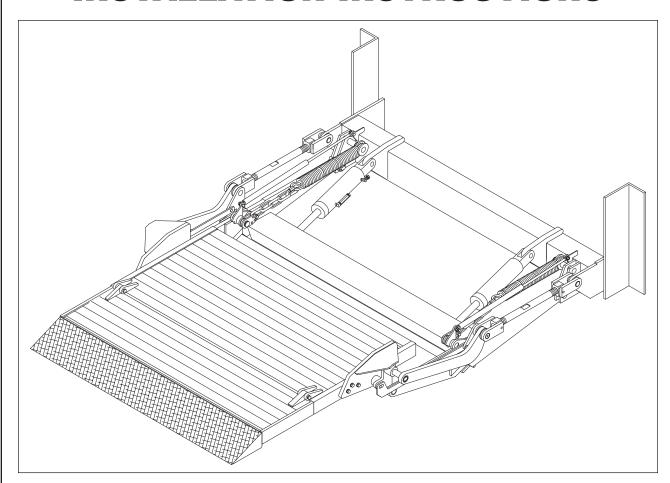


Tailgates By THIEMAN

SL15/20-6 AND SL15/20-10 INSTALLATION INSTRUCTIONS



A

IMPORTANT! KEEP IN VEHICLE!

READ AND UNDERSTAND THE CONTENTS OF THIS MANUAL BEFORE OPERATING THE EQUIPMENT.





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ATTENTION INSTALLERS:

Changes are made periodically to the installation procedure to comply with engineering changes. To ensure proper liftgate operation, it is VERY IMPORTANT to read and understand the installation instructions before attempting an installation. Installers also MUST read and understand the liftgate's Owner's Manual before installing the liftgate, so they can operate the liftgate safely as required during different stages of the installation process. NEVER perform a modification on the liftgate, which is not specifically covered in this manual or which is unauthorized by Thieman. Modifications may result in failure of the liftgate and may create hazards for liftgate installers, operators, or maintainers. Serious damage, equipment failure, or operator injury could result from improper installation. This equipment MUST have all decals applied properly. FAILURE to apply all decals properly will VOID all warranties! Any installer with questions or doubts should contact Thieman before proceeding.

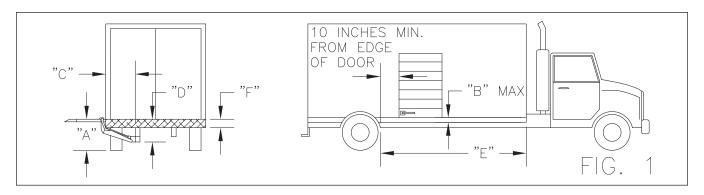
NOTES:

- 1. All maximum mounting dimensions are shown with the vehicle empty; All minimum mounting dimensions are shown with the vehicle loaded.
- 2. Check bed height when parked on a level surface.
- 3. The SL15/20-10 liftgate will not stow completely under the body when installed on a truck or trailer with a 96" wide body and a 34" wide frame rail. The liftarms will be exposed approximately 1.50", however this will not affect liftgate operation.

MOUNTING DIMENSIONS SL15/20-6 & SL15/20-10

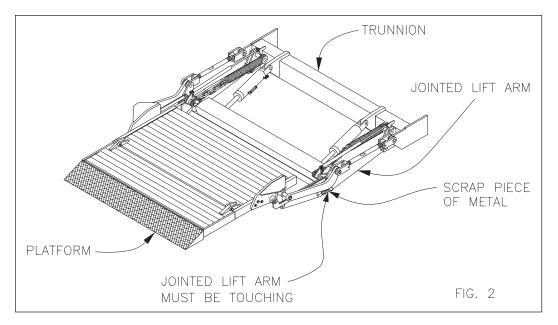
	Α	В	С	D	Е	F
SL15/20-6	42-52	6	28	29	64	6
SL15/20-10	48-56	10	32	30.50	64	6.50

- A-Distance from top of bed to ground.
- B-Maximum rub rail thickness
- C-Minimum distance needed from frame to outside of body.
- D-Distance from top of bed to bottom of trunnion tube.
- E-Clearance needed for liftgate.
- F-Maximum floor thickness.



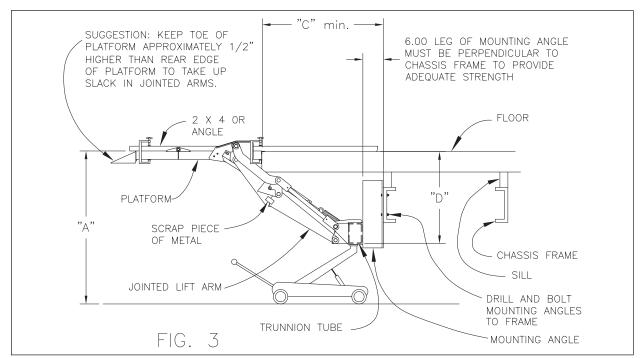
INSTALLATION INSTRUCTIONS

- **Step 1** Remove banding from gate undercarriage. **DO NOT UNFOLD GATE**. Inspect for obvious shipping damage or missing parts.
- **Step 2** Unfold the platform into a horizontal position. Make sure the jointed lift arms are touching. Temporarily weld the jointed lift arms together using a scrap piece of metal. See figure 2.



Step 3 Clamp platform to lift truck or attach to overhead crane.

Step 4 Lift entire assembly and move towards body. Place .25" spacers between platform and body and level platform with top of bed. Clamp angle iron to platform and truck floor. See figure 3.

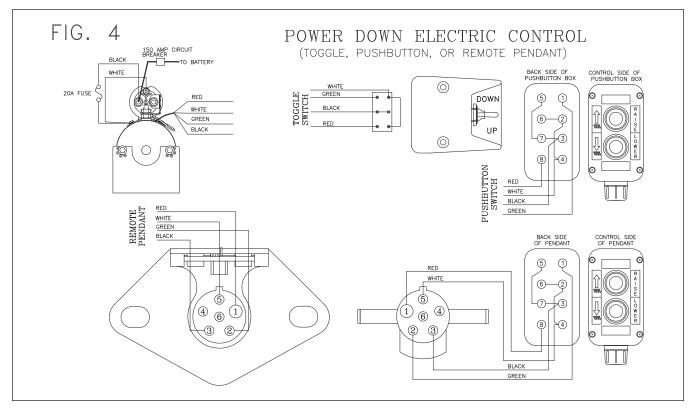


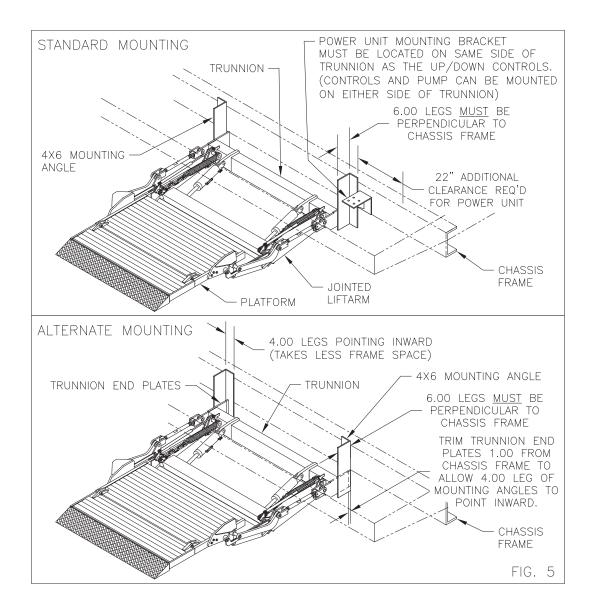
Step 5 Pre-installed cylinder assemblies should locate the trunnion at the required "D" dimension. Do not adjust the cylinder assemblies. These cylinder assemblies are preset to protect the dampers and to locate the trunnion properly.

- Step 6 Position and clamp mounting angles in place. The 6 inch leg of the 4x6 mounting angle must be perpendicular to the chassis frame to provide adequate strength. We recommend that installers bolt the mounting angles to the truck frame. See Fig. 3. (See Fig. 5 for alternate mounting method, which takes less space on chassis frame).
- **Step 7** Weld the mounting angles to the trunnion with .25" weld all around.

POWER UNIT INSTALLATION GUIDELINES

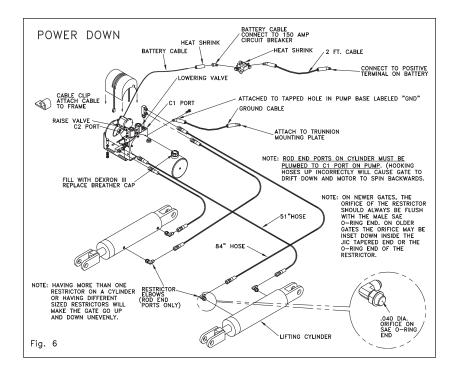
- 1. The most common cause of hydraulic system malfunction or failure is the contamination of the hydraulic fluid.
- 2. Our product suppliers have extensively cleaned and tested this product during all phases of manufacturing and assembly.
- 3. The hoses, cylinders, and valves must be as thoroughly cleaned to prevent contamination.
- 4. At the time of installation be certain all fittings, hoses, hose ends, and ports are clean and clear of dirt. All fittings and hose openings should be closed or covered until time of installation.
- 5. Make sure the reservoir is at the correct level with the recommended oil.
- 6. Squirt clean oil into the pressure port of the pump before making the connection to the cylinder or valve.
- 7. Disconnect the pressure line as close to the cylinder as possible and place the end in a suitable clean container.
- 8. Alternately start and stop the pump until a steady stream of oil comes out of the pressure line.
- **Step 8** Mount the power unit mounting bracket on the side of the trunnion the controls will be mounted on. Use the 3/8" hardware provided to mount the pump to the bracket. The eight internal tooth lockwashers are to be located so they are in contact with the pump bracket and the trunnion pump mounting bracket. See figures 5 and 6. Mount the pushbutton or toggle control in a suitable location. See figure 4 for wiring diagram.
- Step 9 Install fittings in the valve, cylinders, and the pump. There should only be one restrictor elbow per cylinder installed on the rod end port. Install hoses and hose clamps and fill reservoir with Dexron III. Rod end ports on cylinder must be plumbed to C1 port on pump. (Note: Incorrectly plumbing rod end ports on cylinders to C2 port will make gate drift down and motor to spin backwards from raised position.) Attach the ground cable to the tapped hole in the pump base labeled "GND". And trunnion mounting plate using the .38 hardware provided with the internal tooth lockwashers. See figure 6.

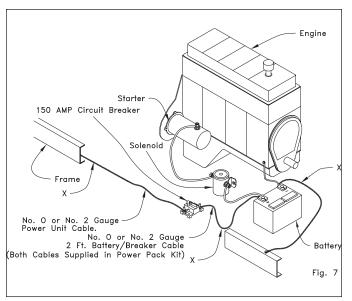


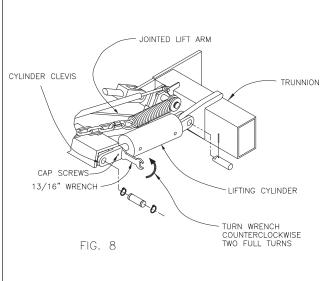


Step 10 Fasten the 150 AMP circuit breaker provided within 2 feet of the truck battery. Route the battery cable from the liftgate toward the 150 AMP circuit breaker. AVOID SHARP CORNERS AND HIGH HEAT AREAS. Use cable clips provided to secure the cable to the truck frame every 2 feet. Cut the cable to the desired length and strip .88" of insulation from the end. Slide the pre-cut heat shrink over the end of the cable. Secure the cable lug in a vise and apply heat to the connector and insert the cable as the solder melts. Allow connector to cool and install heat shrink. Attach this end to one terminal on the 150 amp circuit breaker. Install heavy ground cable from negative battery terminal to the frame. Wire the breaker to the truck battery using the 2 ft. cable provided. See figure 6.

Step 11 Many late model trucks have battery connections as shown in figure 7. The ground cable from the battery may be connected directly to the engine block with only a light braided ground strap connecting the block to the chassis. Where this is the case, the factory installed cable usually does not provide an adequate ground circuit for operating battery powered liftgates. We recommend that the cables labeled with and "X" be not less than #2 gauge cable as supplied in the installation kit. Also because of the high current draw (Approximately 200A) we recommend that the alternator be a heavy duty type and the battery must have a 150 amp minimum reserve capacity.

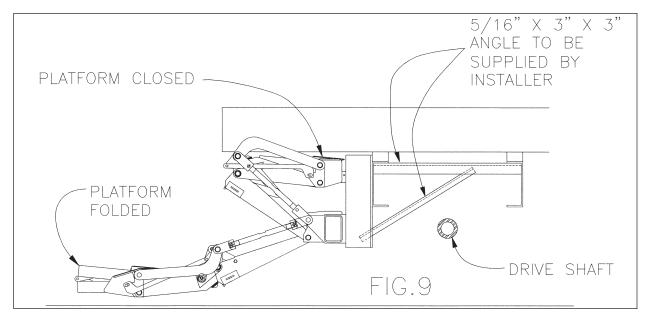






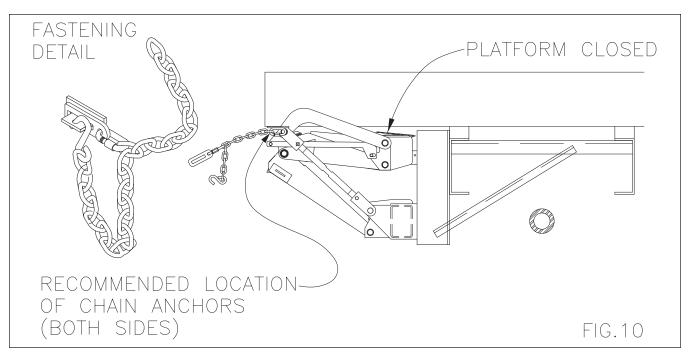
Step 12 Push the RAISE switch until the rod end of the cylinders are filled with oil. This should relieve the stress from the clamps mentioned in Step 4 figure 3. Remove the clamps holding the platform to the angle iron. If the liftgate drops down slightly when removing the clamps, simply loosen the set screw on the side of the cylinder clevis and then using a 13/16" wrench, turn the piston rod into the clevis until the platform is once again level with the truck floor (piston rod has milled flats to accept wrench). Tighten set screw. Repeat procedure for both cylinders so platform stays level. See figure 8.

Step 13 Brace the trunnion to the truck frame with a 3 x 3 x .31 angle iron allowing enough clearance for drive shaft movement. See figure 9.



Step 14 Install all grease fittings and lubricate as necessary. Use the hose straps provided to secure hoses where necessary. Review the entire installation with the power source disconnected. With the power source connected again, check for possible interference of all moving parts. If interference occurs review the instructions and contact Thieman if the problem can not be eliminated.

Step 15 Lower liftgate to ground and manually fold platform in toward truck. Slowly raise liftgate into the closed position. Make sure that the cylinders reach their fully retracted positions before the dampers are fully retracted or the dampers will be ruined. With the platform in the closed position attach one chain anchor to the truck and fasten the other end to the liftarm on each side of the platform. See figure 10.



Step 16 Thieman recommends that the installer perform a weight test of the liftgate to check the welds or mounting bolts and the structural integrity of the body or frame of the truck or trailer. The load used should be the maximum weight rating of the particular liftgate with the weight centrally located on the platform. A minimum of 20 cycles should be made to insure the integrity of the mounting.

Step 17 Finish paint as required and remove the pre-mask on decals already applied at the factory and apply the remaining decals in the appropriate locations as shown below. When painting, carefully grease or mask fittings and exposed portion of the piston rod. The decals **MUST** be applied or all warranties are **VOID!**

Item	Part Name	Part Number	
1	Warning Decal-off center	4671050	
2	Fast Idle Decal	4650150	
3	Danger Decal-no riding	4609	
4	Operating Decal	4608	
5	Capacity Decal-1500#	4650070	
5	Capacity Decal-2000#	4650100	
6	Warning Decal-pinch point	4604	
7	Handle decal	4605	
8	Wiring Diagram	4614	
9	Urgent Decal	4650530	
10	Warning Decal	4620	

