

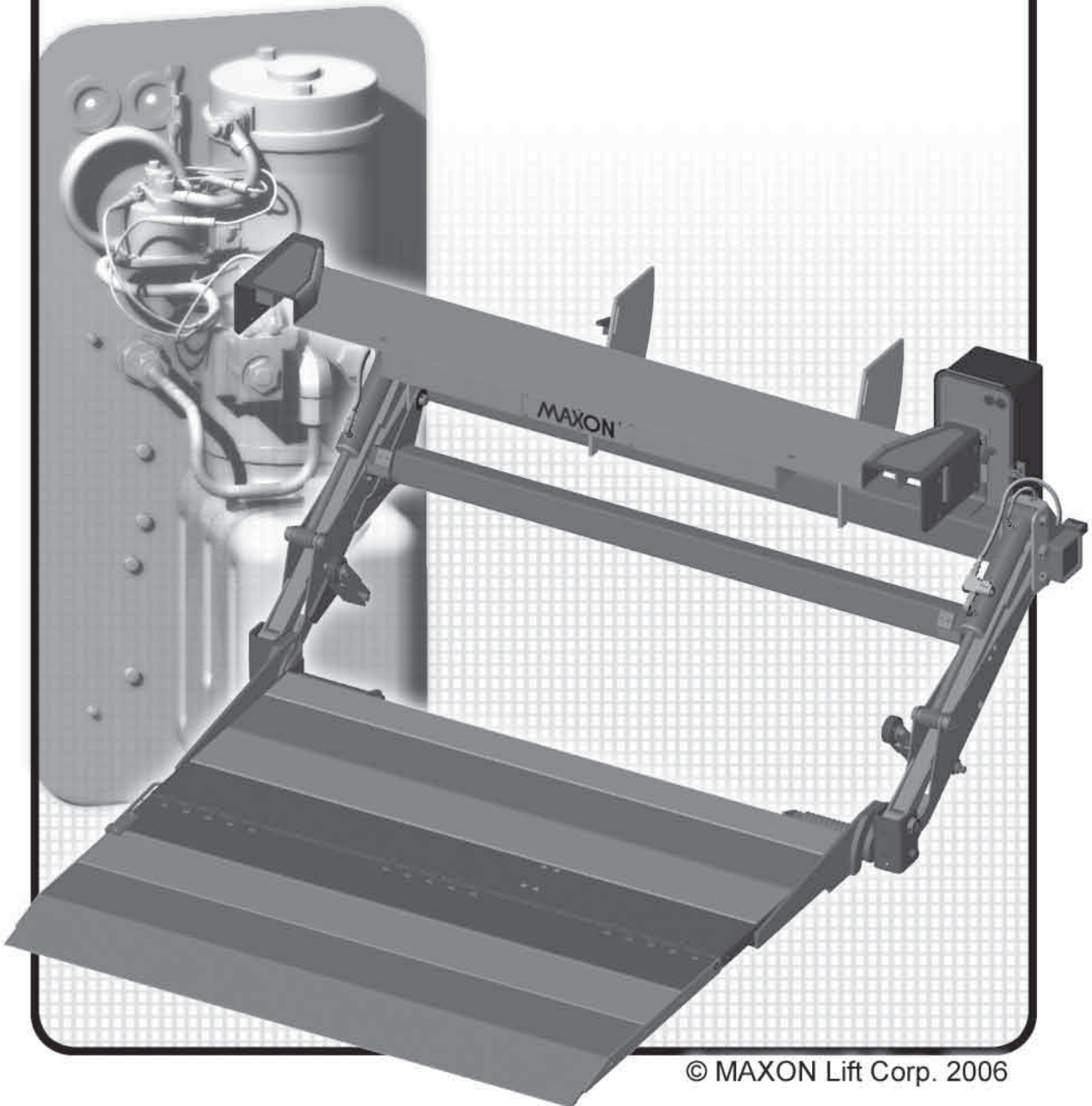
M-04-06
REV. C
APRIL 2006

MAXON®

INSTALLATION MANUAL

GPTLR-25, GPTLR-33, GPTLR-44, & GPTLR-55

TUK-A-WAY®
LIFT GATE SERIES



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Comply with the following **WARNINGS** while installing Liftgates. See Operation Manual M-04-05 for operating safety requirements.

WARNINGS **WARNING**

- Read and understand the instructions in this **Installation Manual** before installing Liftgate.
- Before operating the Liftgate, read and understand the operating instructions in **Operation Manual M-04-05**.
- Comply with all **WARNING** and instruction decals attached to the Liftgate.
- Keep decals clean and legible. If decals are defaced or missing, replace them. Free replacement decals are available from **Maxon Customer Service**.
- Consider the safety and location of bystanders and location of nearby objects when operating the Liftgate. Stand to one side of the platform while operating the Liftgate
- Do not allow untrained persons to operate the Liftgate.
- Do not stand under, or allow obstructions under the platform when lowering the Liftgate. **Be sure your feet are clear of the Liftgate.**
- **Keep fingers, hands, arms, legs, and feet clear of moving Liftgate parts (and platform edges) when operating the Liftgate.**
- **Correctly stow platform when not in use. Extended platforms could create a hazard for people and vehicles passing by.**
- **Make sure vehicle battery power is disconnected** while installing Liftgate. Connect vehicle battery power to the Liftgate only when installation is complete or as required in the installation instructions.
- Wear appropriate safety equipment such as protective eyeglasses, faceshield and clothing while performing maintenance on the Liftgate and handling the battery. Debris from drilling and contact with battery acid may injure unprotected eyes and skin.
- Be careful working by an automotive type battery. Make sure the work area is well ventilated and there are no flames or sparks near the battery. Never lay objects on the battery that can short the terminals together. If battery acid gets in your eyes, immediately seek first aid. If acid gets on your skin, immediately wash it off with soap and water.
- If an emergency situation arises (vehicle or Liftgate) while operating the Liftgate, release the control Toggle Switch and the Liftgate will stop.
- A correctly installed Liftgate operates smoothly and reasonably quiet. The only noticeable noise during operation comes from the pump unit while the platform is raised and lowered. Listen for scraping, grating and binding noises and correct the problem before continuing to operate Liftgate.
- If it is necessary to stand on the platform while operating the Liftgate, keep your feet and any objects clear of the inboard edge of the platform. Your feet or objects on the platform could be trapped between the platform and the Liftgate extension plate.
- Never perform unauthorized modifications on the Liftgate. Modifications may result in early failure of the Liftgate and may create hazards for Liftgate operators and maintainers.

GPTLR LIFTGATE COMPONENTS

⚠ CAUTION

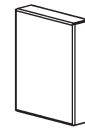
Prevent injuries and equipment damage. Before cutting the shipping straps from the Liftgate, put Liftgate on level ground that will support at least 1500 pounds. Be careful lifting and moving components after shipping straps are removed.

NOTE: Make sure you have all components and parts before you start installing Liftgate. Compare parts in the Part Box and each Kit Box with packing list enclosed in each box. If parts and components are missing or incorrect call:

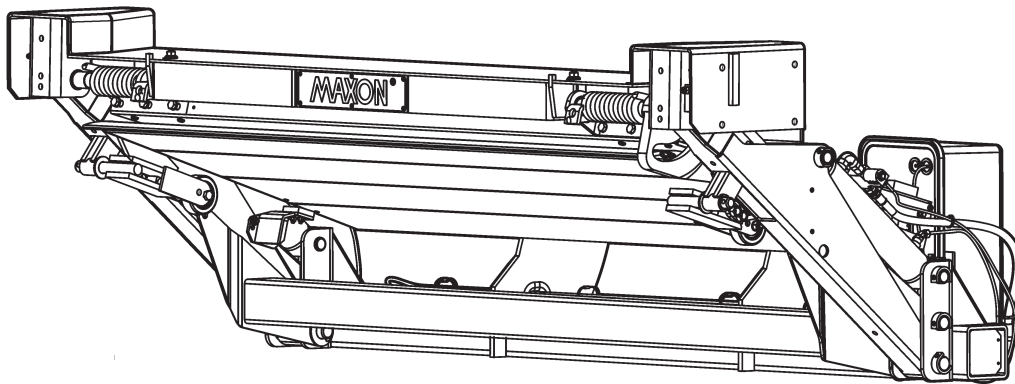
Maxon Customer Service

Call (800) 227-4116 or

Send e-mail to customersupport@maxonlift.com



PARTS BOX



LIFTGATE

GPTLR COMPONENTS

FIG. 4-1

11921 Slauson Ave. Santa Fe Springs, CA. 90670 (800) 227-4116 FAX (888) 771-7713

MAXON[®]

GPTLR-SERIES INSTALLATION PARTS BOX

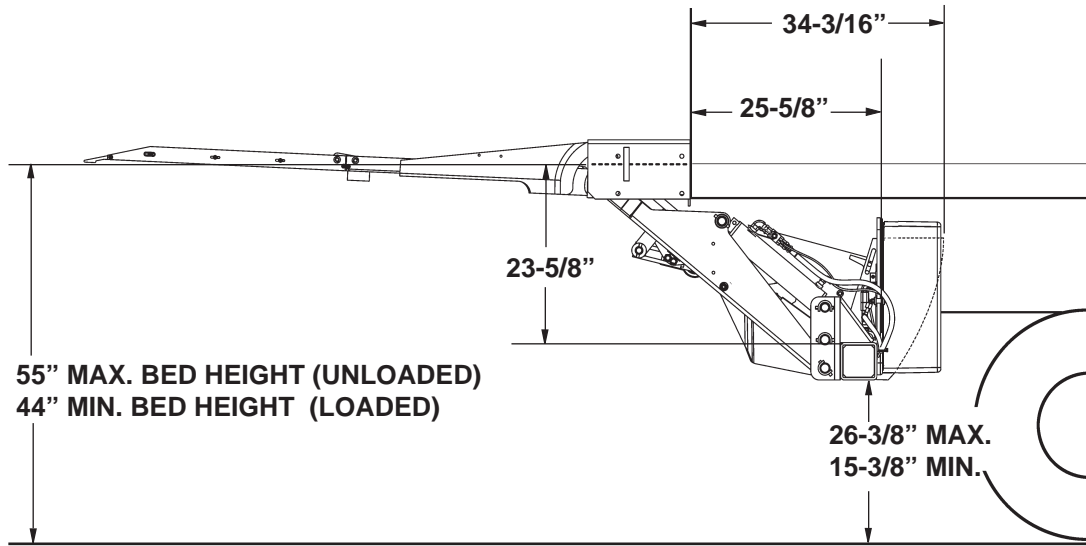
ITEM	DESCRIPTION	QTY.	PART NO.
1	FRAME CLIP, 1/2" X 1-3/8"	7	050079
2	COPPER LUG, #2 GA, 3/8" CLOSED END	1	226778
3	SWITCH AND CABLE ASSY	1	264346
4	FUSED POWER CABLE, 200 AMP, 38' LG.	1	264422
5	DECAL & MANUAL KIT	1	-
	A. INSTALLATION MANUAL	1	M-04-06
	B. OPERATION MANUAL	1	M-04-05
	C. MAINTENANCE MANUAL	1	M-04-04
	D. WARRANTY CARD	1	M-78-78
	E. CUSTOMER SURVEY FORM	1	M-94-04
	F. DECALS		REFER TO DECAL PAGES IN THIS MANUAL
6	CLAMP, #10 RUBBER LOOM	2	801681
7	SELF-TAPPING SCREW, #10-24 X 1" LG.	4	900057-5
8	SHIM, PLATFORM ADJUSTMENT 1/16"	2	281166-01
9	SHIM, PLATFORM ADJUSTMENT 1/8"	2	281166-02
10	STOP BLOCK	1	281673-01
11	CAP SCREW, 1/2" - 13 X 2-1/2" LG.	2	900035-7
12	LOCK NUT, 1/2" - 13	2	901010
13	FLAT WASHER, 1/2"	2	902000-16

TABLE 5-1

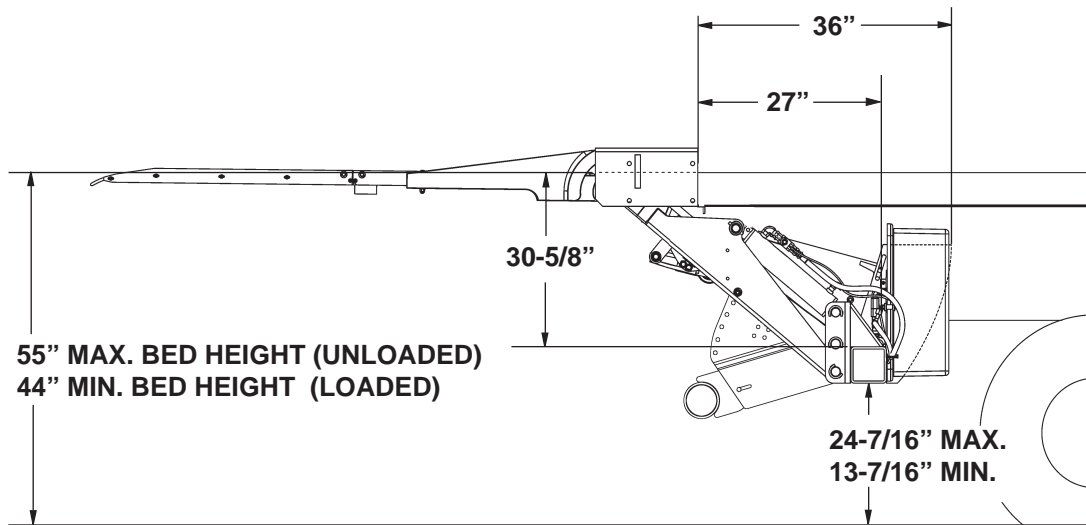
VEHICLE REQUIREMENTS

NOTE: The maximum operating Vehicle Body bed height for the GPTLR-Series Liftgates (unloaded) is 55". The minimum height is 44" (loaded). Do not install this Liftgate on Vehicle Bodies equipped with swing open doors.

NOTE: Measure the width of the Liftgate and the width of the Vehicle Body before you start doing this procedure. Ensure the Liftgate is the correct width for Vehicle.

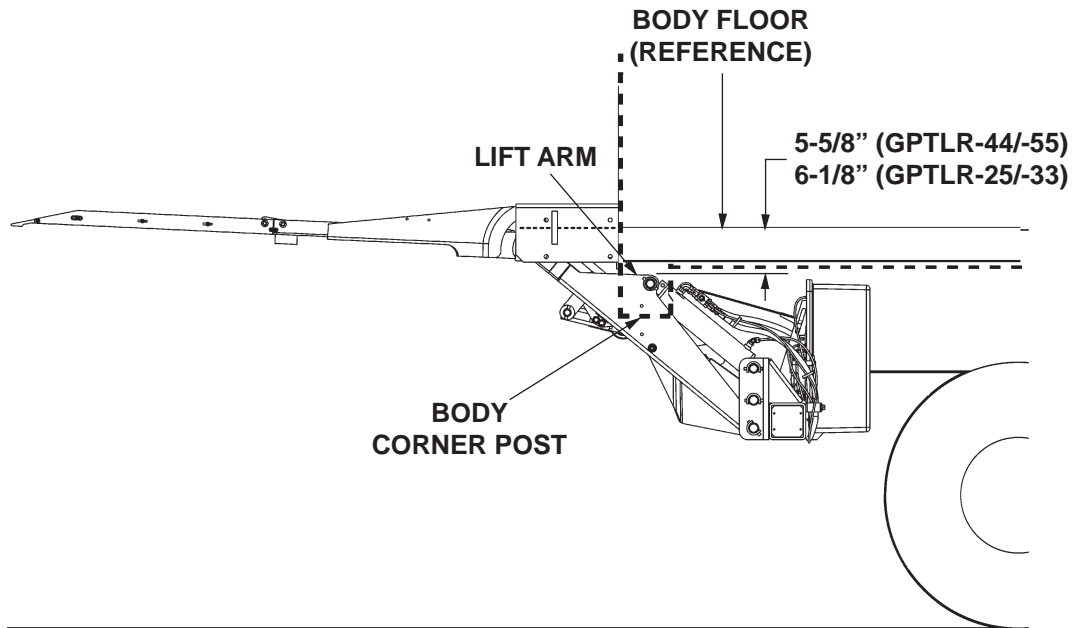


GPTLR-25 & -33 LIFTGATE CLEARANCE DIMENSIONS (FOR REFERENCE)
FIG. 6-1



GPTLR-44 & -55 LIFTGATE CLEARANCE DIMENSIONS (FOR REFERENCE)
FIG. 6-2

VEHICLE REQUIREMENTS - Continued

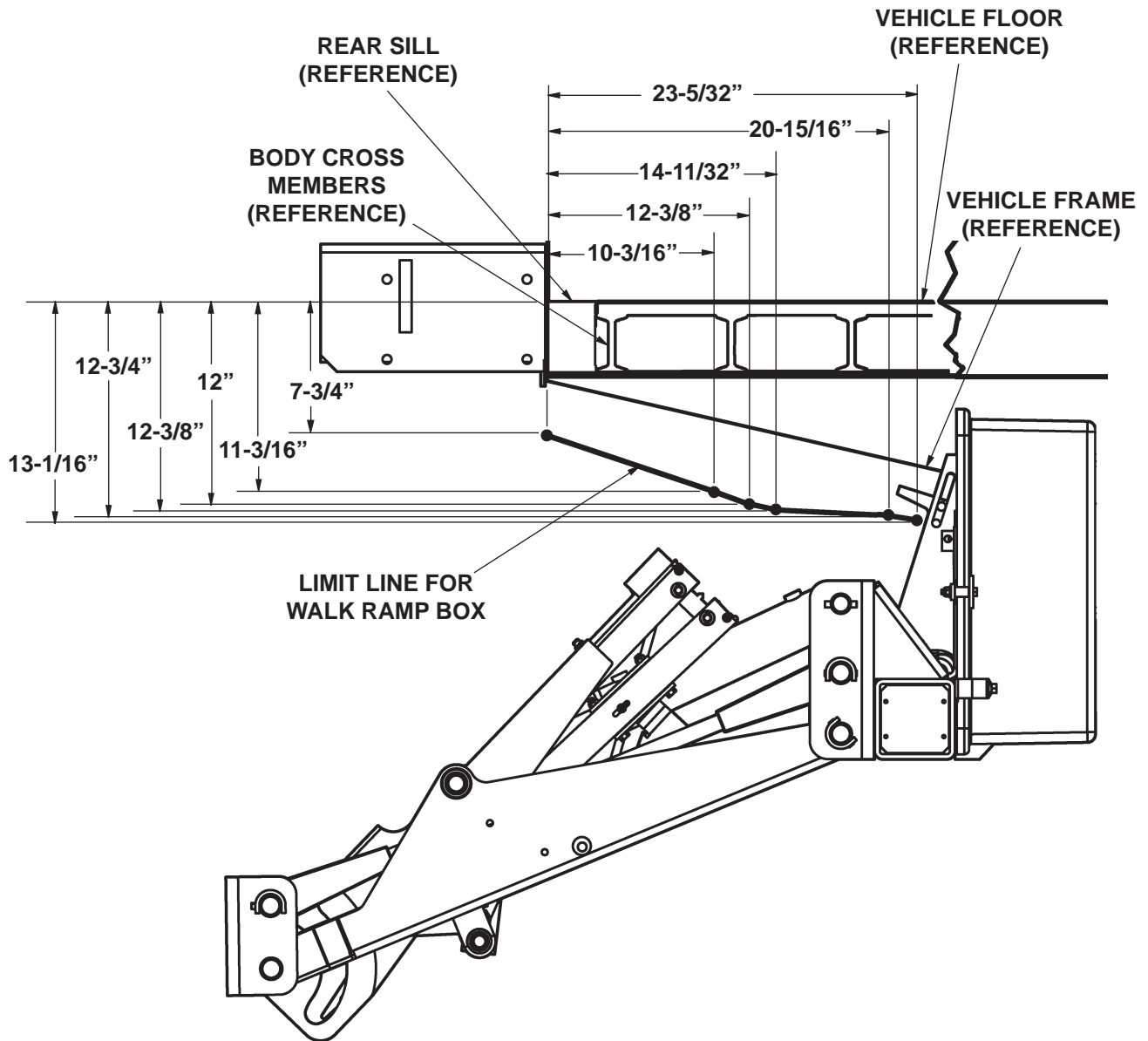


VEHICLE BODY CORNER POST CLEARANCE (FOR REFERENCE)
FIG. 7-1

VEHICLE REQUIREMENTS - Continued

CAUTION

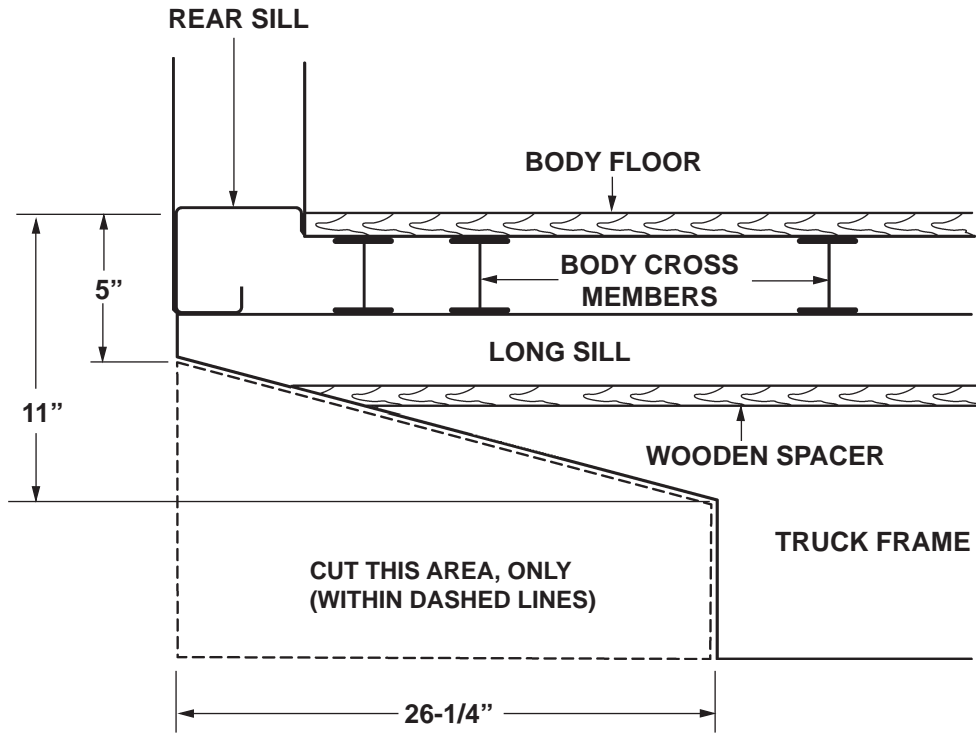
If a Walk Ramp Box is in the path of Platform while stowing or unstowing Liftgate, the Liftgate and Walk Ramp Box can be damaged. To prevent damage, make sure Walk Ramp does not extend beyond limit line shown in illustration.



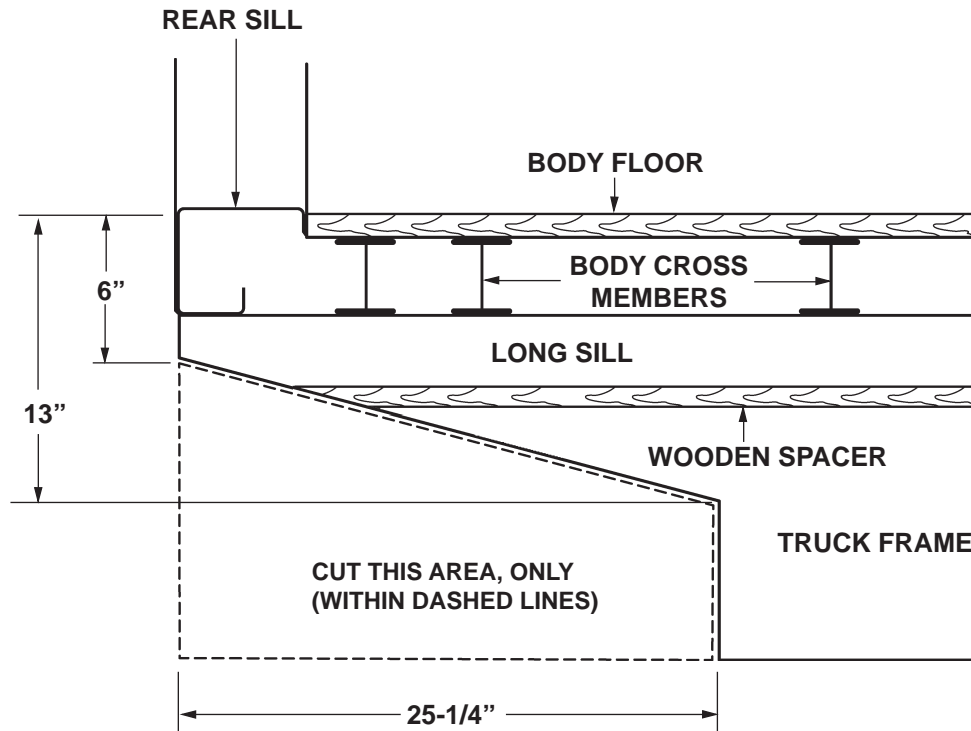
CLEARANCE FOR WALK RAMP MOUNTING (FOR REFERENCE)

FIG. 9-1

VEHICLE REQUIREMENTS - Continued



VEHICLE FRAME CUT FOR GPTLR-25 & GPTLR-33
FIG. 10-1



VEHICLE FRAME CUT FOR GPTLR-44 & GPTLR-55
FIG. 10-2

STEP 1 - WELD LIFTGATE TO VEHICLE

⚠ WARNING

Keep Liftgate clamped to forklift until Liftgate is welded (or bolted if required) to vehicle body. Liftgate may be damaged and create a hazard for the installer if it falls off the forklift.

NOTE: This procedure contains the recommended method for lifting and supporting the Liftgate during installation. Other methods, such as hoisting the Liftgate, may be used if careful shop practices are employed.

NOTE: To install Liftgate correctly, you must park the Vehicle on level ground and follow the instructions in this manual.

1. Clamp Liftgate to forklift as shown in **FIG. 11-1A**. For GPTLR-25 and GPTLR-33 Liftgates equipped with ICC Bumper, place a piece of wood between the ICC Bumper and forks on the Forklift for additional support as shown in **FIG. 11-1C**.

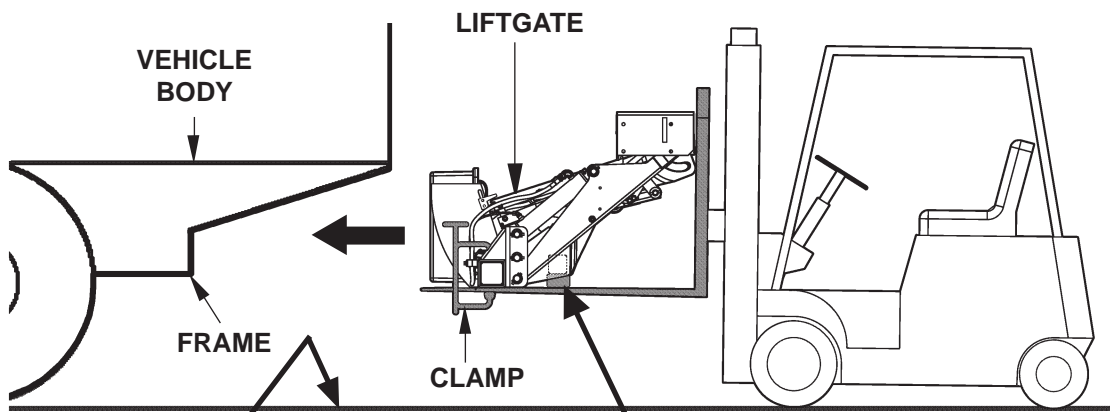


FIG. 11-1A

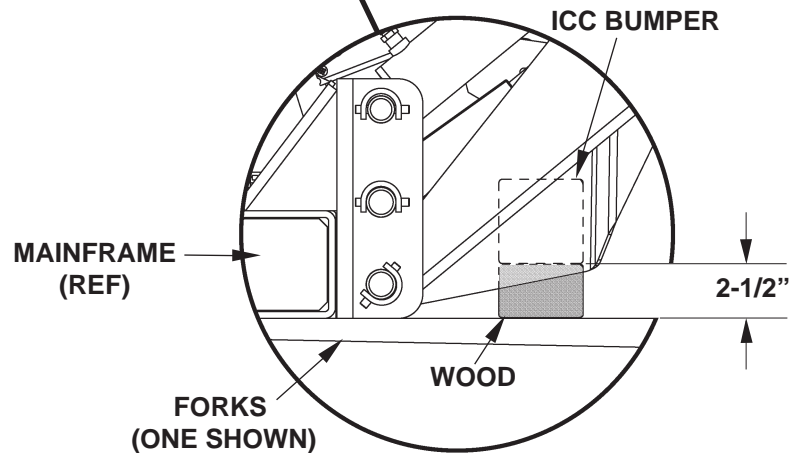
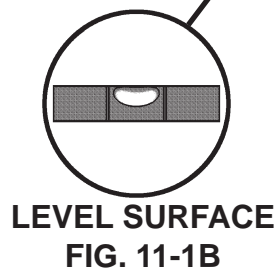
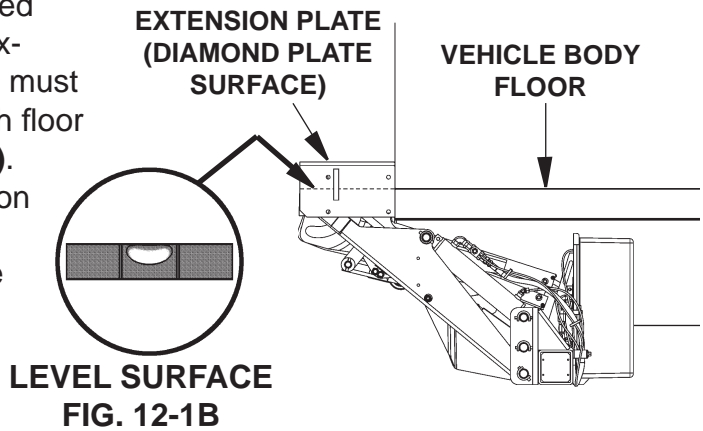


FIG. 11-1C

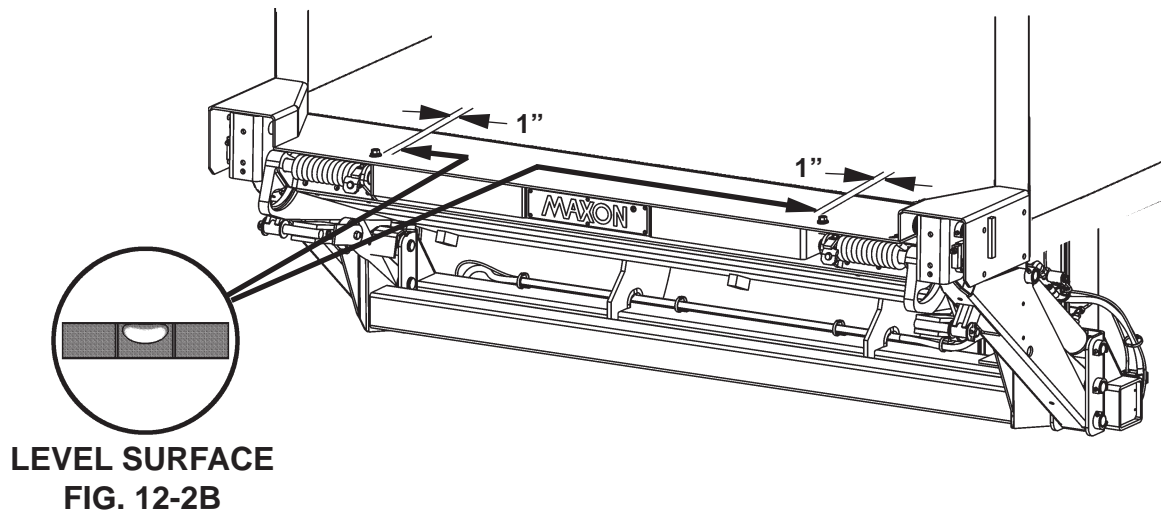
2. Use forklift to center the Liftgate in position on the back of the Vehicle Body and Frame (**FIG. 11-1A**). If necessary, have 1 person operate the forklift and 1 other person check alignment of Liftgate and Vehicle.

STEP 1 - WELD LIFTGATE TO VEHICLE - Continued

3. Make sure the Extension Plate is butted against Vehicle Body (**FIG. 12-1A**). Extension Plate (diamond plate surface) must be level with the ground and flush with floor of Vehicle Body (**FIGS. 12-1 & 12-1B**). Position levels in 2 places on Extension Plate (**FIGS. 12-2A & 12-2B**) to show when Extension Plate is level with the ground.



SIDE VIEW OF EXTENSION PLATE AND TRUCK BODY (FORKLIFT NOT SHOWN)
FIG. 12-1A



POSITIONING LEVELS ON EXTENSION PLATE
FIG. 12-2A

STEP 1 - WELD LIFTGATE TO VEHICLE - Continued

⚠ WARNING

Liftgate is shipped from factory with Mounting Plates bolted to the Main Frame. Weld the Mounting Plates as shown in illustrations before operating Liftgate.

CAUTION

Prevent damaged hydraulic hoses and saddles. Before welding next to hydraulic hoses and saddles, protect with heat-resistant cover.

CAUTION

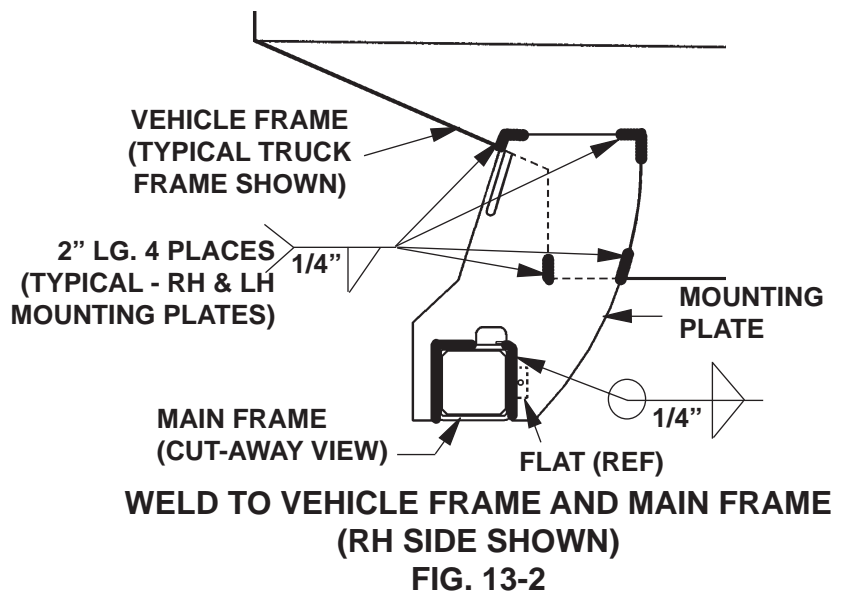
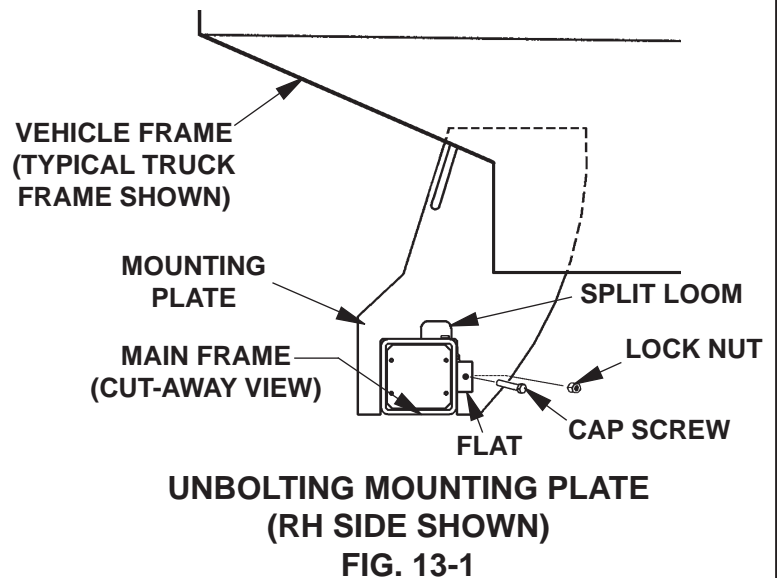
When using electrical welder to weld on Mounting Plates, make sure the welder ground lead is connected directly to the Mounting Plate, as close as possible to the place being welded. Failure to comply can result in damaged cylinders and electrical parts.

- Unbolt the RH side Mounting Plate from the Flat on the Main Frame (FIG. 13-1). Repeat for LH side Mounting Plate. Make sure Liftgate stays centered on vehicle body. Reposition both Mounting Plates against vehicle frame (FIG. 13-2).

- Remove the Split Loom from RH side Mounting Plate (FIG. 13-1). repeat for LH side Mounting Plate. Save the Split Loom to reinstall.

NOTE: Weld both Mounting Plates to vehicle frame before welding Mounting Plates to Main Frame.

- Clamp both Mounting Plates to outboard side of vehicle frame. Weld each Mounting Plate to vehicle frame as shown in FIG. 13-2. Next, weld both Mounting Plates to Main Frame (FIG. 13-2). Remove clamps.



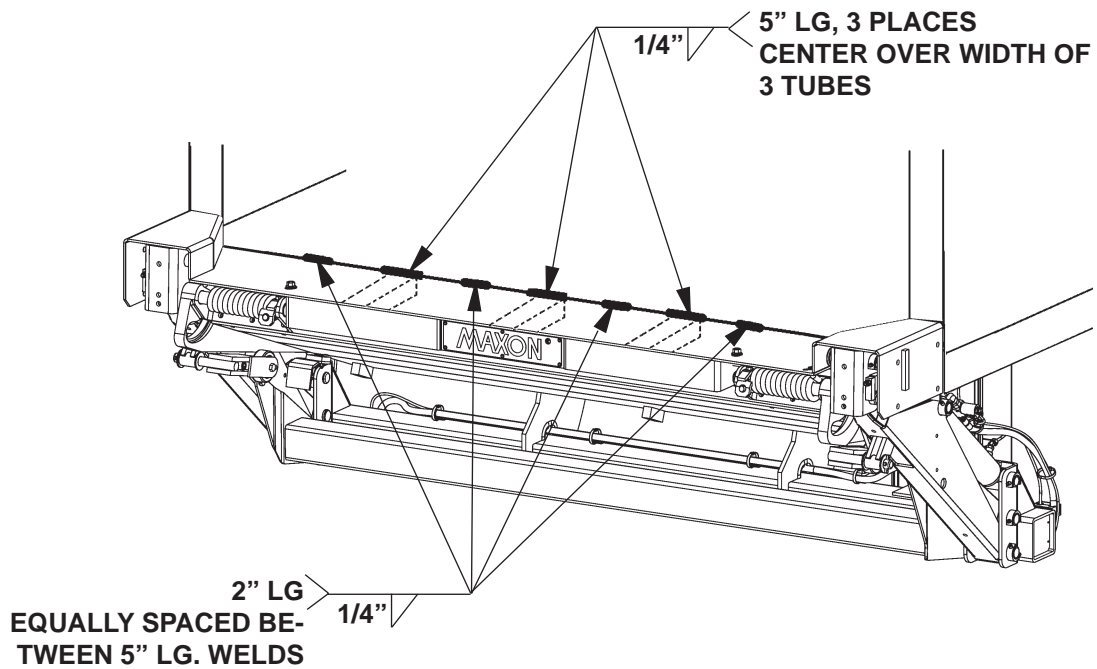
STEP 1 - WELD LIFTGATE TO VEHICLE - Continued

CAUTION

When using electrical welder to weld on Extension Plate, make sure the welder ground lead is connected directly to the Extension Plate, as close as possible to the place being welded. Failure to comply can result in damaged cylinders and electrical parts.

NOTE: While welding Extension Plate to Vehicle Body sill, make sure the diamond plate surface on the Extension Plate stays flush with the sill.

7. Weld the top of Extension Plate to Vehicle Body sill as shown in **FIG. 14-1**.



**EXTENSION PLATE WELDS - VIEWED FROM ABOVE
(FORKLIFT NOT SHOWN)**

FIG. 14-1

STEP 2 - RUN POWER CABLE

⚠ CAUTION

Never route an energized wire. Make sure the vehicle battery is disconnected. Always route electrical wires clear of moving parts, brake lines, sharp edges and exhaust systems. Avoid making sharp bends in wiring. Attach securely. If drilling is necessary, first check behind the drilling surface so you do not damage any fuel lines, vent lines, brake lines or wires.

Clip Fused Power Cable to vehicle chassis, with fuse nearest the vehicle battery, as shown in **FIG. 15-1**. Keep enough cable near the battery to reach the positive terminal without straining cable (after connection). Run cable to Pump Box on Liftgate.

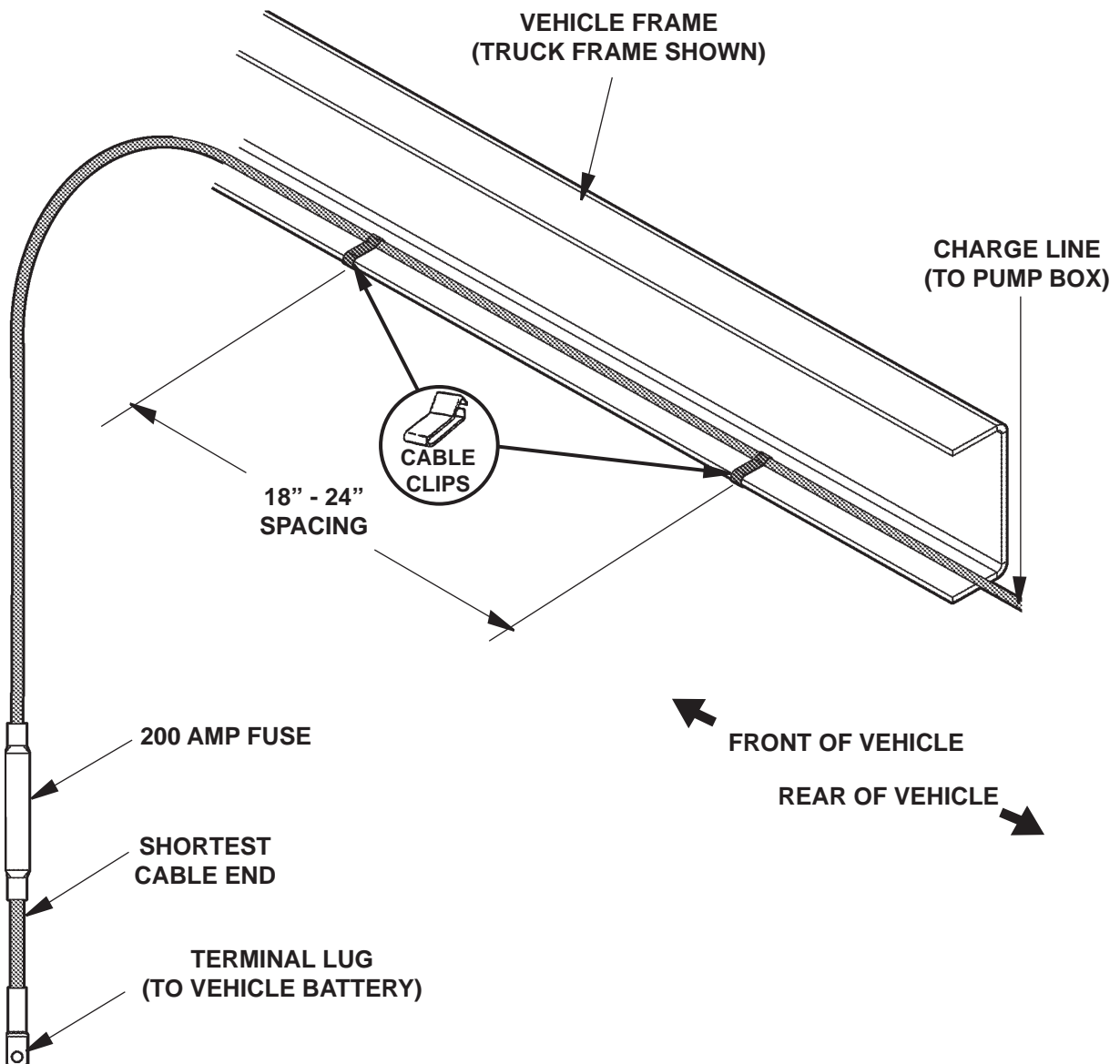


FIG. 15-1

STEP 3 - CONNECT POWER CABLE

1. Unbolt the Pump Cover as shown in FIG. 16-1.

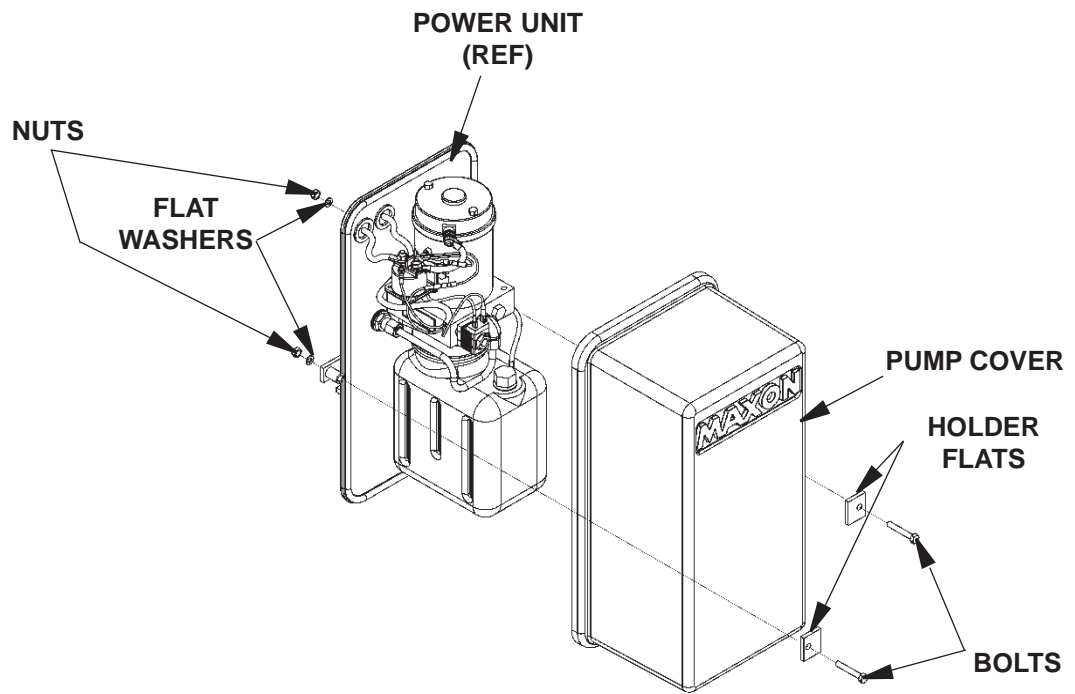
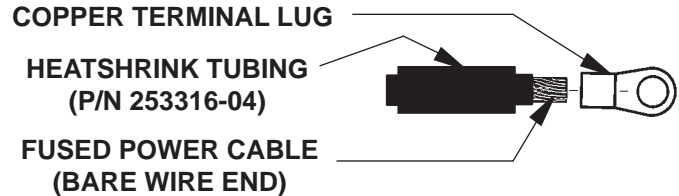


FIG. 16-1

STEP 3 - CONNECT POWER CABLE - Continued

NOTE: Electrical lines must be run into Pump Box through sealing grommets (FIG. 17-3). to keep a good seal on hydraulic & electrical lines, never cut the sealing grommets.

- Run fused Power Cable through Grommet on Pump Mounting Plate (FIG. 17-3).
- On the bare wire end of Fused Power Cable, keep enough length to attach copper terminal lug and reach Starter Solenoid without putting tension on cable (after connection) (FIG. 17-1). Measure (if needed) and then cut excess cable from bare wire end of cable. Put heatshrink tubing (Parts Box) (FIG. 17-1) on the end of the cable (leave room for terminal lug). Crimp copper terminal lug (from Parts Box) on the Fused Power Cable and shrink the Heatshrink Tubing (FIG. 17-2).



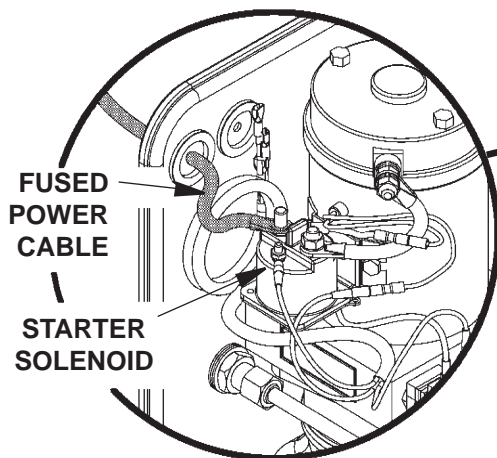
PLACING TERMINAL LUG & HEATSHRINK TUBING ON FUSED POWER CABLE
FIG. 17-1



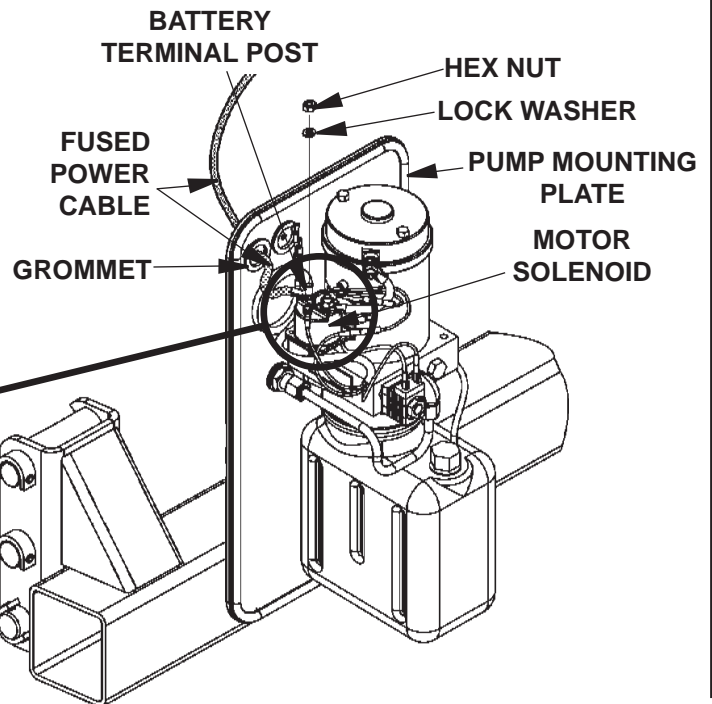
TYPICAL FUSED POWER CABLE WITH TERMINAL LUG INSTALLED
FIG. 17-2

NOTE: MAXON recommends using dielectric grease on all electrical connections.

- Remove hex nut and lock washer from Battery terminal post on the Starter Solenoid. Connect the Fused Power Cable to the Starter Solenoid as shown in FIGS. 17-3A & 17-3B. Reinstall and tighten lock washer and hex nut. Torque hex nut to **95 LBS.-IN.**



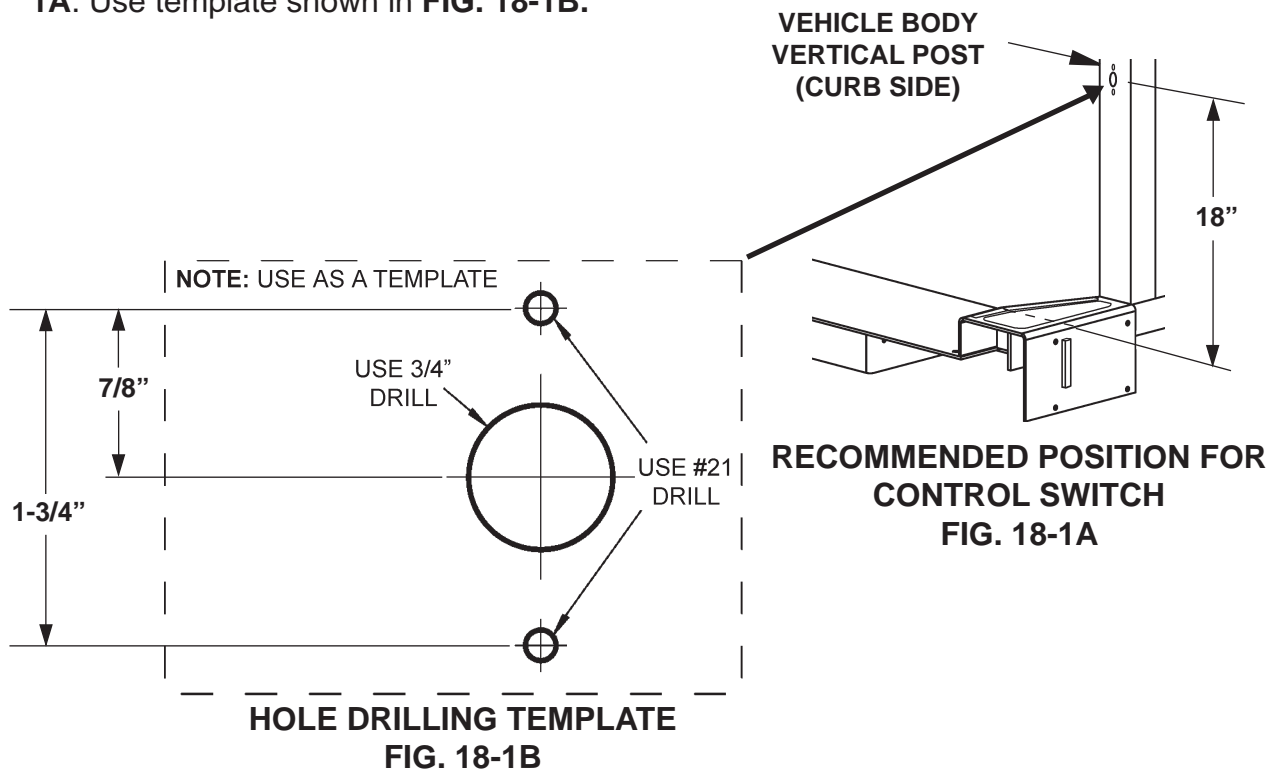
CABLE CONNECTION TO STARTER SOLENOID
FIG. 17-3B



TYPICAL FUSED POWER CABLE CONNECTION (GRAVITY DOWN PUMP SHOWN)
FIG. 17-3A

STEP 4 - INSTALL CONTROL SWITCH

1. Drill one 3/4" hole and two #21-size holes in the vertical post on curb side of vehicle body as shown in **FIG. 18-1A**. Use template shown in **FIG. 18-1B**.



NOTE: Electrical lines must be run into Pump Box through sealing grommets (FIG. 18-2). To keep a good seal on the electrical lines, never cut the sealing grommets.

2. Cut Tie Strap on coiled Wiring Harness (FIG. 18-2). Pull the Wiring Harness through grommet on the Pump Mounting Plate (FIG. 18-2).

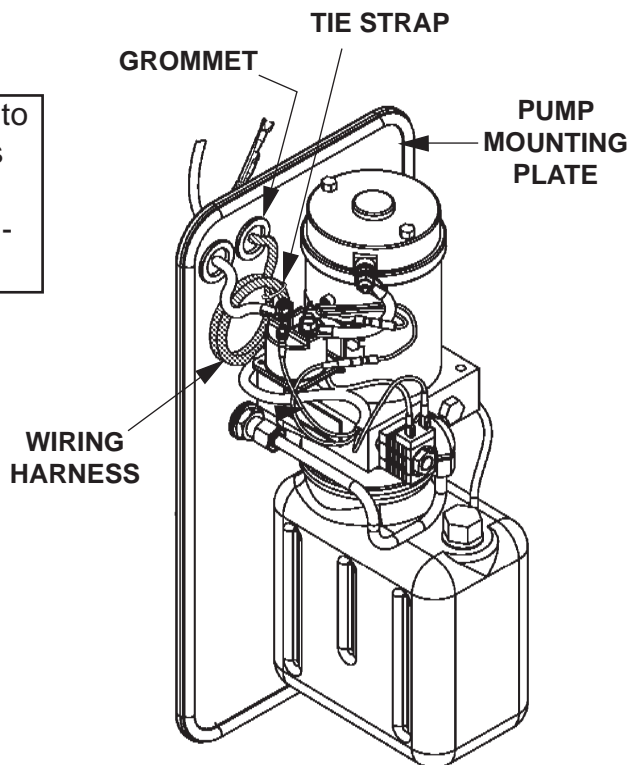
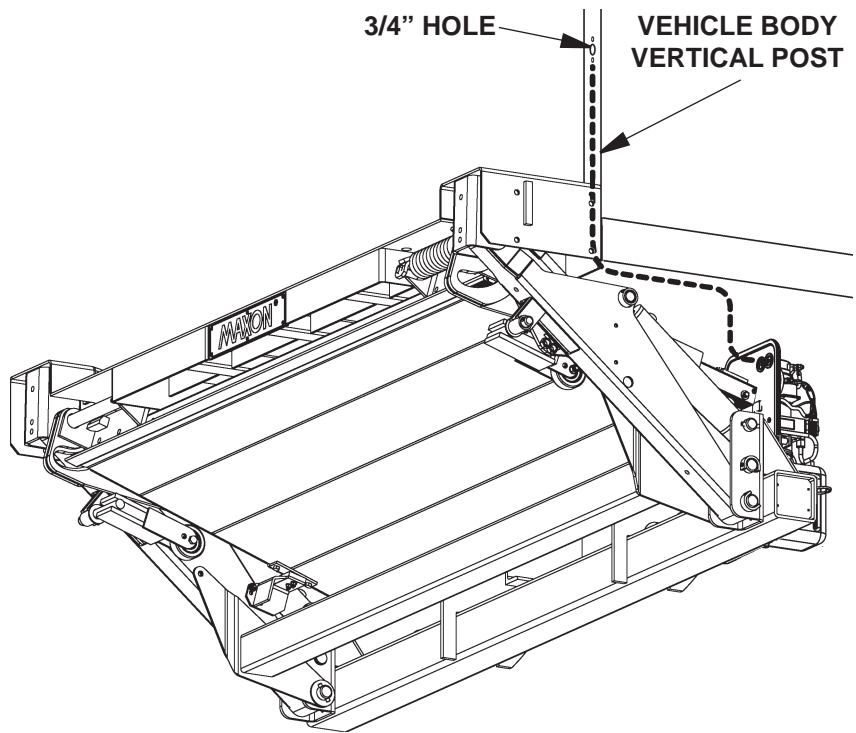


FIG. 18-2

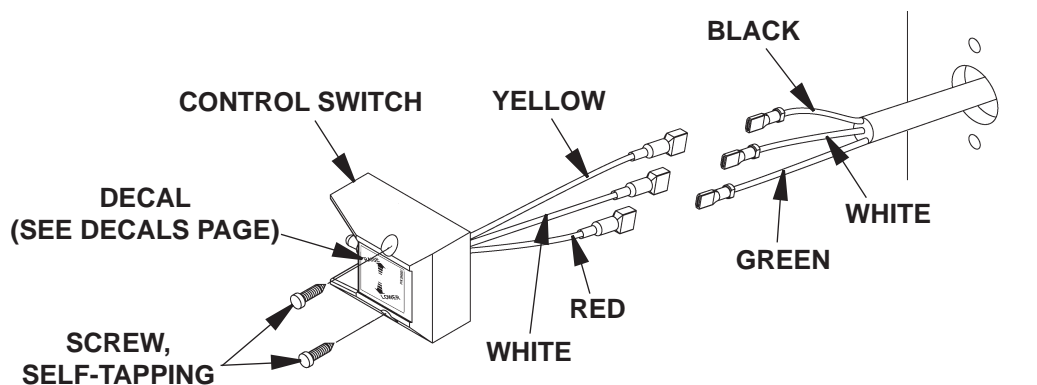
STEP 4 - INSTALLING CONTROL SWITCH - Continued

NOTE: MAXON recommends using dielectric grease on all electrical connections.

3. Run wiring harness under Vehicle Body (see dashed line - FIG. 19-1) and up through inside of Vertical Post. Then pull Control Switch wiring harness out the 3/4" hole drilled in Vertical Post (FIG. 19-1). Connect the Control Switch wiring to the wiring harness as shown in FIG. 19-2. Push extended wiring back into the 3/4" hole in the Vertical Post until Control Switch touches the post. Attach the Control Switch to Vertical Post with 2 self-tapping screws (FIG. 19-2).



**ROUTING CONTROL SWITCH WIRING
FIG. 19-1**



**CONTROL SWITCH WIRING CONNECTIONS
FIG. 19-2**

STEP 5 - CHECKING HYDRAULIC FLUID

CAUTION

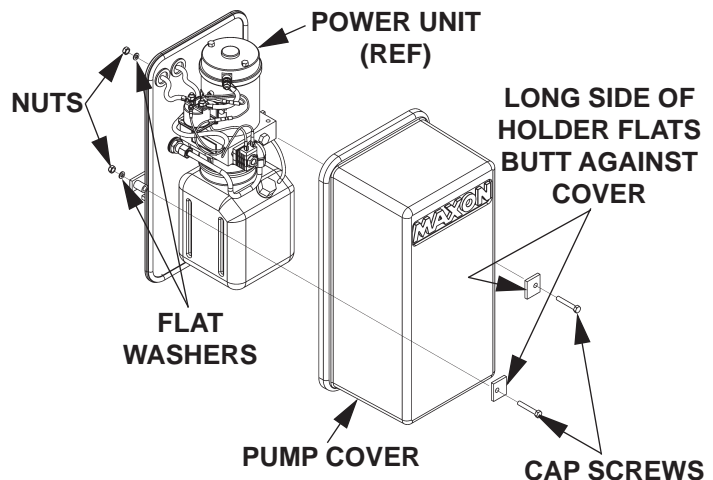
Keep dirt, water and other contaminants from entering the hydraulic system. Before opening the hydraulic fluid reservoir filler cap, drain plug and hydraulic lines, clean up contaminants that can get in the openings. Also, protect the openings from accidental contamination.

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 21-1, 21-2, & 21-3 on page 21, for recommended brands.

1. Unbolt and remove Pump Cover (FIG. 20-1).

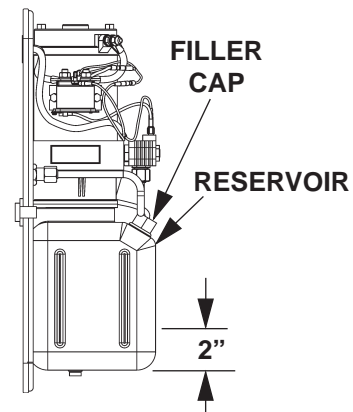


UNBOLTING / BOLTING PUMP COVER
FIG. 20-1

2. Check the Hydraulic Fluid level in Reservoir as follows. With Liftgate stowed, or Platform at Vehicle bed height, level should be as shown in FIG. 20-2.
3. If needed, add fluid to the Reservoir as follows. Pull out (no threads) Filler Cap (FIG. 20-2). Fill the Reservoir with Hydraulic Fluid to level shown in FIG. 20-2. Reinstall Filler Cap (FIG. 20-2).

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 butt against Pump Cover as shown in the illustration.



POWER UNIT FLUID LEVEL
FIG. 20-2

4. Bolt on the Pump Cover as shown in FIG. 20-1. Torque the 5/16"-18 cover bolts from 20 to 29 LBS.-FT.

STEP 5 - CHECKING HYDRAULIC FLUID - Continued

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, HY- DRAULIC OIL-13

TABLE 21-1

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
ROSEMEAD	THS FLUID 17111

TABLE 21-2

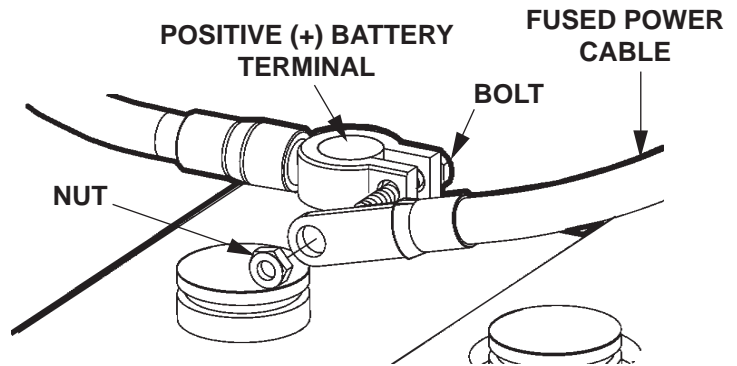
ISO-10 OR MIL-H-5606 HYDRAULIC FLUID	
RECOMMENDED BRANDS	PART NUMBER
AMSOIL	N/A
CHEVRON	FLUID A, FLUID G
KENDALL	GLACIAL BLU
SHELL	AEROSHELL FLUID-41
EXXON	UNIVIS HVI-13
MOBIL	AERO HFA
ROSEMEAD	THS FLUID 17111

TABLE 21-3

STEP 6 - CONNECT POWER CABLE TO BATTERY

NOTE: MAXON recommends using dielectric grease on all electrical connections.

Remove nut from positive (+) battery terminal connector. Connect Power Cable to the positive (+) battery terminal connector (**FIG. 22-1**). Reinstall and tighten nut.



**CONNECTING POWER CABLE
FIG. 22-1**

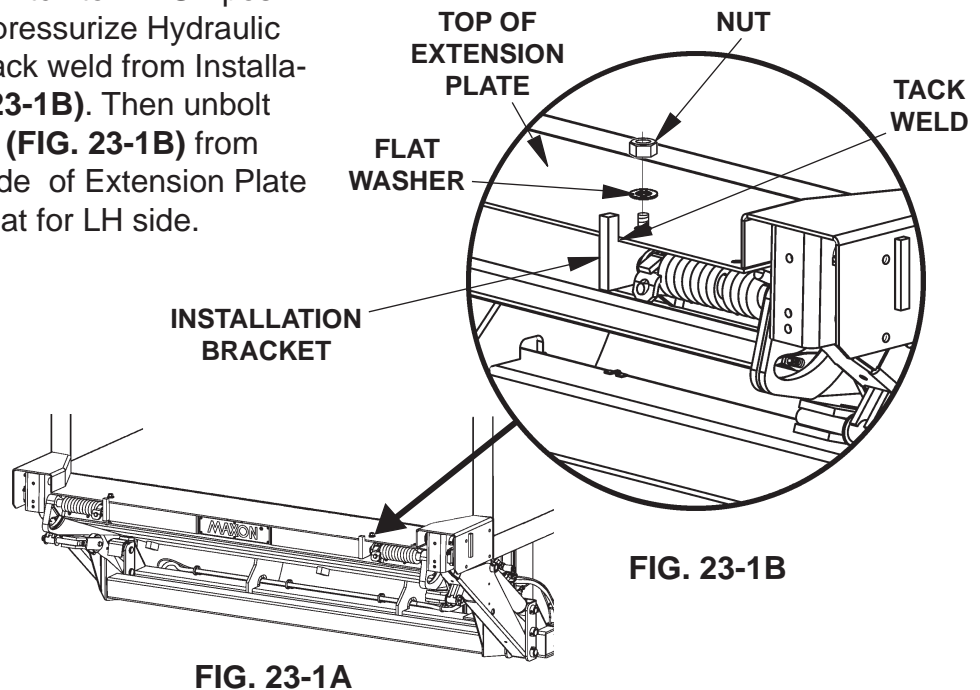
STEP 7 - REMOVE LOCKING BRACKETS

⚠ WARNING

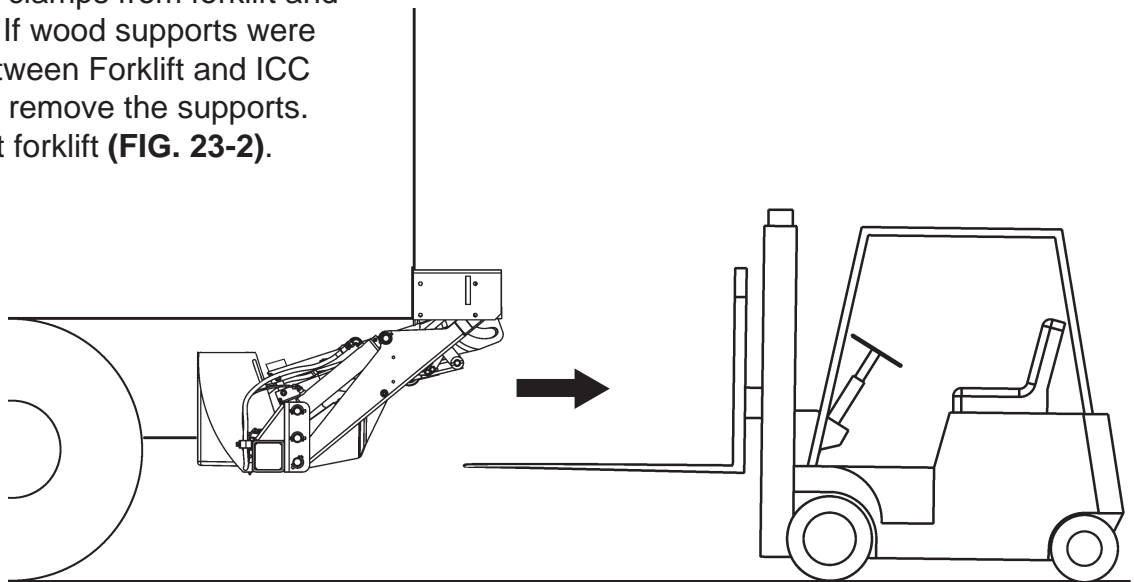
To prevent possible injury, never work in the area under the Platform. Get access to the Locking Angle from the back of the Liftgate.

NOTE: To operate Liftgate, Locking Bracket must be removed.

1. Push the Control Switch to **RAISE** position to moderately pressurize Hydraulic System. Remove tack weld from Installation Bracket (**FIG. 23-1B**). Then unbolt Installation Bracket (**FIG. 23-1B**) from Right Hand (RH) side of Extension Plate (**FIG. 23-1A**). Repeat for LH side.

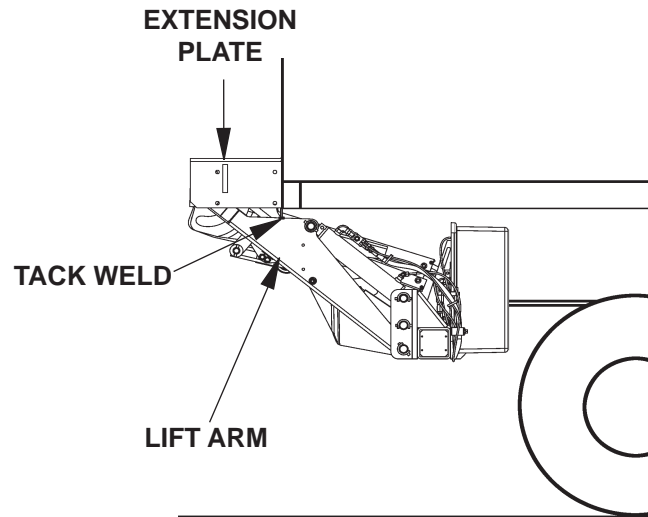


2. Remove clamps from forklift and Liftgate. If wood supports were used between Forklift and ICC Bumper, remove the supports. Back out forklift (**FIG. 23-2**).



STEP 7 - REMOVE LOCKING BRACKETS - Continued

3. Remove tack weld between each Lift Arm and Extension Plate (**FIG. 24-1**). Repeat for LH Side of Liftgate.



**REMOVING TACK WELD
(RH SIDE OF LIFTGATE SHOWN)
FIG. 24-1**

4. Lower the Liftgate to ground level. Remove both Installation Brackets. Keep both Brackets in case Liftgate needs to be repositioned (**FIGS. 24-2A & 24-2B**).

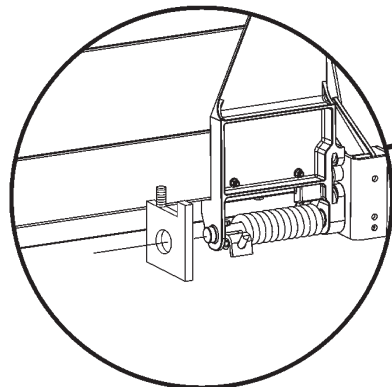


FIG. 24-2B

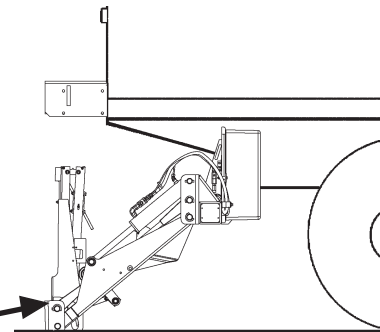


FIG. 24-2A

STEP 7 - REMOVE LOCKING BRACKETS - Continued

5. Unfold Platform and Flipover (FIG. 25-1).

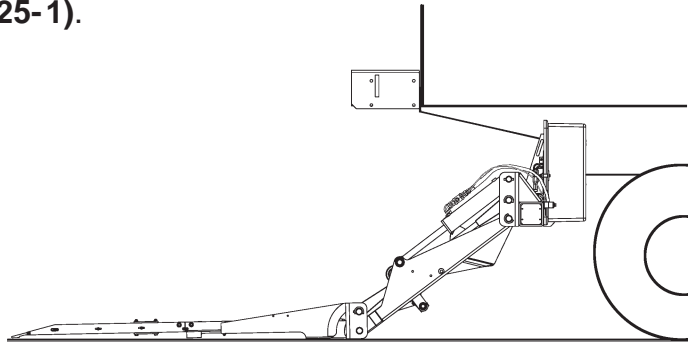


FIG. 25-1

CAUTION

To prevent damage to Liftgate, the locking bracket on each cylinder must be removed before operating Liftgate.

6. Unbolt the Locking Brackets from both Cylinders (FIG. 25-2).

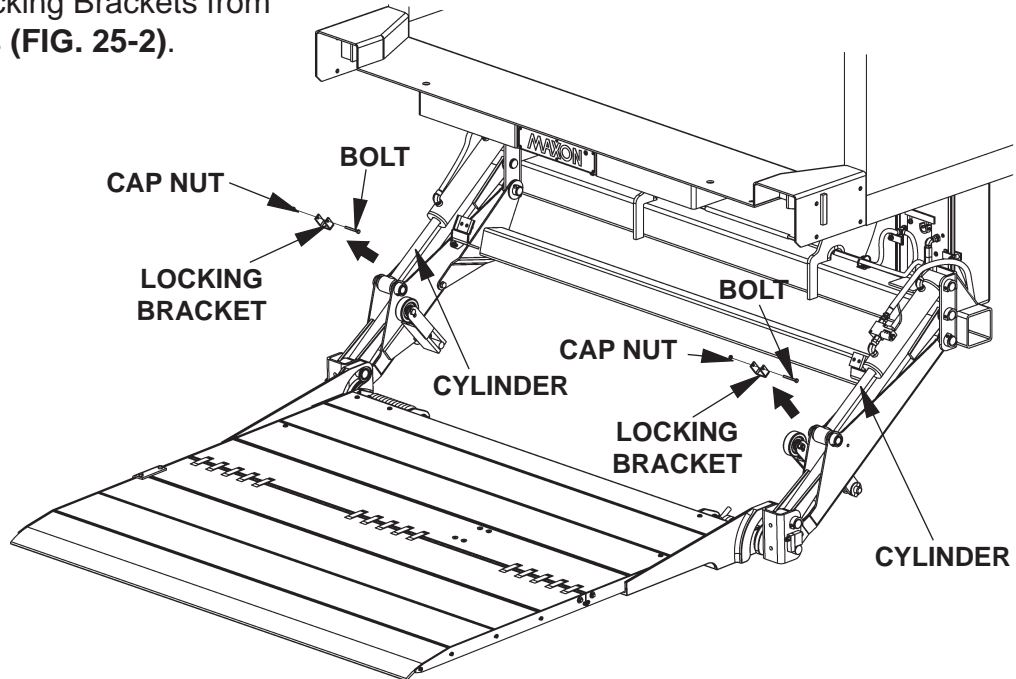


FIG. 25-2

STEP 7 - REMOVE LOCKING BRACKETS - Continued

7. Raise the Liftgate to Vehicle Bed Height. Check if Extension Plate interferes with Lifting Arm (**FIG. 26-1**).

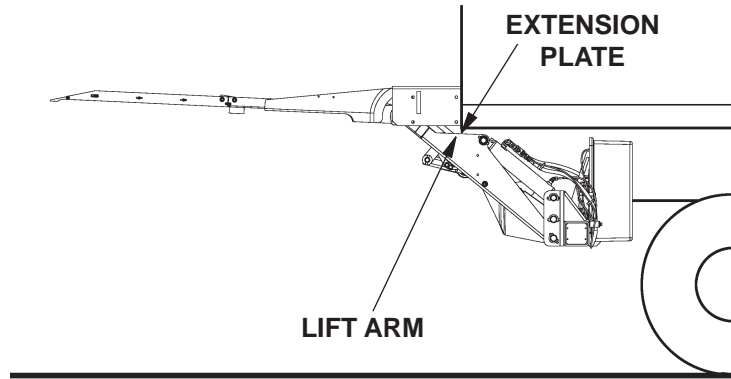
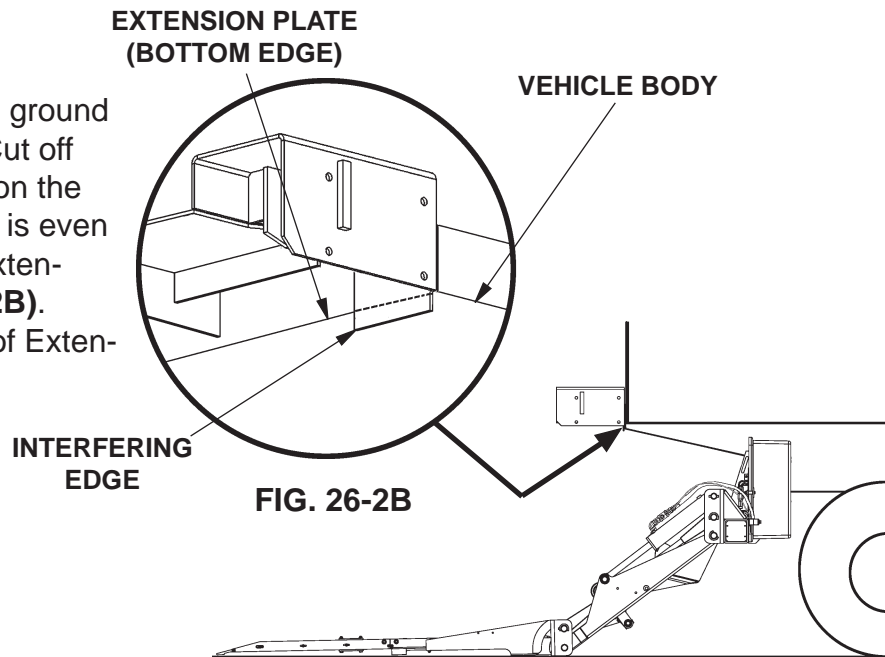


FIG. 26-1

8. Lower the Liftgate to ground level (**FIG. 26-2A**). Cut off the interfering edge on the Extension Plate so it is even with the bottom of Extension Plate (**FIG. 26-2B**). Repeat for LH Side of Extension Plate.



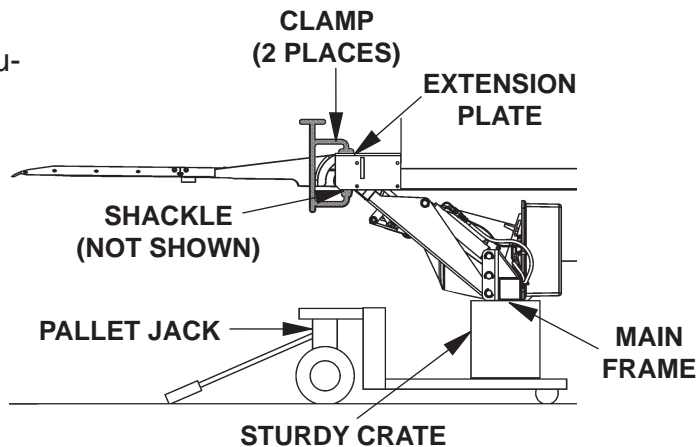
**PLATFORM AT GROUND LEVEL
(RH SIDE SHOWN)
FIG. 26-2A**

STEP 8 - FINISH WELDING EXTENSION PLATE

CAUTION

When using electrical welder to weld on Extension Plate, make sure the welder ground lead is connected directly to the Extension Plate, as close as possible to the place being welded. Failure to comply can result in damaged cylinders and electrical parts.

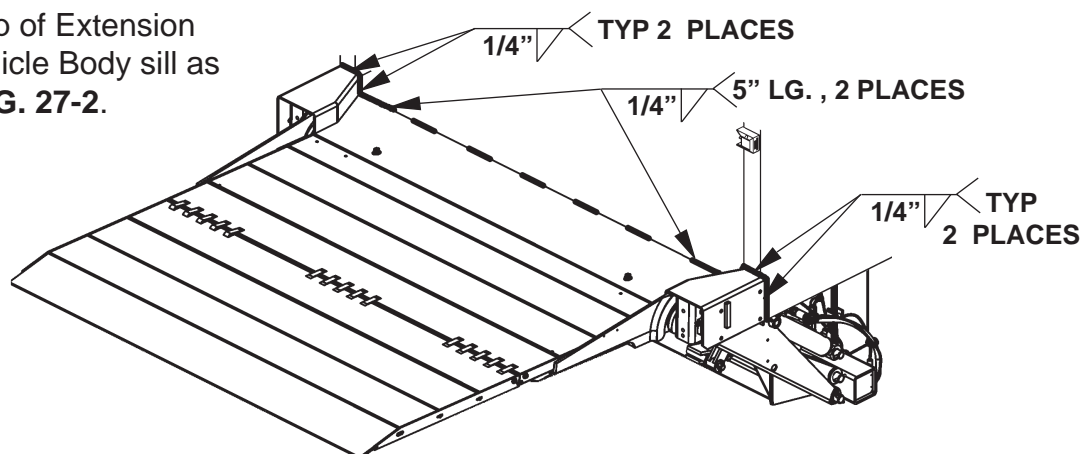
1. **RAISE** the Platform to bed level under moderate hydraulic pressure (**FIG. 27-1**).



**SUPPORTING PLATFORM & MAIN FRAME
(GPTLR-25 SHOWN)
FIG. 27-1**

3. Clamp the Shackles to Extension Plate (**FIG. 27-1**).

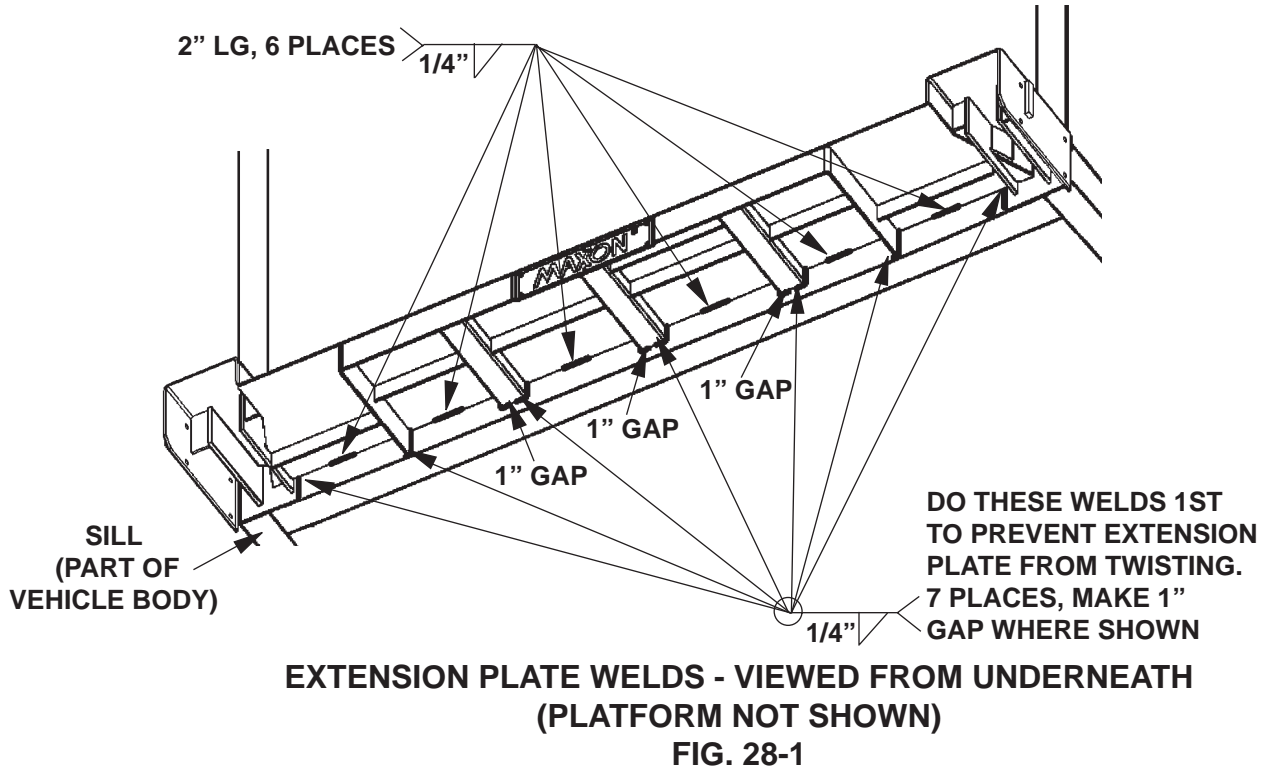
4. Weld the top of Extension Plate to Vehicle Body sill as shown in **FIG. 27-2**.



**EXTENSION PLATE WELDS - VIEWED FROM ABOVE
(FORKLIFT NOT SHOWN)
FIG. 27-2**

STEP 8 - FINISH WELDING EXTENSION PLATE - Continued

5. Weld the bottom of Extension Plate to Vehicle Body sill as shown in **FIG. 28-1**.



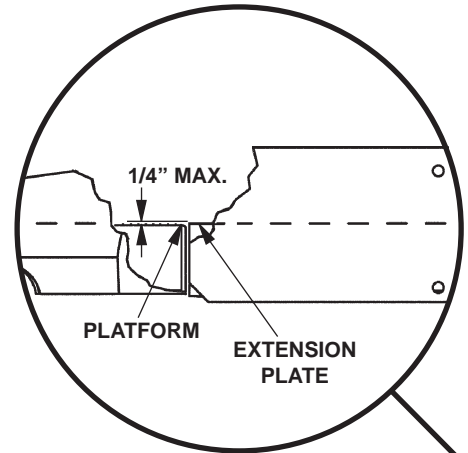
STEP 9 - ADJUST PLATFORM (IF REQUIRED)

NOTE: In most cases, if Liftgate is installed according to the instructions in this manual, Platform will not require adjustment. Use the following instructions to check the Platform. Then adjust the Platform only if required.

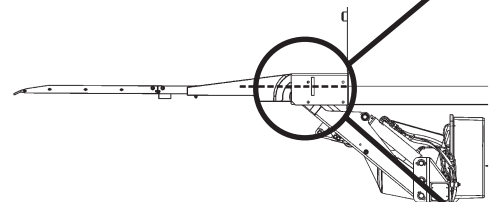
NOTE: Before doing the following procedure, make sure vehicle is still parked on level ground.

- 1. RAISE** Platform to bed height. Check the Platform as follows. Inboard edge on top of Platform must be no more than 1/4" from diamond plate surface on top of Extension Plate (**FIGS. 29-1A & 29-1B**). The maximum allowable horizontal gap between inboard edge of Platform and adjacent edge of Extension Plate is 1/4" (**FIGS. 29-1A & 29-1C**). **LOWER** Platform to ground level. Shackles and tip of Flipover should touch the ground at the same time (**FIG. 29-2**). Tip of Flipover must not be higher than 1/4" above the ground. If all indications are correct (**FIGS. 29-1A, 29-1B, 29-1C, & 25-2**), Liftgate is installed correctly and no adjustment is needed. If the Tip of Flipover is too high above the ground, if Shackles are off the ground, or if there is too much gap between Platform and Extension Plate, continue doing this procedure.

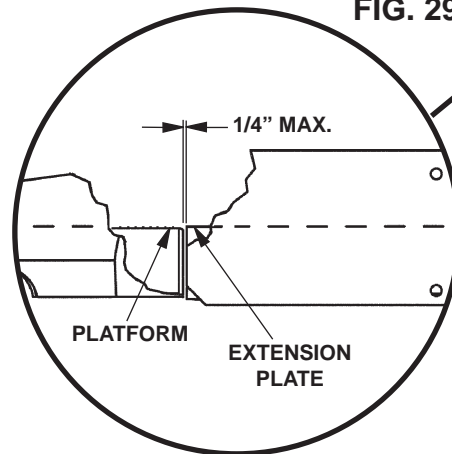
NOTE: If the Shackles do not touch the ground (see **FIG. 26-1**), do instruction 2. If the Tip of the Flipover is more than 1/4" above the ground (see **FIG. 29-2**), skip instructions 2 - 5 and do instruction 6. If there is too much vertical space (**FIG. 29-1B**) or horizontal space (**FIG. 29-1C**) between Platform and Extension Plate, start with instruction 7 to remove and reinstall Liftgate.



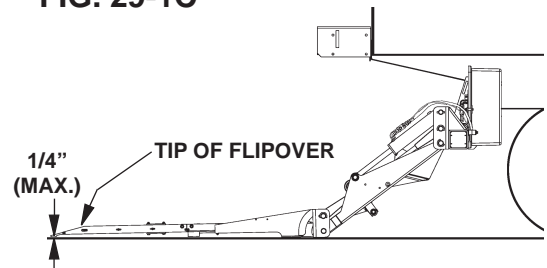
VERTICAL GAP
FIG. 29-1B



PLATFORM AT
BED LEVEL
FIG. 29-1A



HORIZONTAL GAP
FIG. 29-1C



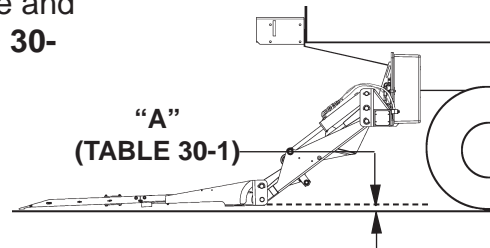
PLATFORM & SHACKLES
TOUCH GROUND
FIG. 29-2

STEP 9 - ADJUST PLATFORM (IF REQUIRED) - Continued

2. Make sure Platform is still at ground level. If the Shackles are not touching the ground, measure and compare distance "A" (FIG. 30-1) with TABLE 30-1 to determine the correct shim.

RAISE TIP OF FLIPOVER THIS DISTANCE "A"	REQUIRED SHIM THICKNESS	WELD SIZE "W"
1"	1/16"	1/32"
2"	1/8"	1/16"

TABLE 30-1



**SHACKLES DO NOT TOUCH GROUND
FIG. 30-1**

3. Fold the Flipover and Platform. Then raise the Platform to position shown in FIG. 30-2A.

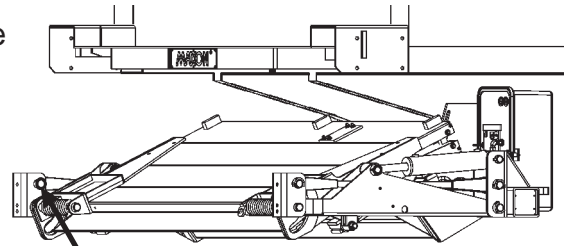


FIG. 30-2A

CAUTION

When using electrical welder to weld on Pin, make sure the welder ground lead is connected directly to the Pin, as close as possible to the place being welded. Failure to comply can result in damaged cylinders and electrical parts.

4. Use TABLE 30-1 to select the correct size shim and refer to TABLE 30-1 for the correct shim to get from the Parts Box. Weld shim to Pin as shown in FIG. 30-2B.

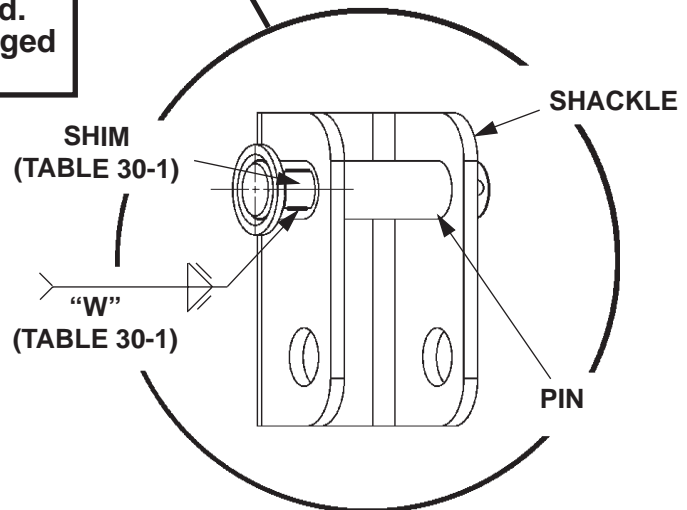
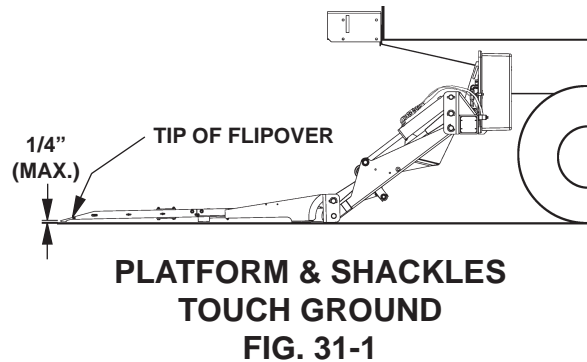


FIG. 30-2B

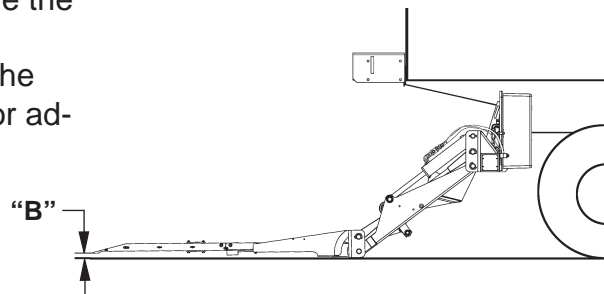
STEP 9 - ADJUST PLATFORM (IF REQUIRED) - Continued

5. Lower Platform to the ground. Unfold Platform and Flipover. **RAISE** the Platform to bed height, then **LOWER** it to the ground. The tip of Flipover and Shackle should touch the ground as shown in **FIG. 31-1**. Tip of Flipover must not be higher than 1/4" above the ground.



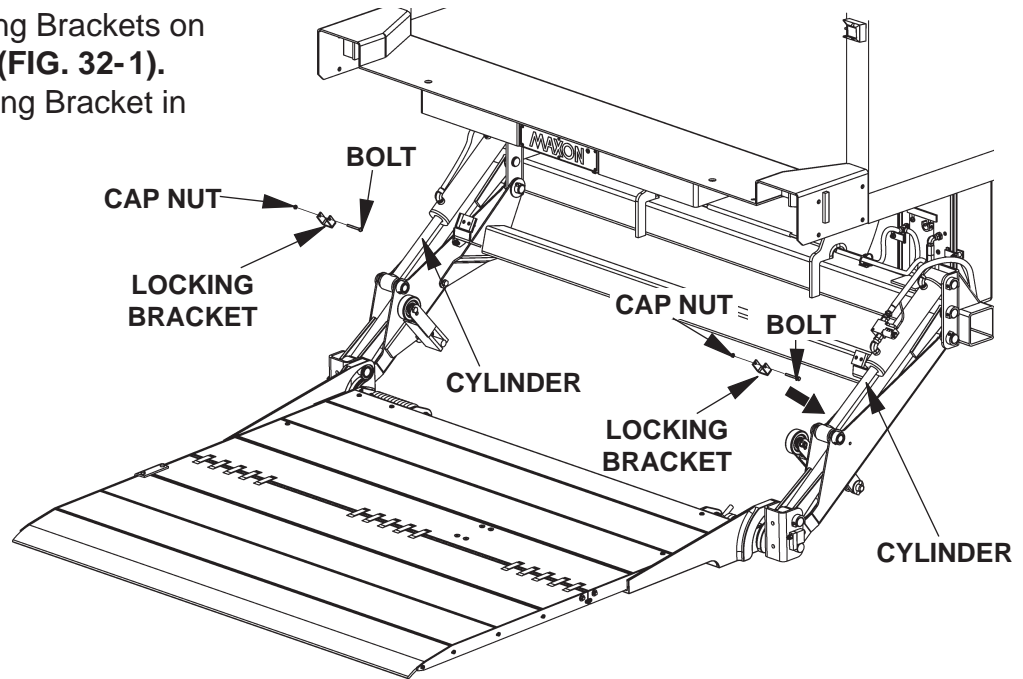
NOTE: For an Aluminum Platform & Flipover equipped with Retention Ramp, 2" of ground clearance is acceptable at the tip of Flipover.

6. If the tip of Flipover is more than 1/4" above the ground (**FIG. 31-2**), note the distance "B" above ground level. See the exception in the **NOTE** above. Distance "B" will be used for adjusting the Platform later in this procedure.



STEP 9 - ADJUST PLATFORM (IF REQUIRED) - Continued

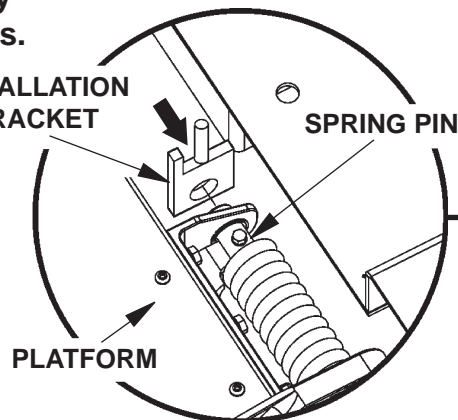
7. Reinstall Locking Brackets on both Cylinders (**FIG. 32-1**). Bolt each Locking Bracket in place.



**REINSTALLING LOCKING BRACKETS
FIG. 32-1**

8. Review the **WARNING** page at the front of this manual before continuing this procedure. **Stay clear of moving Liftgate parts.**

9. **RAISE** Platform to position just below Extension Plate (see **FIG. 32-2A**). Place an Installation Bracket on the Spring Pin on the RH Side of Platform (**FIG. 32-2B**) and on the Spring Pin on the LH Side of Platform.



**INSTALLATION BRACKET
(RH SIDE SHOWN)
FIG. 32-2B**

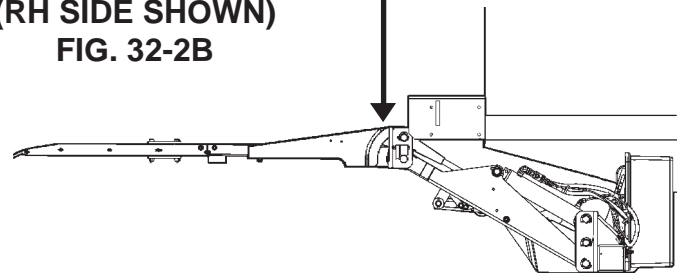
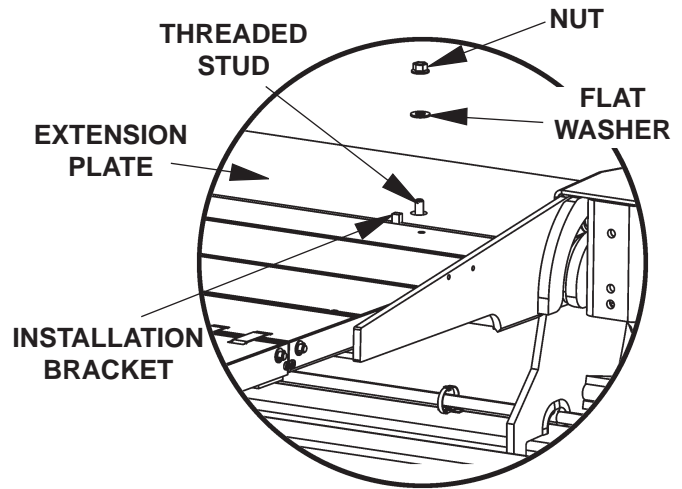


FIG. 32-2A

STEP 9 - ADJUST PLATFORM (IF REQUIRED) - Continued

10. Carefully **RAISE** the Platform to Vehicle Bed Height. Make sure threaded stud on each Installation Bracket comes up through hole in Extension Plate (**FIG. 33-1**). Bolt the Installation Bracket (**FIG. 33-1**) to Extension Plate. Torque nut from **39 to 59 LBS.-FT.** Repeat for bolting and torquing the Installation Bracket on the LH Side.

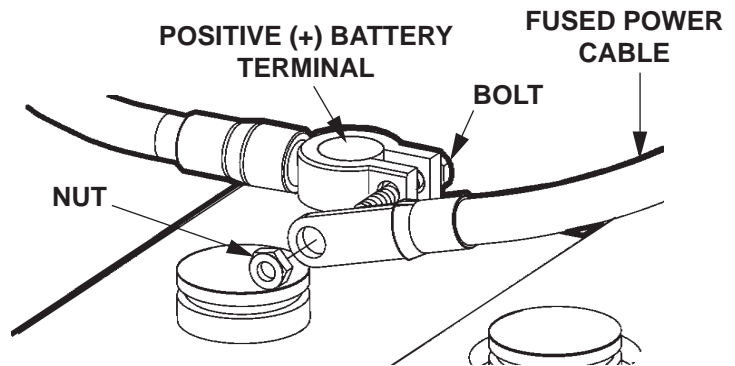


**INSTALLATION BRACKET
(RH SIDE SHOWN)
FIG. 33-1**

⚠ **WARNING**

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

11. Disconnect power from Liftgate by removing nut from positive (+) battery terminal connector and disconnect Power Cable (**FIG. 33-2**). Reinstall nut on positive (+) battery terminal connector.

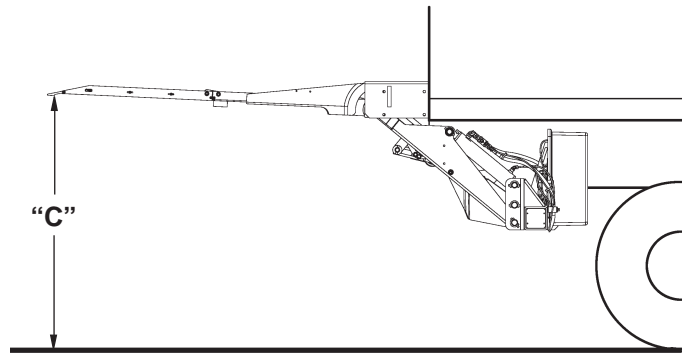


**DISCONNECTING BATTERY
FIG. 33-2**

STEP 9 - ADJUST PLATFORM (IF REQUIRED) - Continued

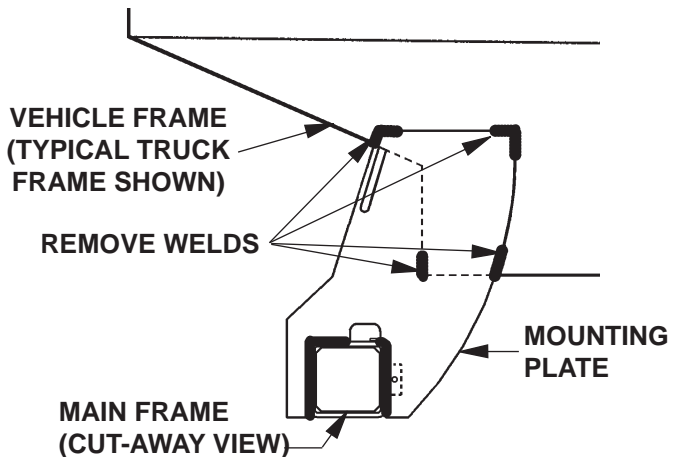
12. Support the Liftgate under Main Frame with a floor jack.

13. Measure distance “C” from the tip of the Flipover to ground level (FIG. 34-1). Then subtract the distance “B” measured in instruction 6. The result is distance “D” for the Platform adjustment (FIG. 34-3). For example, if you measured 50” for “C” and 1” for “B”, the calculated distance “D” for the Platform adjustment is 49”.



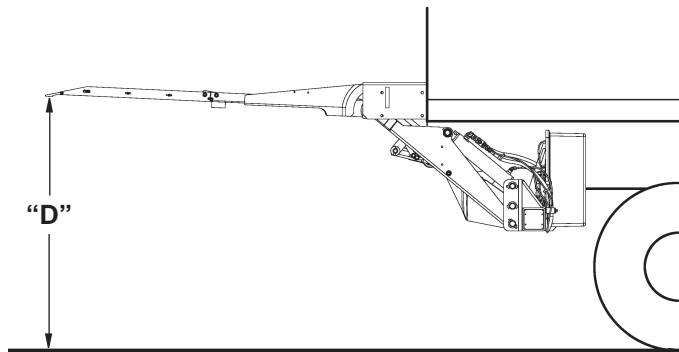
**LIFTGATE CLEARANCE DIMENSIONS
FIG. 34-1**

14. Remove welds from RH Side and LH Side Mounting Plates (FIG. 34-2).



**REMOVING WELDS FROM MOUNTING PLATE
(RH SIDE SHOWN)
FIG. 34-2**

15. Raise or lower the floor jack to adjust distance “D” between tip of Flipover and ground level (FIG. 34-3). Use the distance “D” calculated in instruction 12.



**LIFTGATE CLEARANCE DIMENSIONS
FIG. 34-3**

STEP 9 - ADJUST PLATFORM (IF REQUIRED) - Continued

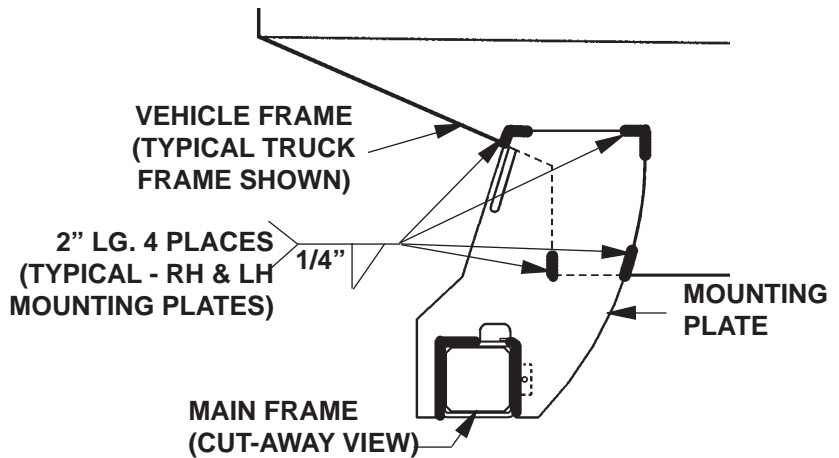
CAUTION

When using electrical welder to weld on Mounting Plates, make sure the welder ground lead is connected directly to the Mounting Plate, as close as possible to the place being welded. Failure to comply can result in damaged cylinders and electrical parts.

CAUTION

Prevent damaged hydraulic hoses and saddles. Before welding next to hydraulic hoses and saddles, protect the hoses and saddles with a heat-resistant cover.

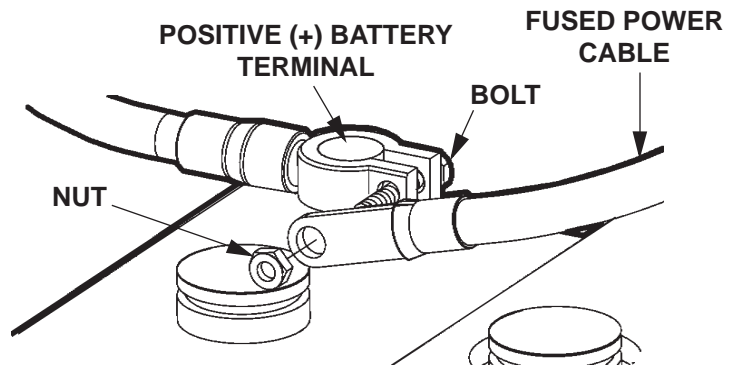
16. Clamp the RH Side and LH Side Mounting Plates to vehicle frame. Weld the Mounting Plates to vehicle frame as shown in **FIG. 35-1**.
1. Remove clamps.



**WELD TO VEHICLE FRAME AND MAIN FRAME
(RH SIDE SHOWN)**

FIG. 35-1

17. Connect power to Liftgate by removing nut from positive (+) battery terminal connector and connect Power Cable (**FIG. 35-2**). Reinstall and tighten nut on positive (+) battery terminal connector.



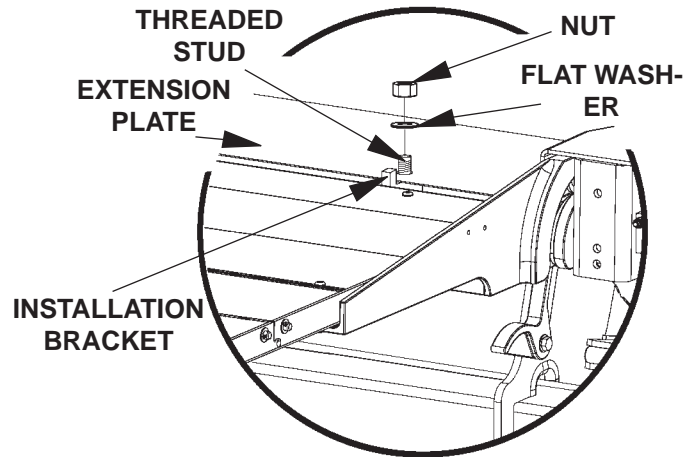
RECONNECTING BATTERY

FIG. 35-2

18. Lower the floor jack and move it away from the Liftgate.

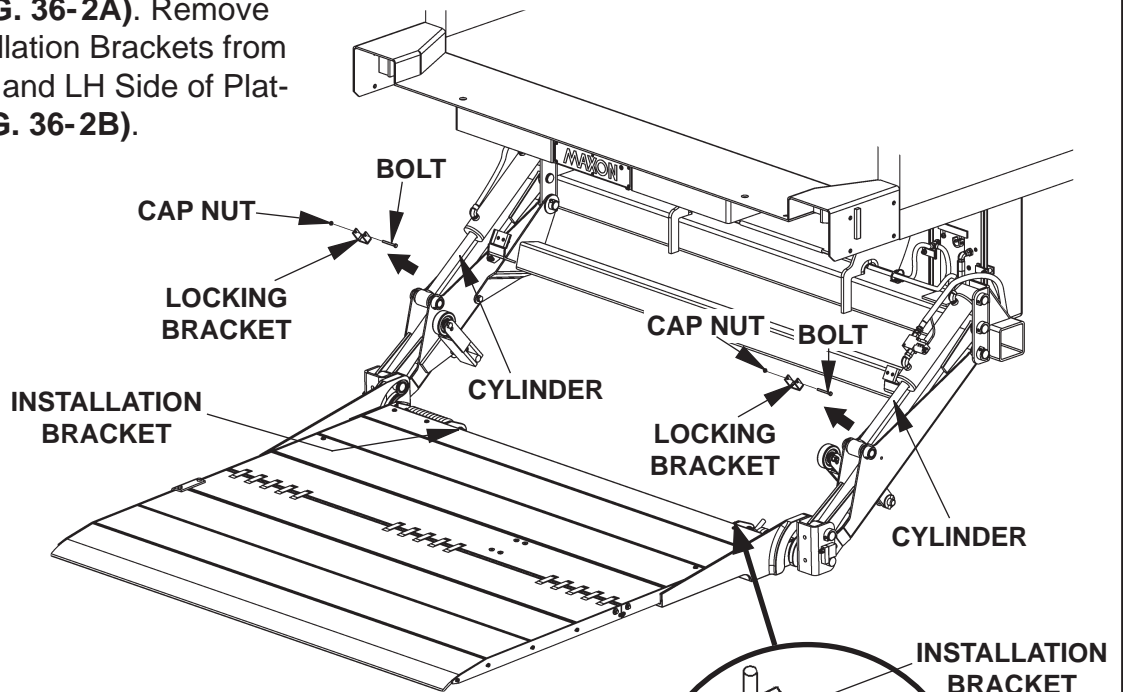
STEP 9 - ADJUST PLATFORM (IF REQUIRED) - Continued

19. Unbolt the Installation Brackets (FIG. 36-1) from RH Side and LH side of Extension Plate.



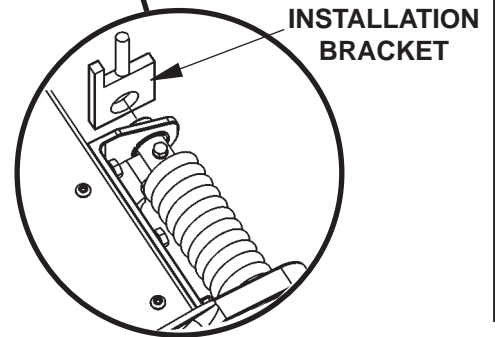
**INSTALLATION BRACKET
(RH SIDE SHOWN)
FIG. 36-1**

20. **LOWER** the Liftgate to ground level (FIG. 36-2A). Remove the Installation Brackets from RH Side and LH Side of Platform (FIG. 36-2B).



**REMOVING LOCKING BRACKETS
FIG. 36-2A**

21. Unbolt the Locking Brackets from both Cylinders (FIG. 36-2). Remove the Locking Brackets.



**REMOVING INSTALLATION
BRACKET (RH SIDE SHOWN)
FIG. 36-2B**

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STEP 10 - FINISH WELDING LIFTGATE TO VEHICLE

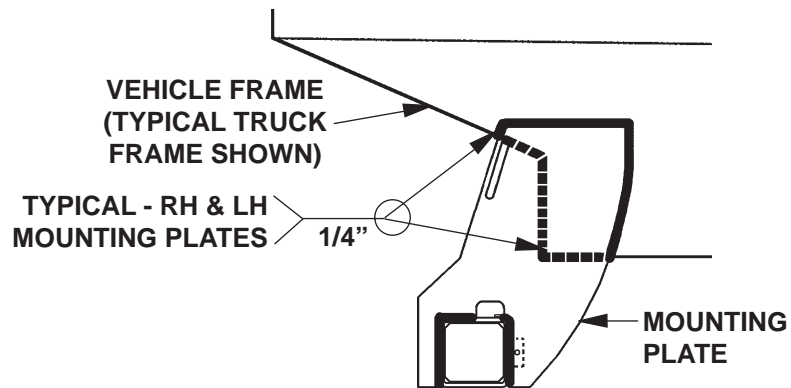
CAUTION

When using electrical welder to weld on Mounting Plates, make sure the welder ground lead is connected directly to the Mounting Plate, as close as possible to the place being welded. Failure to comply can result in damaged cylinders and electrical parts.

CAUTION

Prevent damaged hydraulic hoses and saddles. Before welding next to hydraulic hoses and saddles, protect the hoses with a heat-resistant cover and remove the saddles from the Liftgate.

1. Weld the Mounting Plates to vehicle frame as shown in **FIG. 37-1**.

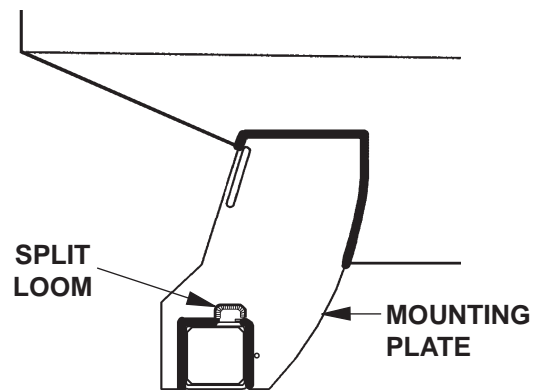


WELD TO VEHICLE FRAME (RH SIDE SHOWN)
FIG. 37-1

⚠ CAUTION

To prevent injury and damaged parts, let Mounting Plate cool off from welding before reinstalling split Loom.

2. Reinstall the Split Looms on RH Side and LH Side Mounting Plates (**FIG. 37-2**).



REINSTALLING SPLIT LOOM (RH SIDE SHOWN)
FIG. 37-2

STEP 11 - WELD TRUCK BODY TO FRAME (TRUCKS ONLY)

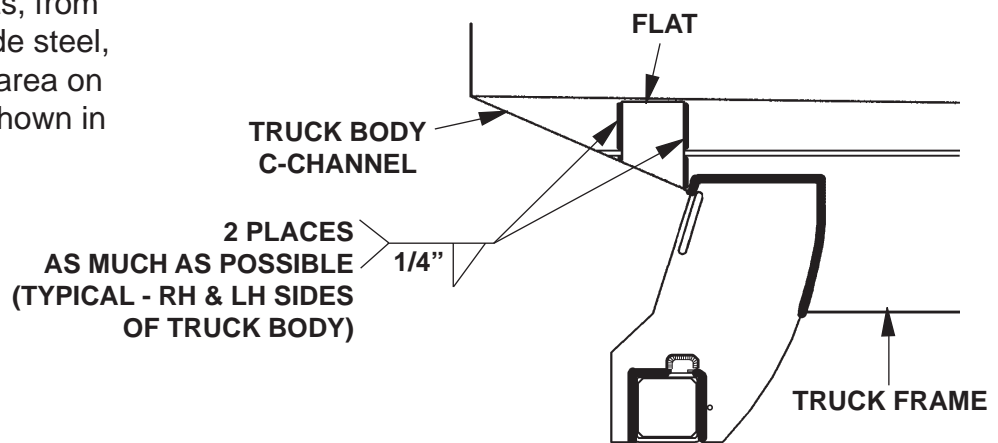
CAUTION

When using electrical welder to weld flats on truck frame, make sure the welder ground lead is connected directly to the flat, as close as possible to the place being welded. Failure to comply can result in damaged cylinders and electrical parts.

CAUTION

To prevent truck body from moving out of position, weld the C-channels on each side of truck body to truck frame.

1. Fabricate two flats, from 1/4" thick x 4" wide steel, that will fit in the area on the truck frame shown in **FIG. 38-1**.

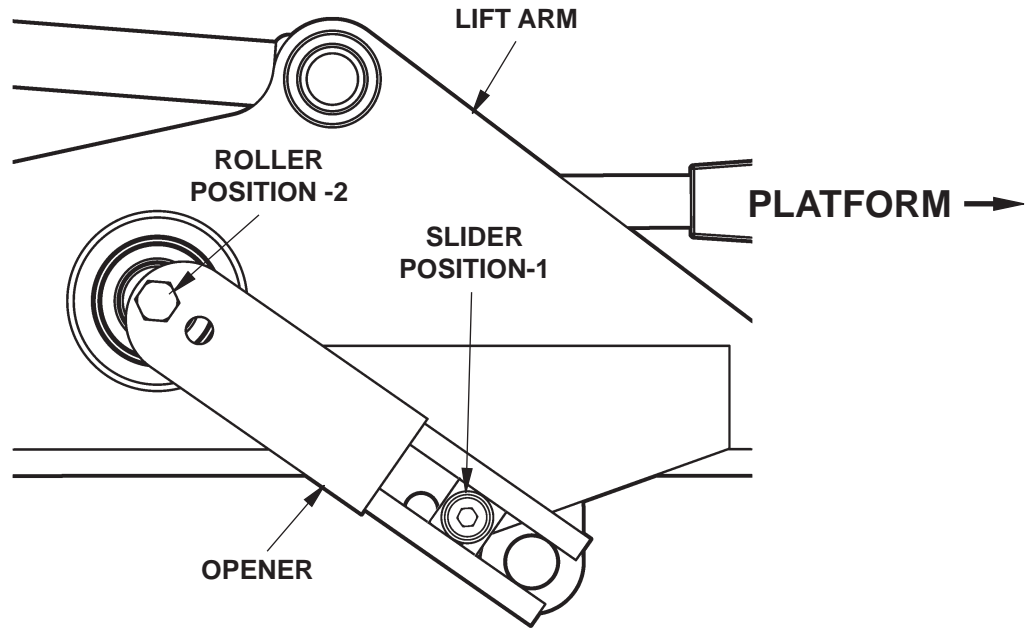


**WELDING TRUCK BODY TO FRAME
(RH SIDE SHOWN)
FIG. 38-1**

2. Weld flat to the truck frame and the C-channel on the right hand side of truck body as shown in **FIG. 38-1**. Repeat for the LH side of the truck body.

STEP 12 - ADJUST OPENER (IF REQUIRED)

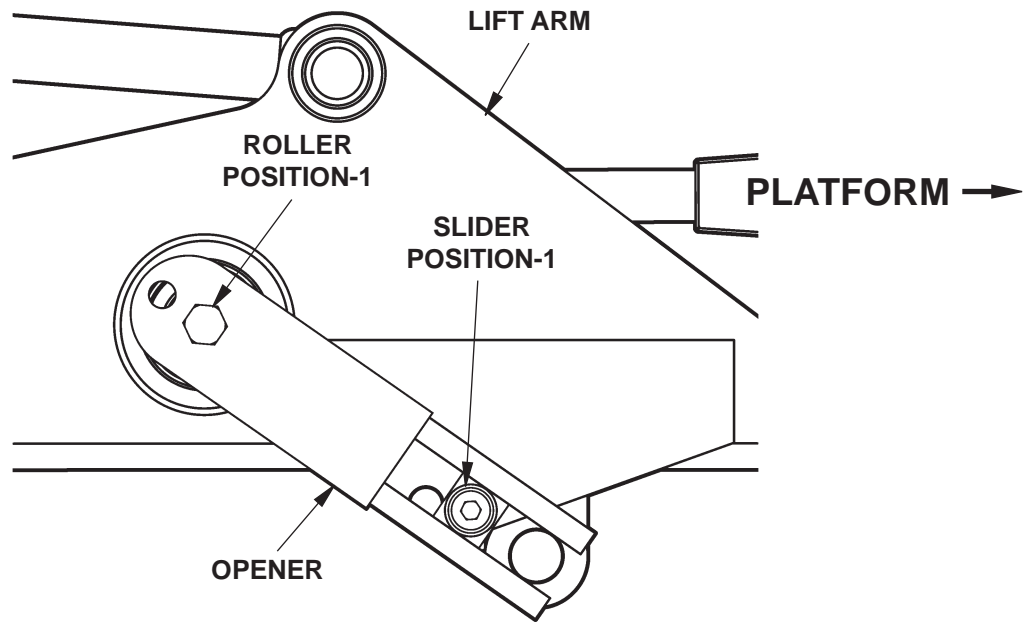
OPENER ADJUSTMENT FOR GPTLR-25 & GPTLR-33
ON 44" - 49" VEHICLE BED HEIGHTS



OPENER WITH ROLLER IN POSITION-2 & SLIDER IN POSITION-1
(INBOARD VIEW OF RH LIFT ARM & OPENER)

FIG. 39-1

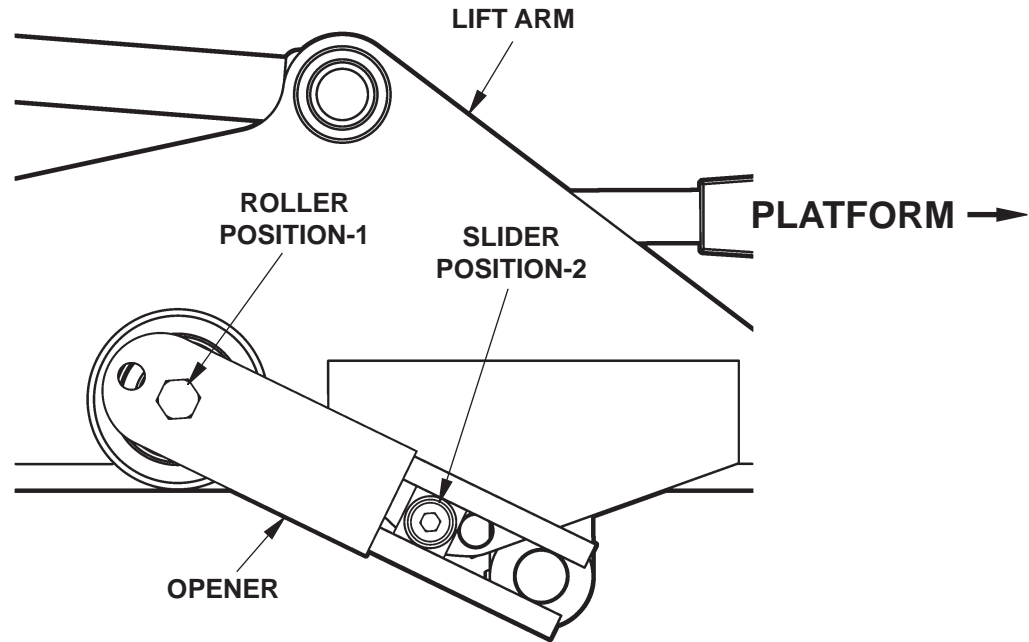
STEP 12 - ADJUST OPENER (IF REQUIRED) - Continued
OPENER ADJUSTMENT FOR GPTLR-25 & GPTLR-33
ON 49"-53" VEHICLE BED HEIGHTS



OPENER WITH ROLLER IN POSITION-1 & SLIDER IN POSITION-1
(INBOARD VIEW OF RH LIFT ARM & OPENER)
FIG. 40-1

STEP 12 - ADJUST OPENER (IF REQUIRED) - Continued

OPENER ADJUSTMENT FOR GPTLR-25 & GPTLR-33 ON 53"-55" VEHICLE BED HEIGHTS

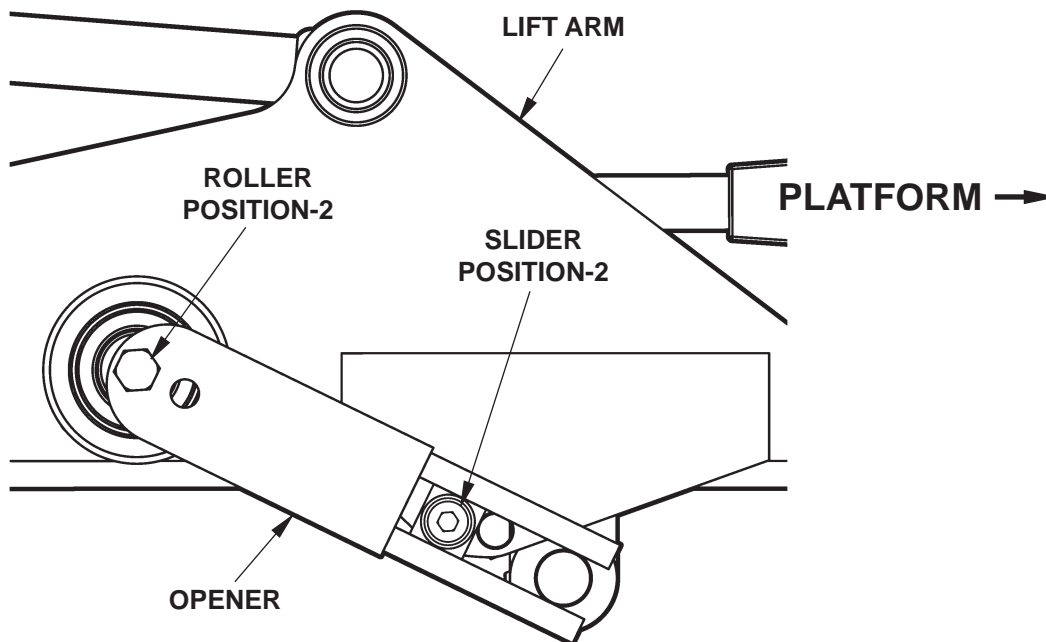


OPENER WITH ROLLER IN POSITION-1 & SLIDER IN POSITION-2
(INBOARD VIEW OF RH LIFT ARM & OPENER)

FIG. 41-1

STEP 12 - ADJUST OPENER (IF REQUIRED) - Continued

OPENER ADJUSTMENT FOR GPTLR-25 & GPTLR-33
ON VEHICLE WITH WALK RAMP, 44"-55" BED HEIGHTS

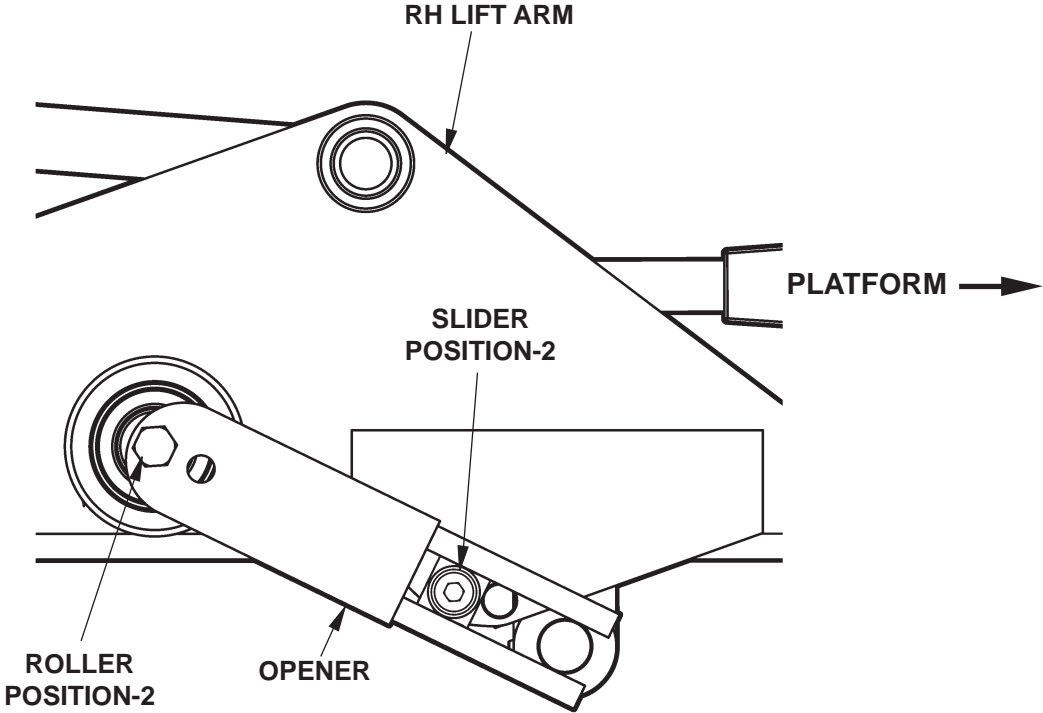


OPENER WITH ROLLER IN POSITION-2 & SLIDER IN POSITION-2
(INBOARD VIEW OF RH LIFT ARM & OPENER)

FIG. 42-1

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STEP 12 - ADJUST OPENER (IF REQUIRED) - Continued
GPTLR-44 & GPTLR-55 ON 44"-49" BED HEIGHTS



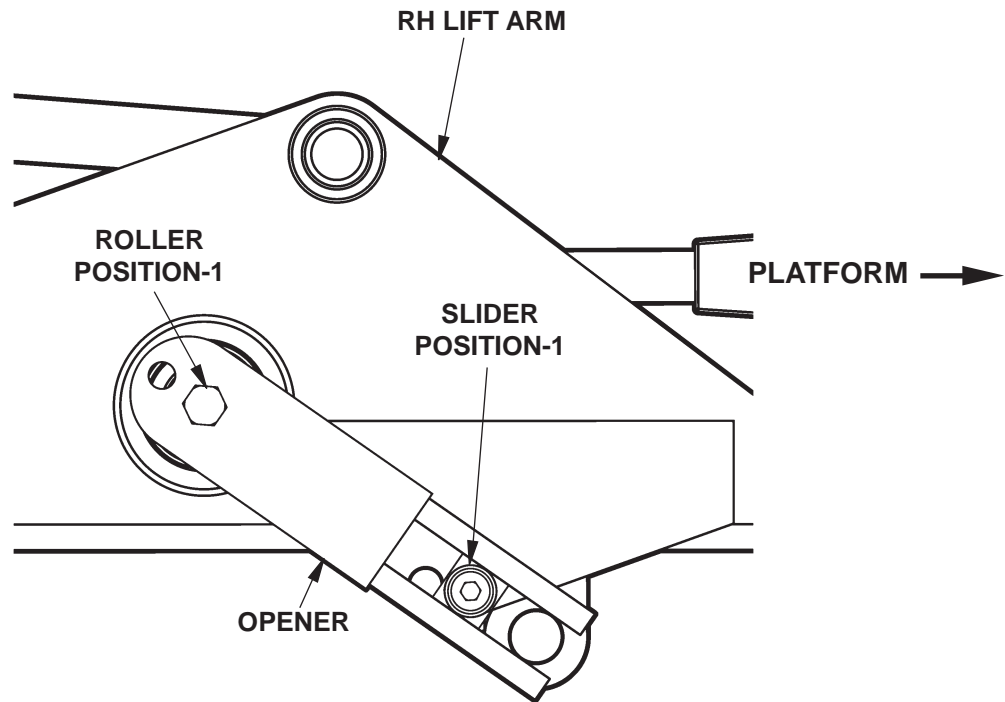
OPENER WITH ROLLER IN POSITION-2 & SLIDER IN POSITION-2
(INBOARD VIEW OF RH LIFT ARM & OPENER)
FIG. 43-1

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STEP 12 - ADJUST OPENER (IF REQUIRED) - Continued

GPTLR-44 & GPTLR-55 ON 49"-55" BED HEIGHTS

NOTE: Platform Openers on GPTLR-44 & GPTLR-55 Liftgates are set at the factory for Vehicle Bed Heights of 49"-55".



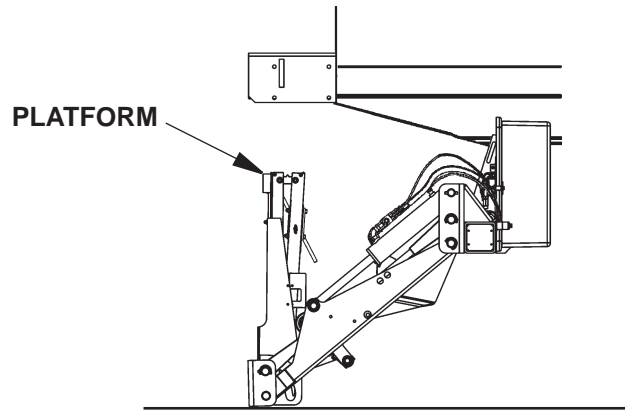
**OPENER WITH ROLLER IN POSITION-1
(INBOARD VIEW OF RH LIFT ARM & OPENER)
FIG. 44-1**

STEP 12 - ADJUST OPENER (IF REQUIRED) - Continued

REPOSITIONING OPENER ROLLER & SLIDER

NOTE: Roller and Slider on each of the two Openers can be repositioned to best open the Platform when Vehicle Bed Heights are 44"-55". Repositioning the Roller will change the Platform opening position the most. The Slider, when repositioned, will change the Platform opening position the least. In any case, the Platform must always stow and unfold without hitting underside of Vehicle. Platform should unfold as close as possible to position shown in FIG. 45-1, but must never be positioned so it falls open.

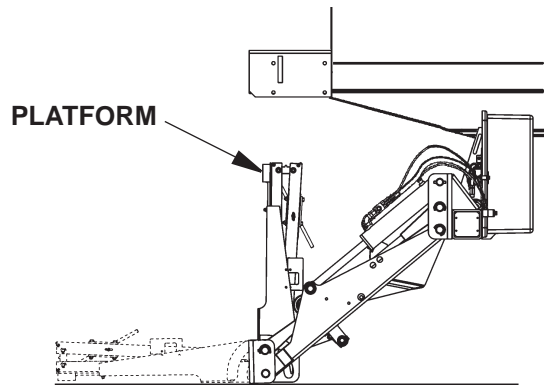
1. The **MAXON-recommended** procedure for repositioning the Opener Roller and Slider is as follows. Lower the Platform from stowed position (**FIG. 45-1**).



PLATFORM LOWERED FROM STOWED POSITION (RH SIDE VIEW)
FIG. 45-1

⚠ CAUTION
To prevent injury, unfold Platform before repositioning Rollers on Openers.

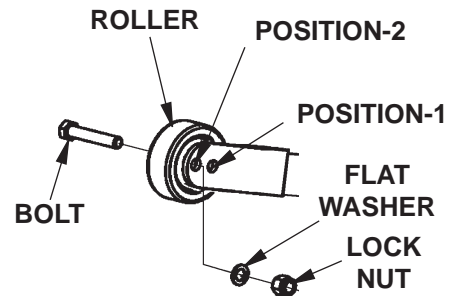
2. Unfold the Platform (**FIG. 45-2**).



UNFOLDING PLATFORM
FIG. 45-2

STEP 12 - ADJUST OPENER (IF REQUIRED) - Continued

3. Unbolt Roller from Opener (**FIG. 46-1**).
Move Roller to position-1 or position-2 as required (**FIG. 46-1**). Bolt Roller to Opener.
Torque the 1/2"-13 opener bolt to **85 LBS.-FT.**
Repeat instruction for Opener on LH Lift Arm.

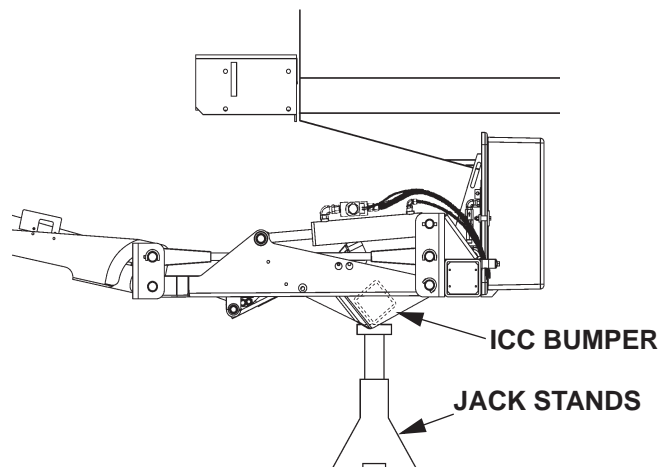


**BOLTING/UNBOLTING ROLLER
(RH SIDE ROLLER SHOWN)
FIG. 46-1**

⚠ WARNING

Use jack stands to support Liftgate while performing this procedure.

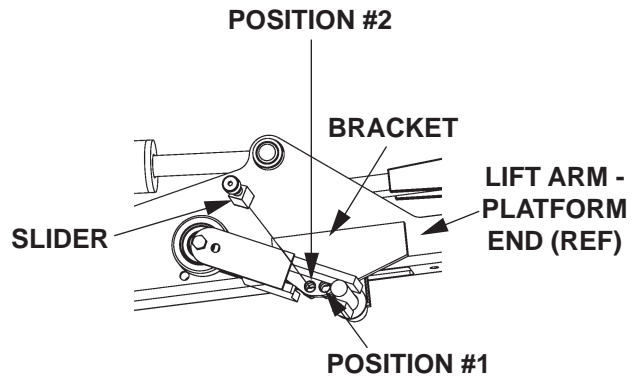
4. Raise the Platform enough to gain access to lock nut on each Slider (**FIG. 46-2**). Use jack stands, positioned below ICC Bumper, to support Liftgate (**FIG. 46-2**).



**PLATFORM POSITIONED FOR ACCESS
(RH SIDE SHOWN)
FIG. 46-2**

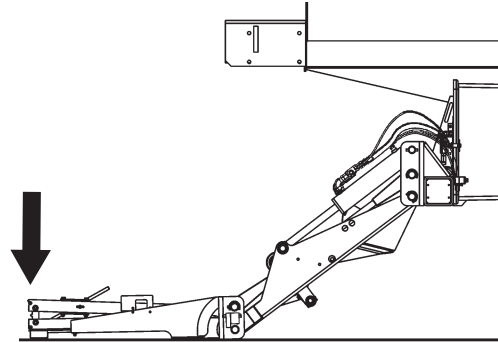
STEP 12 - ADJUST OPENER (IF REQUIRED) - Continued

5. Unbolt the Slider from Bracket (**FIG. 47-1**). Move the Slider to position-1 or position-2 on Bracket, as required (**FIG. 47-1**). Fasten the Slider to Bracket with 1/2"-13 lock nut. Then torque lock nut to **85 LBS.-FT.** Repeat instruction for Opener on LH Lift Arm.



**REPOSITIONING SLIDER ON
GPTLR-25 & GPTLR-33 ONLY
(INBOARD VIEW OF RH LIFT ARM & OPENER)
FIG. 47-1**

6. Raise the Liftgate enough to remove jack stands. Then remove the jack stands. Lower the Platform to the ground (**FIG. 47-2**).



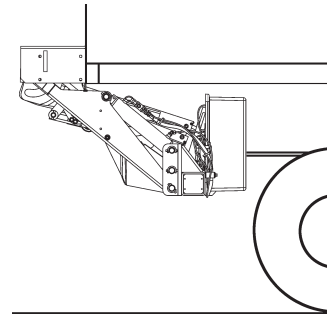
**PLATFORM LOWERED TO THE GROUND
FIG. 47-2**

STEP 13 - BOLT ON STOP BLOCK

CAUTION

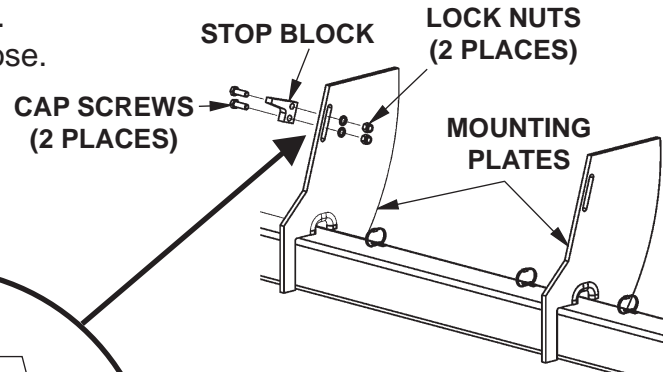
The Opener adjustment in STEP 12 must be done (if required) before reinstalling and adjusting the Saddles. If the Opener is not adjusted before the Saddles, the Platform can be damaged when stowing Liftgate.

1. Stow the Platform under hydraulic pressure (FIG. 48-1).

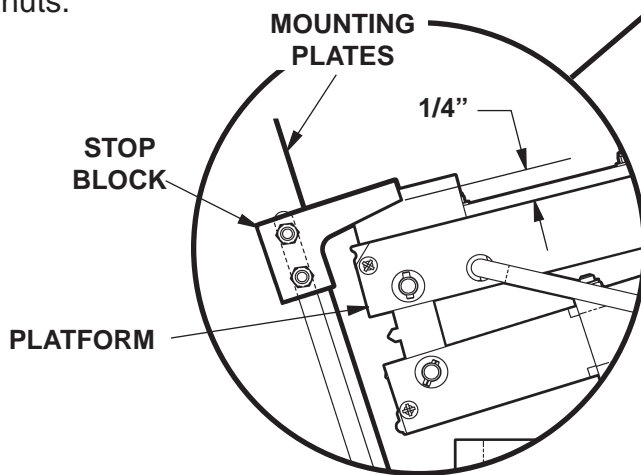


PLATFORM STOWED
FIG. 48-1

2. Bolt the Stop Block (Part Box Item) to the LH Mounting Plate (FIGS. 48-2A & 48-2B). Leave the cap screws and lock nuts loose. Adjust the Stop Block as shown in FIG. 48-2B. Then tighten the 2 cap screws and lock nuts.



BOLTING ON SADDLES
FIG. 48-2A

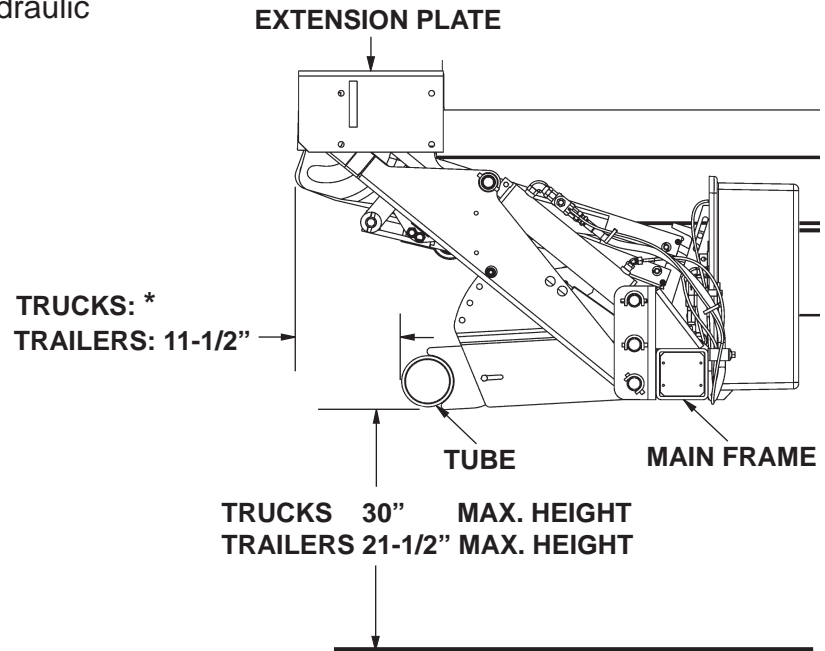


ADJUSTING STOP BLOCK
(LH SIDE SHOWN)
FIG. 48-2B

STEP 14 - ADJUST UNDERRIDE (IF REQUIRED)

NOTE: Liftgate comes with Underride bolted in shipping position (see FIGS. 49-1, 50-1, & 50-2). If your vehicle bed height is shown for the shipping position, the “BALLPARK” ADJUSTMENT is already done.

1. Stow the Liftgate under hydraulic pressure (FIG. 49-1).



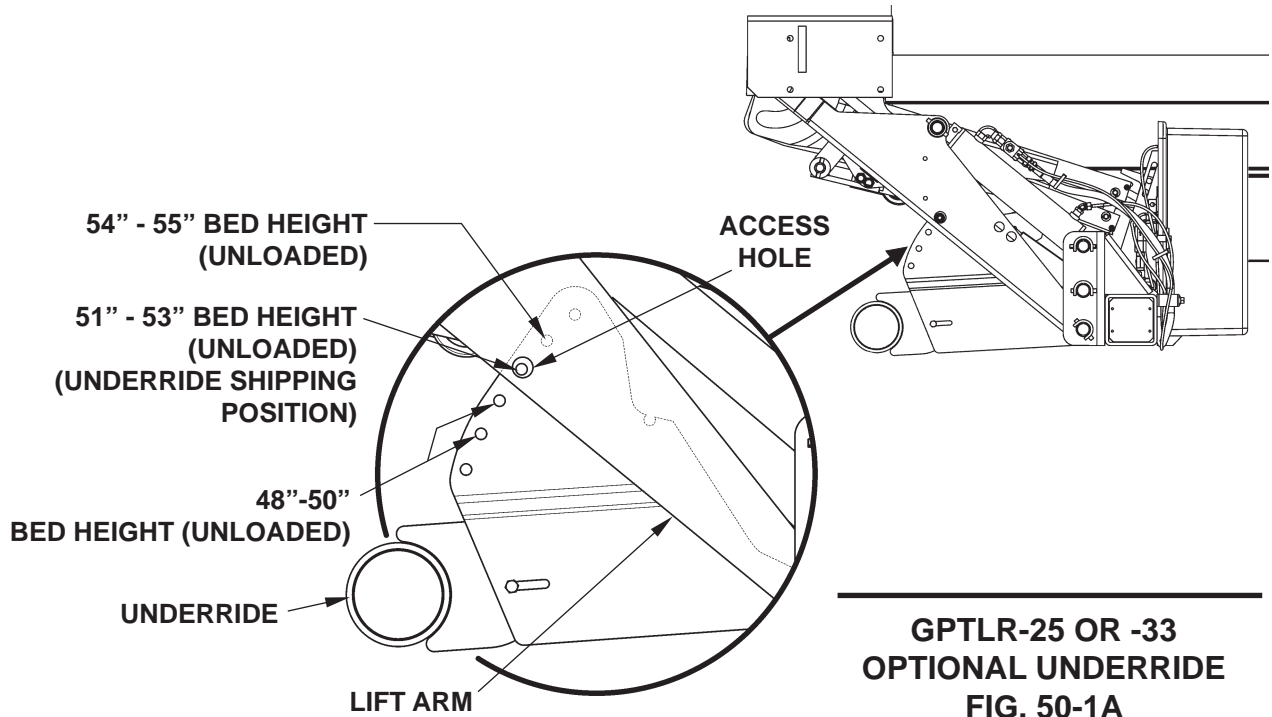
* MAXIMUM DISTANCE FROM THE END OF EXTENSION PLATE

2. Check the Underride for the clearance dimensions shown in FIG. 49-1.

CLEARANCE DIMENSIONS (GPTLR-25 OR -33 UNDERRIDE OPTION, SHOWN) FIG. 49-1

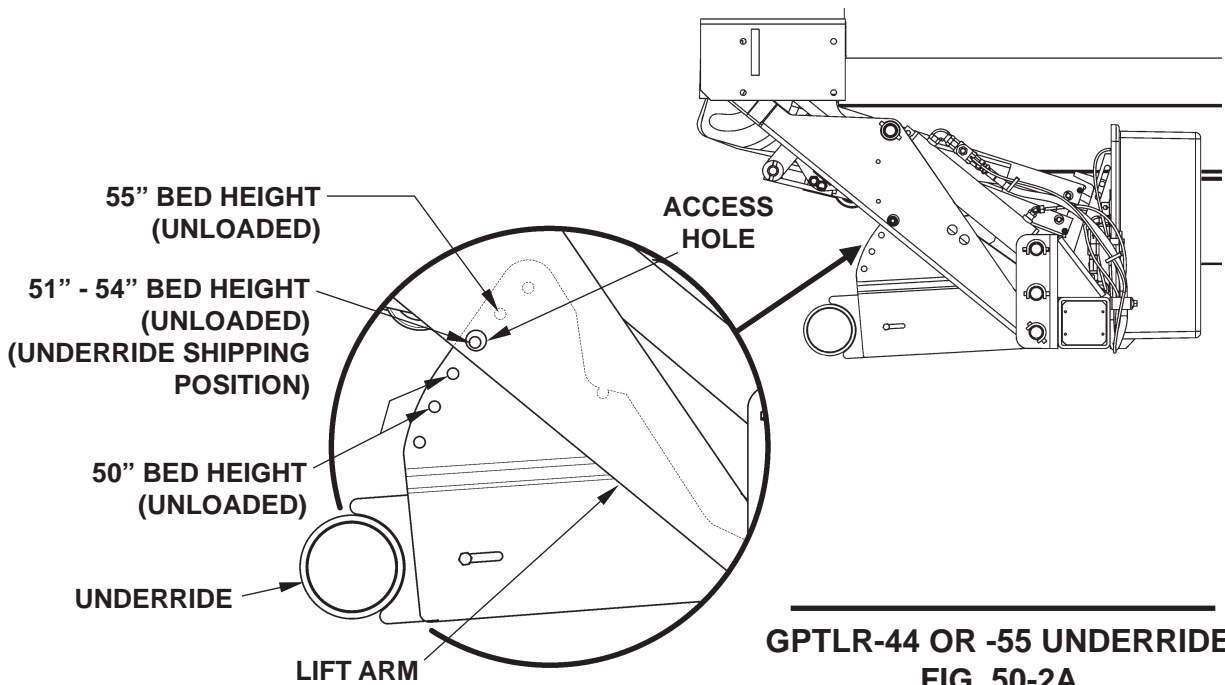
3. Compare the illustrations on the following page with your Liftgate and vehicle bed height. If the Underride shipping position is correct for your Liftgate and bed height, only do the **FINE ADJUSTMENT** starting with step 8. If your bed height is different from those shown for the shipping position, do the “BALLPARK” ADJUSTMENT starting with step 4 and then do the **FINE ADJUSTMENT**.

STEP 14 - ADJUST UNDERRIDE (IF REQUIRED) - Continued



**GPTLR-25 OR -33
OPTIONAL UNDERRIDE
FIG. 50-1A**

**GPTLR-25 & GPTLR-33 UNDERRIDE BRACKET
SETTINGS (RH BRACKET SHOWN)
FIG. 50-1B**



**GPTLR-44 OR -55 UNDERRIDE
FIG. 50-2A**

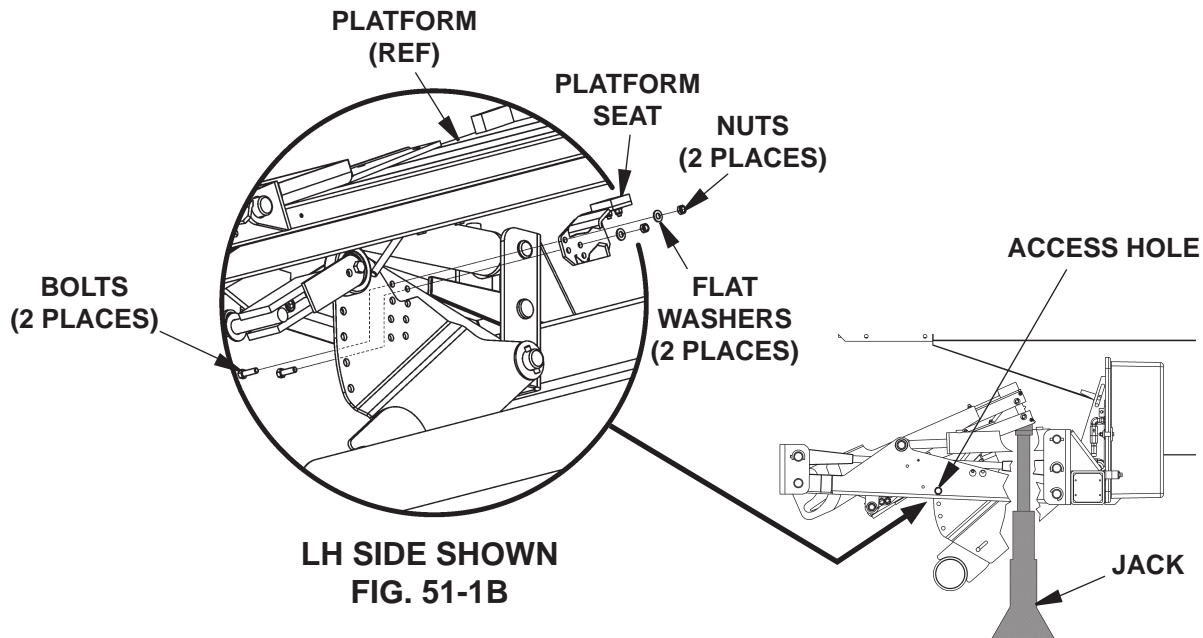
**GPTLR-44 & GPTLR-55 UNDERRIDE BRACKET
SETTINGS (RH BRACKET SHOWN)
FIG. 50-2B**

STEP 14 - ADJUST UNDERRIDE (IF REQUIRED) - Continued

“BALLPARK” ADJUSTMENT

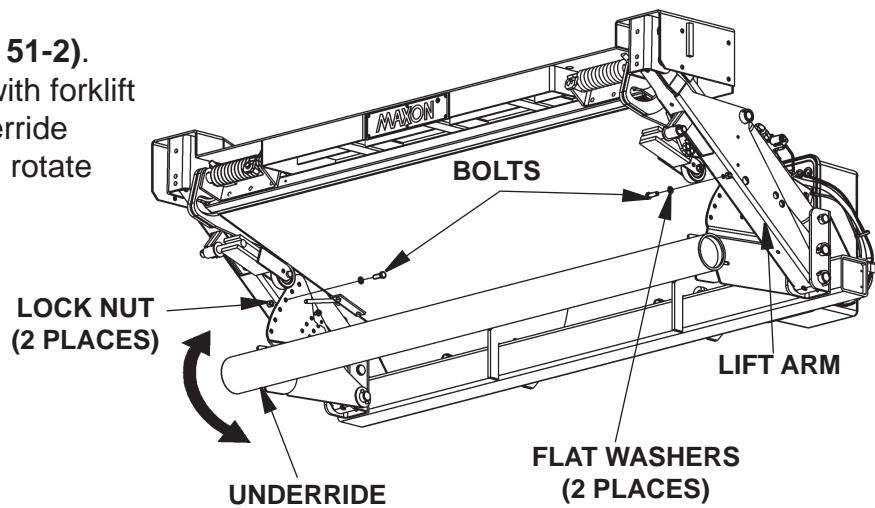
NOTE: Platform Seats must be removed from Lift Arms to do “BALLPARK” ADJUSTMENT. Seats must be re-installed after doing the adjustment.

- Lower the Lift to the position shown in **FIG. 51-1A**. Lift Arms should be nearly parallel to the ground and you should be able to get in the access hole on each Lift Arm. If the Platform is resting on the Platform Seats, use a jack to raise the Platform off the seats (**FIG. 51-1A**).



- Unbolt each of the 2 Platform Seats (**FIG. 51-1B**).

- Stow the Platform (**FIG. 51-2**). Support the Underride with forklift or jack. Unbolt the Underride from the Lift Arms. Then rotate Underride to desired position (**FIG. 51-2**). Bolt the Underride in the new position. Torque the 1/2"-13 bolts to **85 LBS.-FT.**



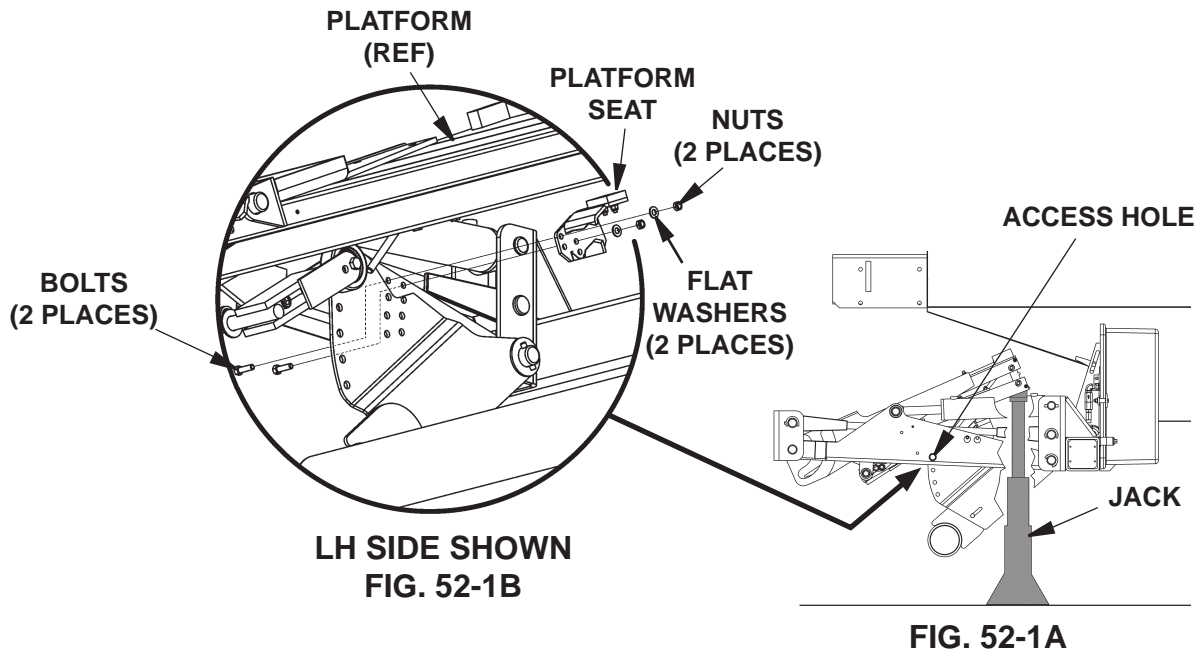
**ADJUSTING UNDERRIDE
FIG. 51-2**

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STEP 14 - ADJUST UNDERRIDE (IF REQUIRED)

NOTE: For some bed heights, Platform Seat may be bolted against the Underride Bracket.

7. Bolt on the Platform Seats (**FIG. 52-1**).

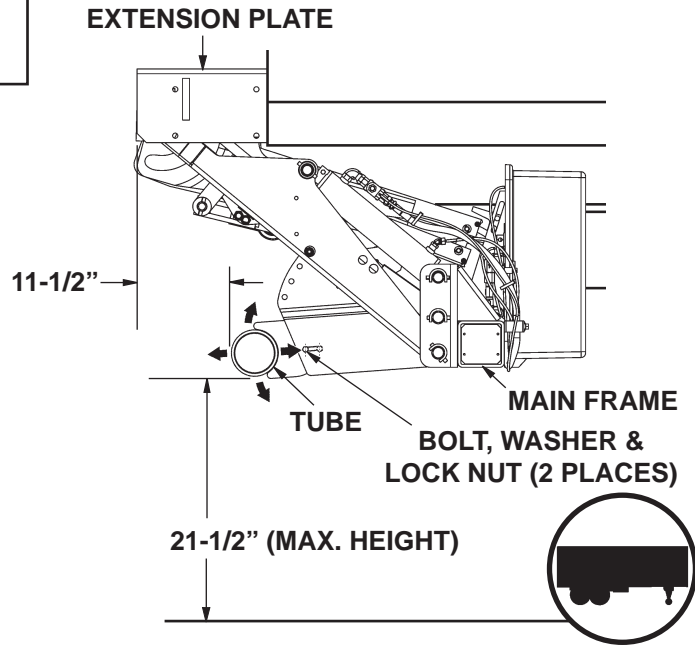


STEP 14 - ADJUST UNDERRIDE (IF REQUIRED) - Continued

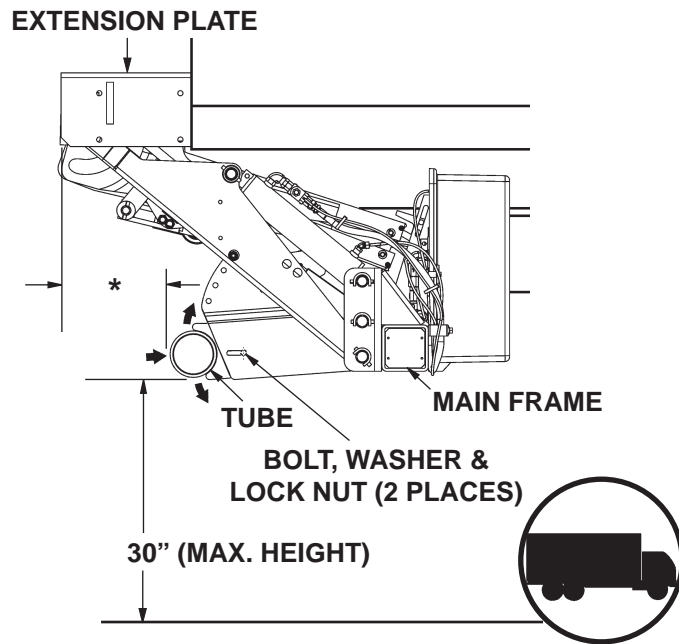
FINE ADJUSTMENT

NOTE: For Trucks, the Underride tube must be pushed all the way in toward the Main Frame.

- Stow the Platform.
Refer to **FIG. 53-1** for Liftgate installed on Trailer or **FIG. 53-2** for Liftgate installed on Truck. Loosen bolt and lock nut at each end of tube, just enough to move Underride tube (**FIG. 53-1** or **FIG. 53-2**). Rotate the tube up or down, and slide the tube outward or inward to the dimensions shown in **FIG. 53-1** or **FIG. 53-2**. Tighten bolts and lock nuts to secure Tube in correct position.



**UNDERRIDE ADJUSTMENT-TRAILERS
(RH SIDE SHOWN)
FIG. 53-1**



* MAXIMUM DISTANCE FROM END OF EXTENSION PLATE

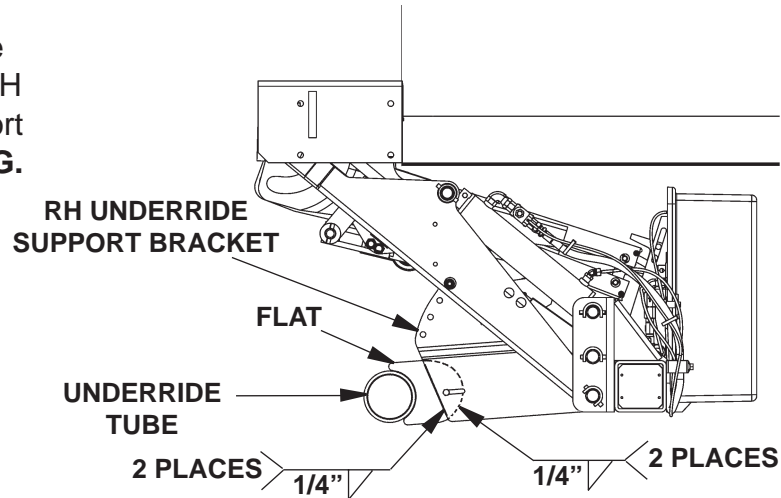
**UNDERRIDE ADJUSTMENT-TRUCKS
(RH SIDE SHOWN)
FIG. 53-2**

STEP 14 - ADJUST UNDERRIDE (IF REQUIRED) - Continued

CAUTION

When using electrical welder to weld on Underride, make sure the welder ground lead is connected directly to the Underride, as close as possible to the place being welded. Failure to comply can result in damaged cylinders and electrical parts.

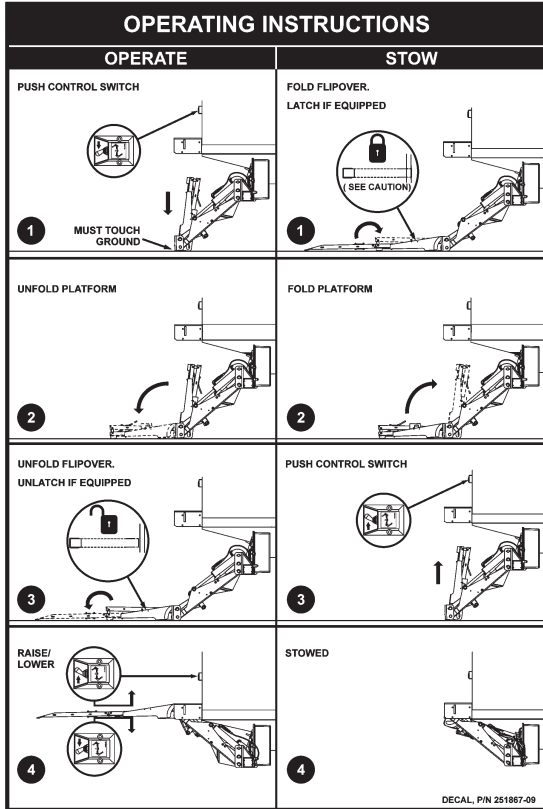
9. When the Underride is in correct position, weld the flats on the tube to the RH and LH Underride Support Brackets as shown in **FIG. 54-1**.



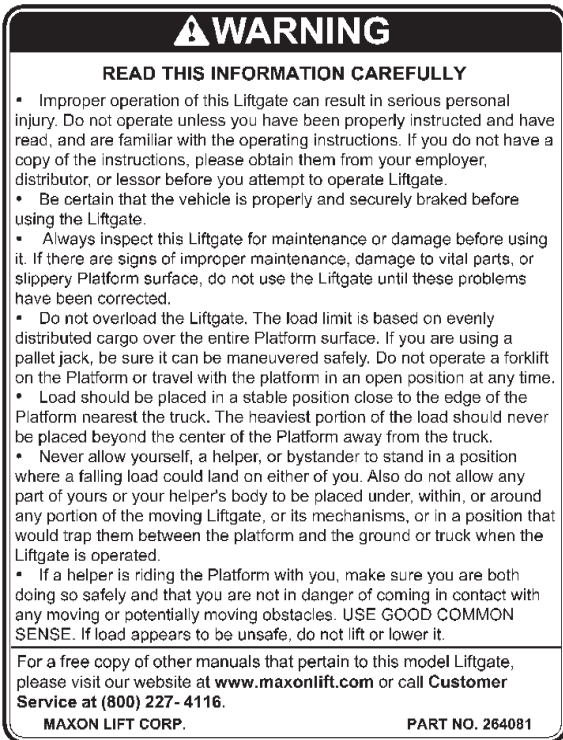
**WELDING FLATS TO SUPPORT BRACKETS
(RH SIDE SHOWN)
FIG. 54-1**

10. Remove forklift or jack.

STEP 15 - DECALS



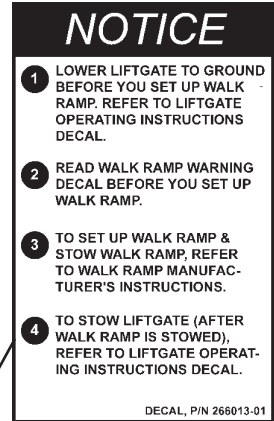
**INSTRUCTION DECAL
P/N 251867-09.**



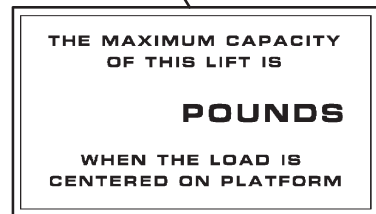
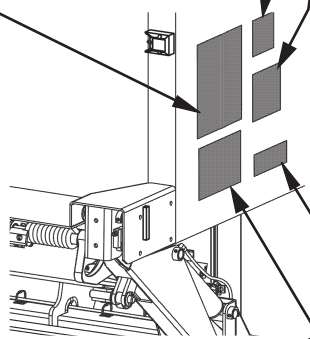
**WARNING DECAL
P/N 264081**



**WALK RAMP WARNING DECAL (WALK RAMP EQUIPPED VEHICLES ONLY)
P/N 265441-01**



**WALK RAMP NOTICE DECAL (WALK RAMP EQUIPPED VEHICLES ONLY)
P/N 266013-01**



CAPACITY DECAL (SEE TABLE 55-1)

CAPACITY DECALS	
CAPACITY	PART NO.
2500 LBS.	220382
3300 LBS.	220388-02
4400 LBS.	253155
5500 LBS.	253161

TABLE 55-1

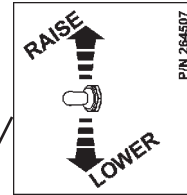
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FIG. 55-1

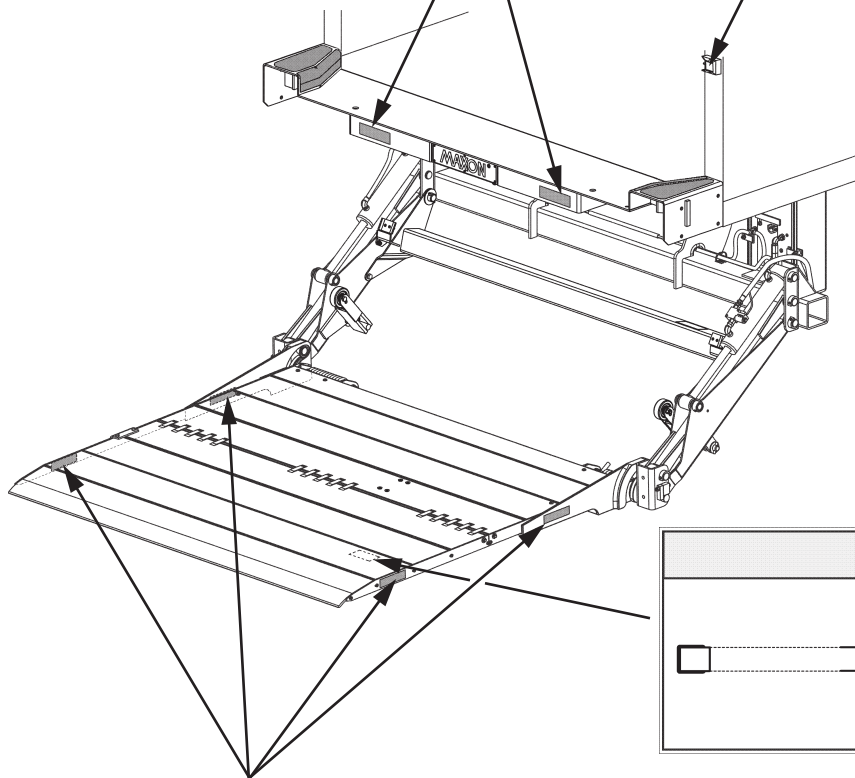
STEP 15 - DECALS - Continued



WARNING DECAL
P/N 265736-01



CONTROL SWITCH DECAL
P/N 264507



CAUTION DECAL
(FLIPOVER EQUIPPED WITH LATCH, ONLY)
P/N 267694-01



WARNING DECAL
P/N 265736-02

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FIG. 56-1

STEP 16 - NONSKID & SAFETY STRIPING

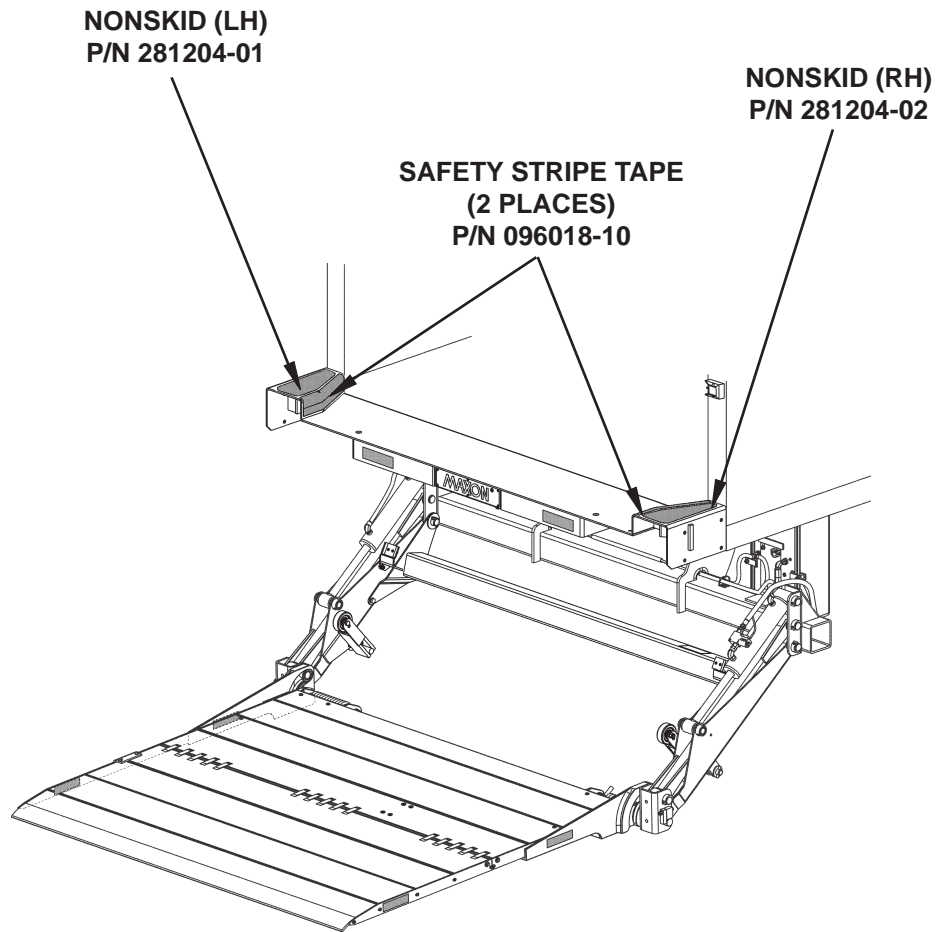


FIG. 57-1

STEP 17 - VEHICLE TAILLIGHT POSITIONING (IF REQUIRED)

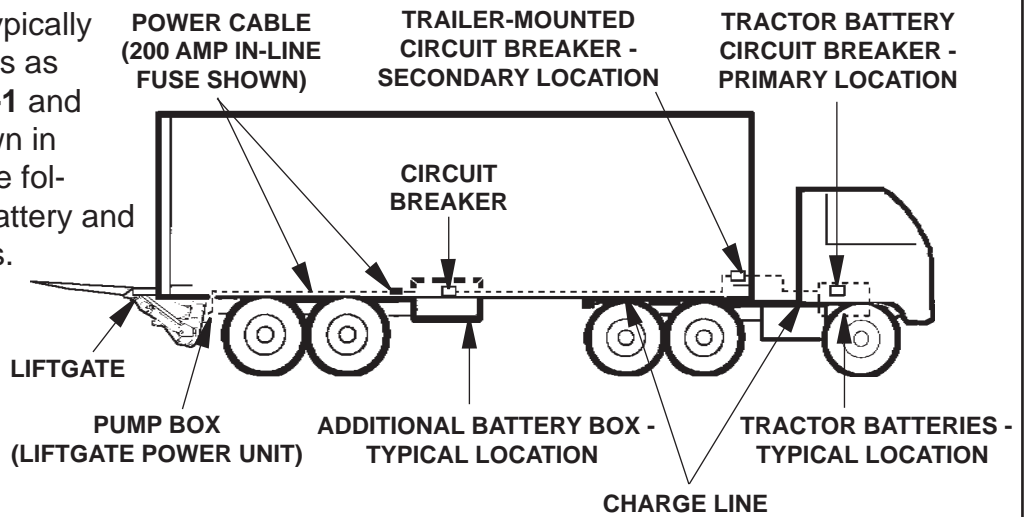
NOTE: Positions are based on using taillights of 6-3/4" height by 5-3/4" width. Larger taillights may interfere with Liftgate. Taillights and attaching hardware are not provided with the Liftgate.

UPDATED INSTRUCTIONS WILL BE PROVIDED AT A LATER DATE.

OPTIONS

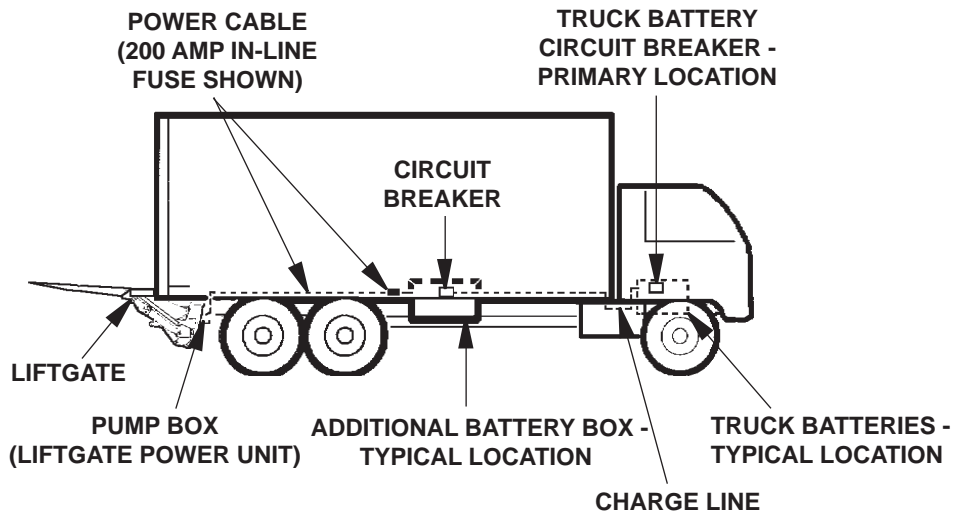
RECOMMENDED LIFTGATE POWER CONFIGURATION

1. Liftgate and additional Battery Box are typically installed on trailers as shown in **FIG. 59-1** and on trucks as shown in **FIG. 59-2**. See the following page for battery and cable connections.



**RECOMMENDED LIFTGATE & BATTERY BOX
INSTALLATION ON TRAILER**

FIG. 59-1



**RECOMMENDED LIFTGATE & BATTERY BOX
INSTALLATION ON TRAILER**

FIG. 59-2

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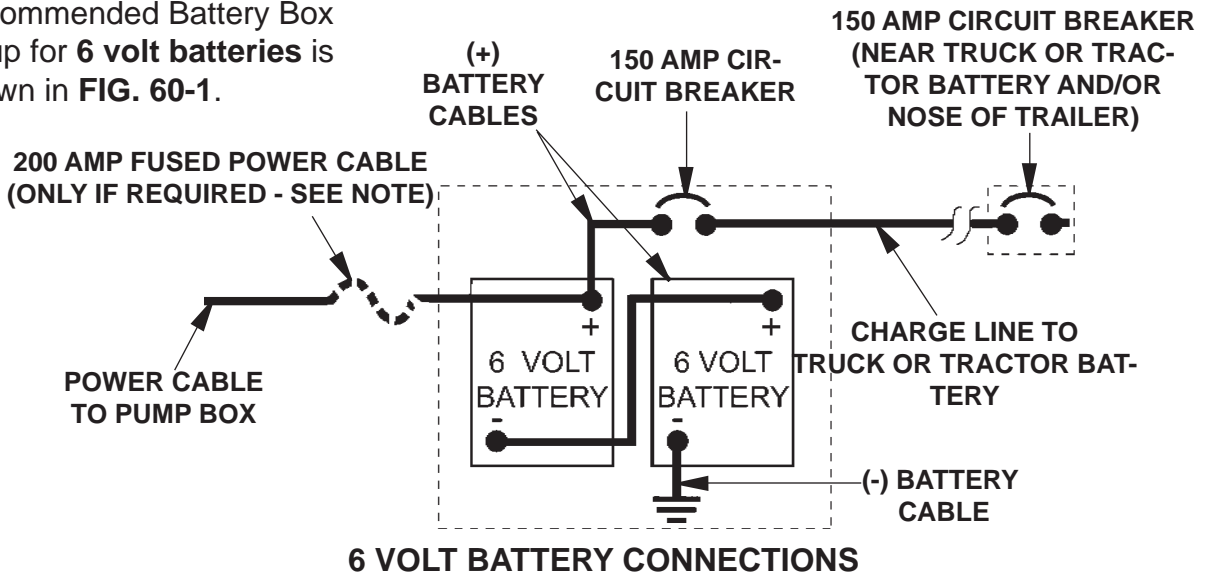
MAXON

OPTIONS

RECOMMENDED LIFTGATE POWER CONFIGURATION - Continued

NOTE: If more than 10' of cabling is required to connect Battery Box batteries to Liftgate Power Unit, and/or if cable is run through/along vehicle body crossmembers, use 200 Amp Fused Power Cable from Liftgate Parts Box. Always connect fused end of Cable to Battery.

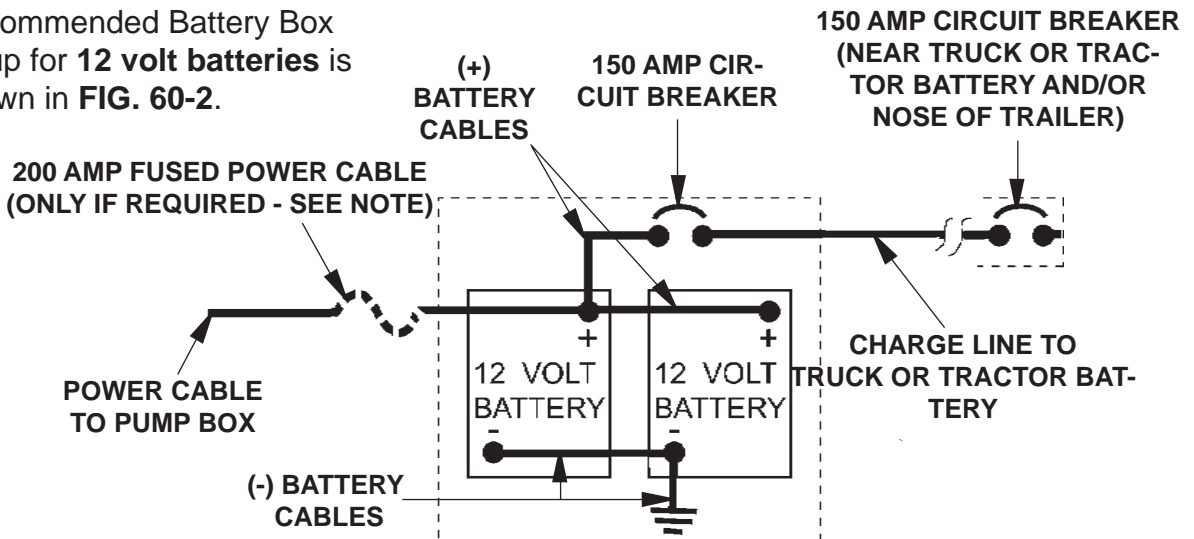
2. Recommended Battery Box setup for 6 volt batteries is shown in FIG. 60-1.



6 VOLT BATTERY CONNECTIONS
FIG. 60-1

NOTE: If more than 10' of cabling is required to connect Battery Box batteries to Liftgate Power Unit, and/or if cable is run through/along vehicle body crossmembers, use 200 Amp Fused Power Cable from Liftgate Parts Box. Always connect fused end of Cable to Battery.

3. Recommended Battery Box setup for 12 volt batteries is shown in FIG. 60-2.



12 VOLT BATTERY CONNECTIONS
FIG. 60-2

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