

INSTALLATION/OPERATION OF FRONT MOUNTING KIT 2014 RAM 2500/3500 4x4

SAFETY PRECAUTIONS

If any installation/operation 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/operation of the equipment.
- Installation/operation 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.
- Always disconnect the vehicle's battery when welding on the vehicle or railgear in order to protect the vehicle's electrical system.
- 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.
- Failure to heed to any of the following warnings could result in severe bodily injury and/or equipment damage.
- 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 table 1.

Table 1: Front Mounting Kit Installation Parts

Part Number	Description	Qty
R-31270D	Mounting Bracket, Drivers Side	1
R-31270P	Mounting Bracket, Passengers Side	1
R-31276D	Outer Support Plate, Drivers Side	1
R-31276P	Outer Support Plate, Passengers Side	1
R-18009	Spacer	4
R-32101	Bumper Mtg PLate	4
R-2960	Railgear Mtg Shim	2
R-2960A	Railgear Mtg Shim	2
R-2631	Railgear Mtg Shim	2
R-990KIT-374	1/2" UNC Gr. 8 Bolt x 4" Long	8
	1/2" UNC Gr. 8 Bolt x 1.75" Long	4
	1/2" UNC Gr. 8 Bolt x 1.50" Long	4
	1/2" Gr. 8 Washer	36
	1/2" UNC Gr. 8 Nylon Insert Lock Nut	20
R-990KIT-304	3/4" UNC Gr. 8 Bolt x 3.50" Long	4
	3/4" UNC Gr. 8 Bolt x 4.50" Long	4
	3/4" UNC Gr. 8 Bolt x 5.50" Long	4
	3/4" UNC Gr. 8 Bolt x 6.00" Long	4
	3/4" Gr. 8 Washer	8
	3/4" UNC Gr. 8 Nylon Insert Lock Nut	4

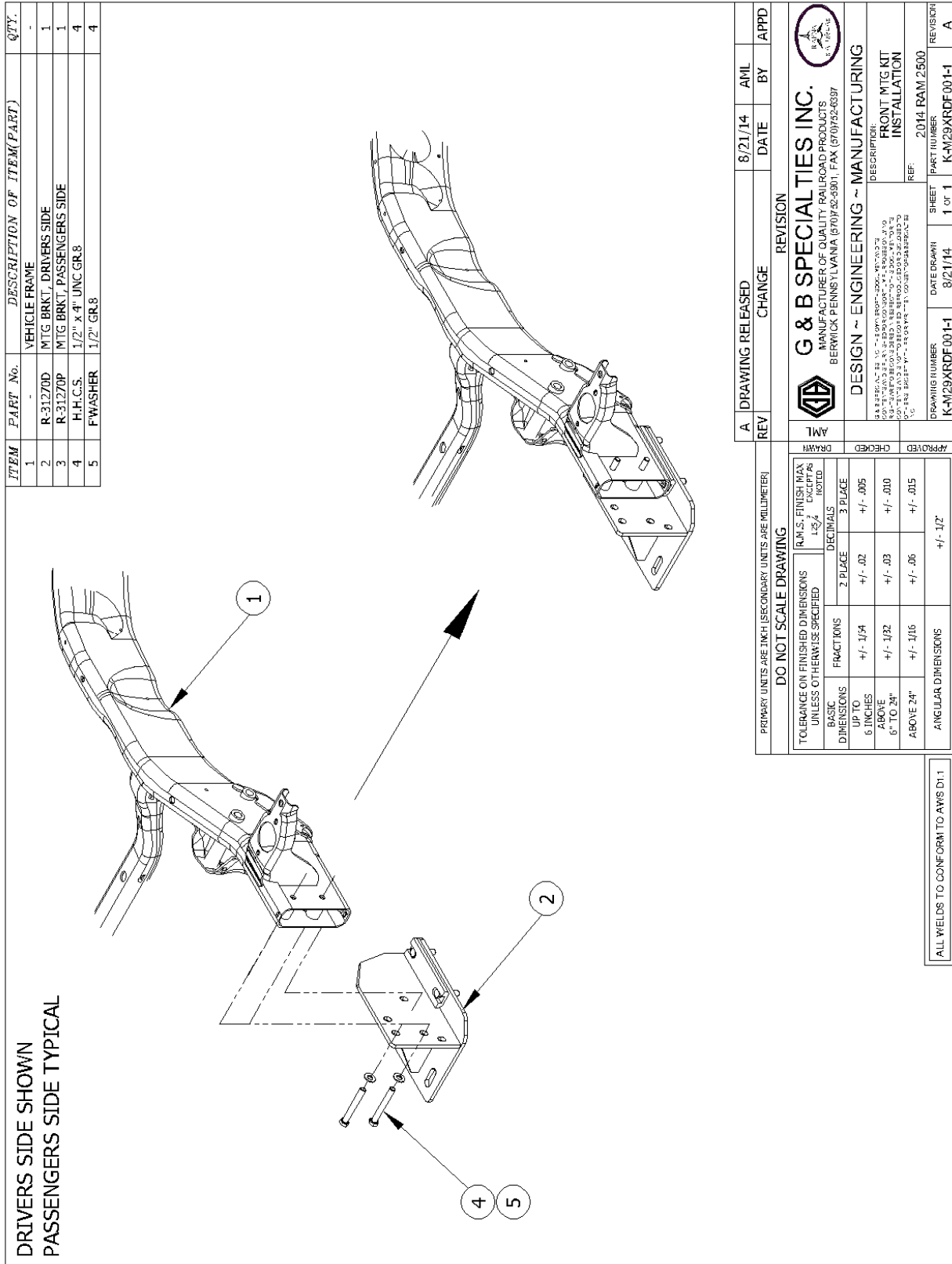
Drivers Side Bracket Installation

1. Remove the front bumper and bumper mounting brackets attached to the vehicle frame. Retain the front bumper, brackets and hardware for re-installation. (if required)
2. Remove tow hooks. Tow hooks will not be re-installed
3. Place the driver's side mounting bracket against the bottom and inside of the frame and place the 1/2" supplied hardware through the brackets and frame at the existing bumper bracket mounting holes.
4. Place the driver's side outer support plate against the outside of the frame, making sure it wraps around the bottom of the frame and drivers side mounting bracket. Secure to frame with the hardware used in step #3. Making sure both brackets are tight against the inside outside and bottom of frame. Torque to 100 ft/lbs dry. Do not over torque.

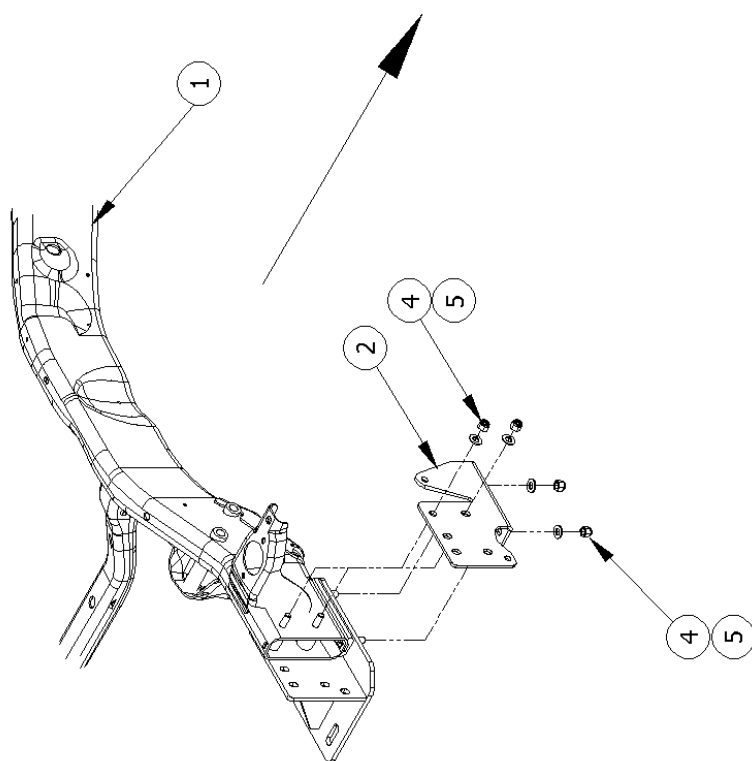
5. Secure both brackets together at the overlap on the bottom of the frame with the supplied 1/2" hardware. Torque to 100 ft/lbs dry. Do not over torque.
6. Using the rear upper hole in the outer support plate as a guide, drill a 17/32" diameter hole thru the frame and mtg bracket. Secure to frame using the supplied 1/2" hardware. Torque to 50 ft/lbs dry. Do not over torque.
7. Place the bracket spacers between the mounting bracket and outer support plate and secure with the supplied 1/2" hardware. Torque to 100 ft/lbs dry. Do not over torque.
8. Repeat above steps for the passenger's side.

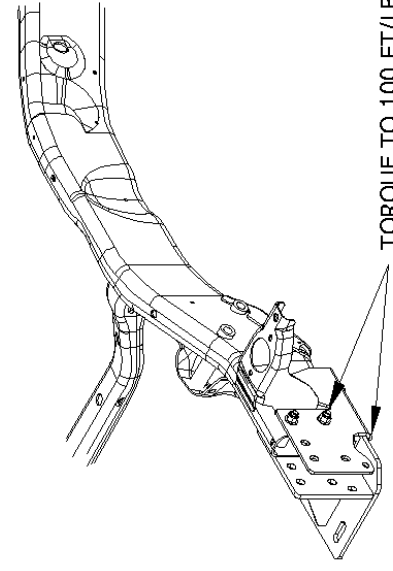
Note: Make certain everything sits flush against the frame when tightening the fasteners.

9. If the vehicle's original front bumper is to be re-installed in its original position, it will need to be modified and reinforced as required by the installer. The recommended modifications are shown at the end of installation section of this manual.
10. Optional bumper mounting plates are supplied with this mounting kit and can be used at the installers discretion. The mounting plates attach to the mounting bracket and outer support plate and are intended to reuse the OEM bumper mounting bracket and OEM hardware.



DRIVERS SIDE SHOWN
PASSENGERS SIDE TYPICAL





TORQUE TO 100 FT/LBS DRY

ITEM	PART No.	DESCRIPTION OF ITEM(PART)	QTY.
1	-	VEHICLE FRAME	-
2	R-31276D	OUTER SUPPORT PLATE, DRIVERS SIDE	1
3	R-31276P	OUTER SUPPORT PLATE, PASSENGERS SIDE	1
4	NYLOCK NUT	1/2" x UNC GR.8	8
5	FWASHER	1/2" GR.8	8



PRIMARY UNITS ARE INCH, SECONDARY UNITS ARE MILLIMETER

DO NOT SCALE DRAWING

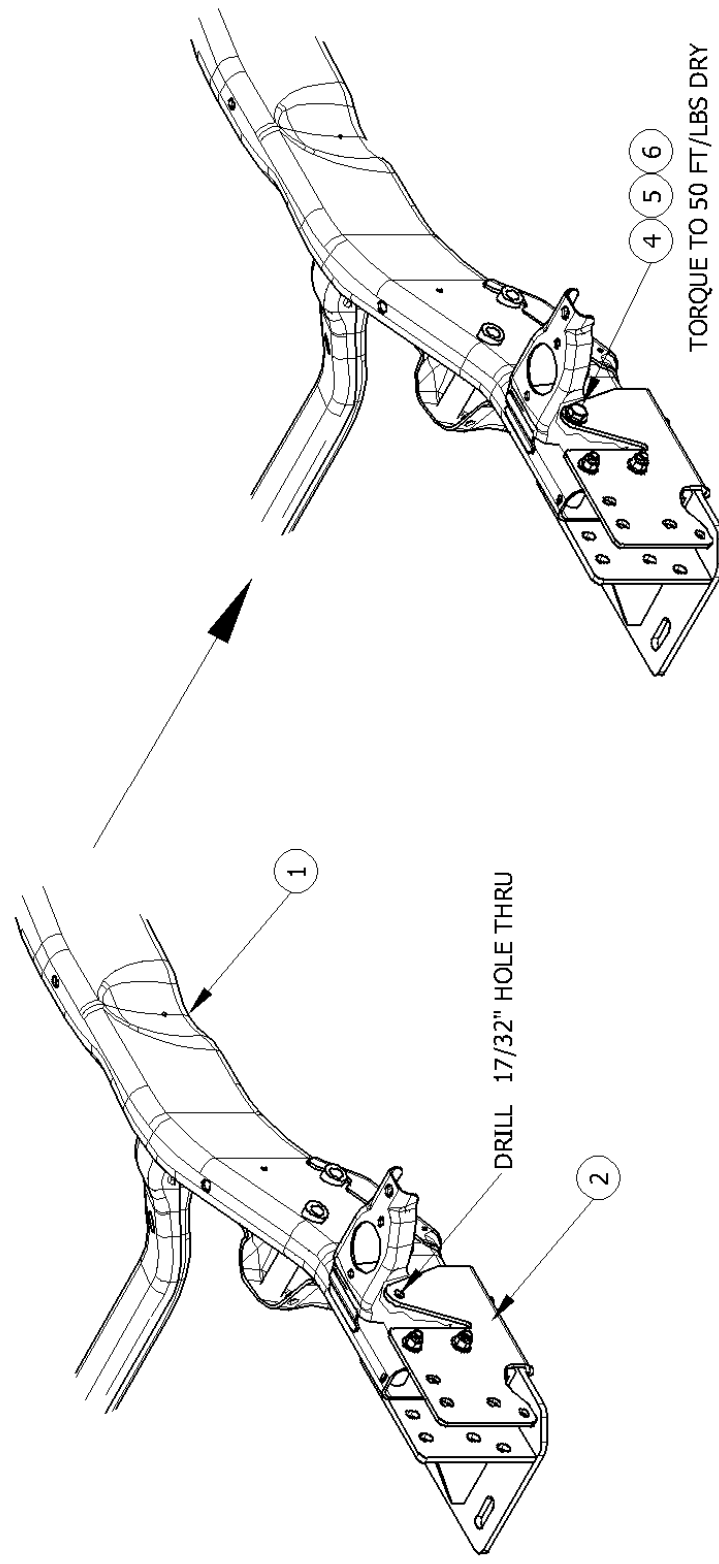
TOLERANCE ON FINISHED DIMENSIONS UNLESS OTHERWISE SPECIFIED	R.M.S. FINISH MAX EXCEPT AS NOTED	
	FRACTIONS	DECIMALS
UP TO 6 INCHES	+/- 1/64	+/- .005
6" TO 24"	+/- 1/32	+/- .010
ABOVE 24"	+/- 1/16	+/- .015
ANGULAR DIMENSIONS	+/- .12°	

ALL WIELDS TO CONFORM TO AWS D1.1

REV	DRAWING RELEASED	CHANGE	REVISION	DATE	BY	APPD
A				8/21/14	AML	

 G & B SPECIALTIES INC. MANUFACTURER OF QUALITY RAILROAD PRODUCTS BERWICK PENNSYLVANIA (707) 752-3901, FAX (707) 752-6397	 DESIGN ~ ENGINEERING ~ MANUFACTURING
DESCRIPTION: FRONT MTG KIT INSTALLATION REF: 2014 RAM 2500	
DRAWING NUMBER: K-M29XRDF001-2	REVISION: A

DRIVERS SIDE SHOWN
PASSENGERS SIDE TYPICAL



DRILL 17/32" HOLE THRU

TORQUE TO 50 FT/LBS DRY

ITEM	PART No.	DESCRIPTION OF ITEM(PART)	QTY.
1	-	VEHICLE FRAME	-
2	R-31276D	OUTER SUPPORT PLATE, DRIVERS SIDE	1
3	R-31276P	OUTER SUPPORT PLATE, PASSENGERS SIDE	1
4	NYLOCK NUT	1/2" x UNC GR.8	2
5	FWASHER	1/2" GR.8	4
6	H.H.C.S.	1/2" x 4" UNC GR.8	2


DO NOT SCALE DRAWING

PRIMARY UNITS ARE INCH (SECONDARY UNITS ARE MILLIMETER)

TOLERANCE ON FINISHED DIMENSIONS UNLESS OTHERWISE SPECIFIED	R.M.S. FINISH MAX EXCEPT AS NOTED	
	FRACTIONS	DECIMALS
UP TO 6 INCHES	+/- 1/64	+/- .005
6" TO 24"	+/- 1/32	+/- .010
ABOVE 24"	+/- 1/16	+/- .015
ANGULAR DIMENSIONS	+/- .12°	

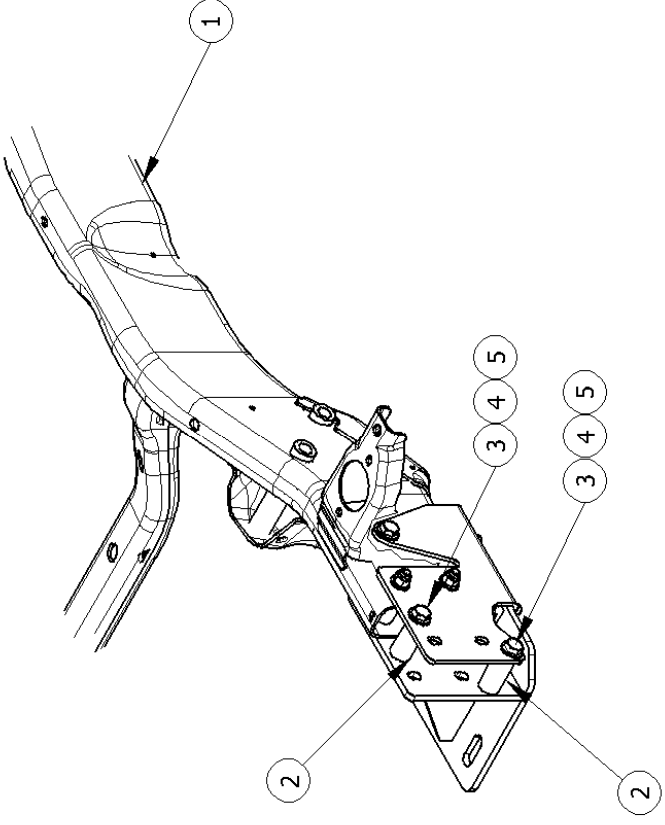
ALL WELDS TO CONFORM TO AWS D1.1

REV	DRAWING RELEASED	CHANGE	REVISION	DATE	BY	APPD
A				8/21/14	AML	


AML	 G & B SPECIALTIES INC. MANUFACTURER OF QUALITY RAILROAD PRODUCTS BERWICK PENNSYLVANIA (707) 752-5902 FAX (707) 752-6397			
DESIGN ~ ENGINEERING ~ MANUFACTURING <small>818 S. BROAD ST. W. - 100' BLDG. - 2006 WETZEL ST. - BERWICK, PA 17004-1000</small> <small>200 W. 10TH ST. - 100' BLDG. - 1000 W. 10TH ST. - BERWICK, PA 17004-1000</small> <small>200 W. 10TH ST. - 100' BLDG. - 1000 W. 10TH ST. - BERWICK, PA 17004-1000</small>				
DESCRIPTION: FRONT MTG KIT INSTALLATION REF: 2014 RAM 2500				
DRAWING NUMBER	DATE DRAWN	SHEET	PART NUMBER	REVISION
K-M29XRDF001-3	8/21/14	1 of 1	K-M29XRDF001-3	A

ITEM	PART No.	DESCRIPTION OF ITEM(PART)	QTY.
1	-	VEHICLE FRAME	-
2	R-18009	SPACER	4
3	NYLOCK NUT	1/2" x UNC GR.8	2
4	FWASHER	1/2" GR.8	8
5	H.H.C.S.	1/2" x 4" UNC GR.8	4

DRIVERS SIDE SHOWN
PASSENGERS SIDE TYPICAL



REV	DRAWING RELEASED	CHANGE	REVISION	8/21/14	AML	BY	APPD
A				DATE			

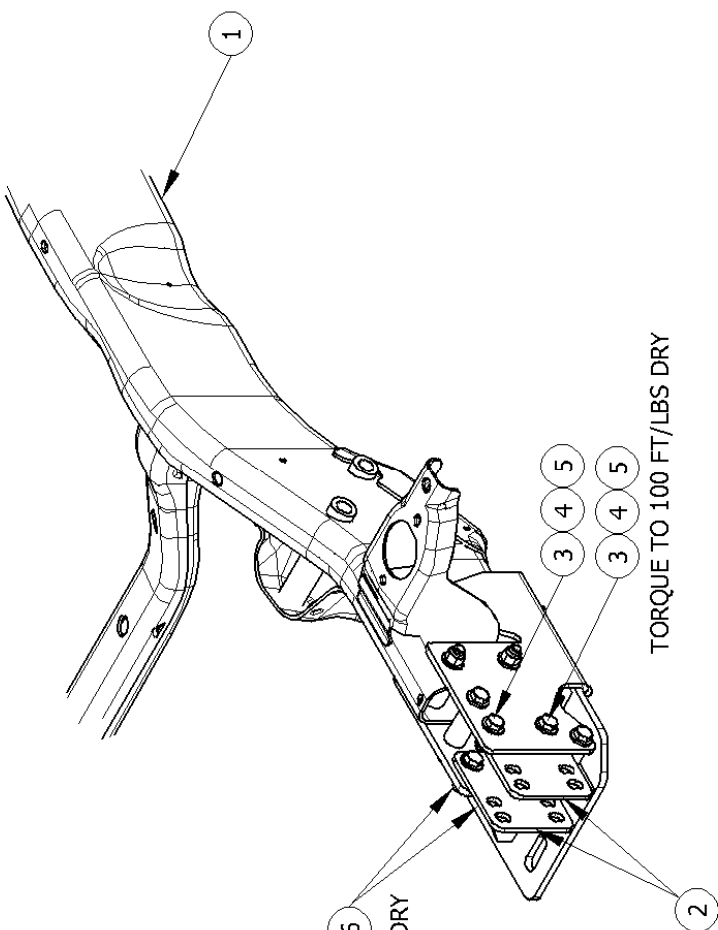
 <p>G & B SPECIALTIES INC. MANUFACTURER OF QUALITY RAILROAD PRODUCTS BERWICK PENNSYLVANIA (707) 752-5901, FAX (707) 752-6397</p>	<p>DESIGN ~ ENGINEERING ~ MANUFACTURING</p> <p>DESCRIPTION: FRONT MTG KIT INSTALLATION</p> <p>REF: 2014 RAM 2500</p>
<p>DRAWING NUMBER K-M29XRDF001-4</p>	<p>DATE DRAWN 8/21/14</p>
<p>SHEET 1 of 1</p>	<p>PART NUMBER KAM29XRDF001-4</p>
<p>APPROVED</p>	<p>REVISION A</p>

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

ALL WELDS TO CONFORM TO AWS D1.1

ITEM	PART No.	DESCRIPTION OF ITEM(PART)	QTY.
1	-	VEHICLE FRAME	-
2	R-32101	BUMPER MTG PLATE	4
3	NYLON NUT	1/2" x UNC GR.8	8
4	F WASHER	1/2" GR.8	16
5	H.H.C.S.	1/2" x 1.5" UNC GR.8	4
6	H.H.C.S.	1/2" x 1.75" UNC GR.8	4

DRIVERS SIDE SHOWN
PASSENGERS SIDE TYPICAL



TORQUE TO 100 FT/LBS DRY


TORQUE TO 100 FT/LBS DRY

TORQUE TO 100 FT/LBS DRY

REV	DRAWING RELEASED	CHANGE	DATE	BY	APPD
A			8/21/14	AML	

DO NOT SCALE DRAWING	R.M.S. FINISH MAX EXCEPT AS NOTED	DECIMALS	3 PLACE
TOLERANCE ON FINISHED DIMENSIONS UNLESS OTHERWISE SPECIFIED	1/32"	FRACTIONS	2 PLACE
BASIC DIMENSIONS	UP TO 6 INCHES		
	6" TO 24"		
	ABOVE 24"		
ANGULAR DIMENSIONS			

DRAWING NUMBER	DATE DRAWN	SHEET	PART NUMBER	REVISION
K-M29XRDF001-4	8/21/14	1 of 1	K-M29XRDF001-4	A

G & B SPECIALTIES INC.	MANUFACTURER OF QUALITY RAILROAD PRODUCTS	BERWICK PENNSYLVANIA (570) 752-5901, FAX (570) 752-6397	
DESIGN ~ ENGINEERING ~ MANUFACTURING			
DESCRIPTION: FRONT MTG KIT INSTALLATION			
REF: 2014 RAM 2300			

OPERATION OF FRONT MOUNTING KIT

With the front mounting kit installed on this vehicle, it may be operated as normal, however the mounting plates are located further forward than the front bumper. 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 100 km (62 Miles) 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
3/8" UNC Gr. 8 Fasteners	40
1/4" UNC Gr. 8 Fasteners	12