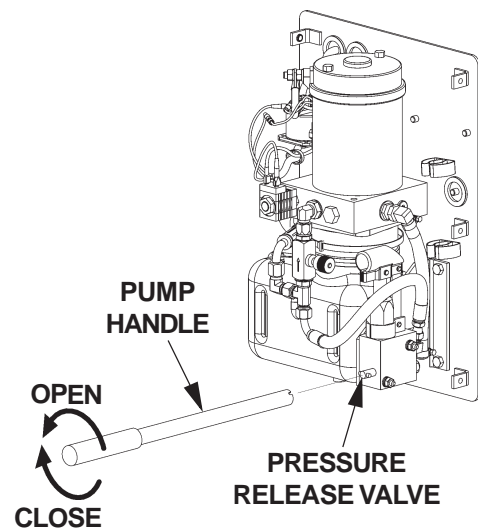
**NEEDLE VALVE
FIG. 8-1B**

**CLOSING NEEDLE VALVE
FIG. 8-1A**



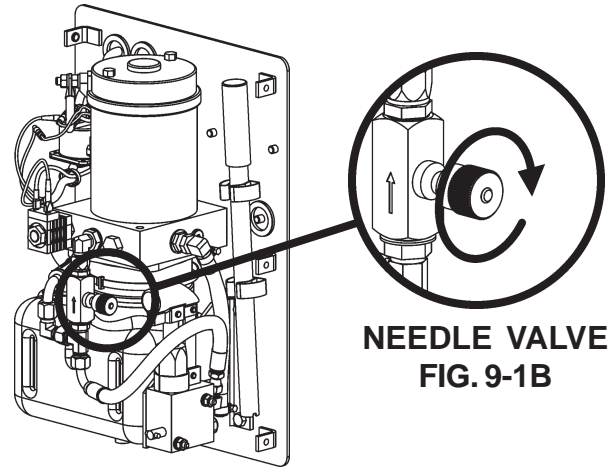
**OPENING HYDRAULIC LOCK
(FOR GPTLR ONLY)
FIG. 8-2**

10. Lower the Platform about 6" by opening the Pressure Release Valve 1/2 turn counterclockwise with the Pump Handle (**FIG. 8-3**). Close the Pressure Release Valve by turning clockwise to stop the Platform from lowering.



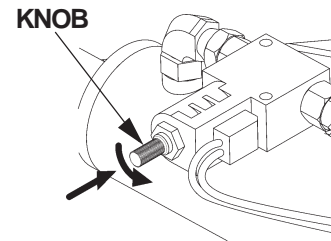
**OPENING/CLOSING
PRESSURE RELEASE VALVE
FIG. 8-3**

11. Close the Needle Valve Adjuster (**FIG. 9-1B**) by turning counter-clockwise. If the Liftgate is a **GPTLR**, close Hydraulic Lock by turning Knob until it drops in the top of the Poppet Valve (**FIG. 9-2**).



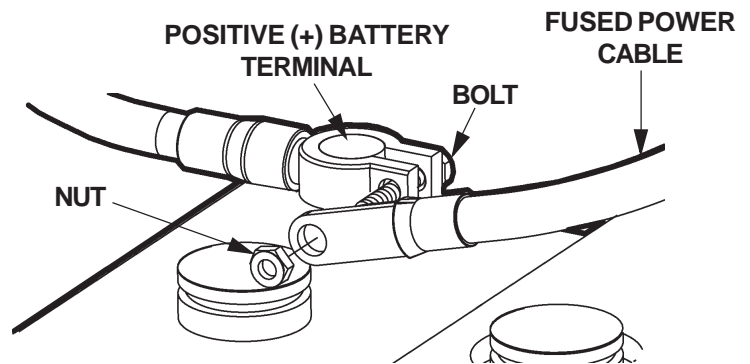
**NEEDLE VALVE
FIG. 9-1B**

**CLOSING NEEDLE VALVE
FIG. 9-1A**



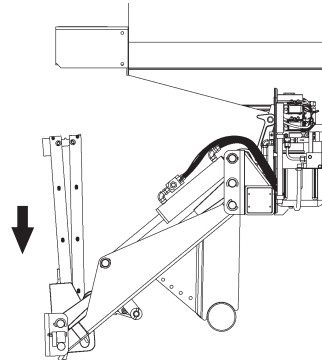
**CLOSING HYDRAULIC LOCK
(FOR GPTLR ONLY)
FIG. 9-2**

12. Reconnect power to Liftgate by removing nut from positive (+) battery terminal connector and connecting Power Cable (**FIG. 9-3**). Reinstall nut on positive (+) battery terminal connector.



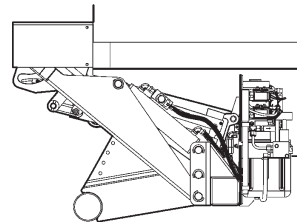
**CONNECTING BATTERY
FIG. 9-3**

13. Use the Control Switch to **LOWER** Platform to the ground (**FIG. 10-1**).



**PLATFORM LOWERED TO THE GROUND
(GPTLR SHOWN)
FIG. 10-1**

14. Use Control Switch to Stow Liftgate (**FIG. 10-2**).



**LIFTGATE STOWED
(GPTLR SHOWN)
FIG. 10-2**

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

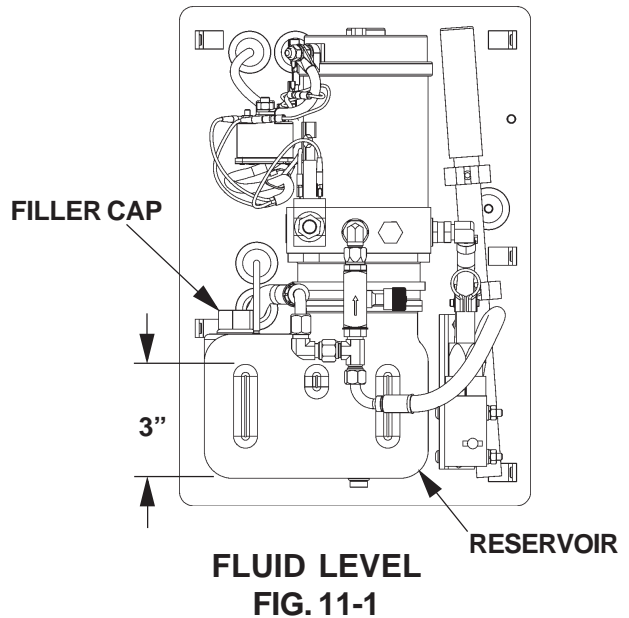
See TABLES 12-1, 12-2 & 12-3 on the next page for recommended brands.

15. Check the Hydraulic Fluid level "H" in Reservoir (FIG. 11-2 and TABLE 11-1). If needed, add fluid to the Reservoir as follows.

PLATFORM POSITION	FLUID LEVEL "H"
STOWED	1-7/8" to 2-3/8"
VEHICLE BED HEIGHT	1-7/8" to 2-3/8"
ON THE GROUND	3-1/2" to 4"

FLUID LEVEL TABLE 11-1

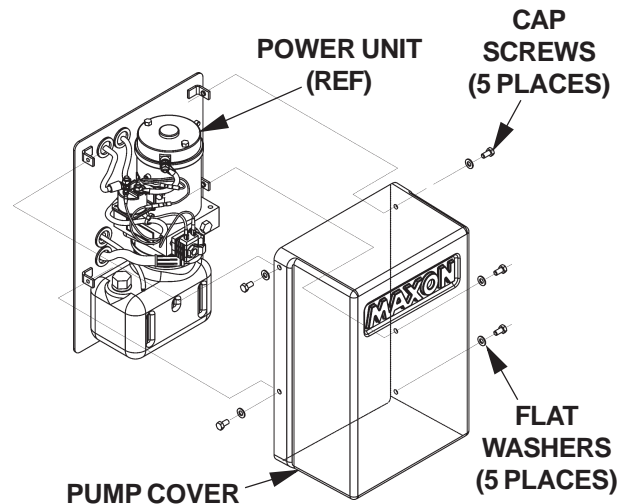
16. Pull out (no threads) Filler Cap (FIG. 11-1). Fill the Reservoir with Hydraulic Fluid to level shown in FIG. 11-1. Reinstall Filler Cap (FIG. 11-1)



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.

17. Bolt on the Pump Cover (FIG. 11-2). Torque the bolts (Cap Screws) to 10 - 14 lbs.- in.



**BOLTING ON PUMP COVER
FIG. 11-2**

ISO 32 HYDRAULIC OIL	
RECOMMENDED BRANDS	PART NUMBER
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 12-1

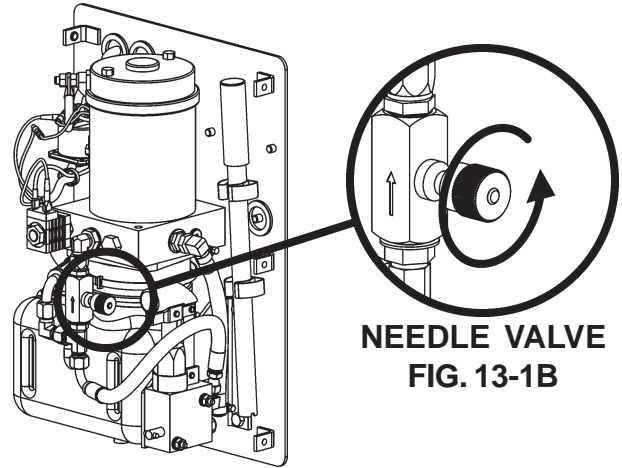
ISO 15 HYDRAULIC OIL	
RECOMMENDED BRANDS	PART NUMBER
AMSOIL	AWF-05
CHEVRON	FLUID A, AW-MV-15
KENDALL	GLACIAL BLU
SHELL	TELLUS T-15
EXXON	UNIVIS HVI-13
MOBIL	DTE-11M

TABLE 12-2

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

TABLE 12-3

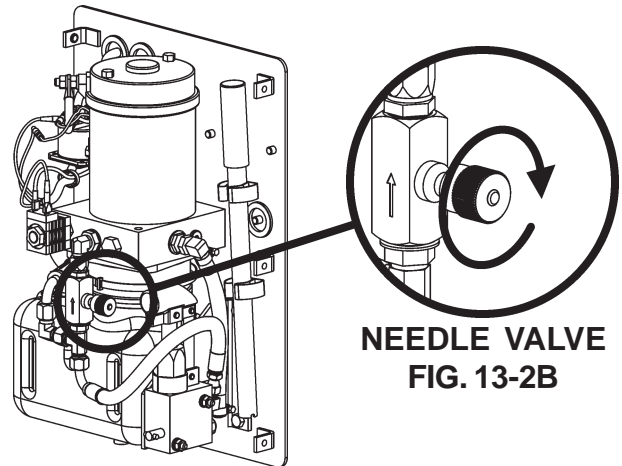
18. For normal Liftgate operation, open the Needle Valve Adjuster (**FIG. 13-1B**).



**NEEDLE VALVE
FIG. 13-1B**

**OPENING NEEDLE VALVE
FIG. 13-1A**

19. To use Hand Pump for backup operation, close Needle Valve Adjuster (**FIG. 13-2B**)



**NEEDLE VALVE
FIG. 13-2B**

**CLOSING NEEDLE VALVE
FIG. 13-2A**