

## INSTALLATION OF REAR MOUNTING KIT 2020+ 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 any of the following warnings could result in severe bodily injury and/or equipment damage.
- Read and understand this manual completely before attempting installation or operation of the equipment.
- Installation/operation 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.

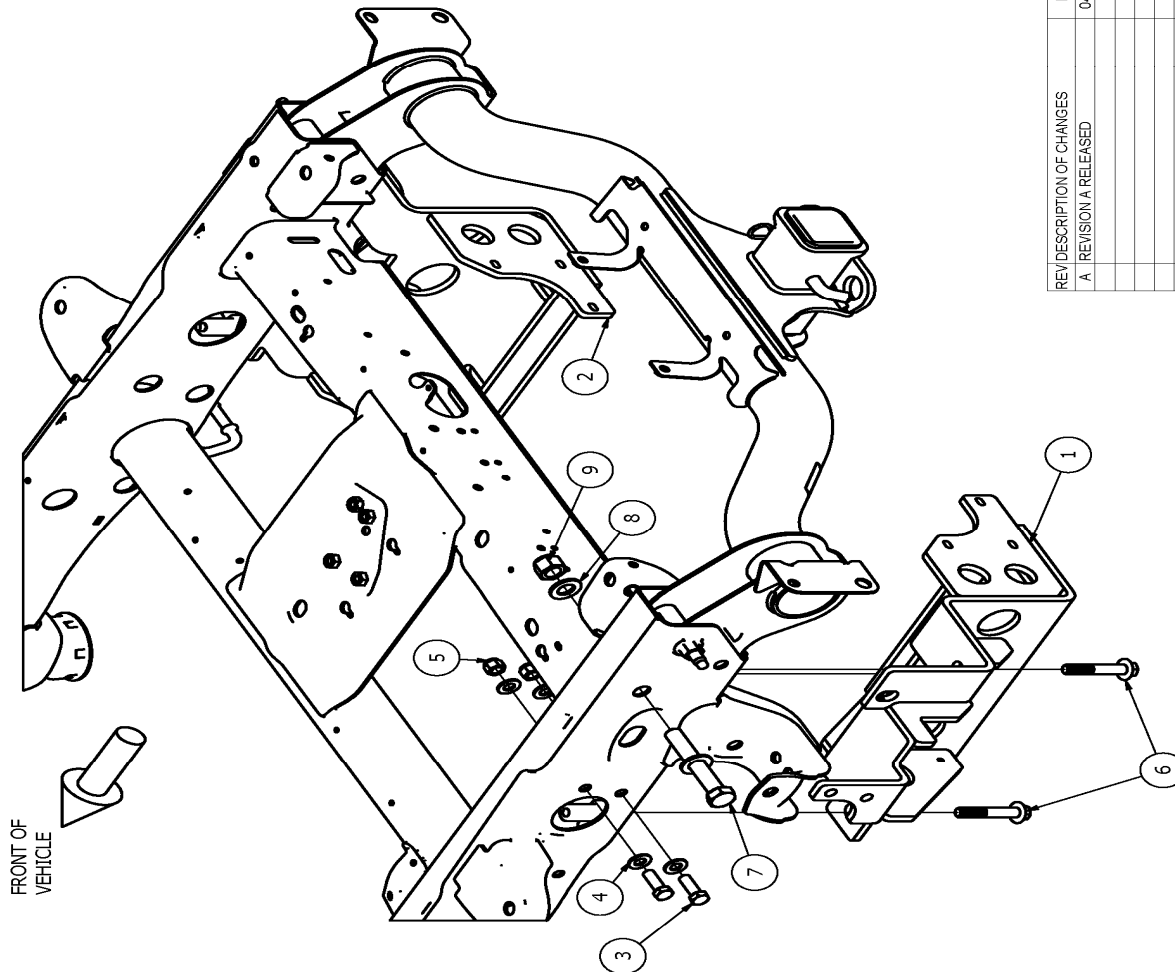
Table 1: Rear Mounting Kit K-M29XRGR020S (Short Bed) Installation Parts		
Part Number	Description	Qty
R-21222D	Rear Mounting Bracket, Drivers Side	1
R-21222P	Rear Mounting Bracket, Passengers Side	1
R-2960	Railgear Mounting Shim - ½" Thick	2
R-2960A	Railgear Mounting Shim - 1" Thick	2
R-2631	Railgear Mounting Shim - 2" Thick	2
R-990KIT-440 (Mtg. Brkts.)	1/2" UNC Gr. 8 Bolt x 1 1/2" Long	4
	1/2" Gr. 8 Type-A Flat Washer	8
	1/2" UNC Gr. 8 Nylon Insert Lock Nut	4
	M14-2 Gr. 10.9 Flanged Hex Head Bolt x 80mm Lg.	4
	3/4" UNC Gr. 8 Bolt x 5" Long	2
	3/4" Gr. 8 Type-A Flat Washer	4
R-990KIT-304 (Railgear Mtg.)	3/4" UNC Gr. 8 Nylon Insert Lock Nut	2
	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 M14 bolts from the underside of the frame securing the tow hitch inside the frame. These bolts will be replaced with longer ones included in the kit.
4. Place each rear mounting bracket against the underside and outside of the frame rails and align with existing holes as shown.
5. Ensure bracket is tight against the underside and outside of the frame and mark and drill the outside of the frame using the holes in the mounting brackets as a guide.
6. Install the rear mounting brackets as shown using the supplied hardware.
  - a. Existing frame hole for the 3/4" bolt may need to be reamed for proper fit.
  - b. Apply blue Loctite to the longer M14 bolts before installing.
7. Ensure the rear mounting brackets are tight to the underside and outside of the frame and are aligned with each other when complete.

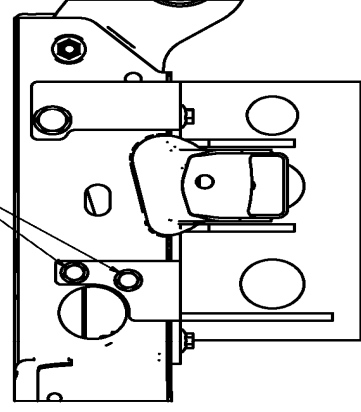
R:\RAFNA NEW\DRAWINGS\R8\2020\GMPKKG - GM UJ HL#74981NG\_HD\_FRAMES all\84565200Rear\_Short\_Bed\_Brackets\_Manual\_Model.dwg

PARTS LIST		
ITEM	QTY	DESCRIPTION
1	1	MNTG BRKT ASSY, 2020 GM SB REAR DS
2	1	MNTG BRKT ASSY, 2020 GM SB REAR PS
3	4	SCREW, 1/2" 1 1/2" GR 8 HEX Z/Y
4	8	WASHER, 1/2" SAE THRU HD FLAT Z/Y
5	4	NUT, 1/2" GR 8 HEX NYLOCK Z/Y
6	4	SCREW, M14 GR 10.9 FLANGED HEX HEAD X 80MM
7	2	SCREW, 3/4" X 5" GR 8 HEX Z/Y
8	4	WASHER, 3/4" SAE THRU HD FLAT Z/Y
9	2	NUT, 3/4" GR 8 HEX NYLOCK Z/Y

REFERENCE HARDWARE KIT  
R-990KIT-440



HOLE IN BRACKET TO BE USED AS TEMPLATE TO DRILL HOLE IN FRAME



BRACKET INSTALLED ON FRAME  
(DRIVER SIDE SHOWN, PASSENGER SIDE TYP.)

APPLY BLUE LOCKTITE BEFORE ASSEMBLY

REV DESCRIPTION OF CHANGES		DATE	BY	APPRVD	ECN #
A REVISION A RELEASED		04/25/19	SMM	JMP	
G & B SPECIALTIES INC.		MANUFACTURER OF QUALITY RAILROAD PRODUCTS			
BERWICK, PENNSYLVANIA (570) 752-5901, FAX (570) 752-6397		DESIGN - ENGINEERING - MANUFACTURING			
2020 GM REAR MNTG KIT SB		INSTALLATION			
SHEET DRAWING NUMBER		DATE DRAWN	PART NUMBER		REVISION
1		04/25/19	K-M29XRGR020S		A

ALL WELDS TO CONFORM TO AWS D1.1

Figure 1: Short Bed Application

## OPERATION AND SERVICE OF R-290 REAR MOUNTING KIT 2020+ 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.

<b>OPERATION AND SERVICE OF REAR MOUNTING KIT</b>
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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 2 below provides the Recommended Service Schedule, and Table 3 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