

INSTALLATION OF R-290 REAR MOUNTING KIT
2007 - 2014 CHEVY SUBURBAN
2017 - PRESENT CHEVY SUBURBAN HD

INSTALLATION 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 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.
- Do not start the vehicle with the power steering hoses disconnected. Reconnect all hoses and secure the power steering cooler if the vehicle is started.
- 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 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 Table 1.

Table 1: Rear Mounting Kit Installation Parts

| Part Number | Description | Qty |
|--------------------------------------|--|-----|
| R-2977R | Rear Mounting Plate Right Side | 1 |
| R-2977L | Rear Mounting Plate Left Side | 1 |
| R-2960 | Railgear Mounting Shim - ½" Thick | 6 |
| R-2960A | Railgear Mounting Shim - 1" Thick | 2 |
| R-2631 | Railgear Mounting Shim - 2" Thick | 2 |
| R-10014 | Vapor Canister Relocation Bracket | 1 |
| R-10015 | Vapor Canister Relocation Bracket | 1 |
| (reference) | Fuel System Repair Line - FMSI part #3154K or NAPA part #730-4922 | 1 |
| R-990KIT-114 | 1/4" UNC Gr. 8 Bolt x 1" Long | 6 |
| | 1/4" Gr. 8 Washer | 12 |
| | 1/4" UNC Gr. 8 Nylon Insert Lock Nut | 6 |
| | 1/2" UNC Gr. 8 Bolt x 2" Long | 2 |
| | 1/2" Gr. 8 Washer | 4 |
| | 1/2" UNC Gr. 8 Nylon Insert Lock Nut | 2 |
| | 5/8" UNC Gr. 8 Bolt x 2.5" Long | 2 |
| | 5/8" Gr. 8 Washer | 4 |
| | 5/8" UNC Gr. 8 Nylon Insert Lock Nut | 2 |
| | 3/4" UNC Gr. 8 Bolt x 2.5" Long | 6 |
| | 3/4" UNC Gr. 8 Bolt x 3.5" Long | 4 |
| | 3/4" UNC Gr. 8 Bolt x 4.5" Long | 4 |
| | 3/4" UNC Gr. 8 Bolt x 5.5" Long | 4 |
| | 3/4" UNC Gr. 8 Bolt x 7" Long | 4 |
| | 3/4" Gr. 8 Washer | 12 |
| 3/4" UNC Gr. 8 Nylon Insert Lock Nut | 6 | |

1. Remove the original spare tire from under the rear of the vehicle and the spare tire winch assembly. The original spare tire and winch assembly will not be re-installed. Remove the spare tire carrier frame from under the vehicle, retain for reinstallation.
2. Remove the rear bumper plastic cover. Retain all components and fasteners for re-installation.
3. Remove vapor canister from vehicle. Retain all components and fasteners for re-installation. The vapor canister will need to be relocated as outlined in the railgear installation manual, using the supplied 1/4" hardware.

4. It will be necessary to notch the c-channel attached to the bottom of the frame on the driver's and passenger's side as shown in figure 1. This will allow for proper fitment of the rear mounting bracket. Place each rear mounting plate against the underside and outside of the frame rails around the rear spring hangers and body mounts as shown. The two slots on the side of the mounting plate at the front should align with the slot and hole in the side of the frame just ahead of the spring hanger. The two slots on the side of the mounting plate at the rear should align with the OEM rear bumper mounting holes. The angle on the rear mounting plate should fit against the back of the rearmost frame cross member.
5. Fasten each rear mounting plate to the frame with one 5/8" x 2.5" long bolt, two 5/8" washers, and one 5/8" nut in the front most slot and with one 3/4" x 2.5" long bolt, two 3/4" washers, and one 3/4" nut in the middle slot.
6. Fasten each mounting plate to the frame through the rear most slots using the two OEM fasteners.
7. Ensure that the mounting plates are level side-to-side and tight to the underside of the frame. Drill one 17/32" hole through the rearmost cross member using the hole in the angle as a template. Fasten each angle to the cross member with one 1/2" x 2" long bolt, two 1/2" washers, and one 1/2" nut.
8. Torque the 1/2" fasteners to 100 ft-lb dry, the 5/8" fasteners to 150 ft-lb dry and the 3/4" fasteners to 175 ft-lb. Do not over torque.
9. Reinstall the spare tire carrier frame.
10. The supplied railgear mounting shims are to be used as required when mounting the railgear to the rear mounting plates.

Note

Following the installation of the rear railgear, the rear bumper plastic cover must be re-installed. The bumper cover will need to be trimmed to fit around the railgear as outlined in the railgear installation manual.

11. Torque original fasteners to OEM specifications.

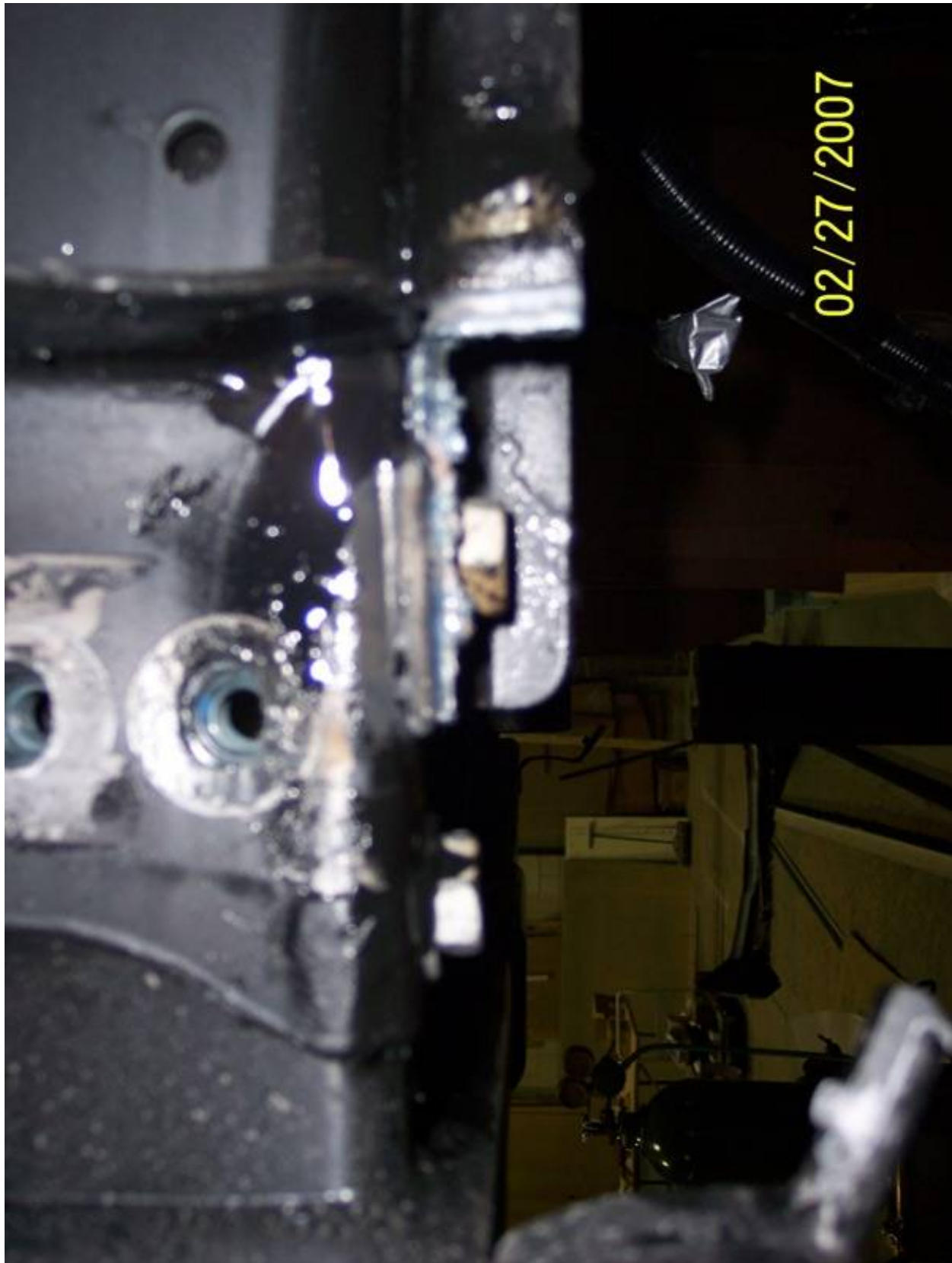


Figure 1

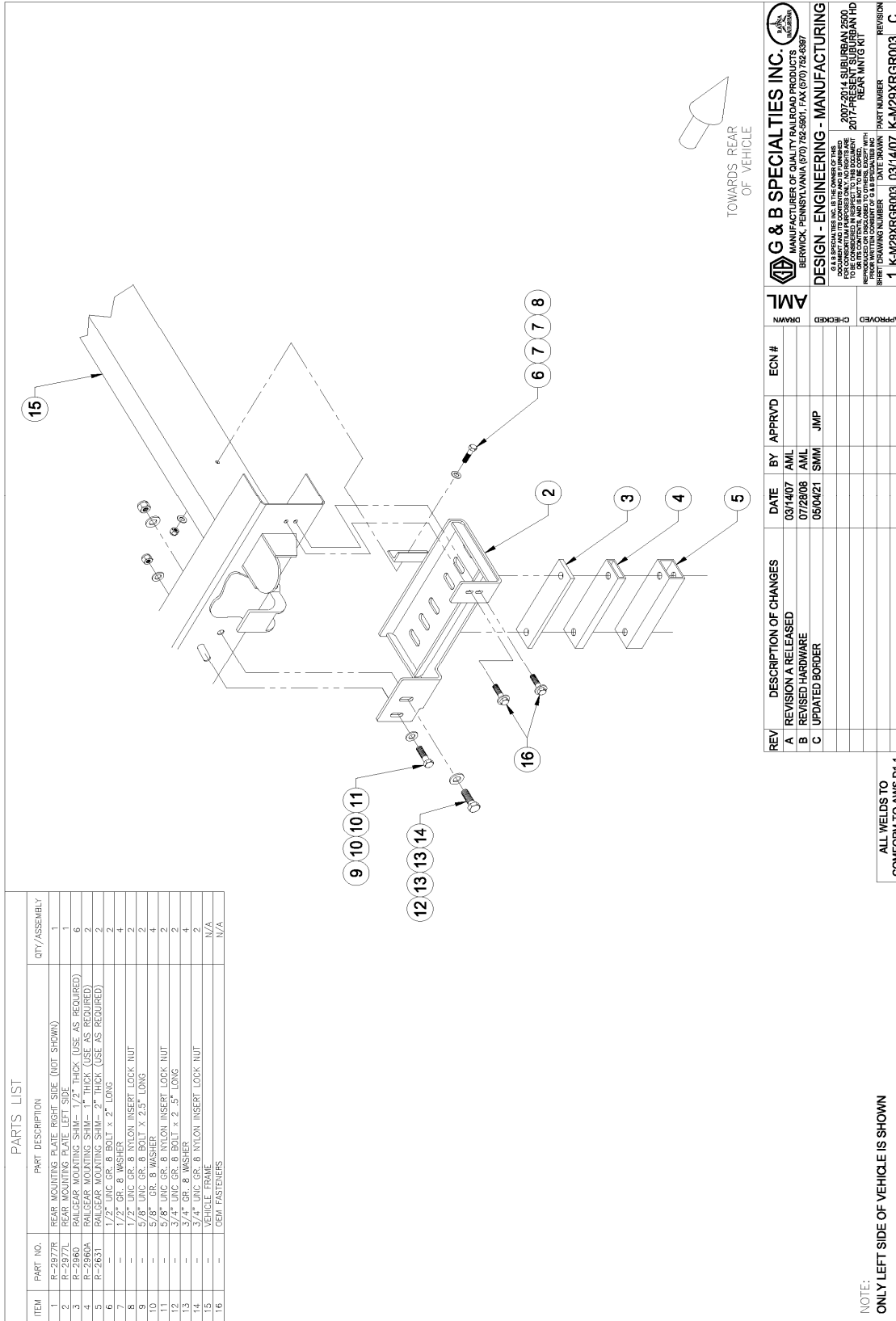


Figure 2

OPERATION, SERVICE AND PARTS OF R-290 REAR MOUNTING KIT
2007 - 2014 CHEVY SUBURBAN
2017 - PRESENT CHEVY SUBURBAN HD

OPERATION SAFETY PRECAUTIONS

If any operating, services or parts problems are encountered, please call G&B Specialties 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 REAR MOUNTING KIT

With the rear mounting kit installed on this vehicle, it may be operated as normal, but caution must be always 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 REAR MOUNTING KIT

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 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 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 |
| ⅝" UNC Gr. 8 Fasteners | 150 |
| ½" UNC Gr. 8 Fasteners | 100 |
| ⅜" UNC Gr. 8 Fasteners | 40 |
| ¼" UNC Gr. 8 Fasteners | 12 |

PARTS OF REAR MOUNTING KIT

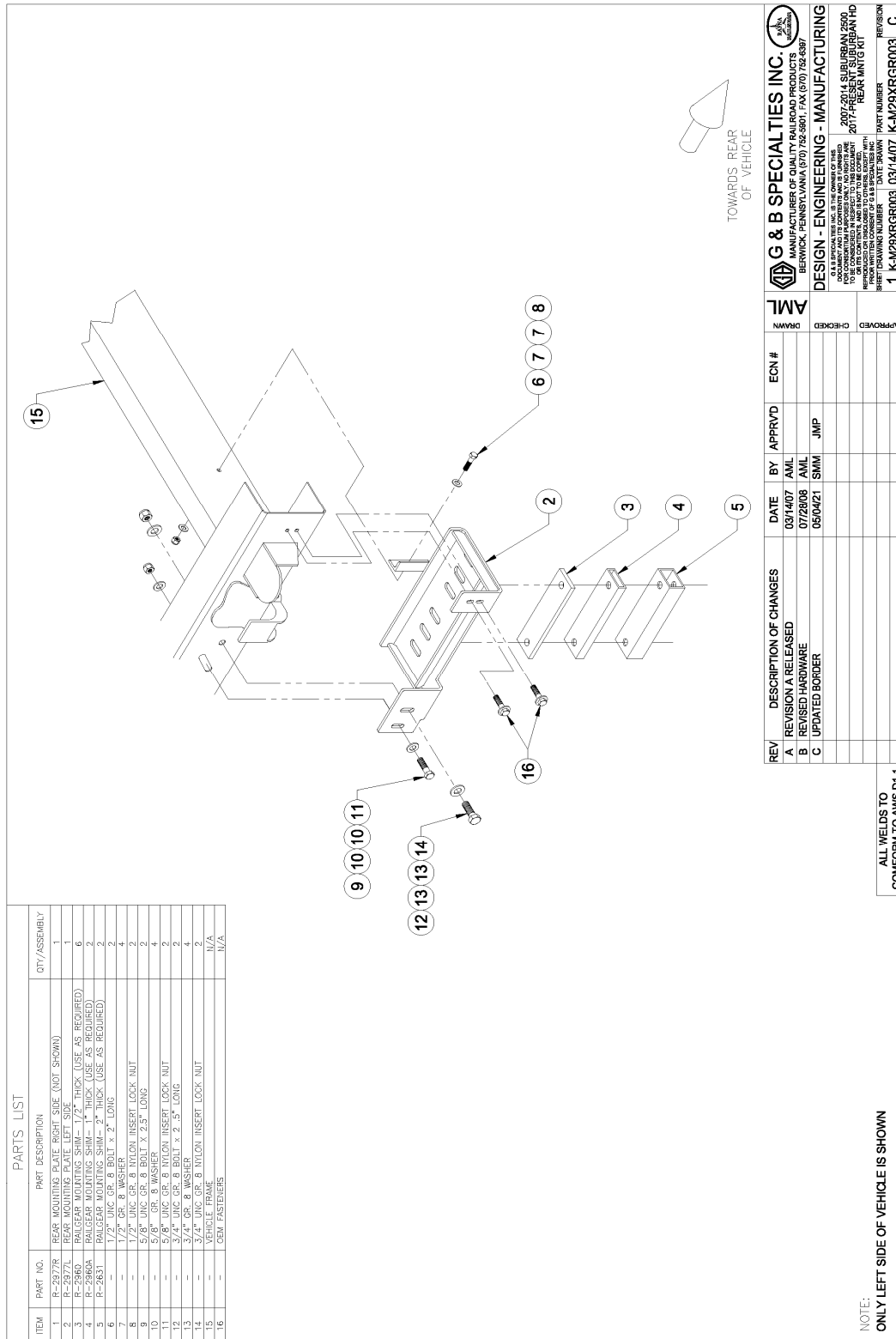


Figure 1