

## INSTALLATION OF R-290 WHEEL KIT - ALUMINUM 2011-PRESENT GM 2500/3500HD 4X2/4X4 SRW

THIS MANUAL IS APPLICABLE TO THE FOLLOWING KITS: K-W29ALG001 & K-W29ALG002

### 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 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 in order to obtain correct height measurements.
- Always disconnect the vehicle's battery when welding on the vehicle or railgear in order to protect the vehicle's electrical system.
- 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 WHEEL KIT

The following procedure details the installation of the wheels and tires required for the vehicle's tires to ride correctly on the rails and avoid contact with the vehicle.

### Wheel Installation Kit (for 4 or 5 wheels)

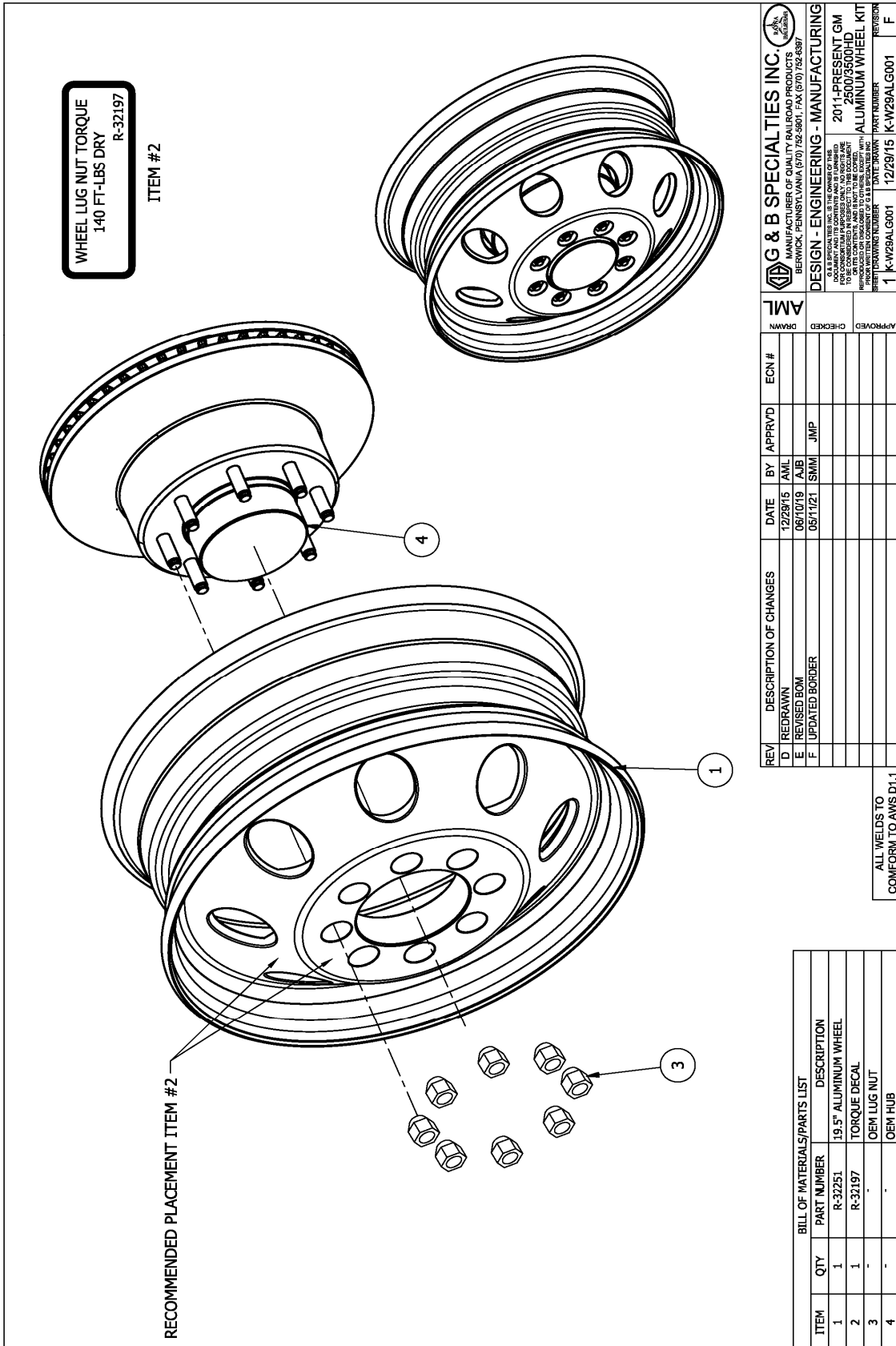
Part Number	Description	QTY
R-32251	19.5" Aluminum Wheel	4 or 5
R-32197	140 ft-lbs Spacer Decal	4 or 5
-	GOODYEAR Tire G-622 RSD 225/70R19.5	REF

1. Remove the original front and rear wheels.
2. Based on rail contact area and load carrying capacity, G&B Specialties Inc. suggests the use of Goodyear G-622 RSD (225/70R19.5) tires for all wheels on the railgear equipped vehicle. However, at the installer's and/or railroad's discretion, an equivalently sized and rated tire may be used. Mount and balance the tires on the supplied wheels. Install TPMS sensors if required.
3. Affix the supplied wheel torque decals to the outside face of the wheels.
4. A new location must be found for the spare wheel. It cannot be mounted under the cargo box due to interference with the rear railgear.
5. Install the wheels:
  - a) Mount the wheels on the OEM hubs. No wheel adapter is necessary.
  - b) Using the OEM lug nuts, tighten and then torque to 140 ft-lbs dry. Do not over torque.
6. Due to the modified wheel track on the railgear equipped vehicle, both front and rear tire and wheel clearances must be checked. With the wheels and tires turning installed on the vehicle, ensure that the wheels, tires, and/or balance weights do not contact the vehicle suspension or steering components, the brake lines, the ABS lines and/or any other component/obstruction throughout the entire range of motion of the steering and suspension.

**Note:**

*Ensure that any vehicle modifications are done in accordance with the vehicle manufacturer's or their representative's approval.*

7. The speedometer will need to be recalibrated due to the change in tire size. Bigger tires will cause your speedometer to register a speed that is slower than your actual speed.
8. The vehicle will need to have a wheel alignment done. After the wheel kit is installed and the railgear is hung.
9. The tire pressure sensors (if equipped) will need to be calibrated to learn new position. For this wheel kit, follow the OEM recommendations as outlined in the vehicle's owner manual.



**WHEEL LUG NUT TORQUE**  
 140 FT-LBS DRY  
 R-32197  
 ITEM #2

REV	DESCRIPTION OF CHANGES	DATE	BY	APPRVD	ECN #	APPROVED	CHECKED	AML
D	REDRAWN	12/29/15	AMIL					
E	REVISED BOM	09/10/19	AJUB					
F	UPDATED BORDER	05/11/21	SMMI	JMP				

BILL OF MATERIALS/PARTS LIST		
ITEM	QTY	DESCRIPTION
1	1	R-32251 19.5" ALUMINUM WHEEL
2	1	R-32197 TORQUE DECAL
3	-	OEM LUG NUT
4	-	OEM HUB

G & B SPECIALTIES INC.			
MANUFACTURER OF QUALITY RAILROAD PRODUCTS BERWICK, PENNSYLVANIA (517) 752-5901, FAX (517) 752-6397			
DESIGN - ENGINEERING - MANUFACTURING			
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1	K-W29ALG001	12/29/15	K-W29ALG001
			F

**\*SNAP-IN INSTALLATION\***

**\*OPTIONAL CLAMP-ON INSTALLATION\***

ITEM	PART No.	DESCRIPTION OF ITEM(PART)	QTY.
1	R-32251	19.5" ALUMINUM WHEEL	1
2	R-10055	TIRE PRESSURE SENSOR (CLAMP-ON)	1
3	R-10055N	SEAL KIT	1

REV	DESCRIPTION OF CHANGES	DATE	BY	APPRVD	ECN #
A	REVISION A RELEASED	12/23/15	AML		
B	ADDED R-10055B	11-15-16	JL	JL	
C	REVISED BOM	06/10/19	A/B	JMP	
D	ADDED 2020 TFS TO BOM	12/17/19	SMM	JMP	
E	UPDATED BORDER	05/11/21	SMM	JMP	

ITEM	PART No.	DESCRIPTION OF ITEM(PART)	QTY.
1	R-32251	19.5" ALUMINUM WHEEL	1
2	R-10055A	TIRE PRESSURE SENSOR (SNAP-IN)	1
3	R-10055B	TIRE PRESSURE SENSOR (SNAP-IN)	2017
3	R-10055C	TIRE PRESSURE SENSOR (SNAP-IN)	18-19
3	R-100554	TIRE PRESSURE SENSOR (SNAP-IN)	2020

REV	DESCRIPTION OF CHANGES	DATE	BY	APPRVD	ECN #
A	REVISION A RELEASED	12/23/15	AML		
B	ADDED R-10055B	11-15-16	JL	JL	
C	REVISED BOM	06/10/19	A/B	JMP	
D	ADDED 2020 TFS TO BOM	12/17/19	SMM	JMP	
E	UPDATED BORDER	05/11/21	SMM	JMP	

**\*INSTALL PER ACCEPTED INDUSTRY STANDARDS\***

ALL WELDS TO CONFORM TO AWS D1.1

**\*INSTALL PER ACCEPTED INDUSTRY STANDARDS\***

**G & B SPECIALTIES INC.**  
MANUFACTURER OF CALIPER TIRE PRESSURE SENSORS  
BERWICK, PENNSYLVANIA (570) 752-5901 FAX (570) 752-6397

**DESIGN - ENGINEERING - MANUFACTURING**

2011-PRESENT GM  
2500/3500HD TPMS  
ALUMINUM WHEEL KIT

REVISED DATE: 12/23/15  
PART NUMBER: K-R29GMTPS02

Ref: TPMS Installation

## OPERATION AND SERVICE OF R-290 WHEEL KIT - ALUMINUM 2011 AND UP GM 2500/3500HD 4X2/4X4 SRW

### 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 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.
- This vehicle has an increased turning radius and decrease stability and braking ability. Use caution when operating both on road and rail.
- Following the first 25 miles (40 km) of road and rail travel, the road wheel lug nuts must be re-torqued. Refer to the service section of this manual for the procedure.
- 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 AND SERVICE OF WHEEL KIT**

With the wheels and tires installed on this vehicle, it may be operated as normal, however caution must be used as the vehicle now has an increased turning radius and decreased stability and braking ability both on road and rail.

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 wheels and tires must be serviced regularly to avoid damage to the equipment. See Table 1 below for Service Recommendations.

If ever vibrations are felt through the vehicle, inspect the balance and alignment of the road wheels and tires.

**WARNING/CAUTION**

- Never use anti-seize on studs or lug nuts.
- Hand torque to specifications, do not use pneumatic tools.
- Always inspect the condition of the wheel before and after service.
- Loose lug nuts can lead to metal fatigue and ultimately to wheel failure or broken studs.

**Table 1: Recommended Service Schedule**

Service Required	Initial 40 km (25 Miles) of road and/or rail use	Daily	Weekly	Monthly	3 Months
Ensure vehicle is in good operating condition as per Mfg. Spec.		✓			
Check and adjust tire pressure per specification			✓		
Check wheel lug nut torque 25 miles after service or as specified	✓				✓

**ALUMINUM WHEEL TORQUE SPECIFICATION: 140 FT-LBS. DRY**  
**RECOMMENDED TIRE PRESSURE: 85 PSI**