

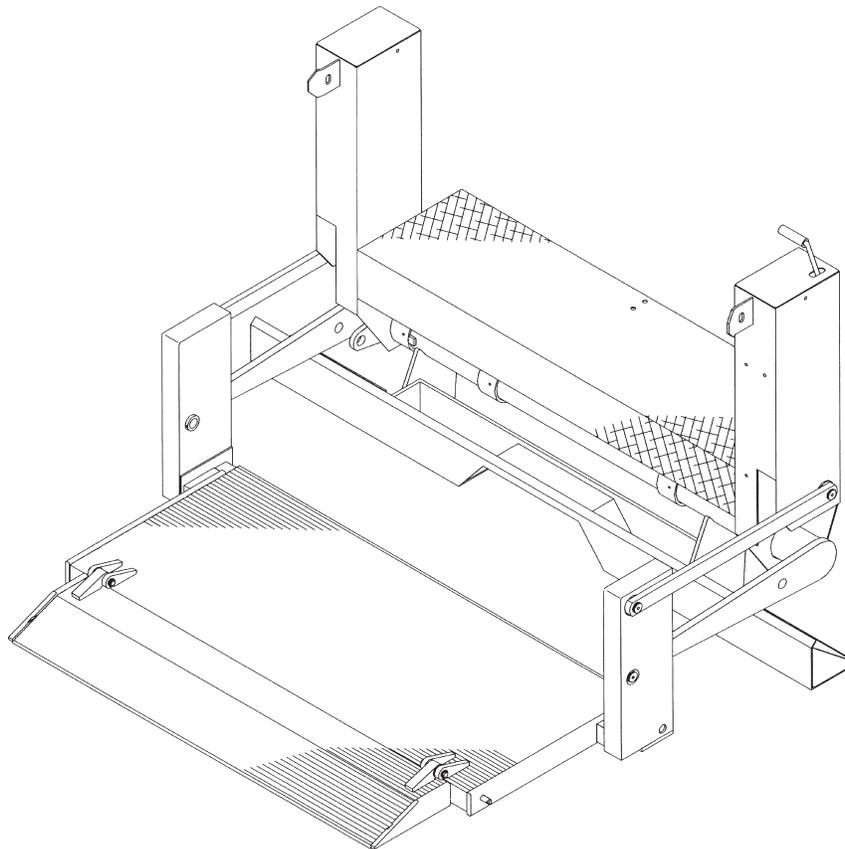
TOPLIFTER

Tailgates By THIEMAN

TT-12

INSTALLATION INSTRUCTIONS

SHOWN WITH OPTIONAL 2 PC. ALUMINUM PLATFORM



IMPORTANT! KEEP IN VEHICLE!

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

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NTEA
THE ASSOCIATION FOR THE WORK TRUCK INDUSTRY
MEMBER

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.

The TT12 series liftgate is designed for use on pickup trucks and service bodies. The TT12 has a bed height range of 27 to 36 inches and comes standard with a swing away bumper rated for 5000 lb. pulling and 500 lb. tongue weight. This rating only applies if the ball of the hitch is mounted in the hole supplied in the bumper or if a trailer tongue is pinned directly through this same hole. DO NOT attach any type of receiver hitch to this bumper or all warranties will be VOID. If a receiver type hitch is required for a certain application the TT12 may be ordered less bumper. Mounting the TT12 on bed heights less than the specified minimum will cause the swing-away bumper to hit the ground causing improper operation.

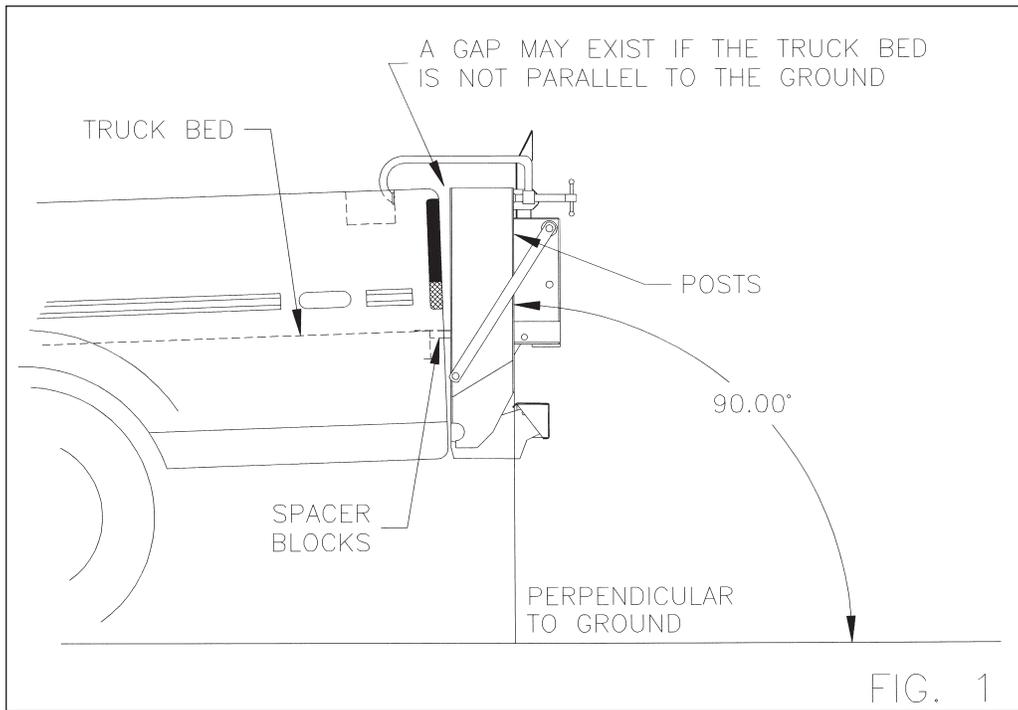
- * All maximum mounting dimensions are shown with the vehicle empty;
All minimum mounting dimensions are shown with the vehicle loaded.
- * Check bed height when parked on level surface.

TRUCK OR TRAILER PREPARATION

Remove lights, safety bumper, dock bumpers, etc. that may interfere with installation.

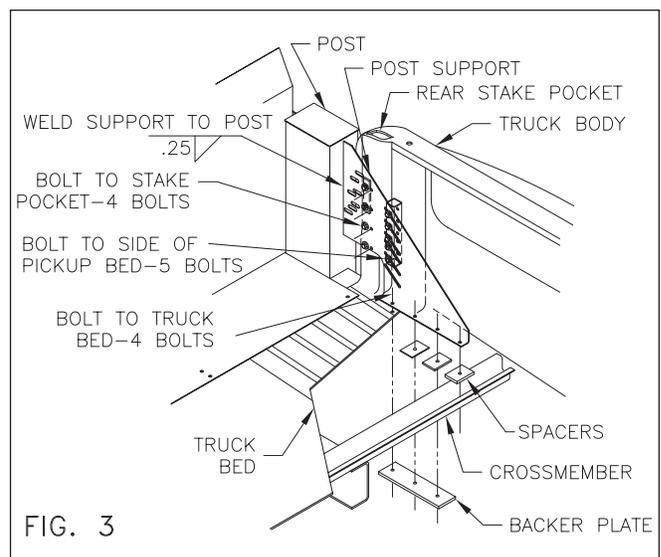
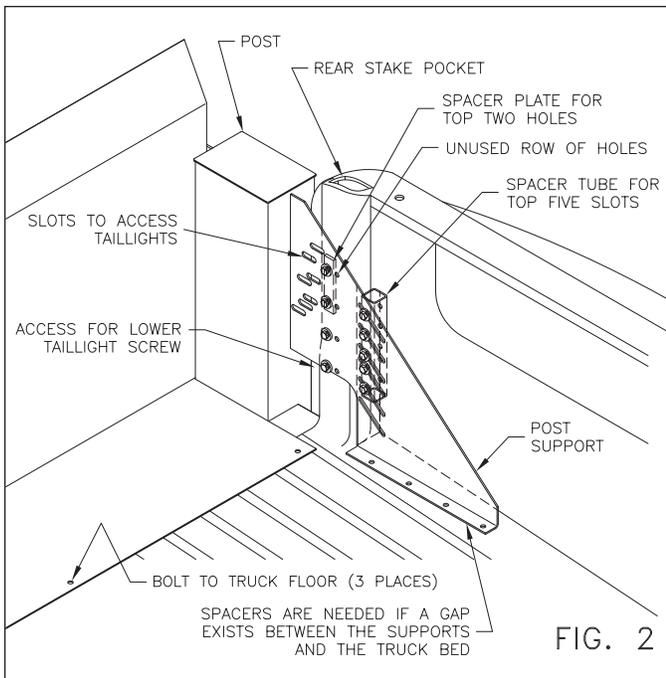
INSTALLATION INSTRUCTIONS

- Step 1** Remove the street side post cover and remove the hardware package. Replace post cover.
- Step 2** Remove the curb side post cover and remove the plug from the filler tube on the pump and replace with the breather cap provided.
- Step 3** Uncoil the battery cable found under the threshold.
- Step 4** Locate the liftgate in the bed of the vehicle by sliding the deck sheet on to the bed as far as possible. Center the liftgate between the cargo area. Check the entire installation for clearances between liftarms, posts, and idler arms. Be sure that idler arms and lift arms can be removed once the liftgate is installed. Be sure that the platform is locked into the stowed position during the entire installation.
- Step 5** With the liftgate centered, locate and clamp the posts in their vertical positions - perpendicular to the ground to insure the platform will level ride parallel to the ground. DO NOT square the posts with the truck bed because the truck bed may not be parallel to the ground. Make sure the spacer blocks behind the threshold are tight against the rear of the truck bed while squaring the posts to the ground. See figure 1.
- Step 6** Bolt the deckplate sheet to the truck bed. See figure 2.



NEXT STEPS (7&8) FOR 2007 GM TRUCK BEDS

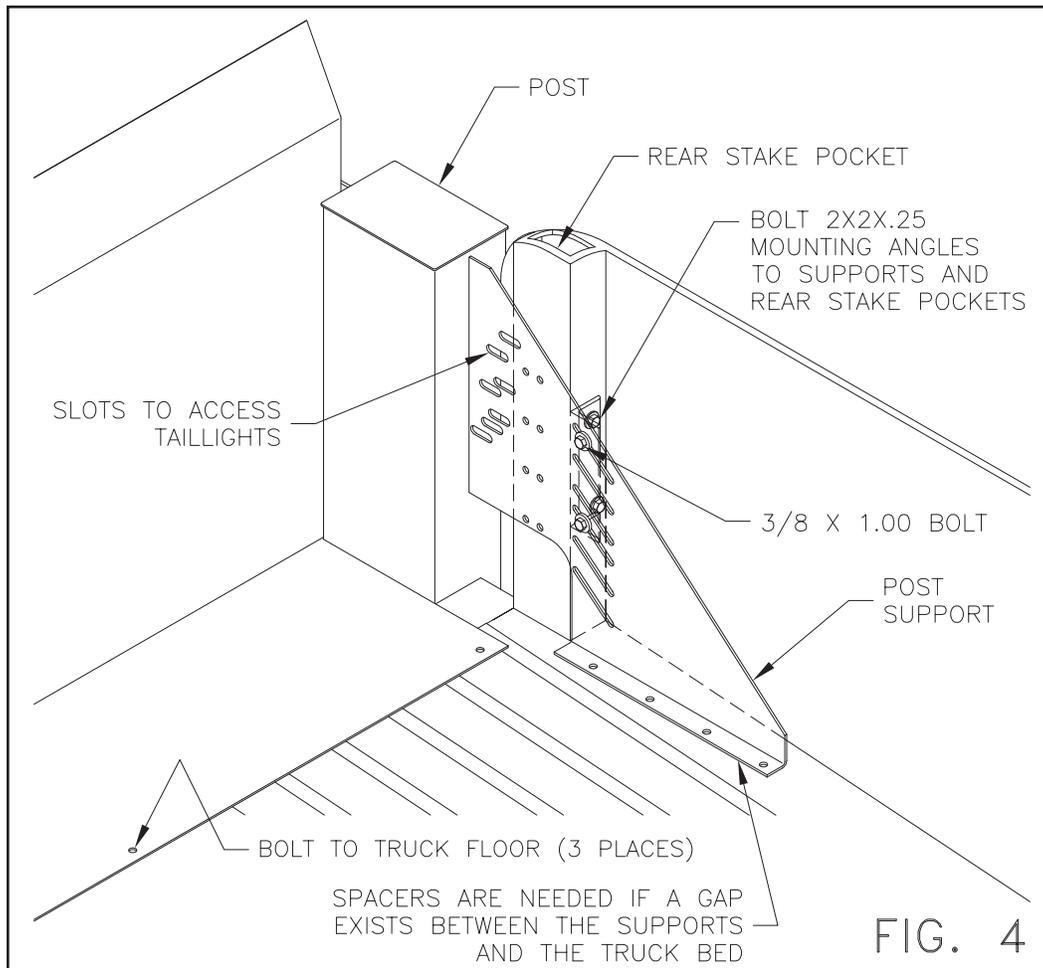
Step 7 Position the unformed edge of the post supports tight against the back of the posts and flat against the rear stake pockets so the formed edge of the support is angled toward the center of the truck. Check that in this position, the slots in the post supports will allow removal of the taillight lenses. Also, note how much the formed edge of the supports are toed up. Spacers will be needed to fill any gaps between the formed edge of the supports and the truck bed. A spacer plate is provided to fill the gap between the post support and the stepped stake pocket on the top two holes. A spacer tube is provided to fill the gap between the post support and the side of the truck bed on the top five slots. See figure 2.



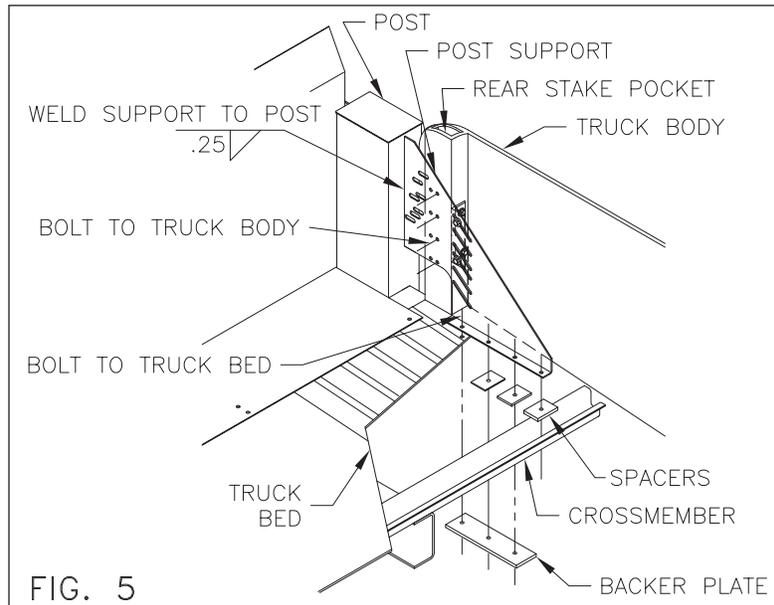
Step 8 Weld the unformed edge of the post supports to the posts and bolt the formed edge of the post supports, through the truck floor and finally through the backer plates. If necessary, spacers must be used between the post supports and the truck bed to keep the post perpendicular to the ground or to fill any gaps between the supports and the truck bed. Backer plates may be trimmed where bolts intersect crossmembers, but should be used with all other bolts which only intersect the truck bed. Bolt each post support to the pickup's rear stake pockets using the four holes shown. The top two holes will have a spacer plate between the post support and the rear stake pocket. Use the top 5 slots to bolt the post support to the side of the bed with the spacer tube sandwiched between them. Use grade 5, 3/8 hardware throughout (hardware not included). See figure 3.

STEPS 9 & 10 ARE FOR ALL TRUCK BEDS OTHER THAN 2007 GM

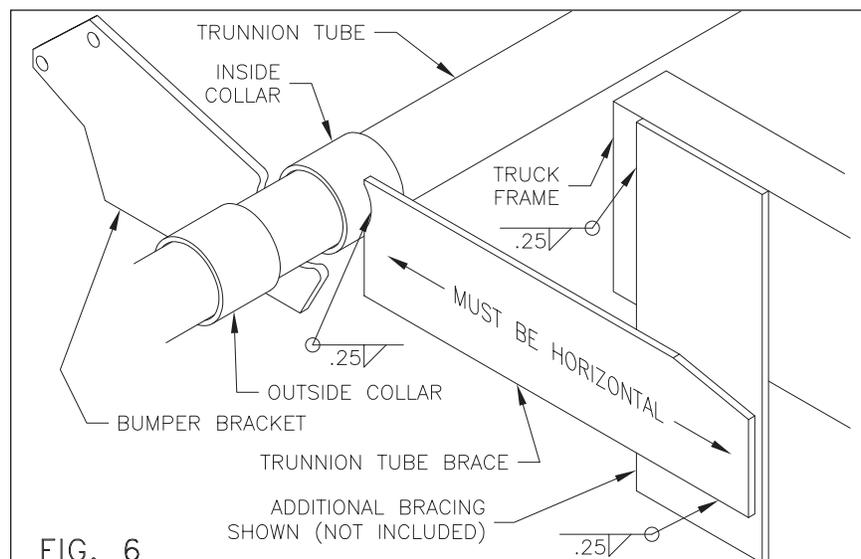
Step 9 Position the unformed edge of the post supports tight against the back of the posts and flat against the rear stake pockets so the formed edge of the support is angled toward the center of the truck. Check that in this position, the slots in the post supports will allow removal of the taillight lenses. Also, note how much the formed edge of the supports are toed up. Spacers will be needed to fill any gaps between the formed edge of the supports and the truck bed. Bolt the mounting angles through the post supports' slots as high as possible using the supplied 3/8 hardware. Bolt the other legs of the mounting angles to the stake pockets using grade 5, 3/8 screws (hardware not included). See figure 4.



Step 10 Weld the unformed edge of the post supports to the posts and bolt through the formed edge of the post supports, through the truck floor and finally through the backer plates. If necessary, spacers must be used between the post supports and the truck bed to keep the post perpendicular to the ground or to fill any gaps between the supports and the truck bed. Backer plates may be trimmed where bolts intersect crossmembers, but should be used with all other bolts which only intersect the truck bed. Bolt the post supports to the pickup's rear stake pockets or to the service body using the four holes provided. All bolts used in this step should be grade 5, 3/8 diameter screws (hardware not included). See figure 5.



Step 11 Weld the trunnion tube brace horizontally from the trunnion tube collars to the truck frame. Depending on the truck frame width, either the inside or outside collars may be used. On TT12's with 53" wide platforms, there are only inside collars so on vehicles with large frame widths it will be necessary to box in the inside of the frame rails and run all bracing to the inside of the frame. The trunnion tube brace must be welded in the horizontal position to properly support the liftgate and its bumper. Additional bracing (not included) may be required to obtain this position. Rotate the collars on the trunnion tube before welding so that there is easy access to the grease fittings after welding. See figure 6.

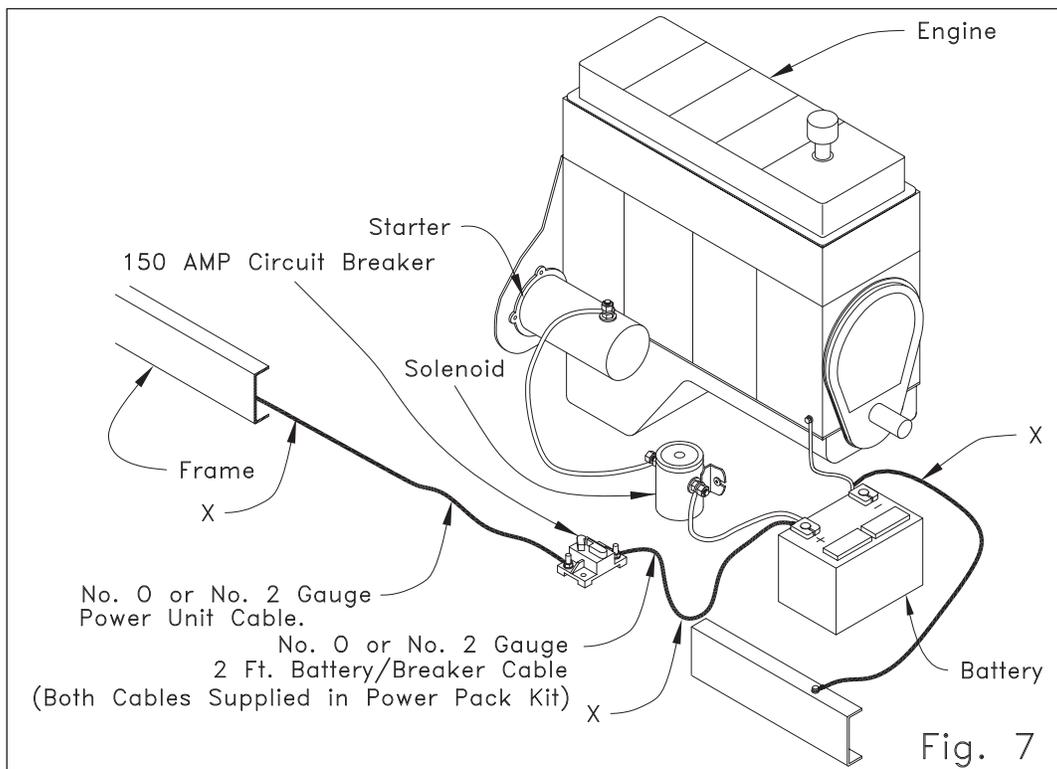


Step 12 Install lube fittings and lubricate each fitting.

Step 13 Fasten the 150 AMP circuit breaker provided within 2 ft. of the truck battery. Route the battery cable from the liftgate toward the 150 AMP circuit breaker (Note: secure an extra 2 ft. of battery cable near the liftgate. This slack will allow the power unit to be removed from the gate easily in the future if servicing or replacement is required). AVOID SHARP CORNERS AND HIGH HEAT AREAS. Use cable clips provided to secure the cable to the truck frame every 2 ft. 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 the heat shrink. Attach this end to one terminal of 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 7.

Step 14 Many late model trucks have battery connections as shown in Figure 7. The ground cable from the battery is connected directly to the engine block with only a light braided ground strap from the block to the chassis (either the body or the frame.) Where this is the case, the factory-installed wiring usually does not provide an adequate ground circuit for battery-operated accessories, such as electric-hydraulic tailgates.

We recommend that the cables shown with an "X" in Figure 7 be not less than No. 2 gauge wire, as supplied in the Power Pack Kit on all electric/hydraulic installations. Because of the high current draw (approximately 200 A) by hydraulic tailgates, we recommend that the alternator be a heavy duty type and the battery must have a 150 AMP minimum reserve capacity.

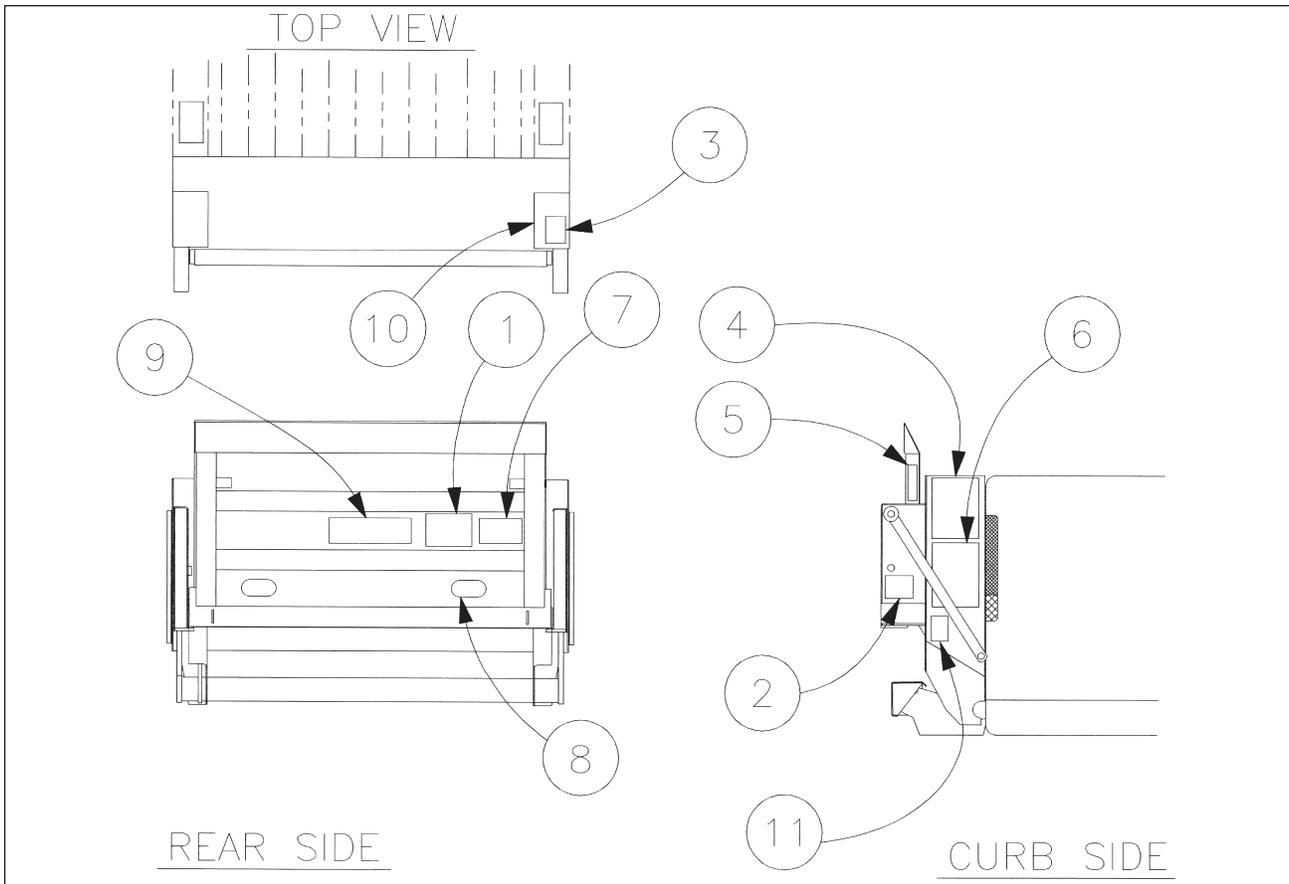


Step 15 Once the power is connected, release the safety latches, unfold the platform and lower it to the ground. Check and make sure that the oil level is visible in the bottom of the filler tube. Replace all covers and on manual control TT12's, install the handle grip on the control handle.

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 After painting is complete, apply decals in the appropriate locations as shown below. When painting, carefully grease or mask fittings and any exposed portion of the cylinder rod. If decals are previously applied simply remove premask after painting. These decals **MUST** be applied and this liftgate **MUST** be painted or all warranties are VOID!

Item	Part Name	Part Number
1	Warning Decal-Off Center	4671050
2	PTO Decal	4650140
2	Fast Idle Decal	4650150
3	Danger Decal-No Riding	4609
4	Operating Decal	4650520
5	Capacity Decal-1250#	4650060
5	Capacity Decal-1000#	4650050
5	Capacity Decal- 800#	4607-004
6	Warning Decal	4650530
7	Caution Decal-Working Area	4650770
8	Reflector(2)	5705
9	Thieman Nameplate	4650801
10	Wiring Decal	4612
11	Warning Decal-High Pressure	4620



Step 18 Any lights that were removed or obstructed must be replaced or relocated in such a manner that the completed vehicle must be in compliance with FMVSS 108(49CFR 571.108).

WIRING PICTORIAL

