

**INSTALLATION OF REAR MOUNTING KIT  
2013-2016 FORD RANGER - MEXICO**

**SAFETY PRECAUTIONS**

If any installation problems are encountered, please call G&B Specialties, Inc. for technical assistance before continuing with the installation process.



- Failure to heed to any of the following warnings could result in severe bodily injury and/or equipment damage.
- Read and understand this manual completely before attempting installation of the equipment.
- Installation instructions provided below only address the Rafna railgear equipment. Applicable railway company procedures and policies must be adhered to.
- Before performing any work under the vehicle or railgear, ensure the engine is turned off and the parking brake is set.
- Ensure all removed components are given to the vehicle owner after the installation of the railgear. These components must be re-installed if the railgear is removed from the vehicle.
- Always disconnect the vehicle's battery when welding on the vehicle or railgear in order to protect the vehicle's electrical system.

**INSTALLATION OF REAR MOUNTING KIT**

The following procedure details the installation of the rear mounting kit. The hardware required for this installation is below.

Part Number	Description	Qty
R-31220D	Rear Mtg Brkt, Ds	1
R-31220P	Rear Mtg Brkt, Ps	1
R-31223D	Cross Member Jack Stud, Ds	1
R-31223P	Cross Member Jack Stud, Ps	1
R-31259	Shim, Spacer	2
R-31034	Shim, 1/4"	4
R-31034A	Shim, 1/2"	4
R-31035	Shim, 1"	8
R-990KIT-373	Hex Cap Screw, 1/2" UNC Gr.8 X 1.50"	5
	Flat Washer, SAE, 1/2" Gr.8	10
	Nut, Nylock, 1/2" UNC Gr.8	5
	Hex Cap Screw, 3/8" UNC Gr.8 X 1.25"	4
	Flat Washer, SAE, 3/8" Gr.8	8
	Nut, Nylock, 3/8" UNC Gr.8	4
	Hex Cap Screw, 5/8" UNC Gr.8 X 4.50"	4
	Hex Cap Screw, 5/8" UNC Gr.8 X 5.50"	4
	Hex Cap Screw, 5/8" UNC Gr.8 X 6.50"	4
	Flat Washer, SAE, 5/8" Gr.8	8
Nut, Nylock, 5/8" UNC Gr.8	4	

1. Remove the rear bumper. Retain the bumper and related hardware for re-installation.
2. It is recommended that the truck box be removed in order to install the rear mounting kit and rear railgear unit. It is NOT necessary but will greatly assist the ease of installation.
3. Remove the original spare tire from under the vehicle's cargo box if so equipped. The original spare tire will not be re-installed. Also remove the spare tire chain and shackle components, as well as the heat shield. These will not be re-installed
4. Remove the tow bracket on the driver's side of the vehicle. The tow bracket will not be re-installed. However, the three bolts that hold the bracket on will be re-used to fasten the railgear bracket. **SAVE THESE BOLTS.**
5. The exhaust will have to be re-routed in order for the railgear to be mounted properly. It is recommended that the exhaust be cut off directly above the rear axle. The rear most exhaust hangar will have to be cut off as well in order to mount the rear passenger's side railgear bracket. Set these components aside to be re-installed later.
6. Fasten the passenger's rear mounting bracket to the side of the frame, using the provided holes in the mounting bracket, with three 1/2" x 1.5" long bolt, six 1/2" washers, and three 1/2" nuts.
  - a. Do the same with the driver's rear mounting bracket, using the factory hardware from the tow bracket.
7. Using a C-clamp to hold the front side of the rear brackets, drill a hole through the truck frame and through the bracket on each side using a 0.531" drill bit. Be sure the mounting bracket is level and square with the ground. Using the remaining 1/2" x 1.5" bolts, fasten using four 1/2" washers and two 1/2" nuts. Reference Figure 1.

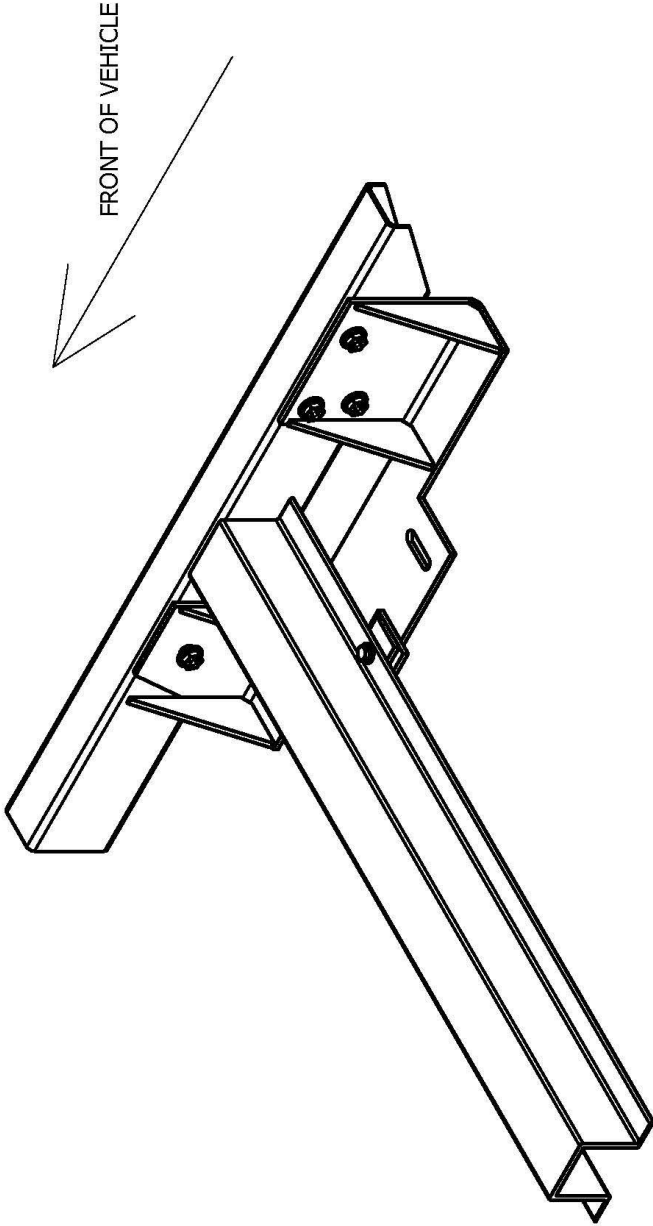
8. Position R-31223D/P on their respective sides and clamp as shown in Figure 2. Position the jack stud assembly such that the head of the bolt is centered in between the slots as well as centered in the slot. Clamp the bracket in place drill 4 holes with a 0.406" bit (2 per jack stud assembly) and fasten using 3/8" x 1.75" long bolts, washers and nylock nuts.
  - a. NOTE: There are two welded nuts located on the cross member of the truck's frame from the spare tire components. They may need to be removed in order to install the jack stud assembly. Reference Figure 2.
9. Once the jack stud assemblies are fastened into place, adjust the jack stud so the head is touching the bracket. Tack weld the bolt head to the bracket.
10. Torque the 1/2" fasteners to 100 ft-lbs dry. Do not over torque.
11. The supplied railgear mounting shims are to be used as required when mounting the railgear to the rear mounting brackets.

Following the Railgear installation, the truck box and rear bumper will fit into its original position.


12. The exhaust will have to be re-installed and routed around the railgear. Reference Figure 3.
13. Re-install the truck box with the original fasteners.
14. Re-install the vehicle rear bumper with the original fasteners.
15. Torque the original fasteners to OEM specifications.



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FRONT OF VEHICLE

A	DRAWING RELEASED	4/22/2014	HW	BY	JL	APPD
	CHANGE	DATE				
REVISION						
 <b>G &amp; B SPECIALTIES INC.</b> MANUFACTURER OF QUALITY ROAD PRODUCTS BERWICK PENNSYLVANIA (570) 752-5901 FAX (570) 752-6397						
DESIGN ~ ENGINEERING ~ MANUFACTURING DESCRIPTION: ASSEMBLED VIEW RANGER R-150 REAR REF: R-150 MEX RANGER						
DRAWING NUMBER		DATE DRAWN	SHEET	PART NUMBER	REVISION	
R31220P ASSY		4/22/2014	1 OF 1	N/A	A	

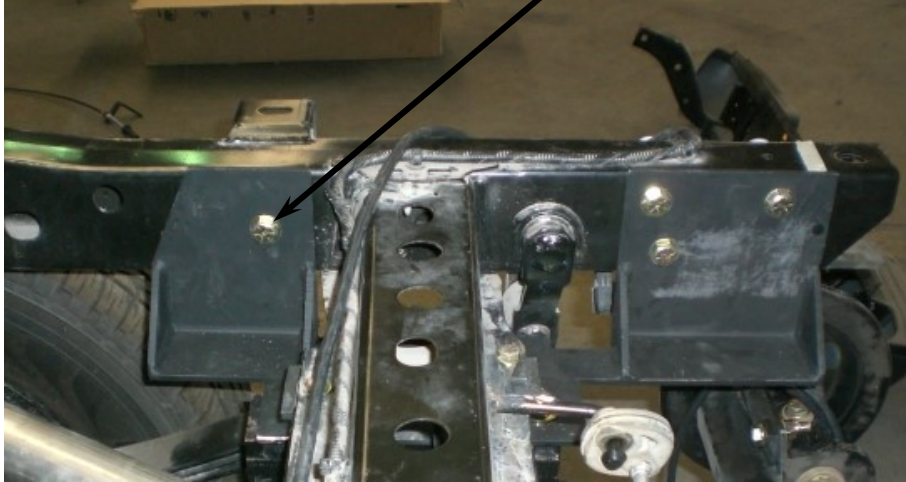
DO NOT SCALE DRAWING			
PRIMARY UNITS ARE INCH (SECONDARY UNITS ARE MILLIMETERS)			
TOLERANCE ON FINISHED DIMENSIONS UNLESS OTHERWISE SPECIFIED	R.M.S. FINISH (MAX DEPTH AS NOTED)	DECIMALS	PLACES
BASIC DIMENSIONS		2 PLACE	3 PLACE
UP TO 6 INCHES		+/- .02	+/- .005
6" TO 24"		+/- .03	+/- .010
ABOVE 24"		+/- .06	+/- .015
ANGULAR DIMENSIONS		+/- 1/2°	

ALL WELDS TO CONFORM TO AWS D1.1

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DRILL THRU FRAME USIN 17/32" DIA DRILL



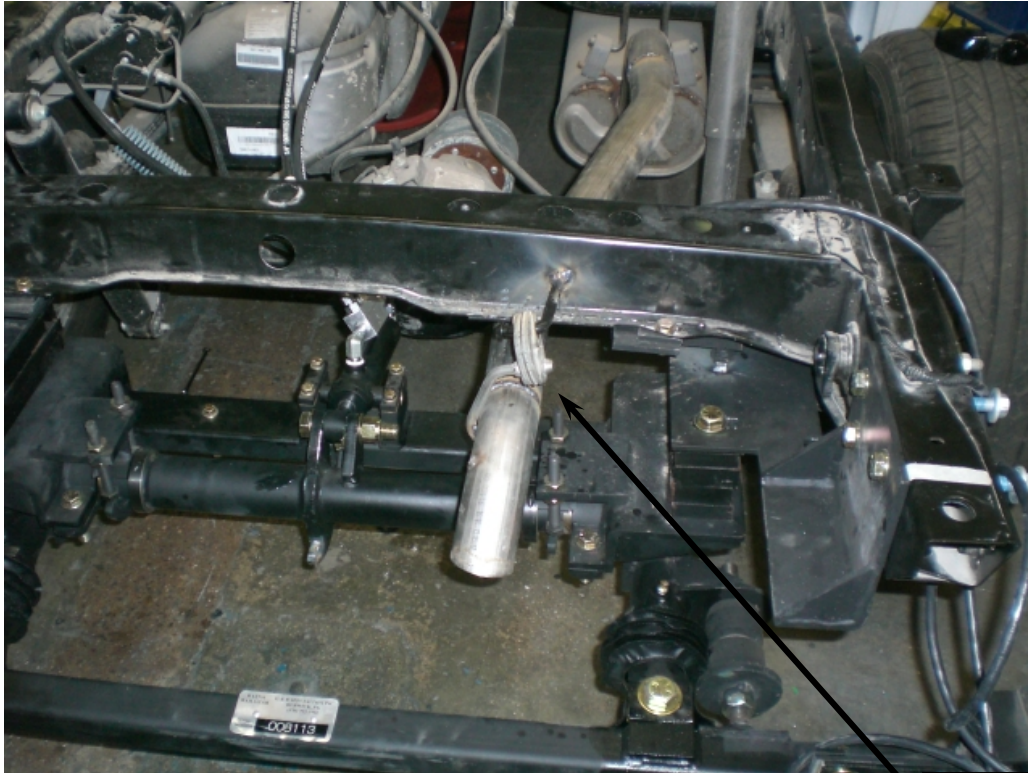
**Figure #1**  
(PASSENGERS SIDE SHOWN-DRIVERS SIDE TYPICAL)



Nuts may need to be removed in order to  
install jack stud assembly

**Figure #2**

(PASSENGERS SIDE SHOWN-DRIVERS SIDE TYPICAL)



Modified exhaust

**Figure #3**  
(PASSENGERS SIDE SHOWN-DRIVERS SIDE TYPICAL)