

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

60624 SUBKIT CHEVY & GMC 2500 / 3500 SHORT AND LONG BED

3/30/2016

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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

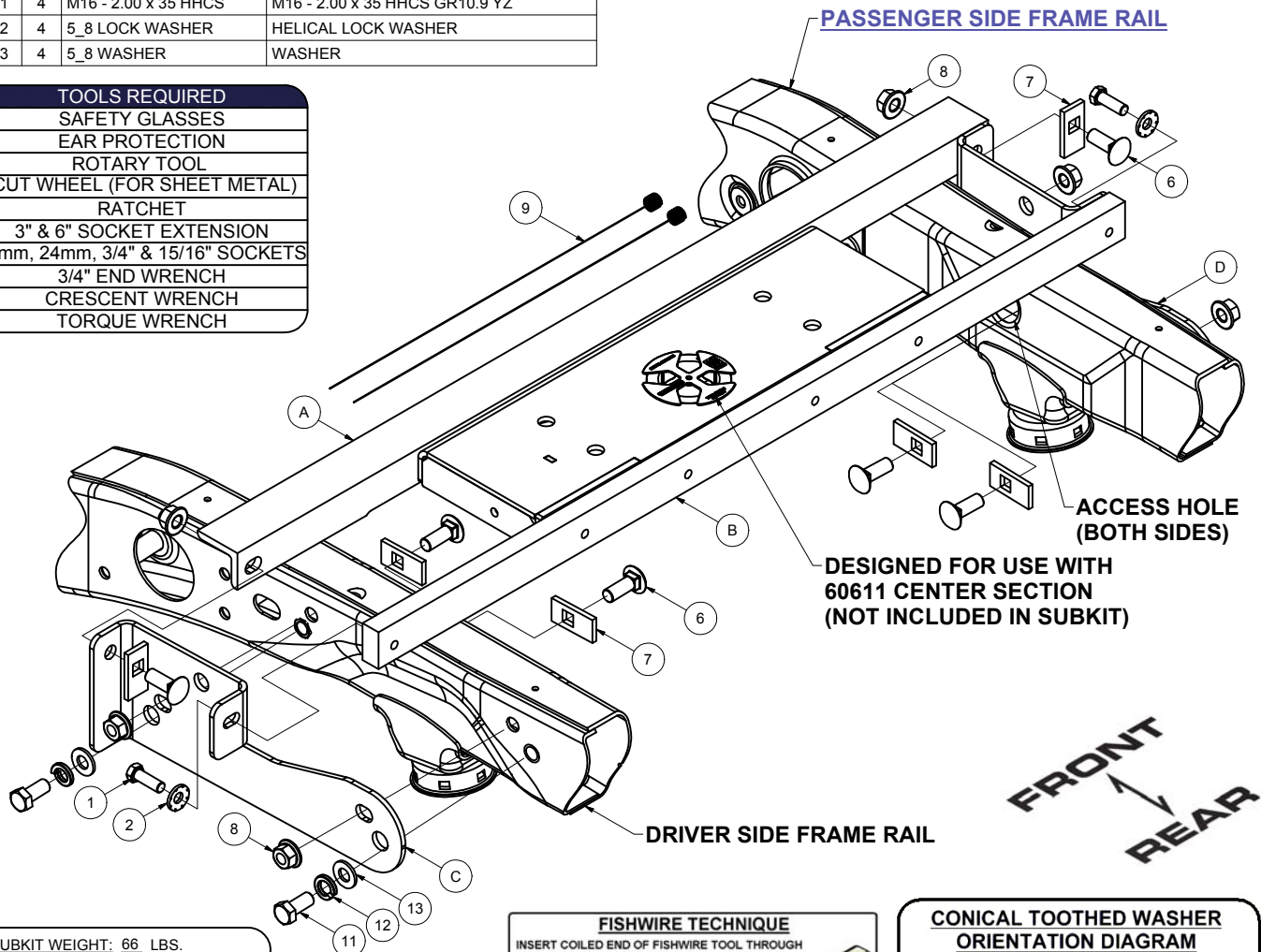


Hardware			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	6	1_2 - 13 x 1 1/2 HEX, GR8	HEX BOLT
2	6	1/2	CONICAL TOOTHED WASHER
3	4	1/2-13 x 1 1/2, GR8	CARRIAGE BOLT
4	1	CM-SP12	.250 x 1.00 x 2.00" SQUARE HOLE SPACER
5	4	HFN 1213, GR8	HEX FLANGE NUT
6	6	5/8-11 x 1 3/4, GR8	CARRIAGE BOLT
7	6	CM-SP9	.250 x 1.25 x 2.50" SQUARE HOLE SPACER
8	6	5/8-11, GR8	HEX FLANGE NUT
9	4	5_8 FISHWIRE	5/8" FISHWIRE
10	2	1/2 PNBR	1/2" PUSHNUT BOLT RETAINER
11	4	M16 - 2.00 x 35 HHCS	M16 - 2.00 x 35 HHCS GR10.9 YZ
12	4	5_8 LOCK WASHER	HELICAL LOCK WASHER
13	4	5_8 WASHER	WASHER

Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
A	1	60624-FCA	FRONT CROSS ARM
B	1	60624-RCA	REAR CROSS ARM
C	1	60624-DS	DRIVER SIDE PLATE
D	1	60624-PS	PASSENGER SIDE PLATE



TOOLS REQUIRED
SAFETY GLASSES
EAR PROTECTION
ROTARY TOOL
CUT WHEEL (FOR SHEET METAL)
RATCHET
3" & 6" SOCKET EXTENSION
13mm, 24mm, 3/4" & 15/16" SOCKETS
3/4" END WRENCH
CRESCENT WRENCH
TORQUE WRENCH



PASSENGER SIDE FRAME RAIL

ACCESS HOLE (BOTH SIDES)

DESIGNED FOR USE WITH 60611 CENTER SECTION (NOT INCLUDED IN SUBKIT)

DRIVER SIDE FRAME RAIL

FRONT
↑
REAR

SUBKIT WEIGHT: 66 LBS.
INSTALL TIME
 PROFESSIONAL: 45 MINUTES
 NOVICE (DIY): 90 MINUTES
INSTALL NOTES:
 - LOWER SPARE TIRE
 - TRIM HEAT SHIELD
 - NO MEASURING DRILL LOCATIONS
 - NO DRILLING INTO FRAME
 - NO LOWERING EXHAUST

FISHWIRE TECHNIQUE
 INSERT COILED END OF FISHWIRE TOOL THROUGH HITCH MOUNTING HOLE IN VEHICLE FRAME RAIL AND OUT THE ACCESS HOLE. PASS COILED END OF FISHWIRE THROUGH SPACER AND THREAD BOLT INTO COIL. KINK WIRE TO KEEP SPACER SEPARATE FROM BOLT AS SHOWN. PULL FISHWIRE, SPACER, AND BOLT THROUGH FRAME AND OUT MOUNTING HOLE. USE FISHWIRE TO GUIDE HITCH DURING MOUNTING AND PREVENT LOSS OF BOLT / SPACER INSIDE FRAME RAIL.
NOTE: SOME VEHICLES MAY FISHWIRE THROUGH END OF FRAME**

CONICAL TOOTHED WASHER ORIENTATION DIAGRAM

VEHICLE FRAME
 CONICAL TOOTHED WASHER
 HITCH SIDE PLATE
 HEX BOLT

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

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INSTALLATION STEPS:

1. Temporarily remove spare tire. The exhaust heat shield will need the width trimmed from it between the bed supports. Hold the gooseneck side plate (C) or (D) against the mounting location on the frame to verify the correct portion to remove, see **FIGURE A**. Use of a rotary cutting tool is recommended for heat shield trimming. On 2016 and newer models, remove the (4) bolts holding the rear heat shield with a 13mm socket and return to owner.

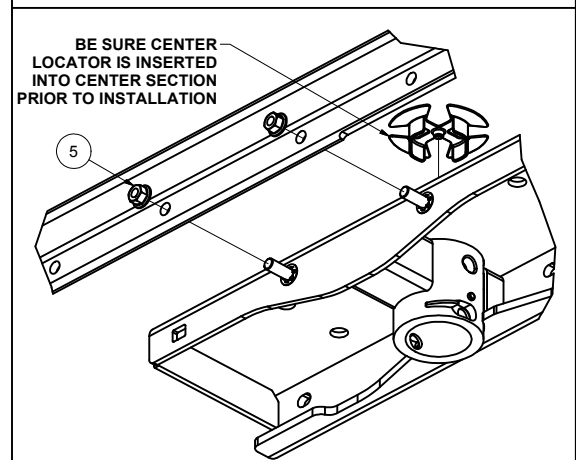
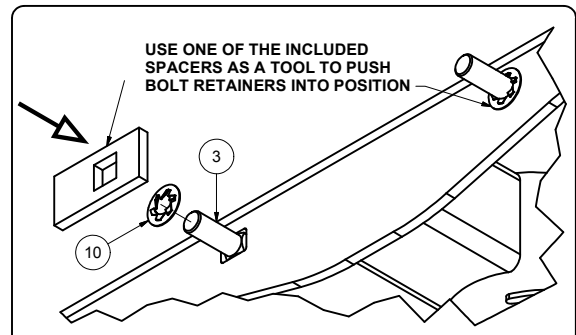
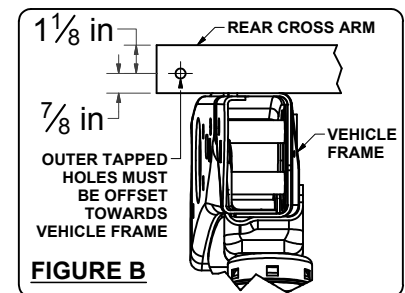
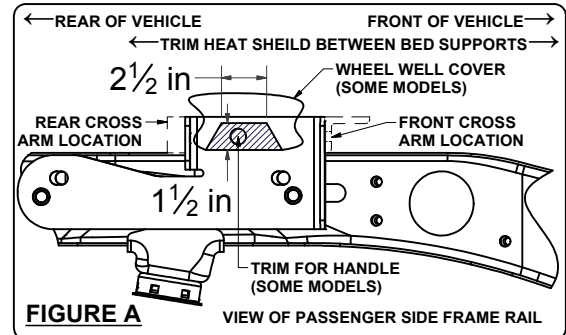
2. Run a 1/2"-13 bolt or 1/2"-13 tap through the rear cross arm's (B) threads to remove powder coating or debris. If present, trim plastic wheel well cover on the driver side (to install cross arms and for the gooseneck handle), see **FIGURE A**. Install rear cross arm by sliding it between the frame and the bottom of the truck bed approximately above the rear tire. Once the rear cross arm spans the frame rails and in the correct location, see **FIGURE A**, rotate the cross arm vertically. **NOTE:** The outside tapped holes in the rear cross arm are offset 1/8" and the cross arm needs to be rotated so the holes are offset towards the frame, see **FIGURE B**. A crescent wrench can be used as a lever on the cross arm to ease rotating process.

3. Install the front cross arm (A) by sliding it between the truck frame and the floor of the truck bed in front of the rear cross arm. **NOTE:** Use a crescent wrench to bend the metal flange below the bed outward to allow the front cross arm to be slid into position. The front cross arm will need to be inserted so the leg without the holes is against the bottom of the bed. The leg with the holes should face the rear of the vehicle, see **FIGURE A**.

4. Loosely attach the center section to the cross arms. **NOTE:** The cylinder in the center section should offset towards the rear of the vehicle. Be sure center locator is inserted into the center section cylinder prior to installing. **OPTIONAL:** Two pushnut bolt retainers (10) are included to give a "helping hand" to the installation process. If desired, put one 1/2" x 1 1/2" carriage bolt (3) through each of centermost slots in the center section on the side that fastens to the front cross arm. Be sure the serrations in the bolt retainer 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 C**. Loosely attach the front cross arm to the center section by using four 1/2" x 1 1/2" carriage bolts (3) and four 1/2" hex flange nuts (5), see **FIGURE D**. **NOTE:** The carriage bolt over the fuel tank should be inserted through the front cross arm with a CM-SP12 spacer (4). Attach the center to the rear cross arm using the four 1/2" x 1 1/2" hex bolts (1) with four 1/2" conical toothed washers (2), see **FIGURE D**.

5. Place the side plates at the mounting locations and adjust the placement of the cross arms as needed.

5a. **On 2015 and older models:** Fishwire two 5/8" x 2" carriage bolts (6) with CM-SP9 spacers (7) in position through access hole. Leave fishwires (9) attached to hardware to prevent loss of hardware inside frame, see fishwire technique on **PAGE 1**. Carefully remove fishwires and attach side plate to frame with 5/8" flange nuts (8).



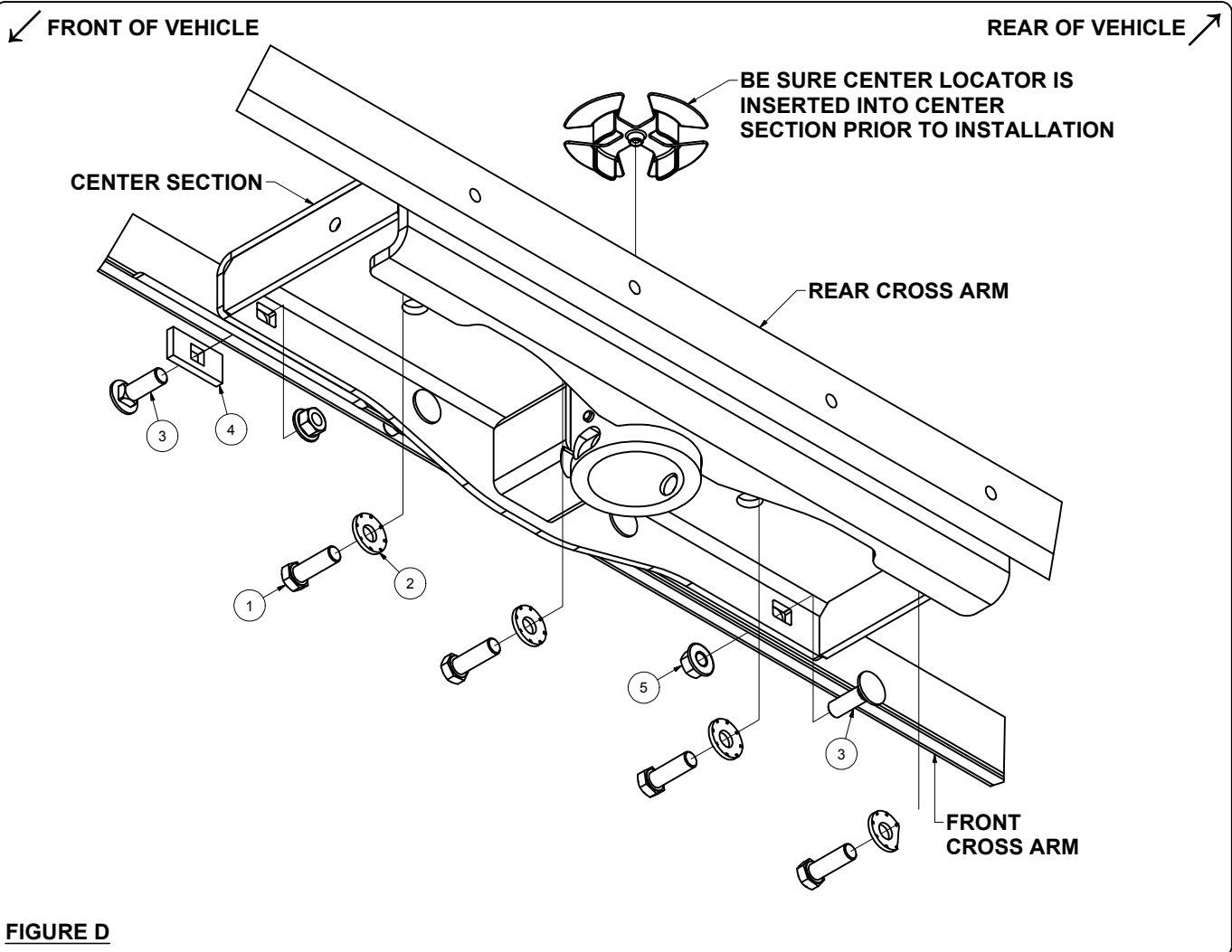
PERIODICALLY CHECK THIS GOOSENECK HITCH TO ENSURE THAT ALL FASTENERS ARE TIGHT AND THAT ALL STRUCTURAL COMPONENTS ARE SOUND.

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5b. **On 2016 and newer models:** loosely install the side plate (C) and (D) with the supplied 16mm bolts (11), 5/8" lock washers (12) and 5/8" washers (13) into the existing weldnuts in the frame of the vehicle.

NOTE: Slide plate rearward as far as possible (to ensure hitch is square on vehicle). Repeat on other side.

6. Attach side plates to the cross arms. Place 5/8" x 1 3/4" carriage bolt (6) with CM-SP9 spacer (7) through the front flange in the side plate and front cross arm and attach with 5/8" hex flange nut (8). Attach the rear flange on the side plate to the rear cross arm using a 1/2" x 1 1/2" hex bolt (1) with 1/2" conical toothed washer (2), see **PAGE 1**. Repeat on other side.

7. **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 side plates to the truck frame on both sides. **Second:** Torque the center section to the front and rear cross arms. **Third:** Torque the side plates to the front and rear cross arms. Torque all 5/8" fasteners to 210 ft-lbs, 1/2" fasteners to 110 ft-lbs and 16mm fasteners to 196 lb-ft.

(REFER TO 60611 GOOSENECK HITCH INSTRUCTIONS FOR INSTALLATION COMPLETION AND OPERATING PROCEDURES)

***** DO NOT DRILL DIMPLES IN TRUCK BED FOR THE GOOSENECK BALL *****

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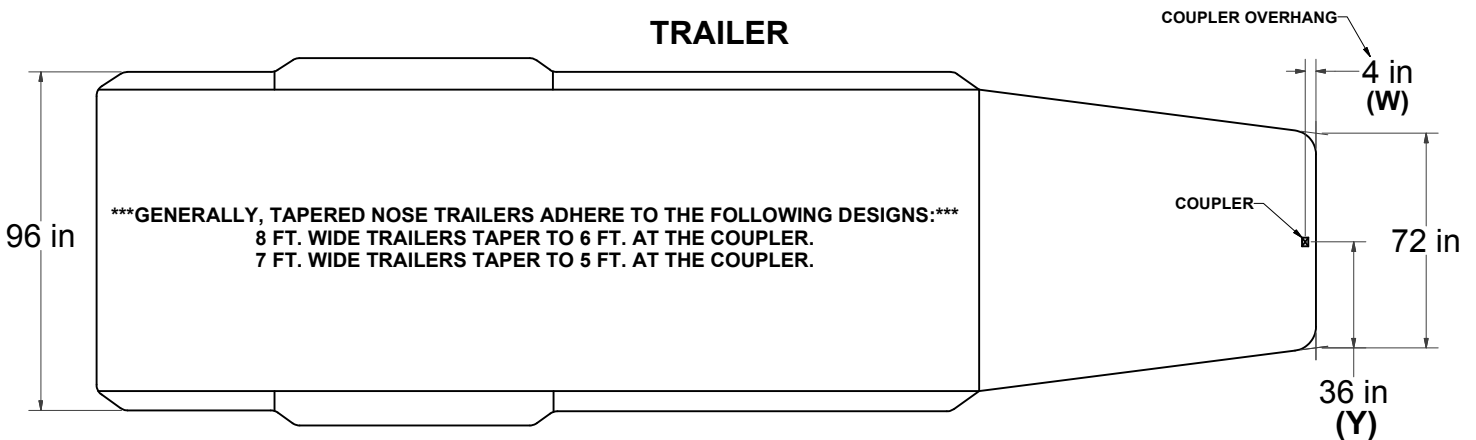
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CAB TO TRAILER CLEARANCE

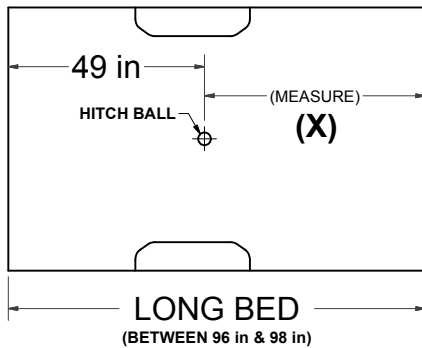
****REMOVAL OF REAR WINDOW ACCESSORIES MAY BE REQUIRED.****

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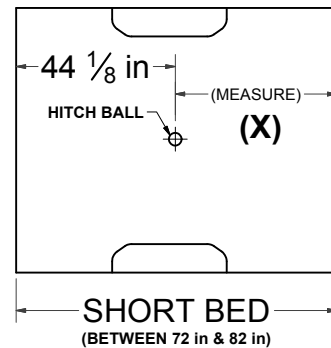
TRAILER



LONG & SHORT TRUCK BEDS



CAB OF TRUCK



CAB OF TRUCK

CLEARANCE CALCULATION

$$\text{(CAB TO BALL CENTER)} - \frac{1}{2} \text{(TRAILER WIDTH)} = \text{(MINIMUM CLEARANCE)}$$

$$(X) - (Y) = (Z)$$

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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