CURT™ The FIRST Name in Towing Products™

DOUBLE LOCK GOOSENECK

INSTRUCTION MANUAL

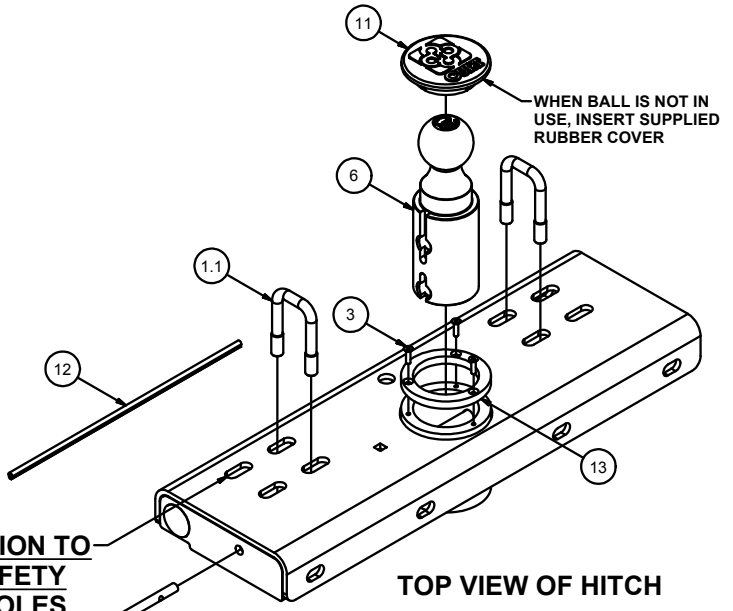
Installer: Read and understand this manual. Fully instruct and demonstrate the operation of this gooseneck hitch to the end user. Include the importance of observing all warnings. Provide this manual in its entirety to the end-user.

60607 GOOSENECK HITCH

2/26/2013

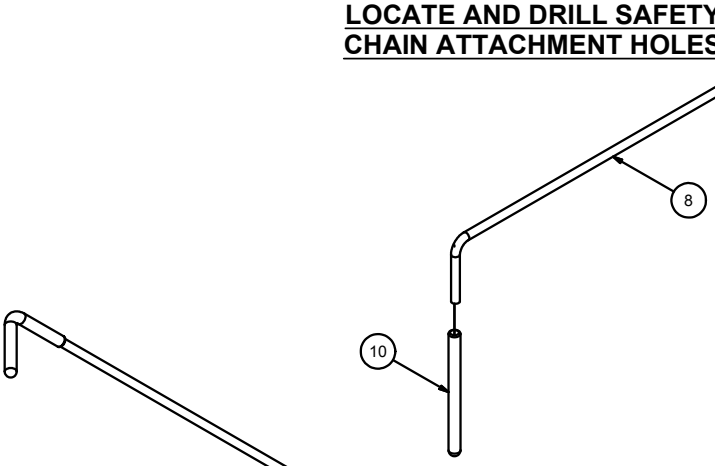
Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	CM-C60-CLA	SAFETY CHAIN LOOP ASSEMBLY
1.1	1	CM-C60-CL	2" x 3" SAFETY CHAIN LOOP
1.2	2	CM-C60-S	U-BOLT SPRING
1.3	2	1_2 - 13	NYLOCK HEX NUT
1.4	4	FW12SAE	FW,1/2 SAE,ZP
2	2	3/8"	WASHER
3	3	#10-32 x 3/4	FLAT HEAD C'SUNK CAP SCREW
4	1	#10-24 NYLOCK HEX NUT	NYLOCK HEX NUT
5	1	#10-24 x 1.25 HHFS	HEX HEAD FLANGE SCREW
6	1	CM-C60-B	TURNOVER BALL COMPLETE
7	1	CM-C600-CLP	CAST LOCK PIN
8	1	CM-C60-R	.375" HANDLE ROD
9	1	CM-C60-CS	7.5 LB COMPRESSION SPRING
10	1	CM-C60-H	VINYL HANDLE GRIP
11	1	CM-C60-RC	RUBBER COVER
12	1	CM-UE1	.300" U-SHAPED EDGING
13	1	CM-C600-CR	3.75 DIA. x .375" CHROME RING

<u>WARNING DO NOT</u> invert ball when carrying heavy loads on 2 wheel drive trucks. The ball may hit the top of the differential,brake lines, or sensors. **(NOTE: Do not invert ball on any Toyota Tundra Models)**



TOP VIEW OF HITCH

<u>USE 60607 CENTER SECTION TO LOCATE AND DRILL SAFETY CHAIN ATTACHMENT HOLES</u>



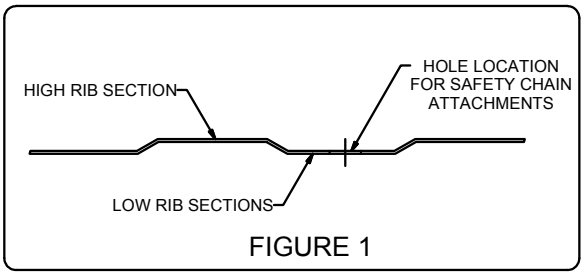
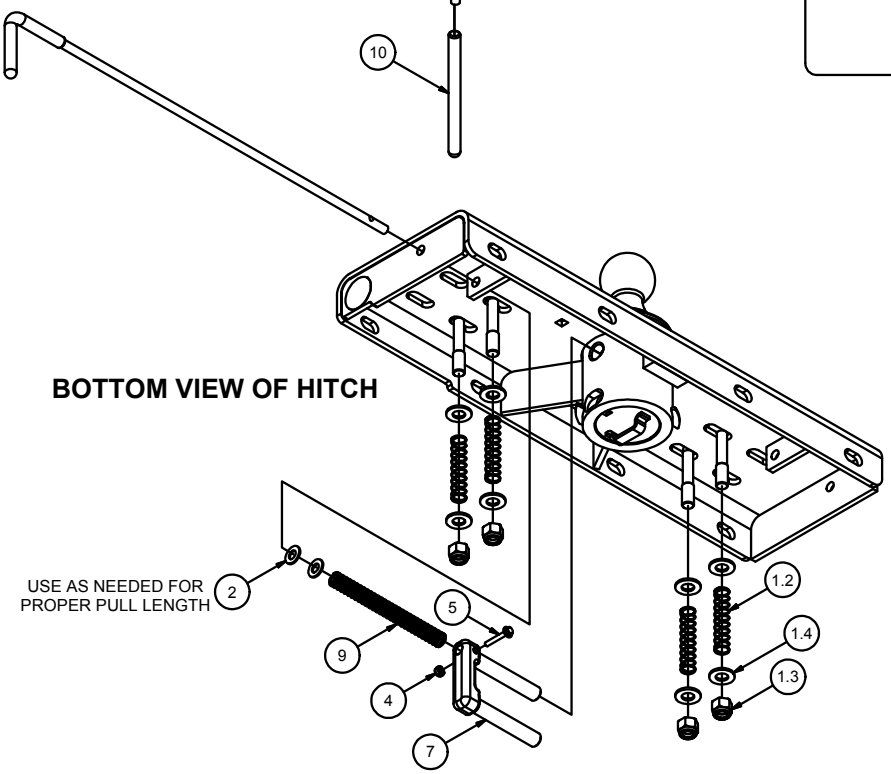


FIGURE 1



BOTTOM VIEW OF HITCH

<u>U-EDGING INSTALLED</u>
AROUND EDGE OF 4" HOLE IN TRUCK BED

60607 GOOSENECK HITCH

Warning!! Carefully examine the location of fuel lines, brake lines, and electrical wires BEFORE INSTALLATION. Brake, fuel, and electrical lines may need to be loosened or repositioned to provide clearance for new hardware. The installation of this hitch may require modification or removal of heat shields. The use of overload springs, air bags, etc. may be required when towing heavy loads.

Installing 60607 Turnover Gooseneck After Cross Arm Sub-kit Installation

1) Install rubber edging (CM-UE1) on cut edge for 60607 cylinder, trim excess.
2) Position the 60607 over the rear axle and up to the rear cross arm with the cylinder facing the correct direction for the application. Install four 1/2" x 1 3/4" carriage bolts into the 60607 first, then through the rear cross arm and secure with 1/2" flange nuts, finger tighten.
3) Move the front cross arm to the 60607 and install the 1/2" x 1 3/4" carriage bolts into the cross arm then through the 60607 and secure with 1/2" flange nuts.
4) Torque all 1/2" hardware to 110 ft-lbs.

Installing Safety Chain Attachments

1) From under the truck use the 60607 gooseneck as a template to drill four 1/2" holes for the safety chain attachments.
2) Using a 1/2" drill bit, drill the center of each slotted hole in the gooseneck. **(Note: Be sure the holes are drilled in the lower rib section of the truck bed as shown in FIGURE 1)**.
3) From inside the truck box place the two U-bolts (1.1) through the predrilled holes in the bed of the truck.
4) From beneath the truck place a washer (1.4), a spring (1.2), a washer (1.4) and a nylock nut (1.3) on each of the four U-bolt legs. Tighten the nylock nuts until flush with the bottom of the U-bolt.

Installing handle / lock

1) Insert Locking Pin (7) into the ball cylinder with handle rod hole located on top.
2) Slide rubber grip (10) onto handle rod.
3) Insert handle rod from outside vehicle, through the hole in the 60607 endplate, and through the rod guide as shown. (Handle rod may be installed on driver side or passenger side, depending on preference).
4) Slide the compression spring (9) over handle rod before inserting the handle rod into the locking pin. Insert handle rod into locking pin and secure with #10 screw (5) and nylock nut (4) as shown. **(Note: Use 1-2 additional 3/8" washers (2) as needed to ensure proper pull length of locking pin)**.

Caution!!!

1. Check that all 1/2" hardware has been torqued to 110 ft-lbs.
2. Check that all side plate hardware has been torqued. Some hardware listed will not apply to your application.
   - 3/8" to 45 ft-lbs.
   - 1/2" to 110 ft-lbs.
   - 9/16" to 150 ft-lbs.
   - 5/8" to 210 ft-lbs.
   - 3/4" to 380 ft-lbs.
3. Re-attach Brake, Fuel, and Electrical lines so they do not contact any of the added fasteners.

60607 Operation

1. Pull the handle out as far as possible and rotate clockwise until the locking pin is disengaged and locked out.
2. Insert ball in the tow position into the cylinder by aligning the ball groove with the cylinder pin. If the groove and pin are not aligned simply rotate ball until the ball drops into place.
3. Rotate handle counter clockwise until locking pin snaps back into position. (Note: Be certain the locking pin passes completely through the ball and securely into the cylinder.

60607 Installation check

1. Set ball in towing position and handle in locked position.
2. Connect the trailer to the hitch ball.
3. 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 clearance between the truck and trailer at cab and box corners.

Maintenance (Required every 30 days or prior to use)

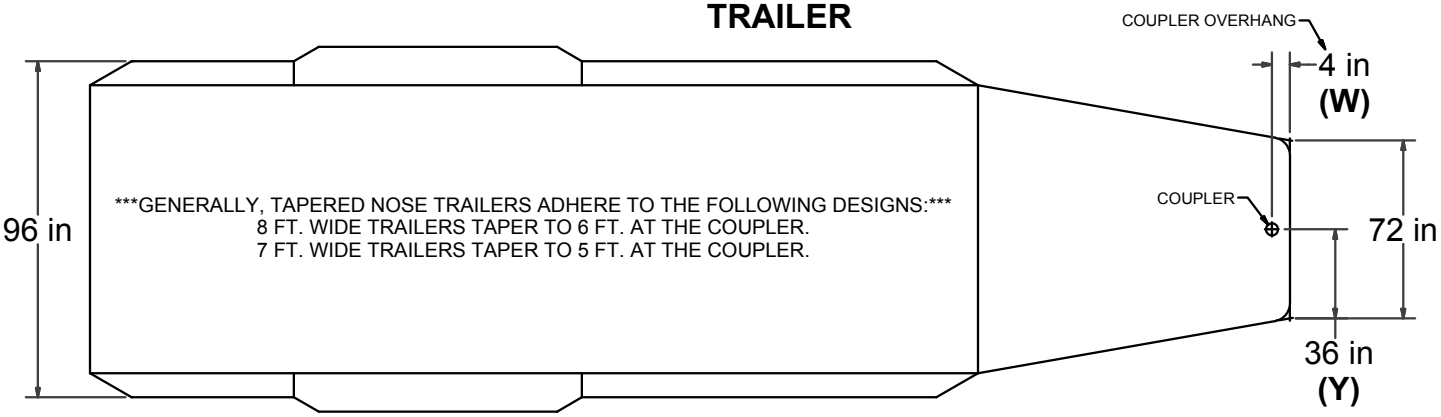
1. Keep hitch ball lubricated regularly. Use silicone spray or equivalent to prevent wear and rust.
2. Keep hitch assembly free of dirt and other foreign debris.
3. Check for proper torque on all nuts and bolts before each use. Also check for excessive wear.
4. Check for ball wear before each use. **(Note: Do not tow trailer with worn or damaged parts)**.

DO NOT EXCEED VEHICLE MANUFACTURER'S RECOMMENDED TOWING CAPACITY.

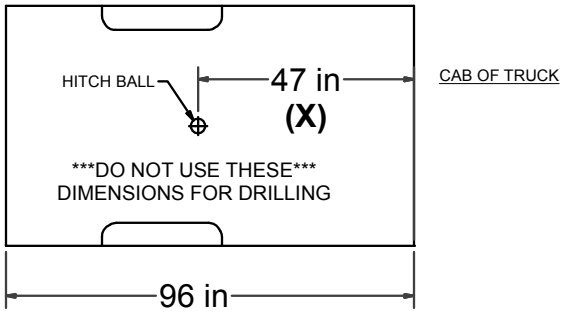
CAB TO TRAILER CLEARANCE

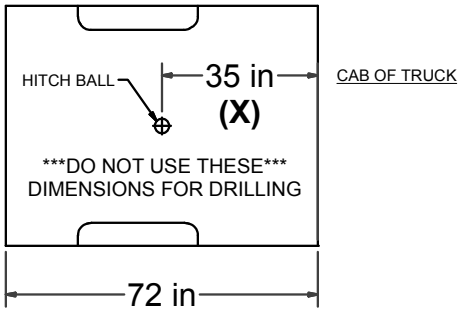
REMOVAL OF REAR WINDOW ACCESSORIES MAY BE REQUIRED.

TRAILER



LONG & SHORT TRUCK BEDS





WARNING REFERENCE CLEARANCE CALCULATOR BEFORE TOWING

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 _____

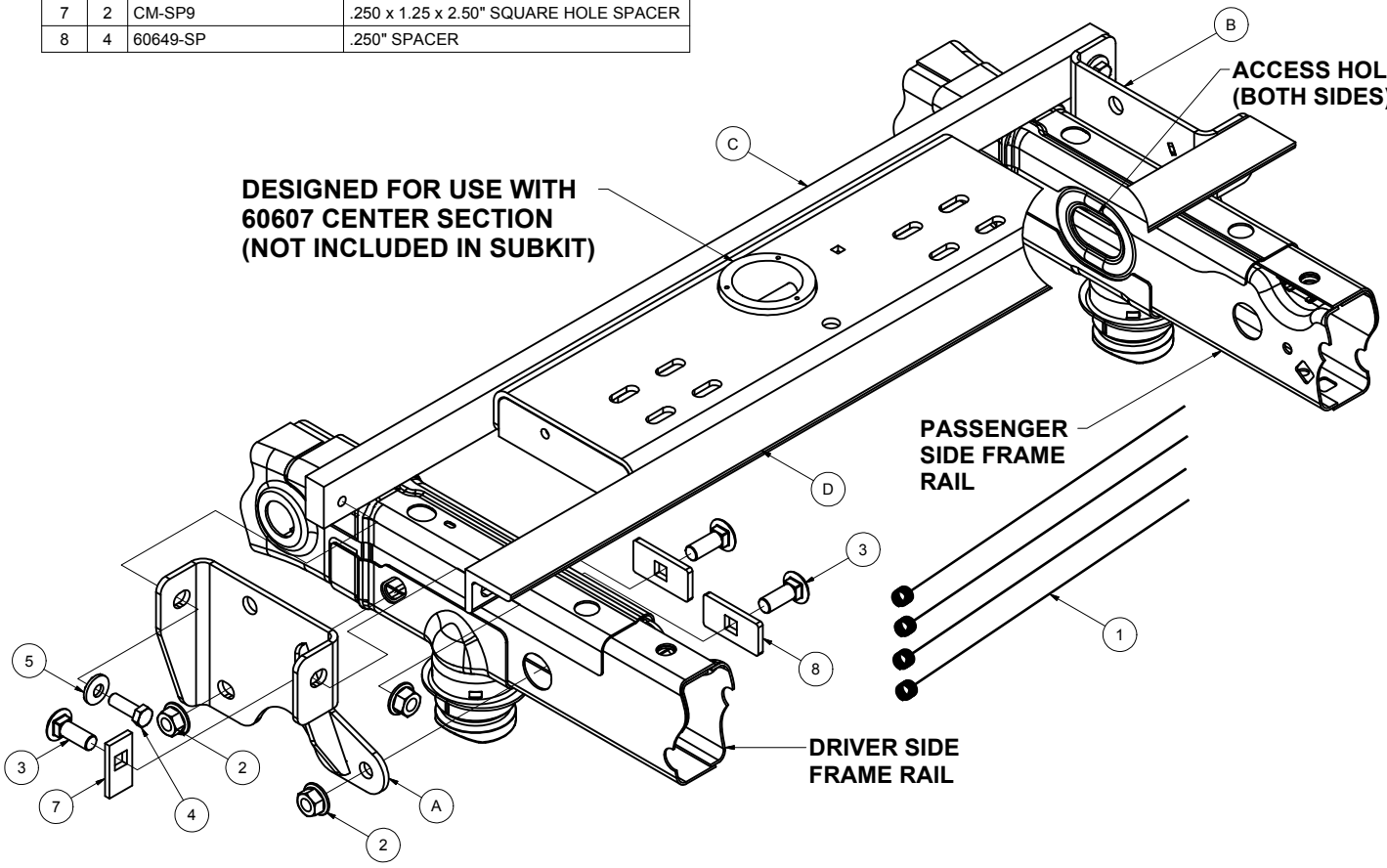
****DO NOT EXCEED RECOMMENDED VEHICLE TOWING WEIGHT!****

60649 SUBKIT FORD F-150

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**

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	4	5_8 FISHWIRE	5/8" FISHWIRE
2	6	5/8-11	HEX FLANGE NUT
3	6	5/8-11 x 1 3_4, GR8	CARRIAGE BOLT
4	10	1_2 - 13 x 1 1_2 HEX, GR8	HEX BOLT
5	10	1/2	CONICAL TOOTHED WASHER
6	4	HFN 1213, GR8	HEX FLANGE NUT
7	2	CM-SP9	.250 x 1.25 x 2.50" SQUARE HOLE SPACER
8	4	60649-SP	.250" SPACER

Hardware			
ITEM	QTY	PART NUMBER	DESCRIPTION
A	1	60649-DSW	DRIVER SIDE WELDMENT
B	1	60649-PSW	PASSENGER SIDE WELDMENT
C	1	60649-FCA	1" x 2" FRONT CROSS ARM
D	1	60649-RCA	2.50 x 2.00 x .375" REAR CROSS ARM
E	1	60910	GOOSENECK GALVANIC ISOLATOR



SUBKIT WEIGHT: 57 LBS.

INSTALL TIME

PROFESSIONAL: 45 MINUTES

NOVICE (DIY): 90 MINUTES

INSTALL NOTES:
- NO DRILLING INTO FRAME
- NO LOWERING EXHAUST
- FISHWIRING REQUIRED
- TRIMMING REQUIRED

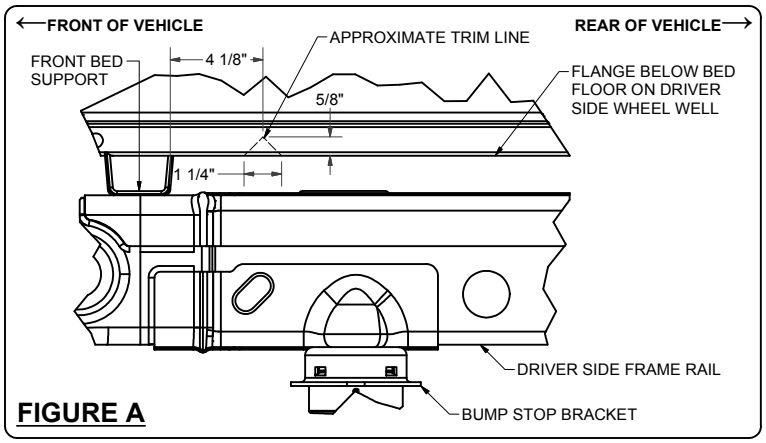


FIGURE A

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

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

60649 SUBKIT FORD F-150

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

BEFORE INSTALLING

For ease of installation the use of Curt Part # 60606 (Gooseneck Install Tool) is recommended. A lifting device, such as an engine hoist, or cable come-a-long can also be used to lift the center section of the hitch into place. Use of one of these tools will be especially helpful if the truck bed has been distorted downward from heavy use. After the hole is drilled in the truck bed the rope or chain loop can be lowered through the drilled hole and attached to the center of the gooseneck hitch. The gooseneck can then be raised so that the center ring protrudes through the bed floor. Maintaining the upward pressure from the lifting device onto the gooseneck hitch will ease the process of attaching the gooseneck center section to the crossarms. Remove lifting device before torquing hardware.

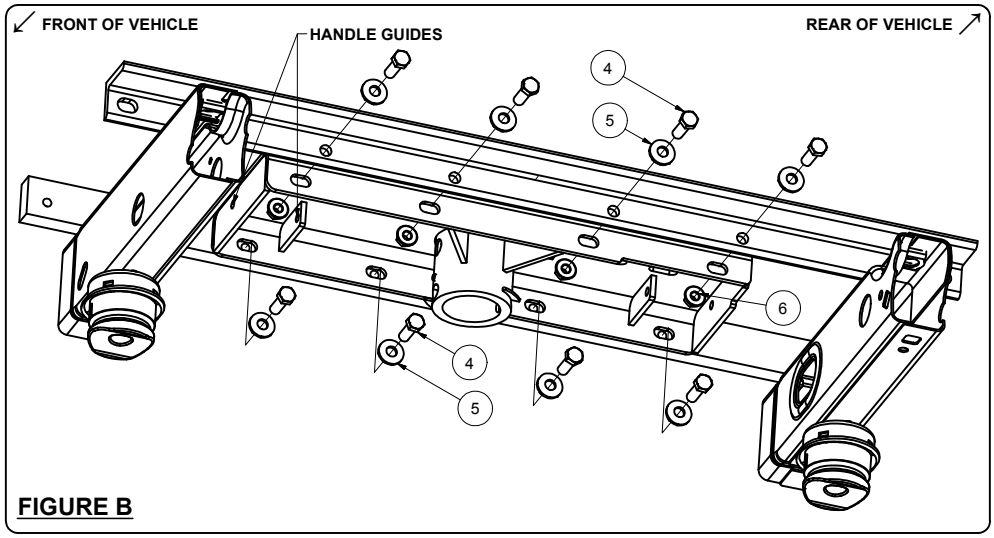


FIGURE B

INSTALLATION STEPS:

1. Mark the location for the hole in the truck bed. Measure from the tail gate end of the truck bed. Do this by hooking a tape measure over the back of the truck box and marking the correct location. (NOTE: DO NOT MEASURE FROM EDGE OF TAILGATE) Next, mark the center between the wheel wells. This marks the center point for the drill hole. This hole location is critical for the correct installation of this hitch. Measure, mark, and saw carefully. This location will put the ball 2" in front of the axle.

   BALL CYLINDER MEASUREMENT

   5.5' / 6.5' / 8' BED = **43.5"**

   (CENTER CYLINDER IN GOOSENECK OFFSET TOWARDS FRONT OF VEHICLE)

   **** IMPORTANT NOTE ****
   If truck has a spray on bed liner, add 1/8" TO 3/16" when measuring location of center hole.

   NOTE: If truck has a plastic bed liner, you may drill through both, but it is more difficult to accurately locate the midpoint between the wells, and to keep the bed liner from moving while cutting the hole. Make a 4"(3 5/8" for the 60640) hole at this location using a 4"(or 3 5/8") hole saw or by making a 4"(or 3 5/8") circle and cutting it out with a saber saw equipped with a metal cutting blade.

2. Temporarily remove spare tire.

3. On the driver side, mark the inner wheel well to notch for cross arm installation and handle operation as shown in **FIGURE A**. If present, notch the platic wheel well liner as needed.

4. Insert cross arm (C) 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 bar cross arm (C) between the frame and the truck bed, as shown in **FIGURE A**. Once it is partially inserted, guide it the rest of the way from underneath the truck. It will span the frame rails and be behind the front bed support. Slide this cross arm as far forward as possilbe. Insert the angle cross arm (D) into position using the notch made in step 2. Make sure when the angle cross arm is in position, that the holes are toward the front of the vehicle as shown in **FIGURE B**. Slide the angle toward the rear of the vehicle about 8" to allow room for the gooseneck center and the side plates (A) and (B) ***CONTINUED on page 3***

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

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

60649 SUBKIT FORD F-150

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Note: On vehicles with an aluminum bed, it will be required that the center section of the gooseneck be isolated from aluminum with the galvanic isolator kit supplied.

5. Raise the center section into position between the cross arms with the gooseneck center cylinder offset towards the front of the vehicle. Slide the cross arms to the center section and rotate them into position. The leg of the angle cross arm with the holes should be against the center section and the bar cross arm holes should be offfset toward the ground. Attach the cross arms to the center section using eight 1/2" x 1 1/2" hex bolts (4) and eight 1/2"conical toothed washers (5) as shown in **FIGURE B**. The angle cross arm will also require four 1/2" hex flange nuts (6) as shown.

6. Loosely attach the side plates (A) nd (B) to the cross arms by inserting one 5/8" x 1 3/4" carriage bolt (3) with CM-SP9 spacer (7) in through the plate and out the angle cross arm. Attach with one 5/8" flange nut (2). To attach the bar cross arm, install one 1/2" x 1 1/2" hex bolt (4) and one 1/2" conical toothed washer (5) through the plate and into the cross arm. Repeat on other side.

7. Using the supplied fishwires, fishwire four 5/8" x 1 3/4" carriage bolts (3) and four 60649-SP spacers (8) into position as shown on **PAGE 1**. Loosely attach the side plates (A) and (B) to the the frame with the supplied 5/8" hex flange nuts (2), see **PAGE 1**. Hold the side plates against the frame and adjust the placement of the cross arms as needed.

8. **NOTE:** 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 5/8" fasteners to 210 ft-lbs and 1/2" fasteners to 110 ft-lbs.

(REFER TO 60607 GOOSENECK HITCH INSTRUCTIONS FOR INSTALLATION COMPLETION AND OPERATING PROCEDURES)

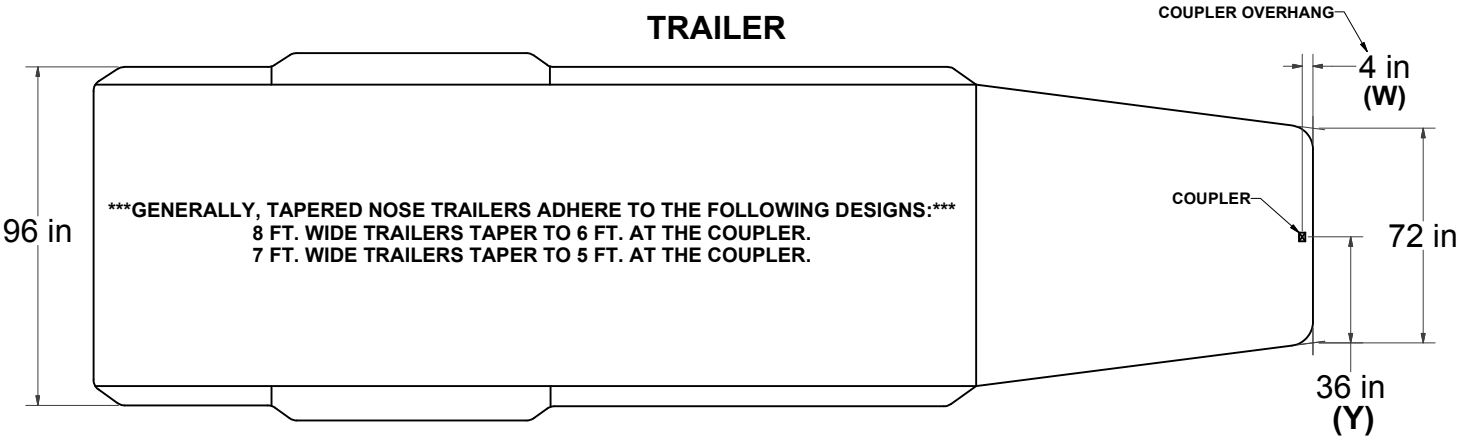
PERIODICALLY CHECK THIS GOOSENECK HITCH TO ENSURE THAT ALL FASTENERS ARE TIGHT AND THAT ALL STRUCTURAL COMPONENTS ARE SOUND.

DO NOT EXCEED VEHICLE MANUFACTURER'S RECOMMENDED TOWING CAPACITY.

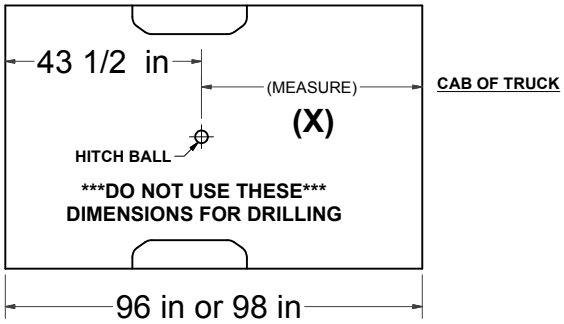
CAB TO TRAILER CLEARANCE

REMOVAL OF REAR WINDOW ACCESSORIES MAY BE REQUIRED.

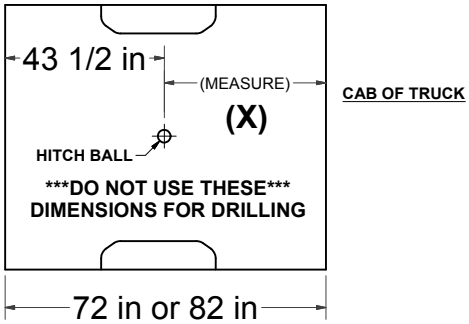
TRAILER



LONG BED



SHORT BED



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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) _____