MIO-R29GMTPS01 Rev E

INSTALLATION OF R-290 TIRE PRESSURE MONITORING SENSOR KIT 2008-2016 GM 2500/3500HD CK PICKUP

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.
- The road wheels and tires must be installed before the railgear is installed to obtain correct height measurements.
- Do not hit the wheel adapter with any hard objects as this could dent the adapter and cause vibrations when driving. If the adapters do not easily slide onto the hubs, lightly sand the hub and the inside of the adapter.
- Before performing any work under the vehicle or railgear, ensure the engine is turned off and the parking brake is set.
- With the installation of the vehicle road wheels and tires, it is recommended to recalibrate the vehicle's speedometer.

INSTALLATION OF TIRE PRESSURE MONITORING SENSOR

The following procedure details the installation of the tire pressure sensor on the 19.5" steel wheels provided with the RAFNA Railgear equipment. The hardware required for this installation for one sensor and one wheel is listed in Table 1.

Table 1: Tire Pressure Monitoring Sensor Installation kit

Part Number	Description	Qty
S-201502	19.5" x 6.75" Wheel 5.60" Offset	Ref
R-10055	Tire Pressure Monitoring Sensor	1
R-10056	Nut	1
R-10057	Adapter Grommet	1
R-10058	Washer	1
R-10059	Washer	1
R-10037	TPS Sticker	1

Tire Pressure Monitoring Sensor (TPMS)

The OEM TPMS must be replaced with a sensor that is capable of operating at the higher pressures required for the 225/70R19.5" tires that are recommended for RAFNA Railgear Wheel Modification Kit.

The OEM sensors cannot be reused as they are a snap-in style that will not mount to the steel wheels supplied with RAFNA Wheel Modification Kit. A screw-on type that is secured to the steel wheel with a nut on the outside of the wheel is required.

Installation of Tire Pressure Monitoring Sensor (TPMS)

1. **Remove the small rubber grommet from pressure sensor valve stem and discard**. Replace the small rubber grommet with the large rubber grommet supplied with this kit.

2. Assemble pressure sensor, grommet, washer and nut to the 19.5" wheel as shown in **Figure 1**.

3. **The valve stem nut should be torqued to 24-30 in. lbs.** This is to ensure the proper operation of the sensor and to maintain and air tight seal with the wheel.

4. It is recommended that the speedometer for the vehicle be recalibrated for the 19.5" wheels and tires. There is currently no option in the vehicles computer for 19.5" wheels, the closest available setting is for 20" wheels. Using this setting should achieve a 3-4 mph variation from actual at highway speeds.

Tire Inflation

Tires should be inflated to a minimum pressure of 75psi to a maximum of 85psi. This will allow the replacement TPMS to operate within its designed pressure range of +/-15% of inflated pressure before alerting the driver with a pressure warning light.

These are only recommended inflation pressures. The proper tire pressure should be determined by the operator of the vehicle, depending on vehicle load and operating conditions.

Programming the TPMS

It will be necessary to reprogram the vehicles computer to read the new sensor and the required higher operating tire pressure.

It is recommended that the vehicle computer be set Load Range 'E' tires for the front and rear with an operating pressure of 80psi.

Contact you local GM dealer for the correct procedure on reprogramming the TPMS.

Refer to page 5 & 6 for important GM Technical Service Bulletin.

Tire Rotation

When performing a tire rotation as part of the vehicle standard maintenance schedule, it will be necessary to re-set the TPMS so that the vehicles computer knows the location of the moved sensors.

Contact you local GM dealer for the correct procedure on re-setting the TPMS.

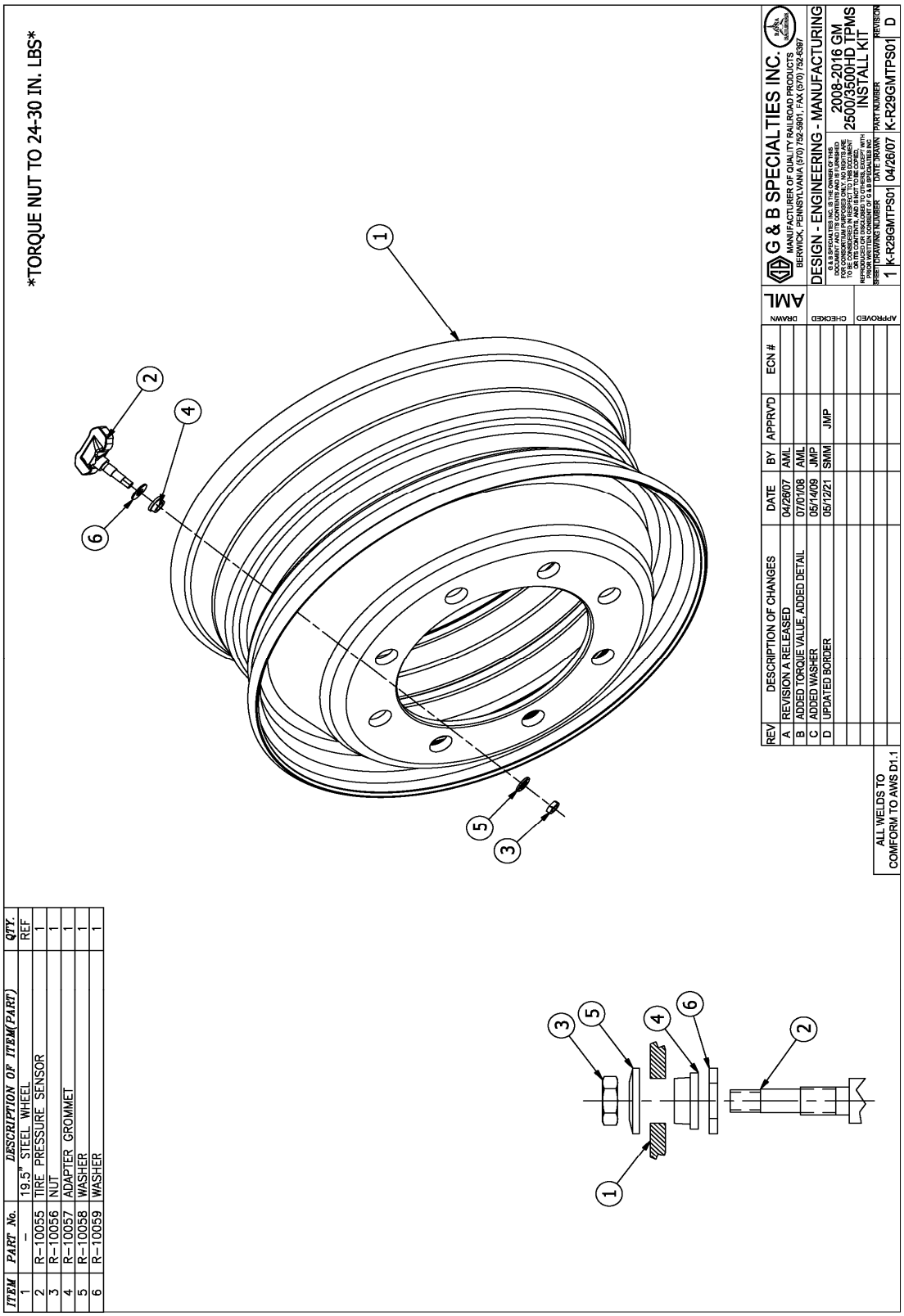

TORQUE NUT TO 24-30 IN. LBS
ITEM | PART No. | DESCRIPTION OF ITEM(PART) | QTY.
1 | – | 19.5" STEEL WHEEL | REF
2 | R–10055 | TIRE PRESSURE SENSOR | 1
3 | R–10056 | NUT | 1
4 | R–10057 | ADAPTER GROMMET | 1
5 | R–10058 | WASHER | 1
6 | R–10059 | WASHER | 1
REV | DESCRIPTION OF CHANGES | DATE | BY | APPRV'D | ECN #
A | REVISION A RELEASED | 04/26/07 | AML
B | ADDED TORQUE VALUE, ADDED DETAIL | 07/01/08 | AML
C | ADDED WASHER | 05/14/09 | JMP
D | UPDATED BORDER | 05/12/21 | SNM | JMP
DRAWN AML
CHECKED
APPROVED
G & B SPECIALTIES INC.
MANUFACTURER OF QUALITY RAILROAD PRODUCTS
BERWICK, PENNSYLVANIA (570) 752-5901 FAX (570) 752-6397
DESIGN - ENGINEERING - MANUFACTURING
2008-2016 GM 2500/3500HD TPMS INSTALL KIT
SHEET 1 | DRAWING NUMBER K-R29GMTPS01 | DATE DRAWN 04/26/07 | PART NUMBER K-R29GMTPS01 | REVISION D
ALL WELDS TO COMFORM TO AWS D1.1

Figure 1

Powertrain Control Module (PCM)

This information is in addition to the "Tires" portion located in Section 5 of your owner manual.

When tires are changed from the original equipment size to those adapted to railroad track gage, the Powertrain Control Module (PCM) must be reprogrammed to correct the speedometer reading.

Truck Models C/K 2500/3500: LY6 6.0L V8 Engine and MYD 6L90 Automatic Transmission.

Reprogramming the PCM is done with a TECH II electronic diagnostic system. Your GM truck dealer has this equipment. Your dealer has the correct calibration identified by the calibration part numbers on the following chart and any later updates after this publication.

New Tire Size	*Axle Code*	*Model Year*	*Calibration Part Number*
225/70R19.5	GT4 (3.73)	2007	12615865
225/70R19.5	GT4 (3.73)	2008	12615866
Please refer to the Light Duty Series GM BODY BUILDER BOOK or visit www.GMUPFITTER.com for further general information regarding vehicle modifications.			

Document ID# 1866477

Vehicle Capacity Weight & Tire Info Label

Part Number	Vehicle(s)	Language(s)	Size (mm)
15261447	All GM < 10,000 lbs	English/French/ Spanish/Arabic/ Chinese	105 x 43

•Requirements – FMVSS/CMVSS 110
GS 48/SSA 1438
NOM-12-SCT2 TREAD
Act

•Languages – English – USA English-European PSI = BAR
English/French – Canada
Spanish – Mexico Arabic –
Gulf States Chinese – China

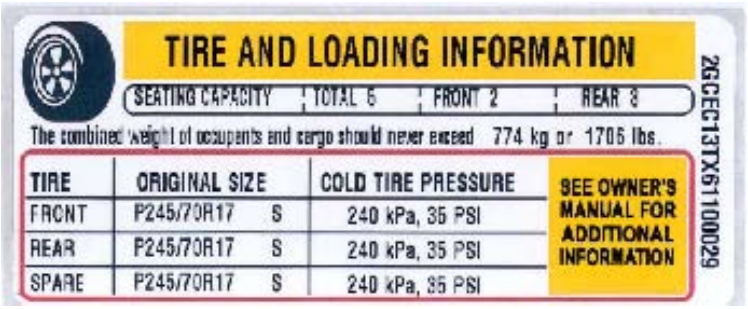
•Colors – Black/White/Red/Yellow

•Location – Driver-side B-Pillar or Inner Door Edge if there is no B-Pillar

BEST PRACTICE LINK

Tire Pressure Label 109604

Example Label



•Label Type – Information