Dolly Frame Closure Inspection & Repair

Preparation

- Position dolly in a location shielded from elements and weather for repair.
- Obtain rags, degreaser, painting supplies, proper extension cord, drill (¼” & 3/8” bits), impact gun, sockets and wrenches (3/8”, 7/16”, 9/16”, 5/8”, & 15/16” deep well), breaker bar, angle grinder, 2” or small pneumatic grinder, wire brush, welding equipment (MIG with .045 ER70-S6 wire and 95% Ar / 5% O gas), clamp, tape measure, torque wrench, pneumatic air blower, & scraper.
- Remove flammable objects from the area.
- Reference required new parts list on page 24.

Preparation

Preparation

Ensure that the dolly is safely supported to prevent tipping nose down or up or from rolling.

Gaining Access to Repair Area

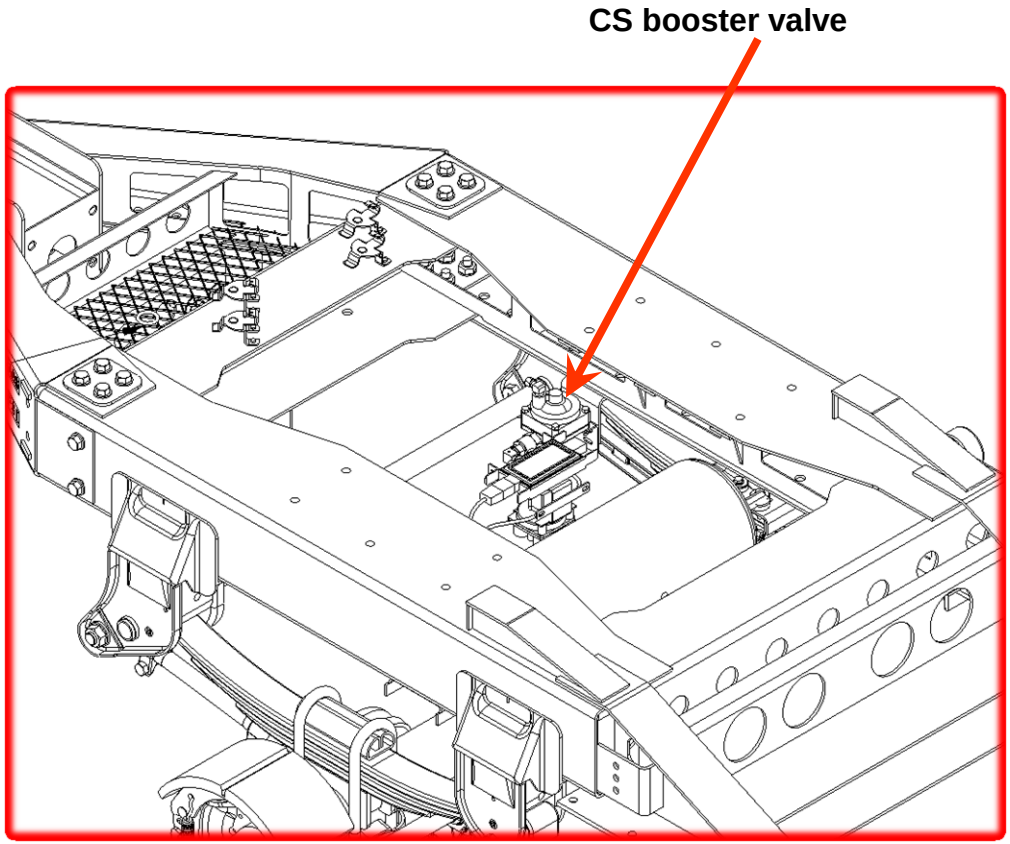
1. Remove front cover plate and fifth wheel top plate for access.

- (6) 1/4” bolts on front cover plate
- (10) 3/4” bolts & nuts for fifth wheel plate
- (1) 3/8” bolt on fifth wheel strap to frame
- cut welds all four corners off fifth wheel

{minimize grinding of original galvanized finish as much as possible}

Gaining Access to Repair Area

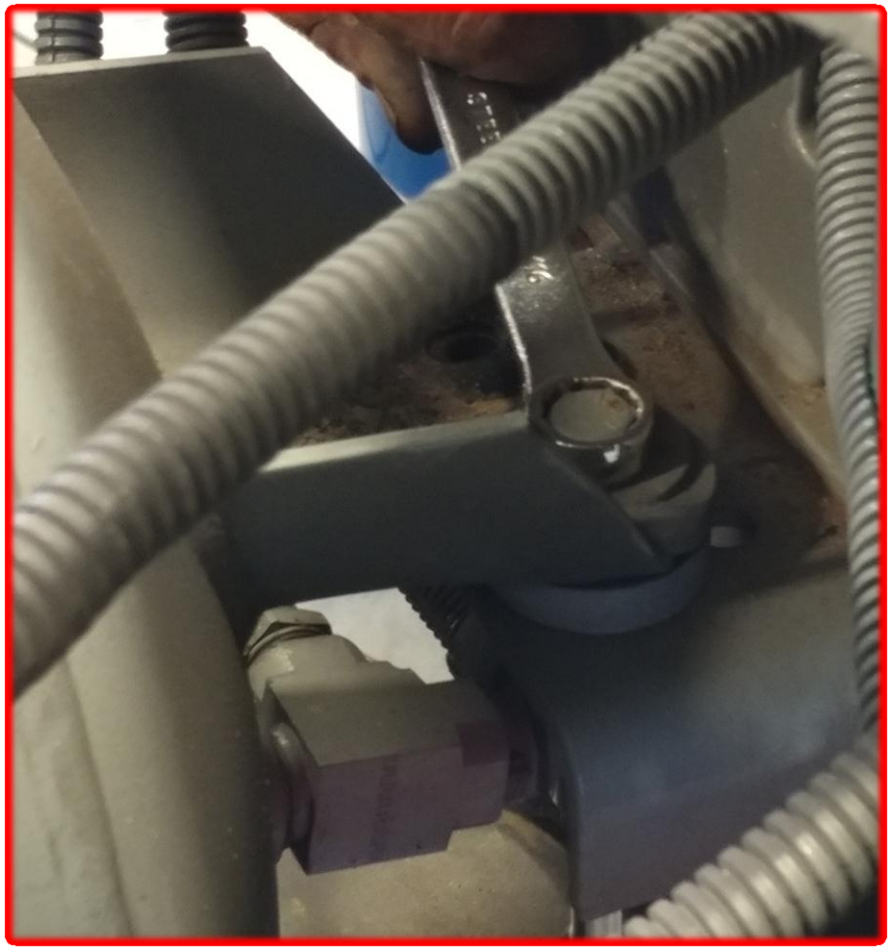
2. Carefully un-mount CS valve from welded-on bracket



- (2) 3/8” bolts on CS valve

Gaining Access to Repair Area

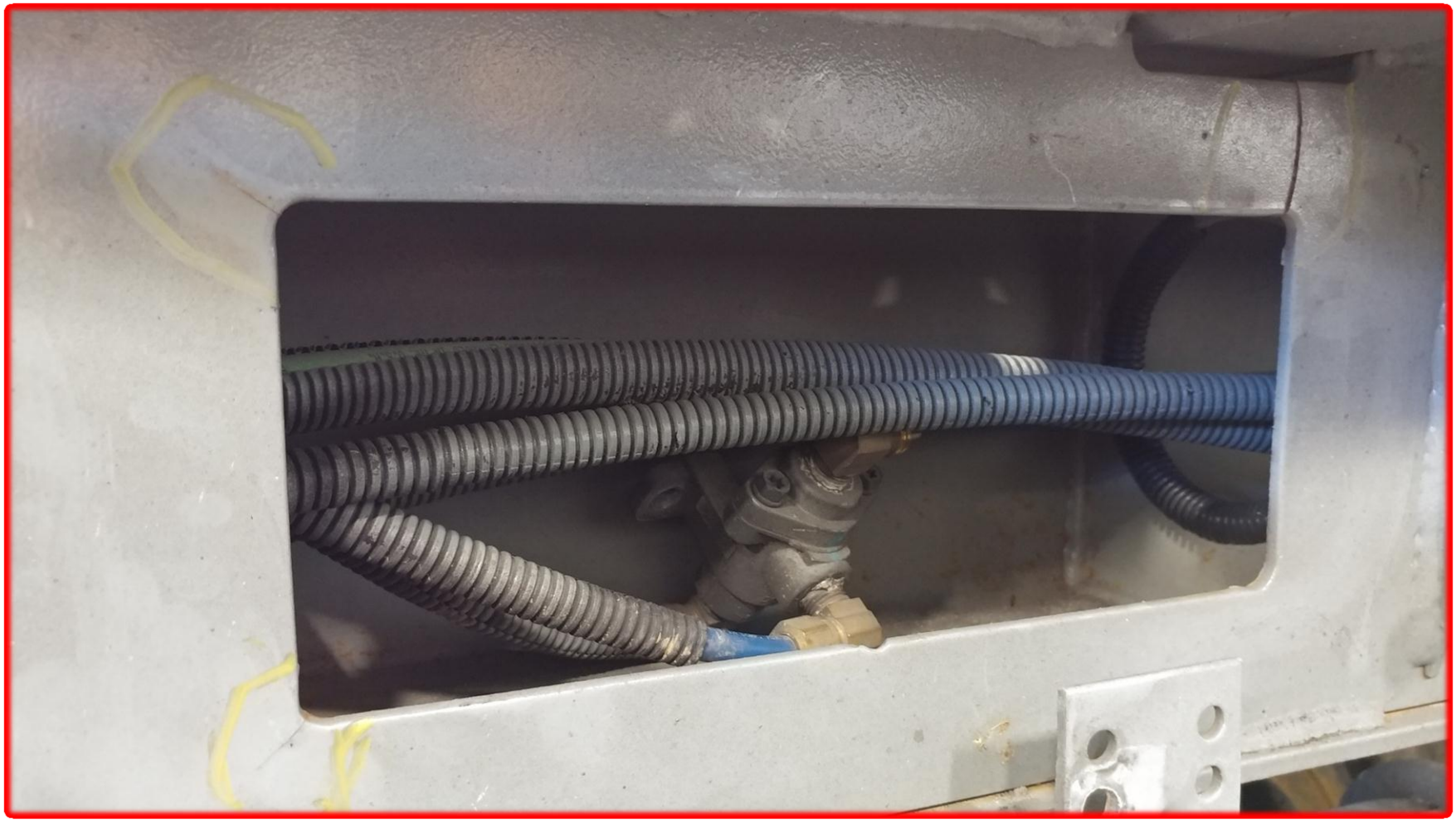
3. Un-mount air tank and carefully rest the tank on top of the axle.



- (4) 3/8” bolts for air tank
- Disconnect air line (5/8”) from tank to prevent tugging

Frame Rail Closure Inspection

- Inspect frame rail closure to locate cracks as shown.



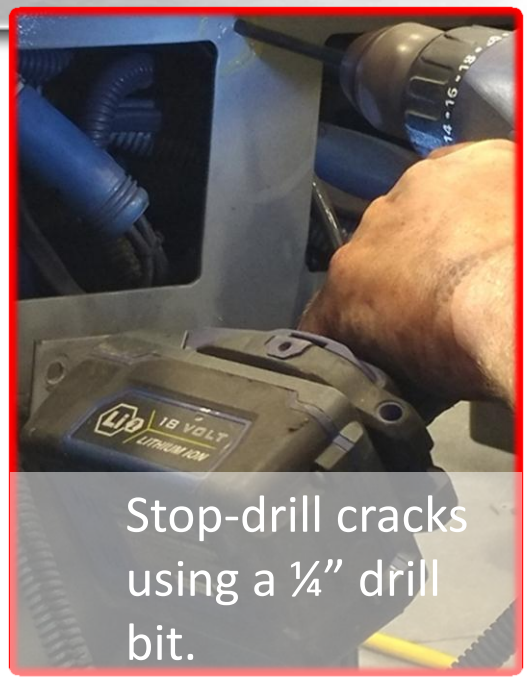
Closure Plate Repair Procedure

- Any cracks found upon inspection in closure plate area should be repaired as follows; otherwise, proceed to step 4.

  - Clean and wire brush affected area to remove dirt, paint, grease, or Zinc.
  - Protect air and electrical lines from damage while working.
  - Stop-drill cracks using a ¼” drill bit.
  - Fully grind out cracks in welded metal and cracked metal.
  - Re-weld affected areas of cracks and unacceptable welds using .045 ER70-S6 wire electrode, 95% argon / 5% oxygen shielding gas, with the machine set to approximately 24.3V and 300 ipm (adjust for individual machines). Be sure to back fill any weld crater at weld start and stop.
  - Grind welded area flat and smooth to allow for reinforcement installation.
  - Clean soot and spatter from re-welded areas.

Closure Plate Repair Procedure

Use a block of wood or protective material to avoid air and electrical damage.

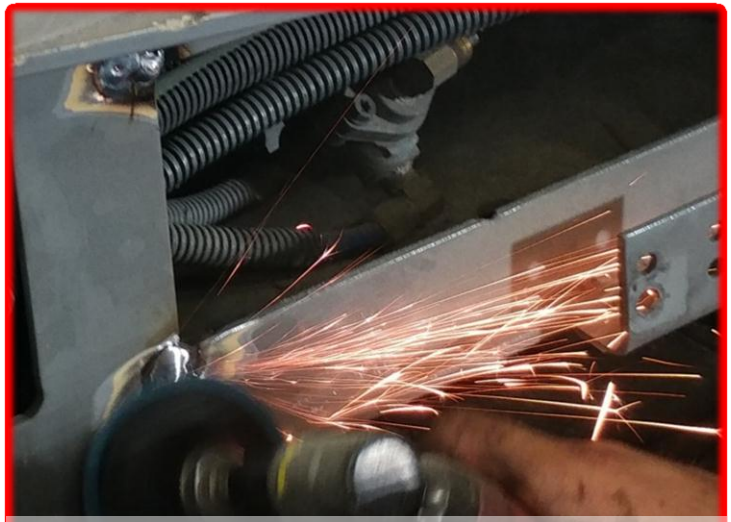


Stop-drill cracks using a ¼” drill bit.

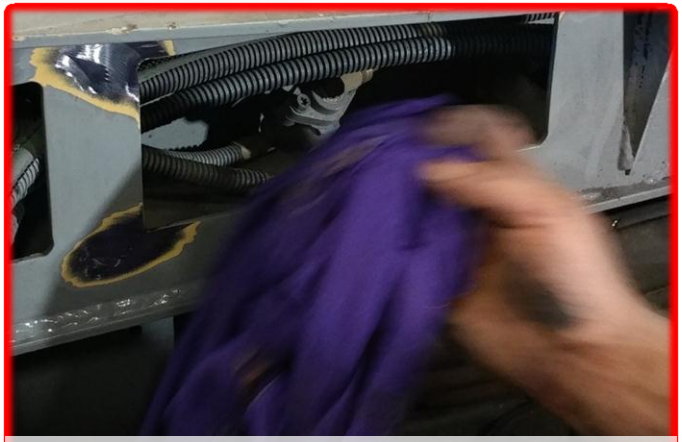
Fully grind out cracks in welded metal and cracked metal.

Weld affected areas. Be sure to back fill any weld crater at weld start and stop.

Closure Plate Repair Procedure



Grind welded area flat and smooth to allow for reinforcement installation. A heat shield of thin gauge steel may be used to contain sparking.



Clean soot and spatter from re-welded areas.

Use cold galvanizing compound to re-treat serviced area.

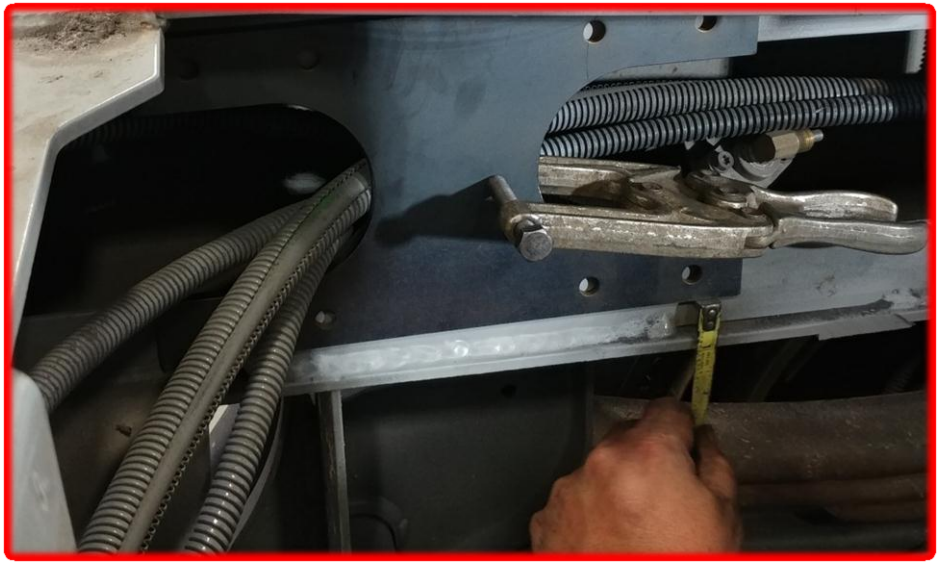
Painted dolly used as reference only.

Gaining Access for Reinforcements

4. Cut away CS brake valve bracket that will interfere with reinforcement plate installation. A heat shield of thin gauge steel may be used to contain sparking. A reciprocating saw may be used to avoid sparks damaging air lines.

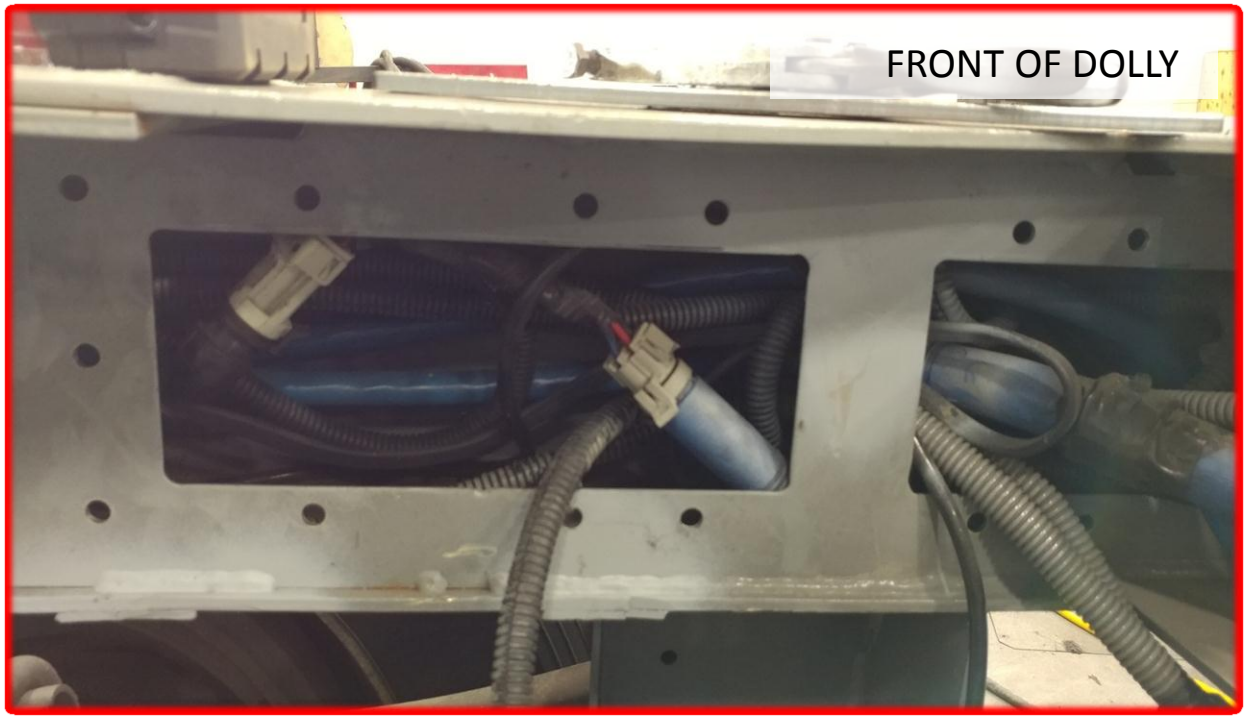
Installation of Reinforcements (Front)

5. Use a clamp to center reinforcement 41201856 (¾” from bottom of part to frame rail upper face & ¾” from top of part to frame rail lower face). Use part as a guide to drill 0.386” diameter holes. Take care not to damage any air/electrical lines during drilling.



Installation of Reinforcements (Front)

6. Use a clamp to center reinforcement 41201857 (¾” from bottom of part to frame rail upper face & ¾” from top of part to frame rail lower face). Use part as a guide to drill 0.386” diameter holes. Take care not to damage any air/electrical lines during drilling.

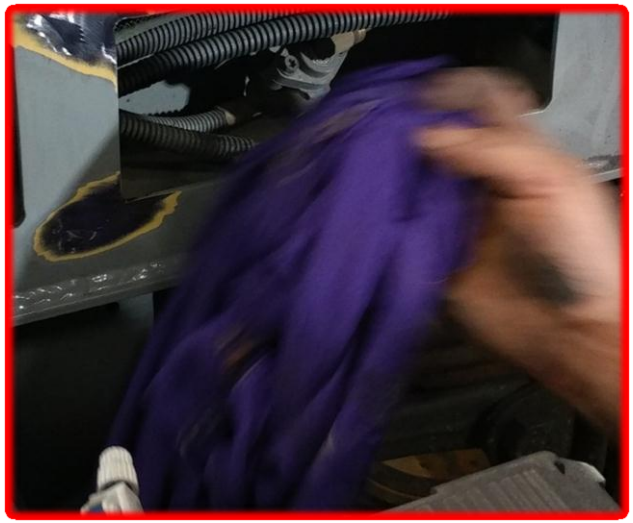


Installation of Reinforcements (Rear)

7. Repeat installation of 41201856 & 41201857 for the rear in same fashion.

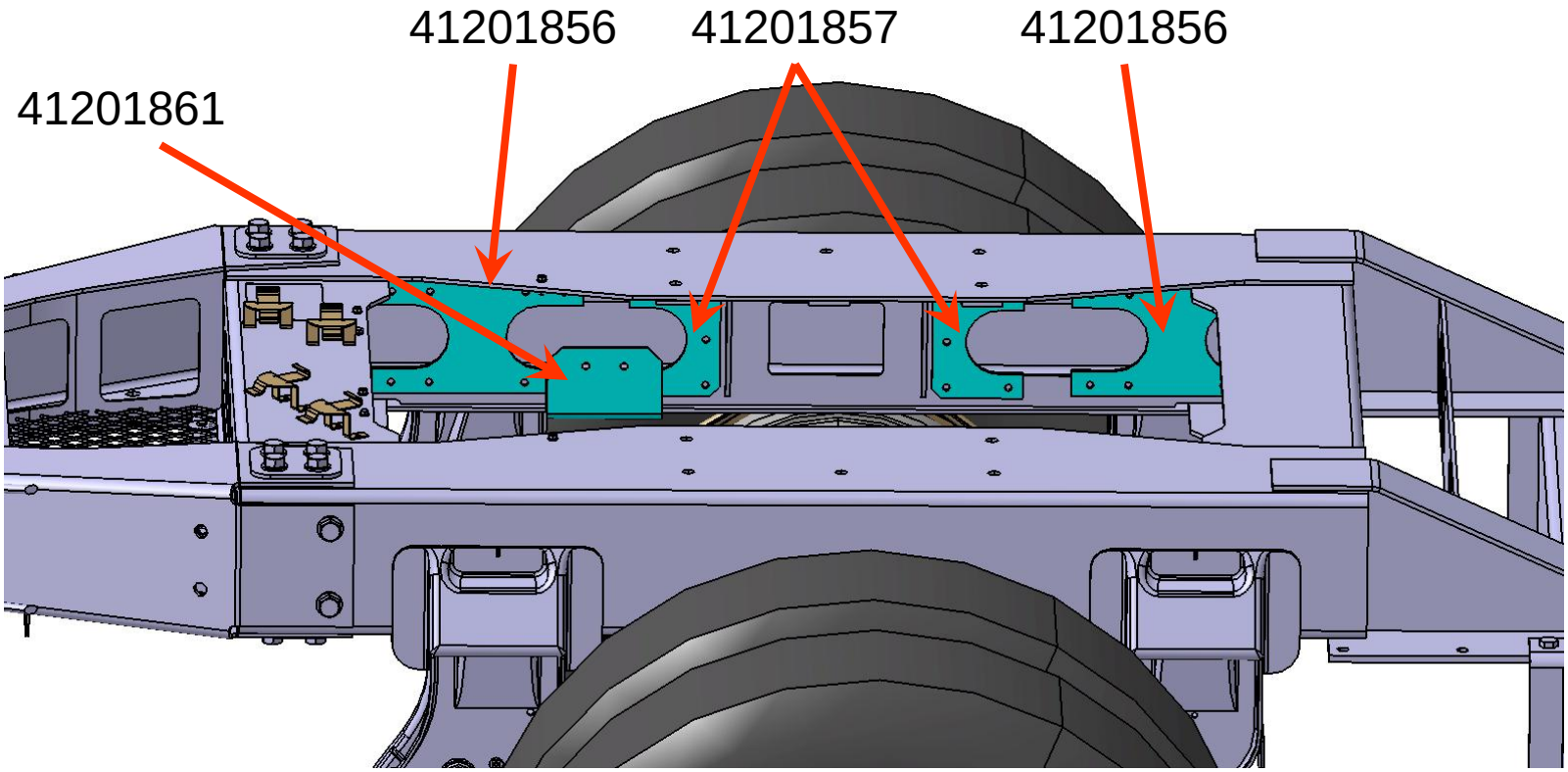
Installation of Reinforcements (Prep)

8. Clean any remaining soot, spatter, and metal shavings from affected areas.



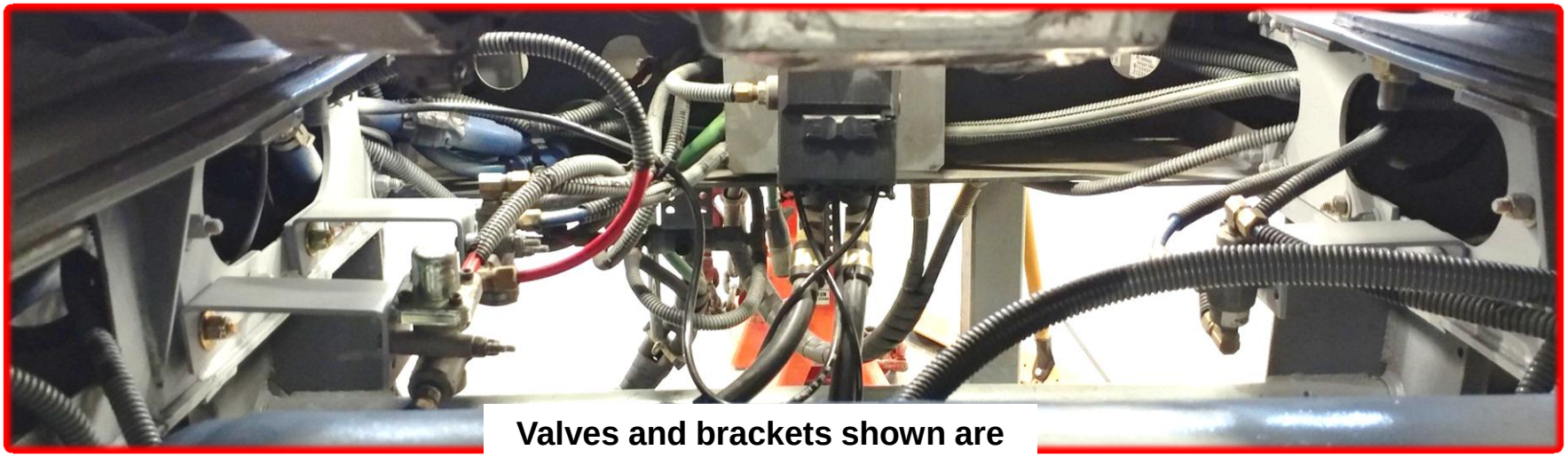
Installation of Reinforcements

9. Install 3/8” nuts, bolts, and washers on reinforcement 41201856 and 41201857 onto dolly; Huck SS 0.38 lock bolts are also an acceptable alternative, parts 42202615 and 42202630. New valve bracket 41201861 is installed at this time as well. Torque nuts to 40 FT•LB

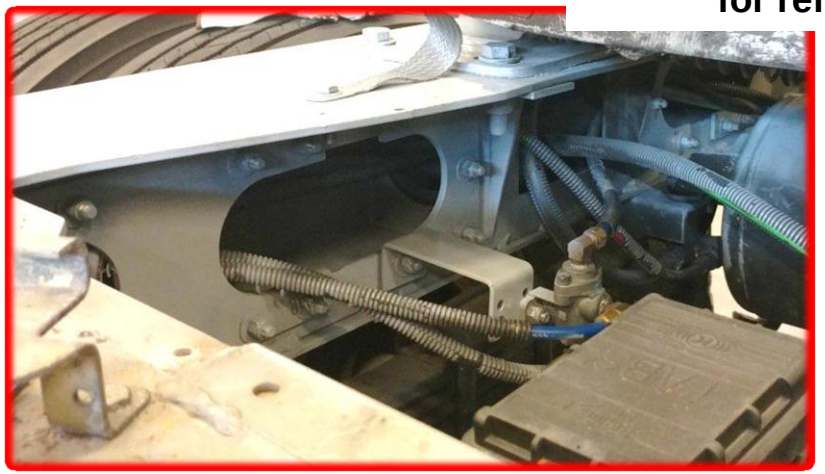


Installation of Reinforcements

Final bolted assembly should look similar to below:



Valves and brackets shown are for reference only.

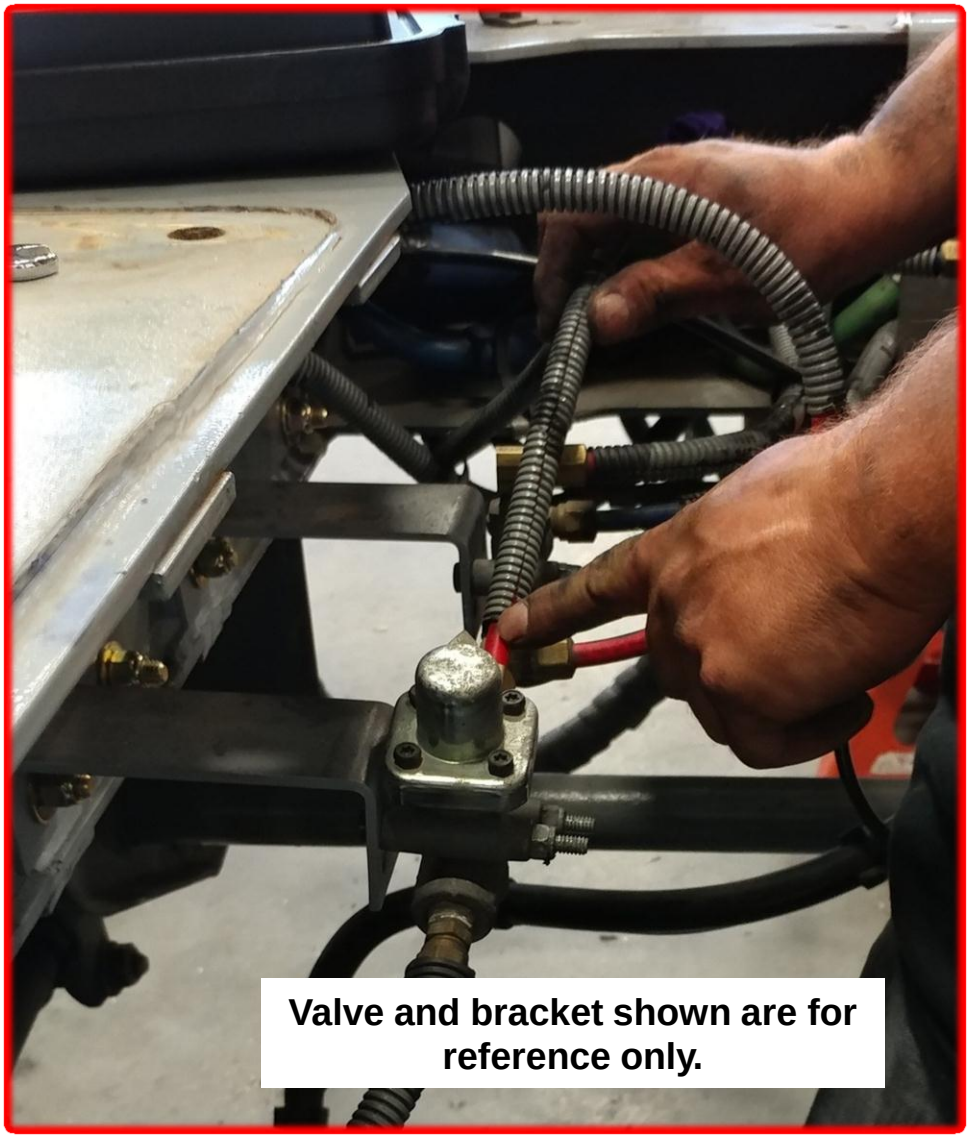


Re-install Air Valve

10. Reuse fasteners on installation.
- (2) 3/8” bolts on CS

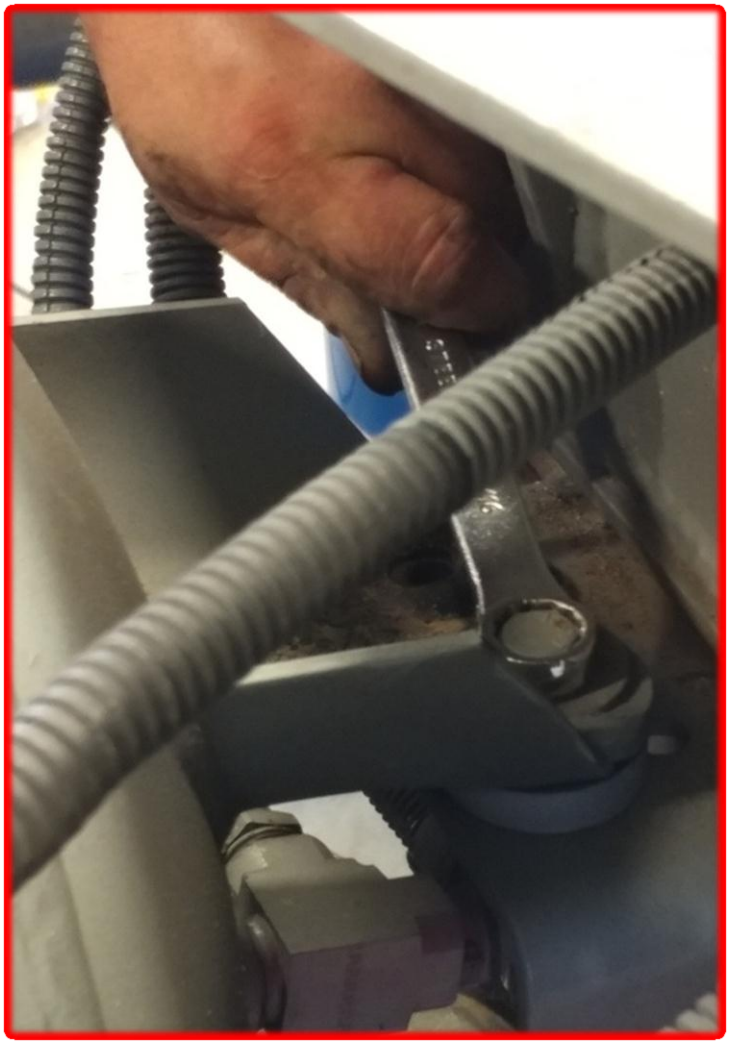
Note:

❖ Reconnect any 5/8” lines that were disconnected



Re-install Air Tank

11. Remount air tank.
    - (4) 3/8” bolts
    - Reconnect 5/8” line to air tank



Re-install Fifth Wheel

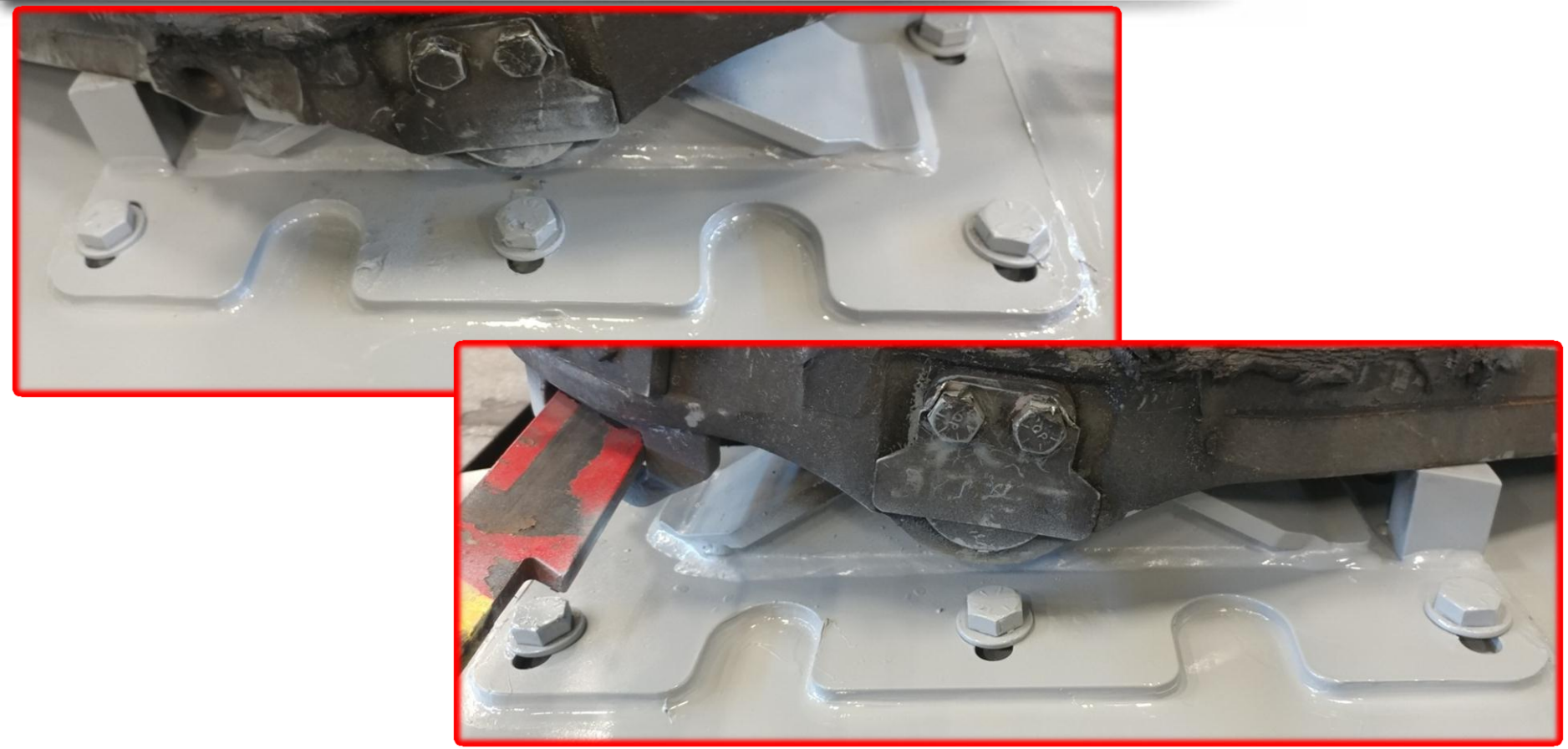
13. Grind off welds from fifth wheel mount and scrape old sealant residue. **Re-treat any area having ground away zinc with cold galvanizing compound.**

- (10) 3/4” bolts & nuts for fifth wheel plate to 350 FT•LB
- Re-weld all four corners on fifth wheel

Re-install Front Cover Plate

14. Re-install front cover plate and fifth wheel strap
    - (6) 1/4” bolts
    - (1) 3/8” bolt

Re-caulk Fifth Wheel Attachment Plates



15. Re-caulk fifth wheel attachment plates

- Seal perimeter continuously with caulk on both attachment plates
- Coat caulked area and any area that lost zinc in the process of repair cold galvanizing compound

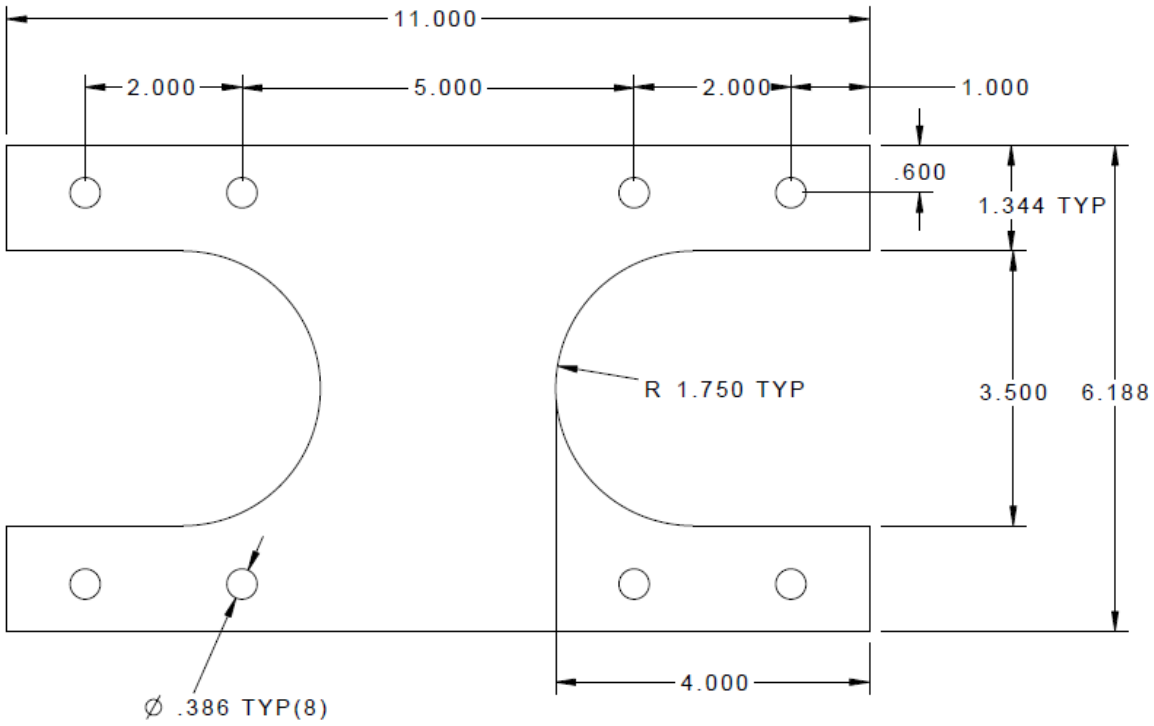
Parts List

- (4) 41201856 - REINF,DLY PLT (0.25 X 6.19 X 11.00)
- (4) 41201857 - REINF,DLY PLT (0.25 X 6.19 X 4.75)
- (1) 41201863 - BRKT,VLV UNIV STL (2.00 X 2.00 X 4.75)
- (52) 42200822 – BOLT,HH NC ZN PL (0.38-16X1.25 GR8)
- (52) 42200925 – NUT,LK NLN HH NC ZN (0.38-16)
- (104) 42201004 – WSHR,FLT 0.38 ZN (0.406ID X 0.812OD)
- Cold galvanizing compound

Huck lock-bolt alternative:

- (52) 42202615 – 0.38 SS lock bolt
- (52) 42202630 – lock collar

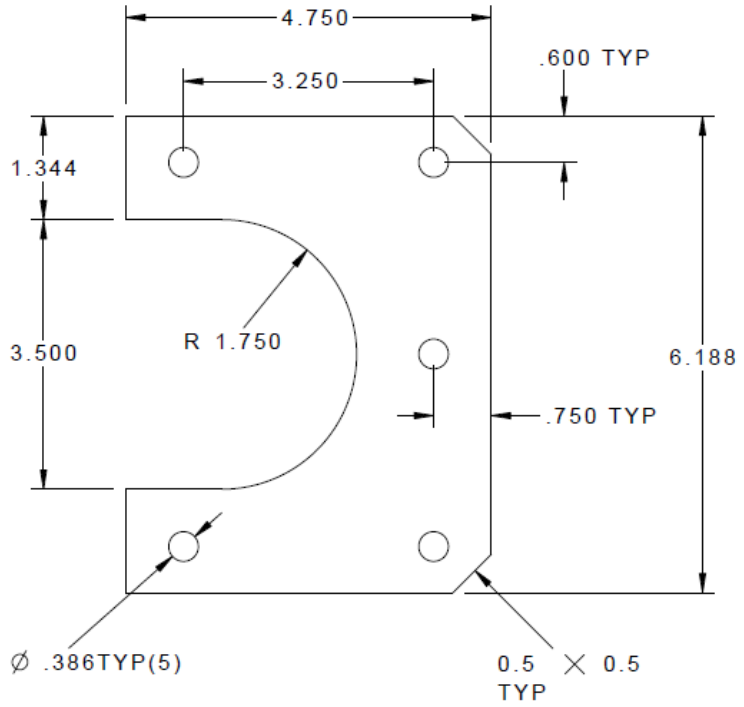
REV	DWG NO: 41201856	DATE	BY
_	NEW	06/09/2017	BWS
		CN 6/7/17	



MATERIAL: A572-60STL .250(.229MIN)X6.188X11.000

Great Dane Trailers A Division of Great Dane Limited Partnership	ALL DIMENSIONS ARE IN INCHES. **DWN BY:** B.Stephens 06/07/2017	CN 6/7/17 **WEIGHT** 2.965lb	**DWG TITLE:** REIN,DLY PLT .25X6.19X11.00
TOLERANCES TO BE ±0.050 UNLESS OTHERWISE NOTED.	**NOTICE:** THIS DOCUMENT CONTAINS PROPRIETARY TECHNICAL DATA WHICH IS THE CONFIDENTIAL PROPERTY OF GREAT DANE. ABSENT THE EXPRESS WRITTEN PERMISSION OF GREAT DANE USE OR DISCLOSURE OF THIS DOCUMENT IS FORBIDDEN.		**SHEET:** 1 OF 1 **DWG NO:** 41201856 **REV:** _

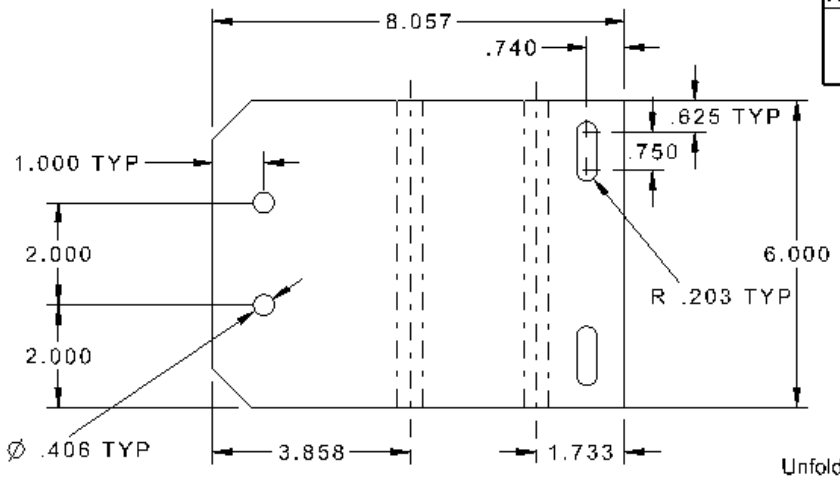
REV	DWG NO: 41201857	DATE	BY
_	NEW.	06/09/2017	BWS
		CN 6/7/17	

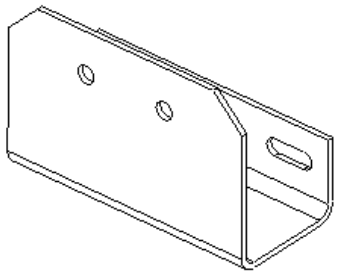


MATERIAL: A572-60STL .250(.229MIN)X4.750X6.188

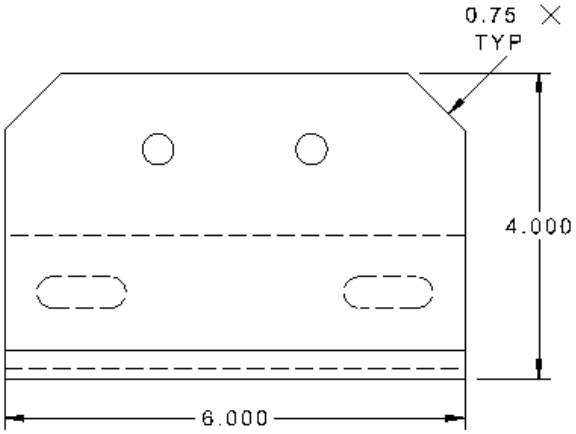
Great Dane Trailers A Division of Great Dane Limited Partnership	ALL DIMENSIONS ARE IN INCHES. DWN BY: B.Stephens 06/07/2017	CN 6/7/17 WEIGHT 1.375lb	DWG TITLE: REINF,DLY PLT .25X6.19X4.75
TOLERANCES TO BE ±0.050 UNLESS OTHERWISE NOTED.	NOTICE: THIS DOCUMENT CONTAINS PROPRIETARY TECHNICAL DATA WHICH IS THE CONFIDENTIAL PROPERTY OF GREAT DANE. ABSENT THE EXPRESS WRITTEN PERMISSION OF GREAT DANE USE OR DISCLOSURE OF THIS DOCUMENT IS FORBIDDEN.		SHEET: 1 OF 1 DWG NO: 41201857 REV: _

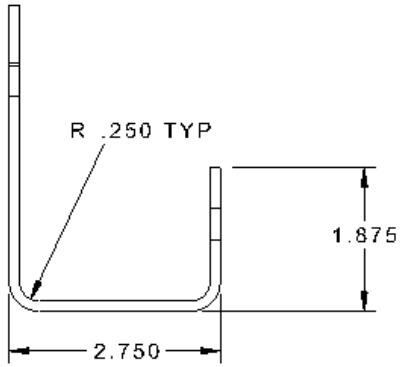
REV	DWG NO:41201861	DATE	BY
A	SHORTEN PART FROM 4.75" TO 2.75" TO ACHIEVE LOWER PROFILE.	07/18/2017	KYL
		CN 07/18/17	





Unfolded view





MATERIAL: A653-CSB G60 GV STL .1382(.1292MIN)X6.000X8.057

Great Dane Trailers A Division of Great Dane Limited Partnership	ALL DIMENSIONS ARE IN INCHES. DWN BY: B.Stephens 06/09/2017	CN 6/9/17 WEIGHT 1.7881b	DWG TITLE: BRKT,CDLY ANG RLY VLV MTG 0.14 X 4.00 X 2.75 X 6.00
TOLERANCES TO BE ±0.050 UNLESS OTHERWISE NOTED	NOTICE: THIS DOCUMENT CONTAINS PROPRIETARY TECHNICAL DATA WHICH IS THE CONFIDENTIAL PROPERTY OF GREAT DANE. ABSENT THE EXPRESS WRITTEN PERMISSION OF GREAT DANE USE OR DISCLOSURE OF THIS DOCUMENT IS FORBIDDEN.		SHEET: 1 OF 1 DWG NO:41201861 REV: A

Questions?

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