



INSTALLATION OF FRONT MOUNTING KIT 2011 GM HD

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 G&B Specialties 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.



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

Table with 3 columns: Part Number, Description, Qty. Rows include parts like R-21090D, R-21090P, R-21097, R-21098, R-2960, R-051, R-990KIT-301, and R-990KIT-303.

- 1. Remove the front bumper, bumper mounting brackets and tow hooks. Retain the bumper and bumper mounting brackets for re-installation. The tow hooks will not be re-installed.
2. Remove the lower air cowling from under the radiator. The air cowling will not be re-installed.
3. Remove the skid plate from the front frame cross member. The skid plate will not be re-installed.
4. Position the front mounting plates on the inner side of the frame as shown so that the front frame cross member (round tube) is cradled tightly by the small square bars welded to the front mounting plates. Ensure that the front mounting plates are tight against the bottom of the front frame cross member.
5. Bolt each front mounting bracket to the frame as shown using the supplied 1/2" hardware, spacers and bumper mounting brackets. Ensure the mounting plate lower surfaces are 0° to the horizontal with the vehicle in the typical road position and aligned with each other. Tighten but do not torque the fasteners



6. Ensure the front mounting plates are tight against the inner side of the frame and the underside of the front frame cross member and that the mounting plate lower surfaces are 0° to the horizontal. Torque the rear and lower 1/2" fasteners, as shown. Do not over torque. Do not torque the fasteners securing the bumper mounting brackets as these fasteners need to remain loose to adjust the front bumper.
7. The supplied railgear mounting shims are to be used as required when mounting the railgear to the front mounting plates.

Following the installation of the front railgear, the front bumper will fit in it's original position. The front bumper will need to be trimmed/modified as required.

8. Separate the lower plastic air dam section of the bumper from the steel section of the bumper. The lower plastic section will not be re-installed.
9. Modify the OEM bumper as required to create clearance for all railgear components to eliminate any interference during its full range of motion.
10. Once the front bumper has been modified, installed and adjusted as required, tighten and torque the two remaining 1/2" fasteners to 100 ft-lbs dry. Do not over torque.



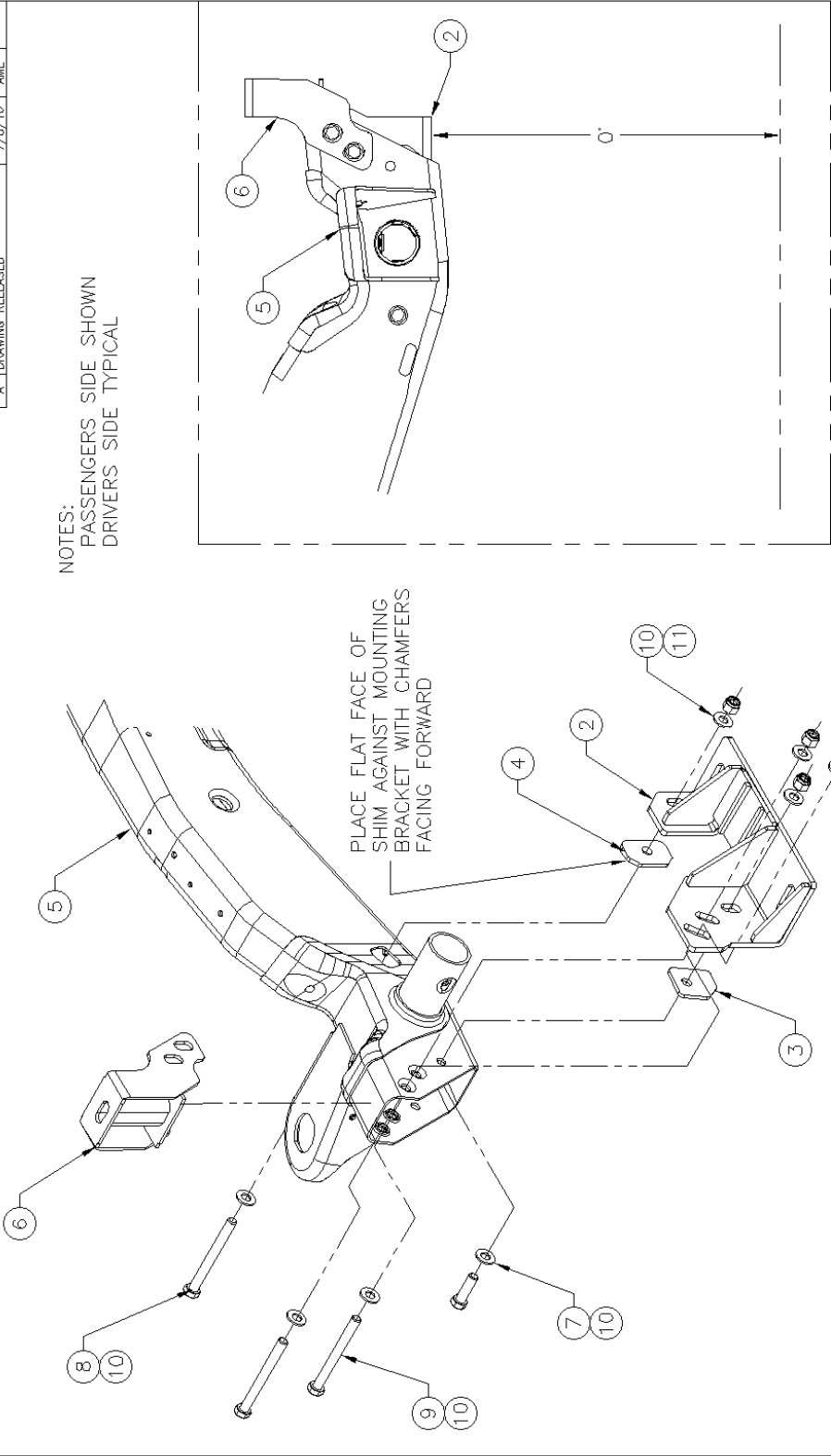
G&B Specialties, Inc.



Bulletin MIO-M29RXGF004 (Rev A)

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|-----|------------------|--------|-----|------|
| REV | CHANGE | DATE | BY | APPD |
| A | DRAWING RELEASED | 7/6/10 | AML | |

NOTES:
PASSENGERS SIDE SHOWN
DRIVERS SIDE TYPICAL



| ITEM | PART No. | DESCRIPTION OF ITEM(PART) | QTY. |
|------|------------|---------------------------------|------|
| 1 | R-21090D | FRONT MTG BRKT. DRIVERS SIDE | 1 |
| 2 | R-21090P | FRONT MTG BRKT. PASSENGERS SIDE | 1 |
| 3 | R-21097 | SPACER | 2 |
| 4 | R-2190B | SHIM | 2 |
| 5 | - | OEM FRAME | REF |
| 6 | - | OEM FRONT BUMPER MTG BRKT | REF |
| 7 | H.H.C.S. | 1/2" UNC GR.8 x 1.75" | 2 |
| 8 | H.H.C.S. | 1/2" UNC GR.8 x 5.00" | 2 |
| 9 | H.H.C.S. | 1/2" UNC GR.8 x 5.50" | 4 |
| 10 | F-WASHER | 1/2" TYPE-A GR.8 | 16 |
| 11 | NYLOCK NUT | 1/2" UNC GR.8 | 8 |

| TOLERANCE ON FINISHED DIMENSIONS UNLESS OTHERWISE SPECIFIED | FRACTIONS | DECIMALS | FINISH MAX 12% DUCTY AS SPECIFIED |
|---|-----------------|----------|-----------------------------------|
| BASIC DIMENSION | UP TO 6 INCHES | ± 1/64 | 2 PLACE |
| | 6 TO 30 INCHES | ± 1/32 | 3 PLACE |
| | ABOVE 30 INCHES | ± 1/16 | ± .015 |
| ANGULAR DIMENSIONS | | | ± 1/2° |

G & B SPECIALTIES INC.
MANUFACTURER OF QUALITY RAILROAD PRODUCTS
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| K-M29RXGF004 | 7/6/10 | 1 of 2 | K-M29RXGF004 A |



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Bulletin MIO-M29RXGF004 (Rev A)

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FRONT OF VEHICLE

TAPERED SURFACE TOWARDS FRAME

R-21098 (REAR SHIM)

| | | | |
|--|--|--|--|
| APPROVED DATE: 7/6/10 BY: AML | DESIGN DATE: 7/6/10 BY: AML | RELEASED DATE: 7/6/10 BY: AML | REVISION DATE: 7/6/10 BY: AML |
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| | | | |
|--|------------------|-----------------|-----------------|
| FRAMES, FINISH MAX 1/32" UNLESS OTHERWISE SPECIFIED | FRACTIONS | DECIMALS | 3 PLACES |
| ± 1/64 | ± .02 | ± .005 | ± .010 |
| ± 1/32 | ± .03 | ± .010 | ± .015 |
| ± 1/16 | ± .06 | ± .015 | ± 1/2° |

| | | | |
|--|---|--|---|
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Bulletin MIO-M29RXGF004 (Rev A)

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| APPROVED | CHECKED | DATE DRAWN | SHEET | REF NUMBER | REVISION |
| AML | AML | 7/6/10 | 2 | K-M29RXGF004-1 | 2 of 2 K-M29RXGF004-1 A |

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| G & B SPECIALTIES INC. <small>BERWICK, PENNSYLVANIA, USA • 500 W. 3RD STREET, BERWICK, PA 17004</small> | | RAFNA RAILGEAR |
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| FRONT MOUNTING KIT INSTALLATION 2011, CM, HD | | |



OPERATION, SERVICE AND PARTS OF FRONT MOUNTING KIT

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 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 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.

| Service Required | Initial 100 km (62 Miles) of road and/or rail use | 6 Months |
|--|--|-----------------|
| 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 |
| ¾" UNC Gr. 8 Fasteners | 175 |
| 5/8" UNC Gr. 8 Fasteners | 150 |
| ½" UNC Gr. 8 Fasteners | 100 |
| 3/8" UNC Gr. 8 Fasteners | 40 |
| ¼" UNC Gr. 8 Fasteners | 12 |