

INSTALLATION OF FRONT MOUNTING KIT 2017 FORD F-250/350 4x4

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 Industries 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.
- 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 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.

SERVICE OF FRONT MOUNTING KIT

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
3/4" UNC Gr. 8 Fasteners	175
5/8" UNC Gr. 8 Fasteners	150
1/2" UNC Gr. 8 Fasteners	100
7/16" UNC Gr. 8 Fasteners	65
3/8" UNC Gr. 8 Fasteners	40
1/4" UNC Gr. 8 Fasteners	12

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 Table 3.

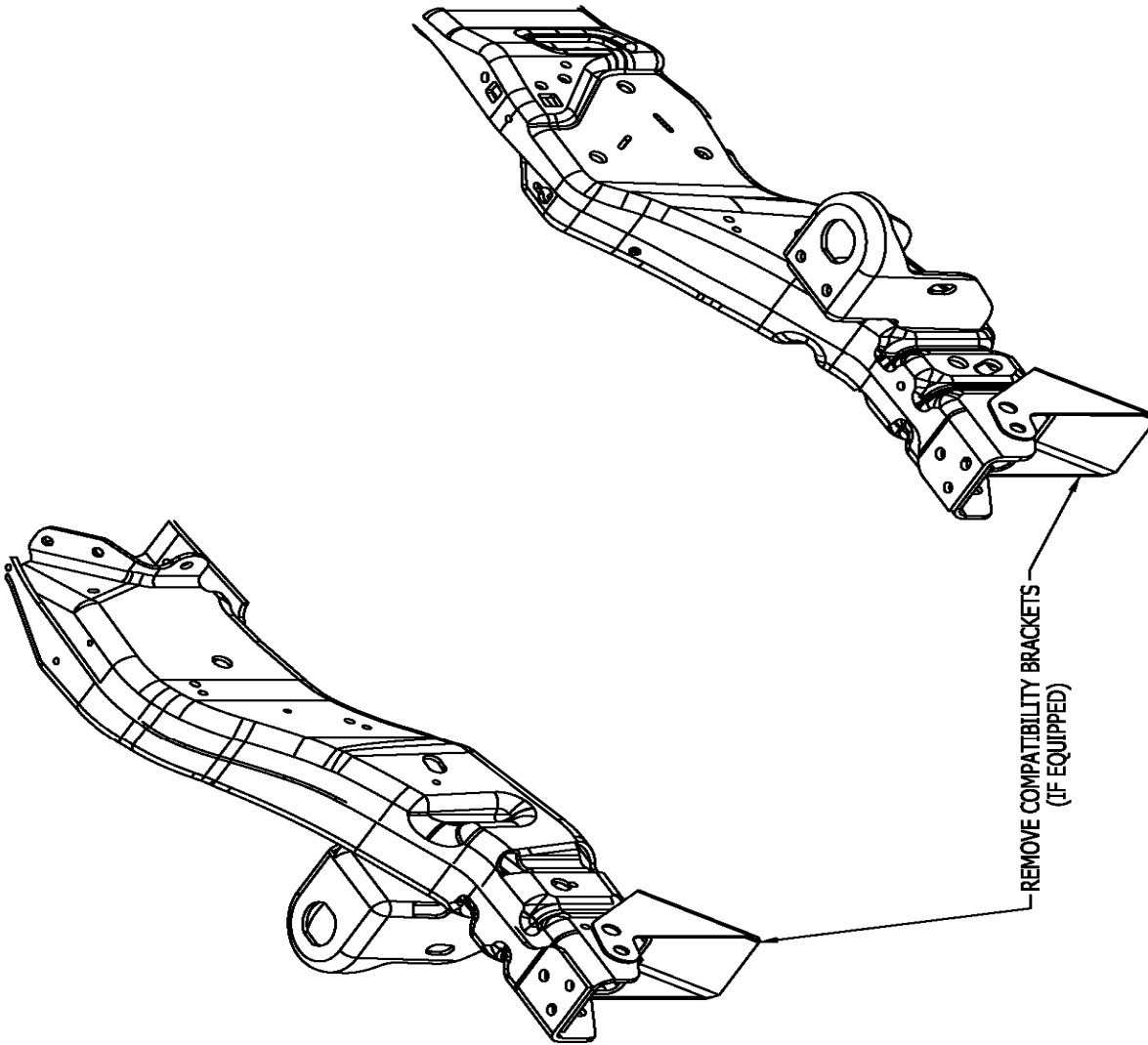
Table 3: Front Mounting Kit Installation Parts



Part Number	Description	Qty
R-33279D	Mounting Bracket - Drivers Side	1
R-33277P	Mounting Bracket - Passengers Side	1
R-33283	Frame Extension	2
R-33285	Bumper Spacer	8
R-2960A	Railgear Mounting Shim - 1"	2
R-2631	Railgear Mounting Shim - 2"	2
R-2960	Railgear Mounting Shim - ½"	4
R-33284	Frame Extension Spacer	2
R-990KIT-209A	3/4" UNC GR.8 Bolt x 2.50" Lg.	4
	3/4" UNC GR.8 Bolt x 3.50" Lg.	4
	3/4" UNC GR.8 Bolt x 4.50" Lg.	4
	3/4" Flat Washer, GR.8 - Type-A	8
	3/4" UNC GR.8 Nylon Insert Lock Nut	4
	5/8" UNC GR.8 Bolt x 6.50" Lg.	8
	5/8" Flat Washer, GR.8 - Type-A	16
	5/8" UNC GR.8 Nylon Insert Lock Nut	8
	1/2" UNC GR.8 Bolt X 1.50" Lg.	16
	1/2" Flat Washer, GR.8 - Type-A	32
	1/2" UNC GR.8 Nylon Insert Lock Nut	16
R-051	Side Wand Set	1

Frame Modification (Figure 1)

1. Remove the front bumper and front tow hooks if so equipped. Remove the retaining clip and relocate to avoid rubbing on the mounting brackets.
 - a.) Remove front compatibility brackets from front frame horns.
2. Retain the front bumper and tow hooks for re-installation.

TOWARDS FRONT OF VEHICLE

A		DRAWING RELEASED	10/18/16	SMM	DATE	BY	APPD
REV		CHANGE					
REVISION							
		G & B SPECIALTIES INC.					
		MANUFACTURER OF QUALITY RAILROAD PRODUCTS		BERWICK PENNSYLVANIA (570)752-5901, FAX (570)752-6397			
		DESIGN ~ ENGINEERING ~ MANUFACTURING		DESCRIPTION: REMOVAL OF COMPATIBILITY BRACKETS			
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		DRAWING NUMBER		DATE DRAWN		SHEET	
		MIO-R29FRXFX17-2		10/18/16		1 OF 1	
				PART NUMBER		REVISION	
				MIO-R29FRXFX17-2		A	

DO NOT SCALE DRAWING			
TOLERANCE ON FINISHED DIMENSIONS UNLESS OTHERWISE SPECIFIED	FRACS, FIRST PLACE	DECIMALS	NOTED
	12 ⁵		
BASIC DIMENSIONS	2 PLACE	3 PLACE	
	UP TO 6 INCHES	+/- .02	+/- .005
ABOVE 6" TO 24"	+/- .1/32	+/- .03	+/- .010
ABOVE 24"	+/- .1/16	+/- .06	+/- .015
ANGULAR DIMENSIONS	+/- .1/2		

Figure 1

Bracket Assembly - Drivers Side (Figure 2 & 3)

1. Insert frame extension into frame and align with first two holes in the frame and with the holes in the top of the frame. Place factory tow hook back in its original location and fasten loosely the frame extension to the tow hook with factory tow hook bolts.
2. Assemble the railgear mounting bracket to truck frame and frame extension using 5/8" bolts, flat washers and nylon insert lock nuts. Insert middle bolt first to hold bracket in place. Insert R-33284 into frame extension and insert the rear most bolt through spacer. (Spacer may need to be ground to fit depending on tolerances) Make sure that the mounting bracket is tight up against the bottom of the frame and frame extension and the inside frame rail. Finish installing bracket and torque all 5/8" fasteners to 150 ft-lbs dry.
3. Through the window in the bottom of the mounting bracket, tighten and torque tow hook bolts to 150 ft-lbs dry.
4. Repeat steps 1 thru 3 for passenger's side.
5. The supplied mounting shims are to be used as required when mounting the railgear to the front mounting brackets.

Front Bumper Mounting (Figure 4 & 5)

1. Attach bumper spacers as shown using 1/2" x 1-1/2" bolts, flat washers and nylon insert lock nuts.
2. Attach OEM bumper to spacers as shown using 1/2" x 1-1/2" bolts, flat washers and nylon insert lock nuts.
3. Torque all 1/2" fasteners to 100 ft-lbs dry.

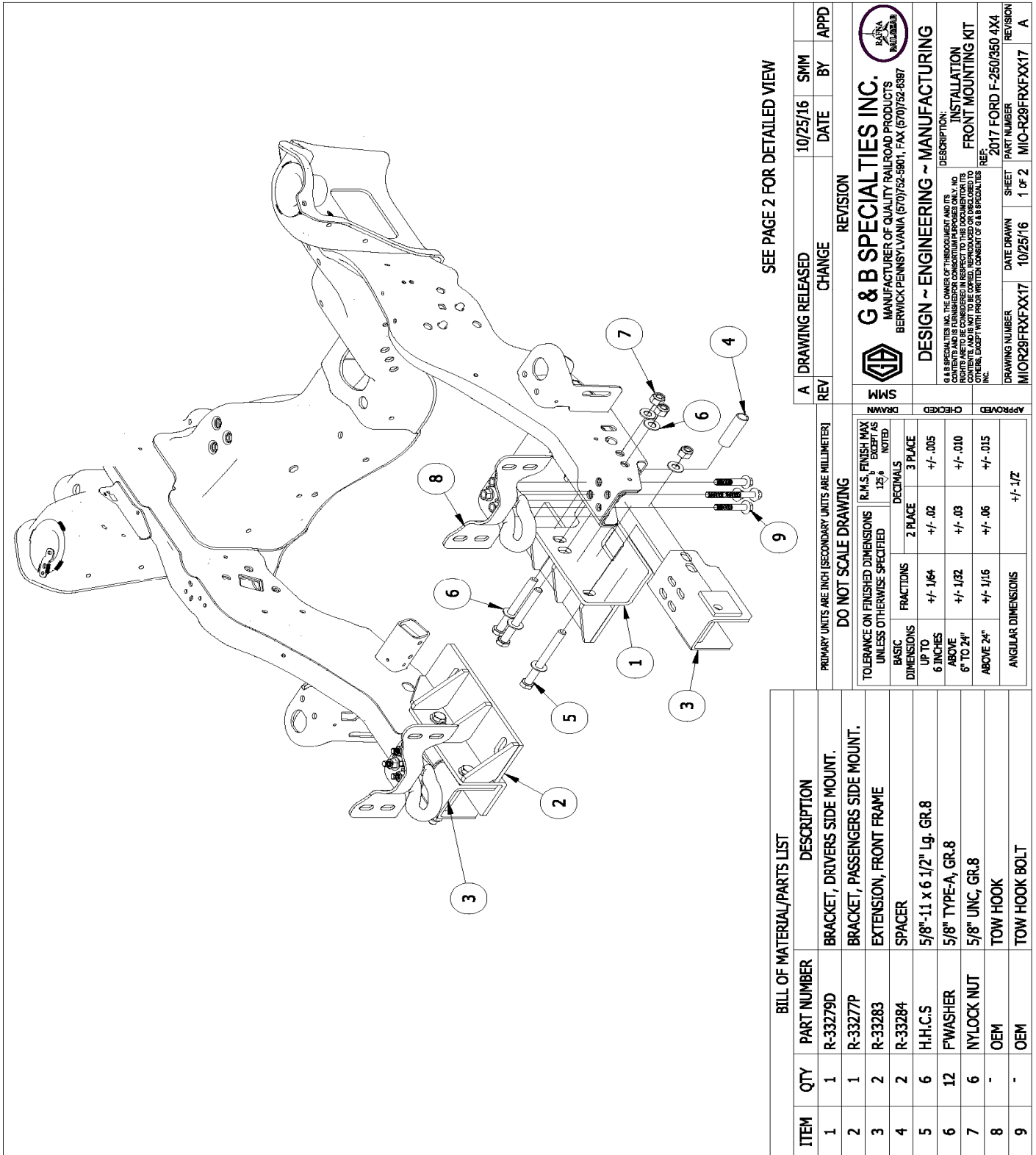


Figure 2

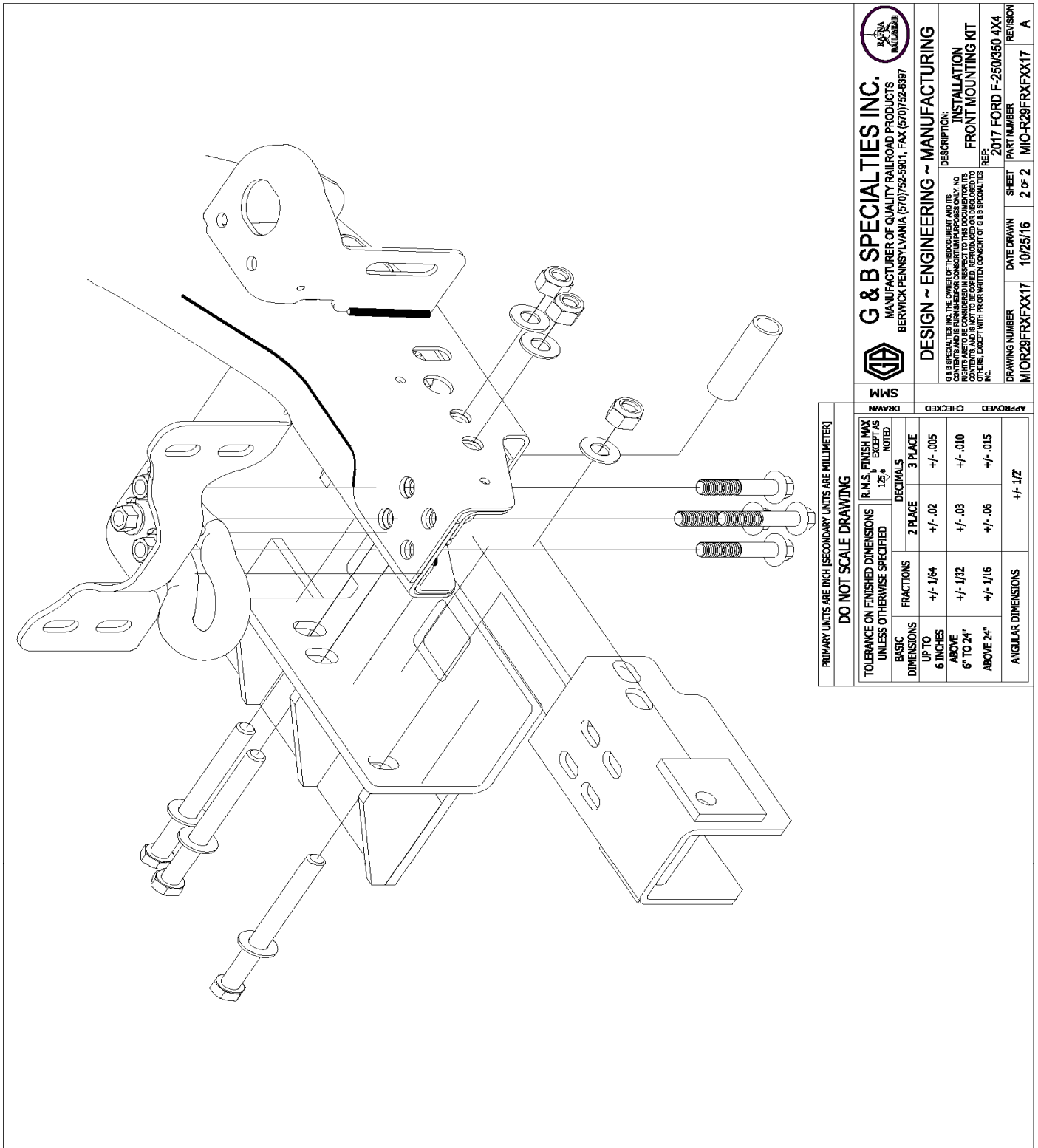
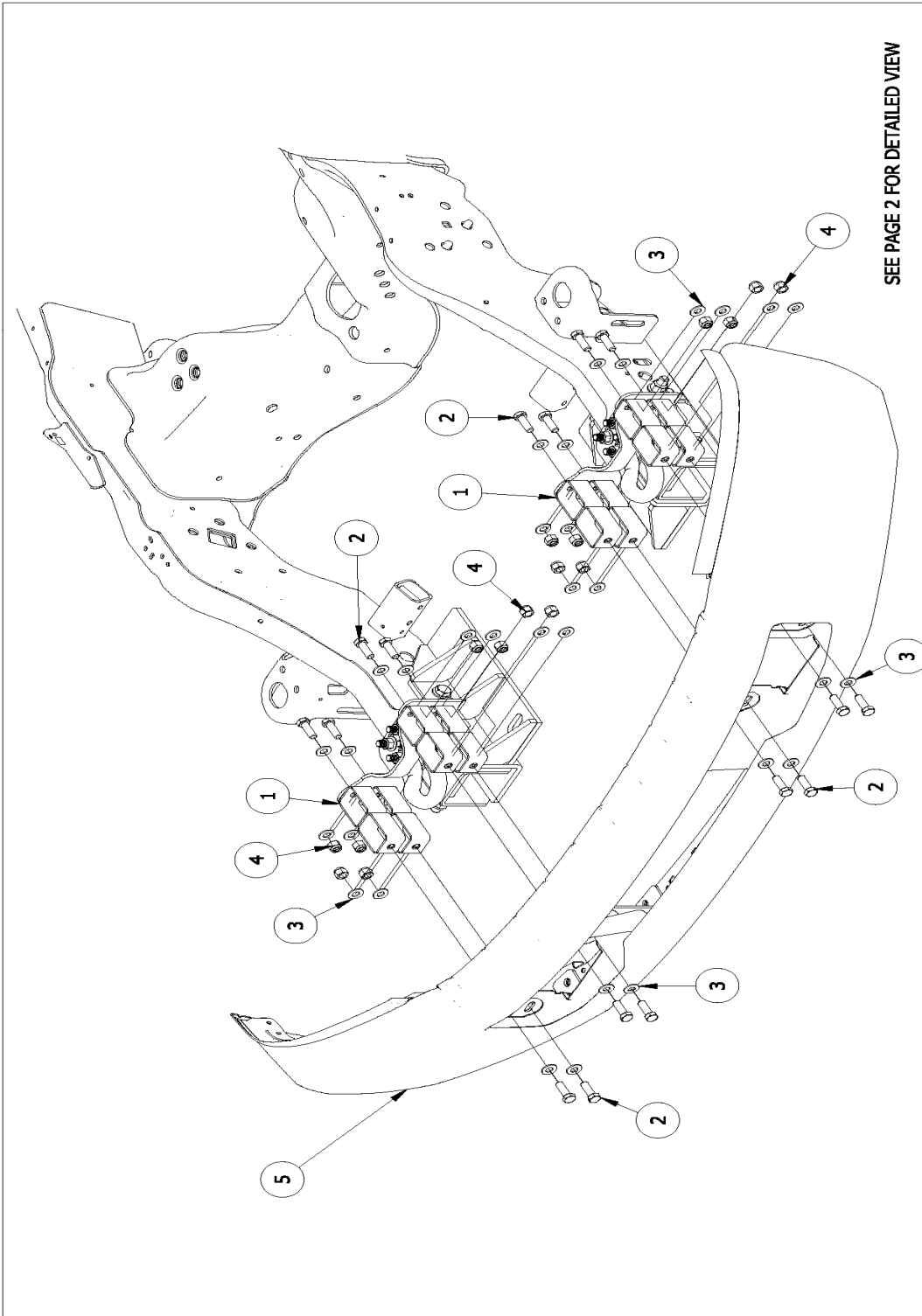


Figure 3

PRIMARY UNITS ARE INCH [SECONDARY UNITS ARE MILLIMETER]		DO NOT SCALE DRAWING		TOLERANCE ON FINISHED DIMENSIONS UNLESS OTHERWISE SPECIFIED		R.M.S. FINISH MAX 125 μ INCHES NOTED	
BASIC DIMENSIONS	FRACTIONS	DECIMALS	2 PLACE	3 PLACE	UP TO 6 INCHES	ABOVE 6" TO 24"	ABOVE 24"
	+/- 1/64	+/- .02	+/- .005				
	+/- 1/32	+/- .03	+/- .010				
	+/- 1/16	+/- .06	+/- .015				
ANGULAR DIMENSIONS	+/- 1/2°						

SM	SM	SM	SM
DRAWN	CHECKED	APPROVED	
<p>G & B SPECIALTIES INC. MANUFACTURER OF QUALITY RAILROAD PRODUCTS BERWICK PENNSYLVANIA (570)752-5901, FAX (570)752-6397</p> <p>DESIGN ~ ENGINEERING ~ MANUFACTURING</p> <p>DESCRIPTION: INSTALLATION FRONT MOUNTING KIT</p> <p>REF: 2017 FORD F-250/350 4X4</p>			
DRAWING NUMBER	DATE DRAWN	SHEET	REV/ISSN
MIO-R29FRXFX17	10/25/16	2 of 2	MIO-R29FRXFX17 A



SEE PAGE 2 FOR DETAILED VIEW

REV		CHANGE		DATE	BY	APPD
A		DRAWING RELEASED		10/25/16	SMM	

DO NOT SCALE DRAWING		TOLERANCE ON FINISHED DIMENSIONS UNLESS OTHERWISE SPECIFIED		R.M.S. FINISH MAY EXCEPT AS NOTED	
		FRACTIONS	DECIMALS	2 PLACE	3 PLACE
BASIC DIMENSIONS					
UP TO 6 INCHES		+/- 1/64	+/- .02	+/- .005	+/- .005
ABOVE 6" TO 24"		+/- 1/32	+/- .03	+/- .010	+/- .010
ABOVE 24"		+/- 1/16	+/- .06	+/- .015	+/- .015
ANGULAR DIMENSIONS		+/- .1Z			

BILL OF MATERIAL/PARTS LIST		DESCRIPTION
ITEM	QTY	PART NUMBER
1	8	R-33285 BUMPER SPACER
2	16	H.H.C.S 1/2"-13 X 1 1/2" Lg. GR.8
3	32	FWASHER 1/2" TYPE-A, GR.8
4	16	NYLOCK NUT 1/2"-13, GR.8
5	-	OEM FRONT BUMPER

G & B SPECIALTIES INC.		MANUFACTURER OF QUALITY RAILROAD PRODUCTS	
BERWICK, PENNSYLVANIA (717) 752-5901, FAX (717) 752-6397		DESIGN ~ ENGINEERING ~ MANUFACTURING	
DESCRIPTION: INSTALLATION FRONT BUMPER		REF: 2017 FORD F-250/350 4X4	
DRAWING NUMBER: MIO-R29FRFX17-1		DATE DRAWN: 10/25/16	SHEET: 1 of 2
DRAWING NUMBER: MIO-R29FRFX17-1		DATE DRAWN: 10/25/16	SHEET: 1 of 2
DRAWING NUMBER: MIO-R29FRFX17-1		DATE DRAWN: 10/25/16	SHEET: 1 of 2

Figure 4

