



INSTALLATION/OPERATION OF FRONT MOUNTING KIT

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-14060D	Mounting Bracket, Driver's Side	1
R-14060P	Mounting Bracket, Passenger's Side	1
R-18009	Spacer	4
R-14063D	Support Bracket, Driver's Side	1
R-14063P	Support Bracket, Passenger's Side	1
R-14061D	Sideplate, Driver's Side	1
R-14061P	Sideplate, Passenger's Side	1
R-990KIT-224	1/2" UNC Gr. 8 Bolt x 4.25" Long	8
	1/2" Gr. 8 Washer	16
	1/2" UNC Gr. 8 Nylon Insert Lock Nut	8
	5/8" UNC Gr. 8 Bolt x 5.00" Long	4
	5/8" Gr. 8 Washer	8
	5/8" UNC Gr. 8 Bolt x 4.5" Long	4

1. Remove the front bumper from the mounting brackets attached to the vehicle frame. Retain the front bumper and hardware for re-installation. (if required)
2. Remove the coolant line cover. (Figure 1)
3. Remove tow hooks. Tow hooks will not be re-installed
4. Remove the two screws with the rubber spacers that secure the radiator. (Figure 2)
5. Lift up on the radiator enough for clearance to allow access to the bolts that secure the bumper mounting brackets to the frame. Remove the bumper mounting brackets. If re-installing the vehicle front bumper, retain the bumper mounting brackets as they will need to be modified.
6. Place the drivers side mounting bracket tight against the bottom and side of the frame and place the supplied hardware through the brackets making sure each bolt faces toward the outside of the truck as shown. (Figures 3 and 4)
7. Place each spacer on the front two bolts of each mounting bracket. (Figure 4)



8. Place the drivers side sideplate against the bottom of the mounting bracket and outside of the frame as shown. (Figure 4)
9. Place the drivers side support bracket against the bottom of the frame and sideplate and fasten together using the supplied hardware.(Figure 4)
10. Torque the 5/8” fasteners to 150 ft-lbs dry. Do not over torque.
11. Repeat above steps for the passengers side.
12. Re-install the rubber spacers for the radiator.
13. Re-install the coolant line cover.

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

14. 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. (Figure 5)

Vehicle front bumper modifications are shown as reference only and are to be completed by the installer per the customers requirements.



Figure 1

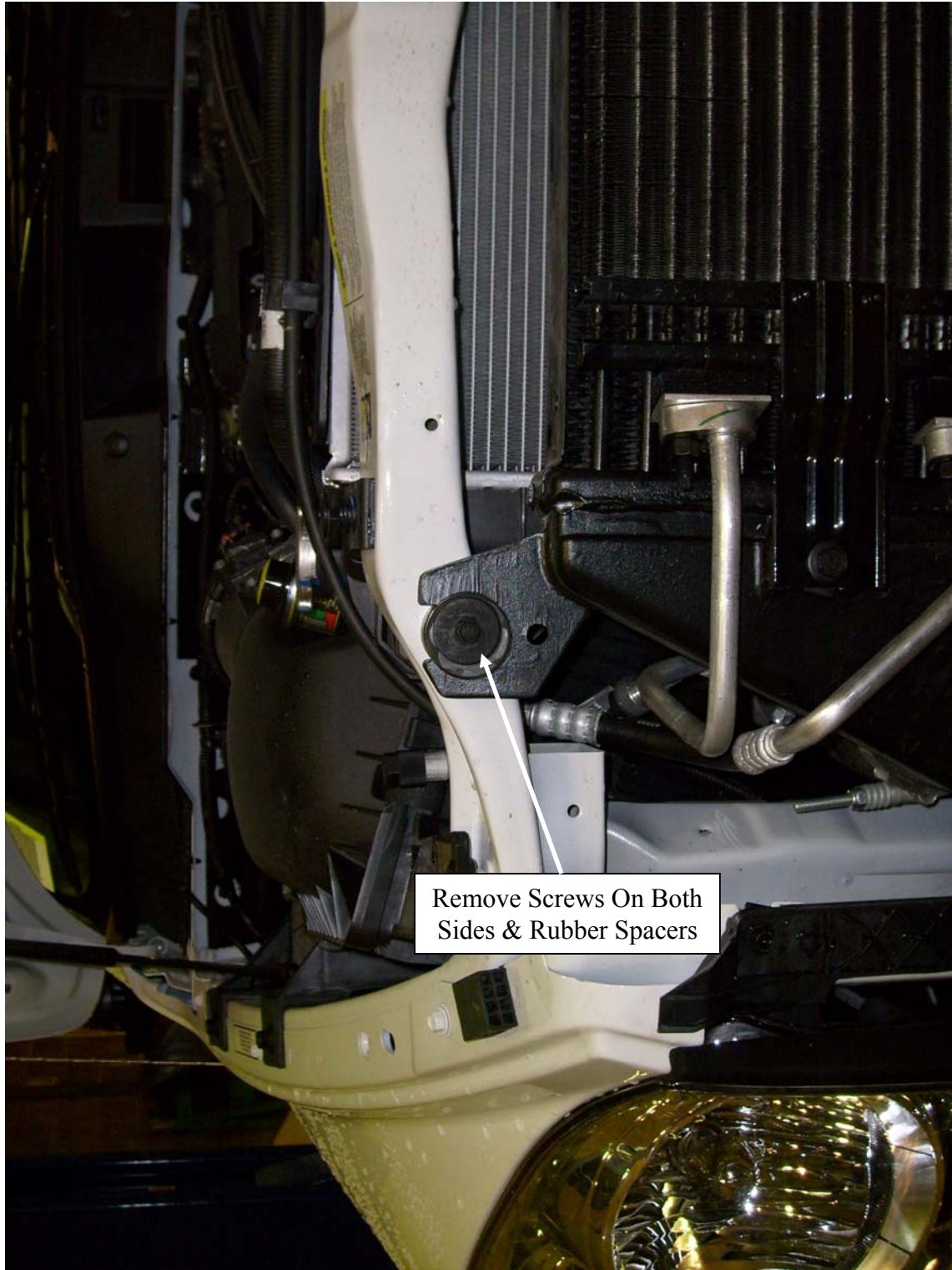


Figure 2

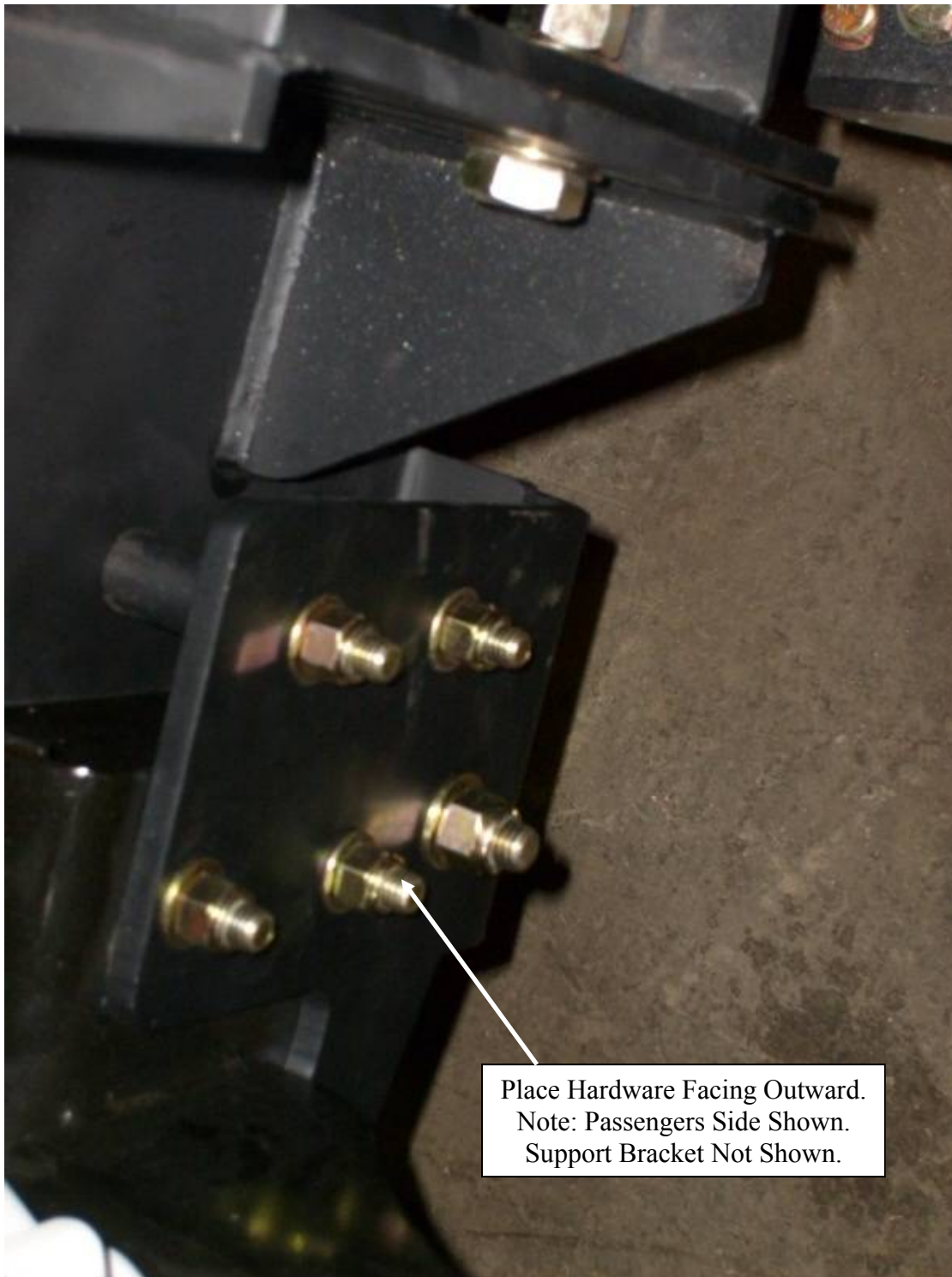


Figure 3

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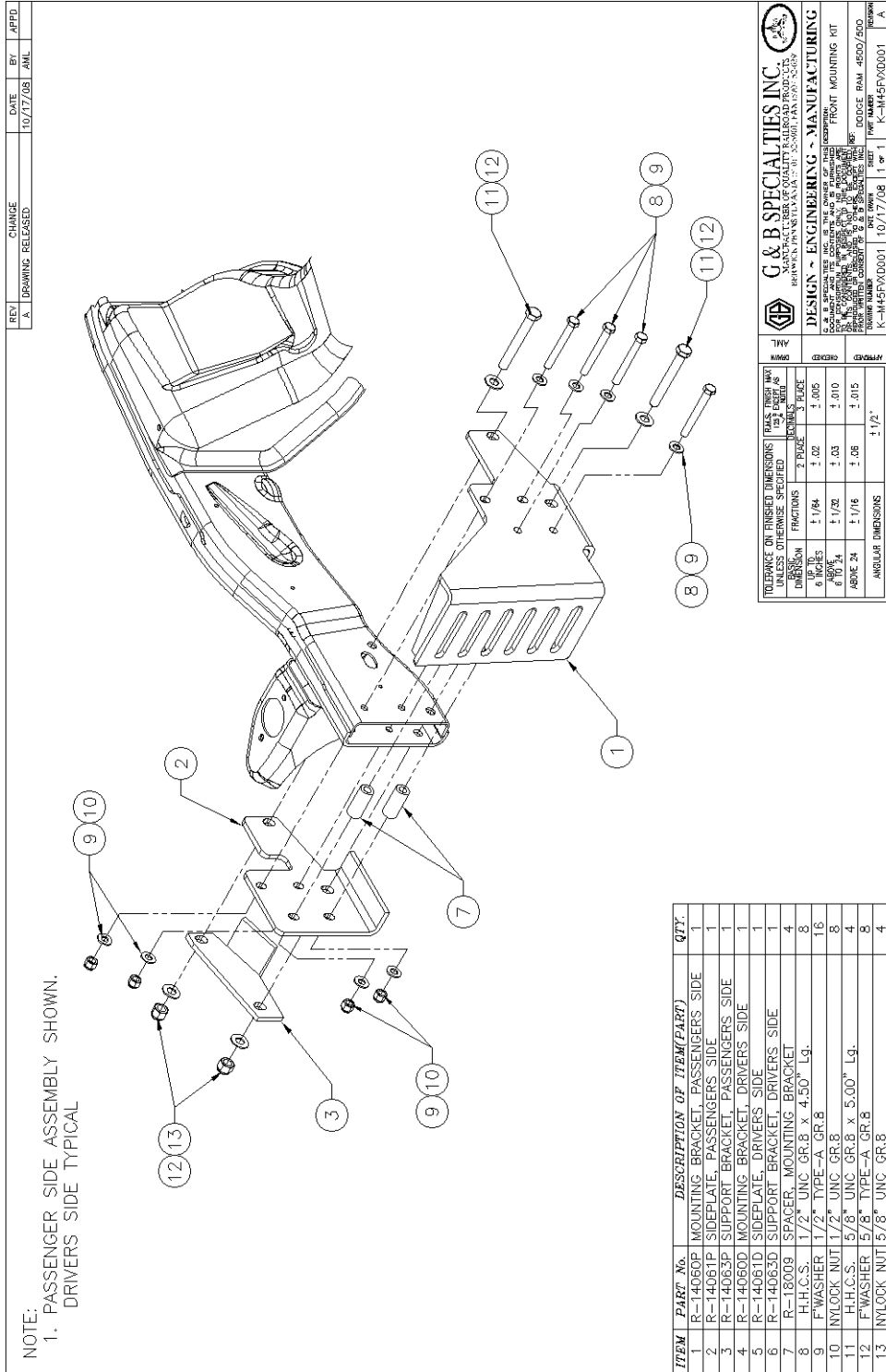


Figure 4

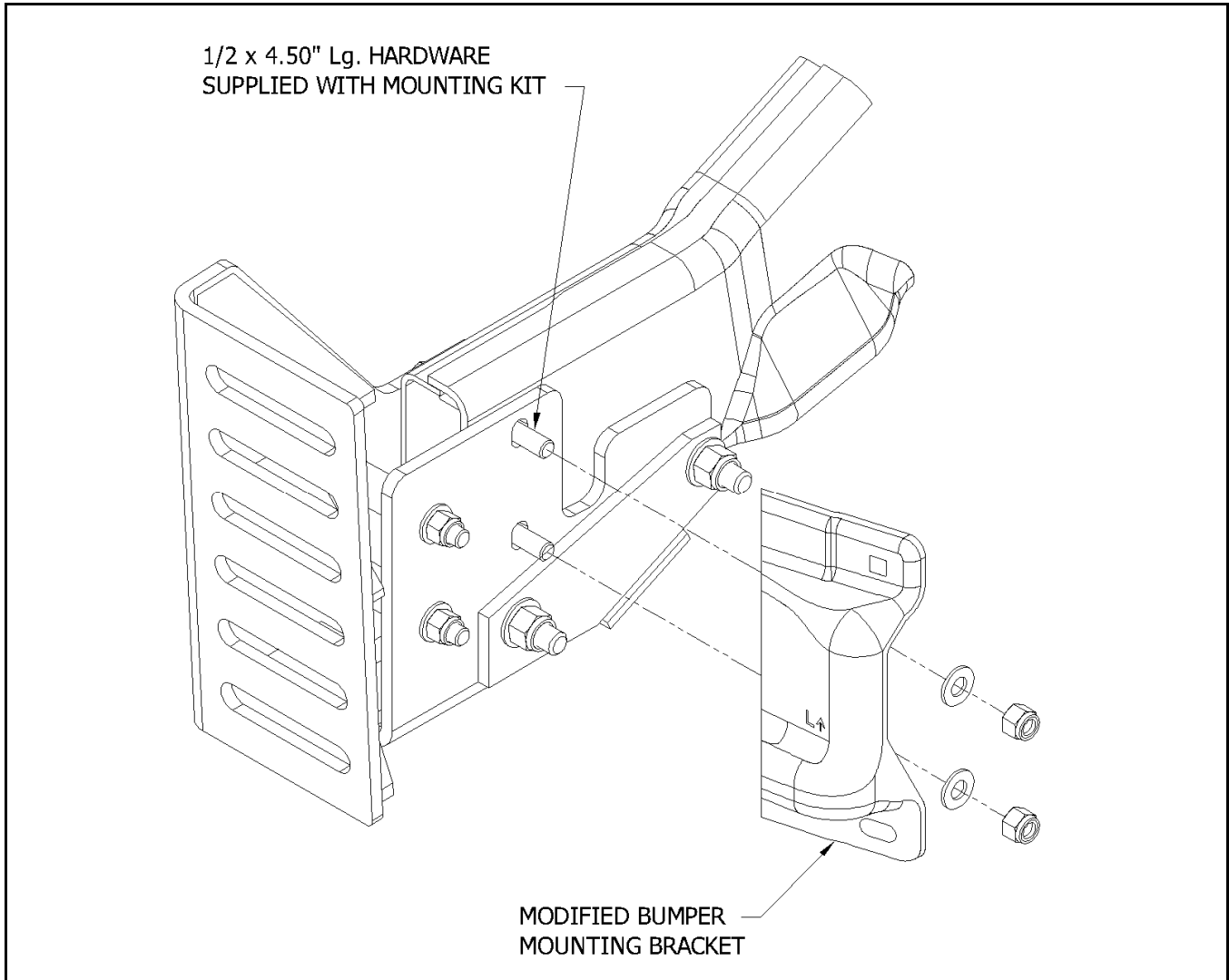


Figure 5
DRIVERS SIDE SHOWN



Bumper Mounting Bracket (Drivers Side)



Bumper Mounting Bracket (Drivers Side)



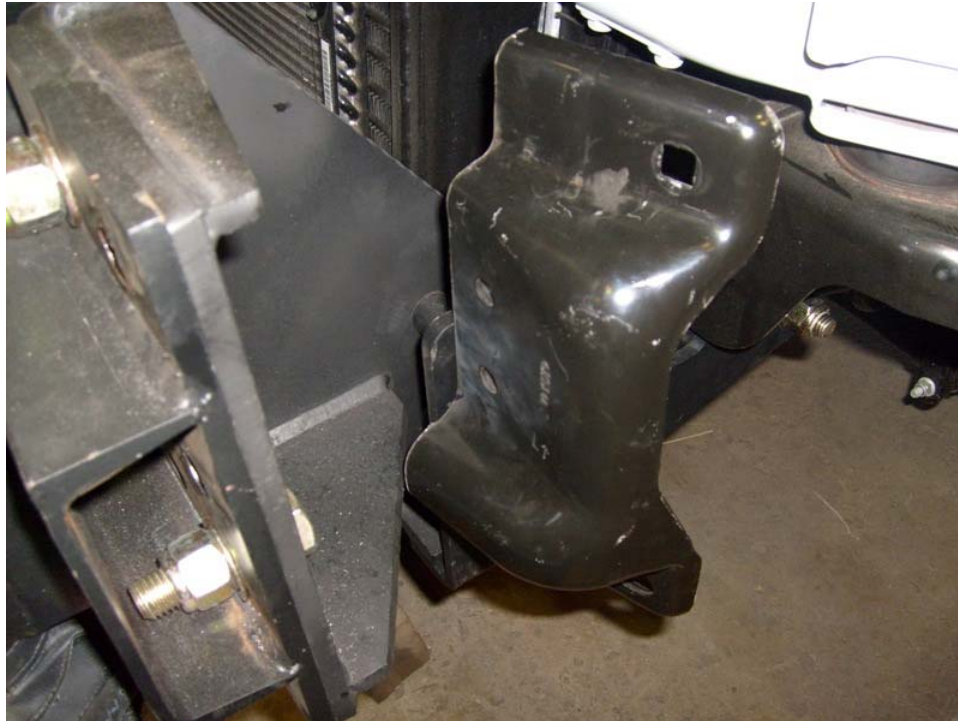
Bumper Mounting Bracket (Drivers Side)



Bumper Mounting Bracket (Drivers Side)



Bulletin MIO-M45FVXD001



Modified Bumper Mounting Bracket - installed (Drivers Side)



Bumper Modification

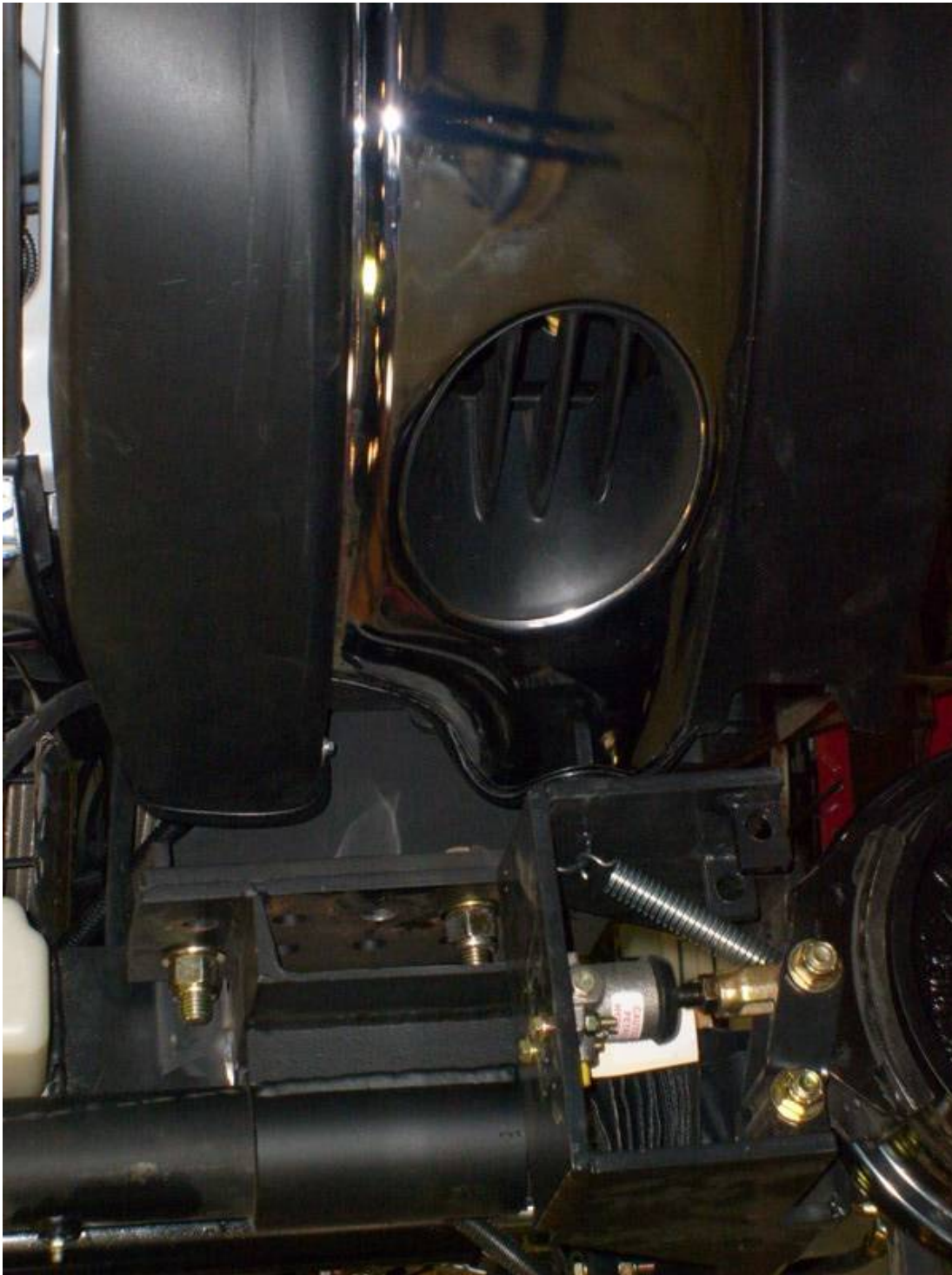
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Bumper Modification (Drivers Side Corner)



Bumper Modification (Drivers Side Corner)



Modified Bumper - Installed (Drivers Side Corner)



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