

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

60660 SUBKIT

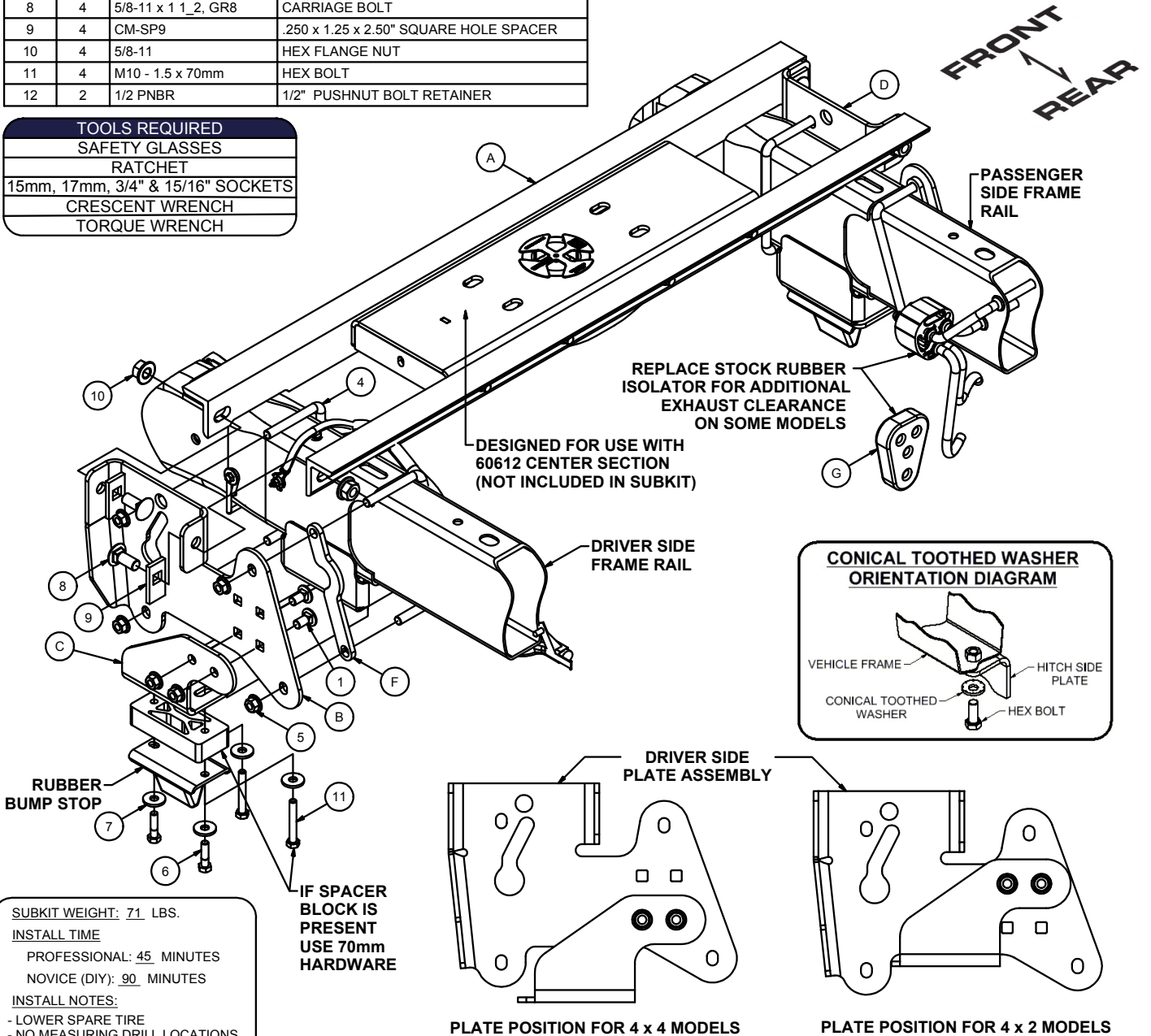
DODGE 2500 / 3500 SHORT AND LONG BED

WARNING!! BRAKE, FUEL, AND ELECTRICAL LINES MAY NEED TO BE LOOSENED OR REPOSITIONED TO PROVIDE CLEARANCE FOR NEW HARDWARE. SOME MODELS MAY 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	4	1/2-13 x 1, GR8	CARRIAGE BOLT
2	8	1/2-13 x 1 1/2, GR8	CARRIAGE BOLT
3	4	CM-SP12	.250 x 1.00 x 2.00" SQUARE HOLE SPACER
4	4	CM-1209-UBS	1/2-13 x 4 x 7.25 x 1 3/4 SQ U-BOLT
5	20	HFN 1213, GR8	HEX FLANGE NUT
6	4	M10 - 1.5 x 40mm	HEX BOLT
7	4	7/16"	CONICAL TOOTHED WASHER
8	4	5/8-11 x 1 1_2, GR8	CARRIAGE BOLT
9	4	CM-SP9	.250 x 1.25 x 2.50" SQUARE HOLE SPACER
10	4	5/8-11	HEX FLANGE NUT
11	4	M10 - 1.5 x 70mm	HEX BOLT
12	2	1/2 PNBR	1/2" PUSHNUT BOLT RETAINER

Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
A	2	60660-CA	2.50 x 2.00 x .375" CROSS ARM
B	1	60660-DSWA	.250" DRIVER SIDE PLATE
C	1	60660-DSB	.250" DRIVER SIDE BRACKET
D	1	60660-PSWA	.250" PASSENGER SIDE PLATE
E	1	60660-PSB	.250" PASSENGER SIDE BRACKET
F	2	60660-SP	.313" SPACER PLATE
G	1	CM-C655-EH	EXHAUST HANGER

TOOLS REQUIRED	
SAFETY GLASSES	
RATCHET	
15mm, 17mm, 3/4" & 15/16" SOCKETS	
CRESCENT WRENCH	
TORQUE WRENCH	



SUBKIT WEIGHT: 71 LBS.
 INSTALL TIME
 PROFESSIONAL: 45 MINUTES
 NOVICE (DIY): 90 MINUTES
 INSTALL NOTES:
 - LOWER SPARE TIRE
 - NO MEASURING DRILL LOCATIONS
 - NO DRILLING INTO FRAME

IF SPACER BLOCK IS PRESENT USE 70mm HARDWARE

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



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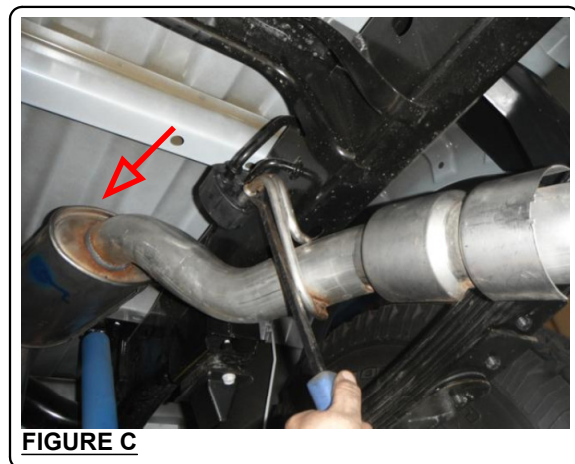
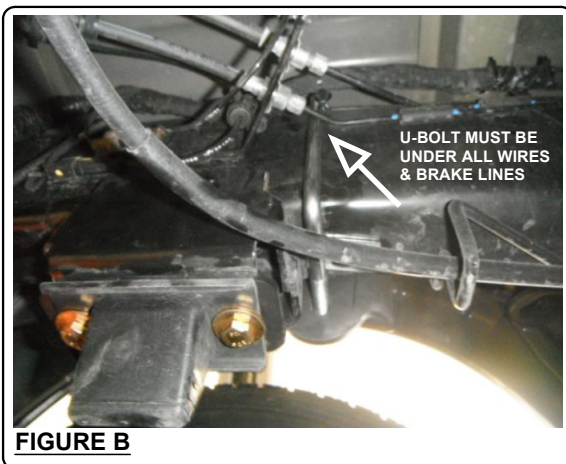
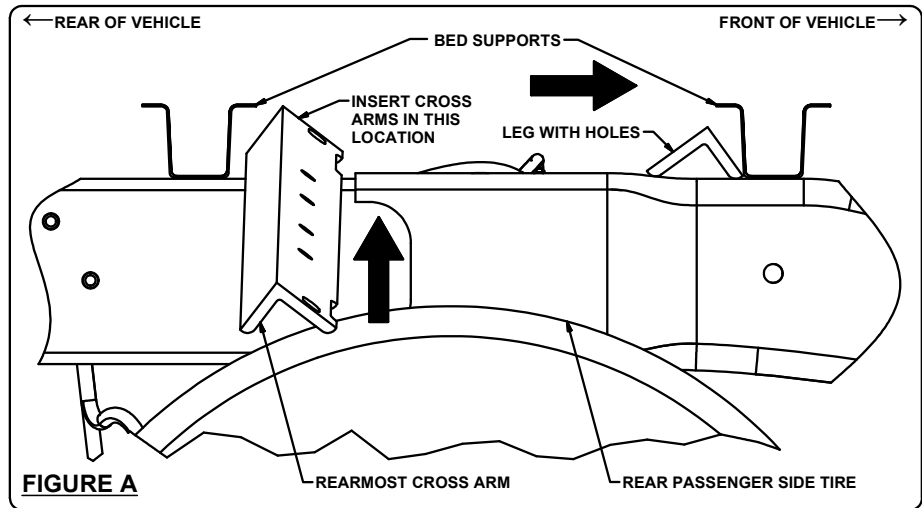
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INSTALLATION STEPS:

1. Temporarily remove spare tire and temporarily remove plastic wheel well covers (if vehicle is equipped with them and if they are a style which prevents hitch installation).
2. Insert cross arm (A) by sliding it between the frame and the bottom of the truck bed. It needs to be inserted so the leg without the holes will be against the bottom of the bed and the leg with the holes will face the rear of the vehicle, see **FIGURE A**. **NOTE:** Use a crescent wrench to bend the metal flange below the bed outward to allow the cross arms to be slid into position. The cross arm can be used as a lever to add additional bend to the flange, if needed. Insert the cross arm in the location shown in **FIGURE A** until it spans the frame rails. Slide the cross arm forward so that it is next to the forward bed support.
3. Insert the rearmost cross arm (A) in the same location that the first cross arm was inserted. Slide it in until it spans the frame rails. This needs to be inserted so the leg without the holes will be against the bottom of the bed and the leg with the holes will face the front of the vehicle, see **FIGURE A**.
4. Place the forward U-bolt (4) into position on the inside of the driver side frame rail. See **FIGURE B** for approximate location of the U-bolt. One or two of the wire harness clips may need to be unfastened from the inside of the driver side frame rail on some models for the U-bolt to be put into position. **NOTE: The U-bolts must be positioned under all the brake lines and wires, see FIGURE B.**
5. The rearmost rubber exhaust isolator may need to be replaced with the included isolator (G) on some models. Replace if needed for additional clearance between the exhaust and the hitch, see **PAGE 1**. This will only be needed on models with exhaust styles shown in **FIGURE C**.



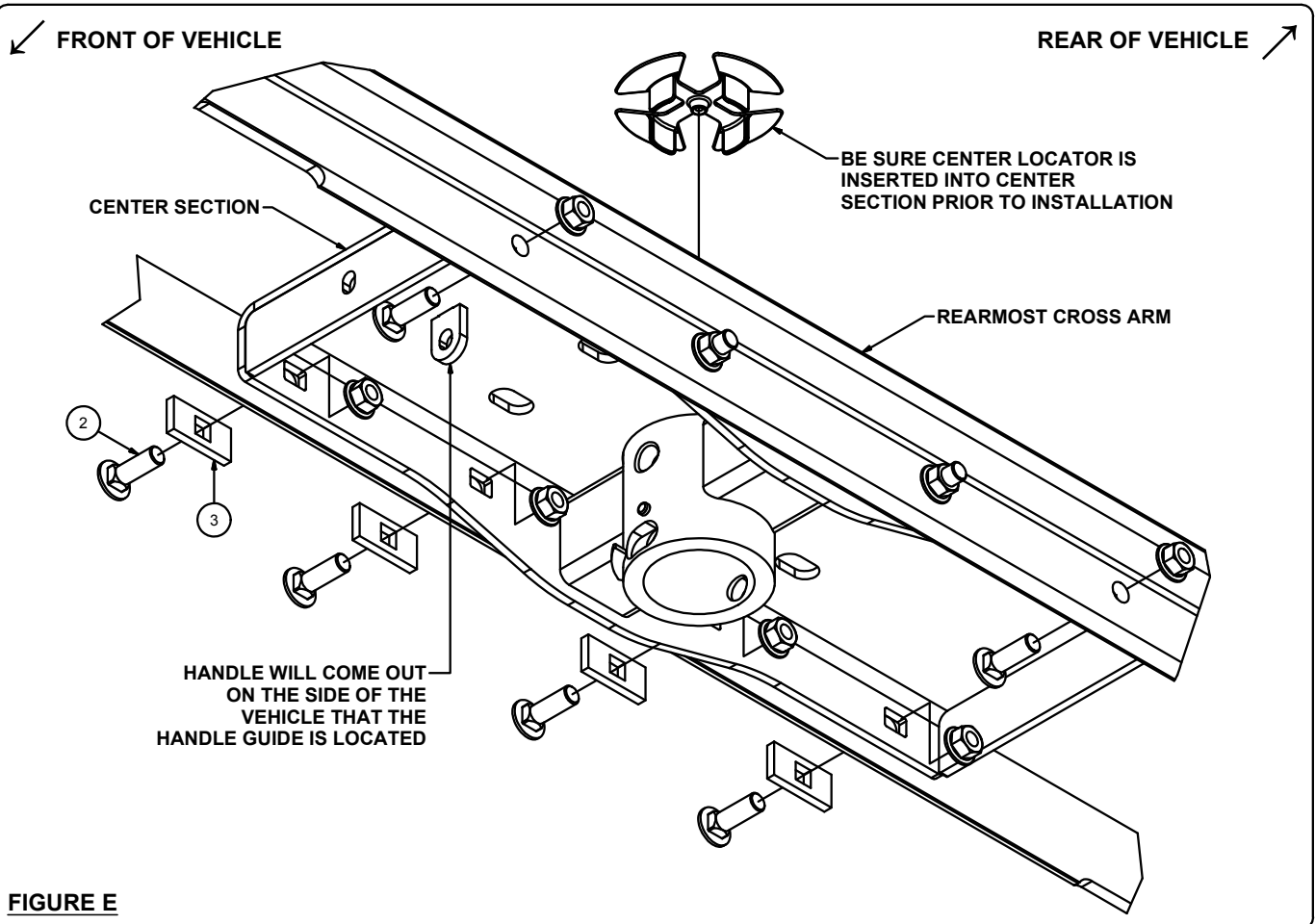
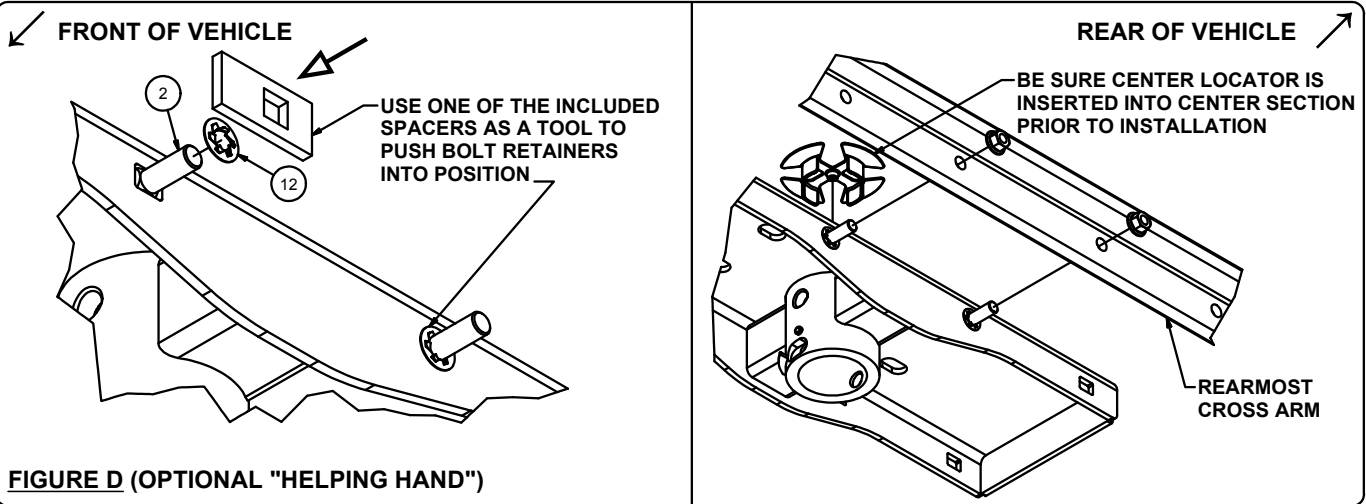
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INSTALLATION STEPS CONTINUED:

6. Raise the center section into position. **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 (2) in through the centermost slots on the side of the center section that will fasten to rear cross arm. 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 D**. **NOTE:** The gooseneck handle will come out on the side of the vehicle that the handle guide is located. Be sure center locator is inserted into the center section cylinder prior to installing. Loosely attach to the front cross arm by placing four 1/2" x 1 1/2" carriage bolts (2) with four CM-SP12 spacers (3) in through the forward cross arm and attach center section with four 1/2" hex flange nuts (5), see **FIGURE E**.
7. Slide the rearmost cross arm forward and loosely attach to the center section by inserting four 1/2" x 1 1/2" carriage bolts (2) in through the center and out the rearmost cross arm. Attach with four 1/2" hex flange nuts (5), see **FIGURE E**.
8. Loosely assemble the side plates with brackets (B & C) and (D & E) using 1/2" x 1" carriage bolts (1) and 1/2" hex flange nuts (5). The brackets will attach to the top set of holes on the side plates for two wheel drive models and the bottom set of holes for four wheel drive models, see **PAGE 1**.
9. Remove the the rubber bump stop from underneath each frame rail by removing two M10 bolts from each. Save the rubber bump stops for reinstallation but the hardware removed will not be reinstalled, see **PAGE 1**.
10. Place driver side plate assembly over the U-bolt (4) which was positioned in step 4. Attach to the U-bolt with two 1/2" hex flange nuts (5). **NOTE:** The ground wire on the outside of the driver side frame rail on 2012 and earlier models must not be pinched between the driver side plate (B) and frame. This ground wire may need to be loosened, rotated slightly and retightened for the plate to be put into position.
11. Insert the rearward U-bolt (4) over the inside of the driver side frame rail and position the spacer (F) between the plate and frame rail in the orientation shown on **PAGE 1**. Loosely attach to the driver side plate assembly using two 1/2" hex flange nuts (5). One of the wire harness clips may need to be unfastened from the inside of the driver side frame rail on some models for the U-bolt to be placed into position.
12. Clamp the driver side plate assembly between the rubber bump stop and frame rail using the supplied 7/16" conical toothed washers (7) and M10 x 40mm hex bolts (6). Use the M10 x 70mm hex bolts (11) if spacer block is present.
13. Attach driver side plate assembly to the cross arms by inserting 5/8" x 1 1/2" carriage bolts (8) with CM-SP9 spacers (9) in through the driver side plate (B) and out the cross arms (A). Attach with 5/8" hex flange nuts (10), see **PAGE 1**.
14. Insert the forward U-bolt (4) into position on the inside of the passenger side frame rail and loosely attach the passenger side plate assembly using two 1/2" hex flange nuts (5). Repeat steps 11 -13 on the passenger side with this plate assembly.
15. Verify the center section is centered on the vehicle by checking that the sides of the center section are in the same location on bed ribs.
16. Torque all fasteners in the following order: **First:** Torque the center section to the cross arms. **Second:** Torque the side plate brackets to the truck frame. **Third:** Torque side plate assemblies and the U-bolts to the side plates. **Forth:** Torque the side plates to the cross arms. Torque all 5/8" fasteners to 210 ft-lbs, 1/2" fasteners to 110 ft-lbs and M10 hardware to 45 ft-lbs.

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

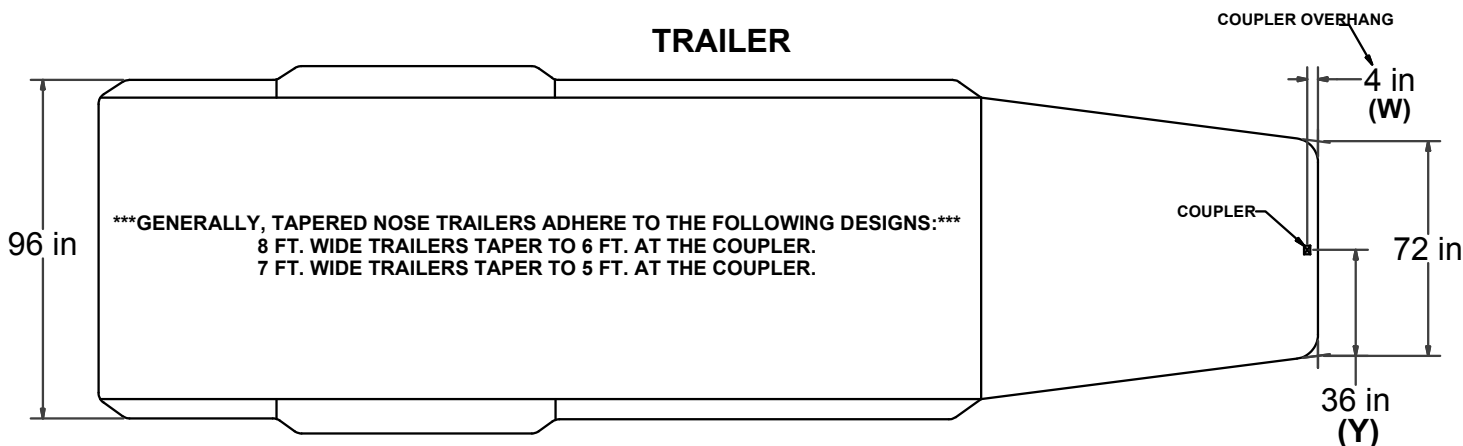
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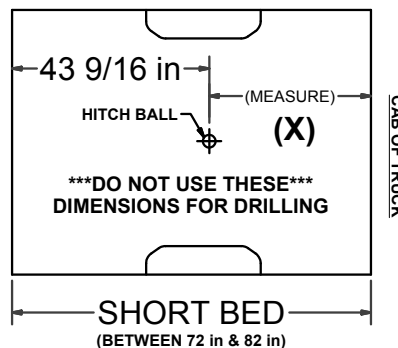
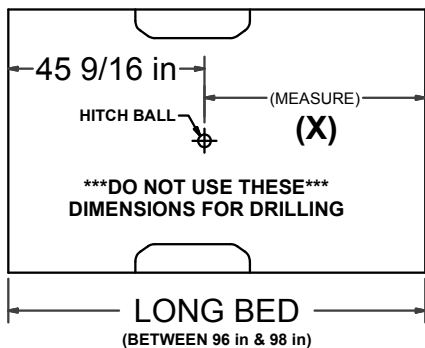
CAB TO TRAILER CLEARANCE

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

TRAILER



LONG & SHORT TRUCK BEDS



CLEARANCE CALCULATION

$$(X) - \frac{1}{2}(Y) = (Z)$$

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

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) _____

INSTALLATION INSTRUCTIONS

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

DOUBLE LOCK EZTTM GOOSENECK HITCH



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.

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

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.

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	

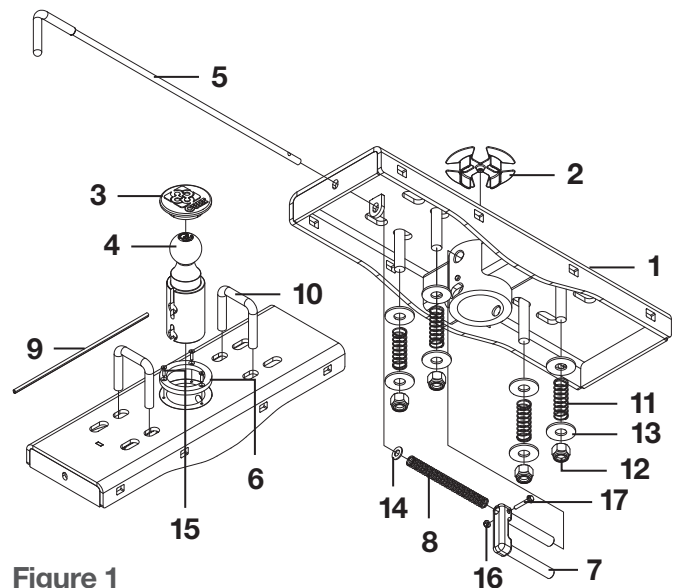


Figure 1

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.

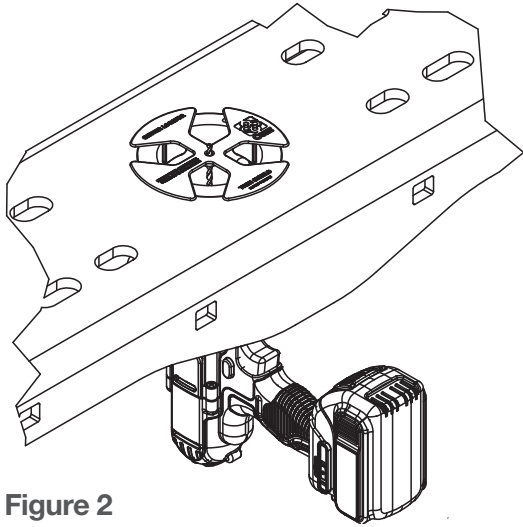


Figure 2

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.

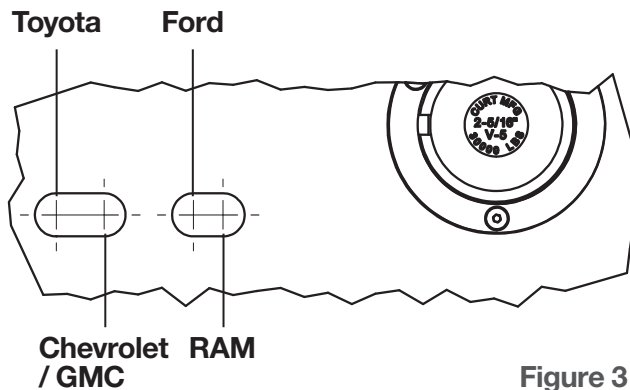


Figure 3

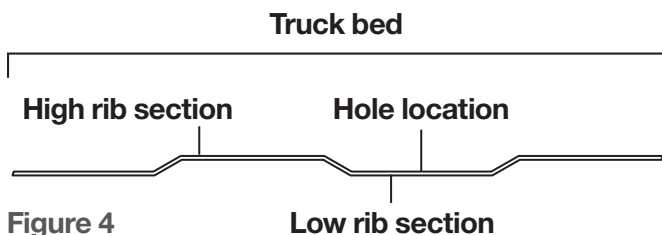


Figure 4

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 axle(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.