****DO NOT EXCEED RECOMMENDED VEHICLE TOWING WEIGHT!****

# 60645 SUBKIT FORD F-250, F-350

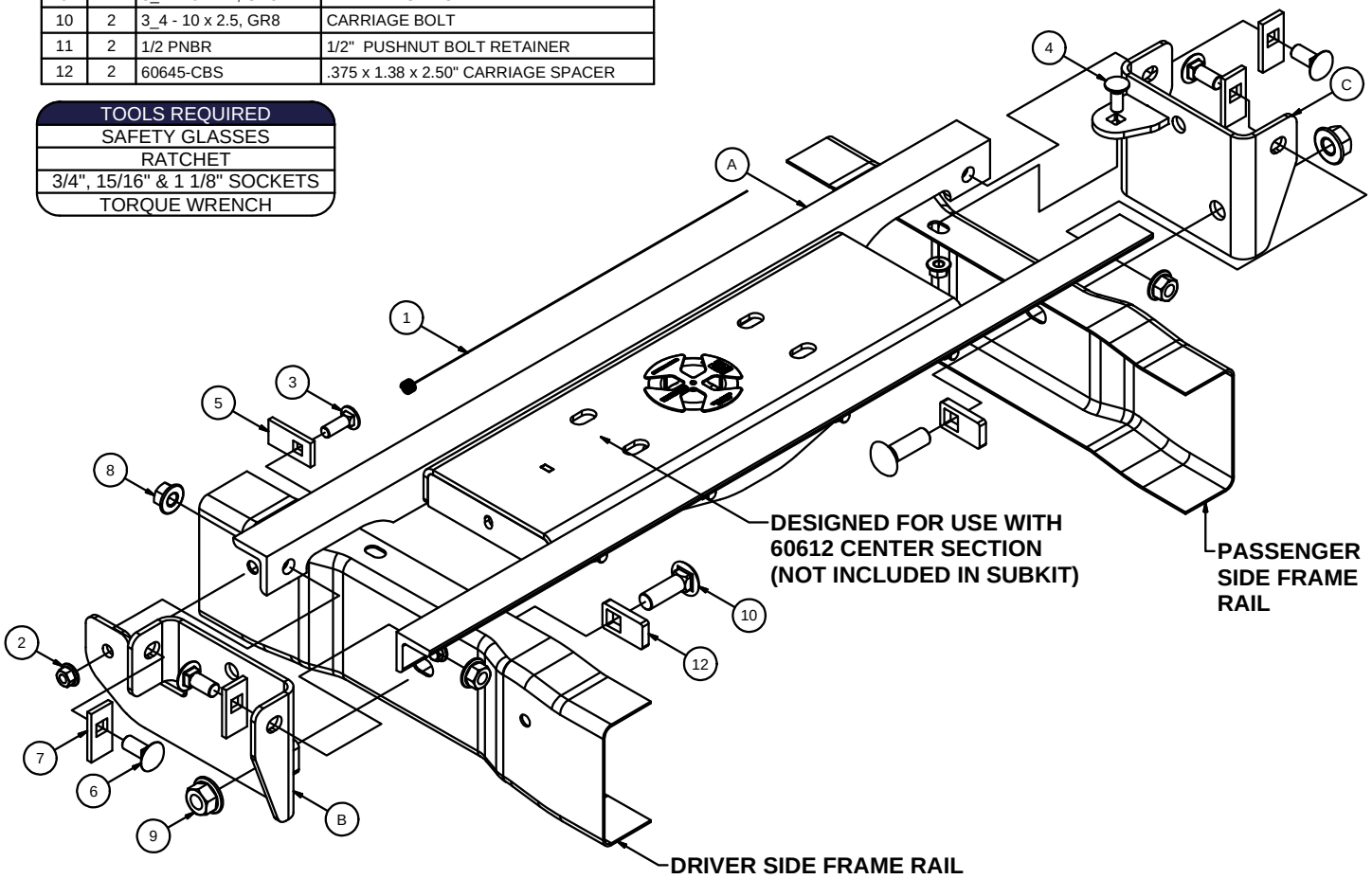
**7/17/2014** 

**WARNING!!** **BRAKE, FUEL, AND ELECTRICAL LINES MAY NEED TO BE LOOSENED OR REPOSITIONED TO PROVIDE CLEARANCE FOR NEW HARDWARE. ALL MODELS REQUIRE MODIFICATION OR REMOVAL OF HEAT SHIELDS. ON SHORT BED MODELS, CHECK FOR ADEQUATE TURNING CLEARANCE BETWEEN THE FRONT OF ALL TRAILERS AND THE TRUCK CAB. ON TWO WHEEL DRIVE TRUCKS A CLEARANCE CHECK MUST BE PERFORMED WHEN TRUCK IS LOADED AND UNLOADED TO VERIFY THE INVERTED BALL WILL NOT INTERFERE WITH THE TOP OF THE DIFFERENTIAL**

| Hardware | | | |
|---|---|---|---|
| ITEM | QTY | PART NUMBER | DESCRIPTION |
| 1 | 1 | 1_2 FISHWIRE | 1/2" FISHWIRE |
| 2 | 10 | HFN 1213, GR8 | HEX FLANGE NUT |
| 3 | 9 | 1/2-13 x 1 1/2, GR8 | CARRIAGE BOLT |
| 4 | 1 | 1/2-13 x 1 1/4, GR8 | CARRIAGE BOLT |
| 5 | 1 | CM-SP17 | .250 x 1.25 x 2.50" SQUARE HOLE SPACER |
| 6 | 4 | 5/8-11 x 1 1_2, GR8 | CARRIAGE BOLT |
| 7 | 4 | CM-SP9 | .250 x 1.25 x 2.50" SQUARE HOLE SPACER |
| 8 | 4 | 5/8-11 | HEX FLANGE NUT |
| 9 | 2 | 3_4 - 10 HFN, GR8 | HEX FLANGE NUT |
| 10 | 2 | 3_4 - 10 x 2.5, GR8 | CARRIAGE BOLT |
| 11 | 2 | 1/2 PNBR | 1/2" PUSHNUT BOLT RETAINER |
| 12 | 2 | 60645-CBS | .375 x 1.38 x 2.50" CARRIAGE SPACER |

| Parts List | | | |
|---|---|---|---|
| ITEM | QTY | PART NUMBER | DESCRIPTION |
| A | 2 | 60645-CA | 2.00 x 2.00 x .375" CROSS ARM |
| B | 1 | 60645-DSWA | DRIVER SIDE PLATE |
| C | 1 | 60645-PSWA | PASSENGER SIDE PLATE |

| TOOLS REQUIRED |
|---|
| SAFETY GLASSES |
| RATCHET |
| 3/4", 15/16" & 1 1/8" SOCKETS |
| TORQUE WRENCH |




SUBKIT WEIGHT: 38 LBS.

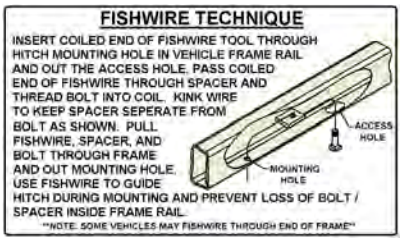
INSTALL TIME

PROFESSIONAL: 45 MINUTES

NOVICE (DIY): 90 MINUTES

INSTALL NOTES:

- NO MEASURING DRILL LOCATIONS
- NO DRILLING INTO FRAME
- NO LOWERING EXHAUST
- REMOVE HEAT SHEILD







PERIODICALLY CHECK THIS GOOSENECK HITCH TO ENSURE THAT ALL FASTENERS ARE TIGHT AND THAT ALL STRUCTURAL COMPONENTS ARE SOUND.

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# 60645 SUBKIT FORD F-250, F-350



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## INSTALLATION STEPS:

1. Temporarily remove spare tire.

2. Peel off heat shield which is located under the truck bed above the rear axle.

3. Insert cross arms (A) between the truck bed and frame. The cross arms will be inserted from the outside of the truck in front of the rear tire over the low point on the frame. Insert the first cross arm with the holes facing the front of the truck, as shown in **FIGURE A**. Once it is partially inserted, guide it the rest of the way from underneath the truck. It should span the frame rails and be behind the shock mount bracket on the passenger side. Slide this cross arm as far rearward as possilbe. Insert the second cross arm in the same manner as the first only positioned so the holes now face the rear of the truck. Do not slide this cross arm rearward yet.

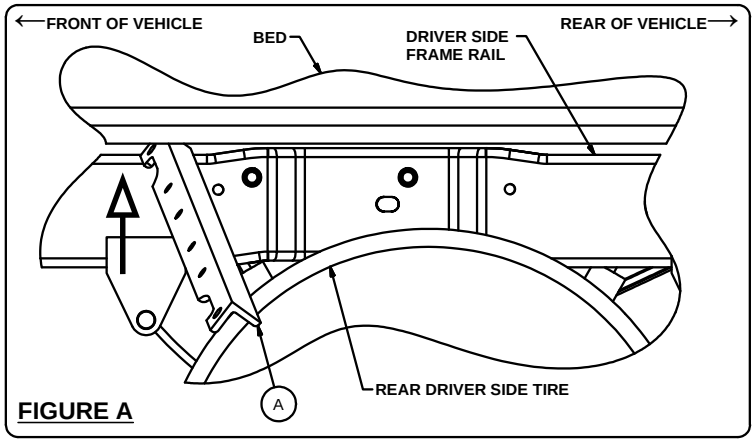



**FIGURE A**

4. Raise the center section into position between the cross arms. **OPTIONAL:** Two pushnut bolt retainers (11) are included to give a "helping hand" to the installation process. If desired, put two 1/2" x 1 1/2" carriage bolts (3) in through the centermost slots on the same side of the center section. Be sure the serrations in the bolt retainers are angled away from the center section and push a bolt retainer onto the two carriage bolts. Use one of the included spacers as a tool to push the bolt retainers into position, see **FIGURE B**. **NOTE:** The handle for the gooseneck will come out on the side which the handle guides are located in the center section. Driver side handle placement is shown, see **FIGURE C**. Slide the cross arms to the center section and rotate them into position. The legs of the cross arms with the holes should be against the center section. Attach the cross arms to the center section using eight 1/2" x 1 1/2" carriage bolts (3) and eight 1/2" flange nuts (2). Insert the carriage bolts in through the center and out the cross arms and finger tighten only.

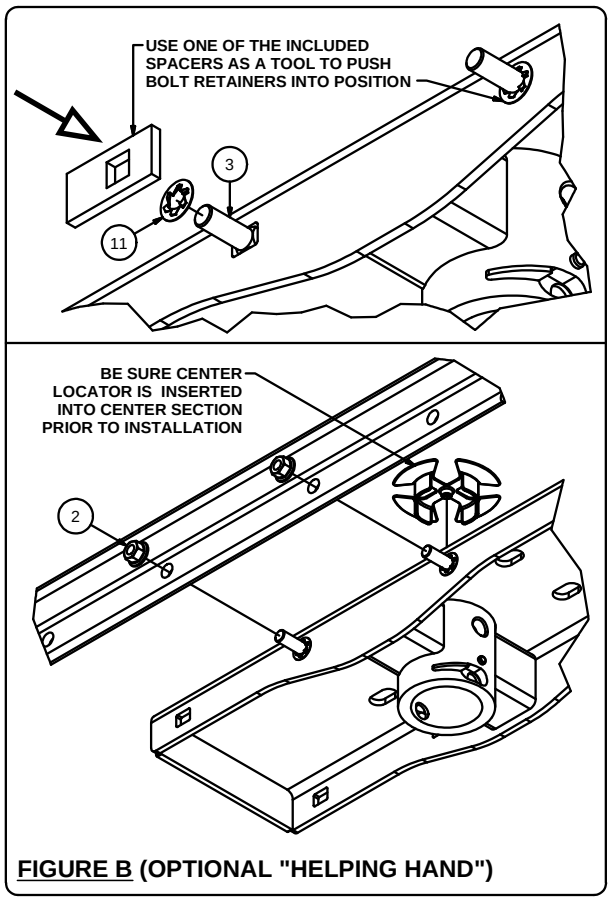



**FIGURE B (OPTIONAL "HELPING HAND")**

5. Loosely attach driver side plate (B) to frame, see **PAGE 1**. Hold the side plates against the frame and adjust the placement of the cross arms as needed. Attach driver side plate by inserting 1/2" x 1 1/2" carriage bolt (3) with spacer (5) in though the frame and out the plate. **NOTE:** Diesel models will need this hardware fishwired into position. See fishwire technique on **PAGE 1**. Insert 3/4" carriage bolt (10) with spacer (12) though the inside of the frame and out the side plate and attach with 3/4" flange nut (9).

6. Loosely attach the passenger side plate (C) by inserting the 1/2" x 1 1/4" carriage bolt (4) down through the plate tab and frame and attach with 1/2" flange nut (2). Insert 3/4" carriage bolt (10) with spacer (12) though the inside of the frame and out the side plate and attach with 3/4" flange nut (9).

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# 60645 SUBKIT FORD F-250, F-350



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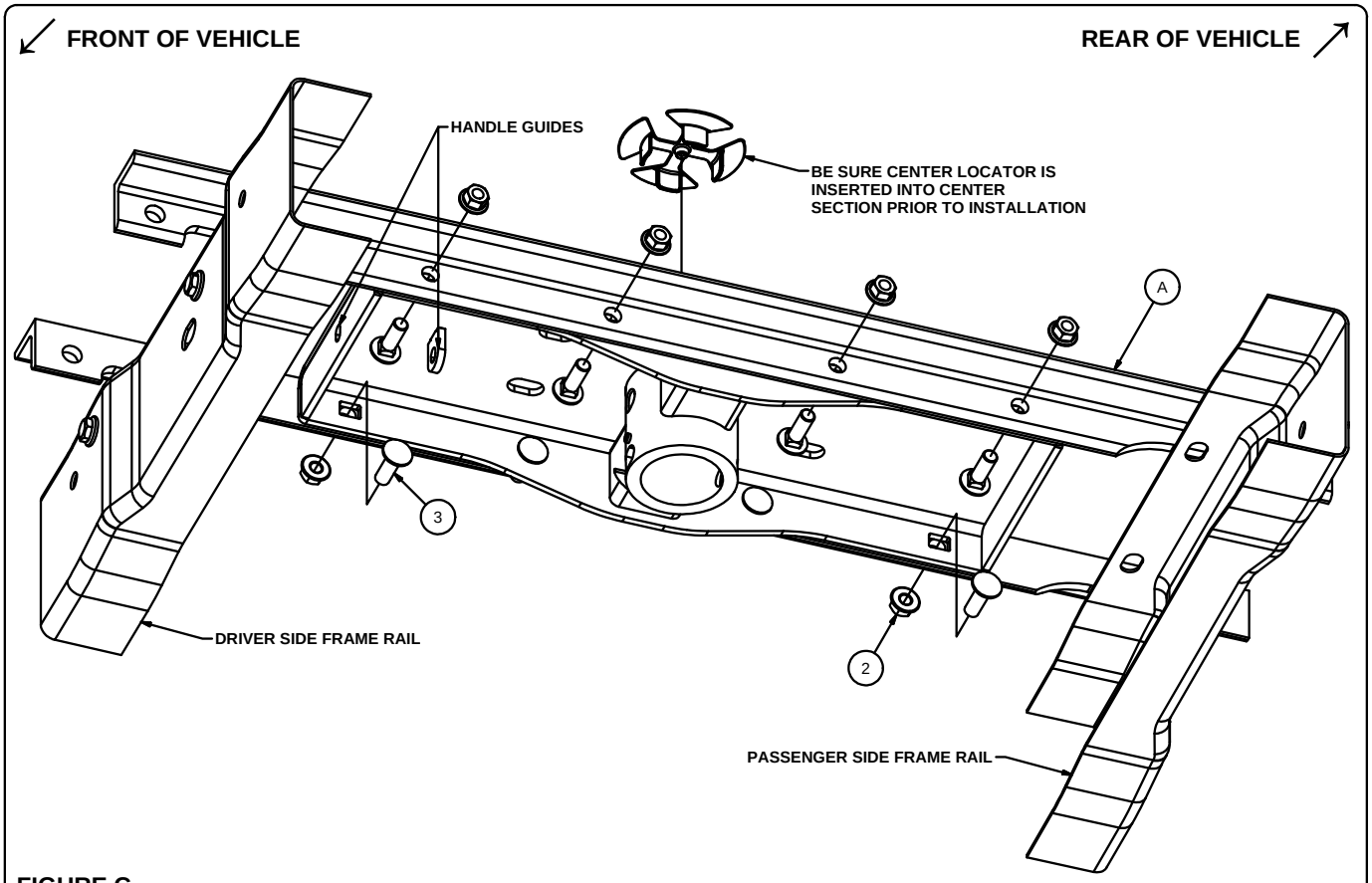



**FIGURE C**

7. Loosely attach side plate to the cross arms by inserting the two 5/8" x 1 1/2" carriage bolts (6) with spacers (7) in through the plate and out the cross arms. Attach with two 5/8" flange nuts (8). Repeat on other side.

8. **NOTE:** Be sure the center section is centered on the vehicle by verifying the sides of the center section are in the same location on bed ribs. Torque all fasteners in the following order: **First:** Torque the center section to the front and rear cross arms. **Second:** Torque the side plates to the truck frame on both sides. **Third:** Torque the side plates to the front and rear cross arms. Torque all 3/4" fasteners to 380 ft-lbs, 5/8" fasteners to 210 ft-lbs and 1/2" fasteners to 110 ft-lbs.

**(REFER TO 60612 GOOSENECK HITCH INSTRUCTIONS FOR INSTALLATION COMPLETION AND OPERATING PROCEDURES)**

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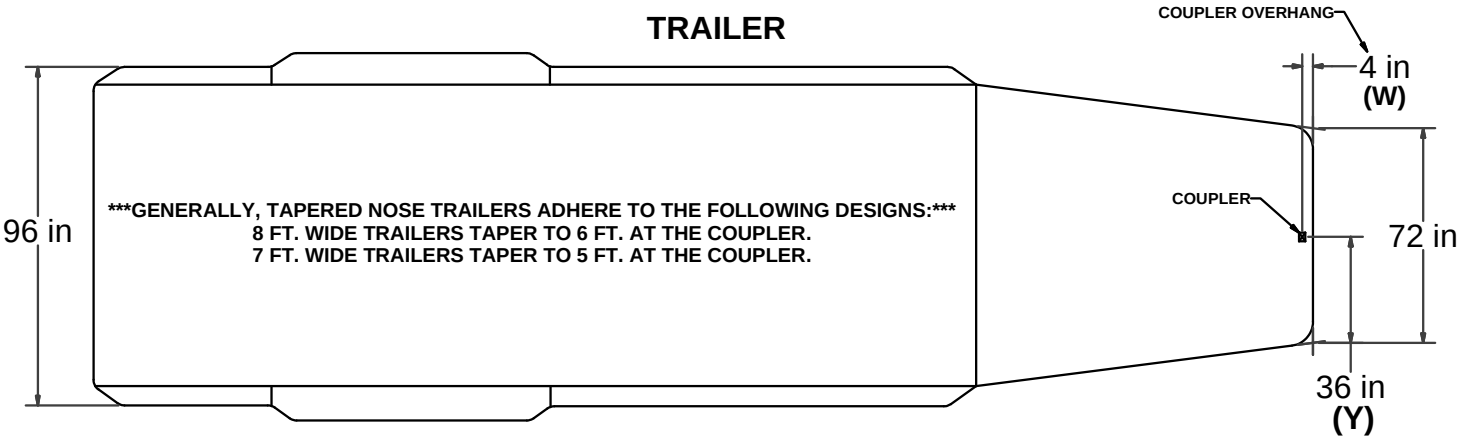
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# CAB TO TRAILER CLEARANCE

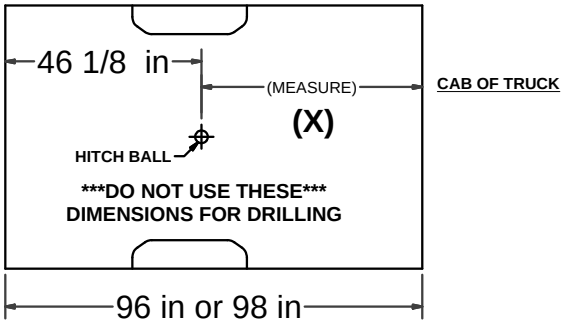
****REMOVAL OF REAR WINDOW ACCESSORIES MAY BE REQUIRED.****



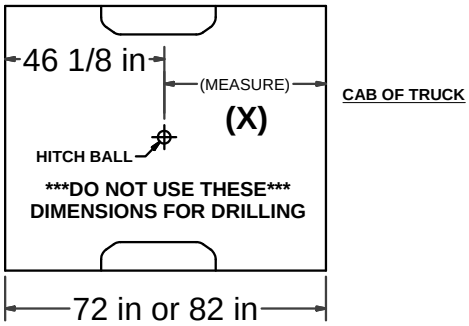
## TRAILER




## LONG BED




## SHORT BED




## CLEARANCE CALCULATION

(CAB TO BALL CENTER) - 1/2 (TRAILER WIDTH) = (MINIMUM CLEARANCE)
(X) - (Y) = (Z)

IF THERE IS AN OVERHANG FROM THE COUPLER THEN THE EQUATION IS:
[(X) - (W)] - (Y) = (Z)

***IF (Z) IS POSITIVE, TRAILER **WILL NOT** INTERFERE WITH CAB OF TRUCK.***
IF (Z) IS NEGATIVE, TRAILER **WILL** INTERFERE WITH CAB OF TRUCK!!!

**EXAMPLE:**

STANDARD TRAILER
X - Y = Z
35 - 36 = -1
(TRAILER **WILL INTERFERE** WITH CAB)

TRAILER WITH OVERHANG
[(X) - (W)] - Y = Z
[35 - 4] - 36 = -5
(TRAILER **WILL INTERFERE** WITH CAB)

**YOUR CALCULATION:**

(CAB TO BALL CENTER) _ _____

(COUPLER OVERHANG) _ _____

1/2 (TRAILER WIDTH) = _____

(MINIMUM CLEARANCE) _____

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CURT™ The FIRST Name in Towing Products™

# INSTALLATION INSTRUCTIONS

**WARNING: NEVER EXCEED YOUR VEHICLE MANUFACTURER'S RECOMMENDED TOWING CAPACITY**

## DOUBLE LOCK EZr™ GOOSENECK HITCH



## PARTS LIST

| Item# | Qty | Description |
|---|---|---|
| 1 | 1 | Gooseneck center section |
| 2 | 1 | Center locator / trim shield |
| 3 | 1 | Rubber cover |
| 4 | 1 | Gooseneck ball, 2 5/16" |
| 5 | 1 | Handle assembly |
| 6 | 1 | Chrome ring, 3 3/4" x 3/4" |
| 7 | 1 | Cast lock pin |
| 8 | 1 | Compression spring, 7 1/2 lbs. |
| 9 | 1 | U-shaped edging, 1/3" |
| 10 | 2 | U-bolt, 5/8" |
| 11 | 4 | U-bolt spring |
| 12 | 4 | Nylock nut, 5/8" |
| 13 | 8 | USS washer, 5/8" |
| 14 | 2 | Washer, 3/8" |
| 15 | 1 | Hex head flange screw, 30mm |
| 16 | 1 | Nylock hex nut, M5 |
| 17 | 3 | Flat head cap screw, 20mm |

## TOOLS LIST

| | |
|---|---|
| Safety glasses | Drill bit, 3/16" |
| Ear protection | Hole saw, 4" & 5/8" |
| Ratchet | Allen wrench, #3 |
| Socket, 8mm, 15/16" | Cutting fluid |
| End wrench, 8mm | Rust inhibitor |
| Drill | |

## MAINTENANCE

Keep gooseneck ball, cylinder and trailer coupler lubricated regularly. Use silicone spray or equivalent to prevent wear / rust.

Keep hitch assembly and trailer coupler free of dirt and other foreign debris. Periodically check the gooseneck hitch to ensure that all fasteners are tight and that all structural components are sound.

When the gooseneck ball is in the inverted position insert the supplied rubber hole cover to keep out dirt and debris.

## WARNINGS

Brake, fuel and electrical lines may need to be loosened or repositioned to provide clearance for new hardware. Some models require modification or removal of heat shields. On short bed models, check for adequate turning clearance between the front of all trailers and the truck cab. On two-wheel drive trucks a clearance check must be performed when the truck is loaded and unloaded to verify the inverted ball will not interfere with the top of the differential.

Vehicle performance (braking, handling, acceleration, turning radius) can be drastically affected by the trailer. Allow additional time / space for stopping, changing lanes, passing and turning.

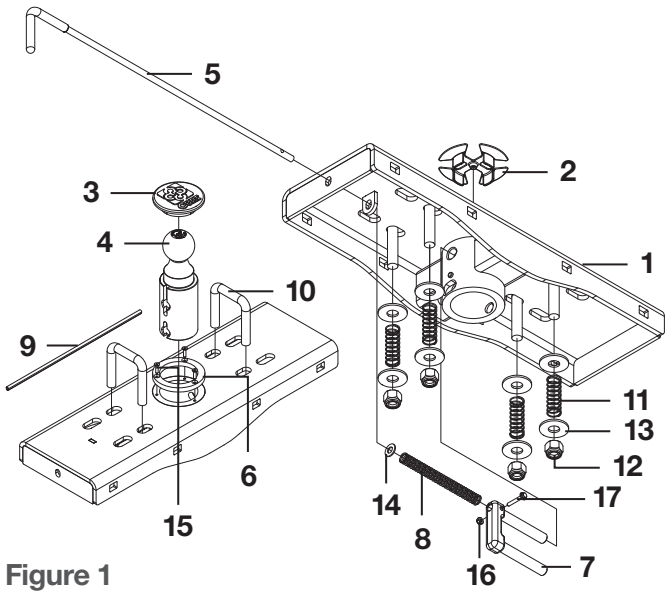



Figure 1

# INSTALLATION

**Step 1**
Using a 3/16" drill bit, drill a pilot hole from underneath the truck bed through the hole in center locator / trim shield (#2). See figure 2.

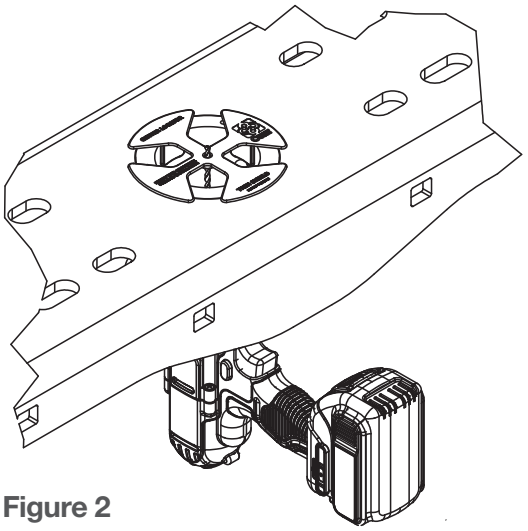


Figure 2

**Step 2**
Determine the correct safety chain hole locations for the vehicle; refer to figure 3 below. Using a 5/8" hole saw and the gooseneck center section (#1) as a guide, drill four holes from underneath the truck bed for the safety chain loops. Drill holes should go through the low rib sections. See figure 4 for correct placement.

To ensure smooth operation of the safety chain loops, use a 3/4" step bit to slightly enlarge the holes from above the truck bed.

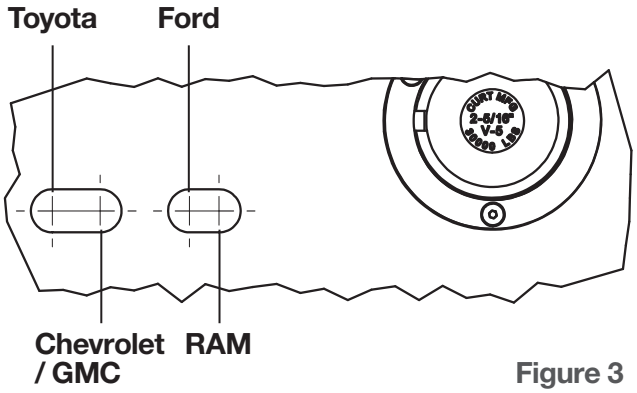



Figure 3

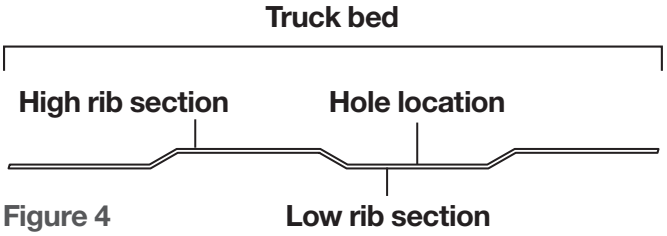



Figure 4

**Step 3**
Using a 4" hole saw, drill the hole from above the truck bed. Take caution to not drill through the center locator / trim shield (#2) **Note:** The use of cutting fluid will ease this process. Remove the center locator by pulling it up through the hole.

**Step 4**
Deburr the cut holes and spray exposed metal with rust inhibitor. **Optional:** Insert rubber edging (#9) around the 4" hole. Place the chrome trim ring (#6) into position and fasten with three head cap screws (#17). Place two U-bolts (#10) down through the holes drilled in step 2.

**Step 5**
From underneath the truck; place a 5/8" washer (#13), spring (#11), 3/8" washer (#14) and 5/8" nylock nut (#12) on each of the four U-bolt legs. Tighten the nuts until flush with the bottom of the U-bolt; see figure 1.

**Step 6**
Insert the cast lock pin (#7) into the ball cylinder with the handle hole located on top. Insert the handle (#5) from the outside of the vehicle through the holes in the center section; see figure 1. **Note:** Some models may require the use of a pliers to bend the metal flange below the bed outward, allowing the handle to move without interference.

**Step 7**
Slide one 3/8" washer (#14) and the compression spring (#8) over the handle before inserting the handle (#5) into the lock pin (#7). Insert the handle into the locking pin and secure with a hex head flange screw (#15) and nylock nut (#16); see figure 1. **Note:** If needed, add or remove a 3/8" washer (#14) to ensure proper pull length of locking pin.

**Step 8**
If removed, reinstall plastic wheel-well covers. **Note:** Some models may require trimming of the plastic wheel-well cover. Trim as needed for reinstallation and access to the handle. Reinstall the spare tire.

# OPERATION

**Step 1**
Place the handle in the unlock position by pulling it out as far as possible and rotating it clockwise. **Note:** Never operate the vehicle with the handle in the unlocked position.

**Step 2**
Insert the gooseneck ball into the desired position in the cylinder by aligning the ball's groove with the cylinder pin. If the groove and pin are not aligned, simply rotate the gooseneck ball until it drops into place.

**Step 3**
Place the handle in the lock position by rotating it counterclockwise until the locking pin snaps back into position.

## BEFORE TOWING FOR THE FIRST TIME

Verify adequate turning clearance between the truck cab / box corners and trailer.

Check truck box clearance. There should be a minimum clearance of 6" between the bottom of the trailer overhang and the top of the box sides.

Verify the inverted gooseneck ball will not interfere with the top of the differential when hauling heavy loads. This is especially important on two-wheel drive models.

Verify all hardware is torqued to the proper specification.

Verify the safety chain length. Too much slack in the chain may cause loss of control in the event of trailer-vehicle separation. Leave only enough slack to allow full turning without interference.

Verify that the trailer attachments to the safety chain loops are secure (cannot be shaken free while towing).

## BEFORE TOWING EVERY TIME

Ensure all fasteners are tight and that all structural components are sound. **Note:** Do not tow a trailer with worn or damaged parts.

Attach trailer securely to both of the safety chain loops.

Ensure the handle is in the lock position. Confirm the locking pin passes completely through the ball and both walls of the hitch cylinder.

Ensure the trailer weight does not exceed any part of the towing system. Be sure the load is heavier towards front of the trailer while not exceeding the hitch's tongue weight. Be sure trailer load is centered from left to right and secured to prevent shifting. **Note:** Never load the heaviest part of the trailer behind the axel(s).

Check the trailer's tires to ensure they are inflated to the proper specification. Verify trailer lights, electric brakes and breakaway switches are working properly.

# CURT WARRANTY

CURT Manufacturing, LLC (CURT) warrants to the original purchaser (Purchaser), its products to be free from defect under normal use and service, ordinary wear and tear excepted, for the warranty period stated below, from the date of the original retail purchase, but subject to the limitations as set forth below.

## LIMITATION ON WARRANTY

CURT's obligation under the above warranty is limited to repair or replacement of the CURT Product (Product), at its option due to a manufacturing defect of the Product. CURT shall not be liable for the loss of or use of vehicles, loss of or damage to personal property, expenses such as telephone, lodging, gasoline, towing, tire damage or any other incidental or consequential damages incurred by the Purchaser, or any other person or entity.

CURT will examine the returned Product. If CURT, in its exclusive discretion, determines that the defect or damaged Product is covered under this limited warranty, CURT will repair the Product or replace it at that time.

Alterations to or misuse of the Product will void the warranty. For example, overloading or exceeding an automobile or trailer manufacturers' weight ratings, or maneuvering motor vehicles equipped with Products at improper rate of speed, shall void the warranty on any of the Products. Failure to properly maintain and regularly inspect the Product according to the specific instruction sheet accompanying each Product shall also void the warranty.

Some states do not allow the exclusion or limitation of incidental or consequential damages. If such exclusions or limitations are prohibited under the applicable law, the above limitation or exclusion may not apply.

This Warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

The Purchaser, when returning a CURT Product, must observe the following steps:

1. The Purchaser must have proof of purchase of any damaged Product and supply the same to the headquarters of CURT. The Purchaser must obtain from CURT (toll free number is 877-CURTMFG (877.287.8634)) a Returned Goods Authorization (RGA) number in order to return any damaged Product to CURT for inspection and evaluation under this Limited Warranty.

2. The Purchaser must pay all handling charges and shipping costs to deliver Products to CURT and must send the damaged Product along with the RGA number and proof of purchase to CURT at 6208 Industrial Drive, Eau Claire, Wisconsin 54701.

3. Upon receipt of damaged Product, CURT will determine whether the damaged Product is covered under the Limited Warranty. If it is, CURT will repair or replace the Product. If the Product is replaced, the Product that is originally returned by the Purchaser shall become the exclusive property of CURT. If the returned Product is not covered under the Limited Warranty, CURT will notify the Purchaser before taking any further action with regard to repair or replacement, which would be at the Purchaser's cost.