



# NISSAN

## SuperRail Mounting Kit

### #3115



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# Installation Instructions

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## SPECIFICATIONS

- Fits 2004-2013 Crew and King Cab
- Crew Cab limitations on trailers over 90" wide
- King Cab limitations on trailers up to 102" wide
  - Hitch located center of axle
  - No drill (frame) application

# IMPORTANT

## DO NOT OPERATE HITCH UNTIL YOU READ THIS SECTION!

1. The SuperGlide hitch was designed to allow the Turntable Cam Arm Assembly to “glide” along two metal tubes, called the Way Tubes. Since it's release in 1998, we have made several advancements in the design, strength, and durability of these components. The Lubrication section of your Owners Manual spans several product releases and design changes. It is *imperative* that you read each section and determine which SuperGlide hitch you purchased, and how to care for it. There have been three major lubrication changes to the SuperGlide hitch:

- Prior to April 2008, Way Tubes were assembled with either a conventional, quality grade grease or none at all
- In April 2008, we started coating the Way Tubes with a graphite-based spray lubricant called SlipPlate™
- November 2009 brings a new innovation from PullRite Towing Systems with the use of plastics. The Turntable Cam Arm Assembly is now equipped with Plastic Wear Plates; see Owners Manual for details (not available for #3600 models)

Depending on when your hitch was manufactured, the Way Tubes of your new SuperGlide hitch will meet one of the above criteria. Each application listed requires some level of maintenance, so it is important that you read the following instructions carefully for the correct lubrication instructions.

***Failure to properly lubricate the Way Tubes, as directed in this section, will eventually cause galling between the metals of the Way Tubes and Cam Arm Assembly, which will result in hitch failure. Destruction of various hitch parts is also likely, as well as truck and/or trailer damage, and will not be covered under the Manufacturer's Warranty.***

2. **THE TRAILER'S KING PIN BOX MUST BE EQUIPPED WITH A CAPTURE PLATE (UNIVERSAL OR QUICK CONNECT) TO ALLOW THE HITCH TO FUNCTION (MUST BE PURCHASED SEPARATELY). NOTE: IF YOU HAVE PURCHASED A QUICK CONNECT CAPTURE PLATE AND DID NOT RECEIVE INSTRUCTIONS, THEY ARE AVAILABLE ONLINE, OR YOU CAN CONTACT PULLRITE CUSTOMER SERVICE AT (800) 443-2307.**
3. Failure to modify the length of the brake away cable that activates the emergency braking of your trailer, may cause the cable to catch on protruding parts of the hitch. Resulting damage will not be covered by the manufacturers warranty.
4. 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.  
  
**NOTE:** Some truck models are being manufactured with higher bed sides, making it necessary to adjust the height of your trailer's king pin box. If you don't have enough height adjustment available, PullRite produces a 3” Lift Kit that attaches to the rails of your #3100 (ask for part #3108) or #4100, #3300 and #4400 (ask for part #4408) SuperGlide models.
5. Some truck beds have contoured bed sides, making the inside bed measurement narrower. Make certain the trailer's king pin box does not contact the inside edge of the bed.
6. Trucks with bed liners may need a tall Mounting Post. See “NOTE” under “Drilling the Bed” for further details.
7. It is the installers and customers responsibility to ensure there is proper clearance between the truck and trailer. There should be a minimum of 2” of clearance as the trailer passes the cab. Call PullRite technical support with trailer width, make and year of truck and distance the king pin is from leading edge of the trailer (See “Caution” section, in the SuperGlide Owners Manual, for measuring procedure) at (800) 443-2307.
8. Read these instructions completely and follow them accurately. Should you have any questions, please call Customer Service at (800) 443-2307 prior to installation for assistance. *If you did not receive your Owners Manual, visit us online at [www.pullrite.com](http://www.pullrite.com) or call the number above.*
9. The SuperGlide was designed for short bed pickup trucks. The hitch may function in a longer bed truck, but no mounting brackets exist to make the transfer. Some #4100 and #4400 mounting kits may transfer with modification.

### **#3100 SuperGlide Applications**

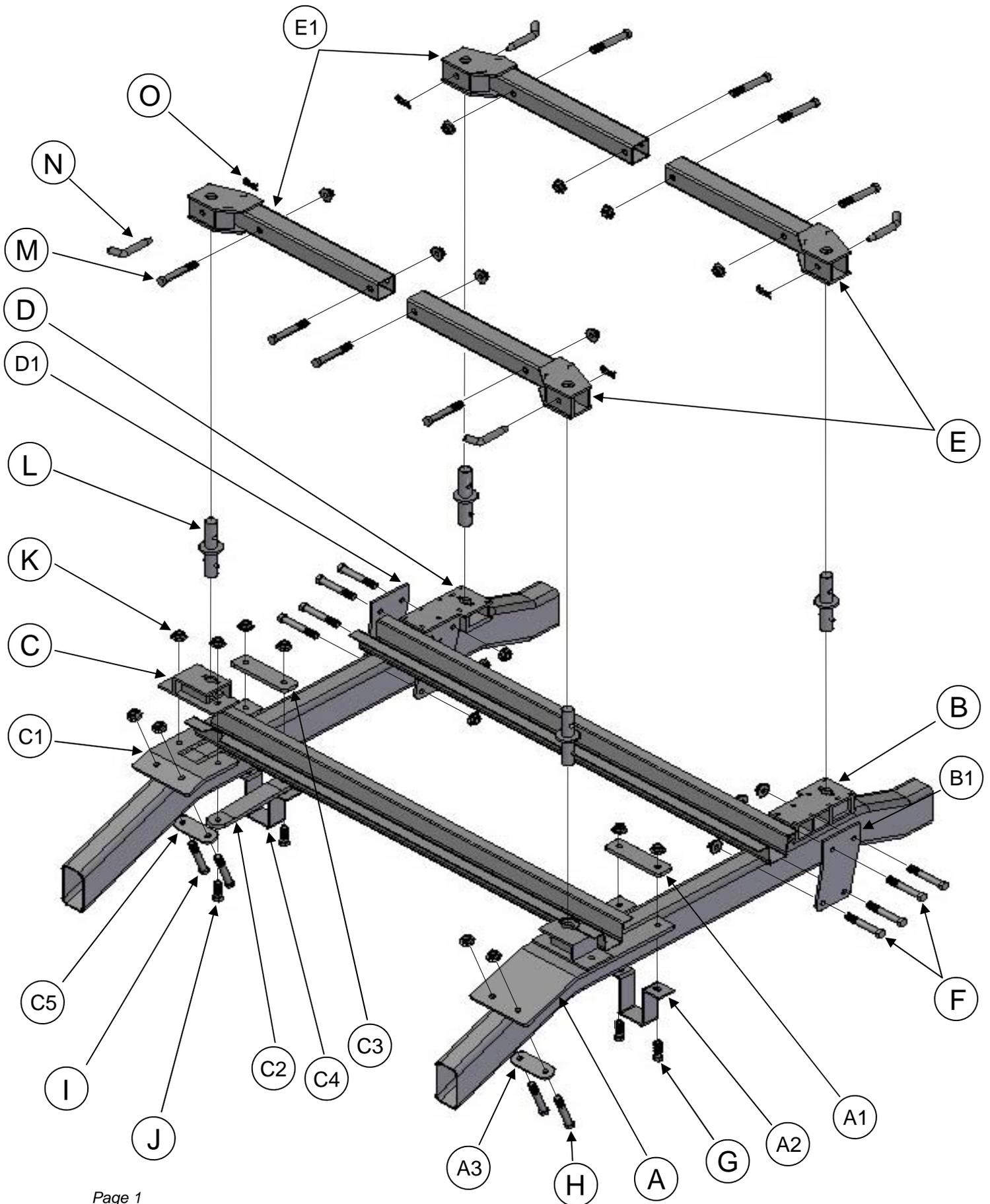
The #3100 SuperGlide was designed for specific short bed pickup trucks. The hitch may function in a longer bed truck, but no mounting brackets exist to easily make the transfer.

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# **MOUNTING HARDWARE PARTS IDENTIFICATION**



# **PARTS LIST**

## **NISSAN TITAN SUPER RAIL MOUNTING KIT**

### **#3115 — MOUNTING BRACKET KIT**

Item	Description	Part No.	Qty.	Material
A	FRONT DRIVER SIDE MOUNTING POST HOLDER ASSEMBLY	311501	1	
A1	FRONT D.S. TOP BACKER PLATE	31150201	1	6-1/4" long
A2	FRONT D.S. U-SHAPED CLAMP	31150202	1	
A3	FRONT D.S. BOTTOM BACKER PLATE	31150203	1	4-1/2" long
B	REAR DRIVER SIDE MOUNTING BRACKET	311505	1	
B1	REAR D.S. OUTSIDE BACKER PLATE	31150510	1	
C	FRONT PASSENGER SIDE MOUNTING POST HOLDER ASSEMBLY	311503	1	
C1	FRONT P.S. MOUNTING BRACKET	31150401	1	
C2	FRONT P.S. INSIDE OFFSET SUPPORT PLATE	31150402	1	
C3	FRONT P.S. TOP BACKER PLATE	31150201	1	6-1/4" long
C4	FRONT P.S. U-SHAPED CLAMP	31150202	1	
C5	FRONT P.S. BOTTOM BACKER PLATE	31150203	1	4-1/2" long
D	REAR PASSENGER SIDE MOUNTING BRACKET	311506	1	
D1	REAR P.S. OUTSIDE BACKER PLATE	31150510	1	
	MOUNTING BRACKET HARDWARE KIT	311511	1	(See kit contents listed below)
E	BASE RAILS—DRIVER SIDE	311509	2	20-7/8" LONG
E1	BASE RAILS—PASSENGER SIDE	311510	2	20-7/8" LONG

### **#311511 — MOUNTING BRACKET HARDWARE KIT**

Item	Description	Part No.	Qty.	Material
F	1/2" x 4" FRAME BOLT	98010191	8	1/2" - 13 x 4" GRD 5
G	1/2" x 1-1/2" FRAME BOLT	98010167	4	1/2" - 13 x 1-1/2" GRD 5
H	1/2" x 6-1/2" FRAME BOLT	98010211	2	1/2" - 13 x 6-1/2" GRD 5
I	1/2" x 7" FRAME BOLT	98010209	2	1/2"-13 X 7" GRD 5
J	1/2" x 2" FRAME BOLT	98010175	2	1/2" - 13 x 2" GRD 5
K	1/2" - 13 FRAME NUT	98150201	26	1/2"-13 FLANGE NUT
L	MOUNTING POST	311507	4	6" MOUNTING POST
M	1/2" BASE RAIL BOLT	98010187	8	1/2"-13 x 3-1/2" HHCS GRD 5
N	BASE RAIL PINS	08060001	4	1/2" ROUND
O	PIN CLIP	984010127	4	#3 PIN CLIP

### **LAYOUT TEMPLATE**

Description	Part No.	Qty. Used	Material
LAYOUT BED TEMPLATE	31150000	1	ITEM SOLD SEPARATELY

# **INSTALLATION**

## **Truck Preparation**

1. Check part quantities using the Parts List on Page 2.
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. If you have purchased a template, proceed to the “Template Method” below; otherwise, begin with the “Layout Method.”

## **Marking Bed for Drilling**

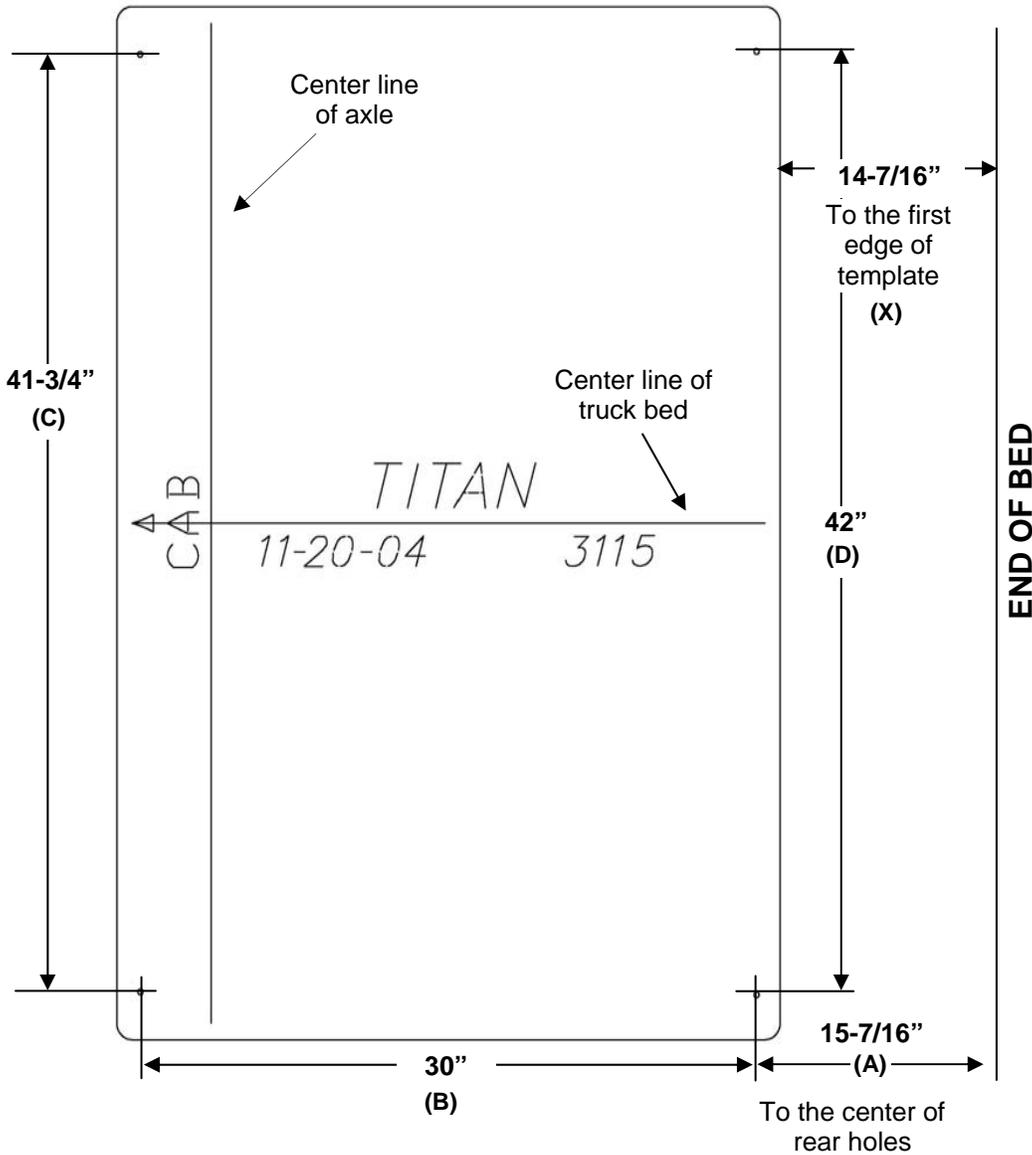
### **Layout Method**

1. See “Truck Bed Dimension Table” under “Layout Method” on Page 4 for the dimensions. 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.
2. Draw a line across the bed from mark to mark.
3. Find the centerline of the bed.
4. Draw a line down the middle of the bed from front-to-rear.
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).
6. 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.

### **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 Dimension Table” on Page 4.
2. Mark the 4 holes, while making sure the template does not move.

## TEMPLATE METHOD



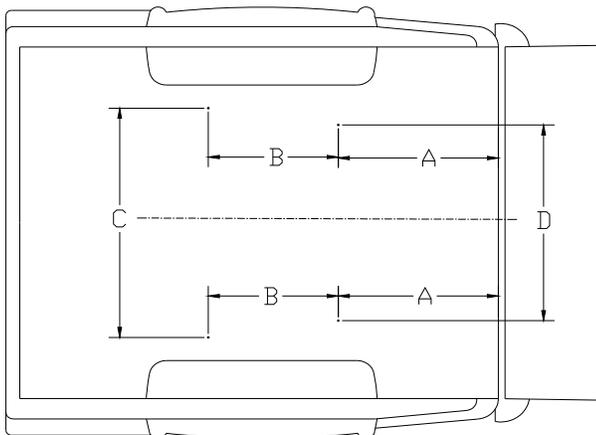
### NOTES:

The TEMPLATE should be orientated as shown in the drawing to the left. 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. Note also, the information etched into the template — the direction of the cab, the template number and the revision date.

### 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"™ or simply use duct tape on each corner to help keep the template from moving.

## LAYOUT METHOD



Truck Bed Dimension Table

Layout Method				Template Method	
"A"	"B"	"C"	"D"	"X"	Template Part #
15-7/16"	30"	41-3/4"	42"	14-7/16"	31150000

## **Mounting Bracket Installation**

### **Part 1: Bracket Placement & Bed Hole Locations**

Since most truck beds are not installed square to the frame or are the same distance from the back of the cab, the installer will need to make sure the bed holes line up properly with the center of each mounting post hole.

The basic steps in this section are as follows:

- Layout the bed holes
  - Drill the first pilot hole in the bed
  - Check centering using the tape method
  - Adjust the bed hole layout if necessary
  - Drill the second pilot hole and check centering to ensure bed hole locations are square to the frame; adjust as needed
  - Drill remaining pilot holes in the bed; check centering
  - Drill truck frame, if needed
- 

### **Truck Preparation**

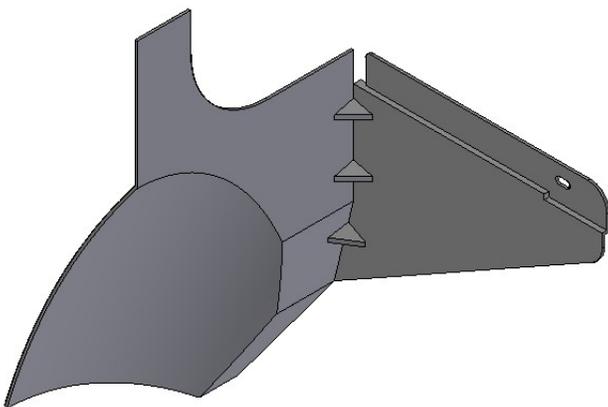
1. Remove the spare tire.
2. Remove the plastic, front portion of the inner wheel well splash guard on *both* rear wheels.

**NOTE:** The driver side wheel-well splash guard will need to be modified as the bracket will interfere after the hitch is installed. See illustration below.

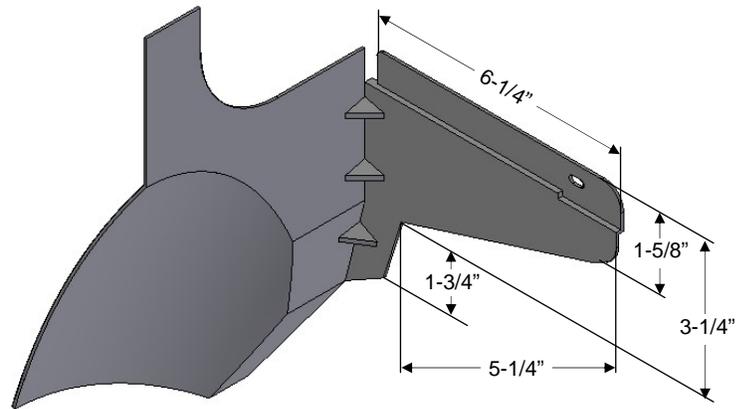
3. Remove the wire loom clips that are located near the rear axle to allow for easier installation.

### **Detailed Installation Instructions**

1. Use transparent tape to cover the mounting post hole on the top of each mounting bracket (when the pilot hole is drilled through the bed, the tape will be pierced by the small drill; it should be positioned in the center of the 1" mounting post hole).



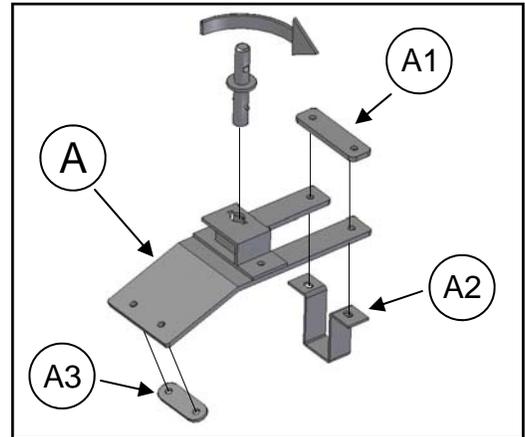
**BEFORE MODIFICATION**



**AFTER MODIFICATION**

## **Front Driver Side Mounting Bracket Installation Instructions**

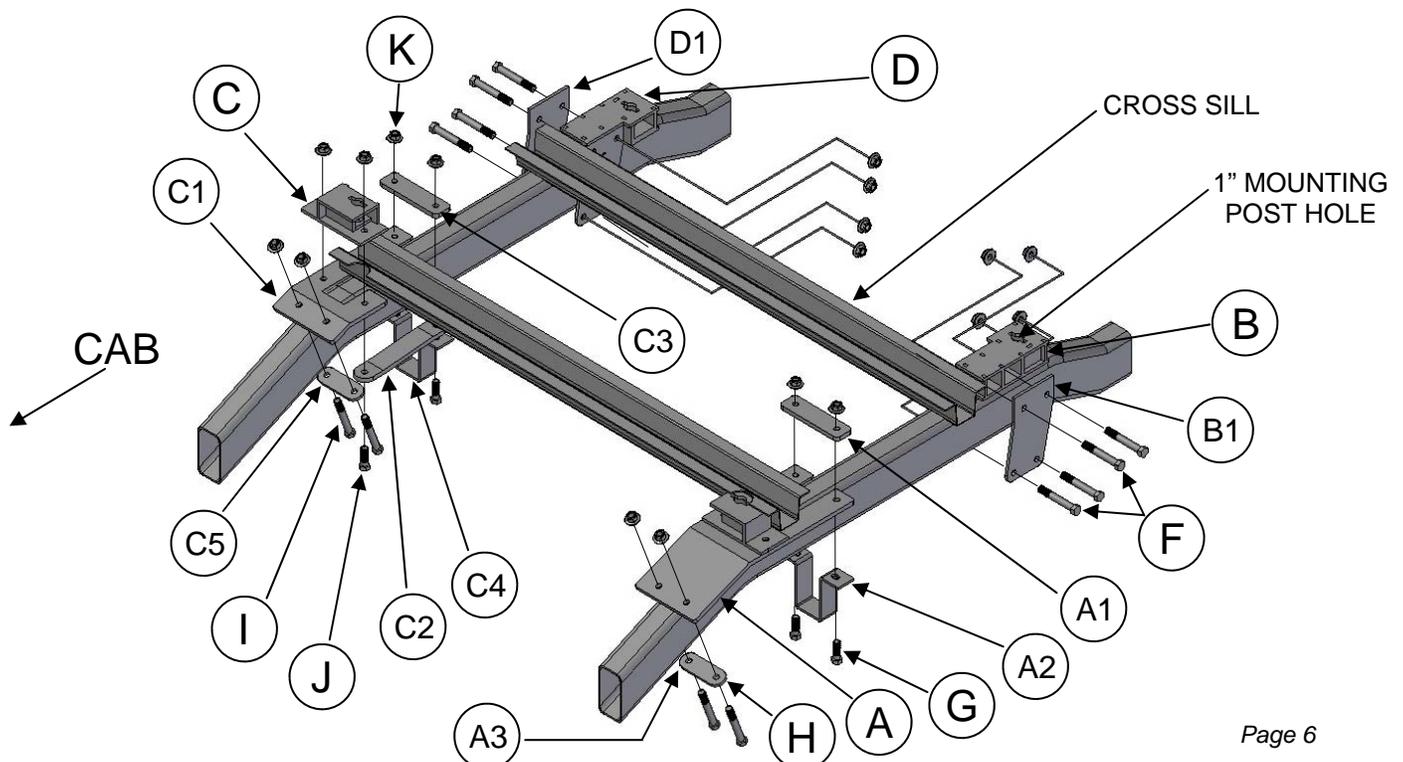
1. Slide the drivers side front mounting bracket {A} onto the frame so the mounting post holder sits flush against the cross sill (see illustration below).
2. Set the top backer plate {A1} on top of the driver side front mounting bracket. Slide the u-shaped clamp {A2} up around the frame, sandwiching the driver side mounting bracket and truck frame between the two (see illustration to the right).
3. Fasten the mounting bracket flush to the frame and against the cross sill (some mounting brackets may have a slight warp due to the metal characteristics during the welding process) by inserting all the fasteners through the mounting bracket, u-shaped clamp and backer plate as seen below. *Do not overtighten*—you will be removing the bracket in later steps.



**WARNING:** Prior to drilling any holes, be sure to check the inside of the frame to guard against drilling into the fuel tank, wiring, brake lines or fuel module.

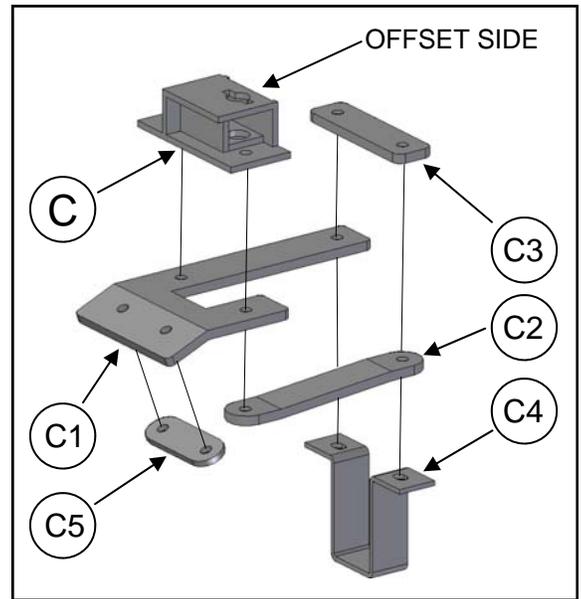
4. Drill the first 1/16" pilot hole through the truck bed over the front hole on the driver side where you made the mark during the "Marking Bed for Drilling" on page 3. The bit should come down through the 1" mounting post hole (see illustration below), piercing the transparent tape, aiding the centering of the bracket front-to-rear and side-to-side.
5. If the pilot hole is off center to the 1" mounting post hole, remember to adjust all the pilot hole locations accordingly.

**NOTE:** Some truck beds are not installed square on their frame by the manufacturer. To ensure your pilot holes are aligned properly, it is important that you use the measurements provided only as a starting point and make adjustments as needed. Once you have the front driver side pilot hole centered, you will use this hole as a point of reference for all remaining pilot hole adjustments. If you are using the Template Method, simply use the properly drilled hole as a pivot point to square the remaining holes to the frame. If you are using the Layout Method, you may accomplish the same thing by using a framing square and straight edge.



## **Front Passenger Side Mounting Bracket Installation Instructions**

- Slide the passenger side front mounting bracket {C1} between the cross sill and the truck frame so the longer leg of the bracket is located on the outside of the frame (see illustration on page 6). The bracket must sit flush against the cross sill for proper installation.
- Slide the front passenger side mounting post holder assembly {C} between the cross sill flange and the top of the mounting bracket {C1} from the inside of the frame to the outside—the shock located on the outside of the truck frame will prevent you from mounting it from the outside. Be sure the offset on {C} is facing the rear of the vehicle when aligning the holes as seen in the illustration to the right.
- Temporarily* bolt together {C} and {C1} using the fasteners indicated on page 1. The bracket assembly should fit tightly enough that you will not need to attach the U-shaped clamp and other components as you did on the driver side. If you find it is *not* a snug fit, attach the U-shaped clamp {C4} and top backer plate {C3} on the inside of the frame using the required fasteners as seen on page 1.
- Repeat steps 4 & 5 on page 6.

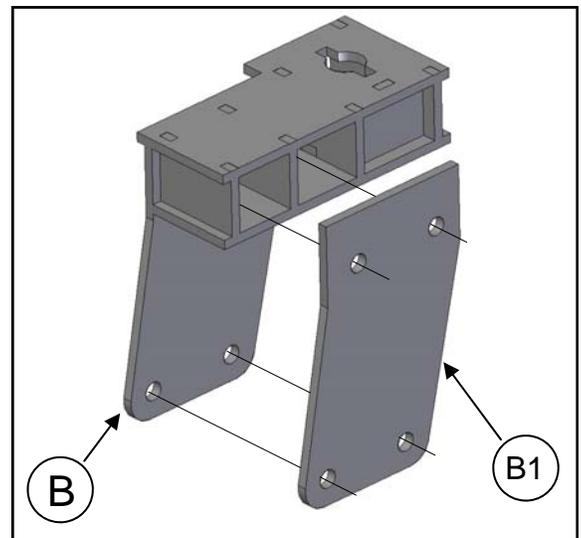


## **Rear Mounting Bracket Installation Instructions**

- Sandwich the frame of the truck between the driver side mounting bracket {B} and the outside backer plate {B1}.
- Using the required bolts and frame nuts {F} and {K} as indicated on page 1, temporarily fasten {B} and {B1} together to hold the bracket assembly in place.
- Repeat steps 11 and 12 for the rear passenger side bracket.
- Repeat steps 4 & 5 on page 6

**WARNING:** Before proceeding to “Part 2, “Drilling the Bed...,” you must verify that each pilot hole is centered over the 1” mounting post hole on each bracket before the 1-3/4” mounting post holes are drilled through the bed.

- Remove each bracket from the frame.



## **Part 2: Drilling the Bed**

- After removing the mounting brackets, use a 1-3/4” hole saw centered over the 1/16” pilot hole and cut the bed for the mounting posts.
- De-bur inside the holes and use a paint stick to touch up the edges.

### **Part 3: Final Bracket Installation**

**NOTE:** When assembling the following brackets in the steps below, be sure to only *finger-tighten* the fasteners as you may need to adjust the bracket assembly during Hitch Alignment on page 10.

#### **Front Driver Side Bracket**

1. Reinstall the driver side front mounting bracket, so the mounting post holder (see illustration on page 9) sits flush against the cross sill, as you did on the temporary installation.
2. Fasten the mounting bracket assembly and it's respective parts to the frame by using the proper fasteners as indicated on page 1.
3. Fasten the driver side bottom backer plate {A3} to the bracket assembly using the 7" bolt {I} on the *inside* of the frame. You will need to loosen the brake lines so the bolt can pass between the brake line and the frame so it will sit against the frame. Finger tighten the bolt in place using the required frame nut {K}.
4. Set the top backer plate {A1} on top of the frame bracket {A}.
5. Slide the u-shaped clamp {A2} up around the frame and fasten to the bracket assembly.

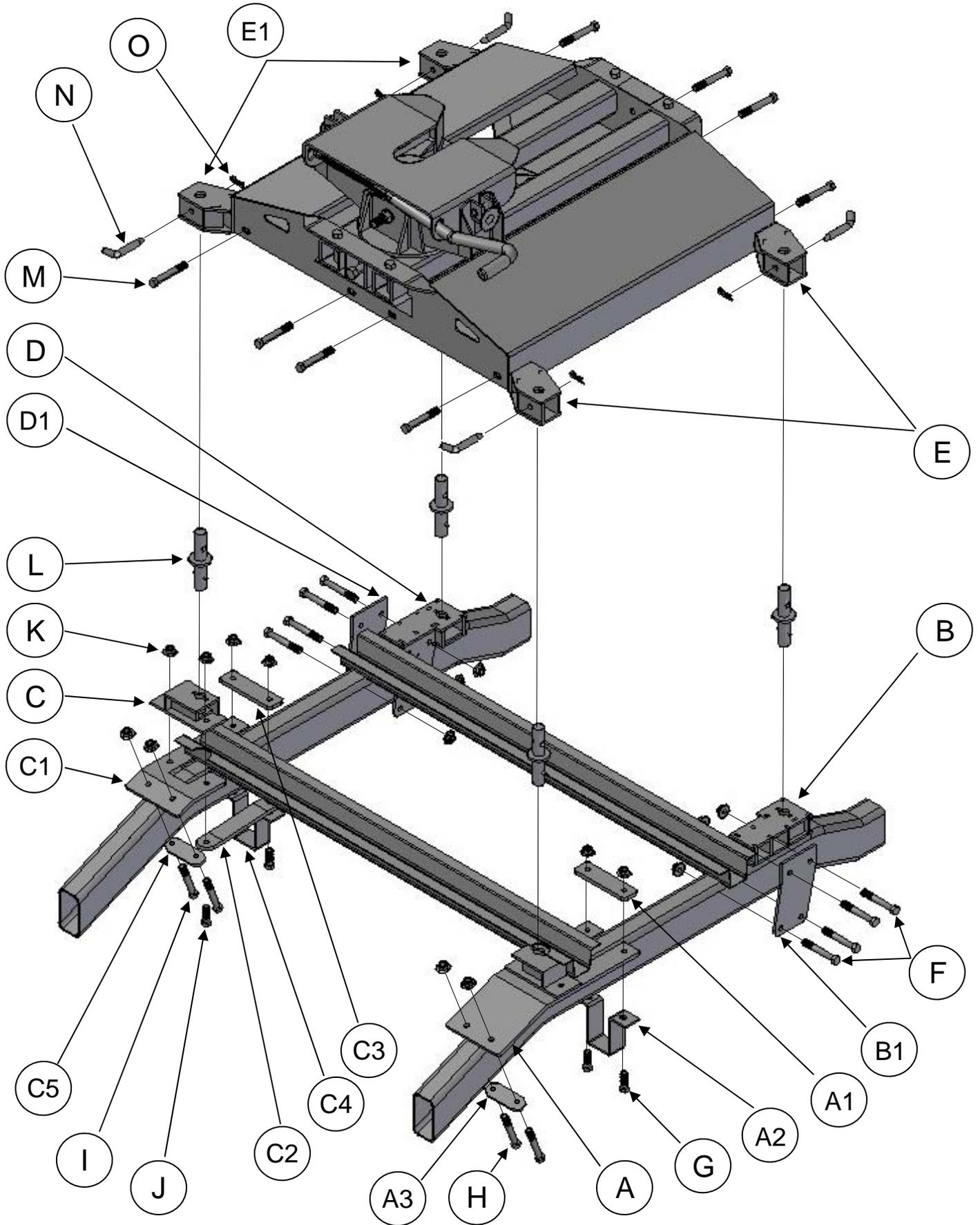
#### **Front Passenger Side Bracket**

6. Slide the passenger side front mounting bracket {C1} around the cross sill so the longer leg is located on the outside of the frame (see page 9). The bracket must sit flush against the cross sill.
7. Slide the front passenger side mounting post holder assembly {C} between the cross sill flange and the top of the mounting bracket {C1} from the inside of the frame to the outside, with the offset in the post holder facing the rear of the vehicle (see illustration on page 9). Align it with the center hole on {C} and fasten using the appropriate fasteners.
8. Fasten the inside offset support plate {C2} to the bracket assembly.
9. Fasten the top backer plate {C3} and the bottom backer plate {C5} as seen in the illustration on page 9.

#### **Rear Mounting Brackets**

10. Install the rear mounting brackets by sandwiching the frame between the mounting bracket and the outside backer plates {B} & {D} on both the driver and passenger sides.
11. Be sure the mounting bracket sits flush on top of the truck frame.
12. When attaching the outside backer plate, you will need to put the two 4" bolts into the bottom holes of the outside backer plate *before* setting it against the outside of the frame.
13. The top 4" bolts can be attached from the inside of the frame.
14. Use the fasteners indicated on page 9 to affix all four bolts on both the driver and passenger side rear brackets.

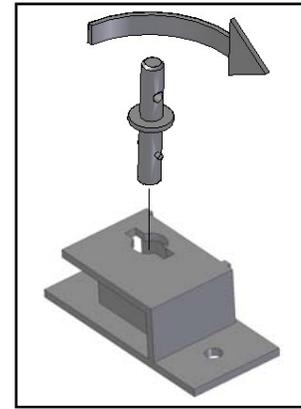
# HITCH ASSEMBLY EXPLODED VIEW



### **Part 4: Installing the Mounting Posts**

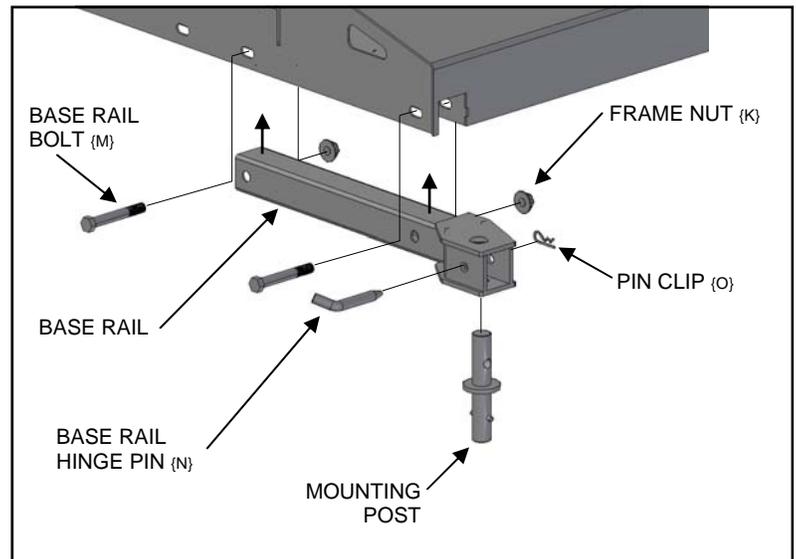
1. Install the mounting posts through the bed into the mounting bracket post holders (standard mounting posts for the Titan are stamped with a “T” on the top of the post). Rotate the posts a quarter turn (see the illustration to the right). Four posts are required for installation.

**NOTE:** Vehicles using plastic bed liners may require taller mounting posts (part# 311512—stamped with a “TT” on the top of the post) to seat properly into the post holders.



### **Part 5: Hitch Alignment**

1. Remove the SuperGlide hitch from the shipping carton.
2. Install base rails onto the base of the hitch using the supplied bolts (see the illustration to the right).
3. Loosely tighten the base rail bolts to the base allowing lateral movement as you place the rail assembly over the mounting posts.
4. Install the hitch pins and clips to secure the hitch assembly to the base rails. Use a drift pin to aid your hole alignment.



### **Part 6: Final Installation Procedures**

1. Tighten all bolts, including the base rail bolts, according to the Torque Table on Page 4.
2. Remove the hitch and base rail assembly and verify that the mounting posts can be inserted and turned freely without binding. You may need to loosen the bolts on the base rails if binding occurs. Adjust as needed and retighten the bolts.
3. Reinstall the mounting posts, base rails and the SuperGlide hitch assembly until the assembly can be removed freely without binding.
4. Reinstall the inner wheel-well splash guards.
5. Reinstall the wire loom clips on the rear axle you installed on temporarily removed on page 5.



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#### 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.