Warning: 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.

Make/Model	Style	Years From	Years To	20K Part#	30K Part#	Foot Notes
CHEVROLET/GMC						
1500 C/K Series	Long Bed	1988	1998	61103	61503	
	Short Bed	1988	1998	61104	61504	
1500 Silverado/Sierra	New Body	2007	2013	61231	61331	
	Classic Body	1999	2007	61241	61341	Z
2500 & 3500 C/K Series	Long Bed (Old Body)	1988	2000	61103	61503	
	Short Bed (Old Body)	1988	2000	61104	61504	
2500HD/3500 Silverado/Sierra		2011	2015	61200	61301	Z
		2001	2010	61241	61341	Z
2500LD Silverado/Sierra	Classic Body	1999	2007	61241	61341	Z
DODGE						
Ram 1500		2002	2008	61219	61319	Z
		1994	2001	61109	61509	
Ram 2500/3500		2003	2012	61129	61529	
		1994	2002	61109	61509	
FORD						
F-150		2004	2013	61221	61321	Z
		1997	2003	61106	61506	
		1980	1996	61105	61505	
	Heritage Edition	2004	2004	61106	61506	
F-250	Old Body	1997	1998	61105	61505	
		1980	1996	61105	61505	
F-350		1997	1998	61105	61505	
		1980	1996	61105	61505	
F-250/350 Super Duty		1999	2015	61232	61332	Z
F-450 Super Duty	Excluding Cab & Chassis	2008	2011	61232	61332	Z
TOYOTA						
Tundra	Short Bed	2007	2012	61225	n/a	1
UNIVERSAL						
Universal Rail Kit	Raw Finish	n/a	n/a	61102	61502	

*** While Supplies Last**

Footnotes:

Z = No Drill

1 = Do not exceed recommended vehicle towing capacity.

7/16/2010

C-321 SUBKIT FORD F-150

30,000 GTW GOOSENECK KIT

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**

PARTS LIST
- **(2) CM-1203-UBS (U-Bolt)**
- **(2) CM-C641-UB (U-BOLT BUSHING)**
- **(4) 1/2-13 Flange Nut**
- **(12) Half Moon Spacer (CM-SP27)**
- **(1) Tube Spacer (CM-TS)**
- **(4) 5/8" Flange Nuts**

INSTALLATION STEPS

REMOVE SPARE TIRE FOR INSTALLATION

1) Install cross arms by sliding them into gap between the truck bed and frame from inside the wheel well. **As shown in Figure 1.**

2) **For all applications, the notched side plate indicates that it is for the driver side.** Hang the side plates from 5/8" studs, which extend from the cross arms. Fasten each plate with two 5/8" flange nuts provided. Finger tight only.

3) Using the U-Bolt and U-Bolt bushing as shown in **Figure 3** (Page 2), secure each side plate to existing holes in the frame rail. Use 1/2" flange nuts to secure in place. Finger tight only.

4) Rotate the cross arms until they contact the truck bed. Center the rear cross arm studs in the side plate slots as shown in **Figure 2.** Use a 15/16" wrench to tighten the 5/8" flange nuts on the rear cross arm to the side plates. Repeat for front cross arm. (Use the tube spacer for correct spacing between the cross arms.)
(Note: Do not tighten cross arms until center section installation is complete.)

5) **Be sure the cross arms are vertical to the truck bed before drilling!** With cross arms secure and evenly spaced, drill a hole through the truck bed at the center of each cross arm mounting hole.

6) From inside the truck bed, center the six pilot holes with the letter "A" on the C-52 cutting template. Fasten the template to the truck bed with tape. Once fastened, drill four 1/8" pilot holes through section lettered "B".
(Be sure to check for brake lines and/or fuel lines before drilling.)

7) With the pilot holes drilled, use a sabre saw to cut out section "C".

8) Remove template and drill out the six pilot holes with a 21/32" drill bit. Set your C-52 folding hitch ball into place.

9) Attach the C-52 to the cross arms using six 5/8" carriage bolts and flange nuts. Torque bolts to 115 lb-ft.
(Note: Spacers must be installed at all bolt locations to prevent truck corrugations from collapsing.)

10) After the C-52 has been fastened to the cross arms. Torque all 5/8" hardware to 115 lb-ft.

11) Torque all 1/2" hardware to 75 lb-ft.

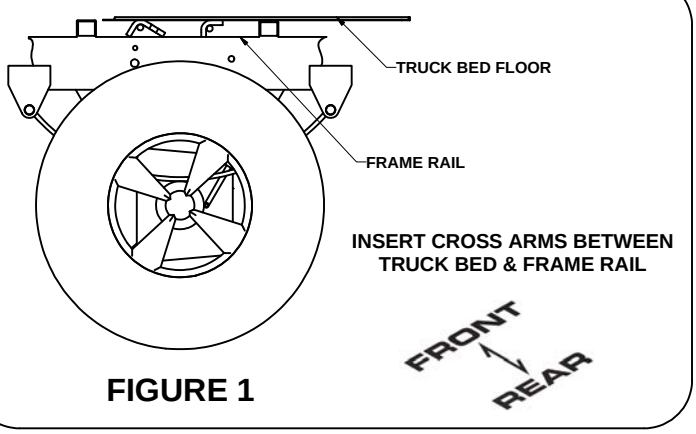


FIGURE 1

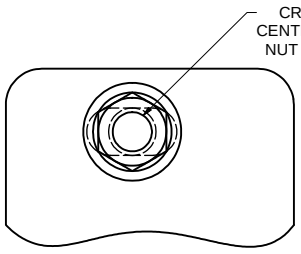


FIGURE 2

7/16/2010

C-321 SUBKIT FORD F-150

30,000 GTW GOOSENECK KIT

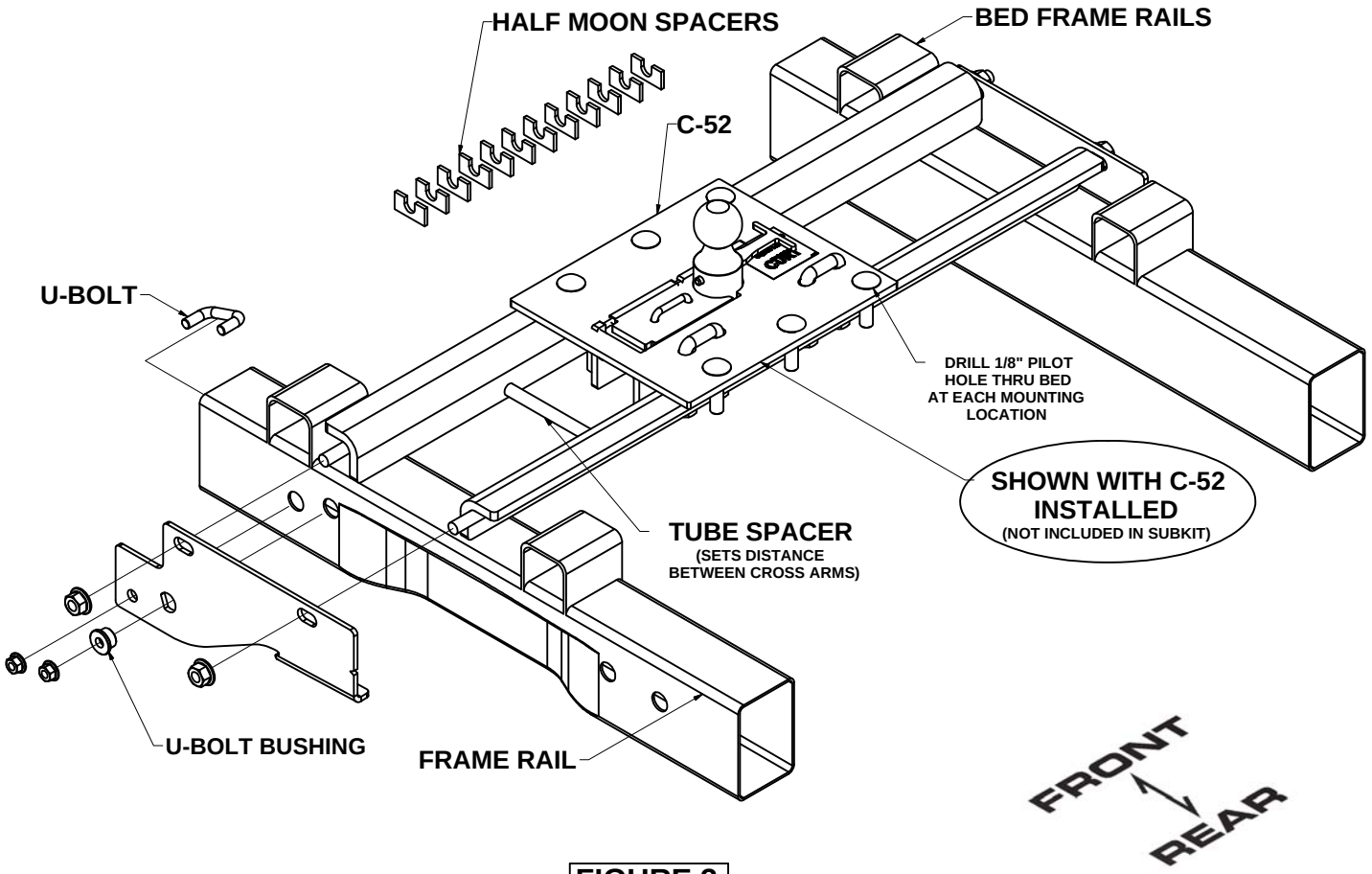
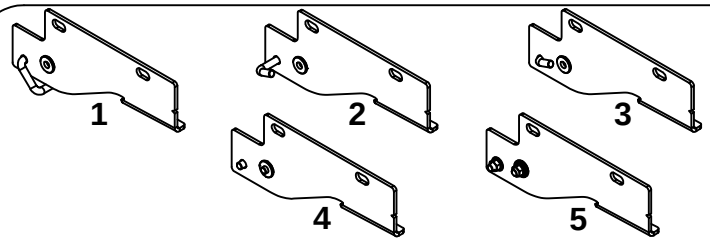
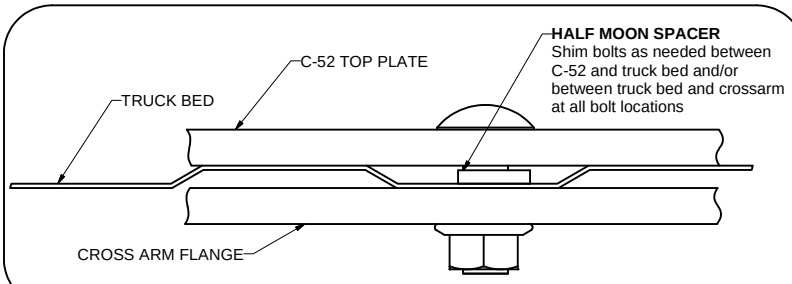


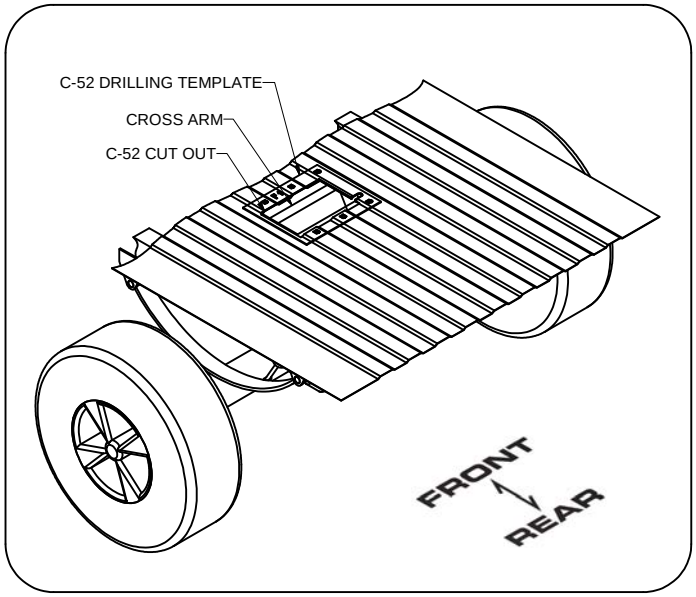
FIGURE 3



U-BOLT INSTALLATION STEPS



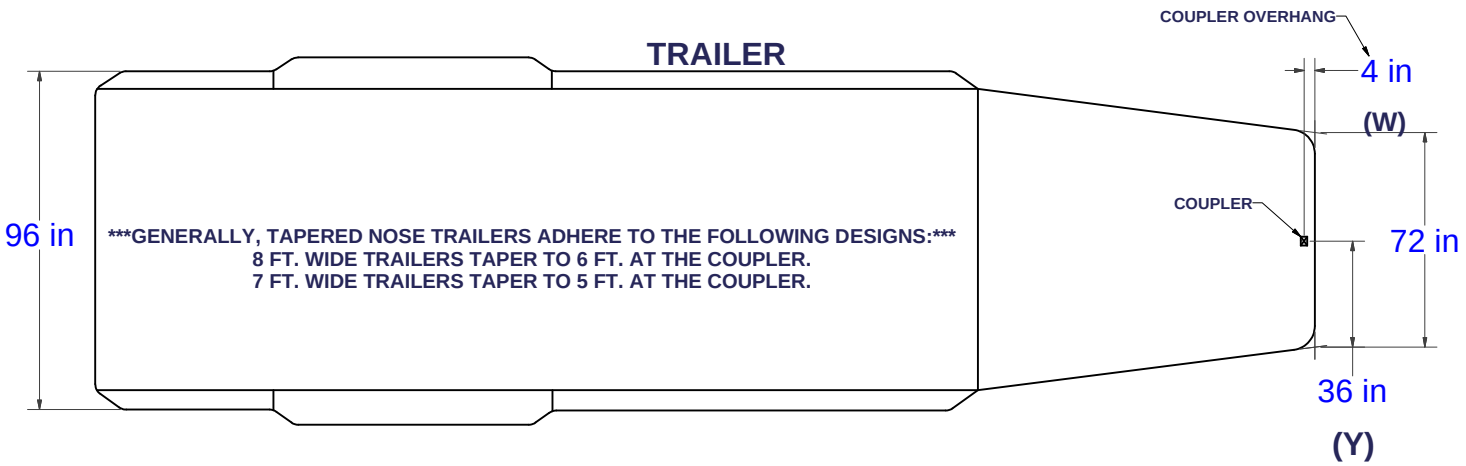
SHIM BOLTS TO PREVENT TRUCK BED RIBS FROM COLLAPSING



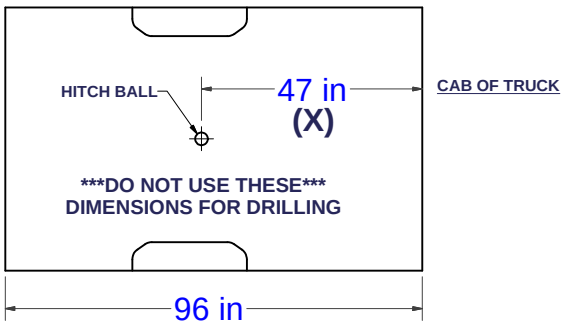
DO NOT EXCEED VEHICLE MANUFACTURER'S RECOMMENDED TOWING CAPACITY.

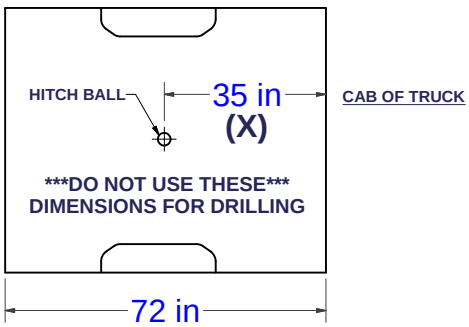
CAB TO TRAILER CLEARANCE

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



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) = _____