

INSTALLATION OF R-290 REAR MOUNTING KIT 2017-PRESENT FORD F-350 4X2/4X4 CHASSIS CAB, SRW, MID-SHIP FUEL TANK ONLY, GAS

INSTALLATION SAFETY PRECAUTIONS

If any installation problems are encountered, please call G&B Specialties 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.
- Do not start the vehicle with the power steering hoses disconnected. Reconnect all hoses and secure the power steering cooler if the vehicle is started.
- 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 to protect the vehicle's electrical system.
- Railway Company rules governing rail travel must be observed at all times.
- Never operate the vehicle if the Gross Vehicle Weight Rating (GVWR), Gross Axle Weight Rating Front or Rear (GAWR), or the wheel or tire load ratings are exceeded.

INSTALLATION OF REAR MOUNTING KIT

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

Table 1: K-R29RRXFCC17 Rear Mounting Kit			
Part Number	Description	# Req.	Remarks
R-33351D	Rear Mounting Bracket, Drivers Side	1	
R-33351P	Rear Mounting Bracket, Passengers Side	1	
R-2960	Railgear Mounting Shim, ½"	4	
R-2960A	Railgear Mounting Shim, 1"	3	
R-33262	Machined Bolt	2	
990316-100-22	1" UNC Gr. 8 Nylon Insert Lock Nut	2	R-99KIT-425 Rear Mounting Bracket Install
990600-100-002	1" Gr. 8 Washer	4	
990727-225-22	1/2" UNC Gr. 8 Bolt x 2.250" Long	2	
990316-050-22	1/2" UNC Gr. 8 Nylon Insert Lock Nut	2	
900600-050-002	1/2" Gr. 8 Washer	4	
990729-225-22	5/8" UNC Gr. 8 Bolt x 2.25" Long	4	
990600-062-002	5/8" Gr. 8 Washer	8	
990316-062-22	5/8" UNC Gr. 8 Nylon Insert Lock nut	4	
990731-350-22	3/4" UNC Gr. 8 Bolt x 3.50" Long	4	R-990KIT-426 Railgear Mounting
990731-550-22	3/4" UNC Gr. 8 Bolt x 5.50" Long	4	
990731-600-22	3/4" UNC Gr. 8 Bolt x 6.00" Long	4	
990600-075-002	3/4" Gr. 8 Washer	8	
990316-075-22	3/4" UNC Gr. 8 Nylon Insert Lock Nut	4	

1. Place each rear mounting bracket against the underside and outside of the frame rails as shown, just over the rear spring hangers. The slot in the side of each rear mounting plate should align with the slot in the side of the frame. Attach bracket using location slot in frame.
2. A. Drill as shown on lower leg of frame rail on driver's side.
 B. Drill two slots into the side of the frame, using the location slots on passenger side bottom of the mounting bracket to pressed up against bottom of the frame
3. Fasten each rear mounting bracket to the bottom of the frame as shown.

[illegible]

Figure 1

G&B Specialties Inc. 535 West 3rd Street, Berwick, PA, USA Tel: (570) 752-5901 Fax: (570) 752-6397
US Field Service: (570) 441-6988; CAN Field Service (570) 854-0482; www.rafna.com

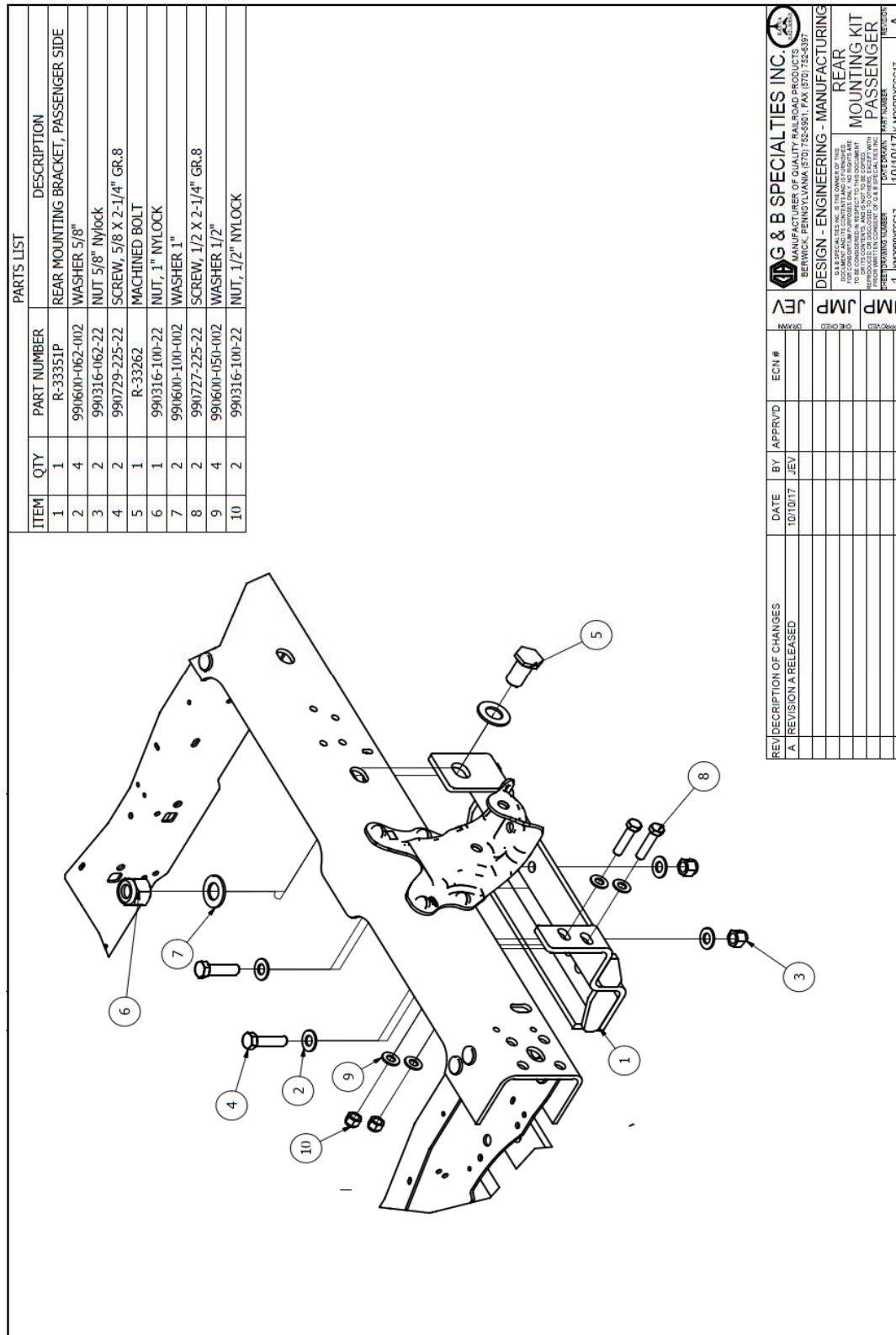


Figure 2

G&B Specialties Inc. 535 West 3rd Street, Berwick, PA, USA Tel: (570) 752-5901 Fax: (570) 752-6397
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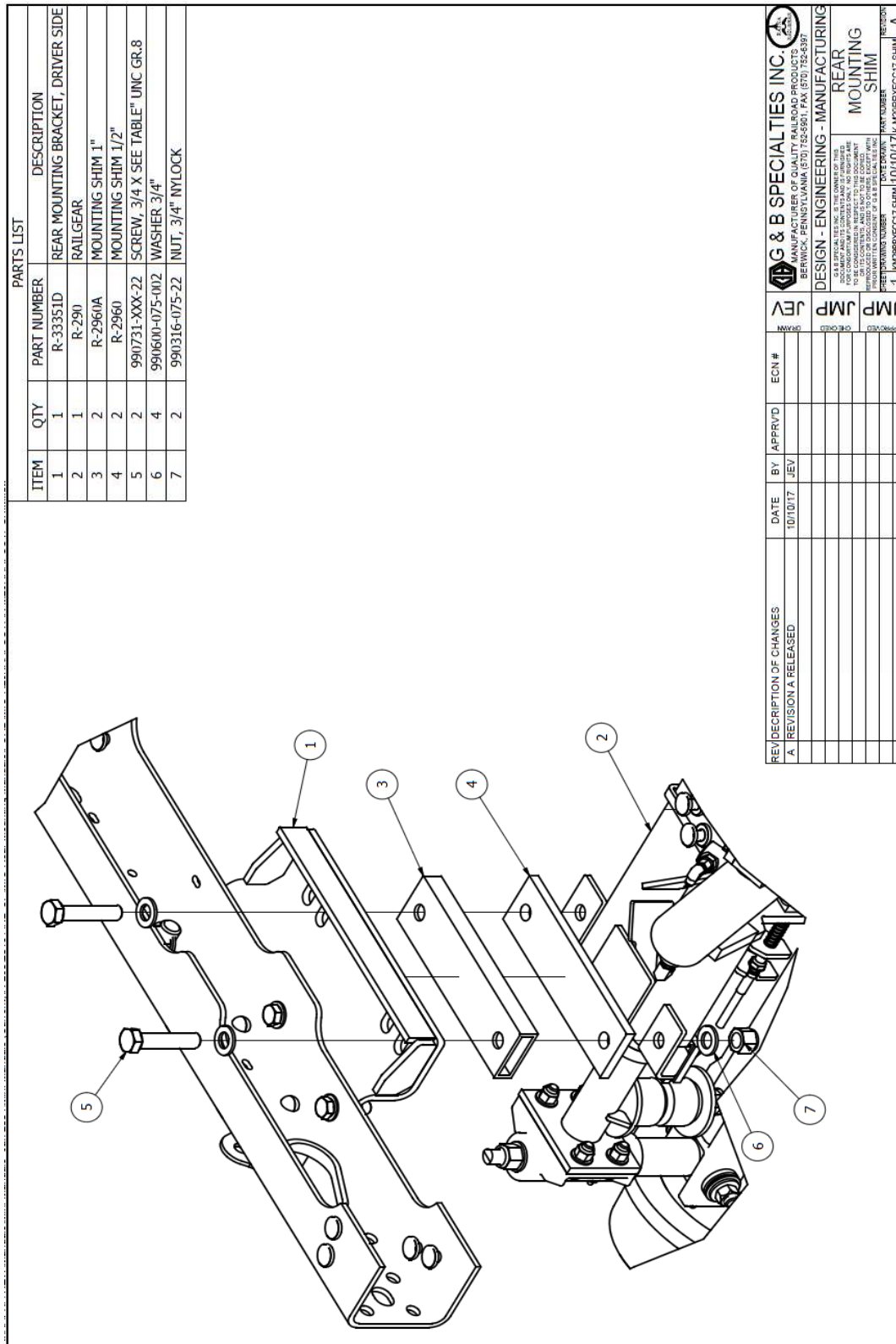


Figure 3

Table 1: F-350 to Shims and Bolt Relation

Model	Wheel Base (in)	Standard GVWR	Shims 1"	Shims 1/2"	Bolt Length
F-350 SuperCab 4x2	167.9	9800 SRW	1	1	3-1/2"
F-350 SuperCab 4x4	167.9	9800 SRW	3	1	5-1/2"
F-350 RegularCab 4x2	145.3	9800 SRW	1	1	3-1/2"
F-350 RegularCab 4x4	145.3	9800 SRW	3	1	6"
F-350 Crew Cab 4x2	179.7	9800 SRW	1	1	3-1/2"
F-350 Crew Cab 4x4	179.7	9800 SRW	3	1	5-1/2"

**OPERATION, SERVICE AND PARTS OF R-290 REAR MOUNTING KIT
2017-PRESENT FORD F-350 4X2/4X4 CHASSIS CAB, SRW, MID-SHIP
FUEL TANK ONLY, GAS**

OPERATION SAFETY PRECAUTIONS

**If any operating, services or parts problems are encountered, please call
G&B Specialties, Inc. for technical assistance.**



- 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 operation of the railgear equipped vehicle.
- Operating instructions provided below only address the RAFNA railgear equipment. Applicable railway company procedures and policies must be adhered to.
- Railway company rules governing rail travel must be observed at all times.
- Before performing any work under the vehicle or railgear, ensure the engine is turned off and the parking brake is set.
- Never operate the vehicle if the Gross Vehicle Weight Rating (GVWR), Gross Axle Weight Rating Front or Rear (GAWR), or the wheel or tire load ratings are exceeded.

OPERATION AND SERVICE OF REAR MOUNTING KIT

With the rear mounting kit installed on this vehicle, it may be operated as normal.

Never operate the vehicle if the Gross Vehicle Weight Rating (GVWR), Gross Axle Weight Rating Front or Rear (GAWR), or the wheel or tire load ratings are exceeded.

The rear mounting kit must be serviced regularly to avoid damage to the equipment. Table 1 below provides the Recommended Service Schedule and Table 2 provides Standard Fastener Torque Values.

Table 2: Recommended Service Schedule

Service Required	Initial 100 km (62 Miles) of road and/or rail use	Daily	Weekly	Monthly
Inspect rear mounting kit fasteners (re-torque if required)		✓	✓	✓

Table 3: Standard Fastener Torque Values

Fastener Size	Fastener Torque Value (ft-lbs) Dry
1" UNC Gr. 8 Fasteners	250
¾" UNC Gr. 8 Fasteners	175
⅝" UNC Gr. 8 Fasteners	150
½" UNC Gr. 8 Fasteners	100
⅜" UNC Gr. 8 Fasteners	40
¼" UNC Gr. 8 Fasteners	12

RAILGEAR SHIM RECOMMENDATIONS

When determining the amount of shim needed for proper mounting heights, the following recommendations should be followed. Any questions outside of what is covered, please contact Rafna's service manager for all other inquiries.

- Shim should not exceed a combination of 6”.
- Any shim amount over 3” should have the “floating shims” tacked together as well as the upper and lower shim tacked to the mounting bracket and railgear as shown below.
- All welds should be painted when finished to prevent rusting.

