

## INSTALLATION OF ROAD WHEELS AND TIRES 2014 Dodge Ram 2500 SRW 4X4

### 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 Industries 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.
- 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.
- 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 ROAD WHEELS AND TIRES

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

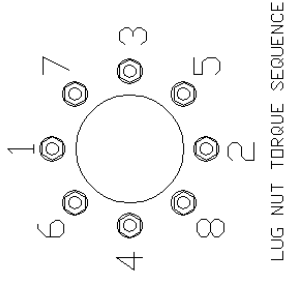
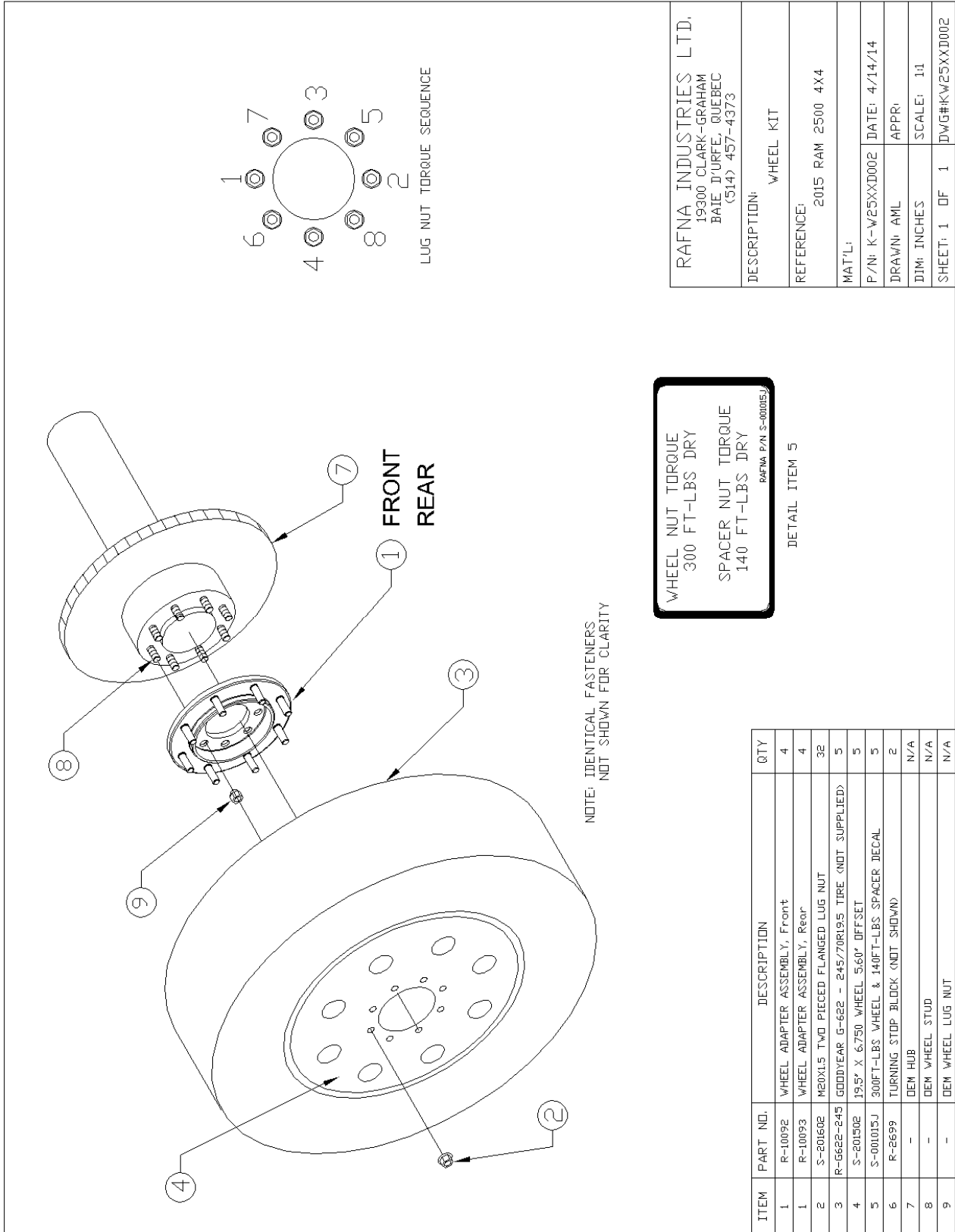
Table 1: Road Wheel And Tire Installation kit

Part Number	Description	Qty
R-10092	Wheel Adapter Assembly, Front	4
S-201502	19.5" x 6.75" Wheel 5.60" Offset	5
S-001015J	300 ft-lbs Wheel & 140 ft-lbs Spacer Decal	5
S-201602	M20 x 1.5 Two-Piece Flanged Nut	32
R-2699	Turning Stop Block	2

1. Jack up the vehicle and secure it on jack stands.
2. Remove the original front and rear wheels.
3. Based on rail contact area and load carrying capacity, G&B Specialties Inc. suggests the use of Goodyear G-622 RSD-245/70R19.5 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.
4. Affix the supplied wheel and adapter torque decals to the outside face of the wheels.
5. A new location must be found for the spare wheel and the necessary brackets fabricated. It cannot be mounted under the cargo box due to interference with the rear railgear.
6. Install the wheel adapters:
  - a) Start with one wheel adapter on one hub of the vehicle.
  - b) Where fitted, remove all brake drum / disc retaining clips installed on the wheel studs. These clips will prevent the wheel adapter from seating properly.
  - c) Place the wheel adapter on the hub over the OEM wheel studs and fasten in place using the OEM wheel lug nuts.
  - d) Tighten and then torque the OEM wheel lug nuts which hold the adapter to the hub to 140 ft-lbs dry as per the torque sequence provided. Do not over torque.
  - e) Repeat for the remaining wheel adapters.

7. Install the wheels:
  - a) Mount the wheels on the wheel adapters with the supplied two-piece flanged nuts.
  - b) Tighten and then torque the two-piece flanged nuts to 300 ft-lbs dry as per the torque sequence provided. Do not over torque.
  
8. Install the front wheel turning stop blocks:
  - a) Position the turning stop blocks over the original turning stops on the steering knuckle. To verify their position is correct, fully turn the steering wheel until the front hub contacts the knuckle. The boss on the hub should contact the turning stop block squarely on. Repeat for the other side.
  - b) Fully weld the turning stop blocks to the steering knuckles once their position is correct.
  - c) It may be necessary to add or remove material from the turning stop blocks in order to gain adequate clearances.
  
9. 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, tires and supplied adapters 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.

It may be necessary to relocate/or otherwise secure the brake lines, ABS lines, and/or other equipment in order to gain adequate clearances. Ensure that any vehicle modifications are done in accordance with the vehicle manufacturer's or their representative's approval.



WHEEL NUT TORQUE  
300 FT-LBS DRY

SPACER NUT TORQUE  
140 FT-LBS DRY

RAFNA P/N S-00005J

ITEM	PART NO.	DESCRIPTION	QTY
1	R-10092	WHEEL ADAPTER ASSEMBLY, Front	4
1	R-10093	WHEEL ADAPTER ASSEMBLY, Rear	4
2	S-200602	ME20X1.5 TWO PIECED FLANGED LUG NUT	32
3	R-0622-245	GOODYEAR G-622 - 245/70R195 TIRE (NOT SUPPLIED)	5
4	S-200502	19.5" X 6.750 WHEEL 5.60" OFFSET	5
5	S-001015J	300FT-LBS WHEEL & 140FT-LBS SPACER DECAL	5
6	R-2659	TURNING STOP BLOCK (NOT SHOWN)	2
7	-	DEM HUB	N/A
8	-	DEM WHEEL STUD	N/A
9	-	DEM WHEEL LUG NUT	N/A

RAFNA INDUSTRIES LTD. 19300 CLARK-GRAHAM BAIE D'URFE, QUEBEC (514) 457-4373	
DESCRIPTION:	WHEEL KIT
REFERENCE:	2015 RAM 2500 4X4
MAT'L:	
P/N: K-W25XXD002	DATE: 4/14/14
DRAWN: AML	APPR:
DIM: INCHES	SCALE: 1:1
SHEET: 1 OF 1	DWG#K/W25XXD002

## OPERATION & SERVICE OF ROAD WHEELS AND TIRES 2015 RAM 2500

### 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 Industries 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 100 km (62 Miles) of road and rail travel, the road wheel and adapter lug nuts must be retorqued. 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 OF ROAD WHEELS AND TIRES

With the road 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.

## SERVICE OF ROAD WHEELS AND TIRES

The road wheels and tires must be serviced regularly to avoid damage to the equipment. Table 1 below provides the Recommended Service Schedule.

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

If ever the wheels or adapters are removed, torque both the wheel and adapter lug nuts again as described below after 100 km (62 Miles) of road and/or rail travel.

Table 1: Recommended Service Schedule

Service Required	Initial 100 km (62 Miles) of road and/or rail	Daily	Weekly	Monthly
Ensure vehicle is in good operating condition as per Mfg. Spec.		✓		
Check and adjust tire pressure as per manufacturer's specification			✓	
Torque wheel lug nuts (see procedure below)	✓			✓
Torque wheel adapter lug nuts (see procedure below)	✓			✓

Torque the wheel and adapter lug nuts to the following specifications using the torque sequence provided. Do not over torque.

Table 2: Wheel & Adapter Torque Specifications

Wheel Lug Nuts	300 ft-lbs dry
Adapter Lug Nuts	140 ft-lbs dry