



DODGE

SuperRail Mounting Kit

#3519



Installation Instructions

SPECIFICATIONS

- Fits 2003-2012 Dodge 2500 & 3500
 - Fits 2002-2008 Dodge 1500
 - Fits 2006-2011 Mega Cab
- Added limitation on trailers 96" or wider
 - Hitch is located center of axle

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 its 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 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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CAUTION

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. (Figure 1). 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 overhang to some extent. Call PullRite technical support with trailer width, make and year of truck and distance the king pin is from leading edge of the trailer. 1-800-443-2307

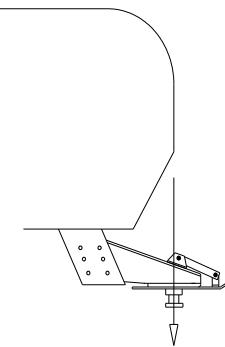


Figure 1

Using a trailer that has a long rear slope to the King Pin Box Hangar, "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.

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.

KING PIN CAPTURE PLATE INSTALLATION

The following instruction should be followed to install the king pin Trailer Plate.

FOR KING PIN BOXES WITH A FLANGE: (Figure 2).

1. Place the Capture Plate {J2} over the king pin, with the guide wedge towards the rear of the trailer (wedge facing down). Align the Capture Plate {J2} square with the king pin box and clamp in place to prevent movement.
2. Mark the holes for drilling through the Capture Plate {J2} onto the king pin box flange. Use holes that are located as far from the King pin as possible.
3. Remove the Capture 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). 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. All flat head bolts should be flush or slightly below the surface of the Capture Plate so as not to score the hitch plate.

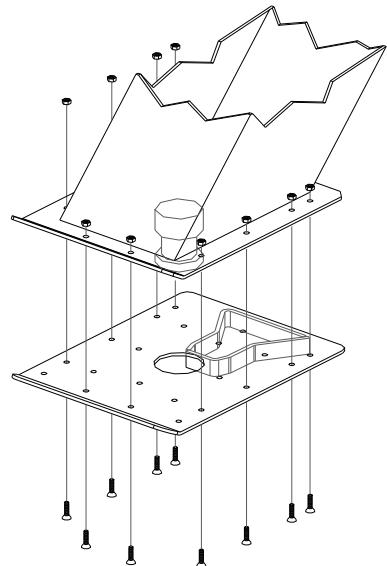


Figure 2

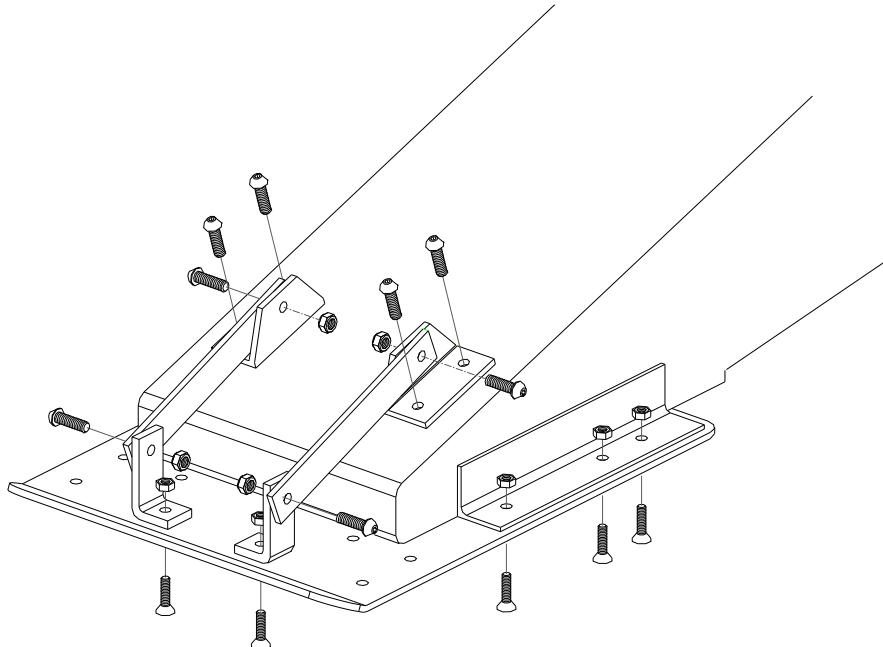
KING PIN CAPTURE PLATE INSTALLATION

FOR KING PIN BOXES WITHOUT FLANGES: (Figure 3)

1. Place the Capture 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 Capture 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 Capture Plate {J2} extends forward beyond the king pin box, then install the Knee Braces as shown in Figure 3.
5. Install the Capture Plate {J2}, using the $\frac{1}{4}$ " bolts provided, to secure the Capture 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 bolts used to fasten the Knee Braces to the Capture Plate do not count as part of the number of bolts necessary to properly attach the Capture Plate to the king pin box.** All flat head bolts should be flush or slightly below the surface of the Capture Plate so as not to score the hitch plate .

NOTE: If more information is needed, please call PullRite at 1-800-443-2307.

Figure 3



FOR KING PIN BOXES THAT ARE WIDER AND SHORTER: (Figure 4)

1. Place the Capture 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 Capture Plate {J2} (to the bend of the Capture Plate {J2} in the front). Referring to Figure 4, fashion two plates, 3/16" to 1/4" thick, that will cover the holes of the Capture Plate {J2} showing in front and rear of the king pin box.
2. While the Capture Plate is in position under the king pin box, clamp these plates to both the front and rear of the Capture Plate {J2}. Remove the Capture Plate {J2} and drill matching holes in the two support plates with a 1/4" bit using the Capture Plate {J2} as a guide.
3. Fasten the two support plates to the Capture Plate {J2} with the 1/4" Bolts {K7} and Lock Nuts {K8} provided.
4. Replace the Capture 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, the Capture Plate Knee Braces {k2} may have to be welded on if the interior of the king pin box is not accessible. The bolts used to fasten the Knee Braces to the Capture Plate do not count as part of the number of bolts necessary to properly attach the Capture Plate to the king pin box.

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

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 Capture Plate adapter (3317) should be flush against the bottom of the trailer's king pin plate.

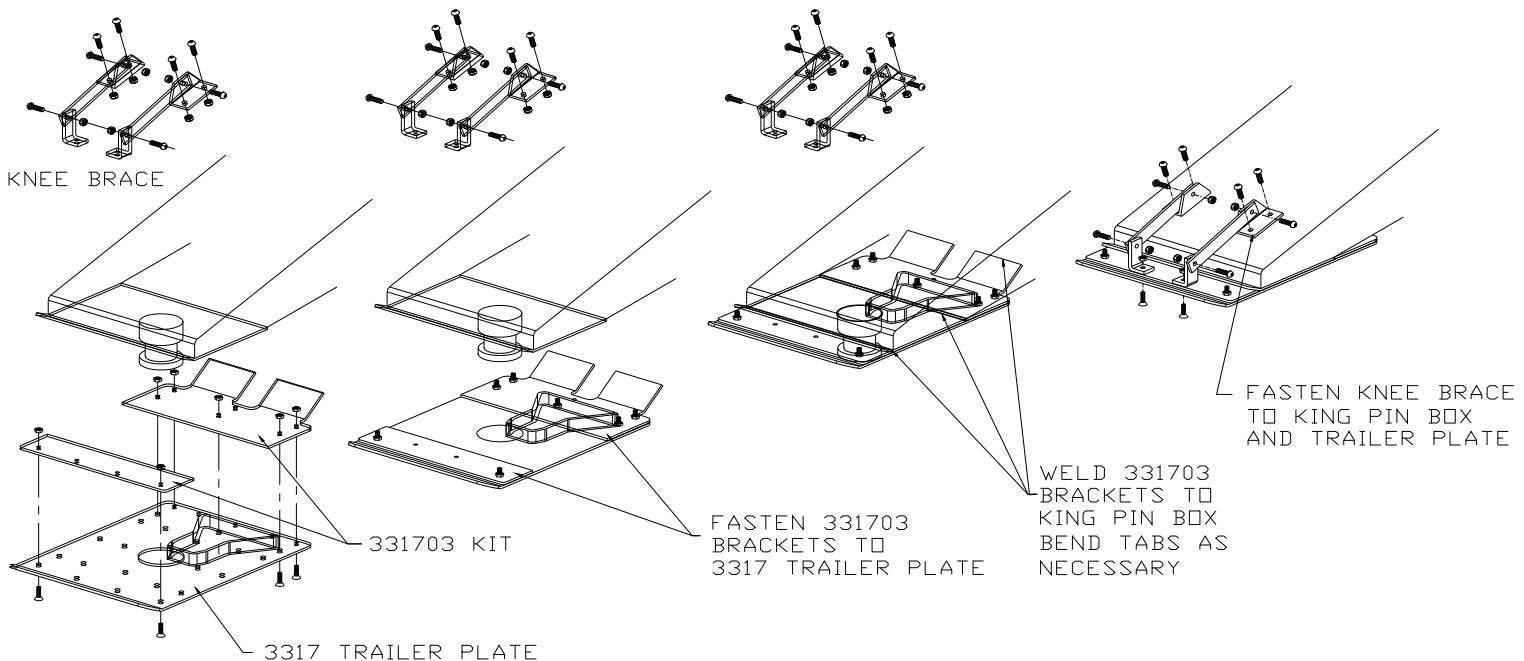


Figure 4

Parts Listing

<u>Item # Assemblies / Kits</u>		<u>Number</u>	<u>Qty.</u>	<u>Material</u>
A1	5th Wheel Plate Asm.	3601		
B1	Rocker Arm Asm.	3502		
C1	Turntable Cam Arm Asm.	3603		
C2	Roller	6901	1	
C3	Lock Washer	98200124	1	¾" Lock Washer
C4	Jam Nut	98150142	1	¾" Nut
D1	Turntable Ways (Set)	3604		
E1	Forward Shaft Stop Asm.	3606		
E2	Nylon Stop Block	33050105	1	
E3	Bolt	98410238	1	¼"-20 x 1 ¾" HHCS, GRD 2
E4	Flat Washer	98250130	2	¼" Flat Washer
E5	Lock Washer	98200160	1	¼" Lock Washer
E6	Nut	98150209	1	¼"-20 Hex Nut
F1	Base Assembly	3305		
F2	Shaft Stop Set Screw	98010128	1	3/4"-10 x 2 1/2" HHCS
F3	Set Screw Jam Nut	98150131	1	3/4" –10 Hex Nut
H1	Hardware Kit	3610		
H2	Rocker Arm , Clevis Pin	98410111	2	½" x 2" Clevis Pin
H3	Clevis Pin Clip	98410127	2	#3 Cotter Pin
H4	Rocker Arm Pivot Bolt	140501	1	1" – 8 x 9 1/2" HHCS
H5	Pivot Bolt Lock Washer	98200115	1	1" Zinc Plated Split Lock Washer
H6	Pivot Bolt Hex Nut	98150120	1	1" – 8 SAE Zinc Hex Nut
H8	Rocker Arm Spring	35100001	1	16 GA Spring Steel
H9	Rocker Arm Spg Bolt	98010243	1	5/16"-18 x ¾" Button Head Cap Screw
H10	Spring Bolt Lock Wash	98200159	1	5/16" Zinc Split Lock Washer
H11	Spring Flat Washer	98250160	1	5/16"-18 Flat Washer
H12	Way Tube Bolt	98010167	4	½"-13 x 1 ½" HHCS GRD 5
H13	Way Tube Flat Washer	98250160	4	½" Flat Washer
H14	Way Tube Lock Washer	98200142	4	½" Lock Washer
H15	Way Tube Nut	98150153	4	½"-13 Hex Nut
J1	Universal Capture Plate Kit	3317 (sold separately) (*) denotes– included in Kit		
J2	*Trailer Plate	331701	1	
K1	*Capture Plate Hdw. Kit	331702	1	
K1	Capture Plate Hardware Kit	331702		
K2	Support Angle	35170002	2	3/16" x 1.5" x 1.5" Angle
K3	Support Bar	35170003	2	3/16" x 1" Flat
K4	Support "L" Bracket	35170004	2	3/16" x 1" Flat
K5	Support Bracket Bolts	98010243	8	5/16"-18 x ¾" Button Head Cap Screw
K6	Support Bracket Nuts	98150202	8	5/16" –18 Nylock Nut
K7	Capture Plate M Bolts	98010240	10	¼" –20 x 1 1/4" Flat Head Allen
K8	Capture Plate M Nut	98410255	10	¼" – 20 Nylock Nut

3600 EXPLODED VIEW

Fig. 5

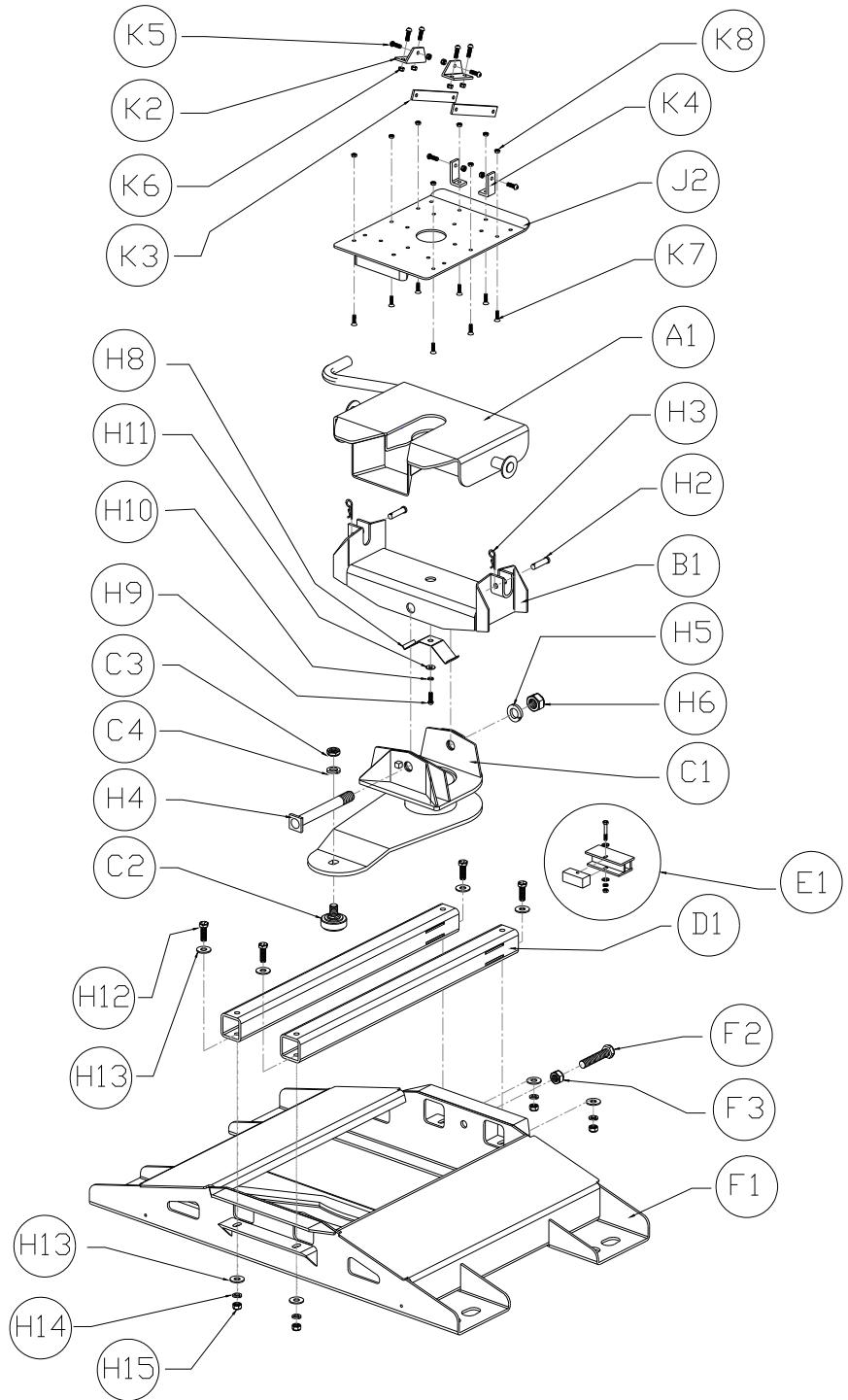
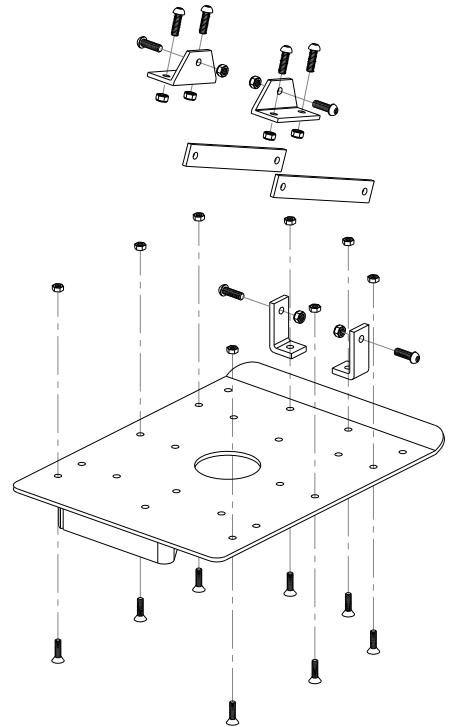


Fig . 6



CAPTURE PLATE KIT (J1)

Tools Needed For Installation

1/2" Drill Motor	15/16" & 3/4" Socket	1/2" Drive Impact Gun or 1/2" Drive Ratchet Wrench 3/4"
1/16" Drill Bit	Torque Wrench	Combination Wrench
2 1/8" Hole Saw	Measuring Tape	Felt Tipped Marker

Hammer

First installations of any product usually take longer than if they were practiced. Keeping a record of measurement adjustments for each vehicle, make, and model will speed future installations and aid others who are training to install hitches. For installers who are interested in a hole pattern template, contact your PullRite distributor sales representative. If you have any installation questions, contact PullRite customer service at 800/443-2307.

Truck Preparation

1. Check part quantities using the **Parts** List on page 14 and **Exploded View** on page 13 .
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 rear wheels, to give yourself greater working room.
4. Remove the spare tire.
5. 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) see figure below.

1. For layout using the Template method, see **Layout (Template Method)** on next page.
2. Measure and mark from the back of the bed forward **19 1/8"** and **43 1/8"**. 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. Measure out from the centerline **21"** at the front and rear even with the marks made in step 2 (parallel to the centerline). This will locate the 4 drill holes.

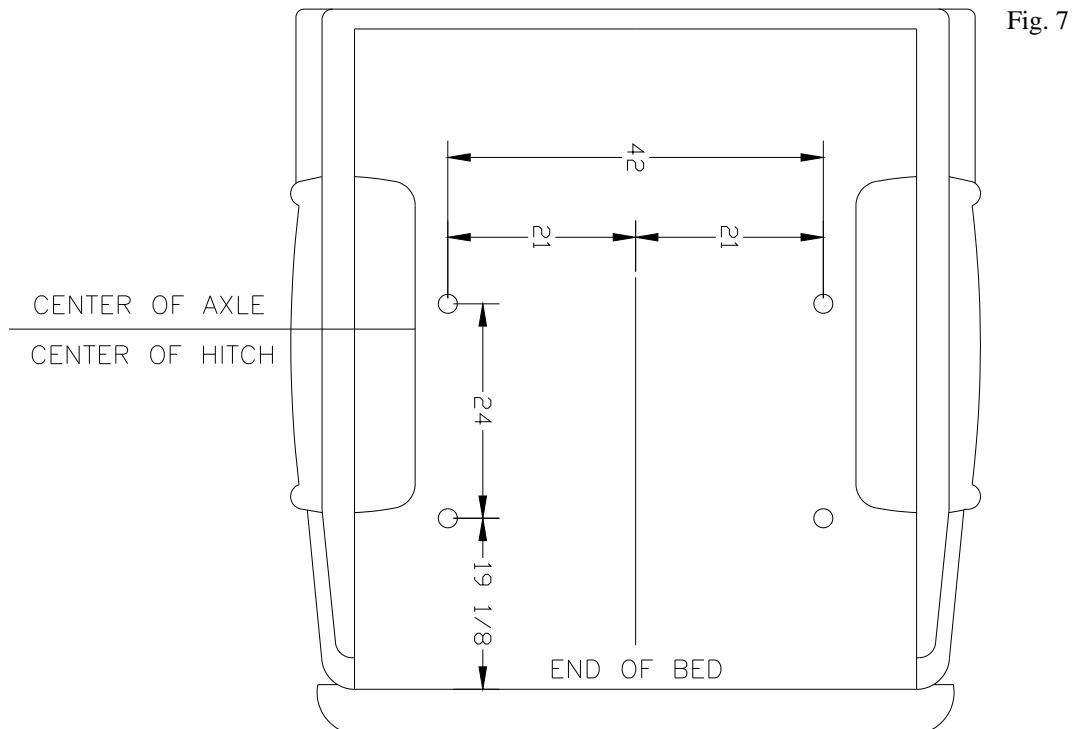


Fig. 7

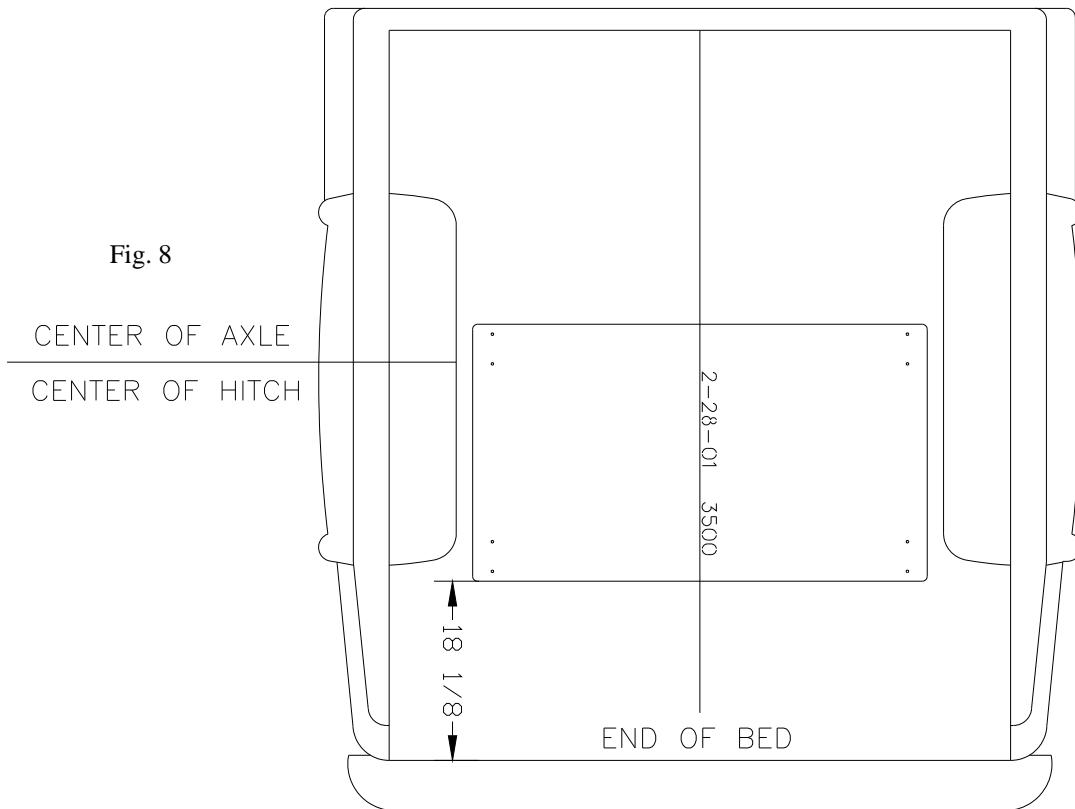
Layout (Template Method) see figure below.

1. Lay the Template in the truck bed, centering it from side to side 18 1/8" from and parallel to the end of the truck bed. The template is semetrical so there is no front or rear.
2. Mark the 4 **outside** holes, while making sure the template does not move.

The template does not come with the hitch. Ask your distributor salesman for information about receiving a free set of steel installation templates.

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.

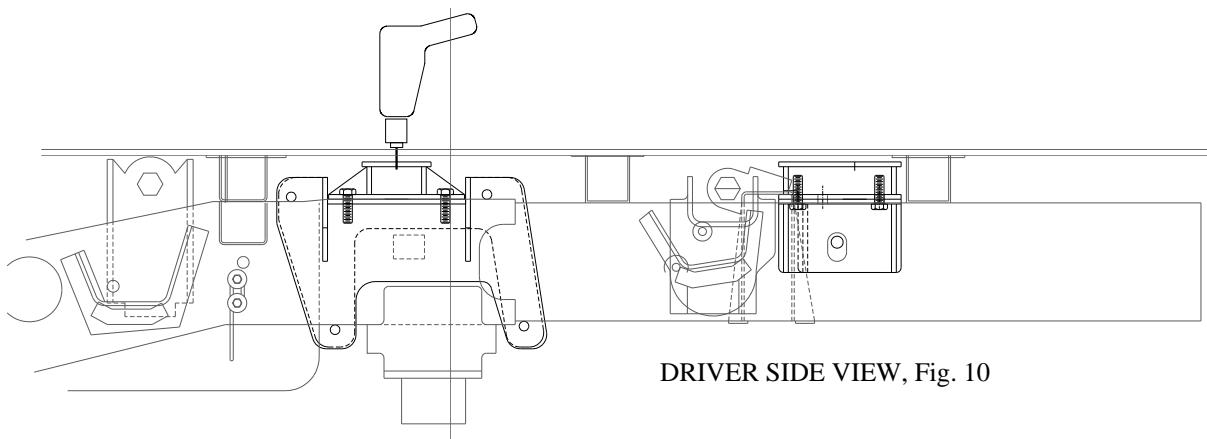
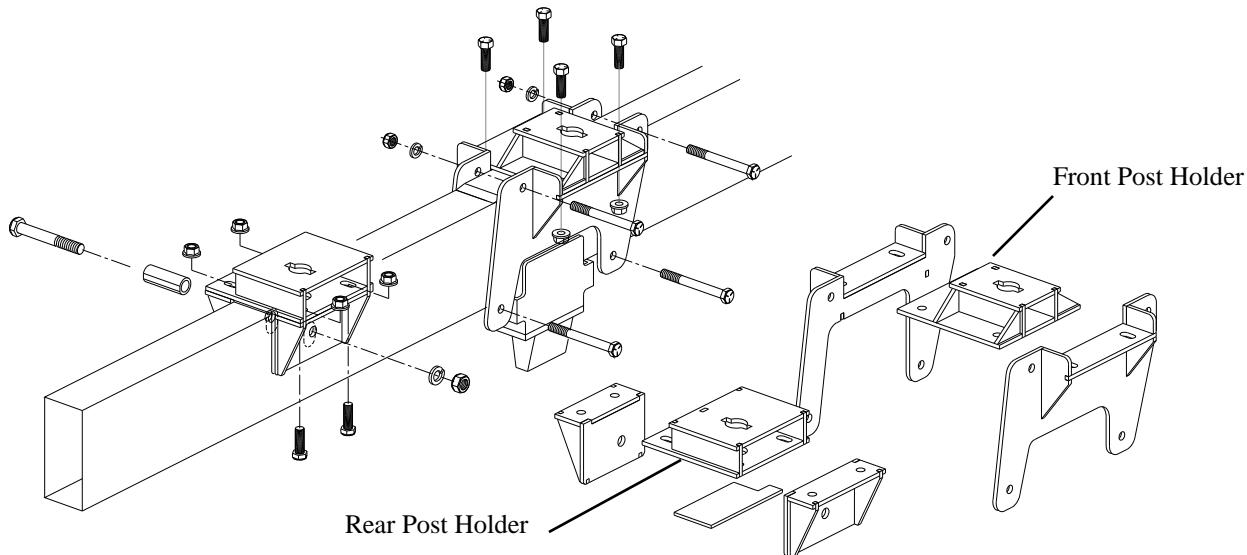
Fig. 8



Drilling the bed

- 1) Drill a 1/16" pilot hole where the lines cross (Lay Out Method) or at the marked hole locations (Template Method). In case the hole pattern does not line up properly, try drilling only one of the front hole locations.
- 2) Refer to the two figures on the next page and temporarily bolt or clamp one of the front brackets to the frame (where you just drilled the hole in step 1). The drill bit should come down through the top hole in the Post Holder centered front to rear. The slotted holes in the Post Holder will allow you to adjust it in or out slightly to center the drill bit from side to side.
- 3) If the pilot hole is off center from front to rear, adjust the bed hole pattern accordingly. *Remember to adjust all of the bed hole locations.* Then repeat steps 1 & 2 for each of the bed hole locations.
- 4) Remove the mounting brackets then using a 2 1/8" holesaw, drill the bed using the 1/16" holes as a guide. If the vehicle has a bed liner or bed mat, drill through these without removing them.
- 5) Deburr the inside of each bed hole and use a rust inhibitor to touch up the raw metal edges.

2003 DODGE 3519 BRACKETS (PASSENGER SIDE) Fig. 9

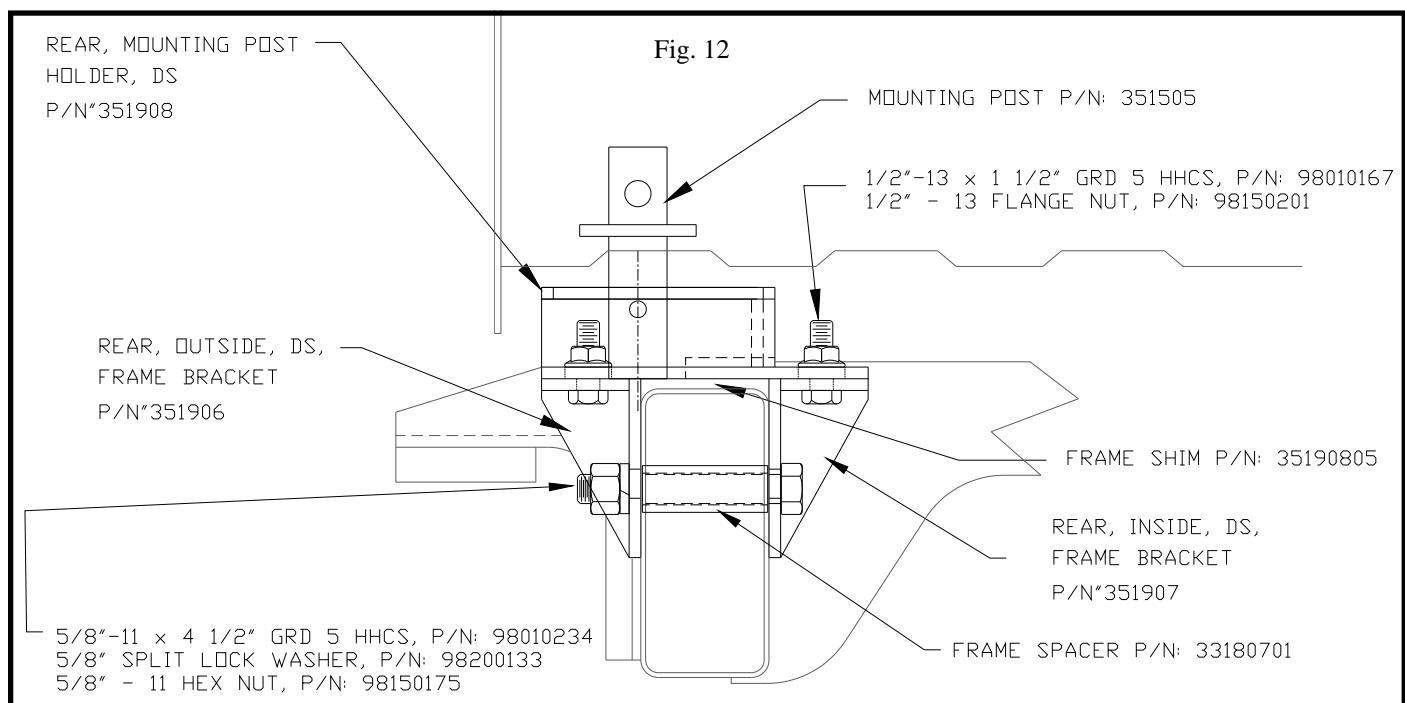
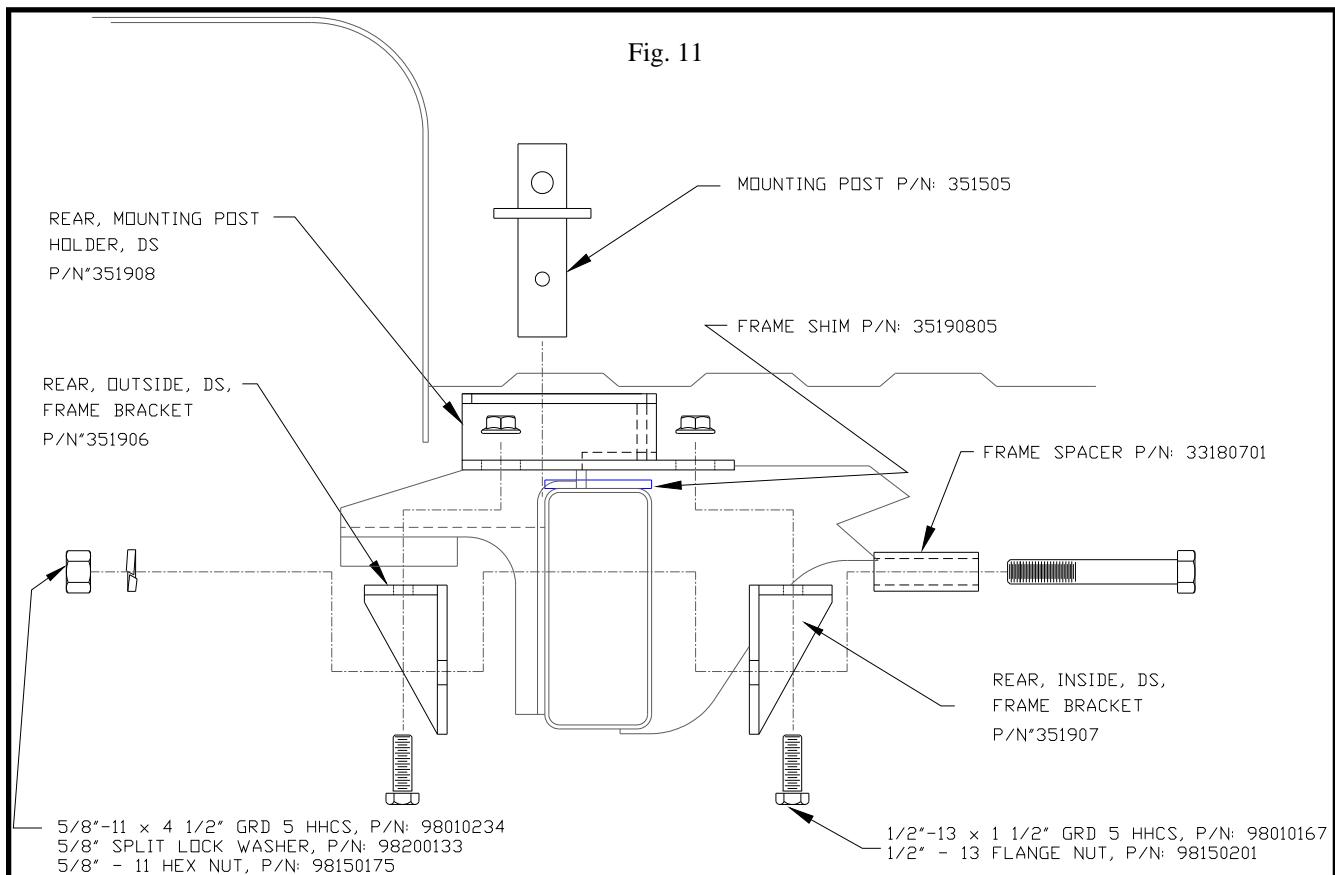


DRIVER SIDE VIEW, Fig. 10

Rear Mounting Bracket Installation

- 1) Referring to the figures on this and the next two pages as well as figures on page 13, install the Rear Mounting Brackets by first placing the Rear Mounting Post Holder, Frame Shim P/N: 35190806 on top of the frame just above the slotted hole located in the side of the frame and just behind the shock – spare tire support. Place the Rear Mounting Post Holder P/N: 351908 on top of the Frame Shim.
- 2) Loosely fasten the Rear Outside Frame Bracket P/N: 351906 and the Rear Mounting Post Holder together using two 1/2"-13 x 1 1/2" bolts and two 1/2"-13 flange nuts. Finger tighten only. See figures on page 13 to identify the Inside and Outside Rear Frame Brackets, they look alike but the Inside Bracket is shorter.
- 3) Insert the 5/8"-11 x 4 1/2" bolt through the Rear Inside Frame Bracket P/N: 351907 and slide the Rear Bracket Frame Spacer over the 5/8" bolt, then position the Inside Bracket in place below the Rear Post Holder so that the Frame Shim P/N: 33180701 does not extend past the side wall of the frame. This will insure that the 5/8"-11 x 4 1/2" bolt will fasten the Rear Frame Brackets tightly to the frame. If the Frame Shim **does** extend past the side wall of the frame, it is either made too long or it is not seated properly against the Outside Frame Bracket through the opposite obround hole. Finger tighten the 5/8"-11 Hex Nut and 5/8" Split Lock Washer.
- 4) Fasten the Inside Frame Bracket to the Rear Mounting Post Holder, using two 1/2"-13 x 1 1/2" bolts and two 1/2"-13 flange nuts. Finger tighten only.

REAR MOUNTING BRACKET INSTALLATION



Front Mounting Bracket Installation

- 1) Refer to figures 13 through 16 on the next two pages, find and identify Front Mounting Bracket parts: Outside Frame Bracket D.S. P/N: 351901 (P.S. P/N: 351904, Inside Frame Bracket D.S. P/N: 351902 (P.S. P/N: 351505) and Front Mounting Post Holder P/N: 351903.
- 2) Referring to the same figures plus figure 9 on page 9, slide the Front Mounting Post Holder over the top of the frame below the front bed hole.
- 3) Using the four, 1/2"-13 X 4 1/2" bolts, 1/2" lock washers and 1/2"-13 nuts, fasten the Outside and Inside Frame Brackets to the frame below the Mounting Post Holder. Leave the bolts finger tight.
- 4) Using the four, 1/2"-13 x 1 1/2" bolts and 1/2"-13 flange nuts, fasten the Outside and Inside Frame Brackets to the Mounting Post Holder. Leave the bolts finger tight.

HITCH INSTALLATION

- 1) Insert the four Mounting Posts P/N: 351505 into each Mounting Post Holder and rotate 90 degrees, see figure 17. Bump the Mounting Post Holders in or out so that the Mounting Posts are as close to center of the bed hole as possible. You should measure the distances between each Mounting Post (see fig. 7 on page 7) so that they are positioned properly.
- 2) Set the hitch assembly over the top of the Mounting Posts. Note that there are two Mounting Post holes in each of the four Mounting Post pads that are integral parts of the main hitch assembly and that these Mounting Post holes are egg shaped. See figure 18 this page. The wider end of this hole will make it easier to drop the hitch over the Mounting Posts. For this mounting bracket part number the four "outside" holes are used, other mounting bracket models may use different holes.
- 3) Push or pull the main hitch assembly toward the rear of the truck so that the Mounting Posts are snug against the front or cab side of the egg shaped hole. You may find that you will need to slide the Mounting Post Holders in or out and that the Front Mounting Bracket assembly may need to be bumped forward or rearward to achieve a tight fit.
- 4) From the Mounting Bracket Hardware kit, find the four Mounting Post Keepers, #3 Hitch Pin Clips and Mounting Post Pins. See fig. 19 this page. Install these Fig. 18 parts as shown in figures 19 and 20. Note that the Keeper has a moon shaped tab welded to the bottom of it. When the Keeper is installed properly this moon shaped tab will fill the wide end of the egg shaped hole behind the Mounting Post and "locks" the hitch in position. The Mounting Post Pin and Hitch Clip keeps the Mounting Post from rotating. After the hitch is used some these parts will be easier to install and remove.
- 5) Tighten the mounting brackets to the frame and post holders to the mounting brackets, torque all 1/2" bolts to 75 ft. lbs. And all 5/8" bolts to 151 ft lbs.
- 6) If any of the Mounting Brackets or Post Holder locations had to be adjusted, remove the hitch and check that all Mounting Posts can be removed easily through the bed holes, then reinstall the hitch.

NOTE: The post is tall enough to clear most bed mats, bed liners may require taller posts to seat into the post holders properly.

Fig. 17

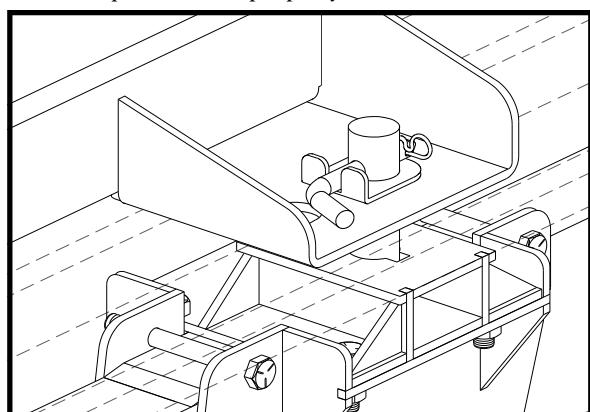
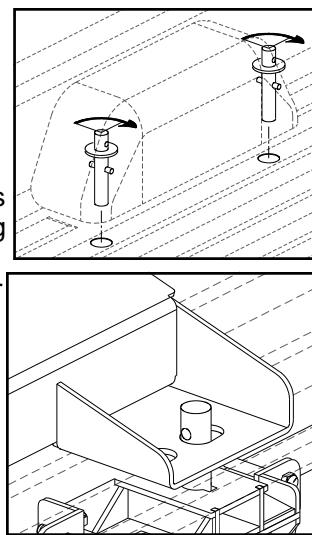


Fig. 20

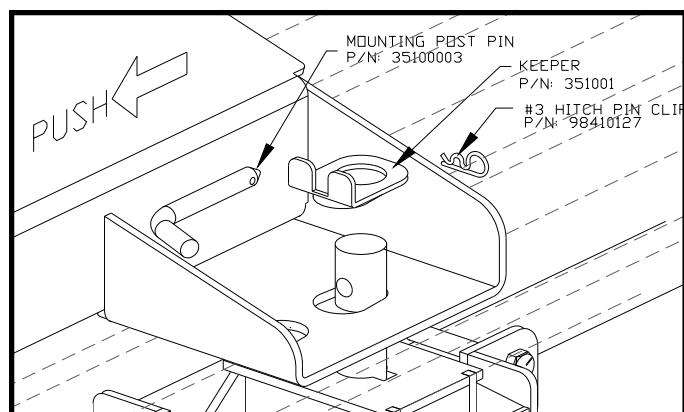
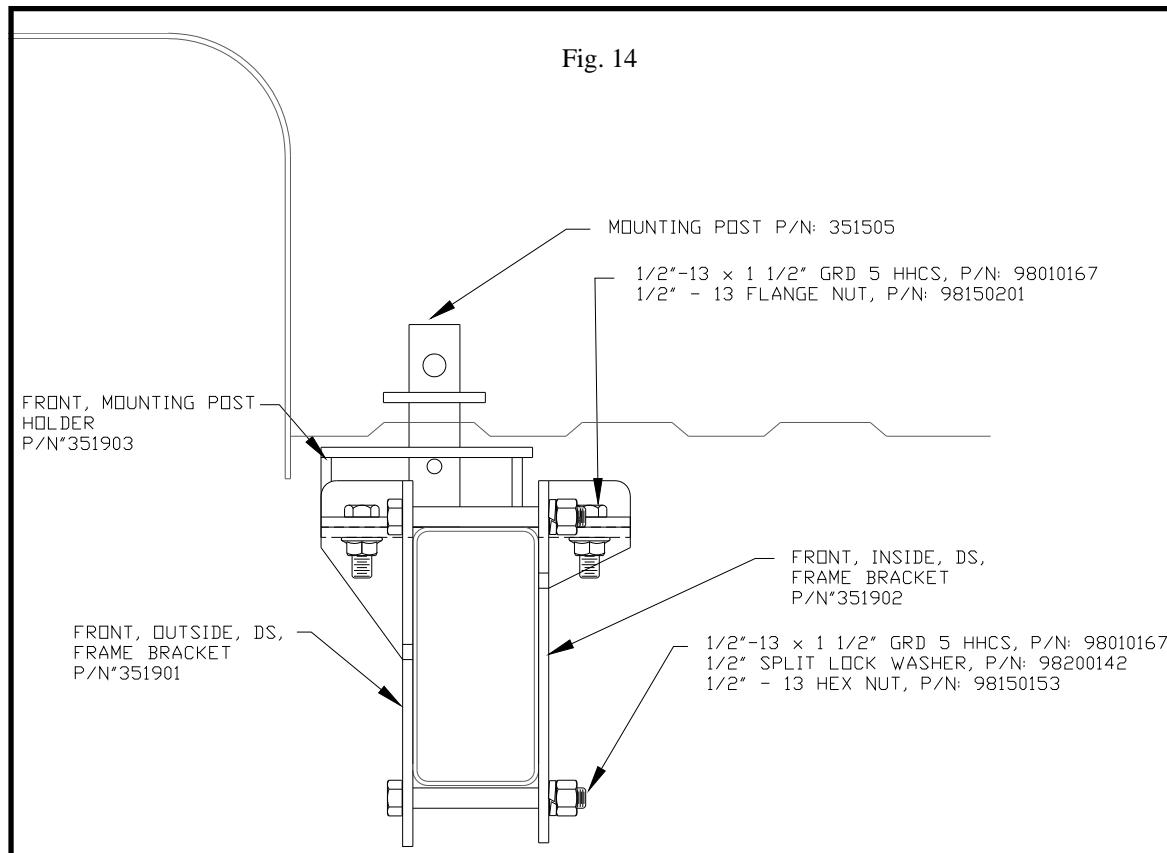
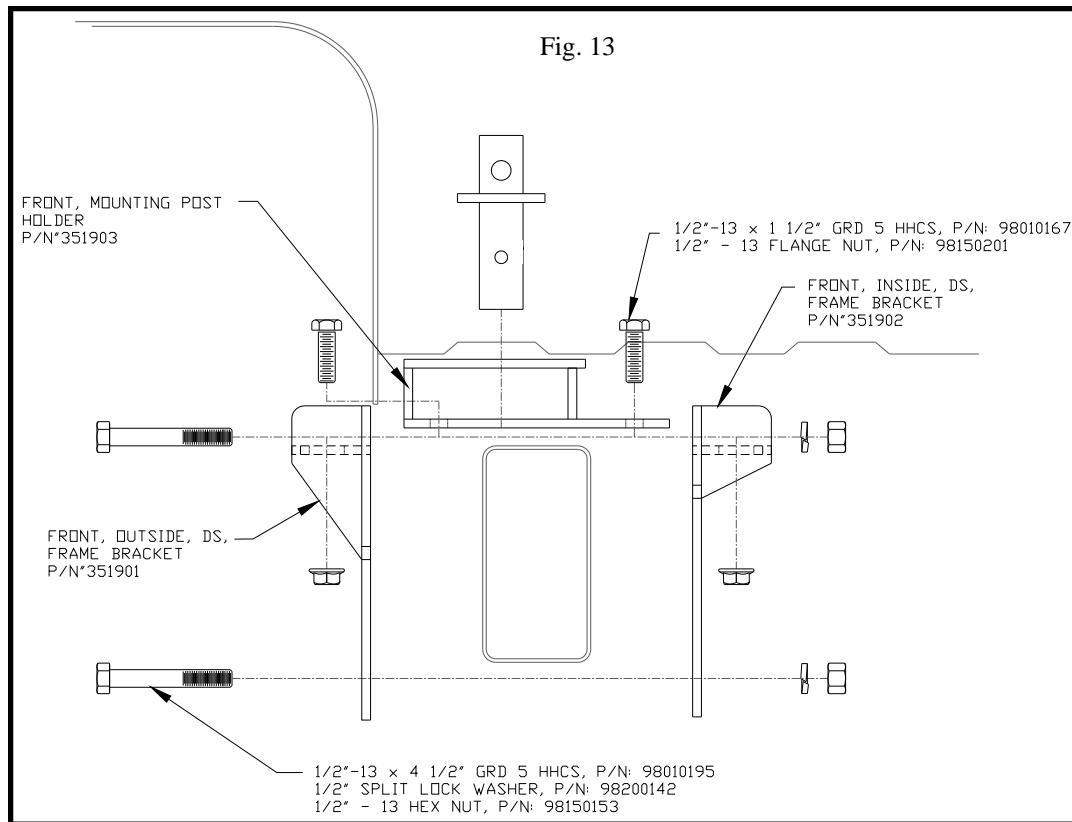


Fig. 19

FRONT MOUNTING BRACKET INSTALLATION



MOUNTING BRACKET EXPLODED VIEW

Fig. 15

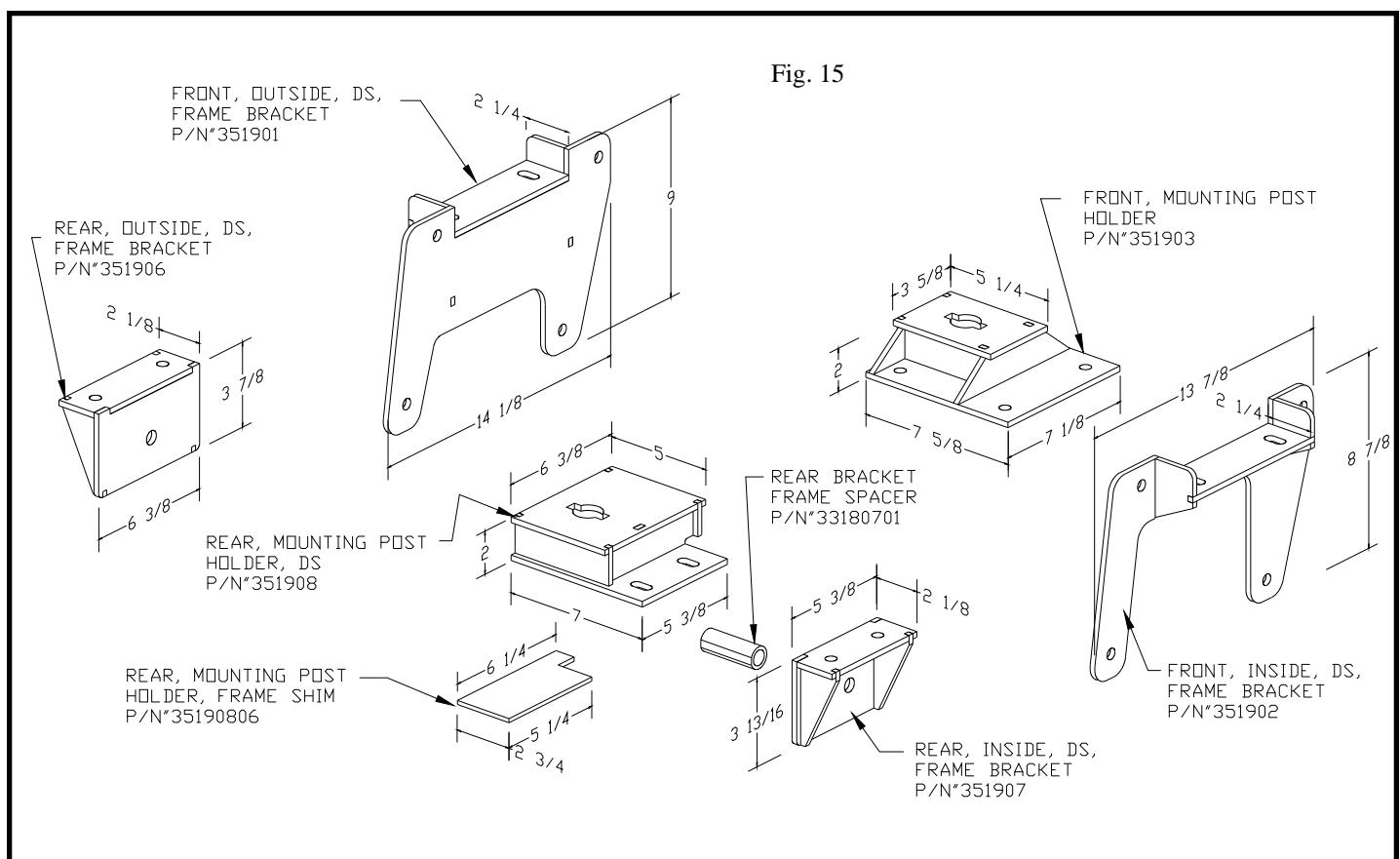
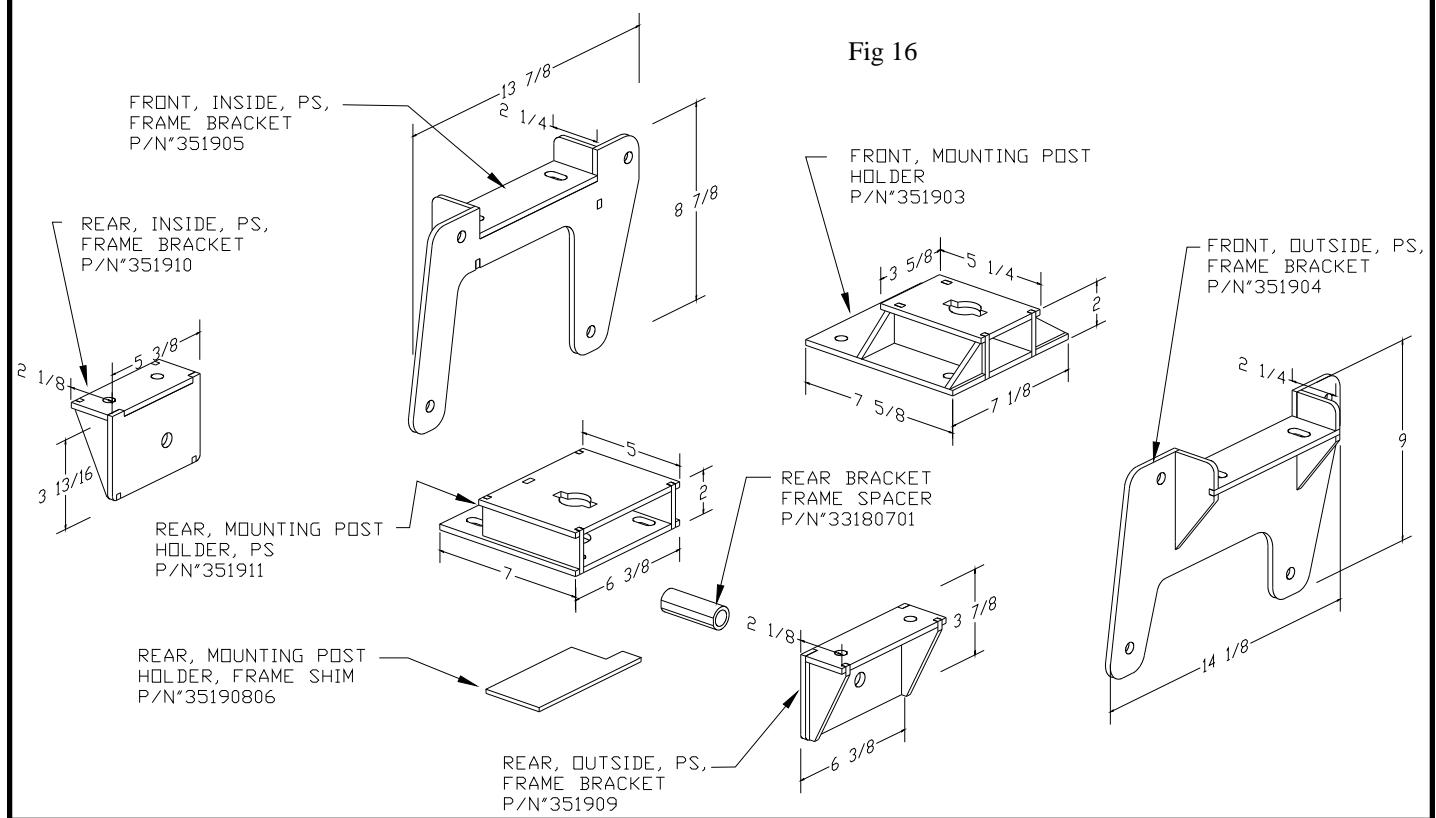


Fig 16



MOUNTING BRACKET PARTS LIST

REAR POST HOLDER, PS (EA)	351911
REAR, INSIDE, PS, FRAME BRACKET ASSY (EA)	351910
REAR, OUTSIDE, PS, FRAME BRACKET ASSY (EA)	351909
REAR POST HOLDER, DS (EA)	351908
REAR, INSIDE, DS, FRAME BRACKET ASSY (EA)	351907
REAR, OUTSIDE, DS, FRAME BRACKET ASSY (EA)	351906
FRONT, INSIDE, PS, FRAME BRACKET ASSY (EA)	351905
FRONT, OUTSIDE, PS, FRAME BRACKET ASSY (EA)	351904
FRONT MOUNTING POST HOLDER (EA)	351903
FRONT, INSIDE, DS, FRAME BRACKET ASSY (EA)	351902
FRONT, OUTSIDE, DS, FRAME BRACKET ASSY (EA)	351901

MOUNTING BRACKET HARDWARE

NAME:	P/N:	QTY.:	DESCRIPTION
MOUNTING POST (CHEVY)	351505	4	1 3/8" RD. CR.
MOUNTING POST KEEPER	351001	4	10 GA.
MOUNTING POST PIN	35100003	4	1/2" RD. CR.
#3 HITCH PIN CLIP	98410127	4	
REAR BRACKET FRAME SPACER	33180701	2	1" OD. x .156 WALL, DOM TUBING x 2.7" LONG, GROUND 1 SIDE
REAR MOUNTING BRACKET, POST HOLDER, FRAME SHIM	35190806	2	7 GA
MOUNTING POST ASSEMBLY(CHEVY)	351505	4	1-1/4" RD. CR.
MOUNTING POST HOLDER BOLT	98010167	16	1/2"-13 x 1 1/2" HHCS GRD 5
MOUNTING POST HOLDER NUT	98150201	16	1/2-13 FLANGE NUT
FRONT MOUNTING BRACKET, FRAME BOLT	98010195	8	1/2" - 13 x 4-1/2" HHCS, GRD 5
1/2" SPLIT LOCK WASHER	98200142	8	1/2" SPLIT LOCK WASHER
1/2" - 13 HEX NUT	98150153	8	1/2" - 13 HEX NUT
REAR MOUNTING BRACKET, FRAME BOLT	98010234	2	5/8" - 11 x 4-1/2" HHCS, GRD 5
5/8" LOCK WASHER	98200133	2	5/8" LOCK WASHER
5/8"-11 HEX HUT	98150175	2	5/8"-11 HEX HUT



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