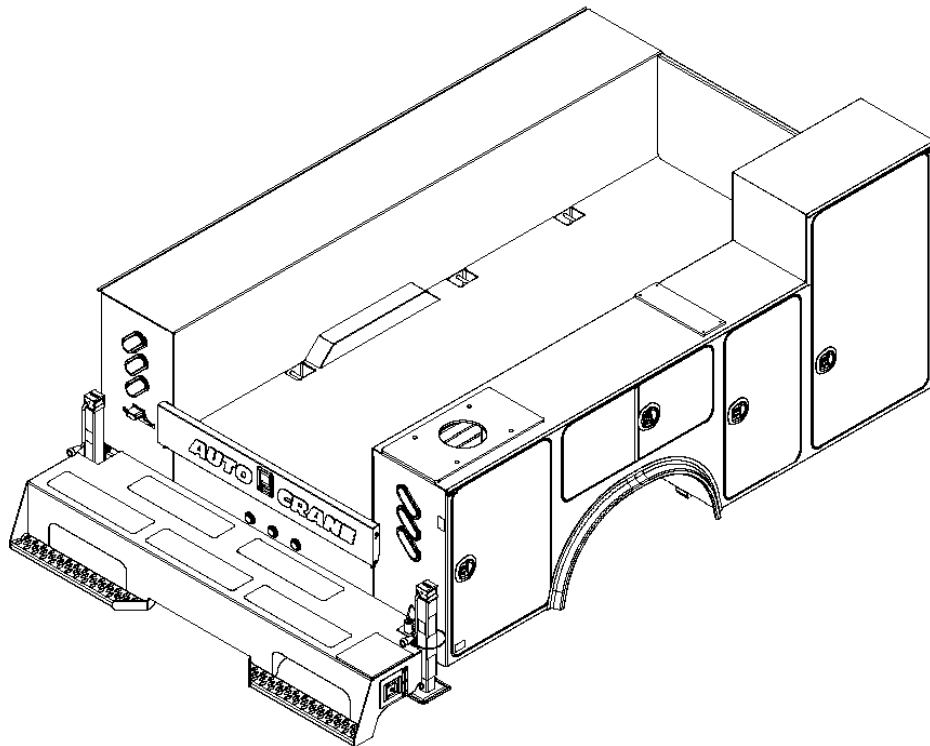




TITAN[™] 16

OWNERS MANUAL



Serial No. _____

Mailing Address:
P.O. Box 580697
Tulsa, OK 74158-0697
Physical Address:
4707 N. Mingo Rd.
Tulsa, OK 74117-5904

Phone 1-800-777-2760
Fax 1-888-848-5445
<http://www.autocrane.com>



Auto Crane Warranty Registration

Fax Transmission

To: Warranty Department Fax: 1-888-848-5445
From: _____ Date: _____
Re: Product Registration Pages: _____

End User Information: (Required for Warranty Activation)

Name: _____ Phone: _____
Address: _____
City: _____ State: _____ Zip: _____
Contact: _____ E-mail Address: _____

Distributor Information: (Required for Warranty Activation)

Name: _____
Address: _____
City: _____ State: _____ Zip: _____
Contact: _____ E-mail Address: _____

Product Information: (Required for Warranty Activation)

Model No.: _____ Serial No.: _____
Date Product Delivered: _____ Date Processed: * _____
VIN # _____ * For Auto Crane use only

ONE REGISTRATION FORM PER UNIT (CRANE OR BODY)

Registration form must be mailed or faxed within 15 days of customer installation.

Mail to:
Warranty Department
Auto Crane Company
P.O. Box 581510
Tulsa, OK 74158-0697

TITAN 16

OWNER'S MANUAL REVISION RECORD

Revision Date	Section(s) Or Page(s)	Description of Change
4/12/2012	All	New Manual

Notes:

1. The information contained in this manual is in effect at the time of this printing. It does not cover all instructions, configurations, accessories, etc. If you require additional information, please contact **Auto Crane Company**.
2. **Auto Crane Company** reserves the right to update this material without notice or obligation.

NOTES

WARNINGS

WARNING! Federal law (49 CFR 571) requires that the Final Stage Manufacturer of a vehicle certify that the vehicle complies with all applicable federal regulations. Any modifications performed on the vehicle prior to the final state are also considered intermediate stage manufacturing and must be certified as to compliance. The installer of this crane and body is considered one of the manufacturers of the vehicle. As such a manufacturer, the installer is responsible for compliance with all applicable federal and state regulations, and is required to certify that the vehicle is in compliance.

WARNING! It is the further responsibility of the installer to comply with the OSHA Truck Crane Stability Requirements as specified by 29 CFR 1910.180 (C) (1).

WARNING! NEVER OPERATE THE CRANE NEAR ELECTRICAL POWER LINES!

Death or serious injury will result from boom, line, or load contacting electric lines. Do not use crane within 10 feet (3.05m) of electric power lines carrying up to 50,000 volts. One-foot additional clearance is required for every additional 30,000 volts or less. **SEE DANGER DECAL (P/N 040529)** in this Owner's Manual.

WARNING! Failure to correctly plumb and wire crane can cause inadvertent operation and damage to crane and/or personnel!

WARNING! Vehicle must meet Federal law (49 CFR 393) which states the required parts and accessories necessary for safe operation. This includes lighting, reflectors, etc...

WARNING! Federal law (49 CFR 568) requires each final-stage manufacturer to complete the vehicle in such a manner that it conforms to the standards in effect on the date of manufacture of the incomplete vehicle, the date of final completion, or a date between those two dates. This requirement shall, however, be superseded by any conflicting provisions of a standard that applies by its terms to vehicles manufactured in two or more stage. Each final-stage manufacturer shall affix a label to the completed vehicle in accordance with 49 CFR 567.5.

READ THIS PAGE

TABLE OF CONTENTS

TITAN 16 BODY

TITAN BODY INTRODUCTION	1-1.0
GENERAL DIMENSIONS	1-3.0
MOUNTING AND INSTALLATION	2-1.0
VEHICLE OPERATION AND PREPARATIONS	3-1.0
TITAN 38 DOOR	4-1.0
TITAN 38 TAILGATE	4-2.0
OUTRIGGER ASSY, 8" BUMPER RIGHT SIDE DIMENSIONAL	5-1.0
OUTRIGGER ASSY, 8" BUMPER LEFT SIDE DIMENSIONAL	5-2.0
OUTRIGGER ASSY, 12" BUMPER RIGHT SIDE DIMENSIONAL	5-3.0
OUTRIGGER ASSY, 12" BUMPER LEFT SIDE DIMENSIONAL	5-4.0
OUTRIGGER ASSY, 20" BUMPER RIGHT SIDE DIMENSIONAL	5-5.0
SERVICE BUMPER WELDMENT DIMENSIONALS	5-6.0
OUTRIGGER SHIP KIT	5-8.0
OUTRIGGER INSTALLATION	5-9.0
OUTRIGGER ASSY, 8" BUMPER	5-10.0
OUTRIGGER ASSY, 12" BUMPER	5-12.0
OUTRIGGER ASSY, 20" BUMPER	5-14.0
RECEIVER HITCH INSTALLATION	6-1.0
FENDER-ET	7-1.0
MASTER LOCK SYSTEM	8-1.0
SHELF LOCATION	9-1.0
OXY/ACET ASSY	10-1.0
DROP WELL	10-2.0
ROPE LIGHT KIT	11-1.0
COMPARTMENT LIGHT KIT	11-4.0
FLOOD LIGHT KIT	12-1.0
BOOM SUPPORT	13-1.0
BULKHEAD RESERVOIR	14-1.0
FIRE EXTINGUISHER	15-1.0
BACK UP ALARM	16-1.0
BODY PREVENTIVE MAINTENANCE	17-1.0

TITAN BODY INTRODUCTION

Auto Crane products are designed to provide many years of safe, trouble-free, dependable service when properly used and maintained.

To assist you in obtaining the best service from your crane and to avoid untimely crane and/or vehicle failure, this manual provides the following operating and service instructions. It is specifically recommended that all operating and service personnel consider this manual as mandatory material for reading and study before operating or servicing Auto Crane products. It is highly recommended that crane owners, equipment managers, and supervisors also read this manual.

For your convenience the overall dimensions of the Titan are included on the General Dimension Drawing. Center of gravity and door openings are also shown.

Remember, the body adds weight to the vehicle. Adding weight may change the driving and riding characteristics of the vehicle unless the appropriate overload spring(s) are installed on the truck. The payload of the vehicle is reduced by the weight of the body. The operator should exercise care when loading the vehicle. Distributing the payload on the vehicle evenly will greatly improve the driving and riding characteristics of the vehicle.

Auto Crane Company issues a limited warranty certificate with each unit sold. See last page for warranty.

It has always been Auto Crane Company policy to handle all warranty claims we receive as promptly as possible. If a warranty claim involves discrepant material or workmanship, Auto Crane will take immediate corrective action. It is understandable that Auto Crane Company cannot assume responsibility of liability when it is obvious that our products have been abused, misused, overloaded or otherwise damaged by inexperienced persons trying to operate the equipment without reading the manual.

Auto Crane will not assume responsibility or liability for any modifications or changes made to unit, or installation of component parts without authorization.

Auto Crane maintains a strong distributor network and a knowledgeable Customer Service Department. In most cases, an equipment problem is solved via phone conversation with our customer service department. The customer service department also has the ability to bring a local distributor, a regional sales manager, or a factory serviceman into the solution of an equipment problem.

If, through no fault of Auto Crane Company, it is necessary to send an experienced factory serviceman on a field service call the rates stated in the Auto Crane Distributor's Flat Rate Manual will apply.

Auto Crane Company's extensive Research and Development Program allow our customers to use the best equipment on the market. Our Engineering Staff and our knowledgeable sales people are always available to our customers in solving crane and winch-type application problems. When in doubt, call the Auto Crane factory.

Note: This manual should remain with the body at all times.

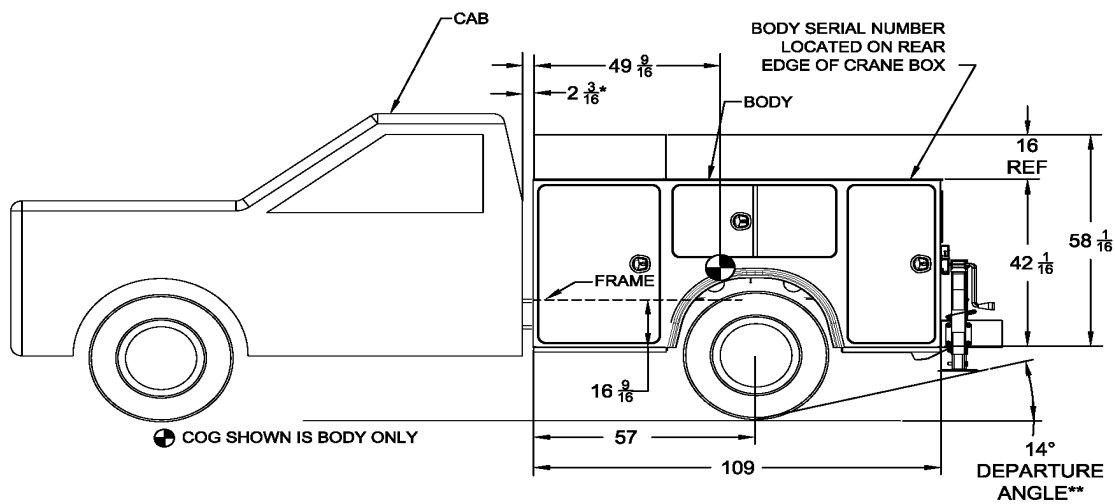
DISTRIBUTOR ASSISTANCE:

Should you require any assistance not given in this manual, we recommend that you consult your nearest Auto Crane Distributor. Our distributors sell authorized parts and have service departments that can solve almost any needed repair. This manual does not cover all maintenance, operating, or repair instructions pertinent to all possible situations. **If you require additional information, please contact the Auto Crane Company.**

The information contained in the manual is in effect at the time of this printing. Auto Crane Company reserves the right to update this material without notice or obligation.

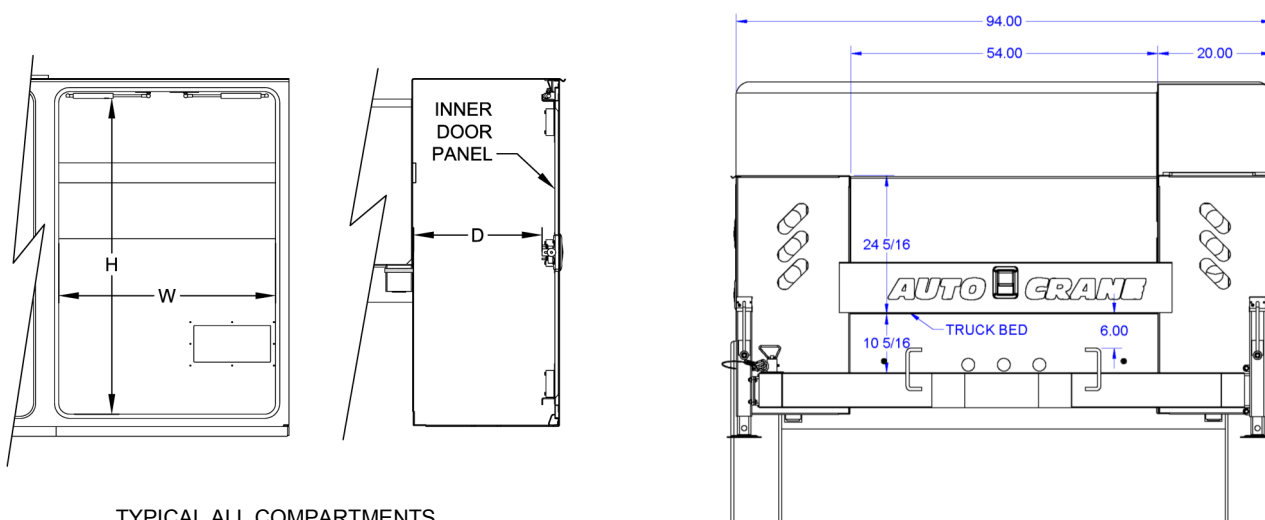
TITAN 16 / 60CA

GENERAL DIMENSIONS



* CHECK CHASSIS BODY BUILDER BOOK FOR REQUIRED GAP BETWEEN BODY & CHASSIS

**DEPARTURE ANGLE SHOWN FOR REFERENCE ONLY. ANGLE WILL VARY DEPENDING ON CHASSIS.



TYPICAL ALL COMPARTMENTS

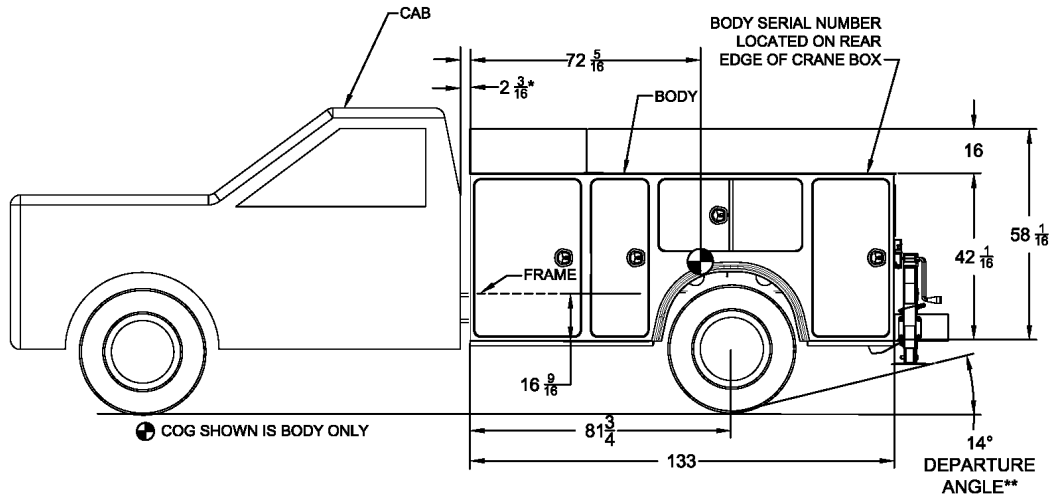
TITAN 16 60CA				
DOOR OPENING	WIDTH (W)	HEIGHT (H)	DEPTH (D)	VOL. CU. FT.
SIZES/DEPTH				
FRONT STD.	34 5/8	41 7/8	19 7/8	16.68
FRONT TALL	34 5/8	57 7/8	19 7/8	23.02
HORIZONTAL	44	20 5/8	19 7/8	10.44
REAR	29 15/16	41 7/8	19 7/8	14.42
INSIDE COMPARTMENT SIZES (STD)		TOTAL BODY CU. FT.		83.07
INSIDE COMPARTMENT SIZES (TALL)		TOTAL BODY CU. FT.		89.41
INSIDE COMPARTMENT SIZES (DBL TALL)		TOTAL BODY CU. FT.		95.76
			WEIGHT	1951 LBS

*** REAR COMPARTMENT DIMENSIONS/VOLUME ARE FOR NON CRANE BOX ONLY

^ VOLUME IS TAKEN FROM WALL TO WALL DIMENSIONS **NOT DOOR OPENING SIZES**

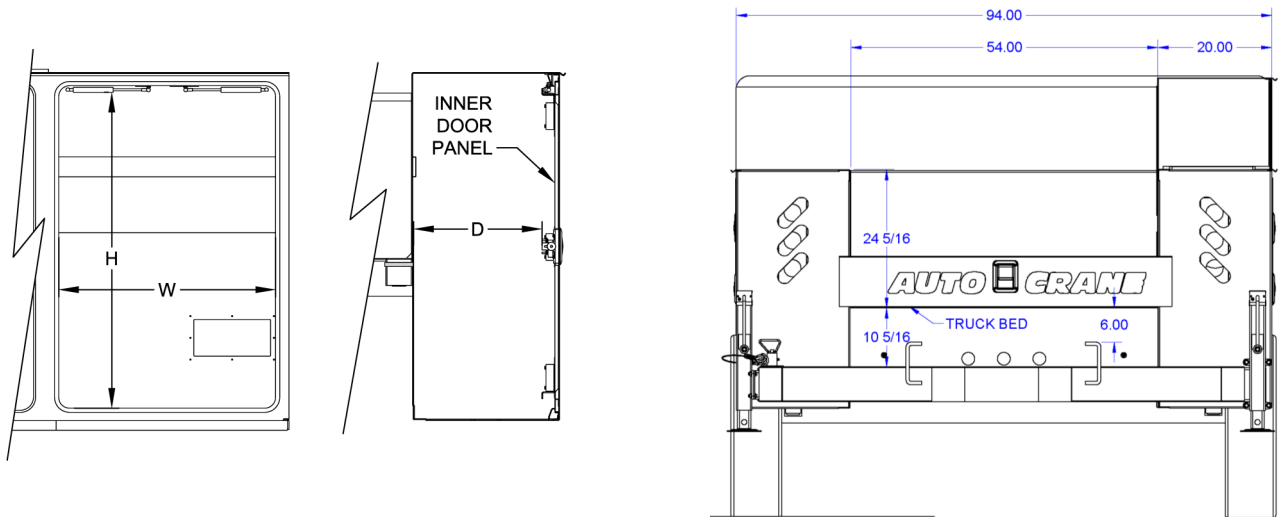
TITAN 16 / 84CA

GENERAL DIMENSIONS



* STANDARD GAP USING 84CA BODY. CHECK CHASSIS BODY BUILDER BOOK FOR REQUIRED GAP BETWEEN BODY & CHASSIS

**DEPARTURE ANGLE SHOWN FOR REFERENCE ONLY. ANGLE WILL VARY DEPENDING ON CHASSIS.



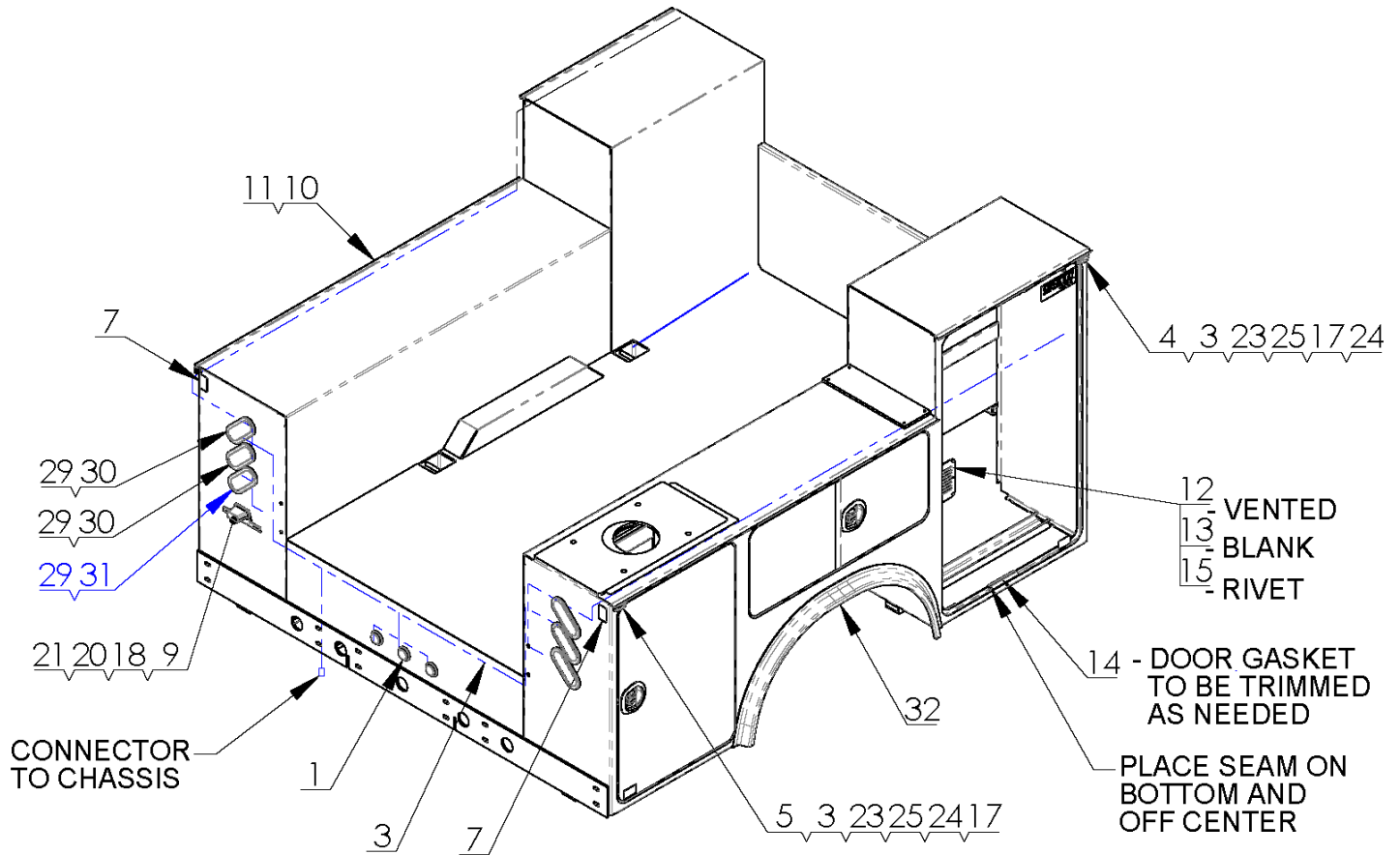
TITAN 16 84CA				
DOOR OPENING	WIDTH (W)	HEIGHT (H)	DEPTH (D)	VOL. CU. FT.
SIZES/DEPTH				
FRONT STD.	34 $\frac{5}{8}$	41 $\frac{7}{8}$	19 $\frac{7}{8}$	16.68
FRONT TALL	34 $\frac{5}{8}$	57 $\frac{7}{8}$	19 $\frac{7}{8}$	23.02
MID	23 $\frac{3}{4}$	41 $\frac{7}{8}$	19 $\frac{7}{8}$	11.44
HORIZONTAL	44	20 $\frac{5}{8}$	19 $\frac{7}{8}$	10.44
REAR	29 $\frac{15}{16}$	41 $\frac{7}{8}$	19 $\frac{7}{8}$	14.42
INSIDE COMPARTMENT SIZES (STD)		TOTAL BODY CU. FT.		105.94
INSIDE COMPARTMENT SIZES (TALL)		TOTAL BODY CU. FT.		112.29
INSIDE COMPARTMENT SIZES (TALL)		TOTAL BODY CU. FT.		118.64
			WEIGHT	2277 LBS

*** REAR COMPARTMENT DIMENSIONS/VOLUME ARE FOR NON CRANE BOX ONLY

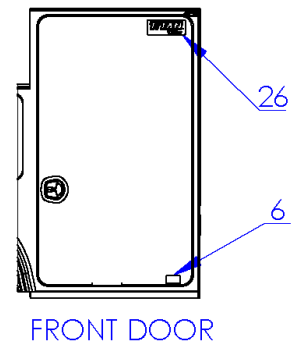
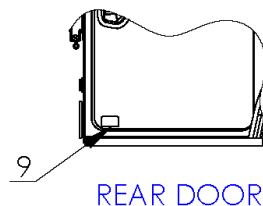
^ VOLUME IS TAKEN FROM WALL TO WALL DIMENSIONS **NOT DOOR OPENING SIZES**

TITAN 16 MOUNTING AND INSTALLATION

Check to make sure the following items are with your Titan body. If components are missing, contact AutoCrane Customer Service Department.



NOTE: APPLY ATV SEALANT TO ONE END OF DOOR GASKET. PRESS BOTH ENDS TOGETHER AFTER INSTALLING. SMEAR ANY EXCESS SEALANT AROUND THE SEAM WHEN COMPLETE.



ITEMS LISTED ON THE FOLLOWING PAGE ARE INCLUDED IN THE TITAN 16 BODY SHIP KIT.

P/N 715328010—TITAN 16 CA SHIPKIT

TITAN 16

MOUNTING AND INSTALLATION

ITEM NO.	QTY	PART NUMBER	DESCRIPTION
1	3	560105000	LIGHT MARKER LED 2"
2	1	560106001	HARNESS, BODY WIRING W/ACCESS.
3	4	560449000	BRACKET MOUNTING
4	2	560450000	CLEARANCE MARKER AMBER
5	2	560451000	CLEARANCE MARKER RED
6	2	560452000	REFLECTOR AMBER
7	4	560453000	REFLECTOR RED
8	2	750732000	ROCK GUARD
9	1	750980000	LAMP, LICENCE W/BRACKET
10	12	750737000	TIE WRAP PUSH-IN
11	12	750738000	STICK-ON, CABLE TIE MOUNT
12	1	752221000	PANEL LOUVER
13	2	752222000	PANEL BLANK F/ MID VENT OPENING
14	1	715041000	TITAN SC DOOR GASKET
15	16	754028000	RIVET POP 3/16 DIA X 1/4 - 3/8 GRIP SS
16	32 in	750736000	LOOM, CONVOLUTED, 7/16 ID
17	4	560540000	GROMMET, NYLON
18	2	002609000	SCREW RD HD #10-32UNF X 5/8LG
19	6	020200000	WASHER SP LK 1/4
20	2	019900000	WASHER FL #10
21	2	015800000	NUT HX NYLK #10-32UNF GR3 ZP
22	6	005901000	SCREW HX HD 1/4-20UNC X 1/2 LG
23	8	006020000	SCREW PN HD #6-32UNC X 1LG
24	8	015400000	NUT HX #6-32UNC
25	8	019600000	WASHER SP LK #6
26	2	560510000	DECAL "TITAN"
27	1	715900000	TITAN 16 OWNER'S MANUAL
28	2	715308020	TITAN 16 FUEL LINE COVER
29	6	739408005	GROMMET, LIGHT OVAL
30	4	739408003	LIGHT, STOP/TURN/TAIL OVAL
31	2	759056010	LIGHT, BACK-UP OVAL
32	1	738597001	FENDERETTE INSTL KIT TITAN 38
33	1	715328001	TITAN 16 OWNERS MANUAL

TITAN 16

MOUNTING AND INSTALLATION

!! WARNINGS !!

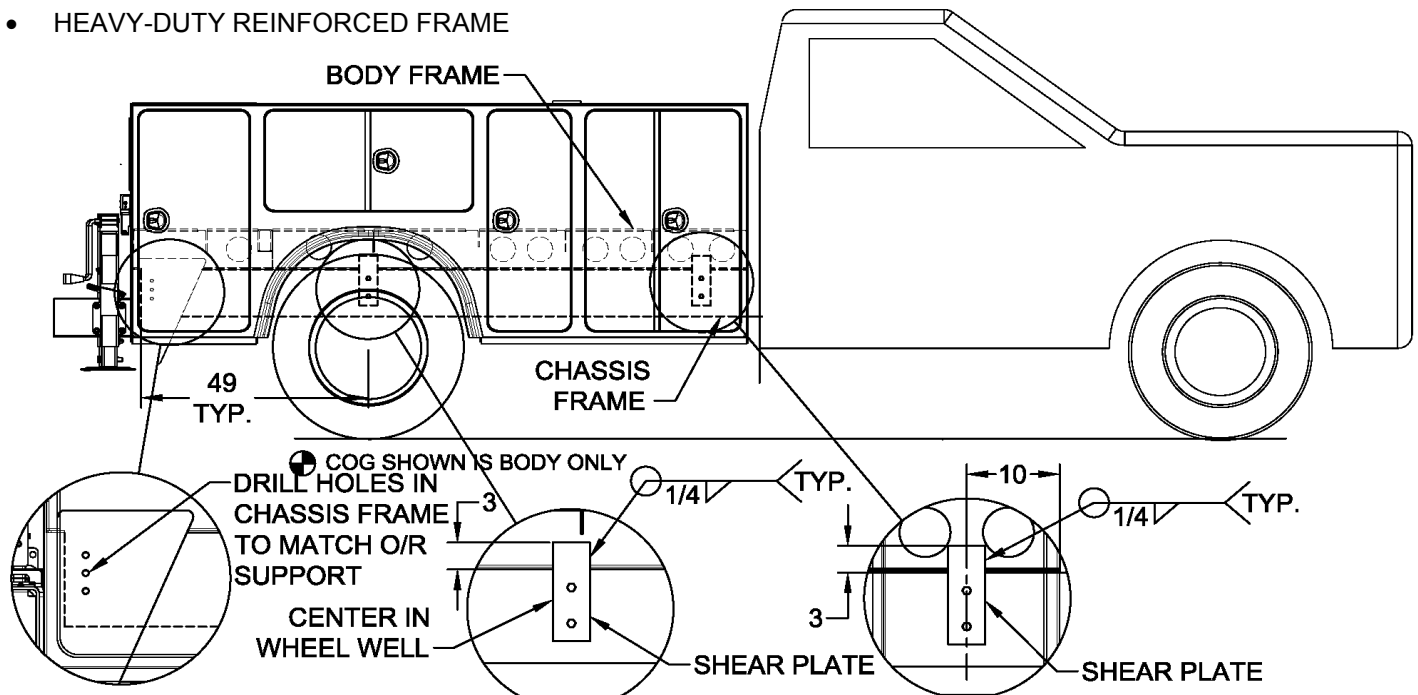
DO NOT WELD TO TRUCK FRAME. REFER TO BODY-BUILDERS MANUAL FOR FUTURE INFORMATION

INSTALLATION INSTRUCTIONS BELOW ARE COMMON MOUNTING PRACTICES, ALWAYS REFER TO CHASSIS BODY-BUILDERS MANUAL FOR ACCEPTABLE MOUNTING OPTIONS

CUTTING AFTER-FRAME MAY BE REQUIRED. REFER TO CHASSIS BODY-BUILDERS MANUAL FOR PROPER CUTTING PROCEDURE.

MINIMUM CHASSIS REQUIREMENTS

- 20,500 LBS GVWR
- 34" FRAME WIDTH
- HEAVY-DUTY REINFORCED FRAME



ALL DIMENSIONS SHOWN ARE IN INCHES.

MOUNTING INSTRUCTIONS:

AVAILABLE MOUNTING KIT—560580000 INCLUDES HARDWARE & SHEAR PLATES

1. Pick up body using a 4-point choke chain rated for the body weight shown in Gen. Dimension page. Use the tie down locations in bed for lifting points.

2. Center body along the width of the chassis and center the wheel well with the tires.

NOTE: MAKE SURE YOU HAVE ENOUGH CLEARANCE BETWEEN BODY AND CHASSIS CAB PER THE MANUFACTURERS REQUIREMENTS.

3. Locate the shear plates as shown in the above diagram. Drill (2) $21/32\phi$ holes into each shear plate and chassis frame.

NOTE: LOCATE HOLE FOR BOLT SO THAT THE BOLT, WASHER, AND NUT WILL NOT INTERFERE WITH ANY CHASSIS COMPONENTS. LOCATIONS OF SHEAR PLATES SHOWN ABOVE ARE PREFERRED LOCATIONS. THEY MAY NEED TO BE MOVED TO ACCOMMODATE COMPONENTS ON THE CHASSIS RAILS.

TITAN 16

MOUNTING AND INSTALLATION

4. Using the pre-drilled holes in the outrigger support, drill (3)21/32"Ø holes into chassis rail per side.
5. Weld shear plates to the body frame.

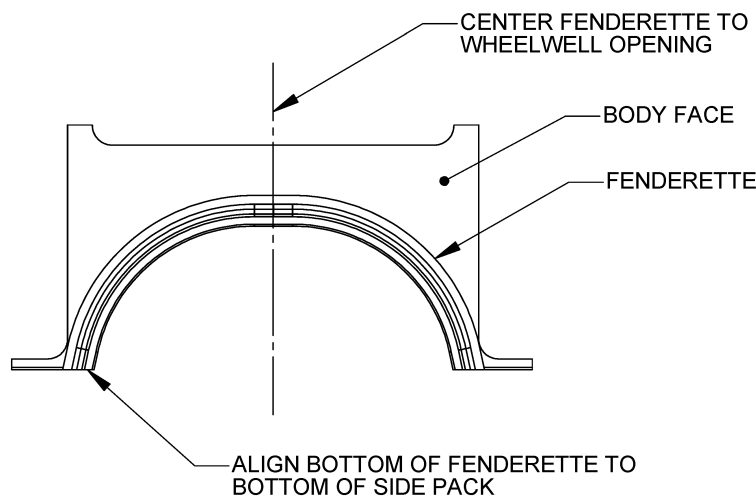
NOTE: FOLLOW CHASSIS RECOMMENDATIONS WHEN WELDING BODY COMPONENTS.

6. Bolt Body to Chassis Frame using 5/8" UNC Grade 8 Hardware (Bolt, Washer, Nut, Etc...) Torque to 180 Ft-Lbs

Note: If you would like to mount the body using another method, please refer to the chassis manufacturer's body builder guide or the NTEA handbook.

7. Install Fenderettes (Supplied) to the body: (Reference figure below)
 - a. Wipe mounting surface with clean cloth to remove any dirt or oils.
 - b. Locate Fenderette to sidepack, aligning the bottom edges and centering it on fender well opening.
 - c. Draw lines on fender with oil pencil or other erasable marker to assist with alignment when adhesive is applied.
 - d. Apply adhesive to fenderette flange per instructions on cartridge. 1/8" bead in center of flange is recommended. The nozzle does not need to be cut to provide 1/8" bead.
 - e. Use lines from step 3 to locate fenderette to sidepack, aligning the bottom edges and centering it on the fender well opening as before.
 - f. Using wide surface area clamps, clamp fenderette into place to insure full contact between the fenderette flange and the sidepack.
 - g. Remove any excess adhesive from outer edges.
 - h. Allow adhesive to cure 3 to 4 hours before removing clamps. Adhesive will be fully cured in 8 to 24 hours.

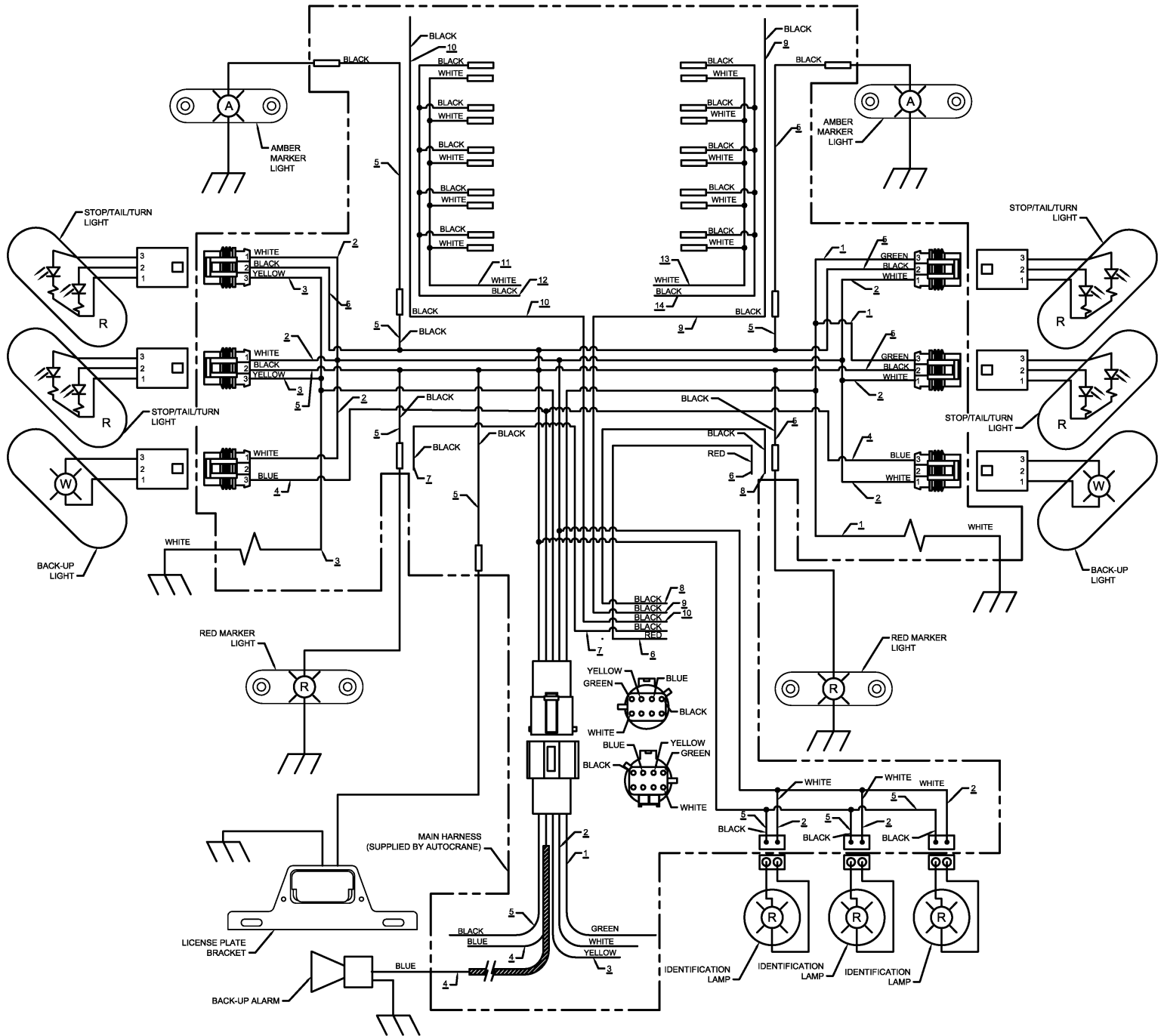
(If you would like to paint the fenderette, you must use the following components. Surface must be cleaned with DuPont #3919S Prep-Sol or equivalent, Primed with Polypropylene primer (Ditzler DPX800 or equivalent), and use a flex additive (Ditzler DX369 or equivalent).



8. Install wiring, lights, and reflectors onto body. Reference schematic on following page for wiring detail. Reference view at beginning of Mounting and Installation section for location of remaining components.

TITAN 16

MOUNTING AND INSTALLATION



TITAN 16

MOUNTING AND INSTALLATION

WIRE #	COLOR	DESCRIPTION	LABEL
1	GREEN	STOP/TURN SIGNAL RIGHT SIDE	
2	WHITE	GROUND	
3	YELLOW	STOP/TURN SIGNAL LEFT SIDE	
4	BLUE	BACK-UP SIGNAL	
5	BLACK	TAIL LIGHT SIGNAL	
6	RED	OPTIONAL HALOGEN SUPPLY WIRE	HALOGEN
7	BLACK	OPTIONAL REAR WORK LIGHT LEFT SIDE	WRK LT LFT
8	BLACK	OPTIONAL REAR WORK LIGHT RIGHT SIDE	WRK LT RT
9	BLACK	OPTIONAL LIGHTING RIGHT SIDE	OPTIONAL LIGHTING
10	BLACK	OPTIONAL LIGHTING LEFT SIDE	OPTIONAL LIGHTING
11	WHITE	INTERIOR COMPARTMENT LIGHT LEFT SIDE (OPTIONAL)	
12	BLACK	INTERIOR COMPARTMENT LIGHT LEFT SIDE (OPTIONAL)	
13	WHITE	INTERIOR COMPARTMENT LIGHT RIGHT SIDE (OPTIONAL)	
14	BLACK	INTERIOR COMPARTMENT LIGHT RIGHT SIDE (OPTIONAL)	

8. Install all accessories per their installation procedures. If unit has a hydraulic outrigger, you must follow the procedure shown on the following page to set the outrigger relief valve.
9. Verify final truck configuration meets all applicable federal guidelines. Reference 49CFR571.109
10. Read operating section of manual before operating the unit.

***TITAN 16
MOUNTING AND INSTALLATION***

***TITAN BODY GASKET INSTALLATION
INSTRUCTION***

Door Gasket, Backer Rod and Silicon Installation

Removal and installation time:

5 Minutes per single door, 10 Minutes per double door, 30 minutes cure time.

List of Materials needed to perform installation door seal, vinyl tubing, and silicone:

- New door gasket seal
- Clear vinyl tubing 3.5 inches long by ½ inch outside diameter
- Clear vinyl tubing 1 inch long by ½ inch outside diameter
- Double door seal gasket (D-shaped gasket) full length of door
- 100% Clear Silicone fast cure Water Proof non-paintable caulking 1 tube per body
- Shears to cut weather-stripping
- Adhesion Remover (Paint Thinner, Mineral Spirits)
- Rubber Mallet
- Pry bar
- Small Flat Head Screw Driver
- Flat Blade Putty Knife
- Box Cutter with extra blades
- Caulking gun

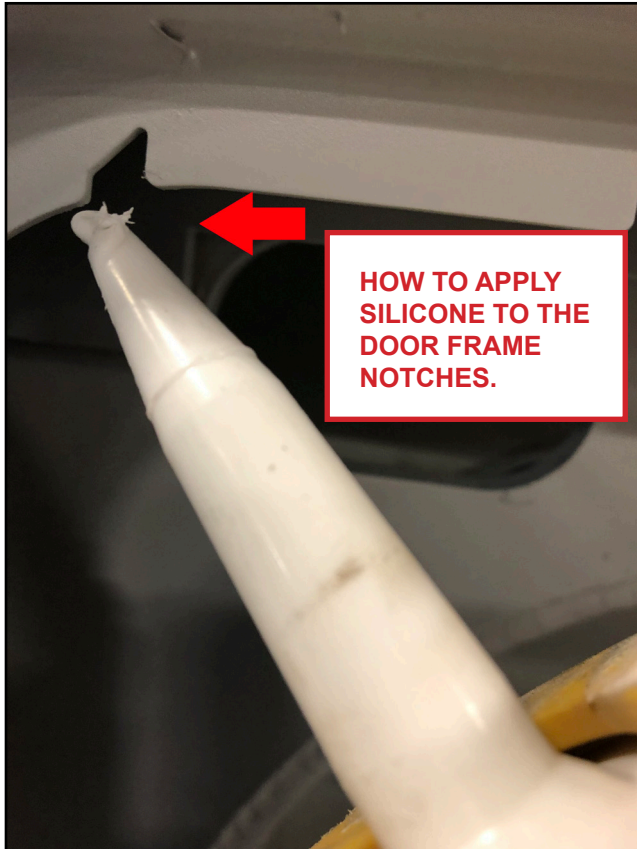
After removing the old door gasket and performing the caulking inspection and repair, new door gaskets and vinyl tubing will be installed. This is a time sensitive installation so install the silicone to the door gasket edge trim after cutting the correct length and prepare to do the install.

NOTICE

Allow for 30 minute cure time before shutting of doors.

Installation of Single Door Gasket

1. Before installing gasket, apply silicone to both sets of notches in the door frame, top and bottom. Also apply silicone to the edge trim where the notches will be located.



2. Insert the Door Gasket behind the hinges so that the door gasket bulb is facing outwards towards the door but do not apply to the door frame edge until the door gasket ends are at the center of the bottom door frame.
3. Start by applying one end of the door gasket onto the bottom center of the door frame and work your way into the 1st corner, then up the side of the frame until the 2nd corner making sure to keep the corners pushed tight. Then work the door gasket into the 3rd corner and behind the door hinges by moving the door back and forth so you have room behind the hinges to work the door gasket onto the edge. Use a pry bar to push on the door gasket onto the edge and a rubber mallet to evenly install the door gasket. When you reach the 4th corner install tight and continue until needed to trim excess door gasket, leaving about 1 inch excess after cutting for pressure retention between the seams. Trim the door gasket ends as straight as possible. Use a rubber mallet to ensure fit in corners and remove door dampener if necessary to facilitate installation.

Installation of Single Door Gasket



Installation of Single Door Gasket

4. Install the 1 inch clear vinyl tubing, leaving about 1/2 inch sticking out to install into the other seam. Apply the silicone on the bulbs around the diameter of the vinyl tubing and onto and into the edge trim portion of the door gasket on both sides of the seam. Insert the door gasket with silicone applied to the vinyl tubing and surface into the other seam and push down the door gasket until flush onto the edge. (The extra silicone will push out of the seam so wipe away excess but leave the silicon in the center to make a flush molded seal).



**CLEAR VINYL TUBING
INSTALLED INTO THE SEEM
AT 50/50 % RATIO.**



**INSTALL VINYL TUBING
INTO THE SECOND SEAM
AND PUSH TOGETHER.**

Installation of Single Door Gasket



WHEN THE TWO SEAMS ARE
PUSHED TOGETHER, INSTALL
BOTH SEAM ONTO THE DOOR
FRAME EDGE TRIM.



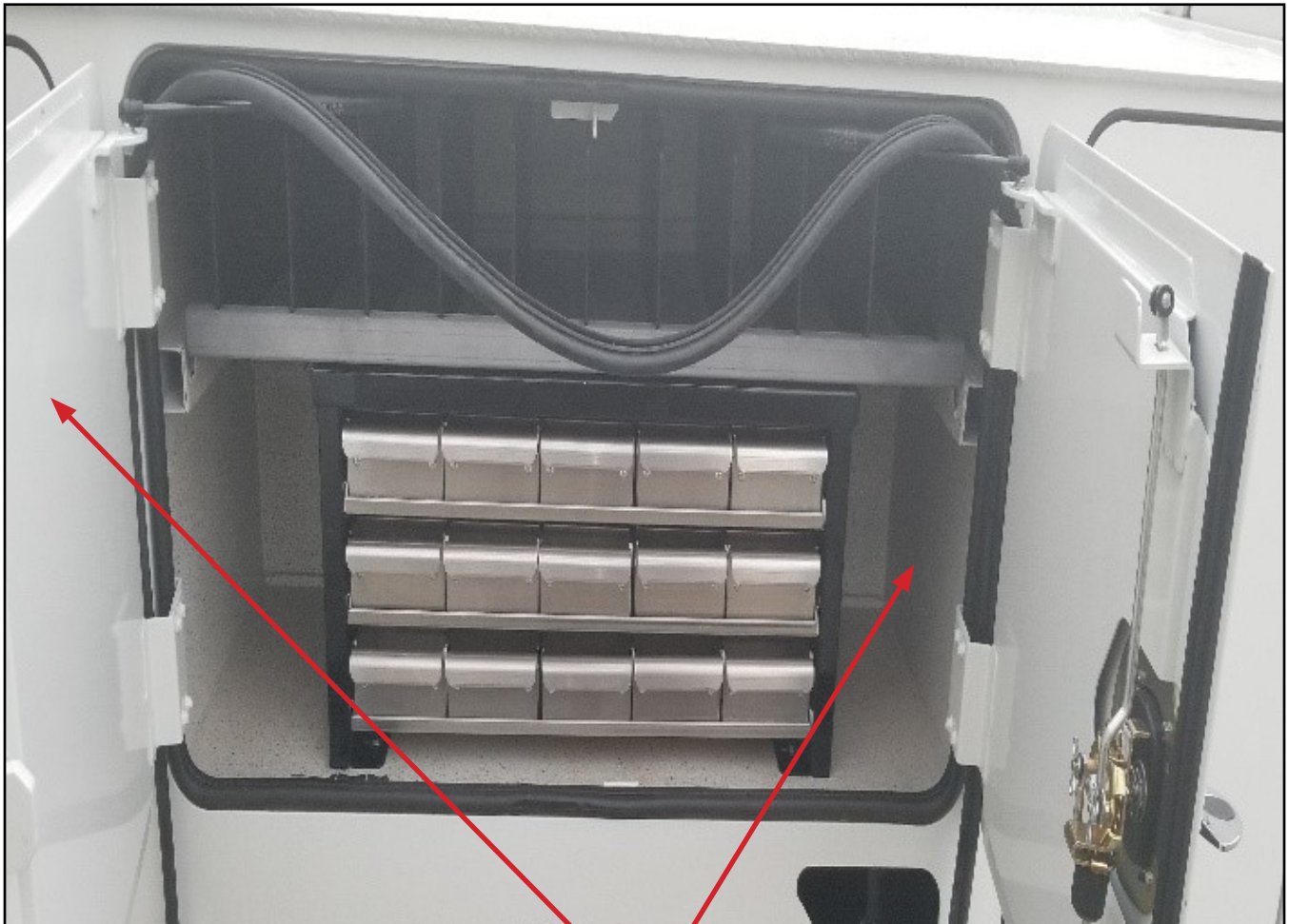
WIPE EXCESS SILICONE OFF
THE OUTER PORTION OF
DOOR GASKET BULB AND
EDGE TRIM.

Installation of Double Door Gasket and Vinyl Tubing

5. Insert the door gasket behind the hinges so that the door gasket bulb is facing outwards to the door, but do not apply to the door frame edge until the door gasket ends are positioned correctly at the bottom door frame.

NOTICE

Position of door gasket end is described in step 2.



POSITION THE DOOR GASKET IN THE CORRECT DIRECTION AND PLACE THRU THE HINGES FOR EASIER ADJUSTMENT AND INSTALLATION.

NOTICE

Apply silicone to notches in double door the same as in single doors

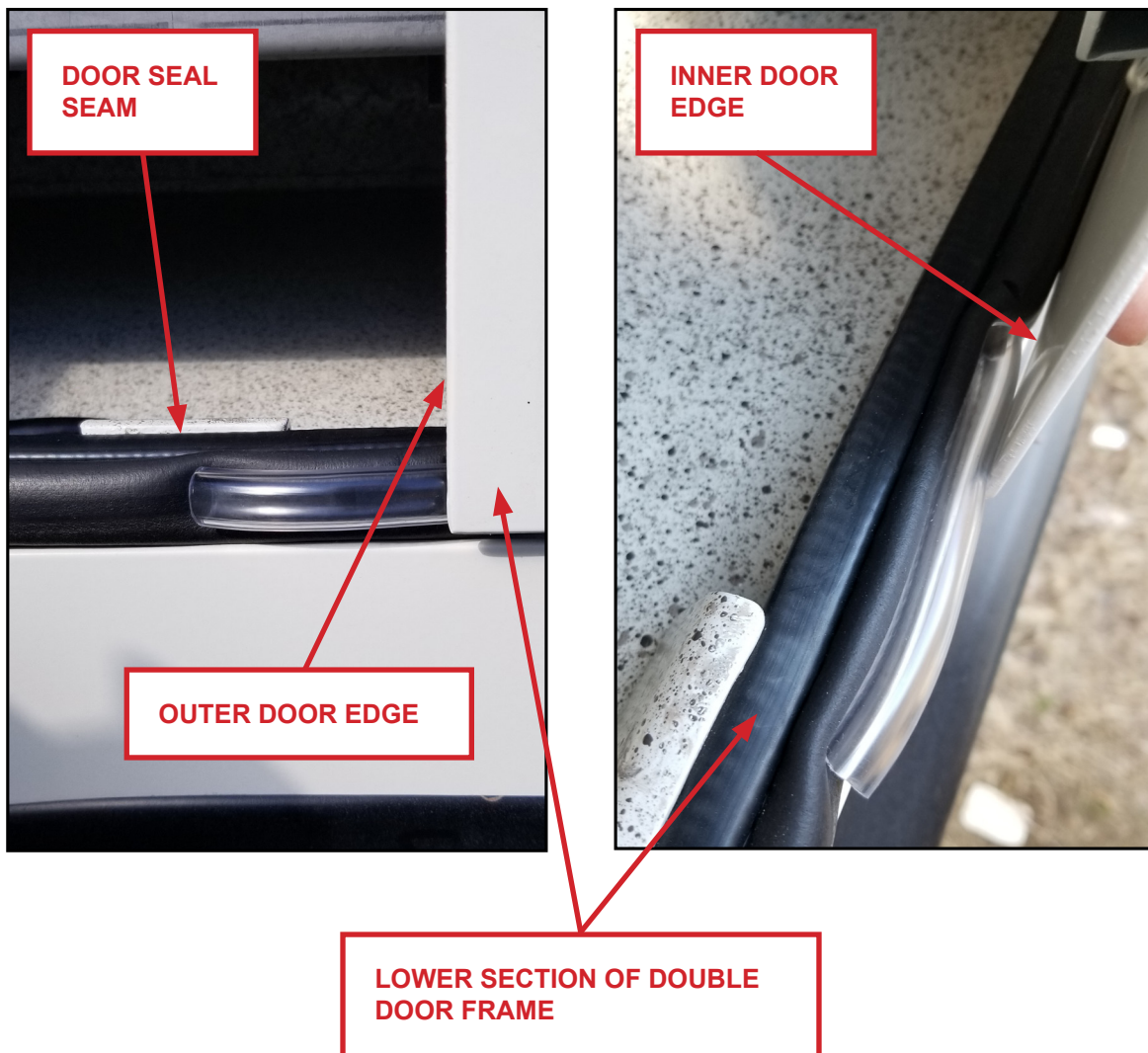
Installation of Double Door Gasket and Vinyl Tubing

6. Start by applying one seam of the door gasket onto the bottom of the door frame. The position of the seam needs to be behind the inner door about ½ inch from the outside edge of the door. Work your way into the 1st corner, then up the side of the frame behind the hinges (using rubber mallet and pry bar if needed) until the 2nd corner. Make sure to keep the corners pushed tight. If needed remove the door dampeners (shocks). Work the door seal into the 3rd corner and behind the door hinges by moving the door back and forth so you have room behind the hinges to work the door gasket onto the edge. Use a pry bar to push the door gasket on and a rubber mallet to evenly install the door gasket. When you reach the 4th corner, install tight and continue until it is necessary to trim excess door gasket, leaving about 1 inch excess after cutting for pressure retention between the seams. Trim the door gasket ends as straight as possible.



Installation of Double Door Gasket and Vinyl Tubing

7. The 3.5 inch vinyl tubing needs to be installed correctly based on the beginning of the first seam. The vinyl tubing needs to be positioned so it is installed into both bulb seams and between the inner door and outer door. Insert the 3.5 inch vinyl tubing into the bulb seam about 1/2 inch behind the inner door seam, using the silicone. Apply the silicone to the seam and edge trim and apply around the tubing where it meets the seam. On the second seam, apply silicone to the bulb and edge trim. Slide the rest of the 3 inches of the tubing inside the 2nd seam tight and push the seam onto the edge, flush. Work the door gasket down on the edge trim. Wipe off excess silicone leaving the silicone in the center to make a flush molded seal. (Lubricant can be added to the tubing for assemble easier. Before applying silicone remove any oil or grease from the sealing surfaces.)



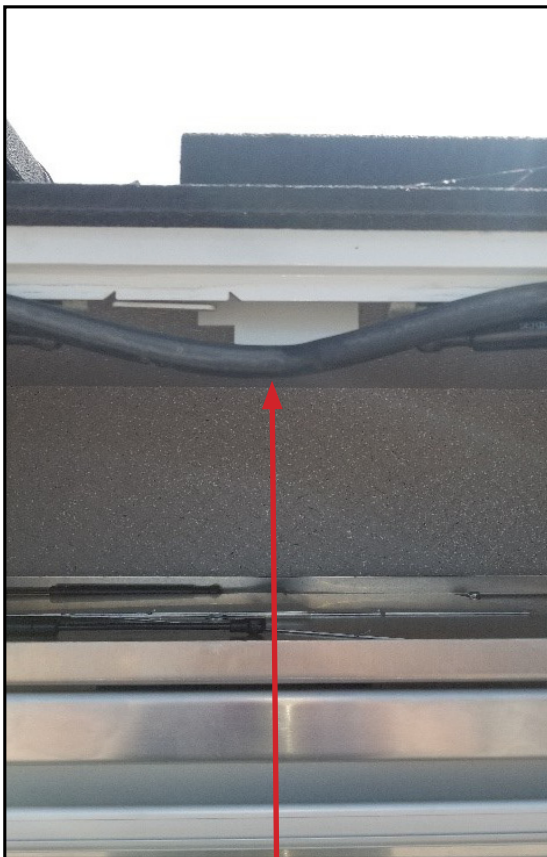
Installation of Double Door Gasket and Vinyl Tubing

How to install vinyl tubing and silicone the seams:

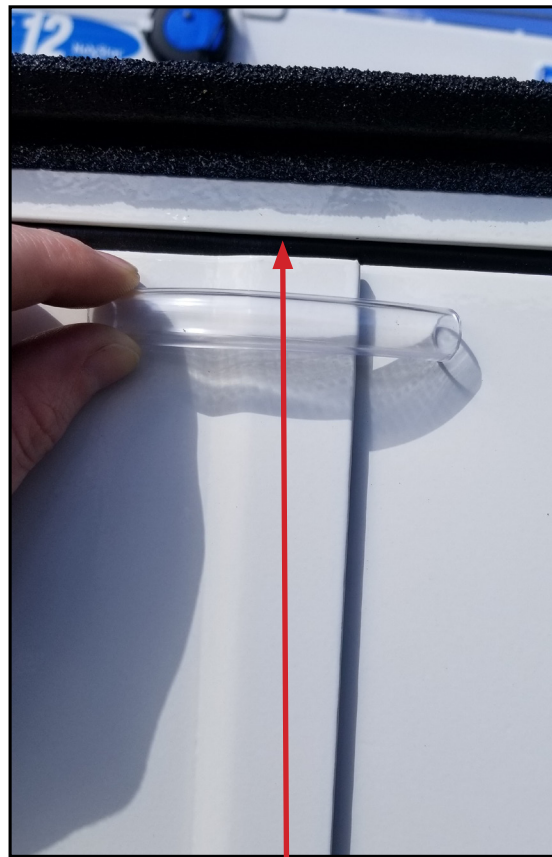


Installation of Double Door Gasket and Vinyl Tubing

8. Once the bottom seams of the door frame are complete, pull the door gasket down from the top of the door frame where the 2nd 3.5 inch tubing will be installed and sealed. Once the door gasket is pulled down enough away from the edge to cut the door gasket into 2 pieces, cut the door gasket keeping the cut straight. After cutting the door gasket, install the tubing as the same as the bottom portion by installing the tubing 1/2 inch into the door gasket seam behind the inner door and 3 inches inside the other seam leading to the outer door. Silicone the door gasket edge trim that was removed to cut and install the tubing. Silicone the tubing seam area, the bulb, and edge trim and install the seams flush and flat. Wipe away excess silicone leaving the silicone in the center to make a flush molded seal. (Lubricant can be added to the tubing to assembly easier. Before applying silicone remove any oil or grease from the sealing surfaces.)

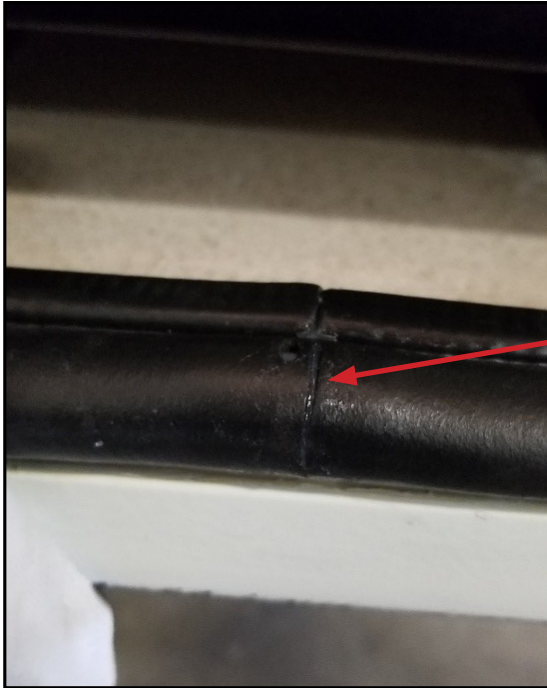


**TOP PORTION OF DOOR
GASKET PULLED DOWN TO
MAKE CLEARANCE TO CUT
WITH SHEARS.**



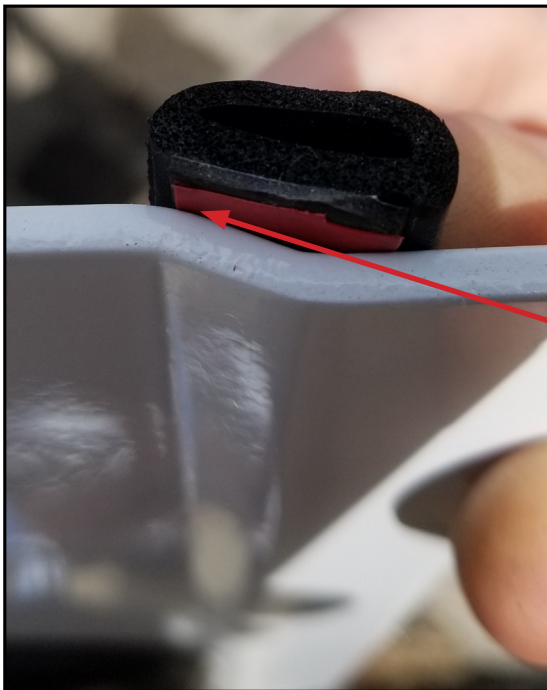
**ACCOMPLISH TOP PORTION
IN SIMILAR FASHION AS THE
BOTTOM.**

Installation of Double Door Gasket and Vinyl Tubing



**SEAM FILLED WITH SILICONE
THAT HAS BEEN WIPED CLEAN
TO ALLOW FOR A FLUSH SEAL.**

9. The door seam gasket (D-shaped seal with adhesive) must be applied to the full length of the outer door. It must be applied to the inside radius of the double bend. Before applying gasket to door, position the red tape in line with the tangent line of the radius as shown below.



**RED TAPE IN LINE WITH
TANGENT OF RADIUS**

Installation of Double Door Gasket and Vinyl Tubing

10. Cut door seam gasket to full length of door and apply flush. Firmly press gasket into door to make sure adhesive holds



NOTICE

Now that the door gasket is installed on the door frame, the T-handle, roller guides and door rods will need to be adjusted to accommodate the extra diameter and pressure from the vinyl tubing and door seam gaskets. Review the roller guide, door rod and T-handle section of the work instructions to adjust the doors properly.

Roller Guide, Door Rods and T-handle Adjustment

Adjustment time: 10 minutes per door

List of materials needed to perform adjustment:

- Pry bar
- Table top vise
- Small rubber mallet
- SAE allen wrench pack

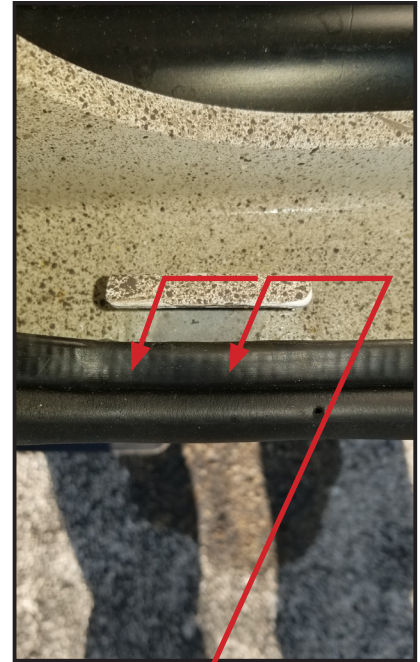
The final phase of the work instructions, the adjustment of these components will not only help seal the door better, it will help by allowing the T-handle latch to open easily but remain a tight 3 point contact with the locking system. To help evenly distribute and close any gaps and set in the door gasket, pressure is required to ensure that the door face meets the bulb seal 100% around the doors.

Once all of the modifications have been performed, the T-handle gasket installation, the caulking inspection and repair, the removal and installation of the tape gasket, the installation of door gaskets and backer rods. Adjustment of the door rod, roller guide, and T-handle will be required due to the stiffness of the backer rod and pressure required for the double doors and on the single doors to remain leak free.

Single door Adjustments

1. The adjustment of the roller guides may be required. The roller guide may need to be pried in small gap increments (1/16 inch, 1/8 inch, 3/16 inch, 1/4 inch) in the direction of the back of the compartment. This will tighten the door rod rollers and pull the door into the door gasket when turning the T-handle to the close the door.

Roller Guide, Door Rods and T-handle Adjustment

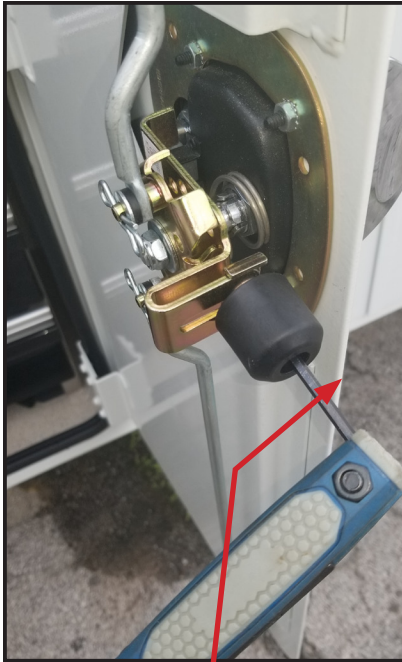


ROLLER GUIDE ADJUSTMENT ON SINGLE DOORS. GAP THE DOOR FRAME'S TOP AND BOTTOM ROLLER GUIDE AWAY FROM THE DOOR GASKET SO THE DOOR WILL MAINTAIN CONSTANT PRESSURE WHEN CLOSED.

VERIFY T-HANDLE LATCH WILL OPERATE CORRECTLY AFTER ADJUSTMENT. IF NEEDED, ADJUST ROLLER GUIDE TOWARDS THE DOOR GASKET UNTIL THE T-HANDLE WHALE TAIL TURNS EASILY.

2. After adjustment, the T-handle whale tail should turn moderately with one hand without pushing in on the door. You will notice as you turn the T-handle that the door pressure against the bulb will increase and flatten the bulb seal. The adjustments should be performed evenly to the top and bottom roller guide. If the T-handle whale tail is difficult to turn due to over-gapping the roller guide, shorten the gap with a mallet until the T-handle whale tail will turn with moderate ease.
3. After the adjustment of the roller guide, adjustment of the T-handle pivot tensioner will need to be performed. On most single doors the black bump stop roller with its allen head screw will need to be positioned to its tightest setting. Loosen the allen head screw and pull the black bump stop roller toward the inside of the door until it stops then tighten. Close the door and turn the T-handle latch to lock the door, then close the whale tail into its stowage position. If closing the whale tail in the stowage position is extremely difficult then loosen the black bump stop roller and adjust accordingly.

Roller Guide, Door Rods and T-handle Adjustment



**SINGLE DOOR
ADJUSTMENT
DIRECTION.**



NOTICE

When the T-handle whale tail is stowed in its locked position, it should pull the door into the door frame even tighter. If it doesn't pull the middle of the door tighter then it is not contacting with the door frame. The middle of the door will not retain tension and could leak water. This can cause the T-handle whale tail to open during mobile operation.

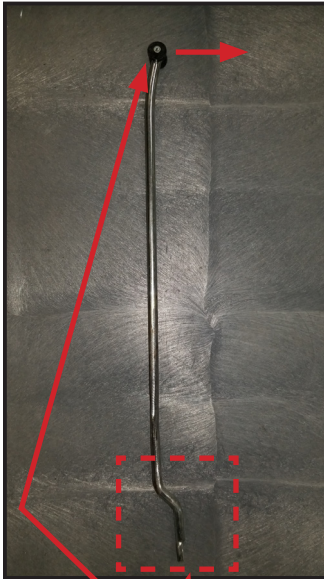
Double Door Adjustments

Correct adjustments of the latching system is crucial to help remain easy operation and pressure to help maintain the compartments to be leak free. The opposite will be performed on the double doors due to the extra diameter of the door seal backer rods. Without adjustments to the rods and T-handle latching system, it will be next to impossible to operate and close, and the doors will not shut correctly.

The adjustment of the door rods will need to be performed, The roller guide on most double doors will most likely be at the closed position so adjustment of the striker roller guide will not affect the tension on the doors unless it is gapped in the direction of the back of the compartment. if there is a gap between the striker plate and the door seal edge trim then it can be adjusted by using a rubber mallet and closing the gap if necessary.

Roller Guide, Door Rods and T-handle Adjustment

1. Remove the doors rods from the T-handle pivot retainer and place the door rod in a vice so that about 4 inches is sticking up beneath the rollers. The direction the door rods are placed in the vice is crucial to perform the bend in the correct direction. In 99% of adjustments, the bend of the roller neck will need to be in the same direction as the bend that is in the lower portion of the door that meets the T-handle pivot tensioner. This bend will allow the rollers to meet the tapered portion of the striker plate when the doors are close instead of the flat portion of the striker plate which will make the T-handle whale tail difficult to turn to shut.



**DIRECTION TO
BEND ROD NECK
ROLLER HEAD
WHEN ORIENTED
CORRECTLY.**



NOTICE

Bending the neck of the rod rollers too far will result in a loss of pressure against the door and door seal and could potentially develop a leak. When the rod bend is correct, pressure from the latching system when the door is closed and shut, will be great enough to close all the door seal gaps evenly against the backer rod and the rest of the door. The D-profile gasket should be crushed flat against the door seal and inner door when the door is closed and shut.

Roller Guide, Door Rods and T-handle Adjustment



NOT BENT FAR ENOUGH



BENT TOO FAR



BENT CORRECTLY

Roller Guide, Door Rods and T-handle Adjustment

2. After the adjustment of the door rods and/or roller guide, adjustment of the T-handle pivot tensioner will need to be performed. The black bump stop roller with its allen head screw will need to be positioned so that the whale tail will shut moderately in the stowage position. Loosen the allen head screw and adjust the black bump stop roller accordingly so when the door is closed and shut, and the whale tail is in the stowage position, it closes the doors gap between the inner and outer door. This adjustment should put even more pressure on at top, middle, and bottom of the D-profile gasket.



**DOUBLE
ADJUSTMENT
DIRECTION**

NOTICE

Close the door and turn the T-handle latch to shut the door then close the whale tail into its stowage position. If closing the whale tail in the stowage position is extremely difficult then loosen the black bump stop roller and adjust accordingly.

Roller Guide, Door Rods and T-handle Adjustment

3. When the T-handle whale tail is stowed in the locked position it should pull the door into the door frame even tighter. If it doesn't pull the middle of the door tighter then it is not contacting with the inner door strike plate and the middle of the door will not retain tension and could leak water. This can cause the T-handle whale tail to open during mobile operation.



TITAN 16

VEHICLE OPERATION & PREPARATIONS

IMPORTANT—READ FIRST!!

VEHICLE PREPARATION FOR OUTRIGGER AND CRANE OPERATION

1. Park vehicle within crane operating distance from object that is to be lifted.

Notes:

- Make sure there are no obstructions preventing safe handling of load during crane operation.
- Verify that no obstructions will prevent the full extension of the outrigger legs on both sides of vehicle.
- Regardless of load to be lifted the outriggers should always be fully extended to keep vehicle stable.
- Grade shall not exceed 1° of level. Level truck with blocks if grade exceeds 1° of level.

2. **ALWAYS** set the vehicle emergency brake before beginning crane operations.
3. Use wheel chocks on the front wheels of vehicle.

INSPECT OUTRIGGERS BEFORE USE

1. Visually inspect outrigger before use making sure the outrigger is in good working order.
2. Replace or repair any worn or damaged parts before outrigger operation.
3. Check for and repair leaks on hydraulic units if they occur.

MANUAL OUTRIGGER OPERATION

1. Un-hook the sling from around the outrigger leg.
2. Extend outrigger slides from stowed position by releasing pull pin and extending the outrigger slides fully.
3. Make sure the slides are fully extended and locked into position with pull pin.
4. Lower both outrigger legs until they contact the ground then extend another inch to insure good ground contact.

Notes:

- Use blocks under pads to increase surface area if required for stability on soft ground.
- **DO NOT LIFT TRUCK WHEELS WITH OUTRIGGERS.** The outriggers are intended for vehicle stability during lifting operations not for complete vehicle support.

MANUAL OUTRIGGER STOWING PROCEDURE

5. Fully retract vertical legs to stowed position.
6. Retract outrigger slides from extended position by releasing pull pin and pushing slides in fully.
7. Make sure the slides are fully retracted and locked into position with pull pin.
8. Make sure the sling is secured in place around the outrigger leg.

TITAN 16

VEHICLE OPERATION & PREPARATIONS

HYDRAULIC OUTRIGGER OPERATION

1. Divert hydraulic flow from control valve to outrigger operations.
2. Use the hydraulic control valve to extend outrigger slides from stowed position to the fully extended position.
3. Make sure the slides are fully extended.
4. Lower both outrigger legs until they contact the ground then extend another inch to insure good ground contact.

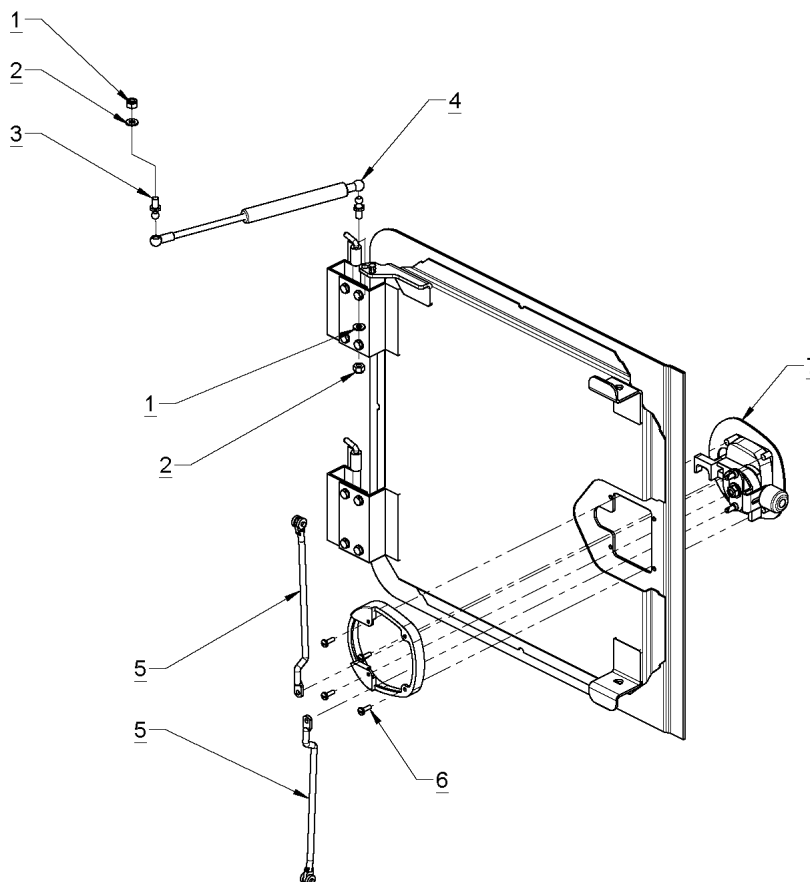
Notes:

- Use blocks under pads to increase surface area if required for stability on soft ground
- **DO NOT LIFT TRUCK WHEELS WITH OUTRIGGERS.** The outriggers are intended for vehicle stability during lifting operations not for complete vehicle support.

HYDRAULIC OUTRIGGER STOWING PROCEDURE

5. Fully retract vertical legs in stowed position.
6. Retract outrigger slides from extended to the fully retracted position.
7. Make sure the slides are fully retracted in the stowed position.
8. Make sure the sling is secured in place around the outrigger leg.

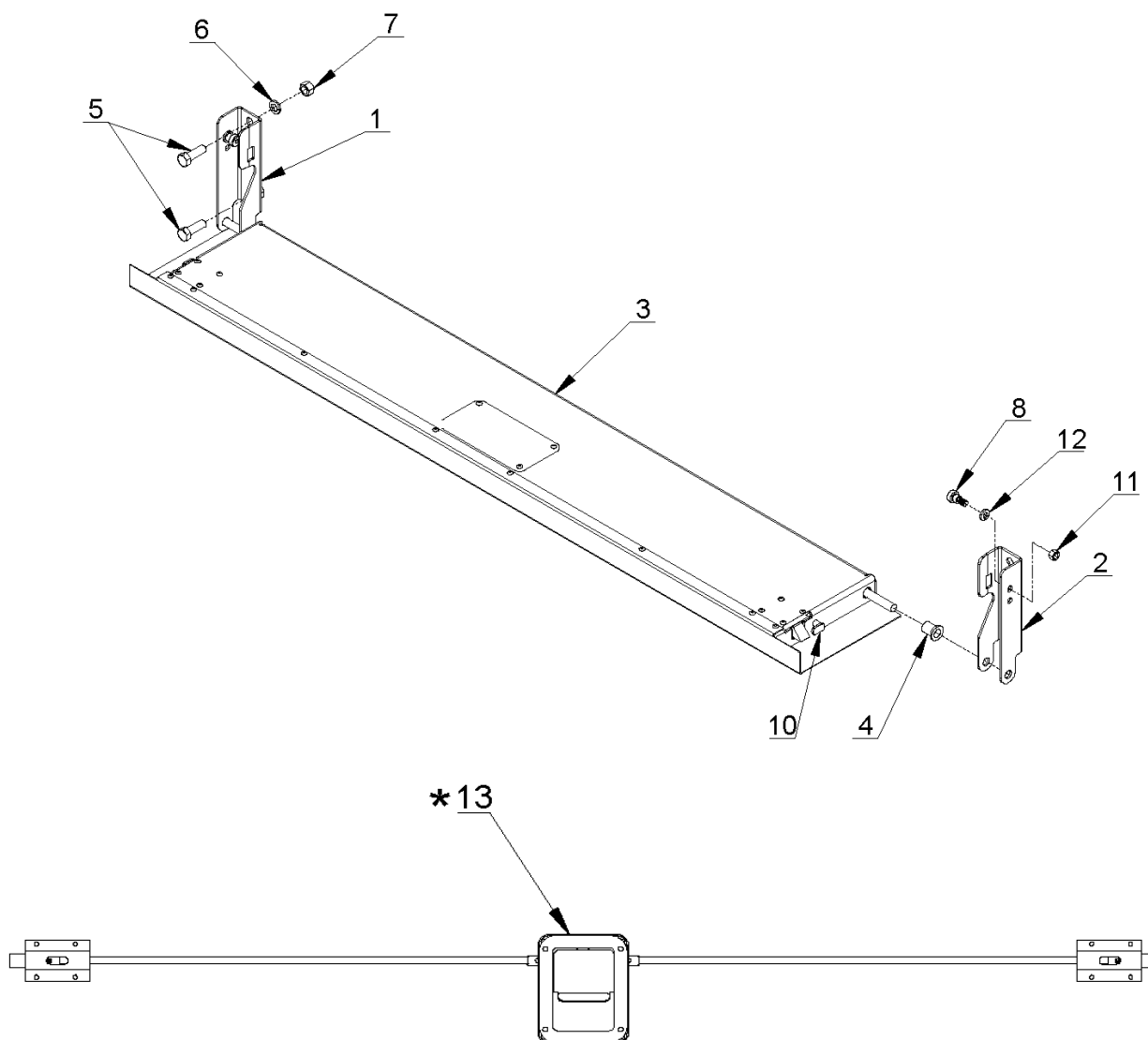
TITAN 16 DOOR



ITEM NO.	QTY	PART NUMBER	DESCRIPTION
1	2	016801000	NUT HX NYLK 5/16-18UNC CP
2	2	020300000	WASHER FL 1/4 CP
3	2	760535002	BALL STUD THREADED 5/16-18
4	1	760535001	DOOR PROP (GAS)
5	2	*SEE CHART	DOOR ROD
6	4	002609000	SCREW RD HD #10UNF X 5/8 CP GR3
7	1	560525000	T-HANDLE

USED ON	PART NUMBER	DESCRIPTION
USED ON ALL 52" COMPARTMENT DOORS, UPPER/LOWER	560415000	DOOR ROD STD
USED ON 58" COMPARTMENT DOORS, UPPER	560417000	DOOR ROD TALL
USED ON HORZ. COMP. UPPER/LOWER	560416000	DOOR ROD HORIZ

TITAN 16 TAILGATE

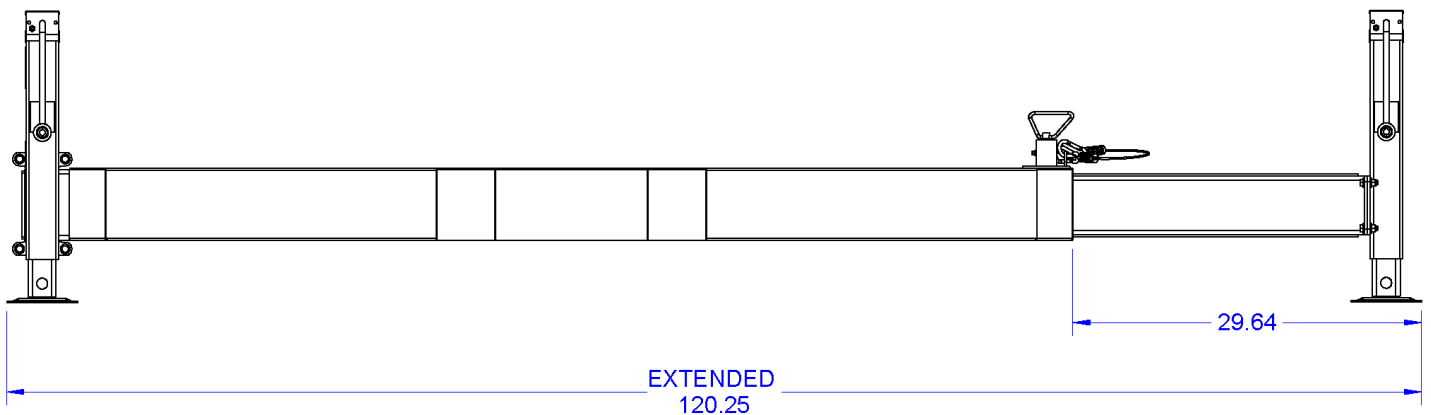
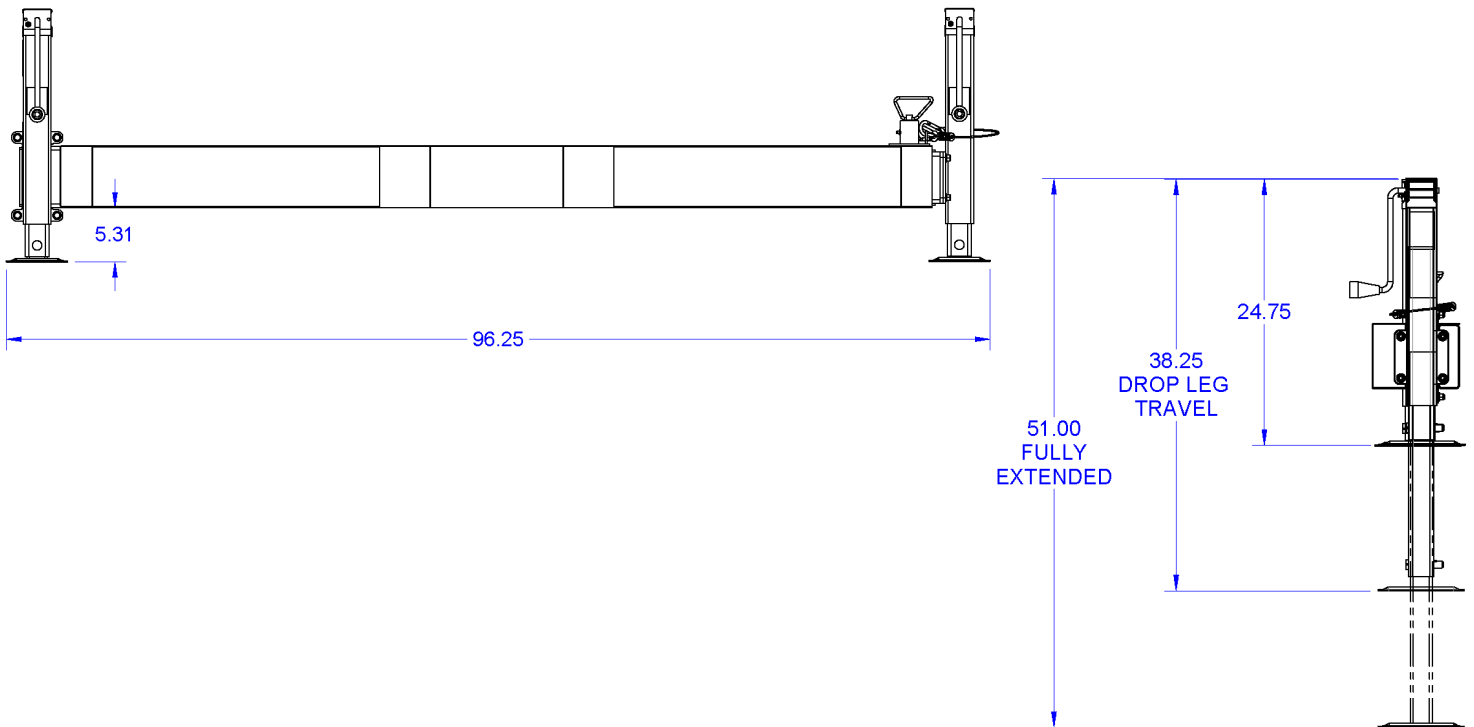
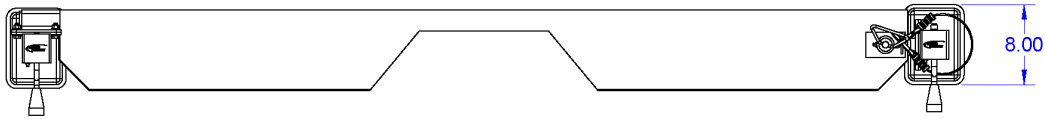


* THIS ITEM IS A PART OF ITEM #3

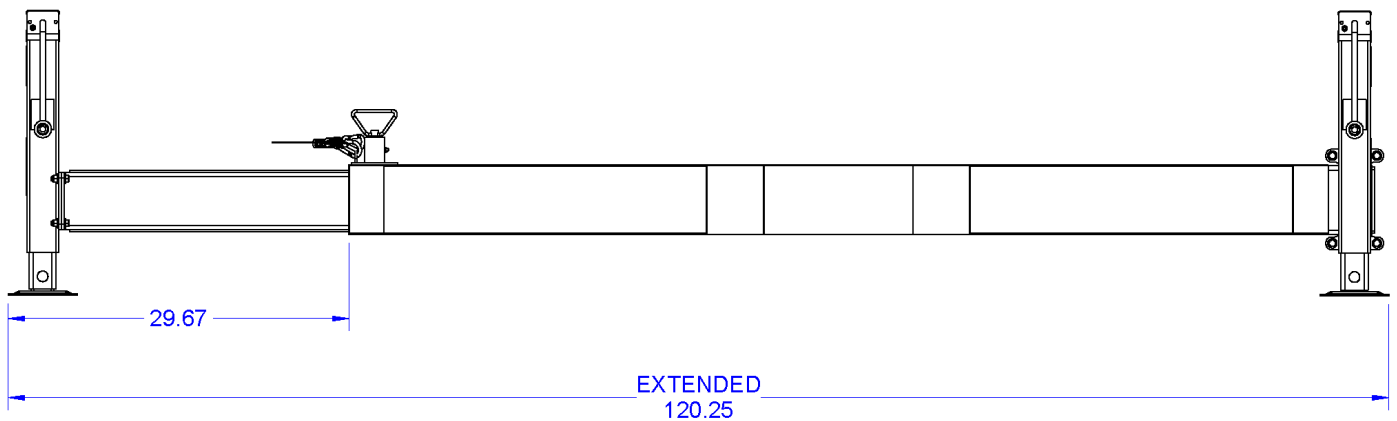
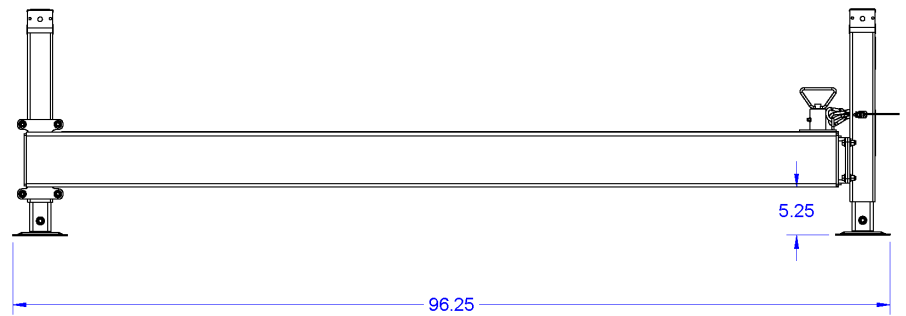
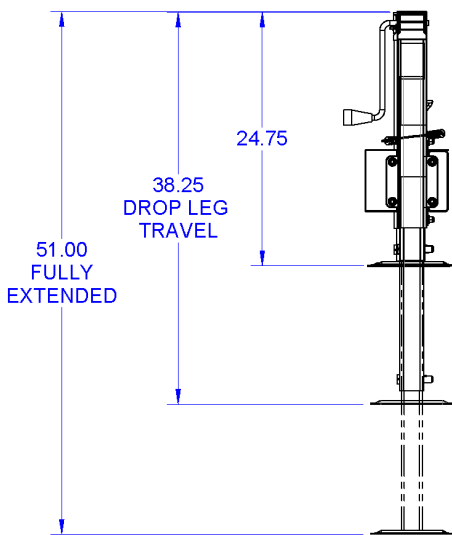
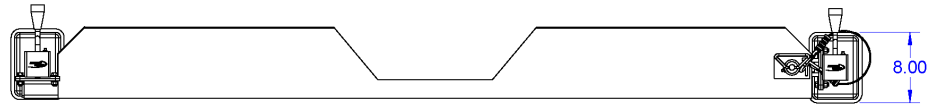
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	560085000	TAILGATE MTG BRKT WDMT LH
2	1	560088000	TAILGATE MTG BRKT WDMT RH
3	1	715051000	TITAN 16 TAILGATE SUB ASS'Y
4	2	736738000	TAILGATE BUSHING
5	2	010201000	SCREW HX HD 1/2-13UNC x 1 1/2 LG
6	2	021500000	WASHER SP LK 1/2
7	2	017701000	NUT HX 1/2-13UNC
8	2	560091000	SCREW SHOULDER 1/2 X 3/8-16UNC
**9	2	560090001	CABLE ASSY, TAILGATE
10	2	715139000	RIGHT ANGLE SPOTWELD SCREW
11	2	330372000	NUT HX 3/8-16UNC
12	2	021100000	WASHER SP LK 3/8
*13	1	715055000	TAILGATE LATCH ASSEMBLY
**	ITEM NOT SHOWN		

NOTES

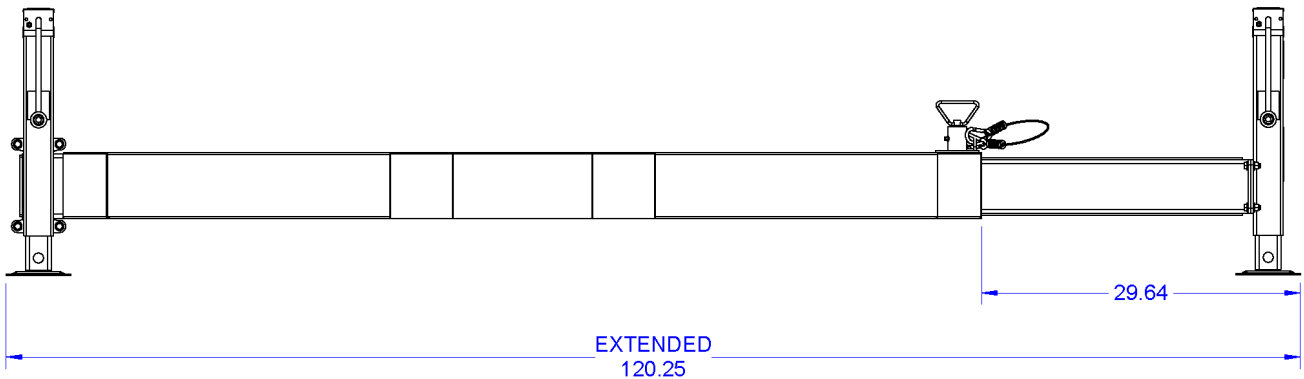
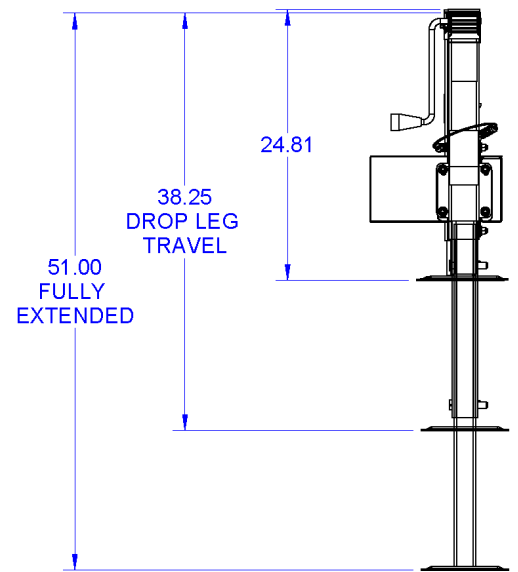
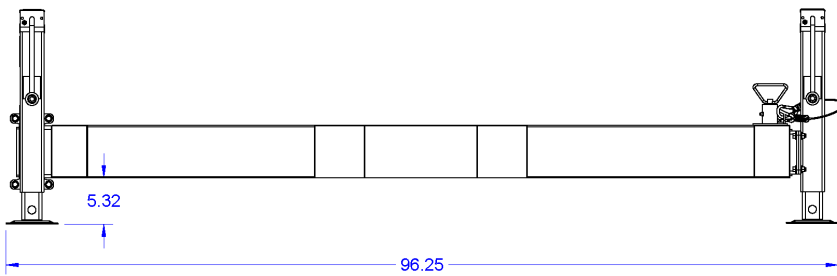
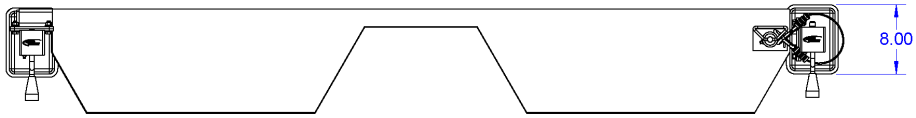
OUTRIGGER ASSY, 8" BUMPER RIGHT SIDE CRANE GENERAL DIMENSIONS



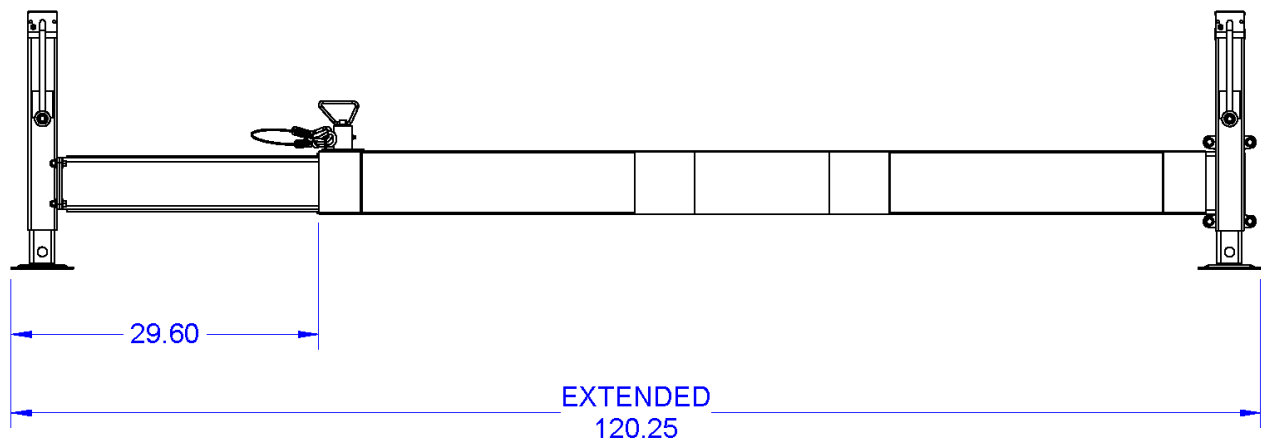
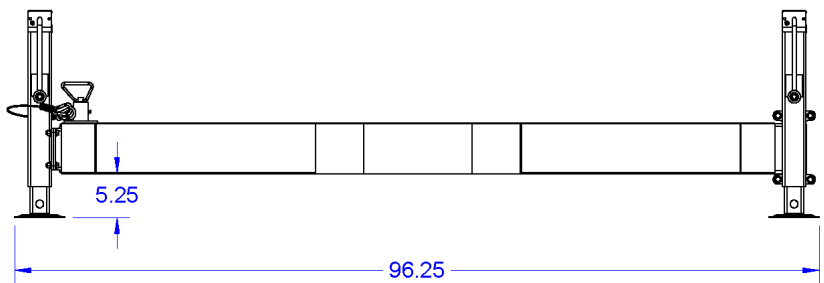
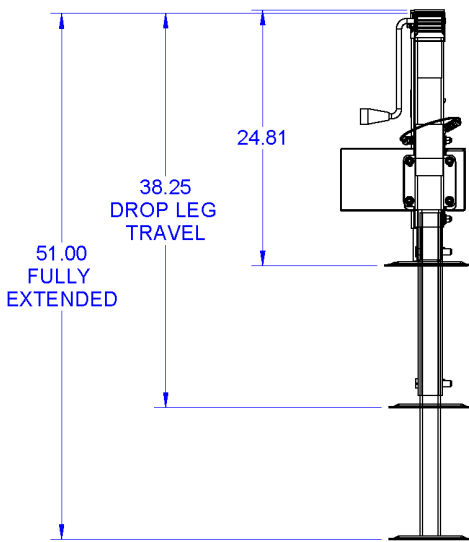
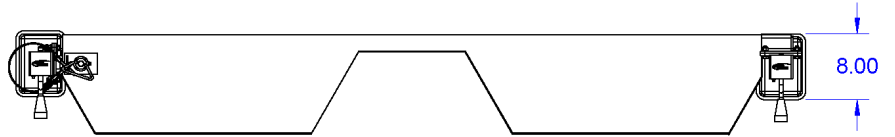
OUTRIGGER ASSY, 8" BUMPER LEFT SIDE CRANE GENERAL DIMENSIONS



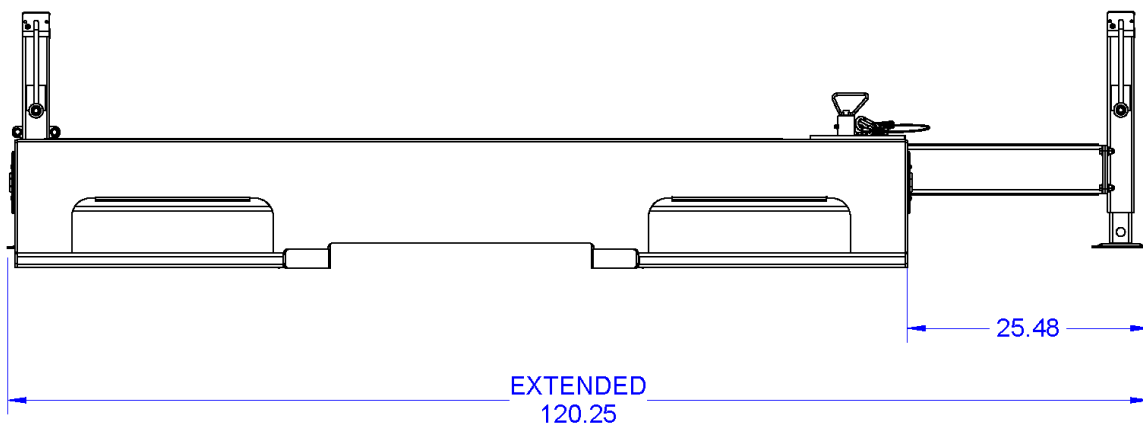
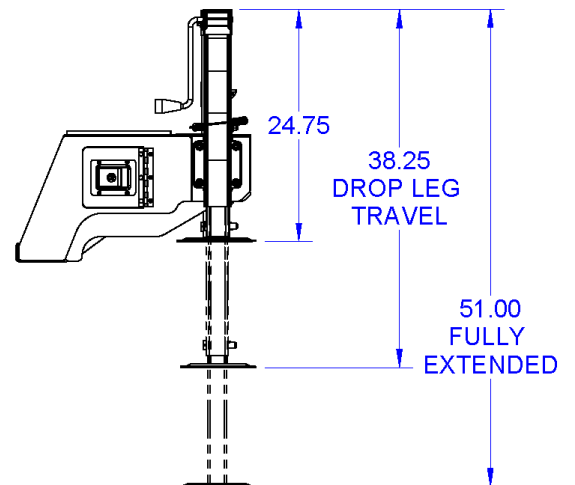
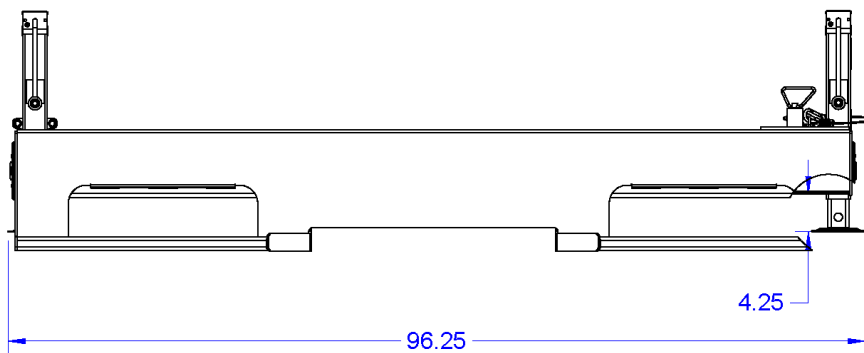
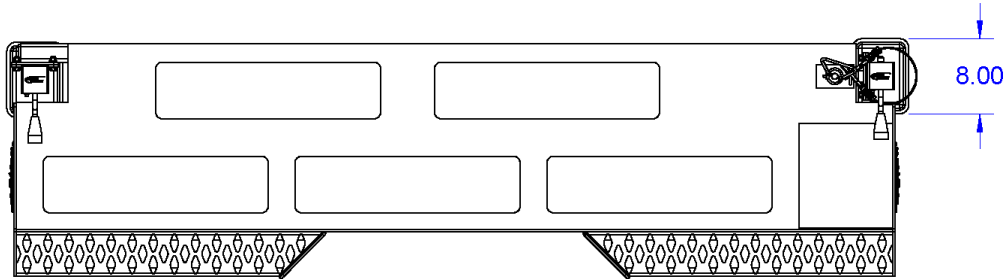
OUTRIGGER ASSY, 12" BUMPER RIGHT SIDE CRANE GENERAL DIMENSIONS



OUTRIGGER ASSY, 12" BUMPER LEFT SIDE CRANE GENERAL DIMENSIONS

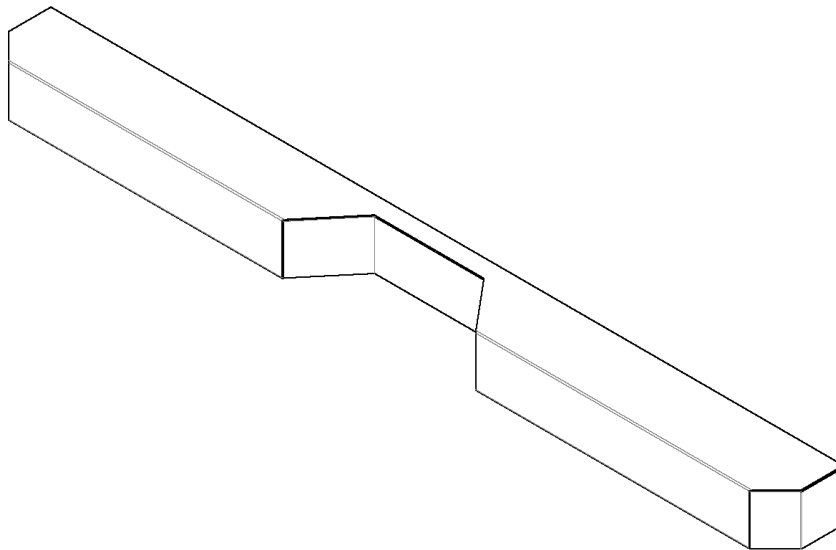
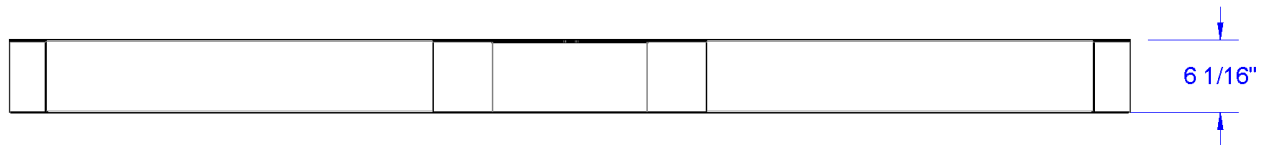
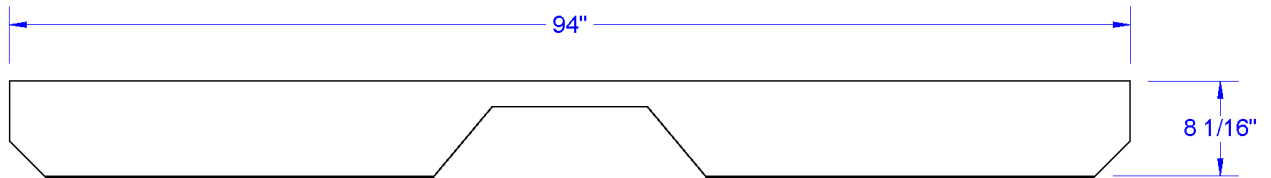


OUTRIGGER ASSY, 20" BUMPER **RIGHT SIDE CRANE** **GENERAL DIMENSIONS**



SERVICE BUMPER WELDMENT

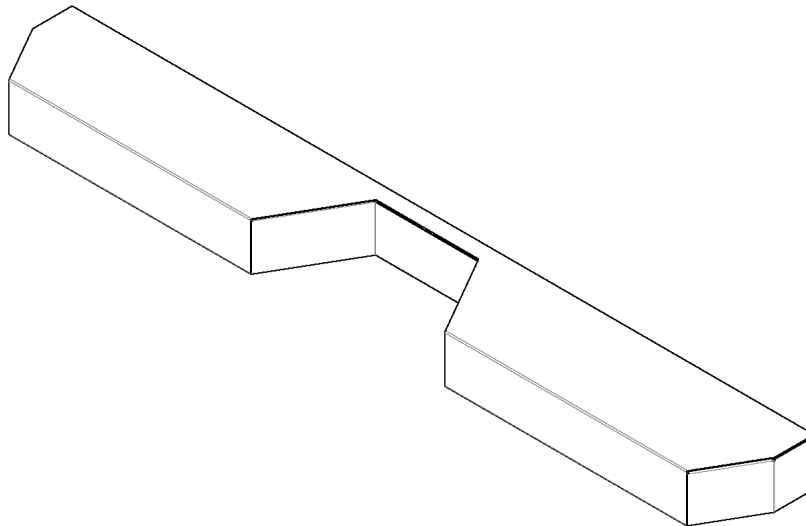
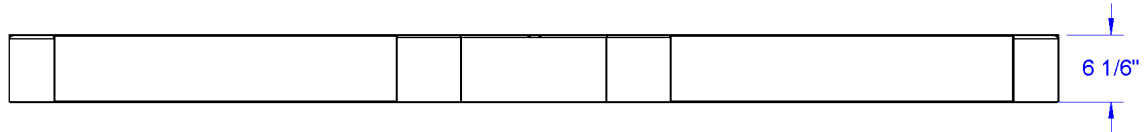
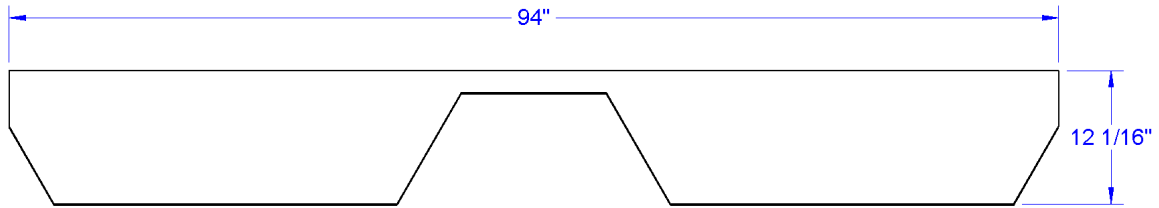
P/N: 715100002



GENERAL DIMENSIONS

SERVICE BUMPER WELDMENT

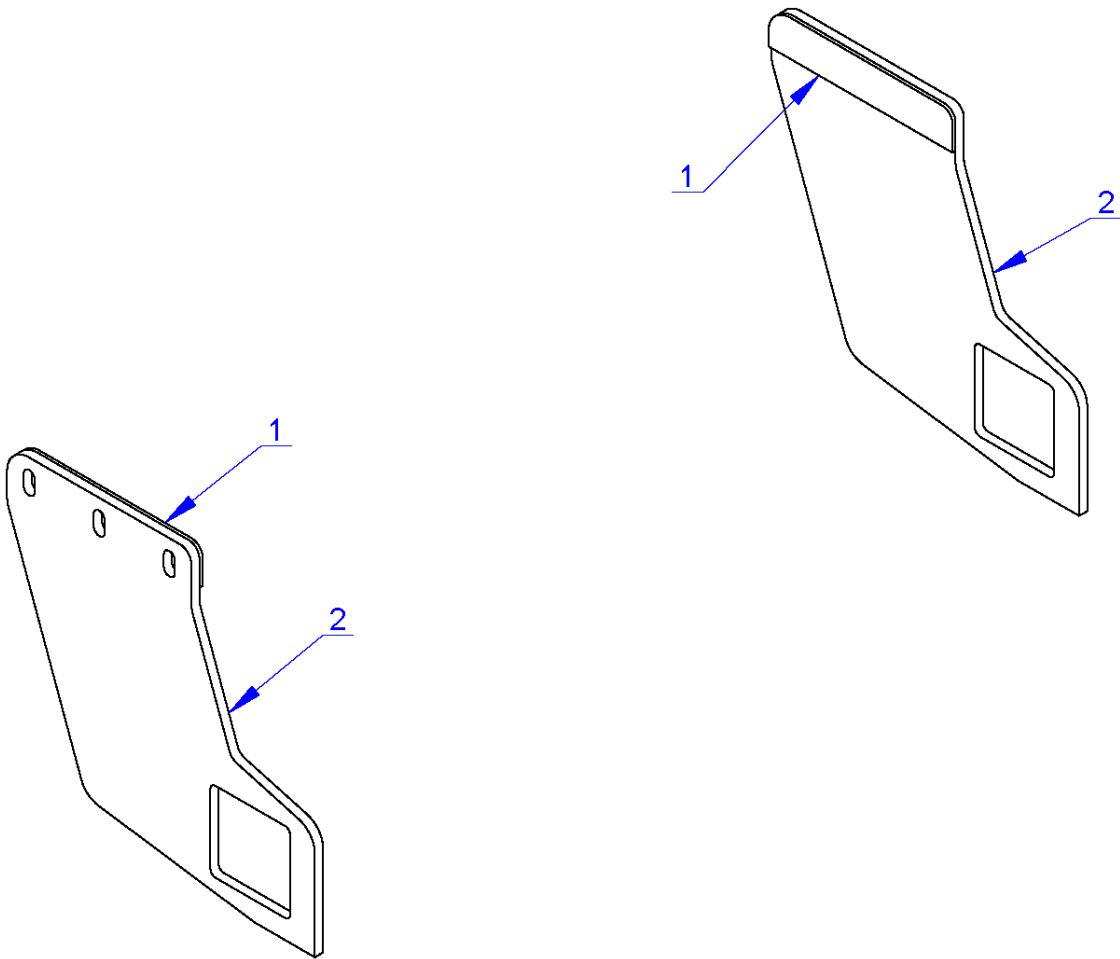
P/N: 715151002



GENERAL DIMENSIONS

TITAN 16 OUTRIGGER SHIP KIT

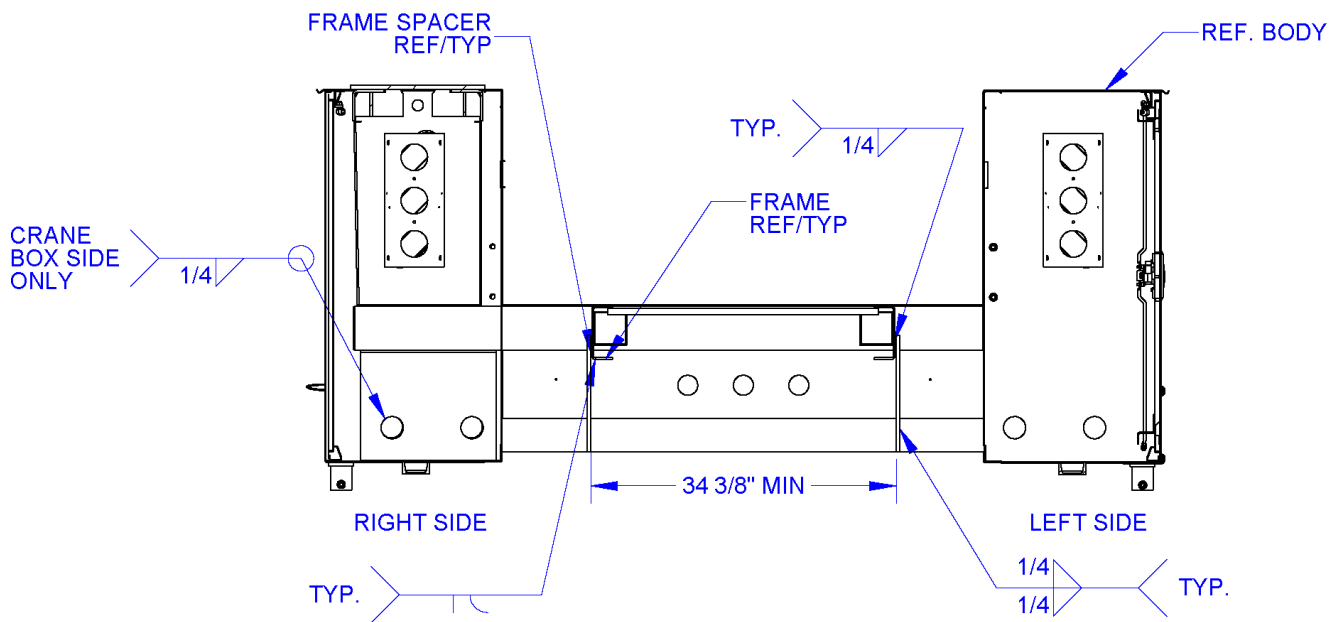
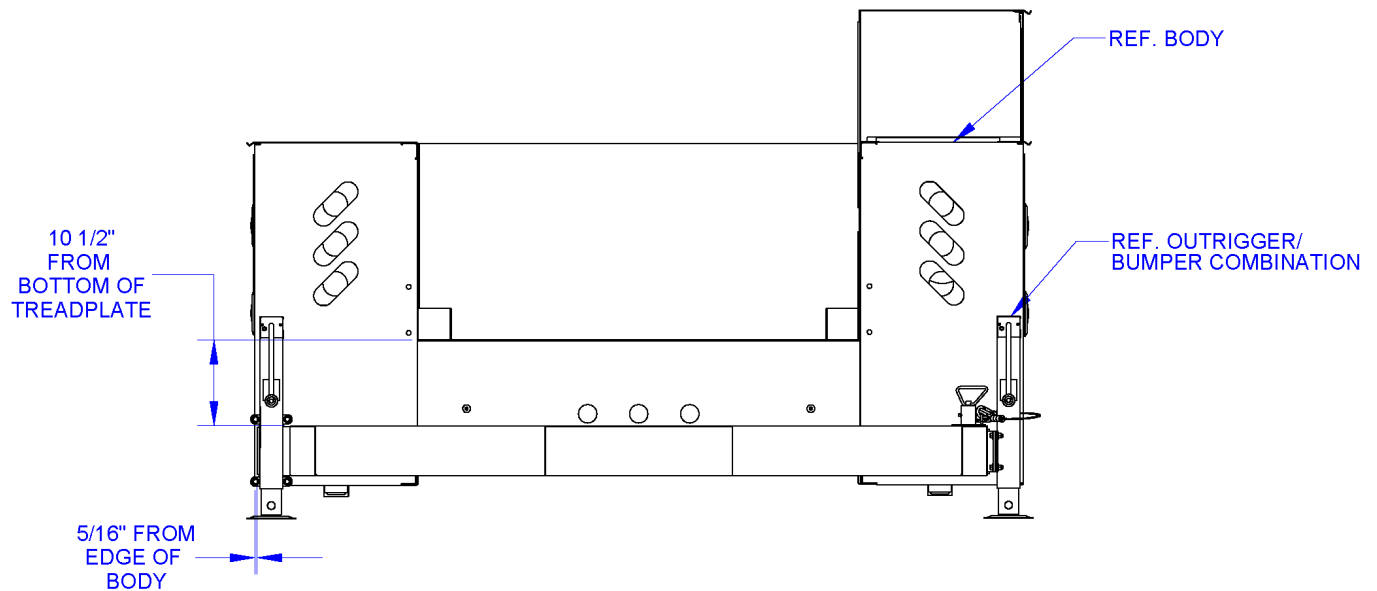
OUTRIGGER SHIP KIT 715112000



ITEM NO.	QTY	PART NUMBER	DESCRIPTION
1	2	715110001	TITAN 16 OUTRIGGER SPACER PLATE
2	2	715109001	TITAN 16 OUTRIGGER SUPPORT

TITAN 16

BUMPER/OUTRIGGER INSTALLATION



NOTE:

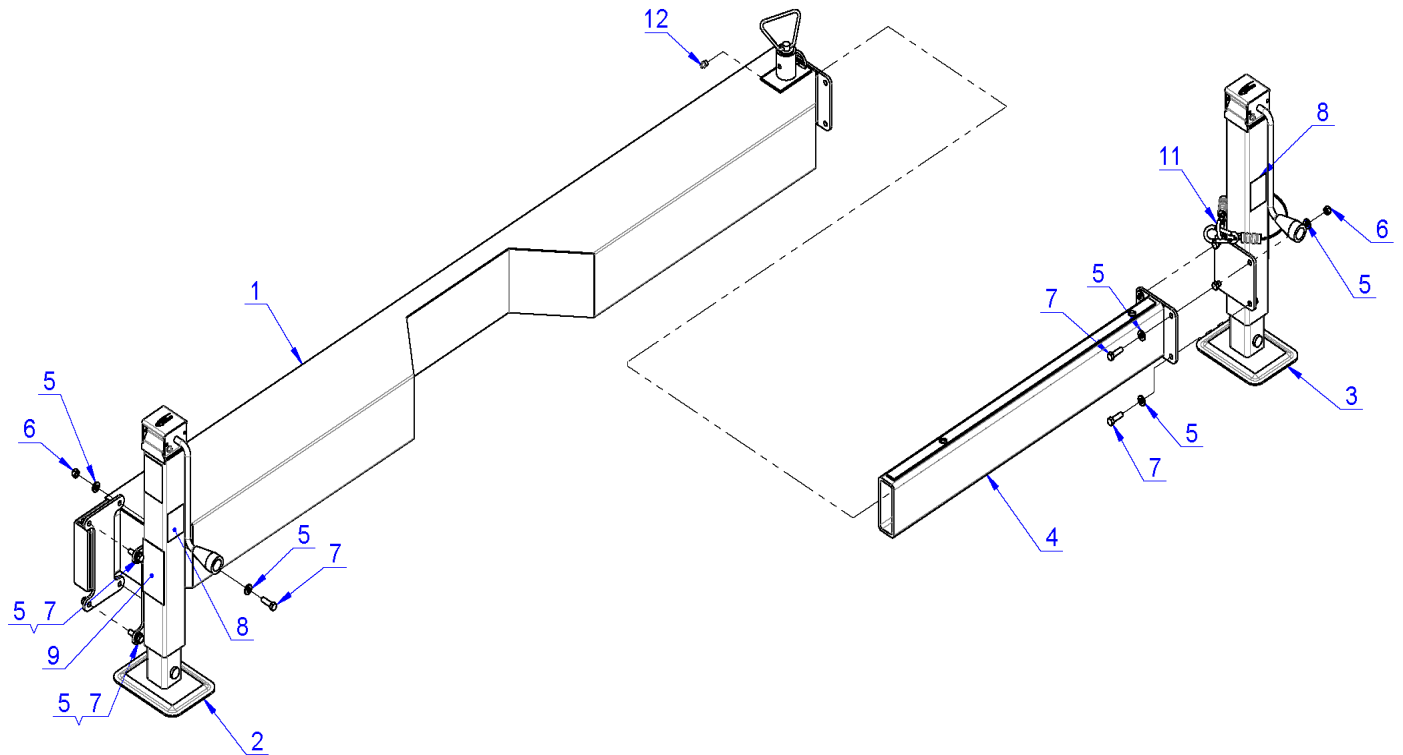
1) LEAN SUPPORT OUTRIGGERS OUT 1/4 INCH @ BOTTOM BEFORE WELDING TO BOTTOM SIDE OF FRAME.

2) DIM OF 34 3/8 INCHES PLUS MUST BE MAINTAINED BETWEEN SUPPORT OUTRIGGER PLATES @ BOTTOM OF BODY FRAME.

3) CUT OUTS FOR USE WITH HYDRAULIC OUTRIGGERS ONLY. RIGHT SIDE OUTRIGGER SHOWN. LOCATE CUTOUTS ON OPPOSITE SIDE FOR LEFT SIDE OUTRIGGER.

NOTES

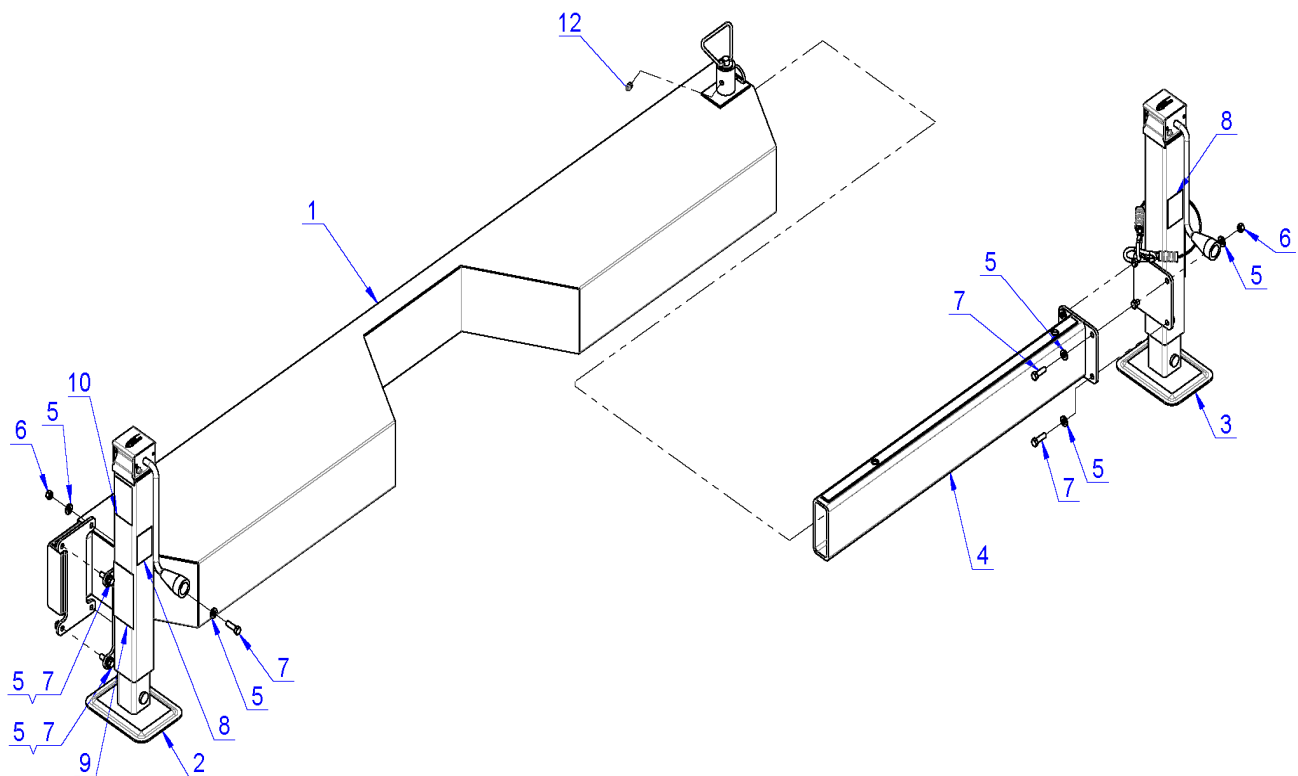
OUTRIGGER ASSY, 8" BUMPER
RIGHT SIDE CRANE PN: 715100000
LEFT SIDE CRANE PN: 715100001



OUTRIGGER ASSY, 8" BUMPER

ITEM NO.	LS QTY	RS QTY	PART NUMBER	DESCRIPTION
1	1	0	715101001	TITAN 16 BUMPER/OUTRIGGER WELDMENT (SS CRANE)
1	0	1	715101000	TITAN 16 BUMPER/OUTRIGGER WELDMENT (CS CRANE)
2	1	1	715108000	TITAN 16 JACK LEG ASSEMBLY
3	1	0	320958001	JACK LEG ASSEMBLY, SS
3	0	1	320958002	JACK LEG ASSEMBLY, CS
4	0	1	715116000	TITAN 16 OUTRIGGER EXTENSION LEG WELDMENT
5	16	16	320976000	WASHER, FLAT, 3/8 SAE HARDENED
6	8	8	017301000	NUT HX NYLK 3/8-16UNC CP
7	8	8	366159000	SCREW HX HD 3/8-16UNC X 1 1/2 LG GR8
8	2	2	759017000	DECAL DANGER MOVING OUTRIGGER
9	2	2	40581000	DECAL DANGER SERIOUS CRUSHING INJURY
10	2	2	725962000	DECAL DANGER OUTRIGGERS
11	1	1	772057000	SLING, OUTRIGGER
12	1	1	239300000	ZERK, GREASE
13	1	1	715112000	SHIP KIT TITAN 16 OUTRIGGER

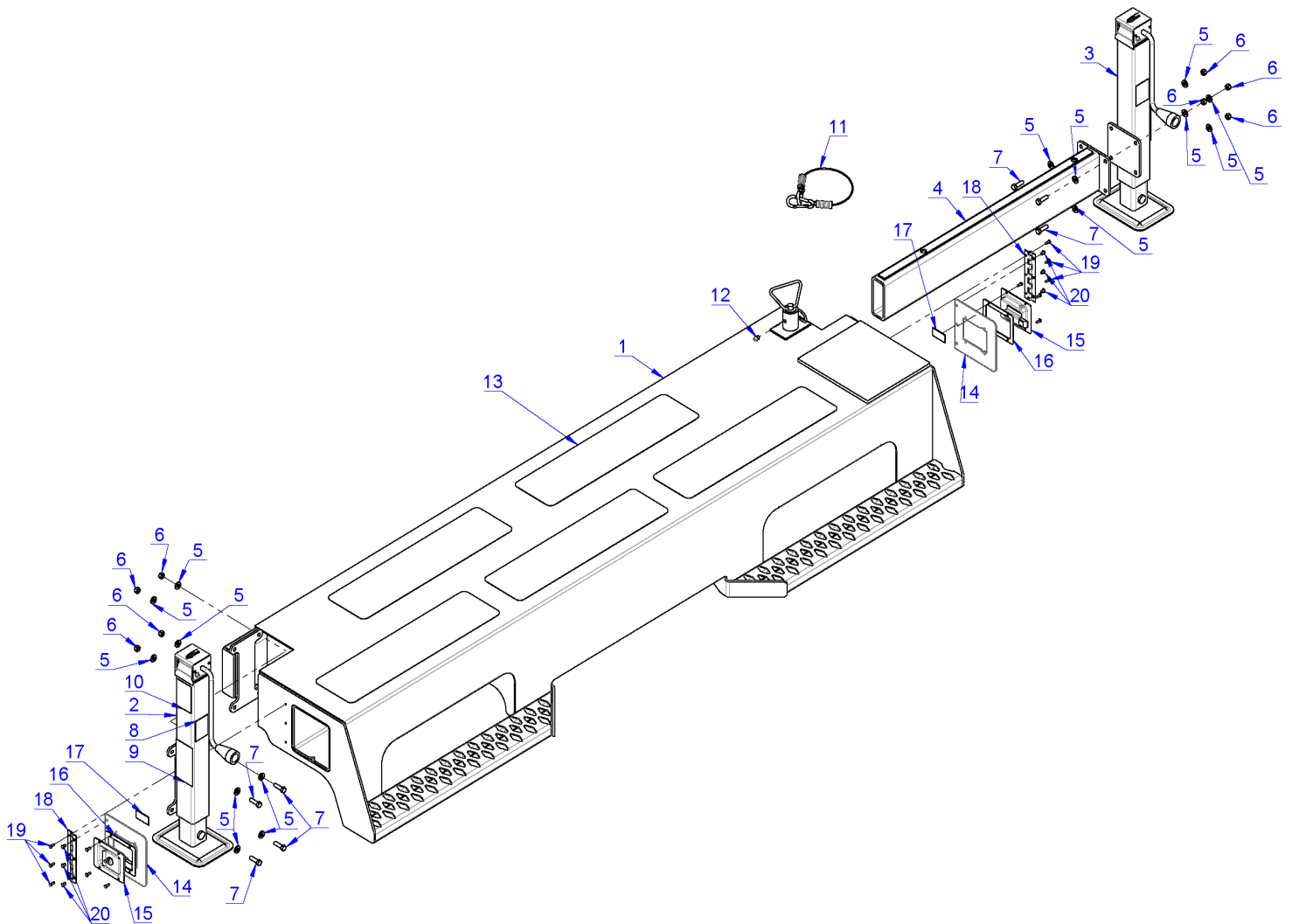
OUTRIGGER ASSY, 12" BUMPER
RIGHT SIDE CRANE PN: 715150000
LEFT SIDE CRANE PN: 715150001



OUTRIGGER ASSY, 12" BUMPER

ITEM NO.	LS QTY	RS QTY	PART NUMBER	Description
1	1	0	715151001	TITAN 16 BUMPER/OUTRIGGER 12 in WMT (SS CRANE)
1	0	1	715151000	TITAN 16 BUMPER/OUTRIGGER 12 in WMT (CS CRANE)
2	1	1	715108000	TITAN 16 JACK LEG ASSEMBLY
3	1	0	320958001	JACK LEG ASSEMBLY, SS
3	0	1	320958002	JACK LEG ASSEMBLY, CS
4	1	1	715116000	TITAN 16 OUTRIGGER EXTENSION LEG WELDMENT
5	16	16	320976000	WASHER, FLAT, 3/8 SAE HARDENED
6	8	8	017301000	NUT HX NYLK 3/8-16UNC CP
7	8	8	366159000	SCREW HX HD 3/8-16UNC X 1 1/2 LG GR8
8	2	2	759017000	DECAL DANGER MOVING OUTRIGGER
9	2	2	040581000	DECAL DANGER SERIOUS CRUSHING INJURY
10	2	2	725962000	DECAL DANGER OUTRIGGERS
11	1	1	772057000	SLING, OUTRIGGER
12	1	1	239300000	ZERK, GREASE
13	1	1	715112000	SHIP KIT TITAN 16 OUTRIGGER

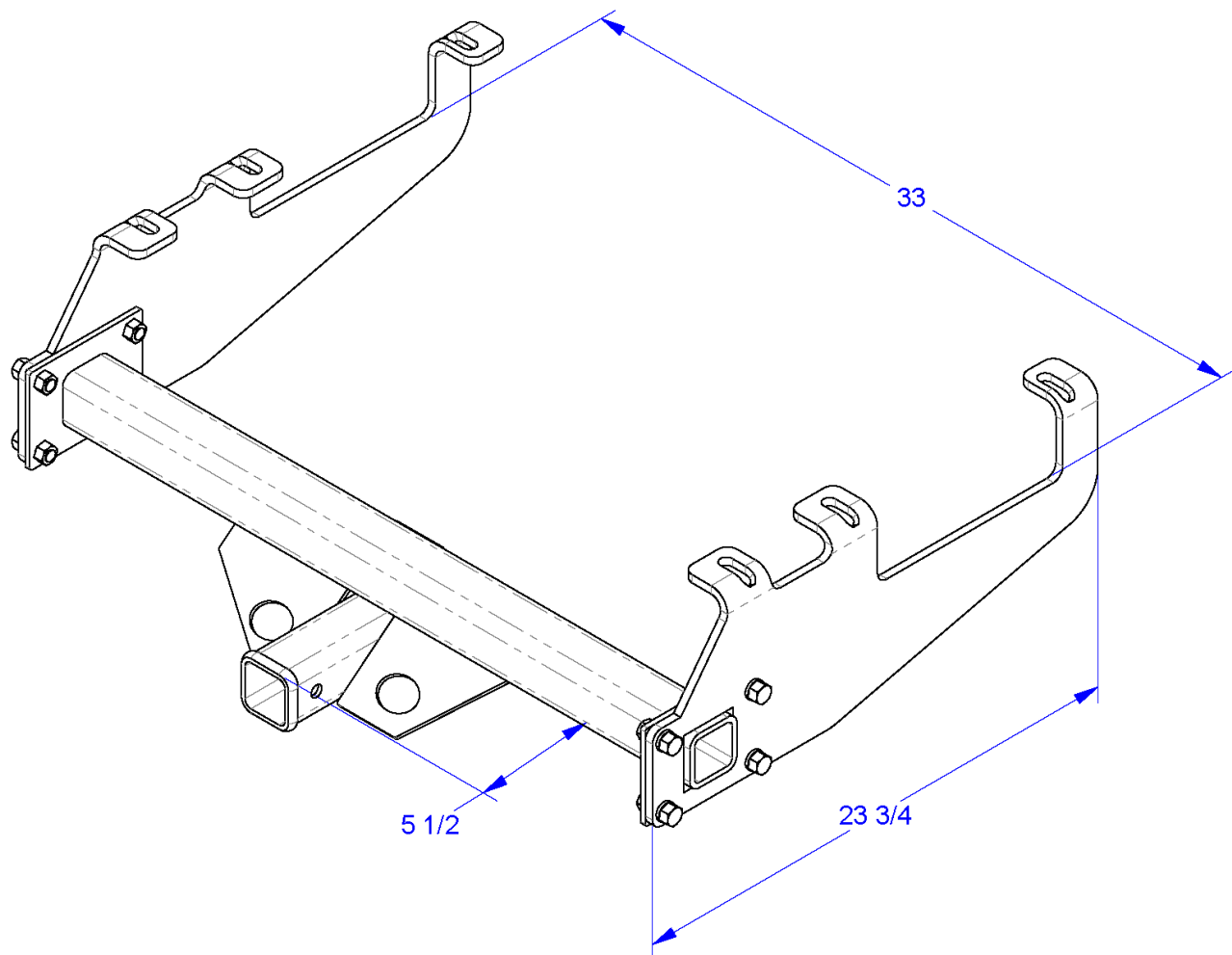
OUTRIGGER ASSY, 20" BUMPER RIGHT SIDE CRANE PN: 715158000



OUTRIGGER ASSY, 20" BUMPER

ITEM NO.	QTY	PART NUMBER	DESCRIPTION
1	1	715158100	TITAN 16 20 IN BUMPER/OUTRIGGER WDT (CS CRANE)
2	1	715108000	TITAN 16 JACK LEG ASSEMBLY
3	1	320958002	JACK LEG ASSEMBLY, CS
4	1	715116000	TITAN 16 OUTRIGGER EXT. LEG WMT.
5	16	320976000	WASHER, FLAT, 3/8 SAE HARDENED
6	8	017301000	NUT HX NYLK 3/8-16UNC CP
7	8	366159000	SCREW HX HD 3/8-16UNC X 1 1/2 LG GR8
8	2	759017000	DECAL DANGER MOVING OUTRIGGER
9	2	040581000	DECAL DANGER CRUSHING INJURY
10	2	725962000	DECAL DANGER OUTRIGGERS
11	1	772057000	SLING, OUTRIGGER
12	1	239300000	ZERK, GREASE
13	5	766141000	DECAL, SAFETY SURFACE
14	2	738665001	DOOR, STORAGE COMPT
15	2	716032001	LATCH, PADDLE KEY-LOCKING
16	2	716032002	GASKET, PADDLE LATCH
17	22	750740000	GASKET FL 1in X 1/8
18	2	738664000	HINGE CONT 6.25
19	14	754028000	RIVET POP 3/16 DIA X 1/4 - 3/8 GRIP SS
20	6	750783000	RIVET HINGE SS
21	1	715112000	SHIP KIT TITAN 16 OUTRIGGER

RECEIVER HITCH INSTALLATION TITAN SERIES

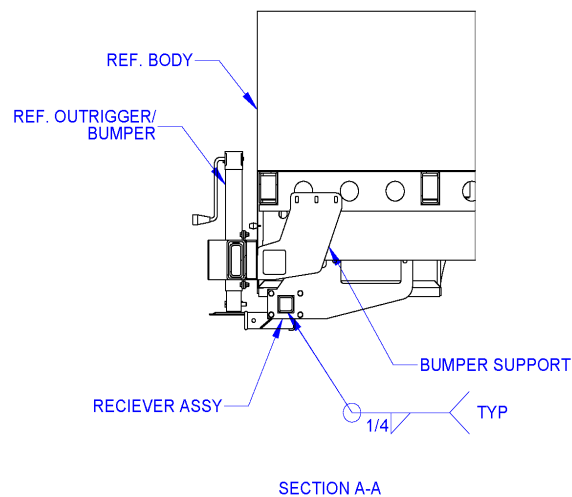
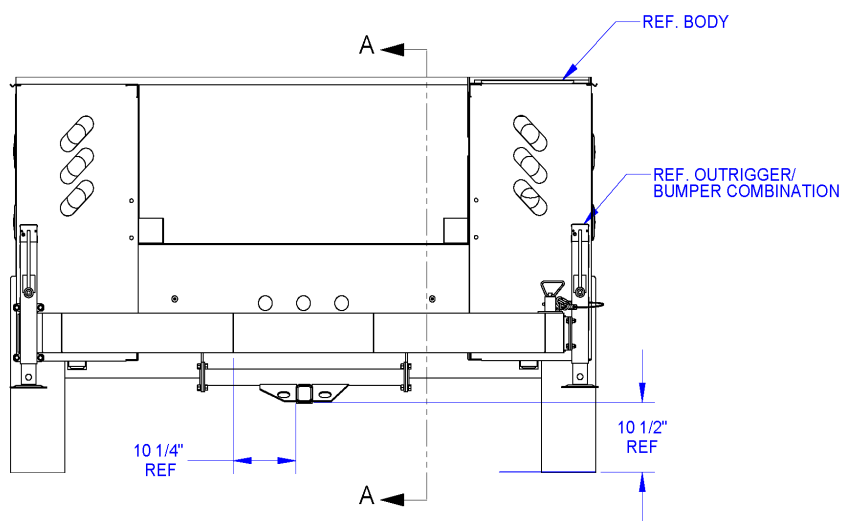
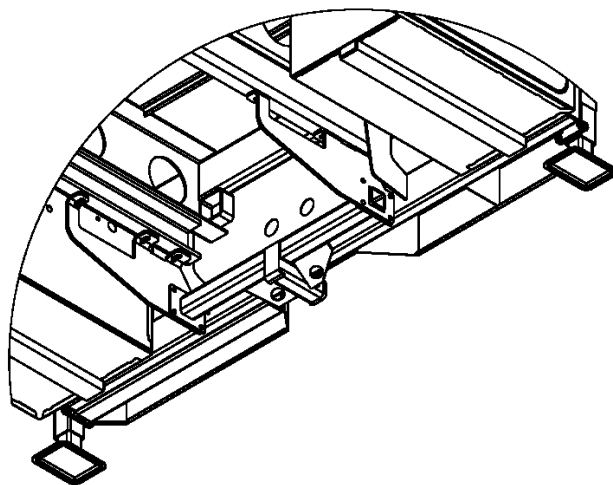


SPECIFICATIONS:

12,000 LBS RATING

2" OPENING

RECEIVER HITCH INSTALLATION TITAN SERIES



NOTE:

1. CENTER HITCH ASSY ON TRUCK FRAME MEMBERS AND ALIGN THE RECEIVER TUBE FLUSH WITH THE RECESSED AREA OF THE BUMPER.
2. LINE DRILL AND INSTALL MOUNTING HARDWARE.

FENDER-ET

TITAN SERIES - P/N: 752912000

INSTALLING

WIPE MOUNTING SURFACES WITH CLEAN CLOTH TO REMOVE ANY DIRT OR OILS.
(USE RUBBING ALCOHOL IF NECESSARY)

1. LOCATE FENDERETTE TO SIDEPACK, ALIGNING THE BOTTOM EDGES AND CENTERING IT ON THE FENDERWELL OPENING.
2. DRAW LINES ON FENDER WITH OIL PENCIL OR OTHER ERASABLE MARKER TO ASSIST WITH ALIGNMENT WHEN ADHESIVE IS APPLIED.
3. APPLY ADHESIVE TO FENDERETTE FLANGE PER INSTRUCTIONS ON CARTRIDGE. 1/8" BEAD IN CENTER OF FLANGE IS RECOMMENDED. THE NOZZLE DOES NOT NEED TO BE CUT TO PROVIDE 1/8" BEAD.
4. USE LINES FROM STEP #3 TO LOCATE FENDERETTE TO SIDEPACK, ALIGNING THE BOTTOM EDGES AND CENTERING IT ON THE FENDER WELL OPENING AS BEFORE.
5. USING WIDE SURFACE AREA CLAMPS, CLAMP FENDERETTE INTO PLACE TO INSURE FULL CONTACT BETWEEN THE FENDERETTE FLANGE AND THE SIDE PACK.
6. REMOVE ANY EXCESS ADHESIVE FROM OUTER EDGES.
7. ALLOW ADHESIVE TO CURE THREE TO FOUR HOURS BEFORE REMOVING CLAMPS. ADHESIVE WILL BE FULLY CURED IN EIGHT TO 24 HOURS.
8. (OPTIONAL) PAINT AREA UNDER FENDERETTE WITH FLAT BLACK PAINT.

PAINTING

1. THE OUTER SURFACE OF THE FLARE MUST BE CLEANED WITH DUPONT #3919S PREP-SOL OR EQUIVALENT. DO NOT USE LACQUER THINNER OR ENAMEL REDUCER AS A CLEANER.
2. A POLYPROPYLENE PRIMER (DITZLER DPX800 OR EQUIVALENT) MUST BE USED TO ASSURE COLOR COAT ADHESION. USE 3 COATS OF HIGH FILL PRIMER AND BLOCK SAND.
3. THE COLOR COAT MUST HAVE A FLEX ADDITIVE (DITZLER DX369 OR EQUIVALENT) ADDED TO PREVENT PAINT CRACKING.

REMOVING

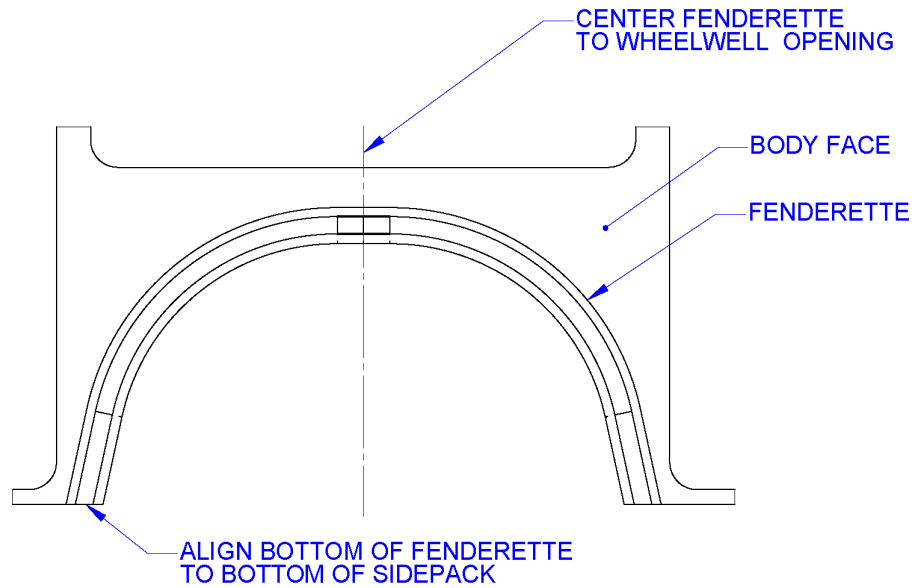
IF THE FENDERETTE CANNOT BE PEELED OFF, CUT THE BULK OF THE MATERIAL AWAY USING A KNIFE AND GRIND THE REMAINING MATERIAL

FENDER-ET

TITAN SERIES - P/N: 752912000

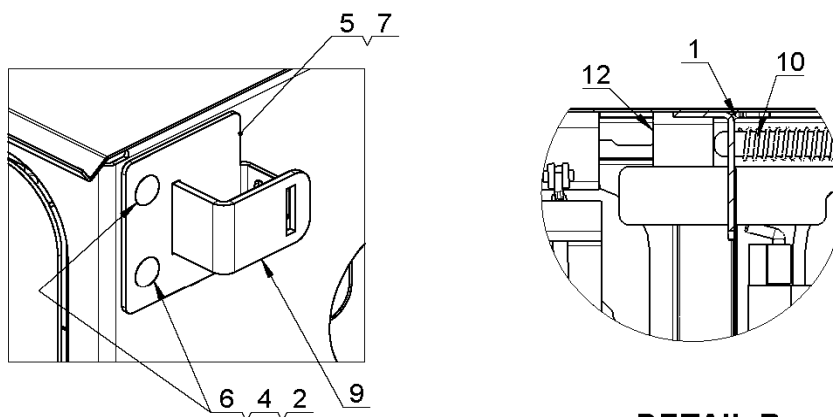
NOTE:

1. APPLICATOR KIT P/N:752893000
INCLUDES APPLICATOR/PLUNGER/MIXING NOZZLE

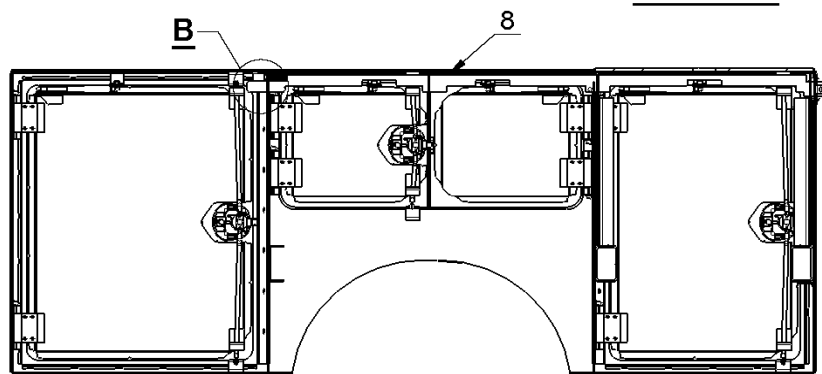


ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	752913000	FENDER FLARE TPO 50K
2	1	752914000	ADHESIVE DP-8005 BLACK
3	1	752892000	MIXING NOZZLE, PLUS II 10:1
4	1	752891000	PLUNGER, EPX PLUS II

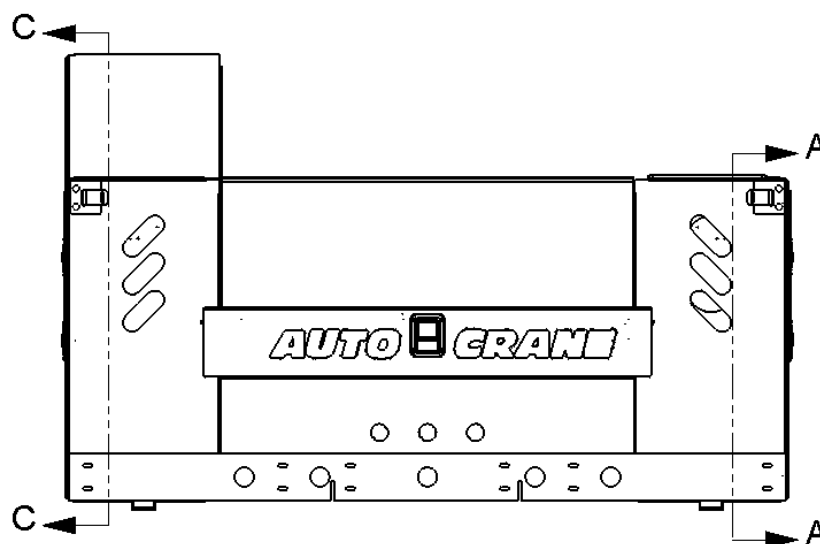
MASTER LOCK SYSTEM **TITAN 16/60CA - P/N: 715309-XXX**



DETAIL B

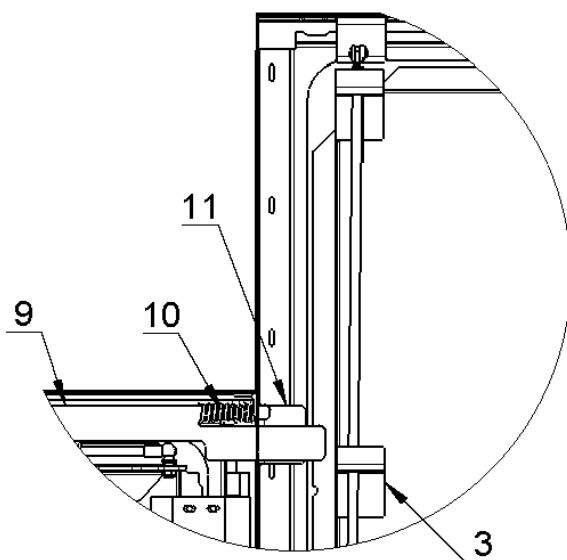


SECTION A-A

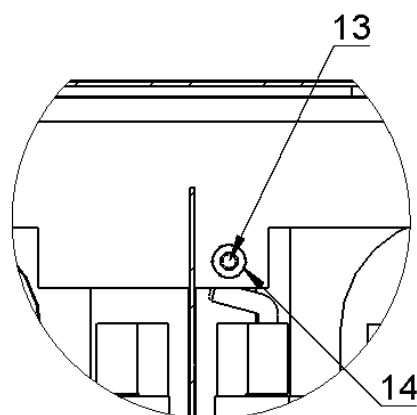


INSTALLATION INTO BOTH LS AND RS STD SIDE PACKS ARE THE SAME

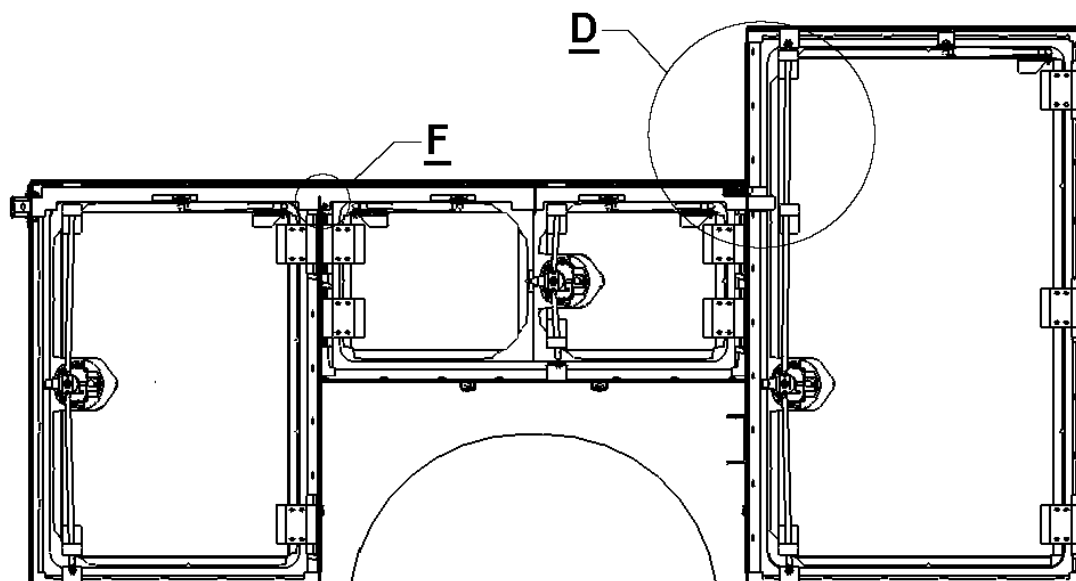
MASTER LOCK SYSTEM
TITAN 16/60CA - P/N: 715309-XXX



DETAIL D



DETAIL F



SECTION C-C

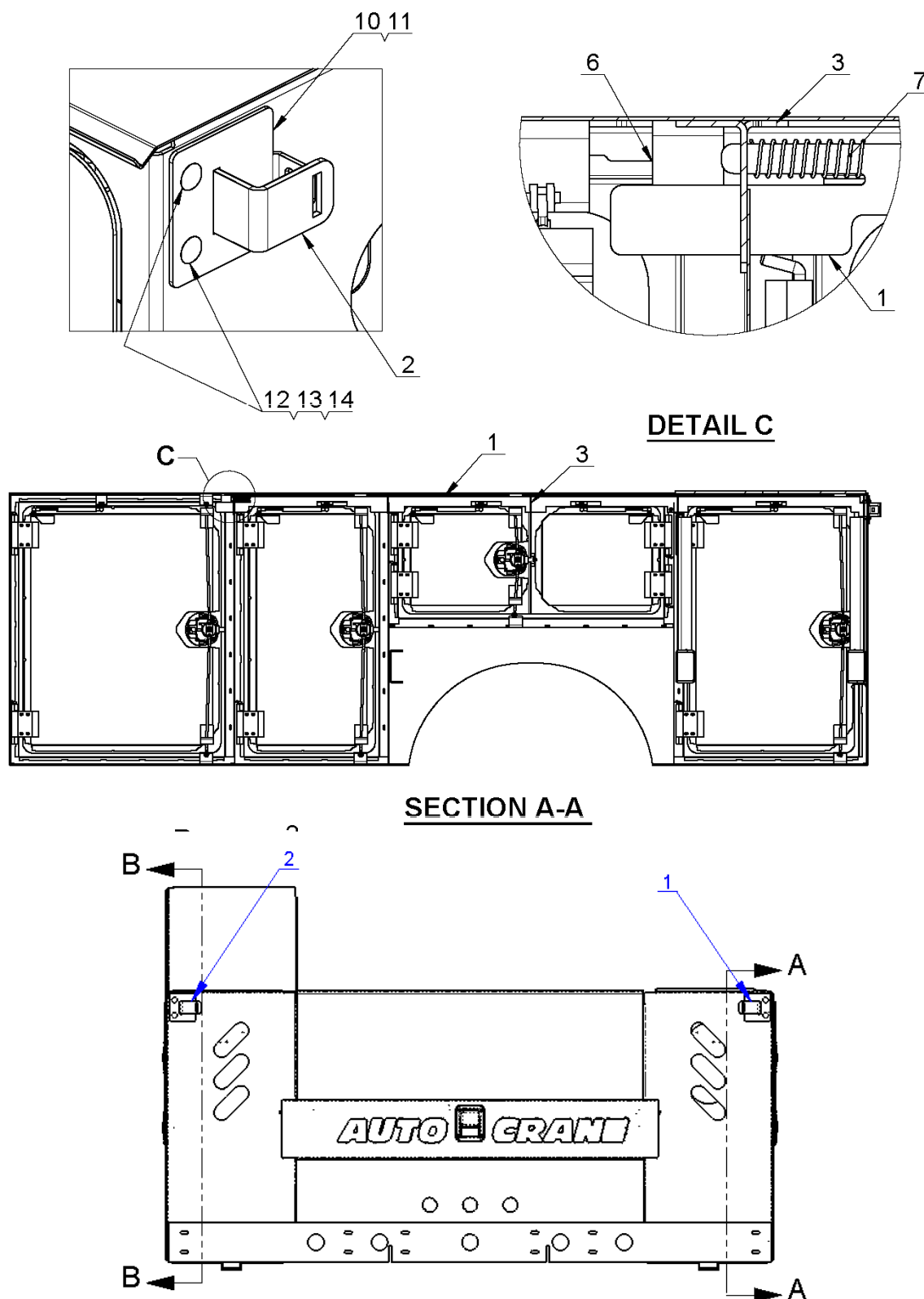
MASTER LOCK SYSTEM

TITAN 16/60CA - P/N: 715309-XXX

ITEM NO.	DESCRIPTION	PART NUMBER	-100 STD	-101 CS TALL	-102 SS TALL	-103 DBL
1	MASTER LOCK GUIDE	560119000	4	3	3	2
2	NUT HX 3/8-16UNC	330372000	4	4	4	4
3	MASTER LOCK TALL LOCKING BRACKET	715309130	-	1	1	2
4	WASHER SP LK 3/8	021100000	4	4	4	4
5	MASTER LOCK LOCKING PLATE	560121001	2	2	2	2
6	SCREW CARRIAGE 3/8-16UNC X 1 LG	560138000	4	4	4	4
7	GASKET MASTERLOCK	560139000	2	2	2	2
8	MASTER LOCKING BAR (CS) CABINET	715309110	1	1	1	1
9	MASTER LOCKING BAR (SS) CABINET	715309120	1	1	1	1
10	SPRING	736730000	2	2	2	2
11	MASTER LOCKING GUIDE TALL	715309140	-	1	1	2
12	MASTER LOCKING GUIDE	715309150	2	1	1	-
13	SCREW HX HD 1/4-20UNC X 5/8 LG CP	005401000	2	2	2	2
14	NUT HX NYLK 1/4-20UNC	016300000	2	2	2	2

NOTES

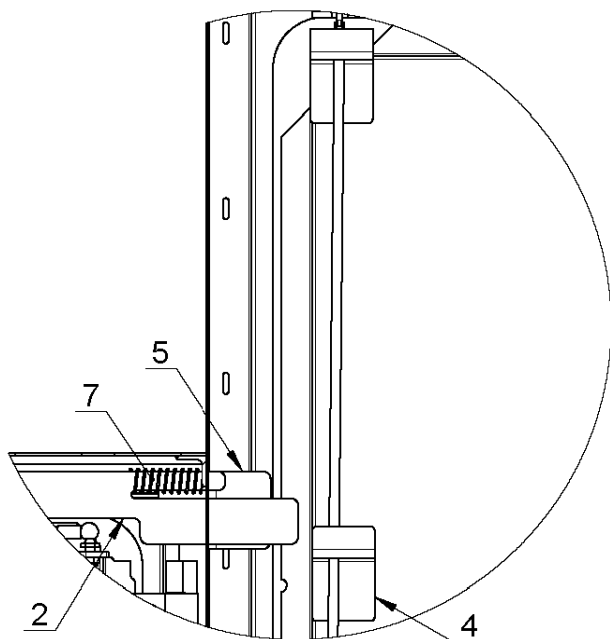
MASTER LOCK SYSTEM **TITAN SERIES 16/84CA - P/N: 715319-XXX**



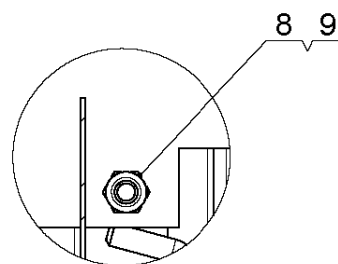
INSTALLATION INTO BOTH LS AND RS STD SIDE PACKS ARE THE SAME

MASTER LOCK SYSTEM

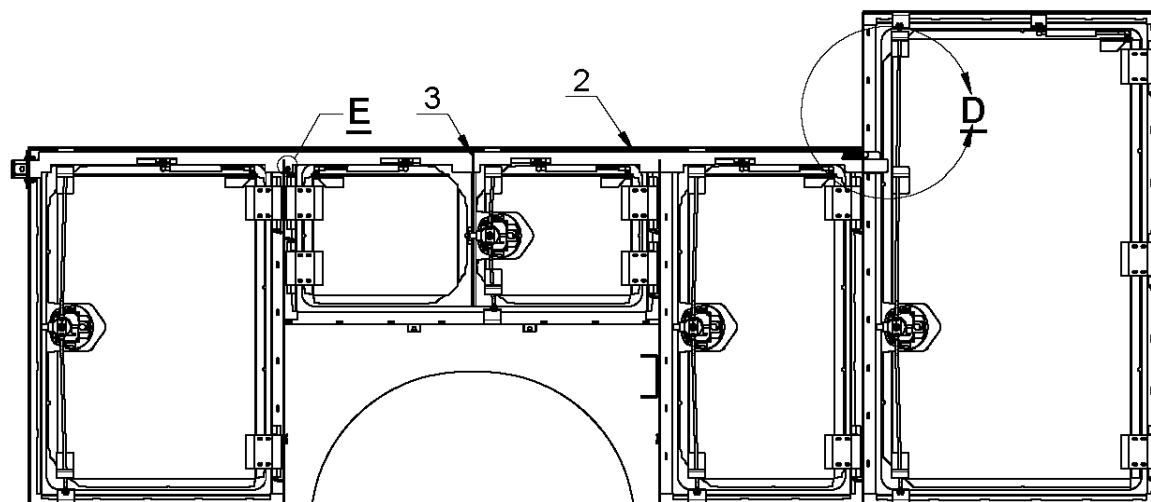
TITAN SERIES 16/84CA - P/N: 715319-XXX



DETAIL D



DETAIL E



SECTION B-B

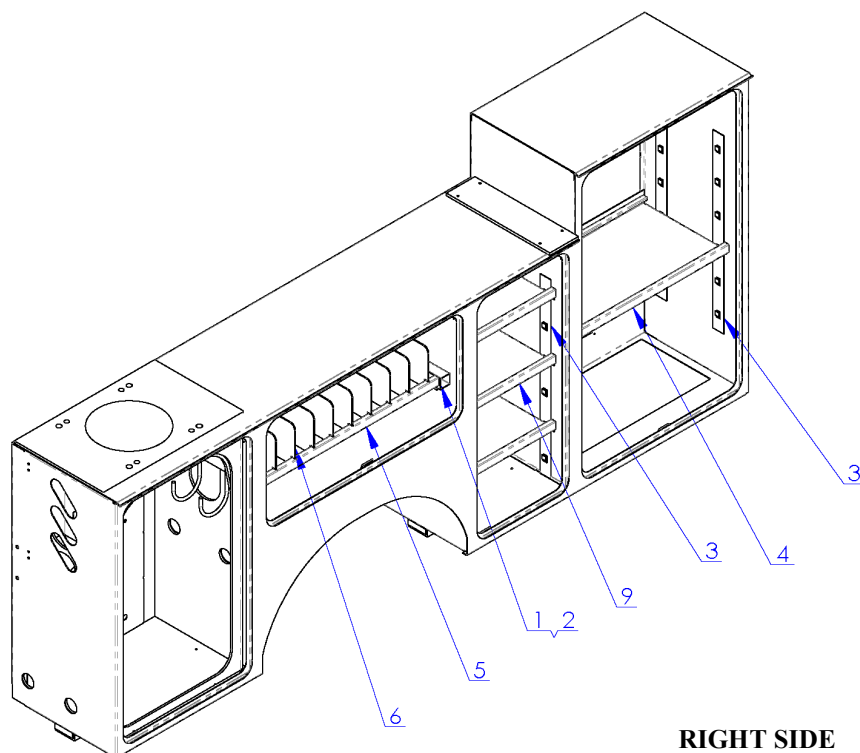
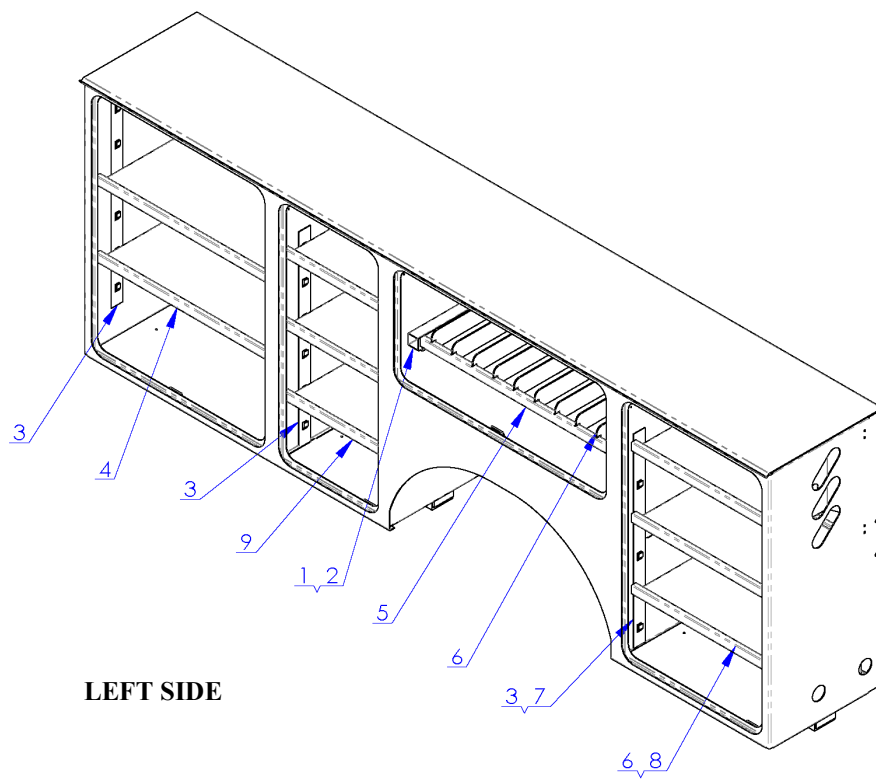
MASTER LOCK SYSTEM

TITAN SERIES 16/84CA - P/N: 715319-XXX

ITEM NO.	DESCRIPTION	PART NUMBER	-100 STD/QTY.	-101 CS TALL/QTY.	-102 SS TALL/QTY	-103 DBL TALL/QTY.
1	MASTER LOCKING BAR, T-16/84CA, CABINET, CS	715319110	1	1	1	1
2	MASTER LOCKING BAR, T-16/84CA, CABINET, SS	715319120	1	1	1	1
3	MASTER LOCK GUIDE	560119000	4	3	3	2
4	MASTER LOCK TALL LOCKING BRACKET	715309130	-	1	1	2
5	MASTER LOCKING GUIDE TALL	715309140	-	1	1	2
6	MASTER LOCKING GUIDE	715309150	2	1	1	-
7	SPRING	736730000	2	2	2	2
8	NUT HX NYLK 1/4-20UNC	016300000	2	2	2	2
9	SCREW HX HD 1/4-20UNC X 5/8 LG CP	005401000	2	2	2	2
10	MASTER LOCK LOCKING PLATE	560121001	2	2	2	2
11	GASKET MASTERLOCK	560139000	2	2	2	2
12	SCREW CARRIAGE 3/8-16UNC X 1 LG	560138000	4	4	4	4
13	WASHER SP LK 3/8	021100000	4	4	4	4
14	NUT HX 3/8-16UNC	330372000	4	4	4	4

NOTES

SHELF LOCATION TITAN SERIES 715070-XXX



SHELF LOCATION TITAN SERIES 715070-XXX

ITEM NO.	PART NUMBER	DESCRIPTION	000 QTY	001 QTY	002 QTY
1	340196000	TBG SQ 2 X .083W X 17	8	-	8
2	715071000	SHELF STRIP SUPPORT 17"LG	8	-	8
3	750799000	SHELF STRIP SUPPORT 36"	8	4	16
4	715078000	SHELF FRONT TITAN 16	4	-	4
5	715073000	SHELF HORIZ. TITAN 16	2	-	2
6	715076000	TITAN 16 SHELF DIVIDER (PLASTIC)	20	2	20
7	560227000	TBG SQ 2 1/2 X .120W X 36	-	2	-
8	715074000	SHELF REAR TITAN 16	-	3	-
9	715079000	SHELF MID TITAN 16	-	-	4

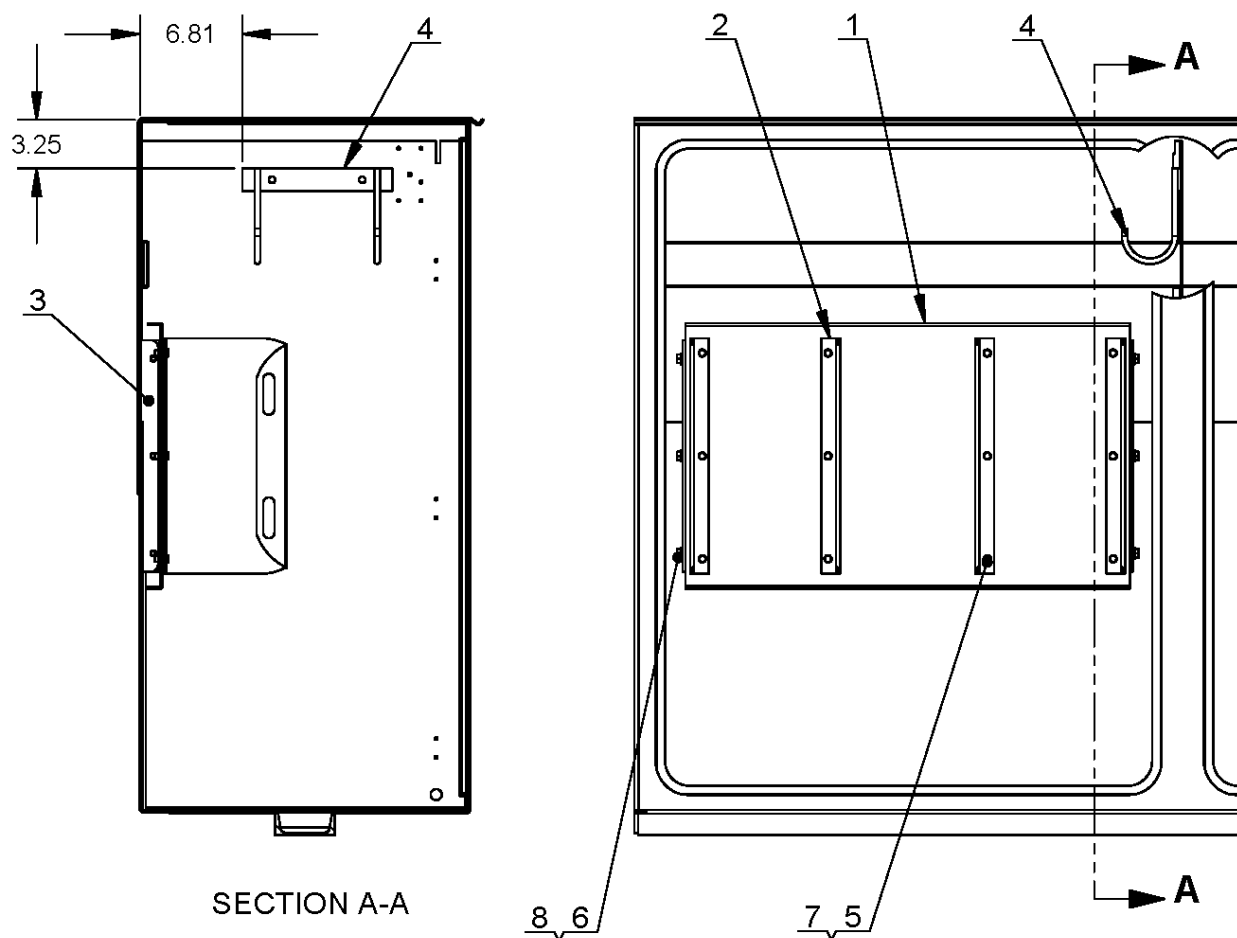
NOTE:

000 EQUALS TITAN 16/60 CA BODY SHELVING

001 EQUALS ONLY SHELVING/REAR COMP. OPPOSITE CRANE BOX

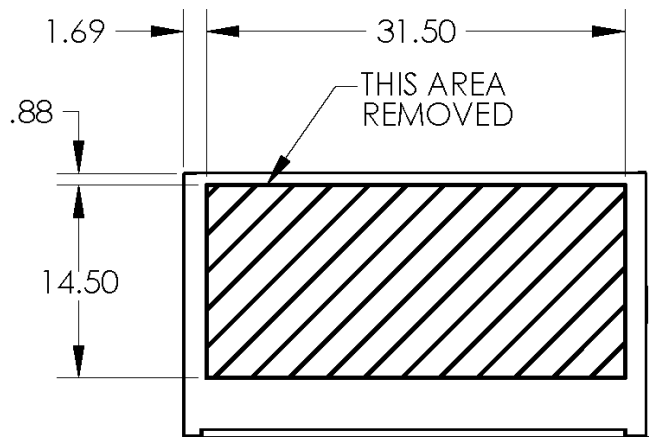
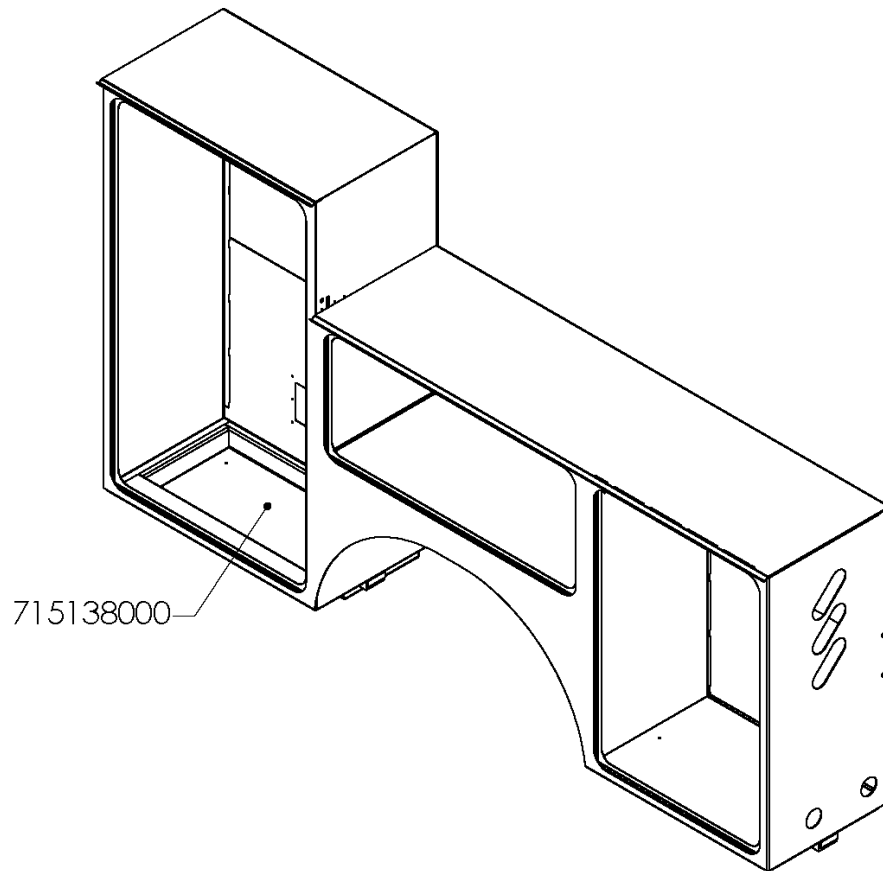
002 EQUALS TITAN 16/84 CA BODY SHELVING

OXY/ACET ASSY TITAN SERIES - P/N: 736230000

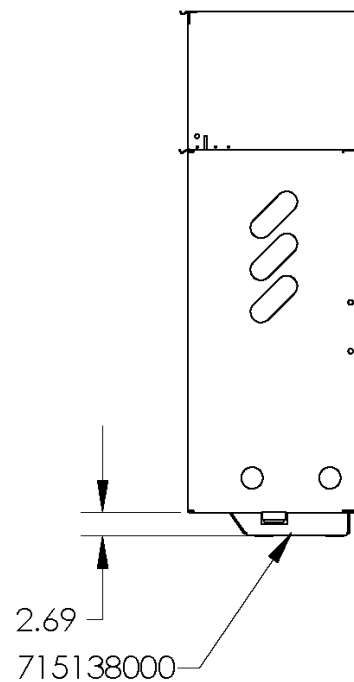


ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	736226000	36K OXY-ACET MTG PLT ASSY
2	4	736229000	DIVIDER PNL - OXY/ACET
3	2	736231000	BAR OXY-ACET MTG
4	1	750613000	HOSE HOOK WDMT
5	12	005500000	SCREW HX HD 1/4-20UNC X 3/4 LG
6	6	008400000	SCREW HX HD 3/8-16UNC X 3/4 LG GR 5
7	12	020200000	WASHER SP LK 1/4
8	6	021100000	WASHER SP LK 3/8

DROP WELL TITAN SERIES



FRONT COMP MODIFICATION
CUTOUT DETAIL FOR DROP BOX



NOTES

ROPE LIGHT KIT

TITAN SERIES - P/N: 560271-XXX

3.36 WATTS PER FOOT
LAMPS SPACED EVERY 1"

BULB LIFE:

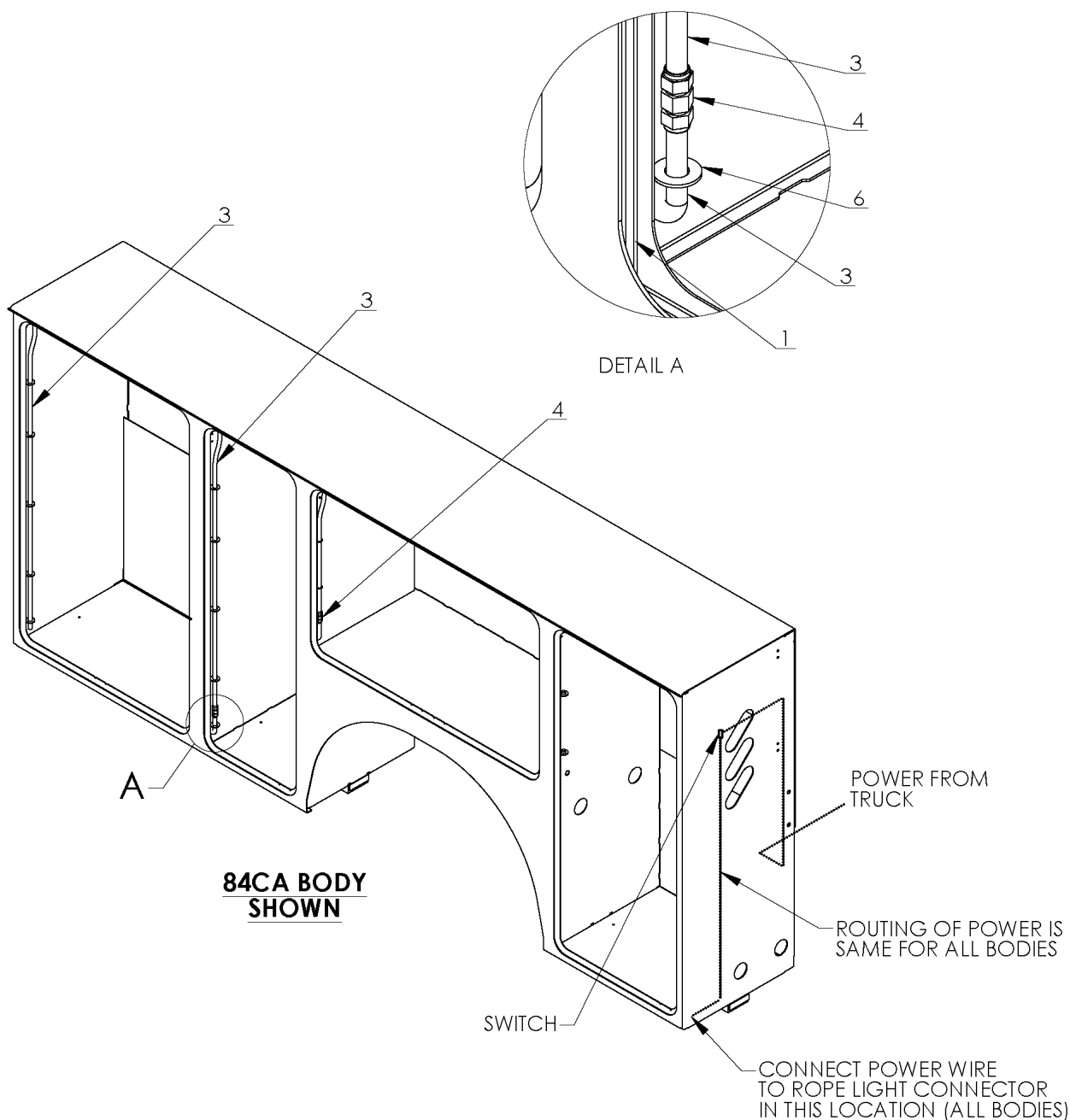
25,000 HOURS

TEMP RATING:

+140 TO -40 DEGREES F

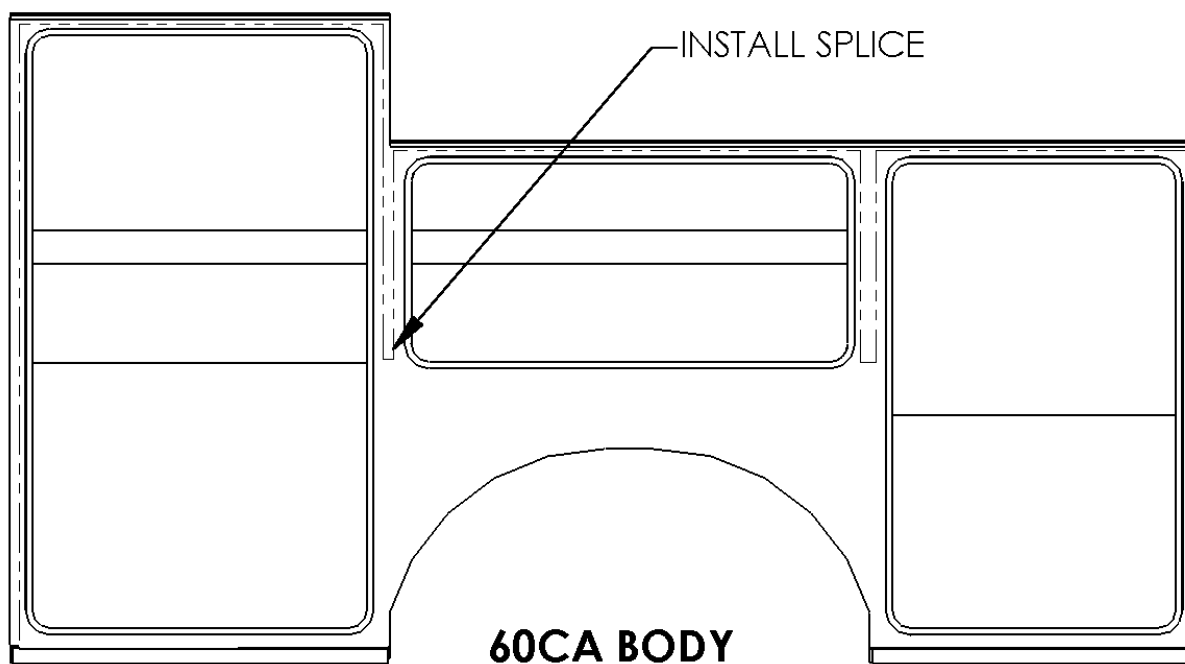
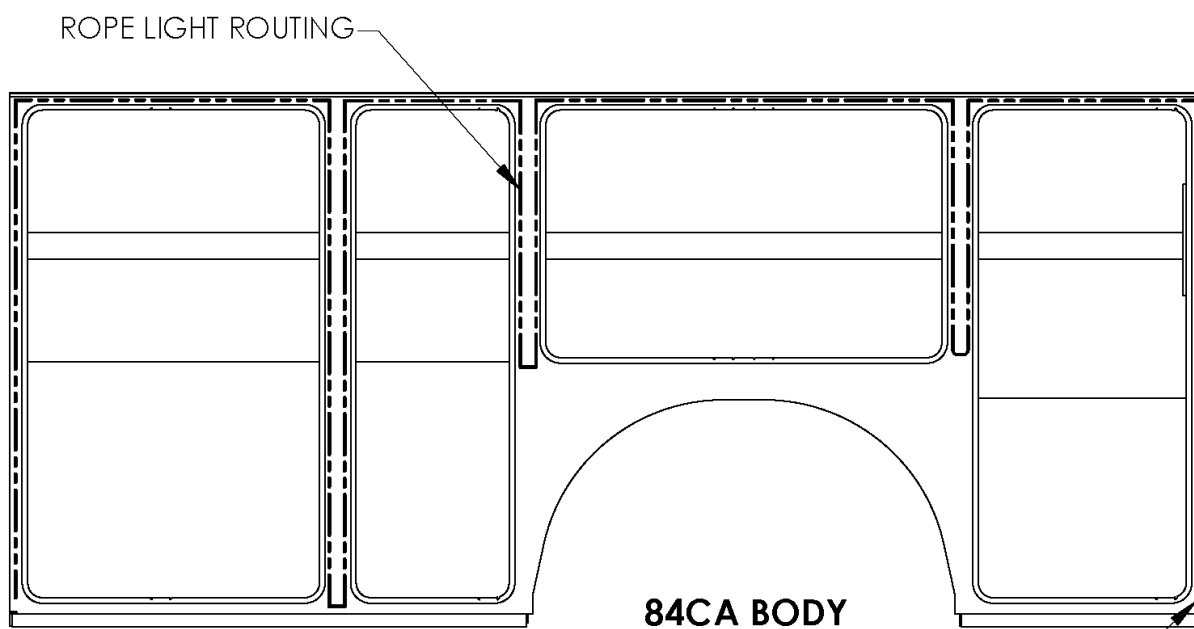
LUMINOUS INTENSITY:

350 L



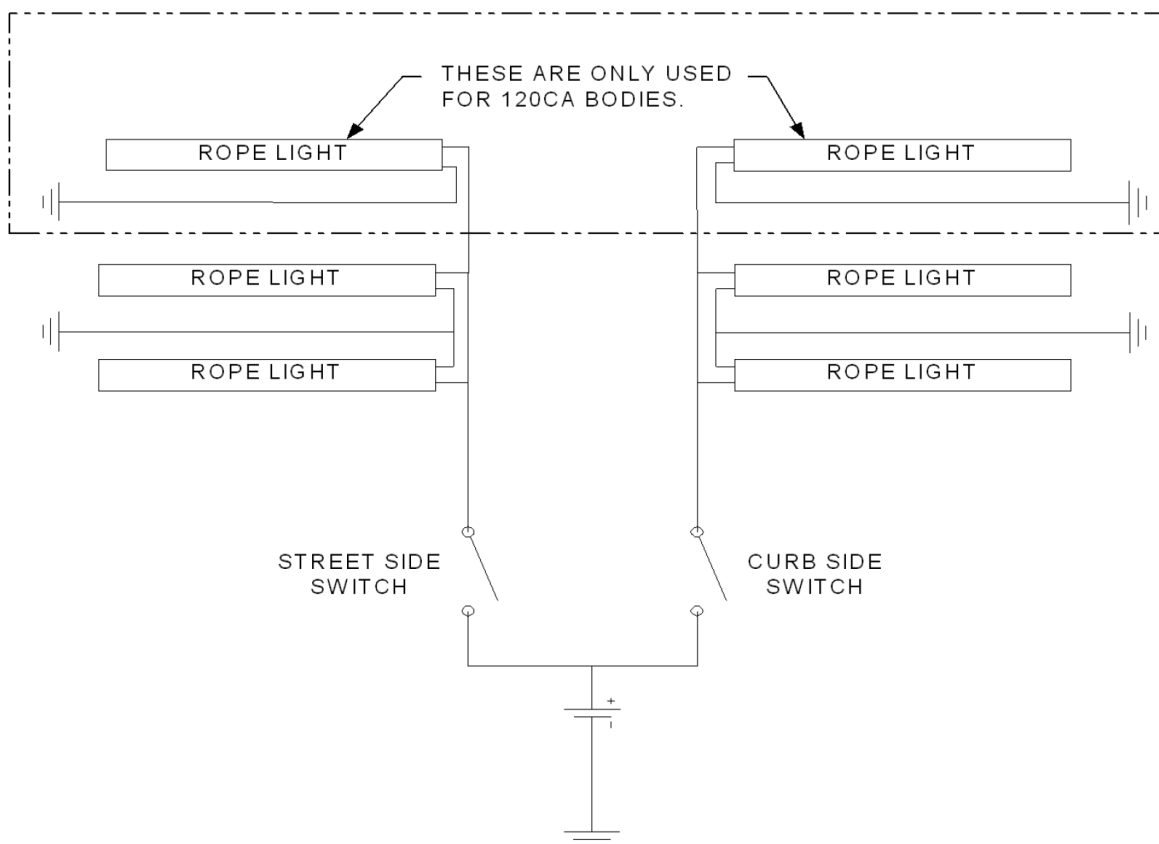
ROPE LIGHT KIT

TITAN SERIES - P/N: 560271-XXX



ROPE LIGHT KIT

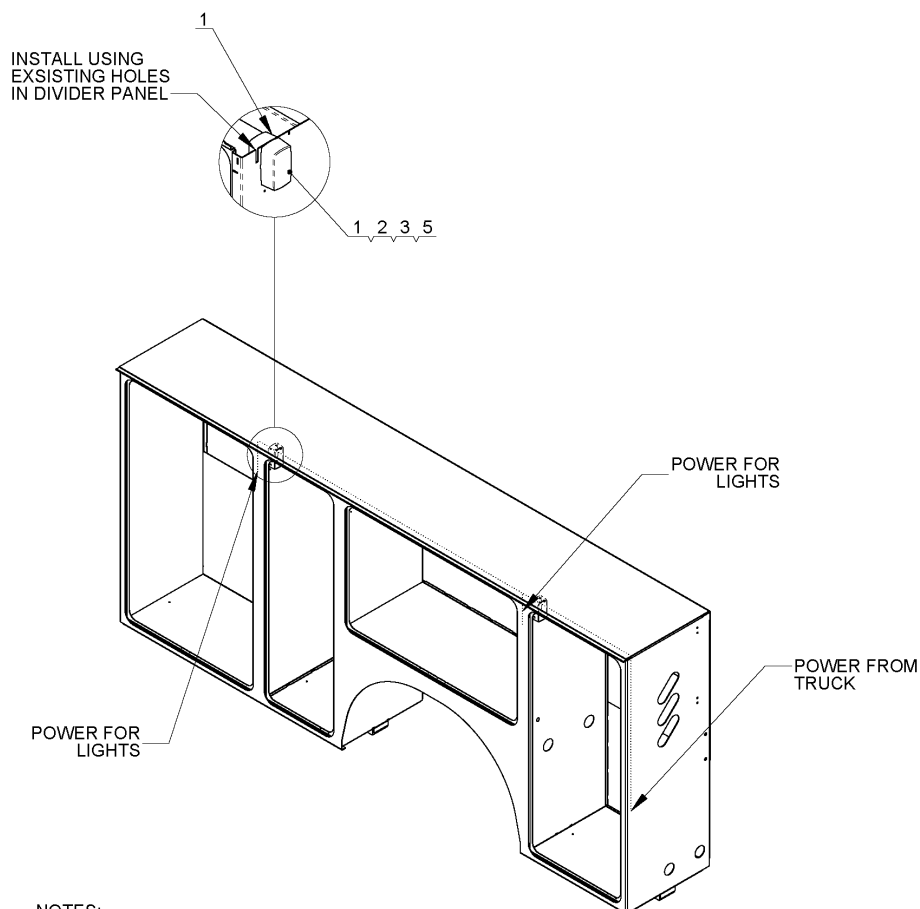
TITAN SERIES - P/N: 560271-XXX



COMPARTMENT LIGHT KIT CHART			-000 (84 CA)	-020 (60 CA)
ITEM NO.	DESCRIPTION PART,NO.	PART NO.	QTY.	QTY.
1	GROMMET, RUBBER	750169000	6	6
2	SWITCH TOGGLE (ON-OFF)	750739000	2	2
3	LIGHTING, ROPE	560116000	3	3
4	SPLICE, 1/2" ROPE LIGHT	560388000	2	2
5	TIE WRAP PUSH-IN	560383000	20	12
6	WASHER FL 5/8 X 1 5/16 OD	407314000	64	56
7	WIRE 16GA 600V BLACK	800590000	30'	30'

COMPARTMENT LIGHT KIT

TITAN SERIES - P/N: 560271-XXX

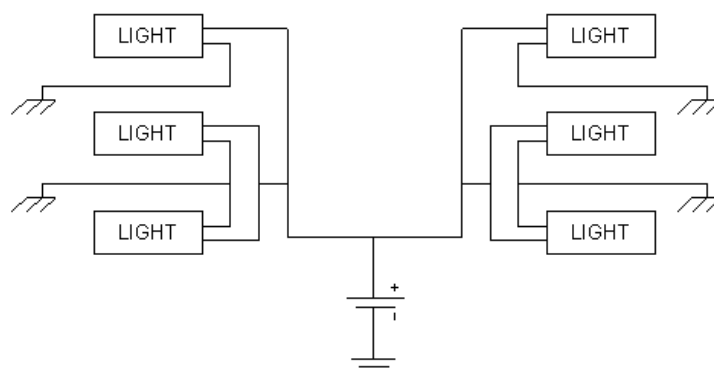


- NOTES:
1. MOUNTING FOR 84 CA IS SHOWN. MOUNTING FOR 120CA AND 60 CA ARE SIMLIAR. SEE NEXT SHEET FOR WIRING DIAGRAM.
 2. LEFT SIDE ROUTING SHOWN. RIGHT SIDE OPPOSITE.

COMPARTMENT LIGHT KIT CHART			-001 - 84 CA	-021 - 60 CA
ITEM #	DESCRIPTION	PART. NO.	QTY.	QTY.
1	LIGHT, COMPARTMENT	750730000	8	10
2	WASHER FL #8 ZP	019701000	16	20
3	SCREW RD HD #8-32UNC X 3/4LG	001503000	16	20
4	WASHER SP LK #8	019700000	16	20
5	NUT HX #8-32UNC CP	015500000	16	20
6	WIRE 16 GA 600V BLACK	800590000	40 FT	36 FT

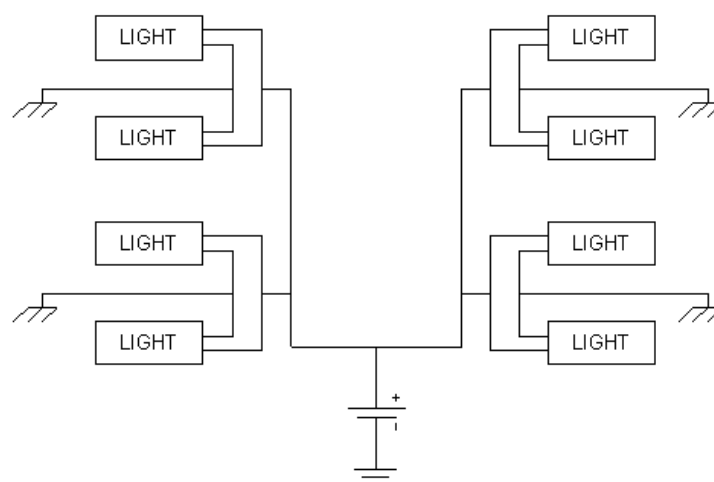
COMPARTMENT LIGHT KIT

TITAN SERIES - P/N: 560271-XXX



560271021 - 60 CA

THE COMPARTMENT LIGHTS ARE MOUNTED BACK TO BACK ON THE DIVIDER PANEL BETWEEN THE HORIZONTAL AND REAR COMPARTMENTS. THE OTHER LIGHT IS MOUNTED ON THE DIVIDER PANEL BETWEEN THE FRONT & HORIZONTAL COMPARTMENTS FACING THE FRONT COMPARTMENT



560271001 - 84 CA

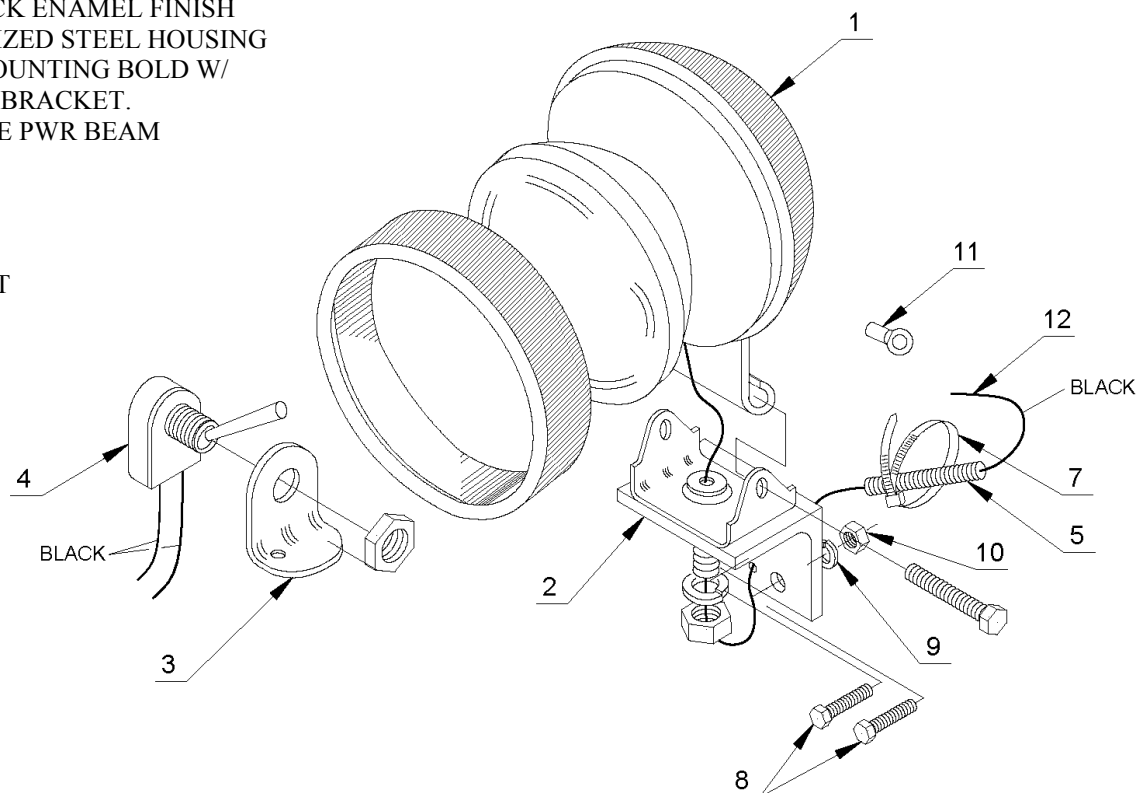
THE COMPARTMENT LIGHTS ARE MOUNTED BACK TO BACK ON THE DIVIDER PANEL BETWEEN THE FRONT AND MID COMPARTMENT AS WELL AS THE HORIZONTAL AND REAR COMPARTMENTS.

FLOOD LIGHT KIT

TITAN SERIES - P/N:750825000

SPECIFICATIONS:

- A. 408 TRACTOR LIGHT
- B. BAKED BLACK ENAMEL FINISH
ON BONDORIZED STEEL HOUSING
- C. HOLLOW MOUNTING BOLD W/
SWIVELING BRACKET.
- D. 3000 CANDLE PWR BEAM
- E. 55 WATTS
- F. 12 VOLTS
- G. 4.5 AMPS
- H. 5" DIA,
6 1/4" HEIGHT
2 3/4" DEPTH



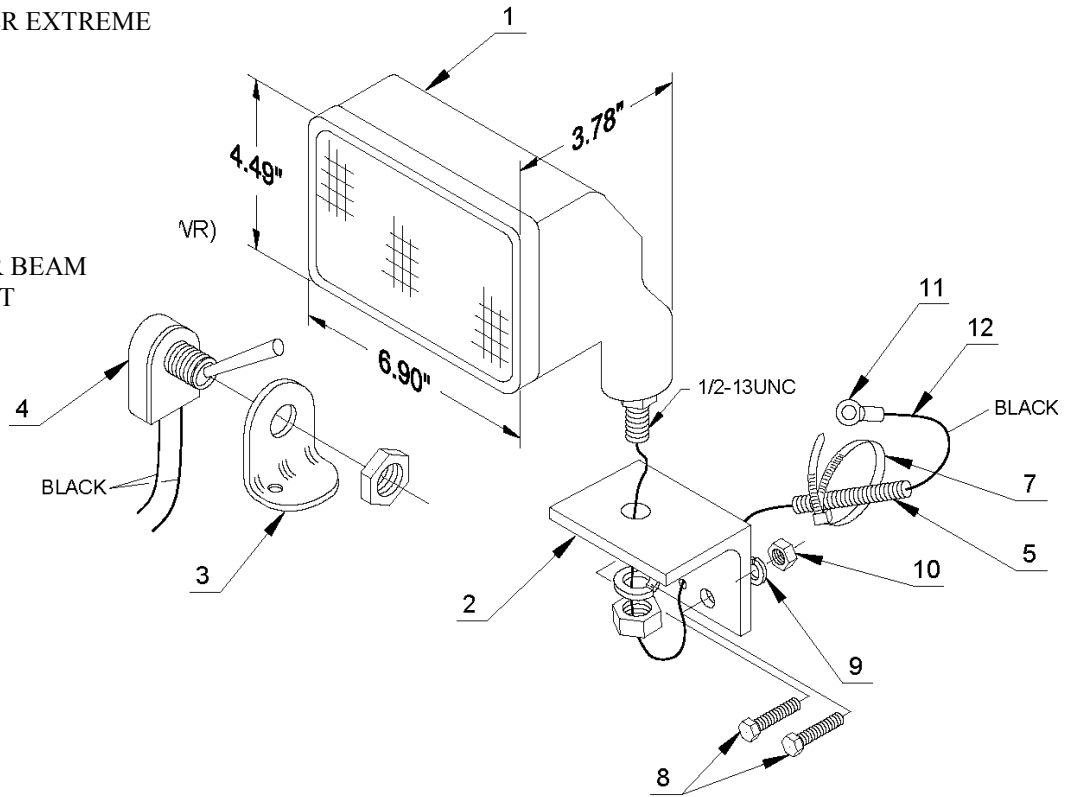
ITEM NO.	QTY	PART NUMBER	DESCRIPTION
1	1	750731000	LIGHT, FLOOD
2	1	750878000	BRKT MNTG SPOTLIGHT
3	1	750877000	BRACKET MOUNTING SWITCH
4	1	750739000	SWITCH TOGGLE(ON-OFF)
5	12 FT	750736000	LOOM CONVOLUTED
6	1	750738000	STICK-ON, CABLE TIE MOUNT
7	1	750737000	TIE, CABLE
8	2	006200000	SCREW HX HD 1/4UNC X 1 1/4 GR5
9	2	020200000	WASHER SP LK 1/4 STAINLESS
10	2	015900000	NUT HX 1/4-20UNC SS
11	2	000302000	TERMINAL WR 2R814
12	12 FT	800590000	WIRE 16G 600V 1C BLK

FLOOD LIGHT KIT

TITAN SERIES - P/N:750825001

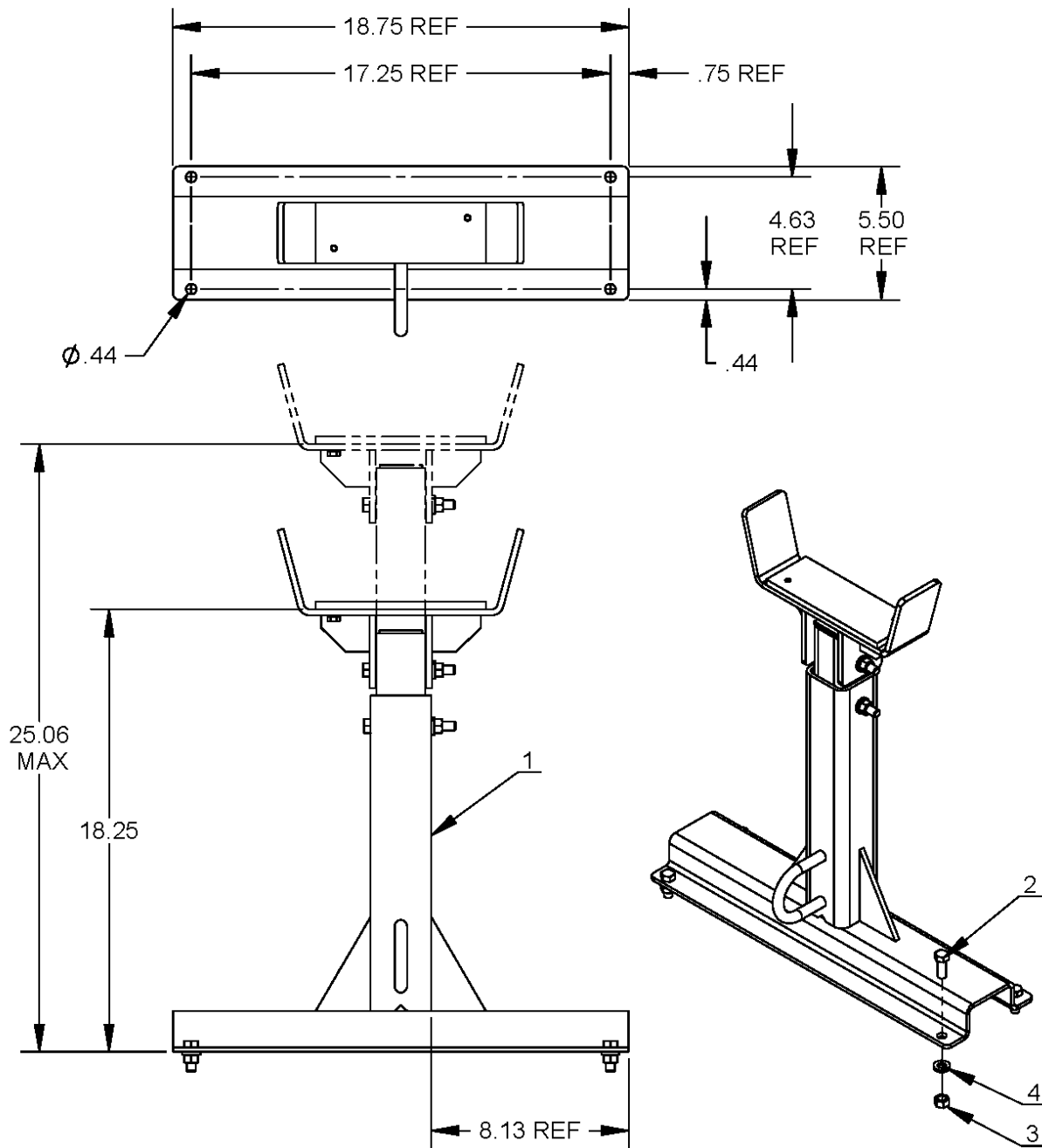
SPECIFICATIONS:

- A. HIGH BULB LIFE, 400 HR. AVERAGE
- B. EASILY REPLACEABLE BEAM
- C. FIELD TESTED UNDER EXTREME CONDITIONS.
- D. 80 DEG X 30 FLOOD
- E. TRAPEZOID
- F. SOPT
- G. 12 VOLTS
- H. 50 WATTS
- I. 4 AMPS
- J. 200,000 CANDLE PWR BEAM
- K. EASY SWIVEL MOUNT



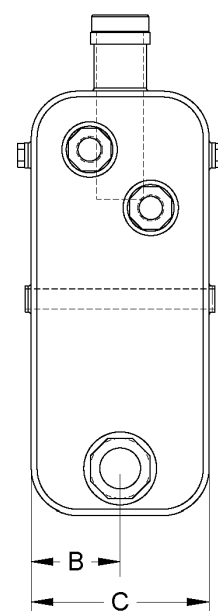
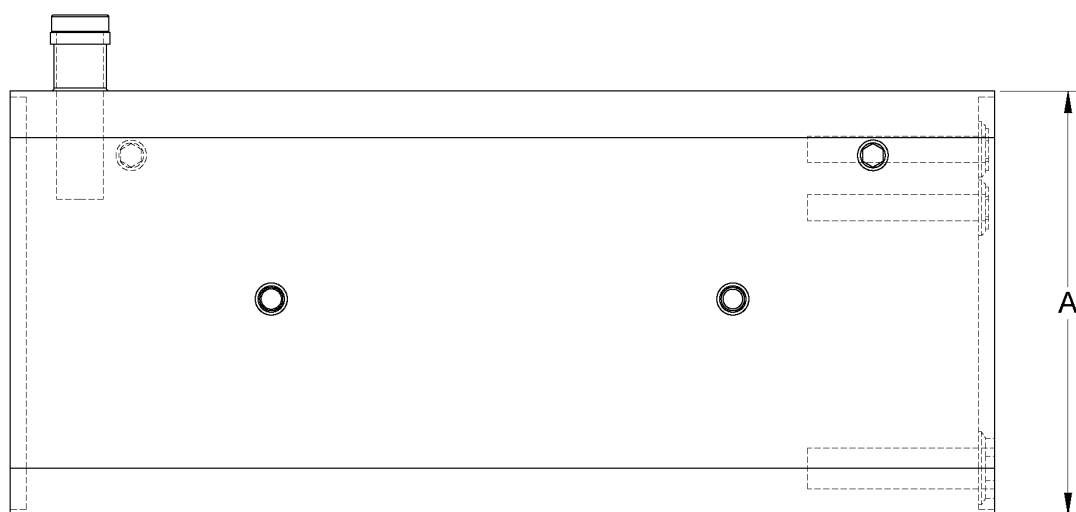
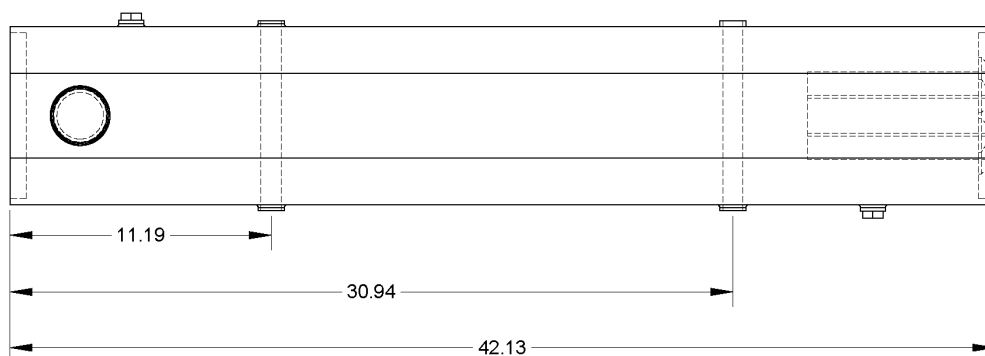
ITEM NO.	QTY	PART NUMBER	DESCRIPTION
1	1	750026000	LIGHT, SEALED BEAM
2	1	750878000	BRKT MNTG SPOTLIGHT
3	1	750877000	BRACKET MOUNTING SWITCH
4	1	750739000	SWITCH TOGGLE(ON-OFF)
5	12 FT	750736000	LOOM CONVOLUTED
6	1	750738000	STICK-ON, CABLE TIE MOUNT
7	1	750737000	TIE, CABLE
8	2	006200000	SCREW HX HD 1/4UNC X 1 1/4 GR5
9	2	020200000	WASHER SP LK 1/4 STAINLESS
10	2	015900000	NUT HX 1/4-20UNC SS
11	2	000302000	TERMINAL WR 2R814
12	12 FT	800590000	WIRE 16G 600V 1C BLK

BOOM SUPPORT TITAN SERIES



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	715061000	TITAN 16 BOOM SUPPORT ASSY
2	4	330371000	SCREW HX HD 3/8-16UNC X 1 LG GR8
3	4	330372000	NUT HEX 3/8-16 UNC
4	4	021100000	WASHER SP LK 3/8

BULKHEAD RESERVOIR TITAN SERIES



	A	B	C
738498000 (23 GALLON)	18.15	3.81	7.625
751095050 (36 GALLON)	26.06	4.03	8.06

SERVICE PARTS INCLUDE

- 751095051 - FILTER, RESERVOIR**
- 751095055 - CAP, FILLER BREATHER WITH STRAINER**
- 751095051 - FILTER ASSEMBLY**
- 751095056 - REPLACEMENT FILTER**

FIRE EXTINGUISHER TITAN SERIES - P/N: 750061000

TYPE:

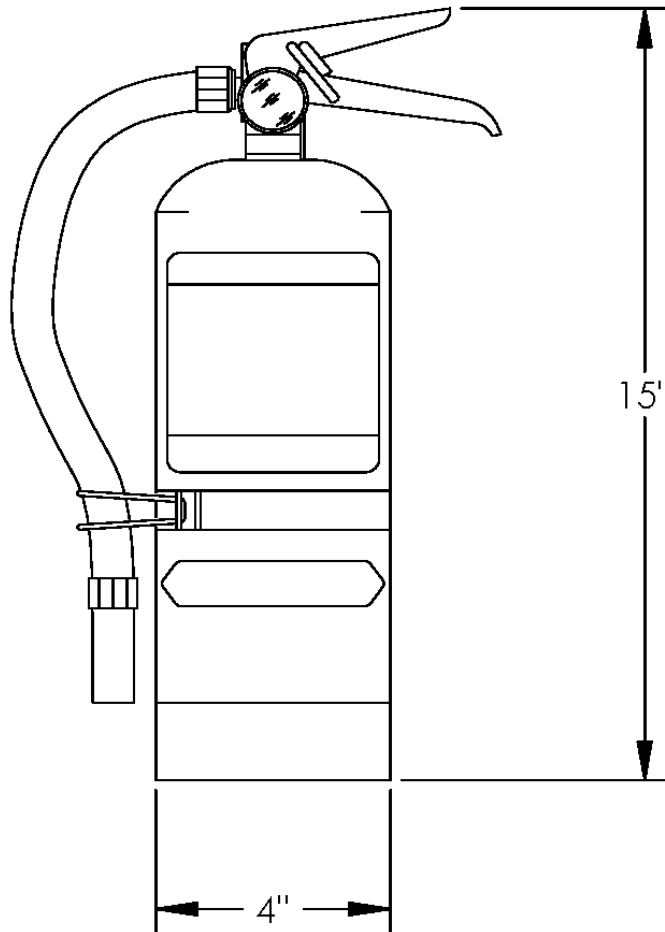
5LB/LEVER SQUEEZE/HOSE & HOSE/PRESSURE GAUGE
PER NATIONAL FIRE PROTECTION ASSOCIATION STD. NO.10
"PORTABLE FIRE EXTINGUISHERS

SPECIFICATIONS:

- (A) UNDERWRITERS LABORATORIES (UL LISTED)
- (B) DRY CHEMICALS FIRE EXTINGUISHERS CLASSIFICATION
2-A: 10-B-C. TESTED TO ANSI/UL 711 & ANSI/UL299.
- (C) 5 LB (2.27 KG) MULTI-PURPOSE DRY CHEMICAL
(AMMONIUM PHOSPHATE BASE)
- (D) SUITABLE FOR USE AT TEMPERATURE FROM
-65° F TO 120° F (54° C TO 49° C)

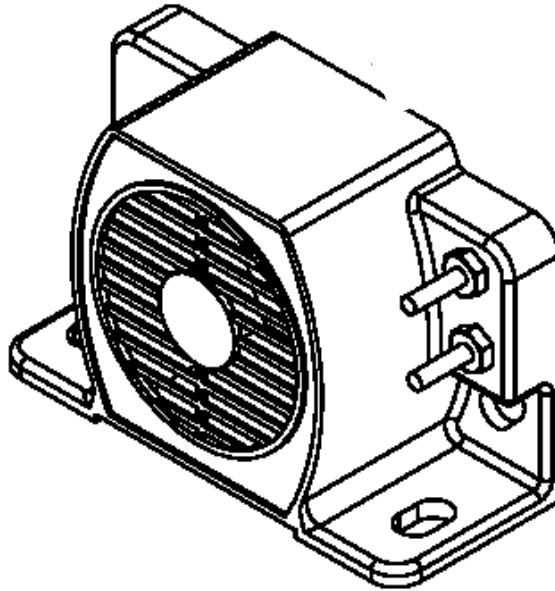
NOTE:

EXTINGUISHER TO COME WITH OWNERS MANUAL FOR HAND PORTABLE FIRE EXTINGUISHERS.



BACK-UP ALARM

TITAN SERIES - P/N:750681000



DESCRIPTION

BACK-UP SAFETY ALARM MEETS OR EXCEEDS SAE J99 4B

VOLUME: 102 Db
VOLTAGE: 12/24 VDC
PULSE RATE: 90/MINUTE

POWER CONNECTION: 2-18", 16 GA. LEADS; RED LEAD TO POSIVE;
BLACK LEAD TO GROUND.

MOUNTING INSTRUCTIONS

1. DRILL TWO HOLES FOR 1/4" BOLTS 3 1/4 BETWEEN CENTERS.
2. MOUNT ALARM TO VEHICLE OR BRACKET
3. UNIT MAY BE CONNECTED DIRECTLY INTO THE BACK-UP LIGHT CIRCUIT, IF NOT AVAILABLE, MOUNT A SWITCH SUCH THAT IT OPERATES WHEN THE VEHICLE IS PLACED IN REVERSE. APPLY VOLTAGE 12 THRU 24 VDC VIA SWITCH TO THE RED LEAD, CONNECT THE BLACK LEAD TO GROUND. ALARM WILL SOUND EACH TIME WHEN VEHICLE IS PLACED IN REVERSE.

BODY PREVENTIVE MAINTENANCE TITAN SERIES

PREVENTIVE MAINTENANCE RECOMMENDATIONS FOR EXTERIOR SURFACES ON TRUCK SERVICE BODIES

PAINT FINISH PREVENTIVE MAINTENANCE INSTRUCTIONS

The paint finish on Auto Crane products can become damaged during normal use when chipped, scratched, exposed to harsh chemicals, cleaned with high pressure washers, etc. During periods when the truck is exposed to salt or other corrosive chemicals, the truck should be washed weekly. The paint finish should be inspected when washed or at least monthly. Any exposed bare metal or visible rust should be repaired immediately. The repairs should be performed in the damaged area by following steps 1-5 in the PAINT PREPARATION INSTRUCTIONS section.

PAINT PREPARATION INSTRUCTIONS

The following paint process steps should be used by Auto Crane distributors when top coating bodies that were primed by Auto Crane: **(Note: Unbolt doors from body and paint separately per instructions shown below)**

1. Clean all surfaces to be top coated so dirt, oil, and other contaminants do not get embedded in the primer when sanded.
 - a. Wash with a mild detergent in warm water.
 - b. Rinse with clean water.
 - c. Wipe dry with a clean cloth.
2. Scuff sand all primed areas to be top coated with 320 grit sandpaper or an equivalent abrasive. Sand any areas with visible rust to bare metal.
3. Solvent clean all areas to be top coated to remove sanding residue. Wipe dry with a clean cloth to remove any remaining residue.
4. Re-prime the following areas to a minimum 2 mil dry film thickness per the primer manufacturer's instructions. The primer must be compatible with PPG Spectracron 573 epoxy primer.
 - a. All bare metal.
 - b. All exposed corners and narrow edges, such as on doors, door openings, drip rails, and bumpers. This is necessary because excessive primer tends to get removed when sanding corners and narrow edges.
 - c. All areas to be top coated if the body has been stored in an outside environment for more than 3-6 months. This is necessary because more primer tends to get removed when sanding a primed-only body that has been exposed to the sun and outside environment for an extended period.
5. Apply a minimum of 2 mil dry film thickness topcoat per the manufacturer's instructions within 24 hours of completing steps 1-4. The top coat paint must be compatible with PPG Spectracron 573 epoxy primer. The final primer and topcoat should have approximately a 4 mil dry film thickness. Allow paint to fully cure before delivery to customer.



P.O. Box 580697 * Tulsa, OK 74158-0697
4707 N. Mingo Rd. * Phone (918) 836-0463

LIMITED WARRANTY 2 YEAR PARTS AND LABOR

Auto Crane will warranty to the consumer for a period of (2) years parts and labor from the date of purchase. Each new Auto Crane unit they sell will be free under normal use and service from defects in material and workmanship. Date of purchase will be honored as the date indicated on the Bill of Sale, which must accompany the Warranty Registration and be on file with Auto Crane. Absent a valid Warranty Registration and appropriate documentation, the original date of manufacture, as indicated by the serial number on the product, will be used to determine the effective date of the 2 year warranty.

The obligation of Auto Crane under this warranty is limited to the replacement or repair of parts that appear to the manufacturer after review and/or inspection to be defective and paid flat rate labor for replacing defective parts. This warranty does not obligate Auto Crane to bear the travel time charges in connection with the replacement or repair of defective parts. Responsibility for customer's claims arising from misapplication, abuse, misuse or alteration of equipment or parts lies with the distributor or user and no warranty obligation is assumed in these circumstances by Auto Crane.

Auto Crane will in no event be liable for any consequential damages or contingent liabilities arising out of the failure of any Auto Crane Product or parts to operate properly.

Auto Crane makes no warranty in respect to component accessories, it being subject to the warranties of their respective manufacturers.

If field service, at the request of the distributor, is rendered and fault is found not to be with Auto Crane's product, the distributor shall pay the time and expense of the field representative.

Claims for service labor or other expenses that have incurred by the buyer without approval or authorization or Auto Crane will not be accepted.

When applying for warranty, claims may be handled by contacting your nearest authorized Auto Crane **Distributor**. **All claims are to be filed in writing on an Auto Crane Warranty Claim Form.**

AUTO CRANE COMPANY IS UNDER NO OBLIGATION TO EXTEND THIS WARRANTY TO ANY CUSTOMER FOR WHICH AN AUTO CRANE DELIVERY REPORT FORM HAS NOT BEEN COMPLETED AND ON FILE WITH AUTO CRANE COMPANY



P.O. Box 580697 * Tulsa, OK 74158-0697
4707 N. Mingo Rd. * Phone (918) 836-0463

5 YEAR LIMITED BODY WARRANTY

COVERED PRODUCTS:

- * Auto Crane Service Bodies - no rust-thru guarantee to the first owner/user of record for five (5) years from the date of purchase.
- * Door Hinges - Guarantee the hinges will not fail to operate or come off the product, to the first owner/user of record for five (5) years from the date of purchase.

ELIGIBILITY:

- * Product(s) warranted must be properly maintained and serviced.
- * The selling distributor must file for the first owner/user the application for warranty by completing the delivery report form enclosed in the Owners Manual within 30 days of the product purchase date. The complete delivery report form must be forwarded to Auto Crane Company. The warranty agreement issued is not transferable.

EXCLUSIONS:

- * Warranty applies to the Auto Crane bodies only and excludes all options, modifications and alterations.
- * Paint required following repairs or replacement of parts under warranty after the first year from the date of delivery.
- * Product(s) that have been misused or damaged, inclusive of, but not limited to, accidents.
- * Absent a completed and valid delivery report form, the original date of manufacture will be used as the effective date for the limited warranty.

SPECIFIC NON-RUST-THRU WARRANTY EXCLUSIONS:

- * Product(s) that have been used to carry corrosive materials, where such materials result in rust-thru conditions.
- * Product(s) purchased by the first owner/user in prime paint condition.
- * Consequential damages including, but not limited to, transportation costs, lost profit and loss of income, as a result of a vehicle being out of service.
- * Product(s) purchased and used outside the U.S.A. or Canada.

APPLYING FOR WARRANTY:

- * Claims may be handled by contacting your nearest authorized Auto Crane Distributor. All claims are to be filed in writing on an Auto Crane Warranty Claim Form.
- * The Auto Crane Company reserves the sole right to inspect item(s) claimed for warranty and decide the best way to handle any and all claims, including the replacement or repair of the warranted part.
- * Should the warranted product rust thru, the hinges fail to operate or come off the product, Auto Crane will pay the cost of parts and flat rate labor to repair or replace as necessary the defective component. NOTE: Paint following repair or replacement of a part is exclusive under warranty after the first year from date of delivery.
- * DEFECTS FROM MANUFACTURING WORKMANSHIP AND/OR MATERIAL NOT SPECIFIED ABOVE WILL BE SUBJECT TO WARRANTY INCLUSIVE OF MATERIALS AND LABOR TO THE FIRST OWNER/USER OF RECORD FOR TWO (2) YEARS FROM THE DATE OF DELIVERY. Exclusions, as well as methods of applying for warranty remain the same as stated in the limited five (5) year warranty covered above.



P.O. Box 580697 * Tulsa, OK 74158-0697
4707 N. Mingo Rd. * Phone (918) 438-2760

LIMITED WARRANTY 1 YEAR PURCHASED REPLACEMENT PARTS

Auto Crane will warranty to the consumer for a period of (1) year from the date that a new Auto Crane replacement part was purchased from an authorized Auto Crane distributor. Each new Auto Crane part they sell will be free under normal use and service from defects in material and workmanship. Date of purchase will be honored as the date indicated on the Bill of Sale to the consumer.

The obligation of Auto Crane under this warranty does not apply to parts replaced under the limited warranty for a new Auto Crane product. The warranty for parts replaced under the limited warranty of a new Auto Crane product expires when the warranty for that product expires.

The obligation of Auto Crane under this warranty is limited to the replacement or repair of purchased replacement parts that appear to the manufacturer to be defective after review of documentation (Auto Crane Warranty Claim Form, photos, data, etc.) provided by the Auto Crane distributor and/or inspection of parts returned to Auto Crane. This warranty does not obligate Auto Crane to bear labor costs to replace the defective parts or travel time charges in connection with the replacement or repair of defective parts. Responsibility for customer's claims arising from misapplication, abuse, misuse or alteration of equipment or parts lies with the distributor or user and no warranty obligation is assumed in these circumstances by Auto Crane.

Auto Crane will in no event be liable for any consequential damages or contingent liabilities arising out of the failure of any Auto Crane product or parts to operate properly.

Auto Crane makes no warranty in respect to parts for component accessories, it being subject to the warranties of their respective manufacturers.

If field service, at the request of the distributor, is rendered and fault is found not to be with Auto Crane's product, the distributor shall pay the time and expense of the field representative.

Claims for service labor or other expenses that have incurred by the buyer without approval or authorization or Auto Crane will not be accepted.

When applying for warranty, claims may be handled by contacting your nearest authorized Auto Crane **Distributor. All claims are to be filed in writing on an Auto Crane Warranty Claim Form.**

