

INSTALLATION OF R-450 FRONT MOUNTING KIT 2008-2016 FORD F-450/F-550 4X4/4X2

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 FRONT MOUNTING KIT

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

Table 1: K-R45FVXF003 Front Mounting Kit Installation Parts

Part Number	Description	Qty
R-12002D	Mounting Plate - Drivers Side	1
R-12002P	Mounting Plate - Passengers Side	1
R-12000D-A	Side plate Assembly - Drivers Side	1
R-12000P-A	Side plate Assembly - Passengers Side	1
R-12009	Frame Extension	2
R-12004D	Angle Bracket - Drivers Side	1
R-12004P	Angle Bracket - Passengers Side	1
R-11109	Spacer, Frame	2
R-11114	Tie Bar/Mounting Plate	1
R-990KIT-107	5/8" UNC GR.8 Bolt x 6" Lg.	12
	5/8" Flat Washer, GR.8 - Type-A	40
	5/8" UNC GR.8 Nylon Insert Lock Nut	20
	5/8" UNC GR.8 Bolt x 2" Lg.	8
	1/2" UNC GR.8 Bolt X 2" Lg.	6
	1/2" UNC GR.8 Nylon Insert Lock Nut	6
	1/2" Flat Washer, GR.8 - Type-A	12

Frame Modification (Figure 1)

1. Remove the front bumper and front tow hooks if so equipped. The bumper and tow hooks will not be re-installed.
2. On the in-board side of the driver's side frame rail, drill out the three existing holes to 11/16" diameter. Drill the second and third holes thru to the out-board side of the frame and thru the out-board frame rail.
3. On the out-board side of the driver's side frame rail, drill out the first existing hole to 11/16" diameter. Drill a 11/16" hole through the outboard side frame rail into and through the inboard side frame rail using the center of the second slot as a template.
4. On the in-board side of the passenger's side frame rail, drill out the first two existing holes to 11/16" diameter. Drill the second hole thru to the out-board side of the frame and thru the out-board frame rail.
5. On the out-board side of the passenger's side frame rail, drill out the first existing hole to 11/16" diameter. Drill 11/16" hole through the outboard side frame rail into and through the inboard side frame rail using the center of the second slot as a template.

6. Using the passenger's side plate assembly (R-12000P or R-12000P-A) align the first two holes in the frame with the third and fourth holes in the side plate assembly. Make sure that the side plate assembly is flush with bottom of frame and secure side plate assembly to frame with c-clamp.
7. Transfer the location of the last hole in the side plate assembly to the in-board side of the passenger's side frame rail. Drill a 11/16" diameter hole thru to the out-board side of the frame and thru the out-board frame rail.

Bracket Assembly (Figure 2 & 3)

1. Insert frame extension into frame and align with the holes in the frame. Assemble with 5/8" bolts and flat washers to hold extension in place.
2. Assemble railgear mounting plate assemblies, frame extensions, and mounting plates to truck frame using 5/8" bolts, flat washers and nuts. Railgear mounting plate assembly is to be flush with bottom of frame and frame extension.
3. Assemble angle clips to frame using 1/2" bolts, flat washers, and nuts. Fasten angle clip to side plate assembly using 5/8" bolts, flat washers, and nuts. Fasten tie bar to side plate assemblies using 5/8" bolts, flat washers, and nuts.
4. Torque all 5/8" fasteners to 150 ft-lbs dry. Torque all 1/2" fasteners to 100 ft-lbs dry.
5. Repeat steps 1 thru 4 for passenger's side.

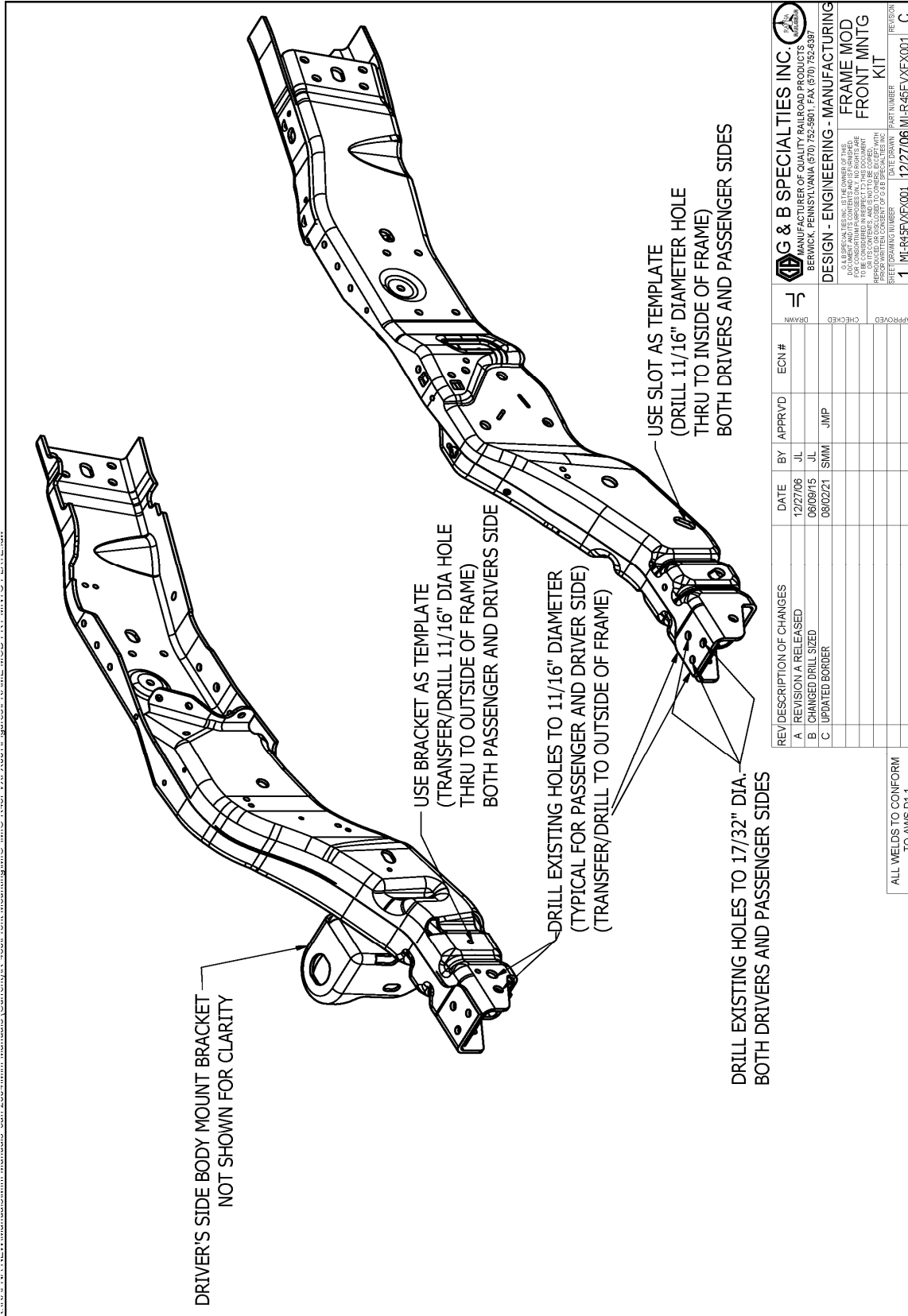


Figure 1

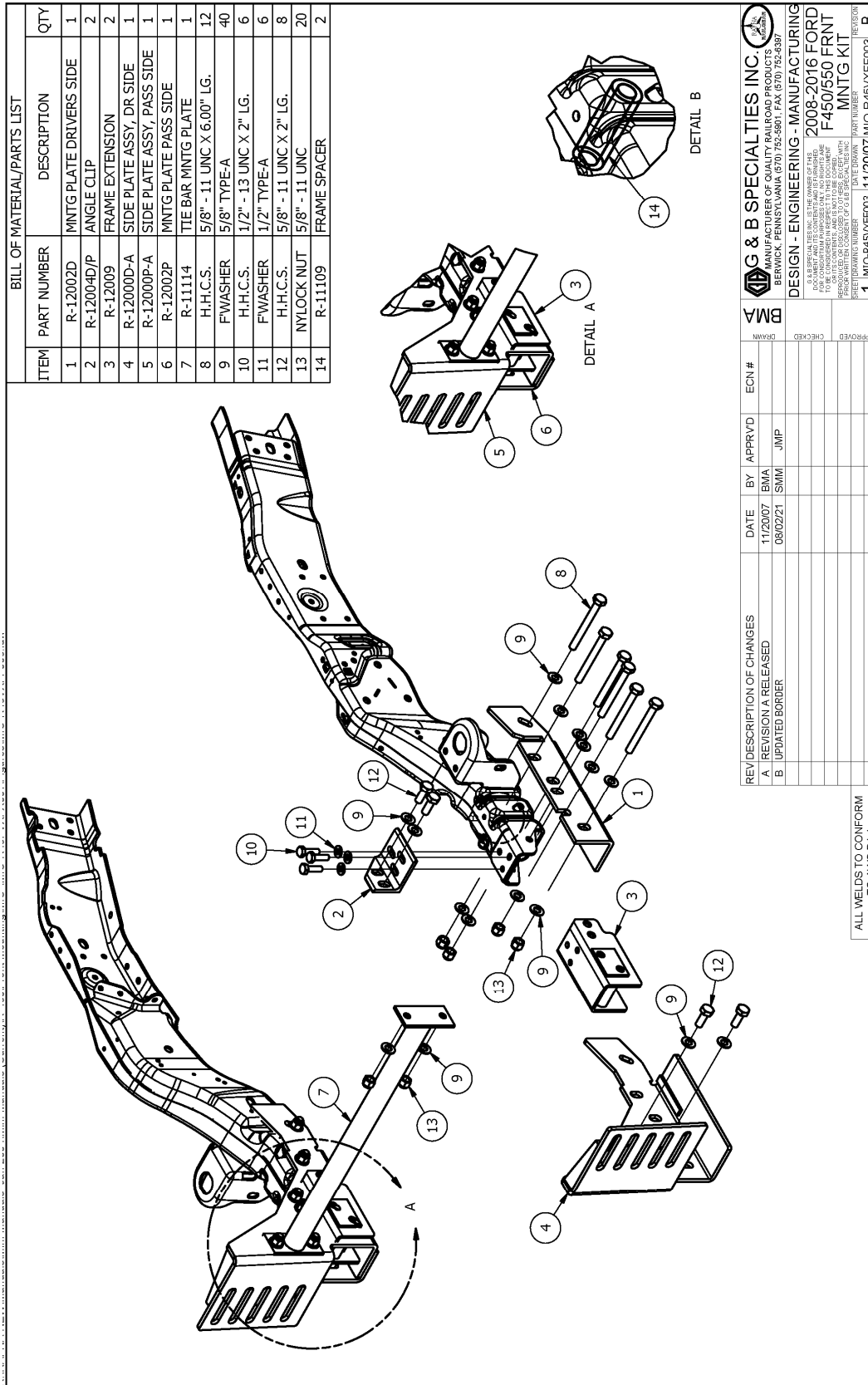


Figure 2

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

BMA	G & B SPECIALTIES INC.	2008-2016 FORD	F450/550 FRNT	MNTG KIT	112007	112007	112007
MANUFACTURER OF QUALITY RAILROAD PRODUCTS	MANUFACTURER OF QUALITY RAILROAD PRODUCTS	MANUFACTURER OF QUALITY RAILROAD PRODUCTS	MANUFACTURER OF QUALITY RAILROAD PRODUCTS	MANUFACTURER OF QUALITY RAILROAD PRODUCTS	MANUFACTURER OF QUALITY RAILROAD PRODUCTS	MANUFACTURER OF QUALITY RAILROAD PRODUCTS	MANUFACTURER OF QUALITY RAILROAD PRODUCTS
DESIGN - ENGINEERING - MANUFACTURING	DESIGN - ENGINEERING - MANUFACTURING	DESIGN - ENGINEERING - MANUFACTURING	DESIGN - ENGINEERING - MANUFACTURING	DESIGN - ENGINEERING - MANUFACTURING	DESIGN - ENGINEERING - MANUFACTURING	DESIGN - ENGINEERING - MANUFACTURING	DESIGN - ENGINEERING - MANUFACTURING
<small>G & B SPECIALTIES INC. IS THE OWNER OF THE PATENT RIGHTS IN THE DESIGN AND MANUFACTURE OF THIS PRODUCT. ANY REPRODUCTION OR USE OF THIS PRODUCT WITHOUT THE WRITTEN PERMISSION OF G & B SPECIALTIES INC. IS STRICTLY PROHIBITED.</small>							
APPROVED	CHECKED	DATE	BY	APPROVED	ECN #	DATE	BY
		11/20/07	BMA			08/02/21	SMM
			JMP				
<small>ALL WELDS TO CONFORM TO AWS D1.1</small>							

OPERATION OF R-450 FRONT MOUNTING KIT 2008-2016 FORD F-450/F-550 4X4/4X2

OPERATION SAFETY PRECAUTIONS

If any operating, services or parts problems are encountered, please call G&B Specialties 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 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.
- 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.

OPERATION AND SERVICE OF FRONT MOUNTING KIT
--

With the front mounting kit installed on this vehicle, it may be operated as normal; however, the front bumper is located further forward than standard. Side wands are located on the front bumper to aid in determining the length and width of the vehicle. Caution must be used when operating the vehicle.

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 front 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 1: Recommended Service Schedule

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

Table 2: Standard Fastener Torque Values

Fastener Size	Fastener Torque Value (ft.-lbs) Dry
1" UNC Gr. 8 Fasteners	250
7/8" UNC Gr. 8 Fasteners	200
3/4" UNC Gr. 8 Fasteners	175
5/8" UNC Gr. 8 Fasteners	150
1/2" UNC Gr. 8 Fasteners	100
3/8" UNC Gr. 8 Fasteners	40
1/4" UNC Gr. 8 Fasteners	12

