



Assembly, Installation, Operation and Maintenance Instructions

P/N: 32221

2013 to 2017 Dodge 3500 4 Bolt Custom Installation Bracket Kit.

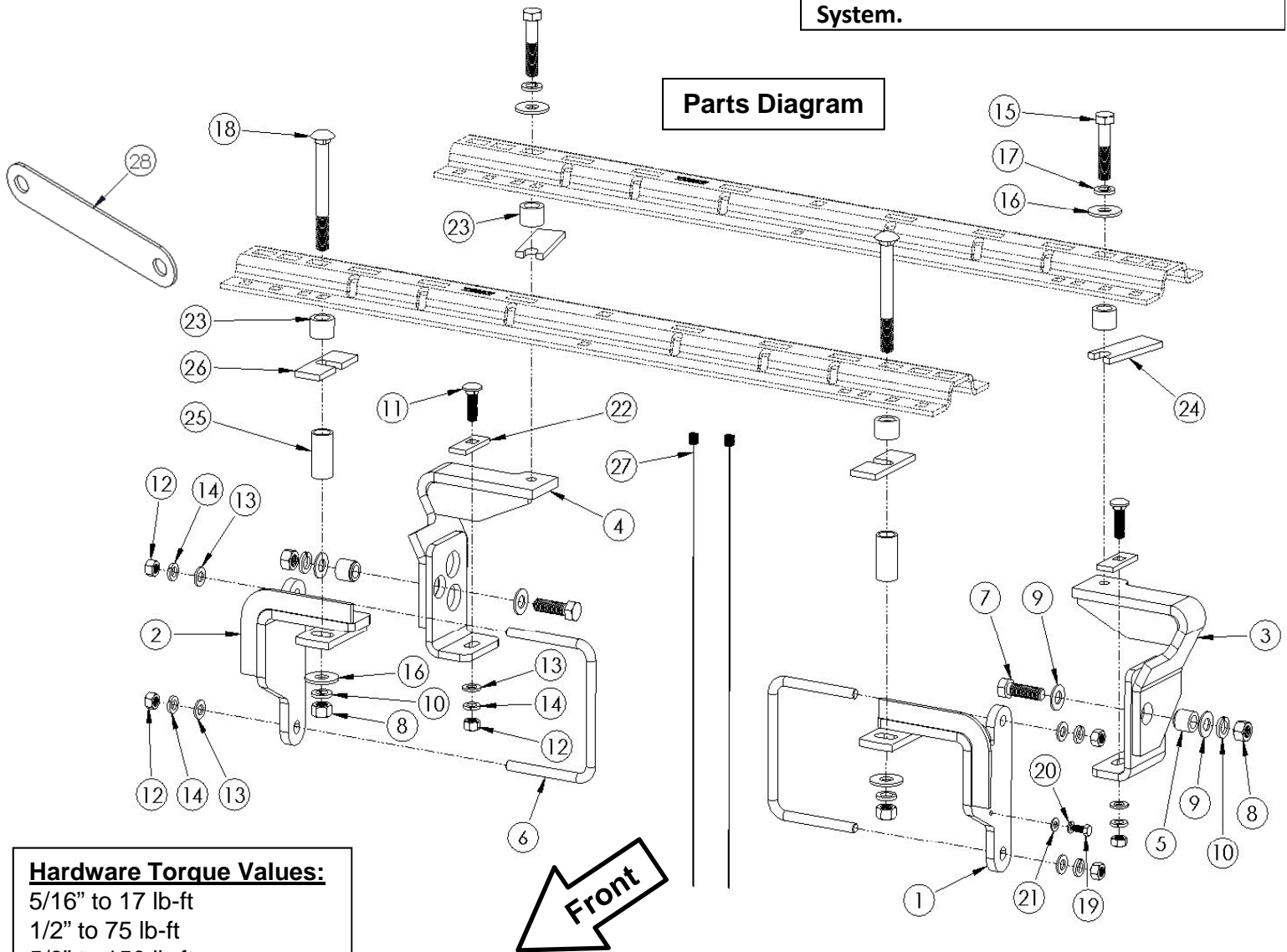
Dealer / Installer:	Provide a copy of these Instructions to the end user of this product. These Instructions provide important operating and safety information for proper usage of this product. Demonstrate the proper use of the product with the end user. Have the end user demonstrate that they understand the proper use of the product.
End User:	Read and follow all instructions included in this manual. Ask your Dealer / Installer for assistance if you do not understand the proper use of the product. Never remove any decals from the product.

Use with 4 bolt 31323 or 10 bolt 30686 base rails. Base Rails are not included with this kit.

Important! If you have the OEM 5th Wheel Prep. Package, you will have to remove the 2 rear "pucks" from the frame before proceeding with this installation. Does not fit trucks with air bag suspension feature.

WARNING! Never exceed the towing capacity of the tow vehicle.

Center Bolt Kit 32059 (sold separately) must be used when towing with a 26K hitch, Goose Neck, or Maneuvering System.



Hardware Torque Values:

- 5/16" to 17 lb-ft
- 1/2" to 75 lb-ft
- 5/8" to 150 lb-ft

TOOLS

3/16", 17/32", 11/16" drill bits.

5/8" Transfer Center Punch.

1-1/4" hole saw.

3/4" & 15/16" Socket & Open End Wrench.

Torque Wrench capable of 150 lb-ft.

1. The following instructions should be used to mount the fifth wheel. Care and attention to detail will ensure a quick quality installation. Check parts against parts list to become familiar with parts in kit.
2. Raise rear of truck high enough to allow jack stands to be placed under rear spring hanger bracket of truck. This will provide maximum room to install the fifth wheel brackets.

WARNING:

If the truck is raised, be sure that the truck is properly blocked and restrained to prevent the truck from falling. Failure to do so may result in the truck suddenly falling, causing death or serious injury.

3. Do not install mounting rails over plastic bed liners. Plastic bed liners must be cut out of the way. Base rails may be installed on dry/cured spray in liner. **Note: Consult installer for recommended curing time.**
4. Use only the supplied bolts, nuts, and washers to install this kit. All nuts and bolts are Grade 5 unless specified otherwise.

PARTS LIST

ITEM NO.	DESCRIPTION	QTY
1	DRIVER SIDE FRONT BRACKET	1
2	PASSENGER SIDE FRONT BRACKET	1
3	DRIVER SIDE REAR BRACKET	1
4	PASSENGER SIDE REAR BRACKET	1
5	ALIGNMENT BUSHING	2
6	U-BOLT	2
7	5/8"-11 X 2" HEX HEAD BOLT SILVER	2
8	5/8 -11 HEX HEAD NUT SILVER	4
9	5/8" X 1-5/16" FLAT WASHER SILVER	4
10	5/8" LOCK WASHER SILVER	4
11	1/2"-13 X 1-3/4" CARRIAGE BOLT SILVER	2
12	1/2"-13 HEX HEAD NUT SILVER	6
13	1/2" X 1" FLAT WASHER SILVER	6
14	1/2" LOCK WASHER	6
15	5/8-11 X 3" HEX HEAD BOLT BLACK	2
16	5/8" X 1-3/4" FLAT WASHER BLACK	4
17	5/8" LOCK WASHER BLACK	2
18	5/8"-11 X 6" CARRIAGE BOLT BLACK	2
19	5/16"-18 X 3/4" HEX HEAD BOLT	1
20	5/16" LOCK WASHER	1
21	5/16" FLAT WASHER	1
22	1/2" CARRIAGE BOLT SPACER	2
23	BASE RAIL SPACER	4
24	SLOT AT END SPACER PLATE	2
25	2-5/16" LONG TUBE SPACER	2
26	1/4" SPACER PLATE	2
27	1/2" X 23-1/2" LONG PULL WIRE	2
28	SHORT BED SPACER PLATE	1

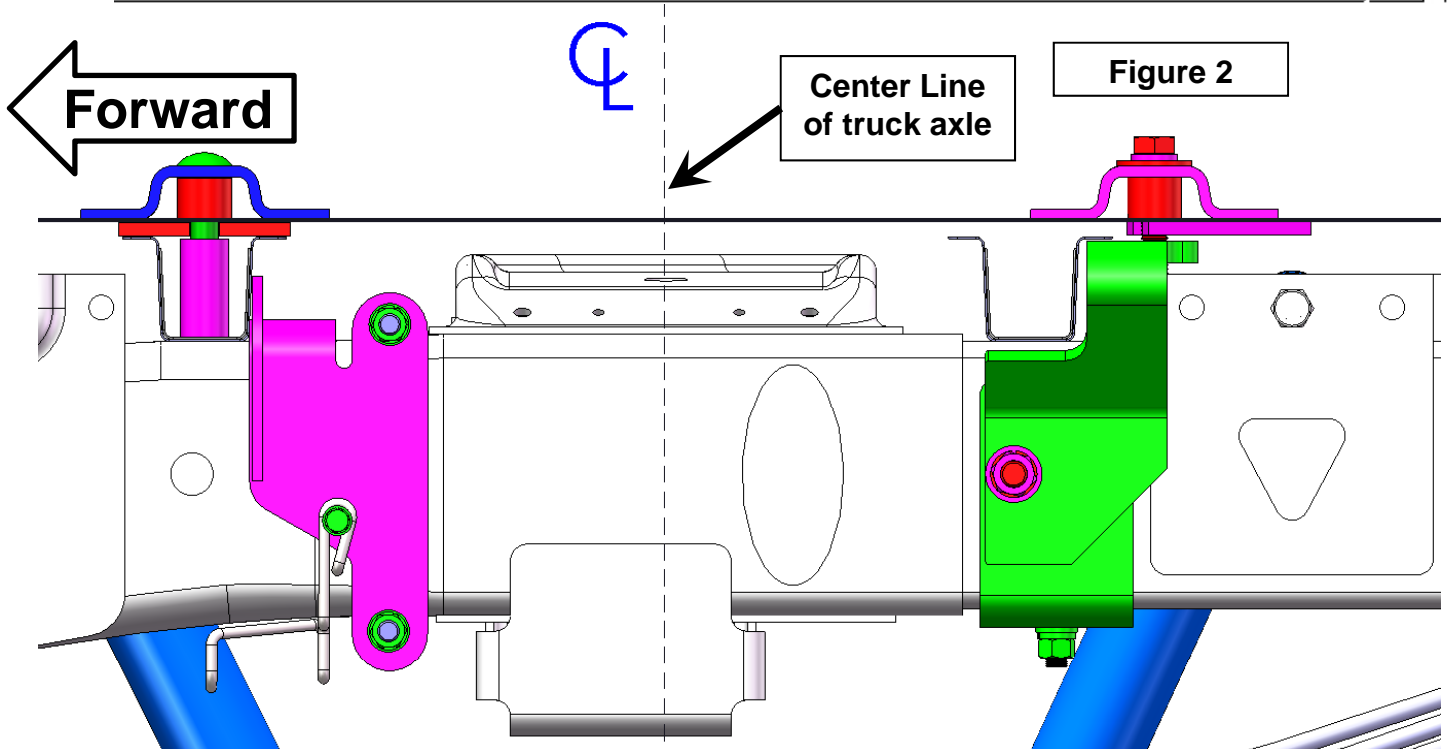
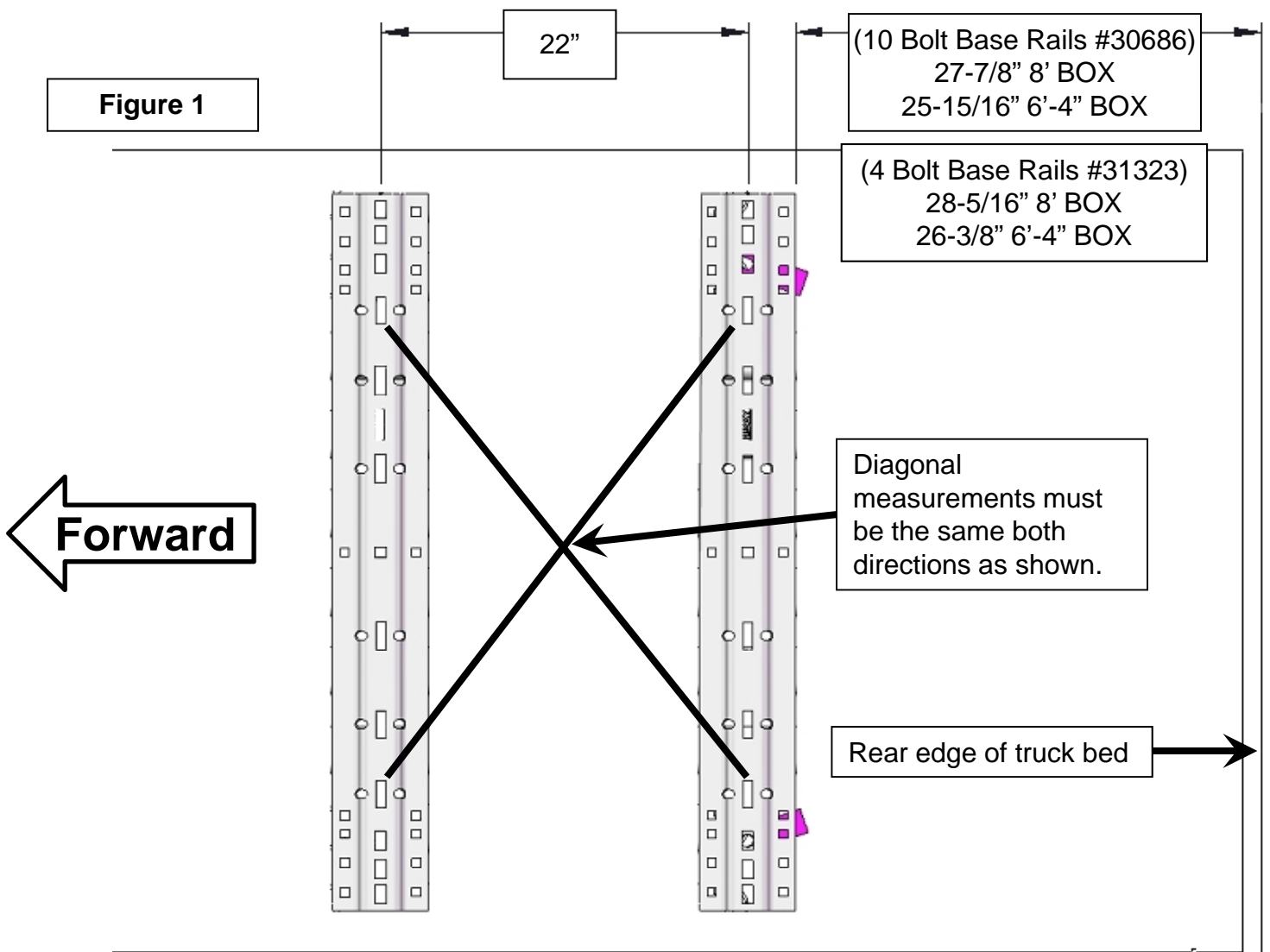
CAUTION:

These instructions are guidelines only. Actual installation is the responsibility of the installer and the owner. Always measure truck and trailer before installing hitch to be sure that there is clearance at the cab and at the bumper to allow for turns.

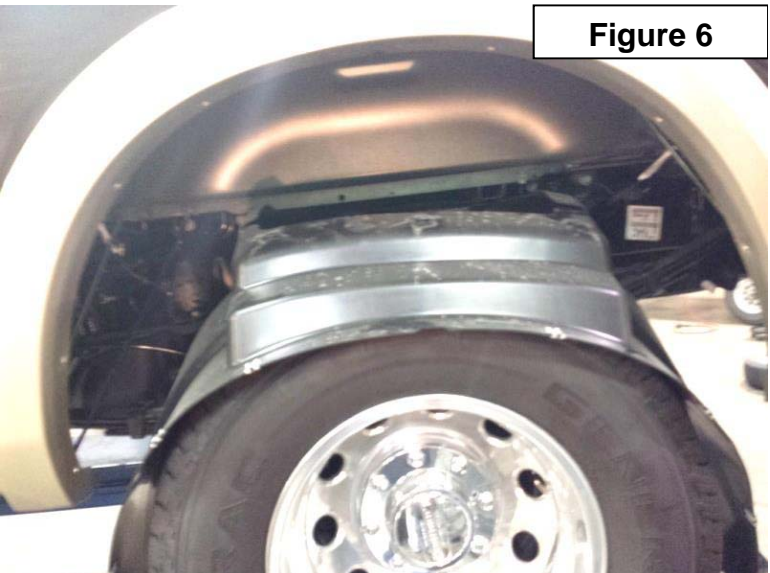
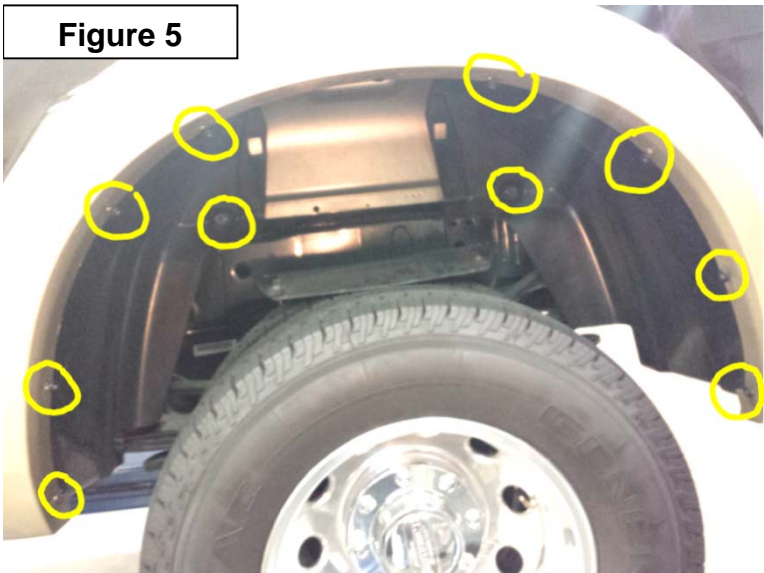
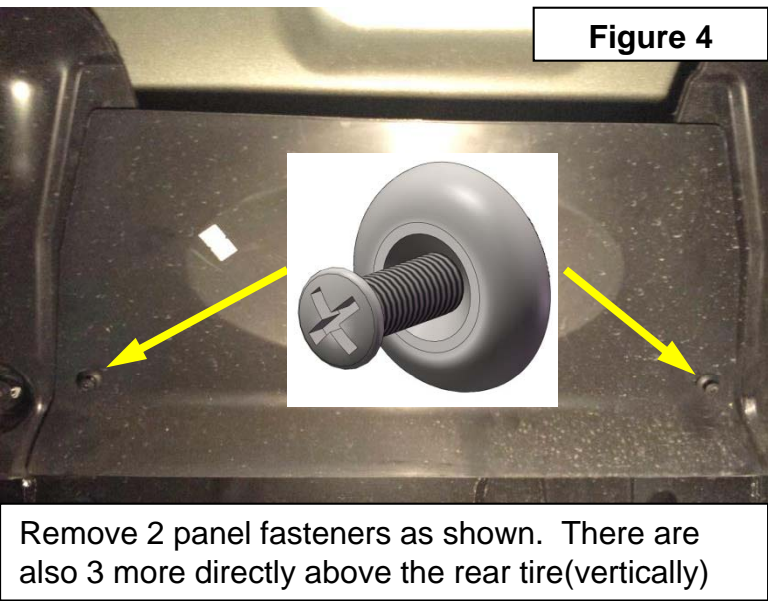
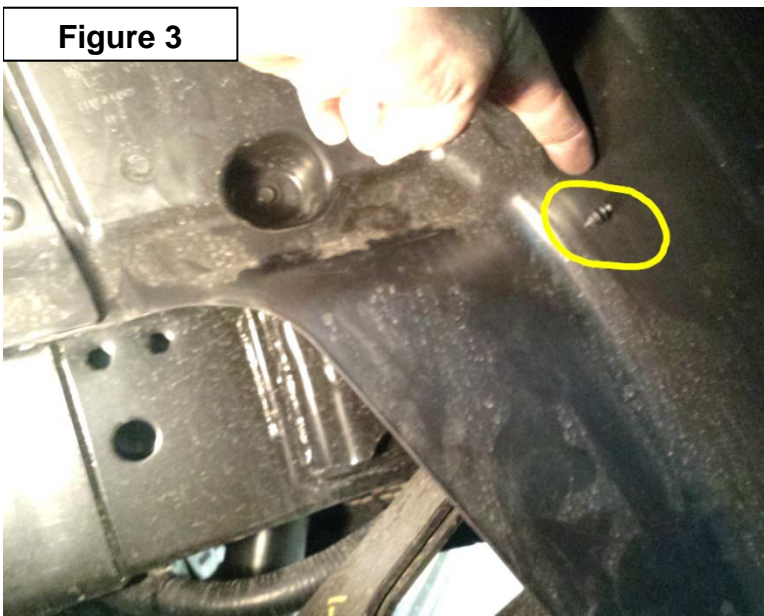
5. Measurements are given from rear edge of truck bed to rear edge of the base rail closest to the rear edge of truck for most vehicle applications.
6. Center hitch between fender wells and make sure rails are square. Adjust position of rails until both diagonal measurements are the same. This should allow installation of a gooseneck or other fifth wheels to these rails.

CAUTION:

Check for obstructions before drilling. Failure to do so could result in damaged fuel or brake lines, structural members, etc. HUSKY TOWING PRODUCTS does its best to communicate tow vehicle manufacturer changes; however, it is ultimately the responsibility of the installer to prevent damage due to installation.



7. The wheel well liners will need to be removed to access the frame for bracket installation.
8. There are 2 Christmas tree's in each wheel well liner (see Figure 3). 1 will be on the left side and the other the right side. Carefully push these in so they are not attached to the liner or damage to the wires on the other side of the liner could occur.
9. Remove the access panel from the wheel well liner by removing the panel pins carefully to be replaced once the installation is complete. (see Figure 4)
10. Lift the access panel up then out and set aside.
11. There are 8 screws along the inner edge of the wheel well fender flange and 1 screw in a recessed pocket on either side of the removable panel. Remove these 10 screws and carefully remove the wheel well liner and set aside with the screws to be re-installed later. (see Figure 5 & 6)
12. Repeat steps 9 thru 11 for the passenger side.



13. Place the two bed rails across the truck bed between the wheel wells. Position the 5th wheel uprights between the bed rails so that the tabs in the base of each upright will fit into the slots in the ends of the bed rails. Secure the uprights in place with the rail hitch pins and hair pins supplied with the 5th wheel installation kit. Securely attach 5th wheel cross member to uprights.

14. On most applications, the 5th wheel assembly should be positioned so that it is approximately centered over the truck axle and between the wheel wells on the bed floor. See Figure 2.

NOTE: To keep the trailer from hitting the cab on tight turns there must be at least 52" between the hitch and the cab. On long bed pickups the hitch center line can be up to 3" ahead of the axle. On short bed pickups this position is not possible. A 5th wheel hitch that can move the trailer rearward away from the truck cab should be used with a pickup truck bed length less than 8 ft, consult the Husky Towing Products catalog to select the product that best matches your needs.

15. When hitch is correctly positioned in the bed and the bed rails are parallel. See Figure 1 for measurements. Mark four attachment points on the truck bed using the 5/8" rectangular slots at the ends of each bed rail as a guide. The use of a 5/8" transfer center punch will ensure that the marks are correctly marked on the bed floor. Check below the bed before drilling holes to see that all wiring, brake lines or other obstructions are moved out of the way and will not be contacted by the drill bit. See Figure 7.

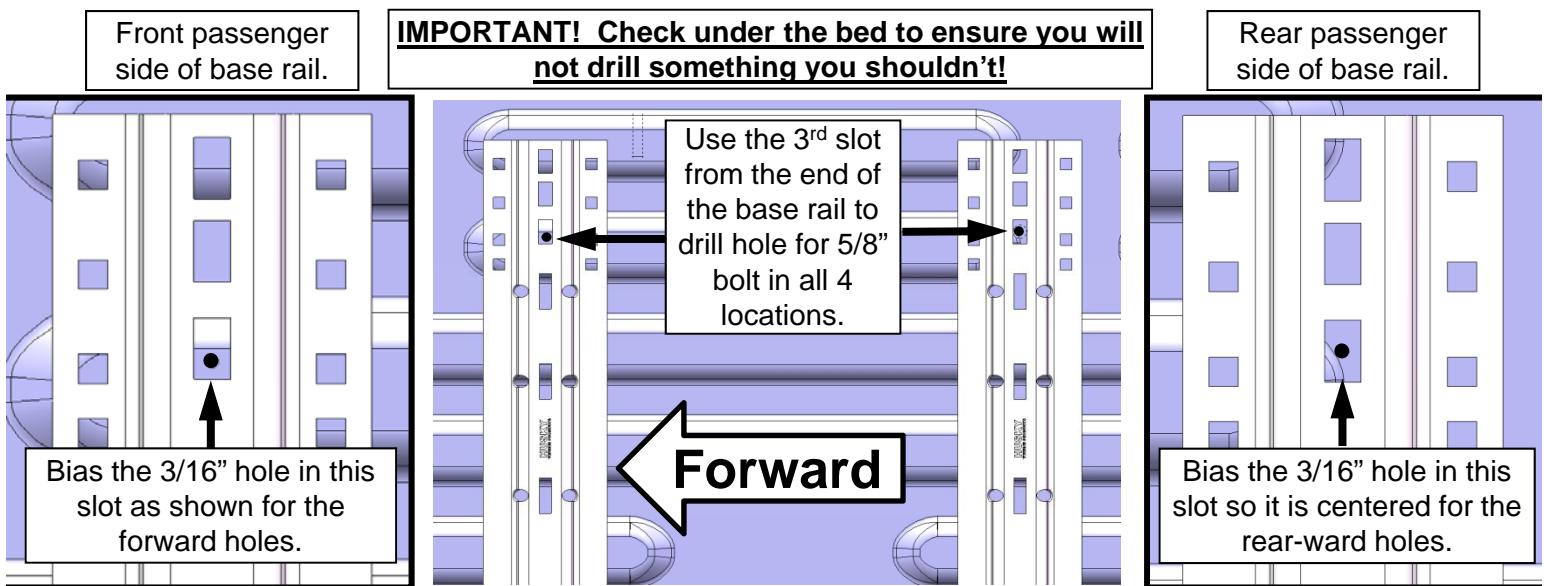


Figure 7

Use EXTREME care when drilling the forward driver's side holes. Brake lines and wiring are very close to this location.

16. Move the hitch assembly out of the way and drill four (4) 3/16" diameter pilot holes down through the bed at the previously marked points. Drill the 2 forward holes and be sure to drill through the bottom of the bed support channel. Check under the bed where the (4) 3/16" pilot holes are and ensure that when the brackets are placed up against the frame and line up with the mounting holes. See Parts Diagram for bracket locations and Figure 8 for detail work for driver's side front bracket

On the driver side front bracket, there are some preparations to be done before installation can proceed.
See Figure 8.

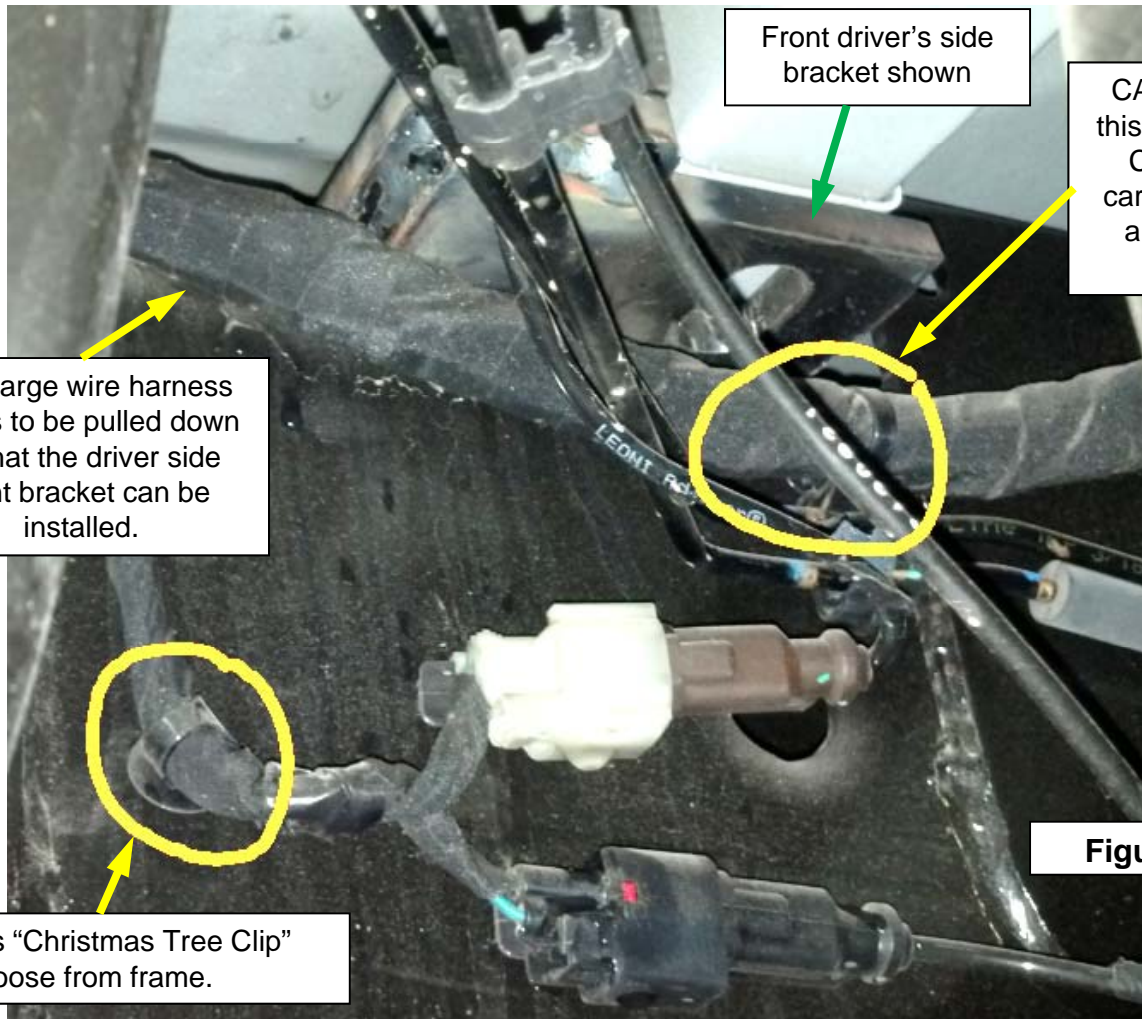


Figure 8

17. Detach the emergency brake cable hanger that is attached to the drivers side frame with a self-tapping 13mm screw. This hanger will be re-attached to the driver side forward bracket once installed using a 5/16" hex bolt item 19. See Figure 9.



Pull this hanger out and let dangle on the cables for re-installation later.

When re-attaching the hanger, make sure the end of the rod goes back into this hole in the frame.

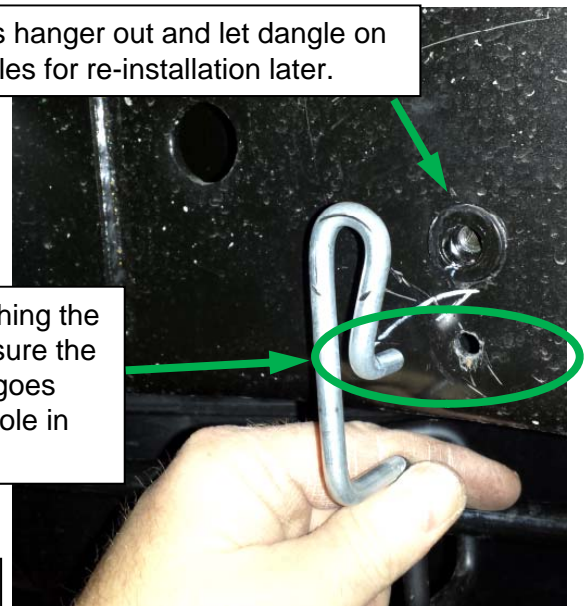


Figure 9

18. Using the 1-1/4" hole saw, cut the forward 2 holes out through the truck bed only. Then, switch to the 11/16" drill bit and drill the 3/16" hole in the bottom of the bed channel out using the 3/16" holes as a guide. Finally, drill the rear 2 holes out to 11/16".

19. Insert the long tube spacer (item #25) into the forward holes. Then slide spacer plate (item #26) under the bed corrugation but above the bed support channel. Figure 4 shows the proper components assembly. See Figure 10. Truck bed not shown for clarity reasons.

20. Install front driver's side bracket (item #1) using the 1/2" hardware shown (#6, 12, 13 & 14). See Figure 11. U-bolt (item #6) must install flat against the frame and UNDER the truck wiring and brakes. See Figure 12. Reinstall "Christmas tree" fasteners to wiring and brake lines. Repeat for passenger side front bracket.

21. Reinstall emergency brake cable assembly from step 17 using hardware 19, 20 & 21. See Figure 11.

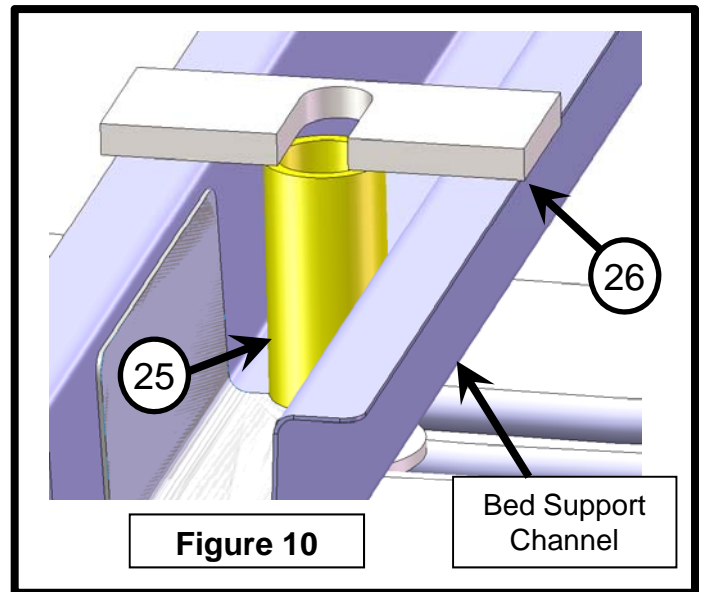


Figure 10

Bed Support Channel

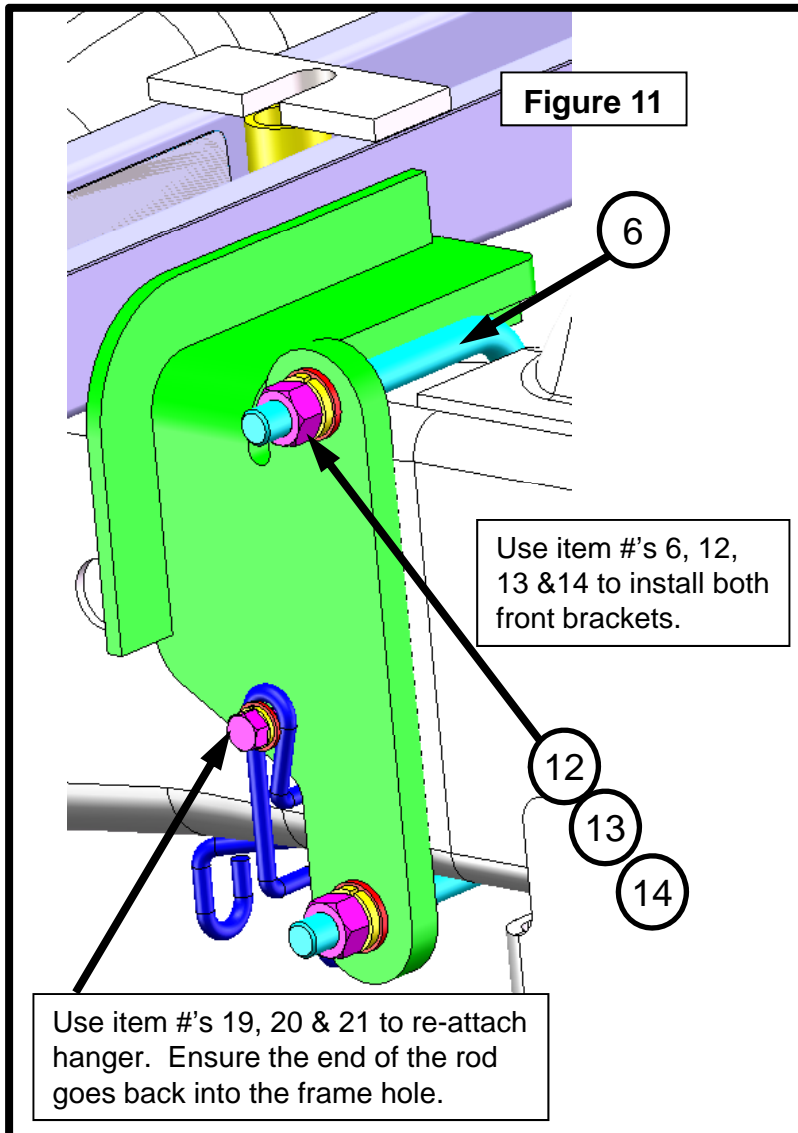
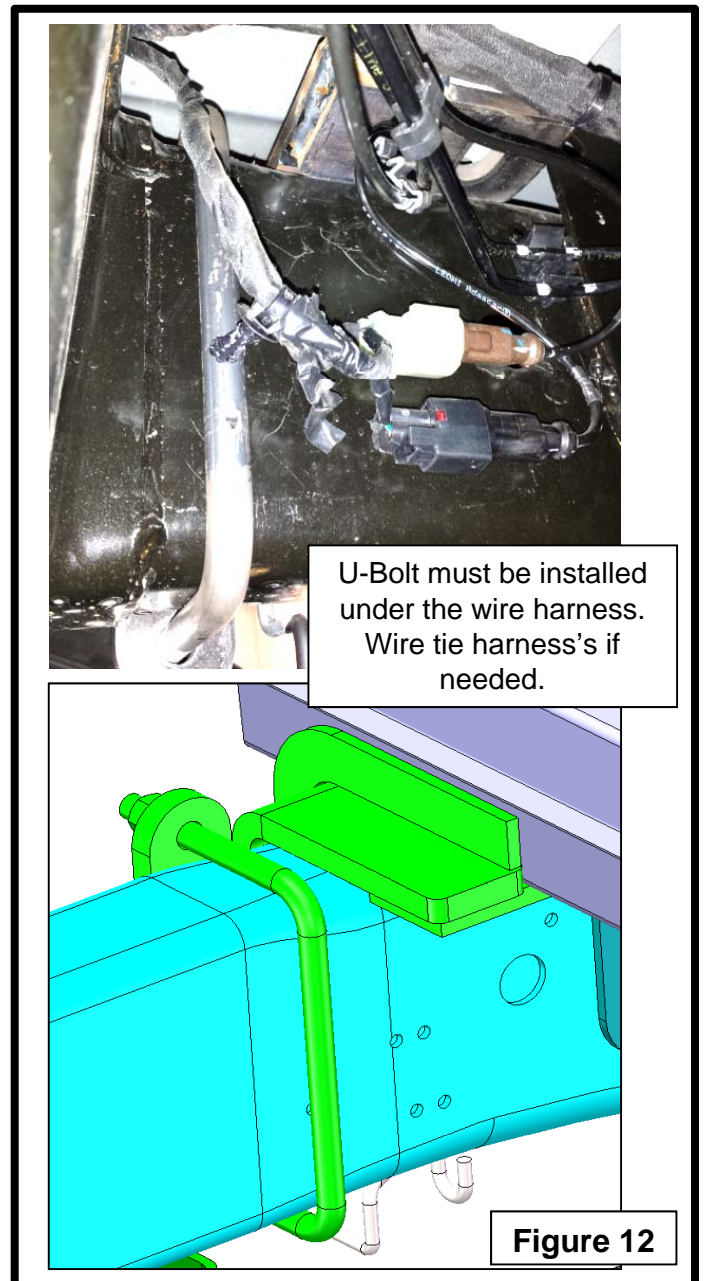


Figure 11

Use item #'s 6, 12, 13 & 14 to install both front brackets.

Use item #'s 19, 20 & 21 to re-attach hanger. Ensure the end of the rod goes back into the frame hole.



U-Bolt must be installed under the wire harness. Wire tie harness's if needed.

Figure 12

On short bed trucks only, spacer item 28 needs to be assembled before driver side front bracket as shown. See Figure 13.

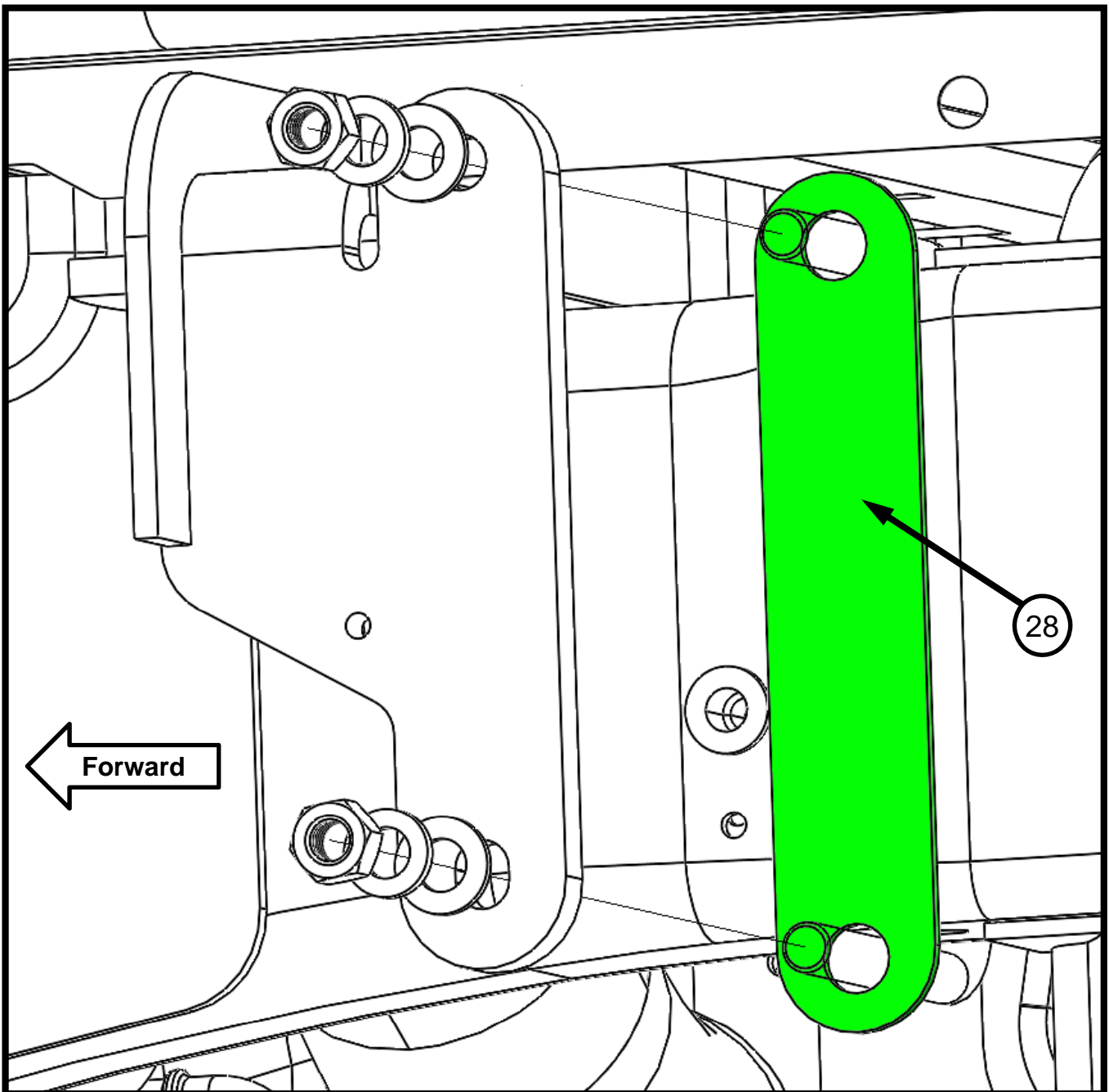


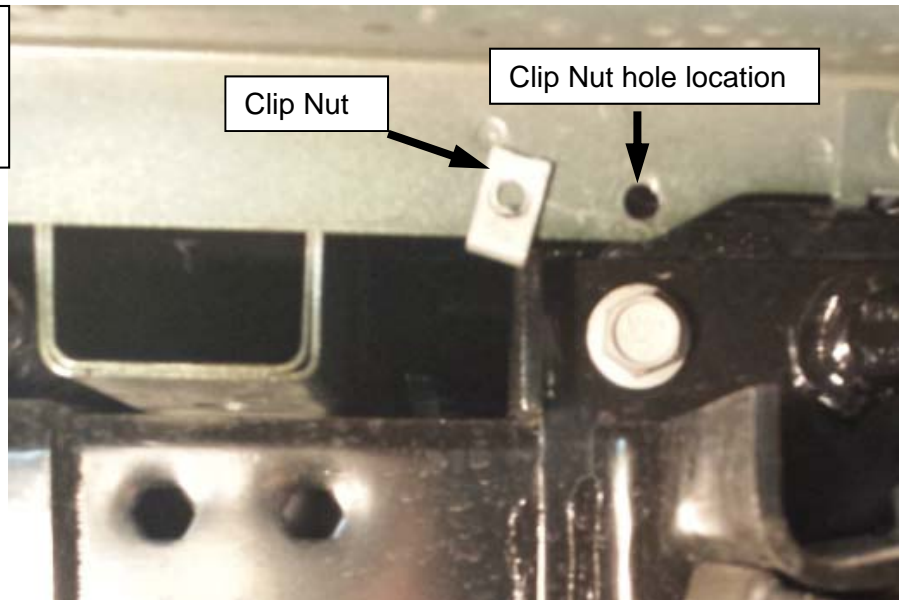
Figure 13

Rear driver side (shown) and passenger side bracket installation



There is a flange that needs to be modified in order to install the rear brackets. It is recommended to cut 2 notches as indicated and then bend this section up. **Note:** There is a hole near this area that a clip nut is installed over and care needs to be taken to not disturb this portion of the flange so that the clip nut can remain in place over this hole. This is required to properly reinstall the wheel well covers later.

Be sure to retain the clip nut that is to be placed on the hole indicated here. These are used to hold the wheel well liners in place, 2 per side.



To aid in inserting the rear brackets on either side, you can pry up on the underside of the bed as shown with a 1/2" breaker bar with the square drive in the up position. Care should be taken to pry up on the flange of the channel flange under the bed corrugation as shown. Or use a block of wood under the bed. Only lift up enough for the bracket to slide in roughly a 1/8" or a little more is needed. Use the top of the frame as your fulcrum.

22. Install driver's side rear bracket (item #3) as shown in Figure 14. Use the 5/8" hardware provided (items # 5, 7, 8, 9 & 10). Align 5/8" tapped hole with the 11/16" hole drill in Step 18. Loosely tighten.

IMPORTANT: THE BUSHING (ITEM #5) MUST BE INSTALLED SO THAT THE SMALLER END FITS INTO THE HOLE OF THE FRAME. SEE FIGURE 15.

23. To install the 1/2" hardware (items 11, 12, 13 & 14). See Figure 16. you must drill an 17/32" hole, centered on the slot in the bracket through the frame.

24. Insert carriage bolt (item 11) into square hole in plate (item 22). Then, use pull wire (item 27) to guide bolt and plate through large hole on inside of frame and through drilled hole in bottom of frame and slot in bottom of frame bracket.

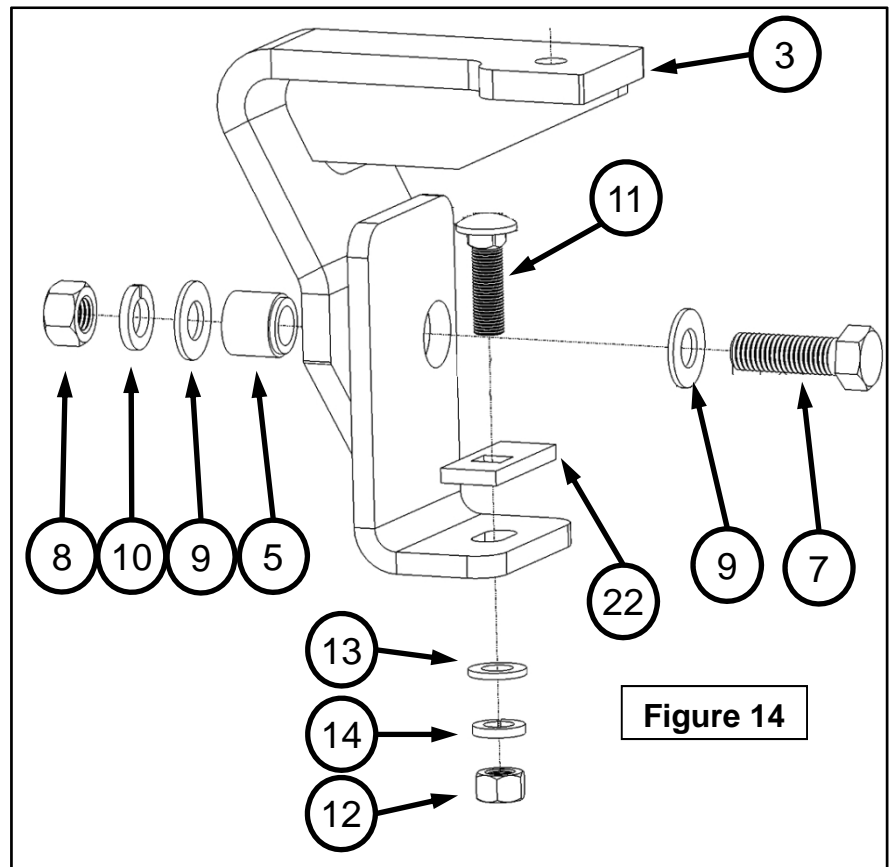


Figure 14

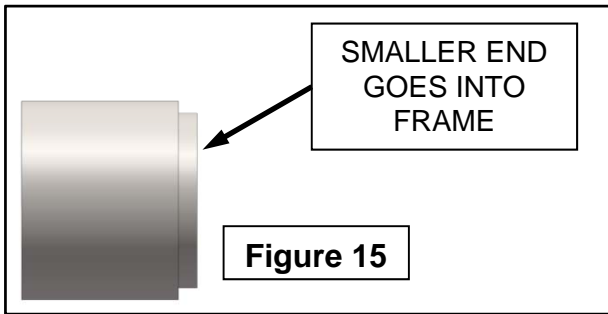


Figure 15

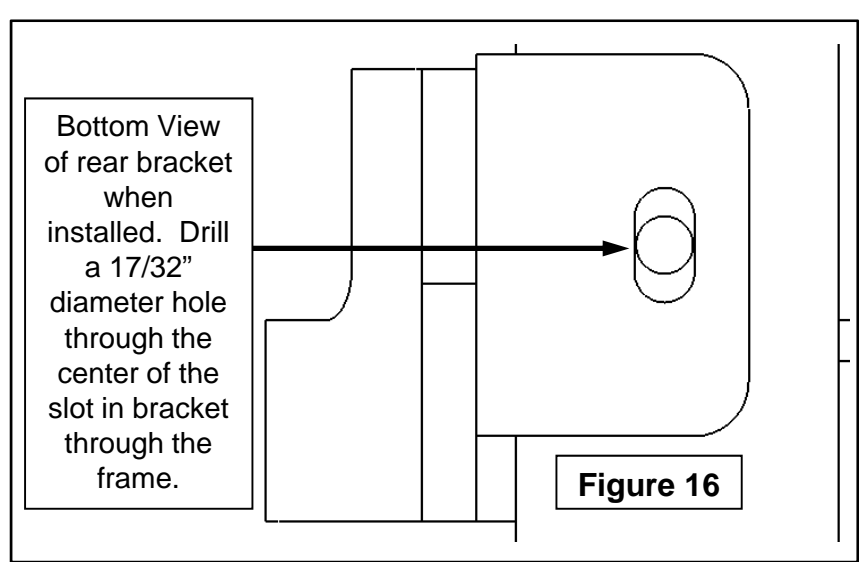
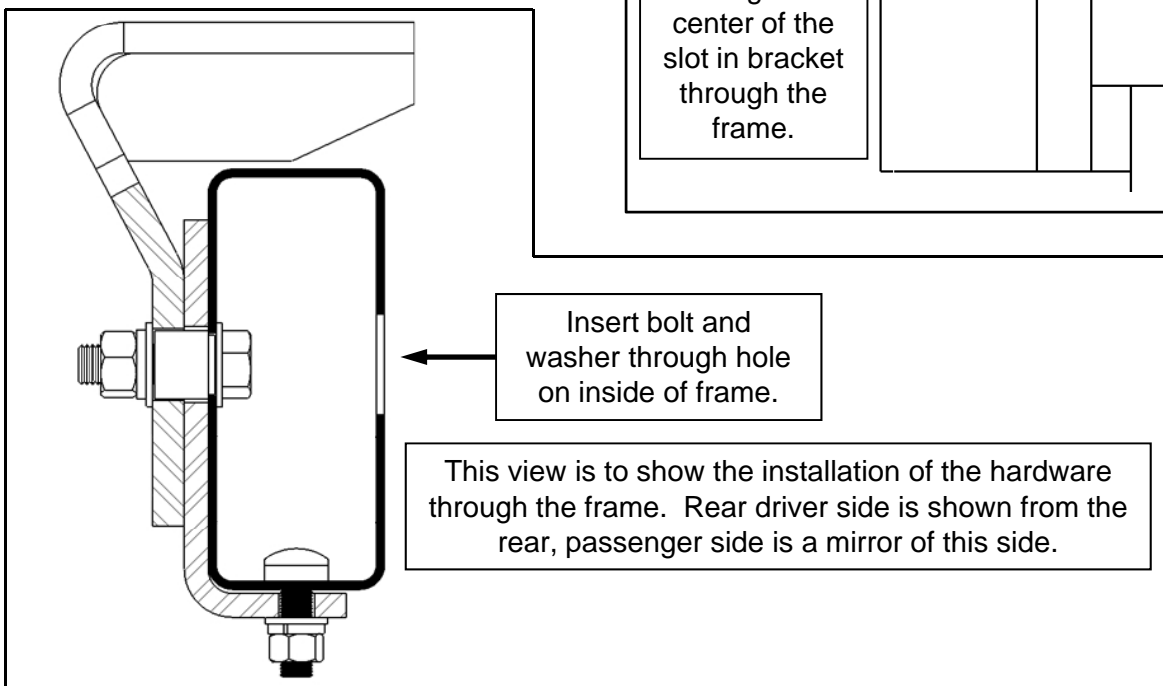


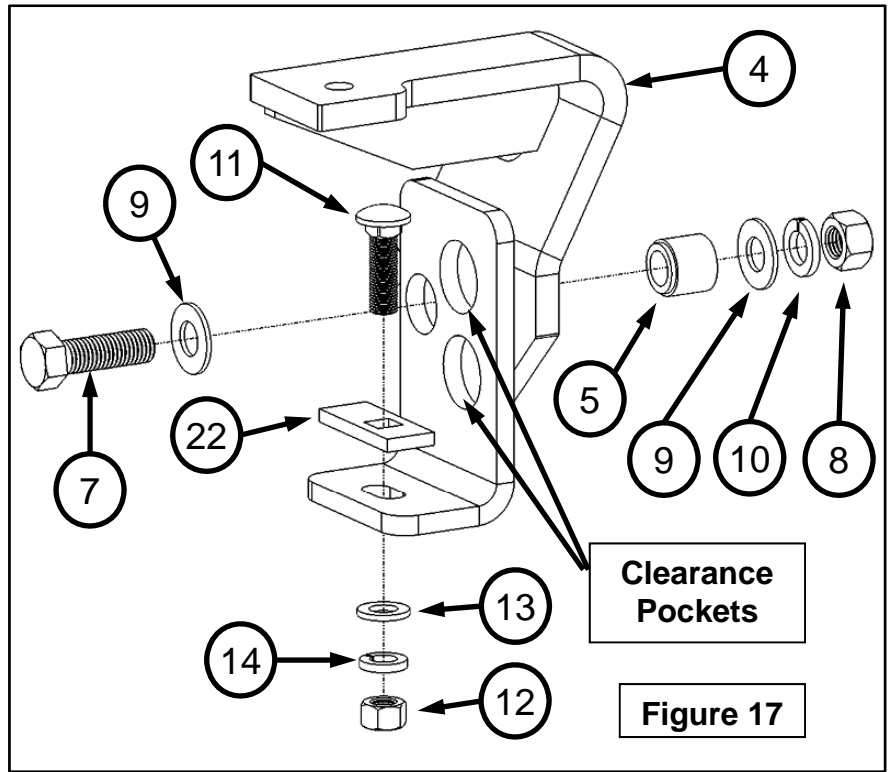
Figure 16



25. Repeat steps 22 -24 to install the passenger side rear bracket (item #4) as shown in Figure 17.

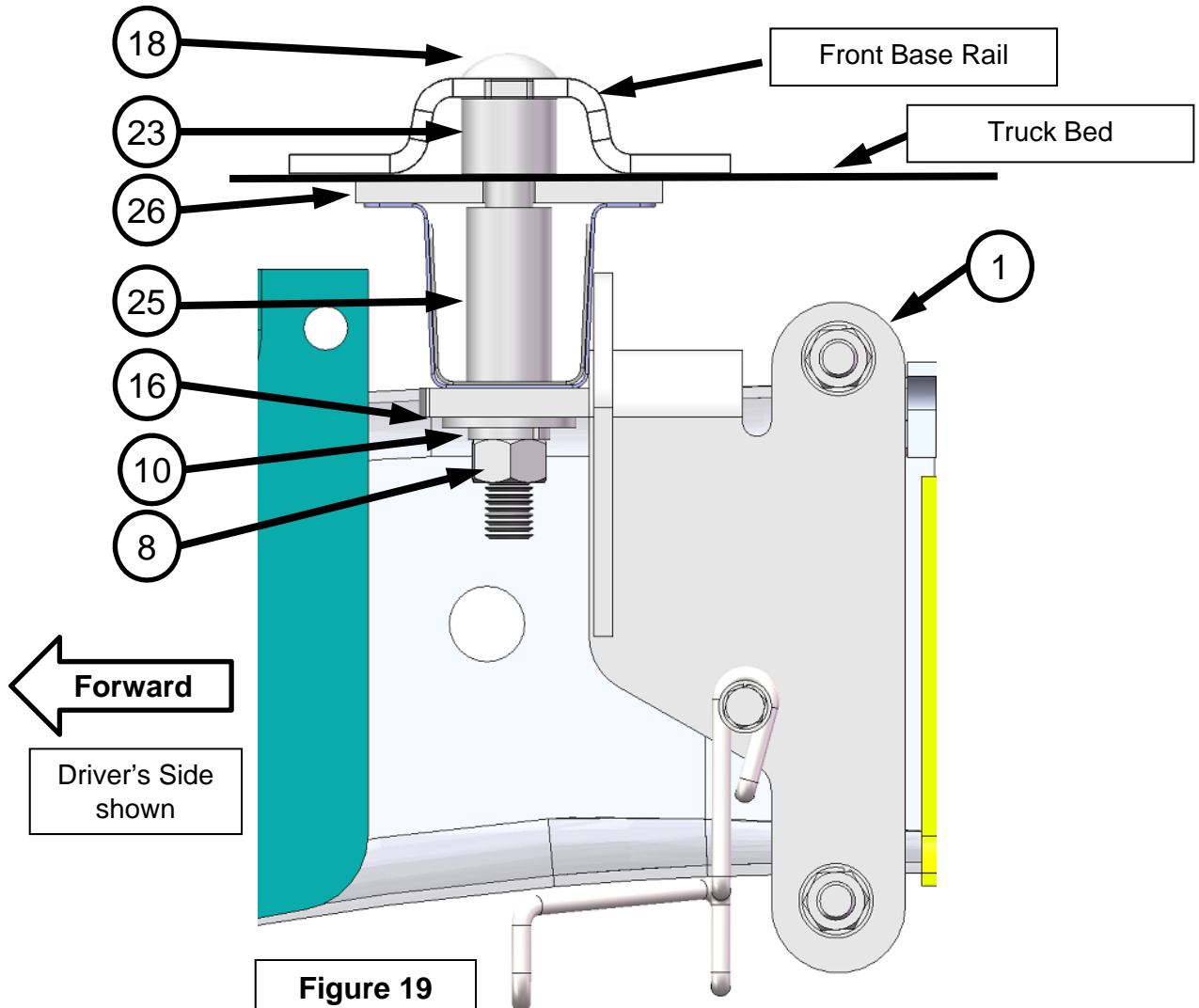
IMPORTANT: THE BUSHING (ITEM #5) MUST BE INSTALLED SO THAT THE SMALLER END FITS INTO THE HOLE OF THE FRAME. SEE FIGURE 15.

The 2 clearance pockets on the passenger side rear bracket (item#4) must clear the 2 exhaust hanger rods that protrude through the frame. This may require some grinding. The 2 rods **MUST NOT** protrude more than 5/16". **DO NOT** grind down flush or past welds. Just grind enough to fit the passenger side rear bracket (item #4). See Figure 18. Be sure to apply paint to protect rods from rust if grinding is performed.



There are the 2 rods that protrude through the frame.

26. Place the two bed rails and 5th wheel assembly from steps 13-16 over the holes drilled in step 16. Install the base rail spacer (item#23) as shown. Secure the front base rail to the front driver's side bracket (item 1) using the 5/8" hardware (items 8,10,16 &18). Install the 1/4" spacer (item #26) as shown between the truck bed and the front driver side bracket. See Figure 19.



27. Repeat Step 26 for the passenger side front bracket (item #2)

28. Install the base rail spacer (item#23) as shown. Secure the rear base rail to the rear driver's side bracket (item 3) using the 5/8" hardware (items 15,16 & 17) Install the slotted end spacer (item #24) as shown between the truck bed and rear base rail. See Figure 20. The slotted end spacer will be on the rear side of the base rail. See Figure 21.

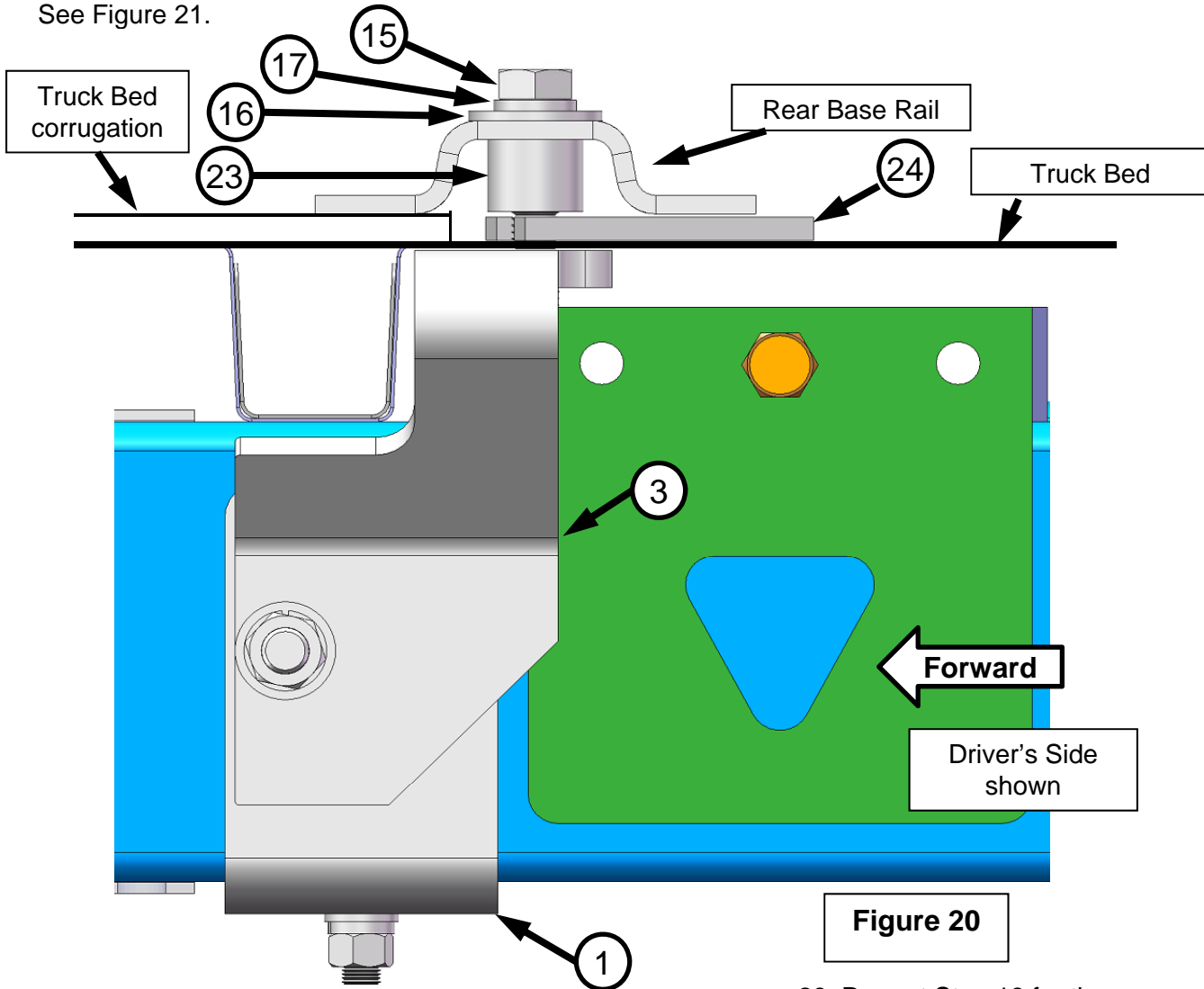


Figure 20

29. Repeat Step 18 for the passenger side rear bracket (item 4) .

30. Once all 4 brackets are secure to the truck and base rails; re-check the base rails to be sure the are square with each other. See Figure 1. If not, adjust as needed.

31. Torque all 5/8" hardware to 150 ft.-lbs.

32. Torque all 1/2" hardware to 75 ft.-lbs.

33. Torque the brake cable hanger bracket screw (see Figure 9) to 19 ft.-lbs.

34. Re-install wheel well liners & access panels from steps 5-12.

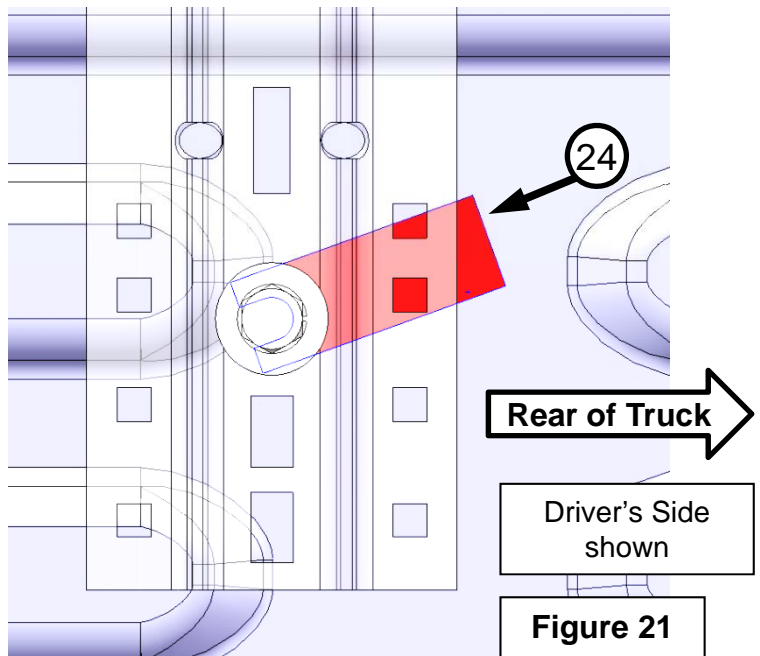
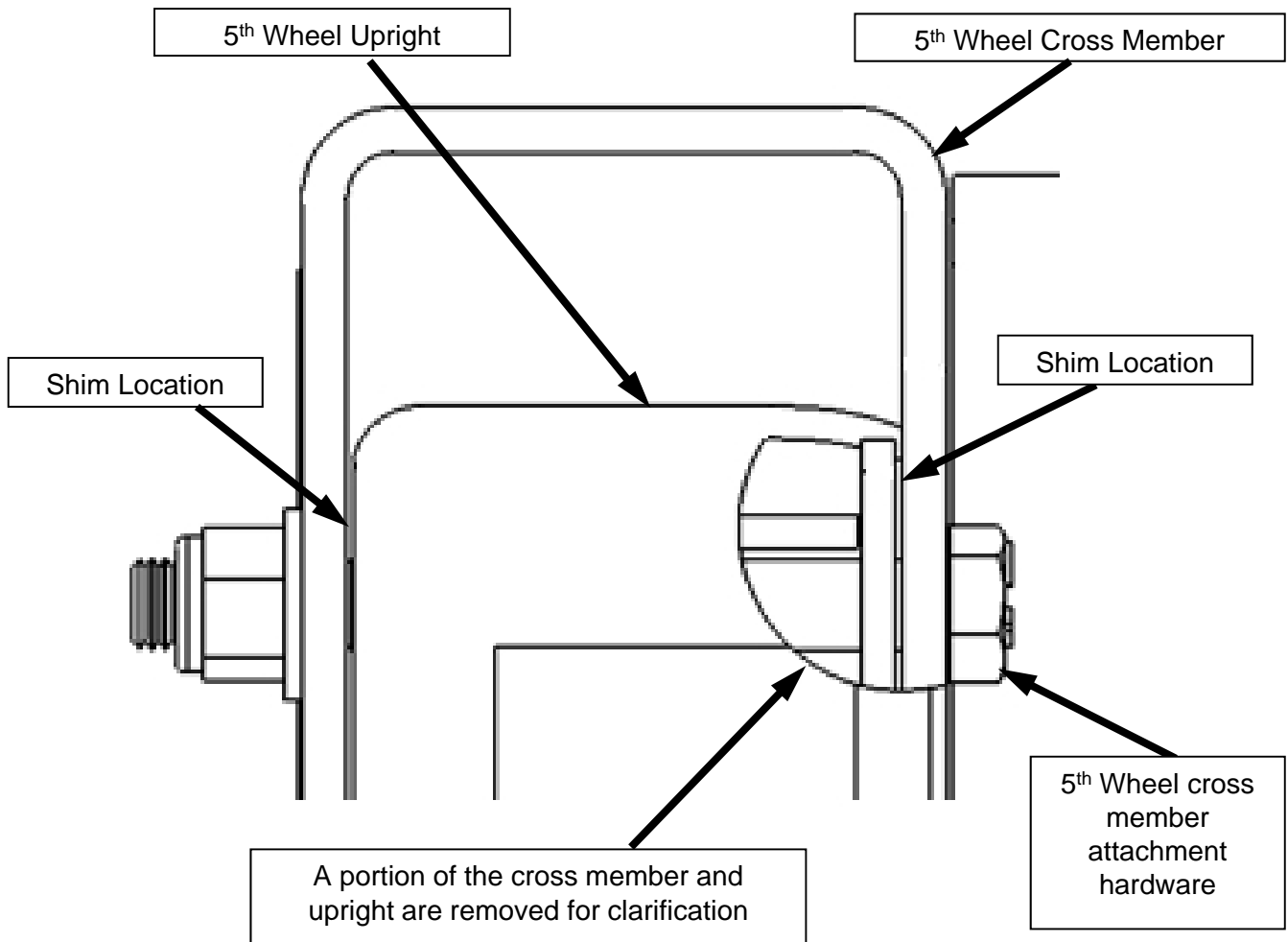


Figure 21

35. Finally, Install cross member and ensure it is centered and straight by shimming (if necessary) and then torque bolts to the required value. See 5th wheel manufacturer for specifications. Note: Multiple Shims can be stacked together if gap width is large. Use shim kit 31582 or 32043.



#32221

**Custom Bracket Kit
2013/2017, Dodge 3500**

Kit de support sur mesure,
2013/2017, Dodge 3500.



Made in U.S.A for/Fait aux États-Unis pour
DTS Manufacturing, Wilsonville, OR 97070

The date code for this product is located on the UPC label

Please retain this info for your records.

Warranty Terms:

5 Year Limited Warranty:

This warranty applies solely to Husky 5th Wheel Installation Kit manufactured by DTS Mfg. for Husky Towing Products.

Husky Towing Products and DTS Mfg. make no guarantees or warranties for products not manufactured by DTS Mfg. Such products are covered solely under any applicable warranty of the manufacturer. It is always recommended that the operating instructions and guarantee instructions provided by the manufacturer are followed.

DTS Mfg. warrants its products to be free from manufacturing and material defects to the original purchaser for the length of warranty stated above from the date of retail purchase. If any products are found to have a manufacturing or material defect, the product will be replaced or repaired at the option of Husky Towing Products and DTS Mfg. with proof of purchase by the original purchaser. The original purchaser shall pay all transportation and shipping costs associated with the return of the defective product and the defective product shall become the property of DTS Mfg.

The Warranty applies to DTS Mfg. products used for individual and recreational purposes. Commercial usage of the DTS Mfg. products limits the warranty to 90-days from date of purchase.

The Warranty applies only to DTS Mfg. products which are found to be defective in manufacturing or material. This warranty does not apply to normal wear and tear of the finished placed on DTS Mfg. products.

Husky Towing Products and DTS Mfg. are not responsible for any labor costs incurred for removal or replacement of the defective product.

Husky Towing Products and DTS Mfg. are not responsible for repair or replacement of any product under the limited warranty where the product was improperly installed, misapplied, altered, abused, neglected, overloaded, misused or damaged as a result of an accident, including any use of the product not in accordance with all product operating and safety instructions.

Without limiting the generality of the foregoing, Husky Towing Products and DTS Mfg. shall under no circumstances be liable for any incidental or consequential loss or damage whatsoever arising out of, or in any way relating to any such breach of warranty or claimed defect in, or non-performance of the products. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you.

This limited warranty gives you specific legal rights, and you may also have other rights that vary from state to state.