



## 3300 SuperGlide SuperRail Installation Instructions

### Specifications:

Gross Trailer Weight (Maximum).....	16,000 lbs.
Vertical Load Weight (Max. Pin Weight).....	4,000 lbs.

### Important Notes:

- 1). **It is imperative that the way tubes be lubricated before the hitch is used.** Consult the maintenance section of the "Owners / Operators Instructions for complete Instructions. Failure to lubricate the Way Tubes will cause galling between the Way Tubes and the Cam Arm assembly and will result in the failure of the hitch to work properly. Destruction of some of the various hitch parts is also likely and will not be covered under the manufactures warranty.
- 2). **The trailer king-pin must be kept even with /or forward of the foremost point of the trailer. See "Caution" and "figure 1" on pg. 2 of the "Owner / Operator Instructions" manual.**
- 3). **Trucks with bed liners may need a tall Mounting Post. See "NOTE" under item 4 of "Drilling the Bed" on pg. 3 for details.**
- 4). **See the 'Table of Contents' for page locations for information herein referred to as for 'truck SPECIFIC LISTINGS'. (i.e. For the Super Duty Ford, information for the 'truck SPECIFIC LISTING page 1' would be found on page 'Ford SD-1').**

### Introduction

1. This guide provides several pages of instructions for the installation of the SuperGlide towing system (part number 3300). Read these instructions completely and follow them accurately. Should you have any questions, please call the factory at (800) 443-2307 for installation assistance.

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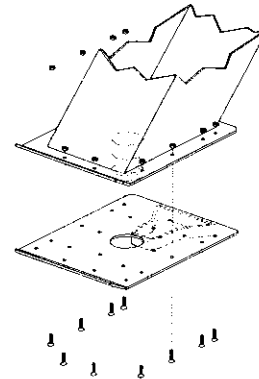
## KING PIN TRAILER PLATE INSTALLATION

The following instructions should be followed to install the king pin Trailer Plate. Note: If more information is needed, Please call Pull-Rite at 1-800-443-2307

### FOR KING PIN BOXES WITH A FLANGE: Figure 3.

1. Place the Trailer Plate {J2} over the King Pin, with the guide wedge towards the rear of the trailer (wedge facing down). Align the Trailer Plate {J2} square with the king pin box and clamp in place to prevent movement.
2. Mark the holes for drilling through the Trailer Plate {J2} onto the King Pin Box flange.
3. Remove the Trailer Plate {J2} or use it as a guide and drill  $\frac{1}{4}$ " holes through the flange.
4. Re-install the Adapter Plate (as in step 1).
5. Use the  $\frac{1}{4}$ " bolts provided, to secure the Trailer Plate {J2} onto the king pin box flange. A **minimum of 10 bolts** must be used to fasten the plate on. For use with heavy trailers, more bolts will be needed to secure this plate.
6. If the Trailer Plate {J2} extends beyond the King Pin Box, then install the braces {K2-K4} as shown in Figure 4

Figure 3



### FOR KING PIN BOXES WITHOUT FLANGES: (Figure 4)

1. Place the Trailer Plate {J2} over the King Pin, with the guide wedge towards the rear of the trailer (wedge facing down), and hold in place to prevent movement.
2. The Trailer Plate {J2} can be secured to the King Pin Box sides by welding angle iron supports to the King Pin Box, or use the procedure in step 3. (Angle iron is not provided).
3. For the holes where you cannot reach the backside, drill holes with a #8 drill and tap with a  $\frac{1}{4}$ "-20 tap.
4. If the Trailer Plate {J2} extends beyond the King Pin Box, then install the Knee Braces as shown in Figure 4.
5. Install the Trailer Plate {J2}, using the  $\frac{1}{4}$ " bolts provided, to secure the Trailer Plate {J2} onto the King Pin Box. A **minimum of 10 bolts** must be used to fasten the plate on. For use with heavy trailers, more bolts will be needed to secure this plate. The fasteners used in step 4 **do not** count as part of the minimum number of bolts required.

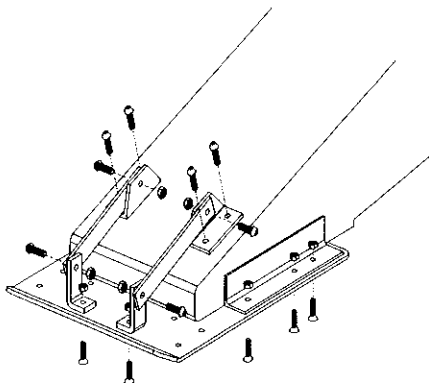


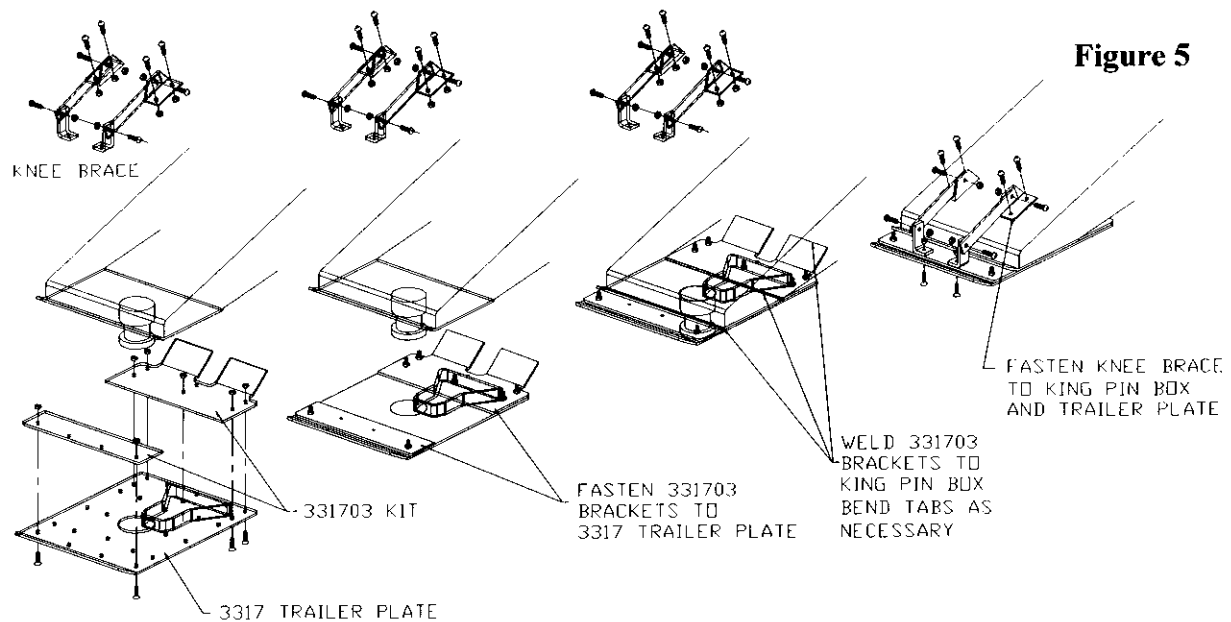
Figure 4

**FOR KING PIN BOXES THAT ARE SHORTER FRONT TO BACK:** (Figure 5 )

1. Place the Trailer Plate {J2} over the king pin, with the guide wedge towards the rear of the trailer (wedge facing down), and measure the distance from the front and rear of the king pin box to the respective edges of the Trailer Plate {J2} (to the bend of the Trailer Plate {J2} in the front). Referring to Figure 5, fashion two plates, 3/16" to 1/4" thick, that will cover the holes of the Trailer Plate {J2} showing in front and rear of the king pin box.
2. While the trailer plate is in position under the king pin box, clamp these plates to both the front and rear of the Trailer Plate {J2}. Remove the Trailer Plate {J2} and drill matching holes in the two support plates with a 1/4" bit using the Trailer Plate {J2} as a guide.
3. Fasten the two support plates to the Trailer Plate {J2} with the 1/4" Bolts {K7} and Lock Nuts {K8} provided.
4. Replace the Trailer Plate {J2} on the king pin box, check for square alignment and **weld** the support plates to the king pin box.
5. Attach the Knee Braces {K2,3 & 4} to the king pin box and the Trailer Plate {J2}. Braces {k2} may have to be welded on if the interior of the king pin box is not accessible.

Note: Kit # 331703 consisting of pre drilled support plates are available from PullRite but are not part of the stock Trailer Plate Kit. Kit # 331703 was designed to fit the 8"x12" Lippert pin box. This method of attaching the Trailer Plate {J2} should allow **10 bolts** to be used. Bolts used in step 5 **do not** count as part of the minimum **10** required.

**CAUTION:** When using kit #331703 on slightly larger pin boxes, it may be necessary to trim the plates for proper fit—when installed, the provided trailer plate adapter (3317) should be flush against the bottom of the trailer's king pin plate.



## **CAUTION**

1. As a general rule, for the SuperGlide hitch to maintain proper clearance to the truck, the leading edge of the trailer (measured at the corner) should be even with the center of the king pin. Most truck trailer combinations will allow 102" wide trailers if the king pin is located as described. Narrower trailers will allow the king pin to be "tucked" under the trailer over hang to some extent (Figure 1). Call PullRite technical support with trailer width, make and year of truck and distance the king pin is from leading edge of the trailer (Dimension "A"). 1-800-443-2307
2. Using a trailer that has a long rear slope to the King Pin Box Hanger, "B" in (Figure 1), may cause damage to the trailer or truck bed during turns. Dimension "B" must be less than one half the width of the inside top edges of the bed. Please call PullRite technical support, 1-800-443-2307, if more information concerning this problem is needed.
3. The SuperGlide hitch is equipped with a side to side pivot feature. There should be a minimum of 6" between the truck bed rails and the under side of the trailer for side tilt clearance. It is the customers responsibility to adjust the trailer king pin box for the appropriate amount of clearance depending on the terrain being traveled (example: some State Parks are sloped and unpaved; some driveways are steeply angled). If bed covers are added, care must be taken to allow for additional clearance.

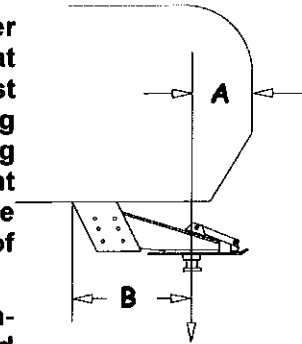


Figure 1

## **General Installation Instructions**

1. NOTE: Refer to the Specific Vehicle's Figures and Reference information for all references made herein. The location of the Specific Vehicle can be found by referring to the Table of Contents.
2. See Truck Bed Layout Dimensions table pg. 5 for the dimension values for items A-D located in the 'LAYOUT METHOD' illustration. Measure and mark from the back of the bed forward the values for A and B. Do this at any point on both sides of the bed.
3. Draw a line across the bed from mark to mark.
4. Find the centerline of the bed. Draw a line down the middle of the bed from front to rear. See Figure 3 on pg. 5. Center the measurement of C across the centerline at the front most line you made in step 2, and mark the measurement on each side (parallel to the centerline). Center the measurement of D for the rear most line made in step 2, and again mark the measurement on each side (parallel to the centerline). This will locate the 4 drill holes.
5. Go to the Index and look for your truck SPECIFIC LISTING and do the steps listed in PART I. The truck Specific Listings begin after page 5 of these instructions. (See the Table of Content for your specific application).

### **Truck Preparation**

1. Check part quantities using the Parts List for the specific vehicle type.
2. Block vehicle wheels. Some vehicles may require you to raise the rear of the truck in order to make it easier to drill for installing the Mounting Brackets on the truck frame.
3. You may wish to remove the wheels, to give yourself greater working room.
4. At this point, the bed should be laid out and marked for drilling using either the LAYOUT METHOD or the TEMPLATE METHOD.

### **Marking Bed for Drilling (layout method)**

1. For layout using the Template method, see Layout (Template Method) on next page.

## **Drilling the Bed**

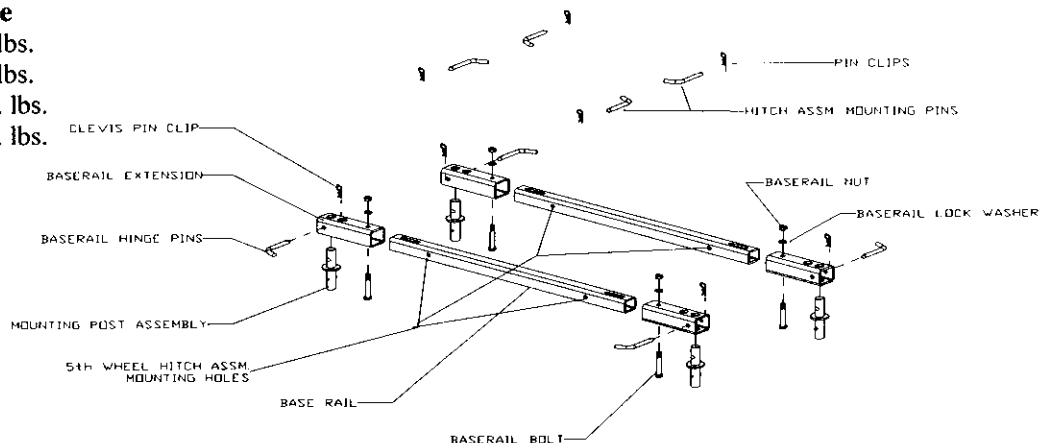
1. After you have removed the Mounting Brackets, use a **1 3/4"** hole saw, centered over the **1/16"** pilot hole, cut the bed for the mounting posts.
2. De-bur inside the holes, then use a paint stick to touch up the edges.
3. Re-install the Mounting Brackets and secure those that have no existing mounting holes in a temporary fashion, using 'C' clamps. Those that have holes, secure by lightly attaching with bolts (tighten sufficiently to where the Mounting Brackets lay flat against the truck frame).
4. Install the Mounting Posts through the bed into the Mounting Bracket Post Holders. Rotate the Posts a quarter turn. (See the illustrations in the truck specific listings)

**NOTE:** *The Mounting Post should be tall enough to clear most bed mats. Vehicles using bed liners may require taller Mounting Posts to seat into the Post Holders properly. A Tall Mounting Post is available under part # 330705. Four posts are required for installation.*

5. Remove the SuperGlide hitch from the shipping carton. Remove the Base Rail assembly from the base, leaving the Base Rail Extensions loose to allow lateral movement as you place the Rail assembly over the Mounting Posts. See drawing on next page.
6. Install the Base Rails in the bed of the truck, and center the Base Rails between the Base Rail Mounting Posts. Finger tighten the Base Rail mounting Bolts.

### **Torque Table**

- 3/8" Bolt — 31 ft. lbs.  
 1/2" Bolt — 75 ft. lbs.  
 5/8" Bolt — 151 ft. lbs.  
 3/4" Bolt — 266 ft. lbs.



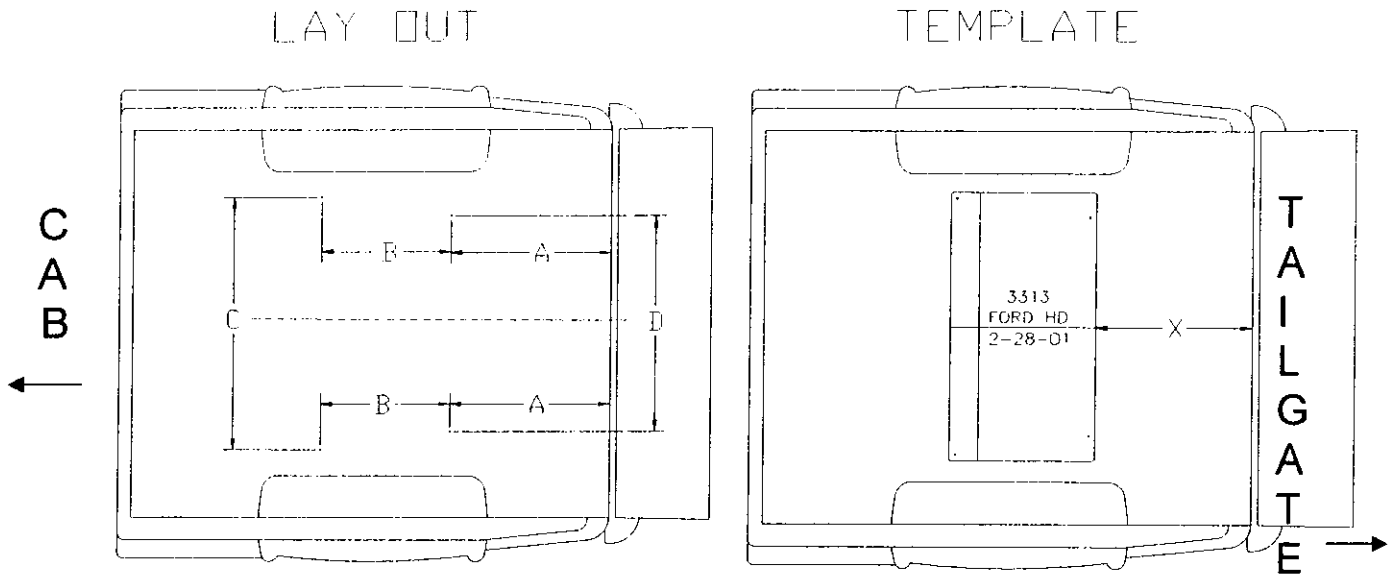
**Base Rail parts identification**

7. Set the SuperGlide Hitch on the Base Rails, and align the Hitch Assembly with the Base Rail mounting holes, using a drift pin punch to aid your alignment. Install the Mounting Pins from the inside. Then install the Pin Clips, to secure the Hitch assembly to the Base Rails. See drawing on next page.
8. Center the Hitch assembly within the truck bed, from side to side. You might need to use a rubber mallet to get the unit to move while centering. Once the unit is centered, tighten the Base Rail Extension Bolts to 85 ft. lbs.
9. The SuperGlide Hitch, and the Base Rails, must be removed to verify that the Mounting Post can be inserted and removed freely, without binding. A slight adjustment might be required to obtain unrestricted access.
10. Reinstall the Mounting Posts, the Base Rails, and the SuperGlide Hitch assembly.
11. Complete the final steps needed to install the Mounting Brackets to the truck frame. Go to the truck **Specific Listings, Part II** at this time .

## **Layout (Template Method)**

1. Lay the Template in the truck bed, centering it from side to side, and parallel to the end of the truck bed, using the dimension X listed in **Truck bed layout dimension** table on pg. 5
2. Mark the 4 holes, while making sure the template does not move.
3. Go to the truck **SPECIFIC LISTING** page 1, and begin with the steps listed in **PART I**.

Figure 3

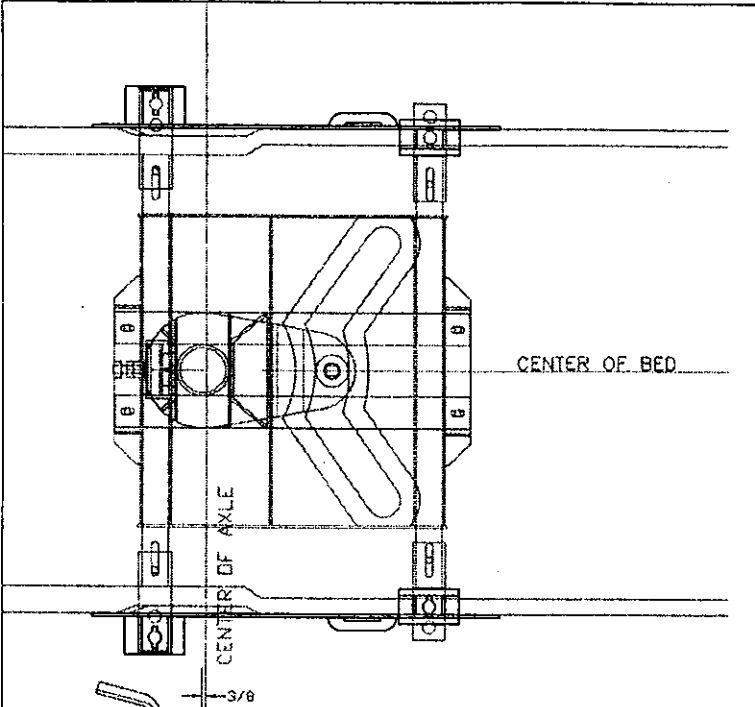


**NOTES:** The TEMPLATE should be orientated as shown in Figure 3 above. Notice that the spacing of the forward and rearward facing holes may be different, and can be used to determine the correct orientation of the template. Item "C" in the table below shows the forward facing dimension, and Item "D", the rearward facing dimension.

**INSTALLATION TIP:** The template has a tendency to move when placed on the slick paint of new truck beds, and it may be helpful to place a small piece of NON-SKID matting, such as "SCOOT-GARD"™, to help keep the template from moving. Also, cover the top Mounting Post hole of each bracket with masking tape then when the small pilot holes are drilled in the bed the bit will also pierce the tape allowing you to accurately see the relative location of the bed hole to the Mounting post hole.

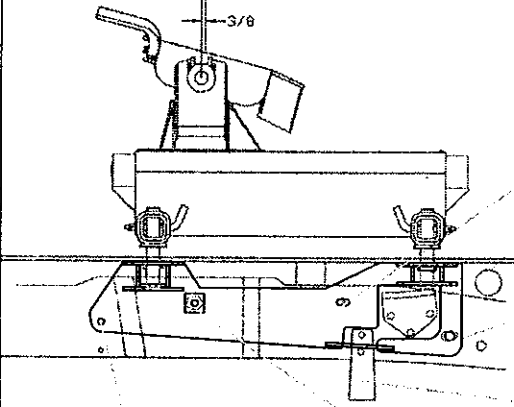
**Truck bed layout dimensions—For 6' bed (short bed) trucks only**

	FIT YEARS	"A"	"B"	"C"	"D"	Template Mode "X"	Template Part #	FRAME HOLES
Chevy HD & LD, 3315 & 3345	98-05, 1500 2000-06, 2500-3500	21 1/8"	21 3/16"	41 5/8"	40"	20 1/8"	33150000	HD – Drill 7, Ream 1 LD – Drill 5, Ream 1
Dodge 3316 & 3346	95-01 All 2002 – 2500- 3500	22 3/4"	21 3/16"	35 5/16"	36 3/8"	21 3/4"	33160000	Existing 6, Ream 4
Ford SD 3313 & 3343	1999-2006 F250 – F350	26 3/32"	21 3/16"	41"	35"	25 3/32"	33130000	Existing 10, Drill 2
Ford-LD 3312 & 3342	1997-2003 F150 (not Super Crew)	24"	21 3/16"	37 13/16"	37 1/4"	22 15/16"	33120000	Existing 4, Drill 4
Dodge 3319 & 3349	02-05 1500 03-06 2500- 3500	22"	21 3/16"	39 1/8"	41 1/2"	21"	33180000	NO DRILL
Ford SD 3311 & 3341	1990-1998 F-150-F250	25 7/8"	21 3/16"	41 9/16"	36 9/16"	24 7/8"	33110000	Drill 2, Ream 2, Existing 4
Ford F150 3321 & 3361	2004-2005 F150 6 1/2' BED	24 27/32"	21 3/16"	38 1/4"	38 1/4"	23 27/32"	33210000	NO DRILL



INSTALL THE BASERAILS, LEAVE THE BASERAIL BOLTS LOOSE.

INSTALL HITCH ON BASERAILS  
 CENTER HITCH SIDE TO SIDE IN THE BED  
 THEN TIGHTEN THE BASERAIL BOLTS  
 TIGHT ENOUGH SO THAT THE EXTENSIONS  
 WILL NOT SLIDE ON THE BASERAILS.



REAM EXISTING HOLE WITH 1/2" BIT  
 FASTEN WITH 1/2"-13x 1 1/2" BOLT

GAS FILL

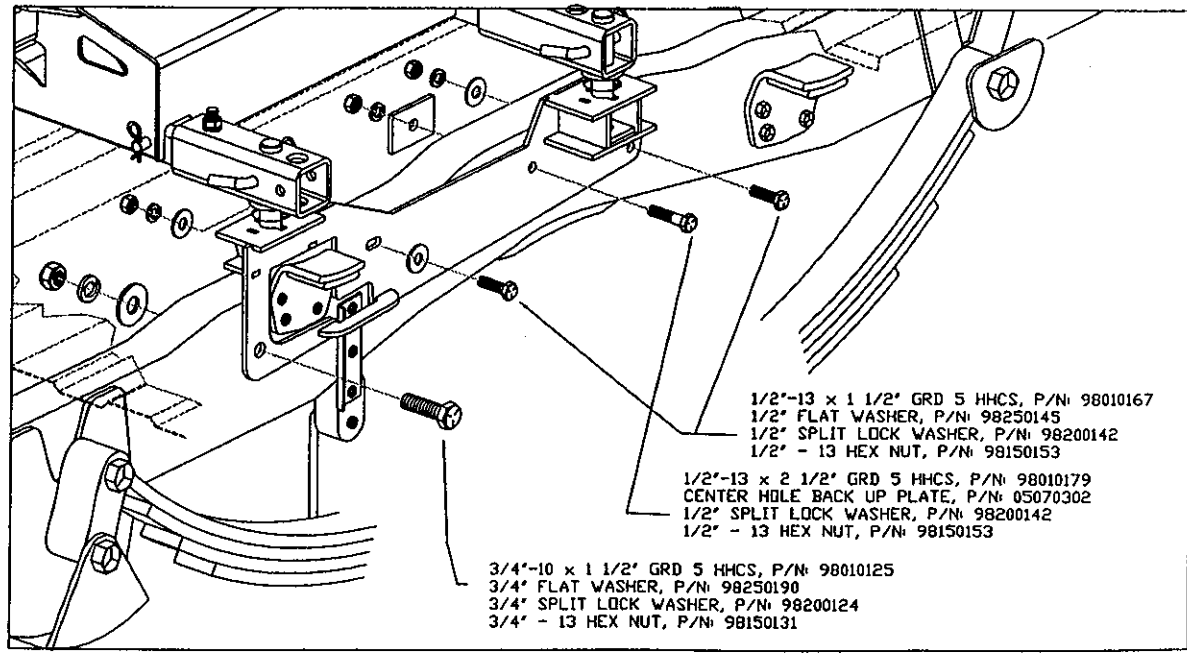
FASTEN WITH 3/4"-10 x 1 1/2" BOLT,  
 FLT WASHER, L/W & NUT

SPARE TIRE CARRIER BRACKET D.S.  
 EXHAUST BRACKET P.S.

FASTEN WITH 1/2"-13x 2 1/2" BOLT  
 USE CENTER HOLE BACK-UP PLATE AS WASHER  
 FUEL LINES ON DRIVERS SIDE MUST  
 MOVED AWAY FROM FRAME TO  
 INSTALL BACK UP PLATE AND FASTENERS.

DRILL HOLES IN THE FRAME  
 FASTEN BRACKET TO FRAME

DRILL WITH 1/2" BIT  
 FASTEN WITH 1/2"-13x 1 1/2" BOLT



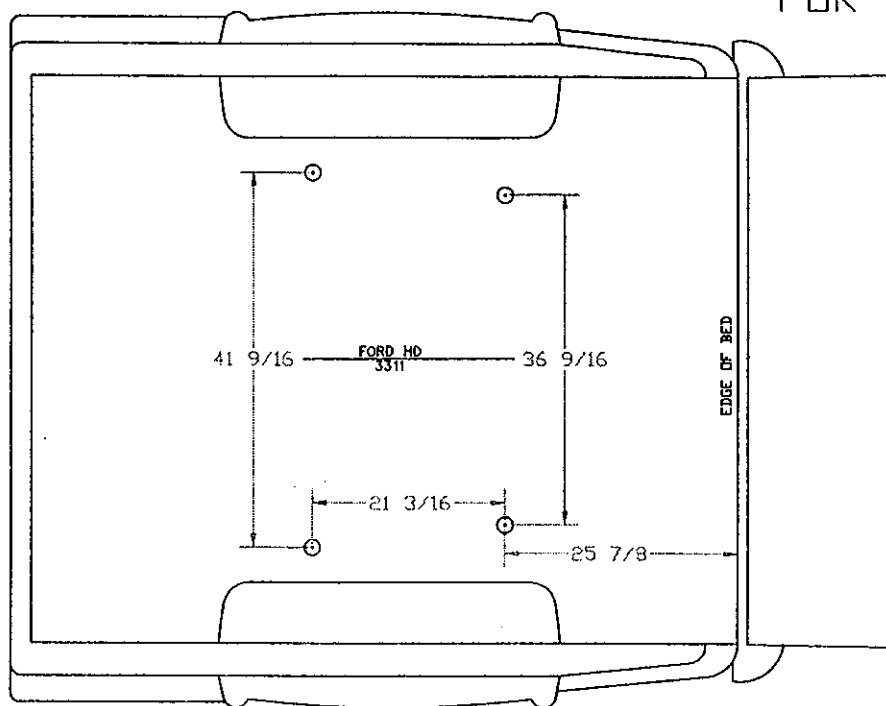
1/2"-13 x 1 1/2" GRD 5 HHCS, P/N: 98010167  
 1/2" FLAT WASHER, P/N: 98250145  
 1/2" SPLIT LOCK WASHER, P/N: 98200142  
 1/2" - 13 HEX NUT, P/N: 98150153

1/2"-13 x 2 1/2" GRD 5 HHCS, P/N: 98010179  
 CENTER HOLE BACK UP PLATE, P/N: 05070302  
 1/2" SPLIT LOCK WASHER, P/N: 98200142  
 1/2" - 13 HEX NUT, P/N: 98150153

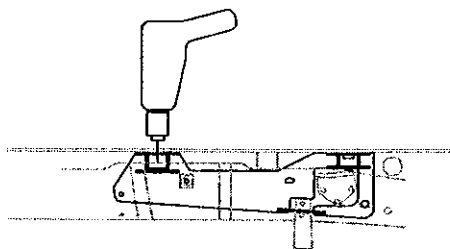
3/4"-10 x 1 1/2" GRD 5 HHCS, P/N: 98010125  
 3/4" FLAT WASHER, P/N: 98250190  
 3/4" SPLIT LOCK WASHER, P/N: 98200124  
 3/4" - 13 HEX NUT, P/N: 98150131

# LAY OUT

# 3311 MOUNTING KIT FOR "85" TO "98" FORD HD

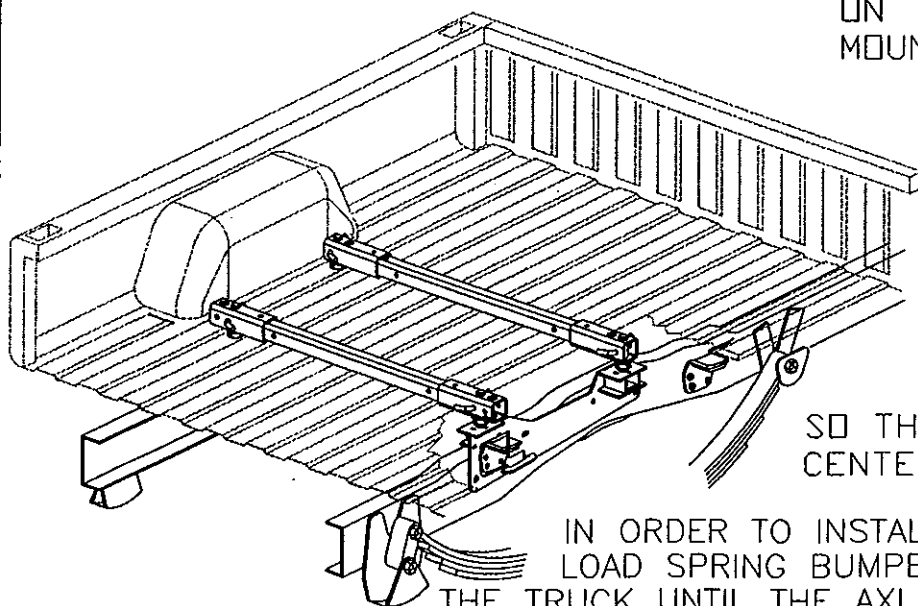


LAY OUT HOLE PATTERN



AFTER MARKING THE BED DRILL A 1/6" HOLE AT EACH MARK TO CHECK THE CENTERING OF THE HOLE RELATIVE TO THE BRACKET. RELOCATE HOLE LAY OUT AS NEEDED THEN DRILL BED WITH 1 3/4" HOLE SAW.

PLACE THE BRACKETS IN POSITION ON THE FRAME SO THAT THE MOUNTING POSTS CAN BE INSERTED THROUGH THE BED INTO THE BRACKET.



FASTEN THE BRACKET TO THE FRAME USING THE TWO EXISTING HOLES. LEAVE THESE BOLTS LOOSE ENOUGH TO ALLOW THE BRACKET TO BE TAPPED EITHER WAY ON FRAME SO THAT THE MOUNTING POSTS MAY BE CENTERED IN THE 1 3/4" BED HOLE.

IN ORDER TO INSTALL THE BRACKET OVER THE OVERLOAD SPRING BUMPER BRACKET, RAISE THE REAR OF THE TRUCK UNTIL THE AXLE DROPS ALL THE WAY THEN BEND THE WHEEL WELL-FLANGE ABOVE THE OVERLOAD BRACKET OUTWARD ABOUT 20 DEG.