

INSTALLATION OF REAR MOUNTING KIT 2011-2019 GM 2500/3500HD SHORT BED

INSTALLATION 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 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.

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 the table below.

Rear Mounting Kit Installation Parts

Part Number	Description	Qty
R-21140D	Rear Mounting Bracket, Drivers Side	1
R-21140P	Rear Mounting Bracket, Passengers Side	1
R-2960	Railgear Mounting Shim - ½" Thick	2
R-2960A	Railgear Mounting Shim - 1" Thick	2
R-2631	Railgear Mounting Shim - 2" Thick	2
H-00001	M18 Nylock Nut	2
H-00019	M16 Nylock Nut	2
H-00002	M14 Nylock Nut	2
R-990KIT-309 (Mtg. Brkts.)	1/2" UNC Gr. 8 Bolt x 1.50" Long	2
	1/2" Gr. 8 Type-A Flat Washer	4
	1/2" UNC Gr. 8 Nylon Insert Lock Nut	2
	M18-2.5 Gr. 10.9 Bolt x 60mm Lg.	2
	M16-2 Gr. 10.9 Bolt x 50mm Lg.	2
	M14-2 Gr. 10.9 Bolt x 50mm Lg.	2
	M18 Gr. 200HV Flat Washer	4
	M16 Gr. 200HV Flat Washer	4
R-990KIT-304 (Railgear Mtg.)	M14 Gr. 200HV Flat Washer	4
	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 6.50" Long	4
	3/4" Gr. 8 Type-A Flat Washer	8
	3/4" UNC Gr. 8 Nylon Insert Lock Nut	4

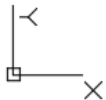
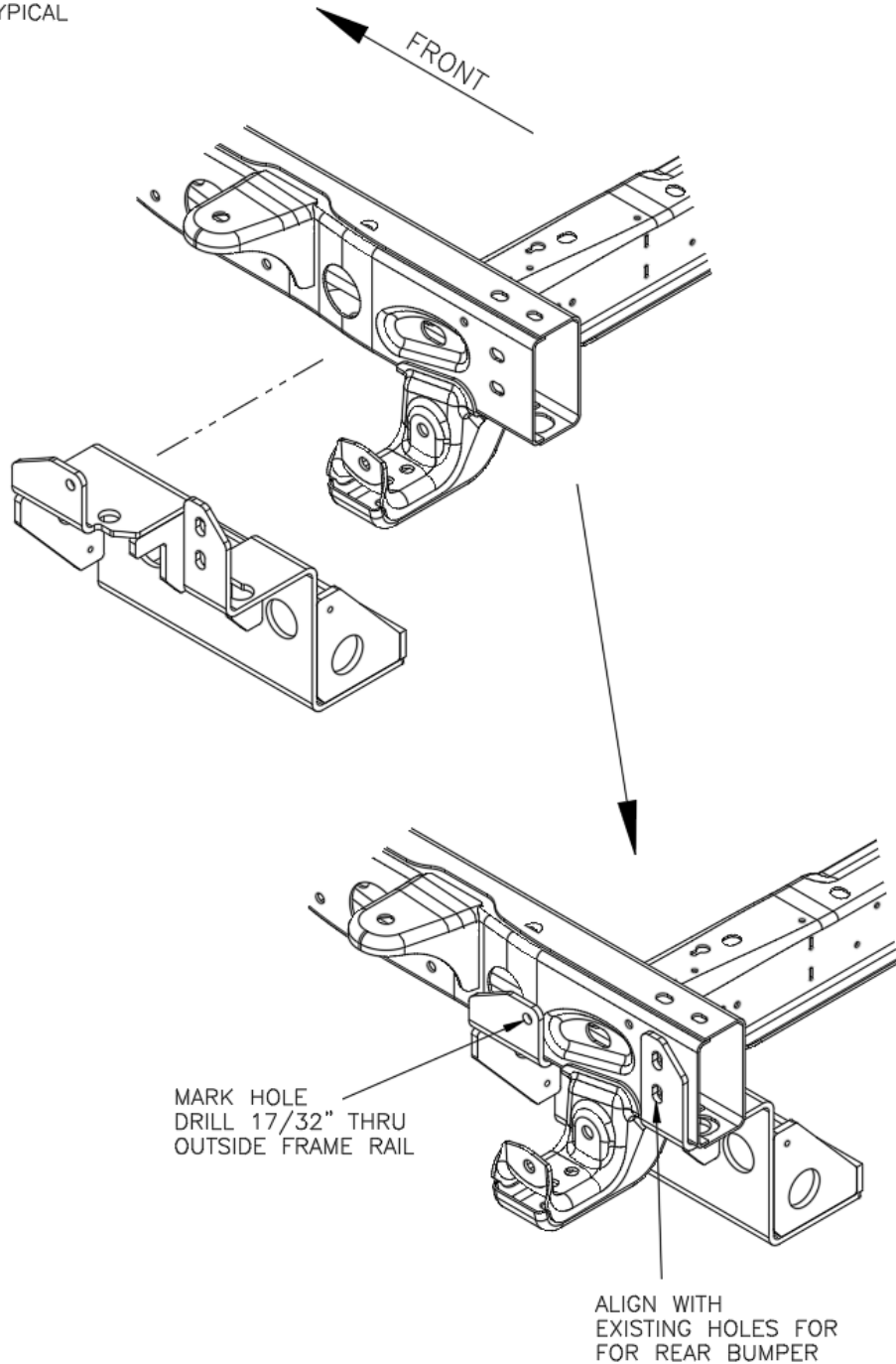
1. Remove the original spare tire from under the vehicle's cargo box if so equipped. The original spare tire will not be re-installed.
2. Remove the rear bumper. The rear bumper will be reinstalled.
3. Remove the tow hitch. The tow hitch will be re-installed.
4. Place each rear mounting bracket against the underside and outside of the frame rails and as shown.
5. Mark the outside of the frame, using the mounting brackets as a guide, and drill a 17/32" thru the outside frame rail at each market location.

6. Install the rear mounting brackets as shown using the supplied 1/2" hardware. Ensure the rear mounting brackets are tight to the underside and outside of the frame and are aligned with each other.
7. Re-install the OEM tow hitch. The tow hitch will be installed in the factory location, below the railgear mounting brackets.
8. Place the tow hitch up against the bottom of the railgear mounting brackets as shown.
9. Using the supplied M14, M16 & M18 metric hardware, install the tow hitch as shown. The bolts will go thru/attach to the vehicle frame, railgear mounting brackets, OEM bumper bracket and tow hitch. The railgear mounting brackets have slots/holes to allow the mounting bolts to pass thru the brackets and allow the use of the OEM tow hitch mounting locations.
10. The rear most tow hitch mounting bolt also secures the bumper mounting bracket to the vehicle frame and will be attached using M16 metric hardware. It will be necessary to remove the nut attached to the OEM bumper mounting bracket at this location.
11. The two rear side mounting bolts also secure the OEM bumper mounting bracket to the vehicle frame.
12. Torque the 1/2" fasteners to 100 ft-lb dry. Torque the M18 bolts to 175 ft-lbs dry. Torque the M14 bolts to 110 ft-lbs dry. Torque the M16 bolts to 135 ft-lbs dry. Do not over torque.

NOTES:

1. DRIVERS SIDE SHOWN
PASSENGERS SIDE TYPICAL

REV	CHANGE	DATE	BY	APPD
A	DRAWING RELEASED	10/21/10	AML	

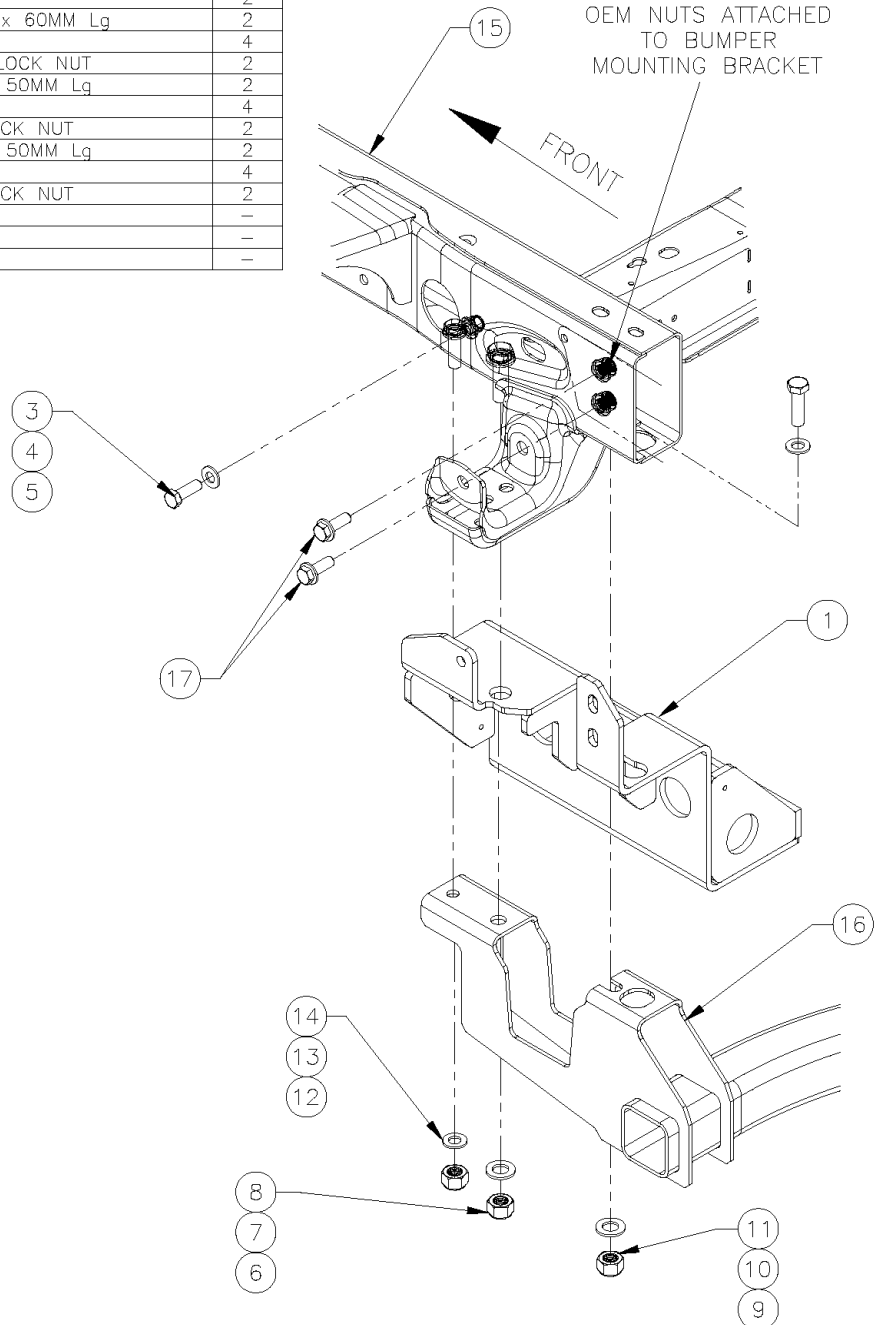


TOLERANCE ON FINISHED DIMENSIONS UNLESS OTHERWISE SPECIFIED		R.M.S. FINISH MAX 125% EXCEPT AS NOTED	
BASIC DIMENSION	FRACTIONS	DECIMALS	
		2 PLACE	3 PLACE
UP TO 6 INCHES	± 1/64	± .02	± .005
ABOVE 6 TO 24	± 1/32	± .03	± .010
ABOVE 24	± 1/16	± .06	± .015
ANGULAR DIMENSIONS		± 1/2°	

 G & B SPECIALTIES INC. MANUFACTURER OF QUALITY RAILROAD PRODUCTS BERWICK, PENNSYLVANIA (570) 752-5901, FAX (570) 752-6397		DESIGN ~ ENGINEERING ~ MANUFACTURING
		DESCRIPTION: REAR MOUNTING KIT INSTALLATION
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DRAWING NUMBER K-M29XRGR004A	DATE DRAWN 10/21/10	SHEET 1 of 1
PART NUMBER K-M29XRGR004A		REVISION A

ITEM	PART No.	DESCRIPTION OF ITEM(PART)	QTY.	
1	R-21140D	REAR MTG BRKT, DRIVERS SIDE	1	
2	R-21140P	REAR MTG BRKT, PASSENGERS SIDE	1	
3	R-990KIT-309 (MTG BRKTS)	1/2" UNC GR.8 x 1.50"	2	
4		1/2" TYP-A GR.8	4	
5		1/2" UNC GR.8	2	
6		M18-2.5 GR. 10.9 x 60MM Lg	2	
7		M18 GR. 200HV	4	
8		M18-2.5 GR.10 NYLOCK NUT	2	
9		M16-2 GR. 10.9 x 50MM Lg	2	
10		M16 GR. 200HV	4	
11		M16-2 GR.10 NYLOCK NUT	2	
12		M14-2 GR. 10.9 x 50MM Lg	2	
13		M14 GR. 200HV	4	
14		M14-2 GR.10 NYLOCK NUT	2	
15		-	VEHICLE FRAME	-
16		-	OEM TOW HITCH	-
17	-	OEM FASTENER	-	

REV	CHANGE	DATE	BY	APPD
A	DRAWING RELEASED	10/21/10	AML	
B	REVISED BOM	6/21/11	AML	
C	REVISED BOM	6/5/19	AJB	



NOTES:

1. DRIVERS SIDE SHOWN
PASSENGERS SIDE TYPICAL

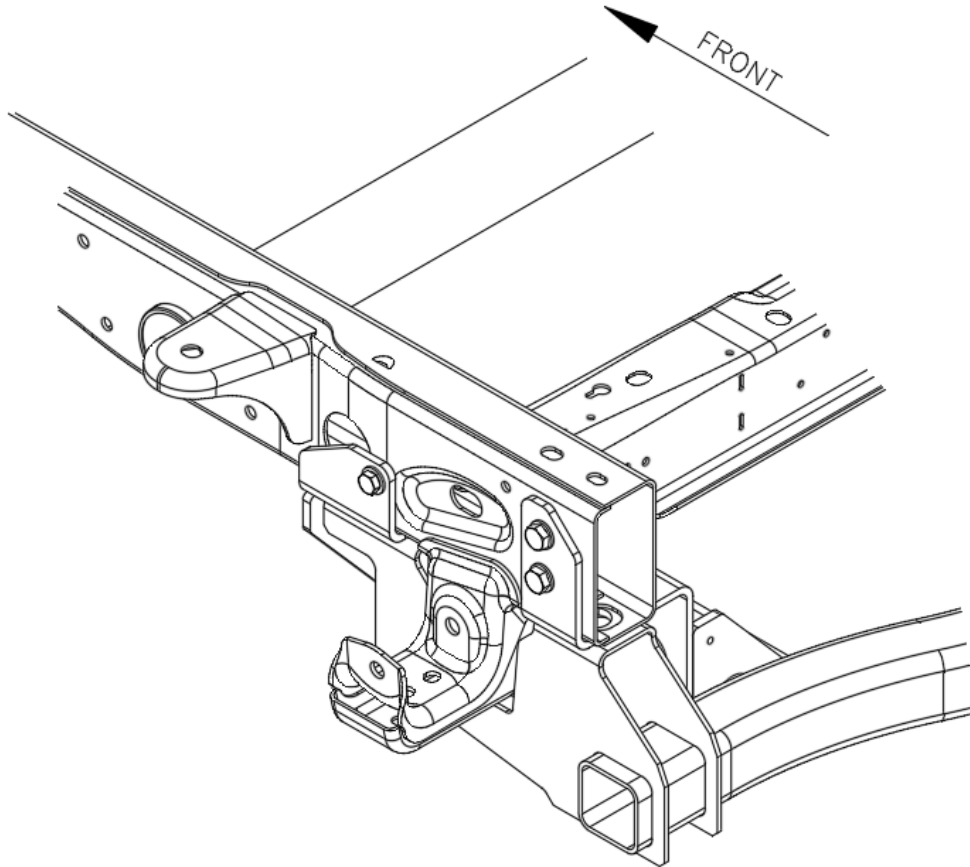
TOLERANCE ON FINISHED DIMENSIONS UNLESS OTHERWISE SPECIFIED	FRACTIONS		DECIMALS		R.M.S. FINISH MAX 125% EXCEPT AS NOTED
	BASIC DIMENSION	FRACTIONS	2 PLACE	3 PLACE	
UP TO 6 INCHES	± 1/64	± .02	± .005		
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ABOVE 24	± 1/16	± .06	± .015		
ANGULAR DIMENSIONS	± 1/2°				

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		MANUFACTURER OF QUALITY RAILROAD PRODUCTS BERWICK PENNSYLVANIA (570) 752-5901, FAX (570)752-6397			
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APPROVED	DRAWING NUMBER K-M29XRGR004A-1	DATE DRAWN 10/21/10	SHEET 1 OF 1	PART NUMBER K-M29XRGR004A-1	REVISION C

NOTES:

1. DRIVERS SIDE SHOWN
PASSENGERS SIDE TYPICAL

REV	CHANGE	DATE	BY	APPD
A	DRAWING RELEASED	10/21/10	AML	



TOLERANCE ON FINISHED DIMENSIONS UNLESS OTHERWISE SPECIFIED				R.M.S. FINISH MAX 125% EXCEPT AS NOTED		DRAWN AML	G & B SPECIALTIES INC. MANUFACTURER OF QUALITY RAILROAD PRODUCTS BERWICK PENNSYLVANIA (570) 752-5901, FAX (570) 752-6397	
BASIC DIMENSION	FRACTIONS	DECIMALS		APPROVED	CHECKED			
		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°						

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DRAWING NUMBER	DATE DRAWN	SHEET	PART NUMBER
K-M29XRGR004A-2	10/21/10	1 of 1	K-M29XRGR004A-2
			REVISION
			A

OPERATION AND SERVICE OF REAR MOUNTING KIT 2011-2019 GM 2500/3500HD SHORT BED

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 Industries 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 1: Recommended Service Interval

Service Required	Initial 100 km (62 Miles) of road and/or rail use	6 Months
Inspect rear 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" (M18) UNC Gr. 8 Fasteners	175
5/8" UNC Gr. 8 Fasteners	150
M14 Gr. 10.9	110
1/2" UNC Gr. 8 Fasteners	100
3/8" UNC Gr. 8 Fasteners	40
1/4" UNC Gr. 8 Fasteners	12