

TECHNICAL SERVICE BULLETIN
RAFNA RAILGEAR

RAFNA R-080 DISC-LOCK NUT AND R-071 WHEEL STUD TORQUE

ISSUE DATE: June 23, 2004

TSB NUMBER: TSB-161 Rev 0

HAZARD / URGENCY RATING	
X	DANGER – Injury or death possible if TSB not observed or followed
	WARNING – Equipment damage possible if TSB not observed or followed
	CAUTION – Essential issue affecting operation, service, parts or installation
	INFORMATIONAL – Advisory which may be of interest

APPLICABLE EQUIPMENT:

All 1998 – 2000 GMC / Chevy 2500 and 3500 pick-up trucks equipped with Rafna R-250HD railgear and /or Rafna wheel modification kits using R-079 Accuride wheels and R-080 Disc-Lock Nuts.

All 1999 – 2002 Ford F-450 and F-550 chassis cab trucks equipped with Rafna R-450DD railgear and / or Rafna wheel modification kits using R-080 Disc-Lock Nuts.

SUMMARY:

Rafna’s supplier of the R-080 Disc-Lock Nut has changed the corrosion resisting coating from zinc to Magni. The change in coating directly affects the torque specification for these nuts. The Magni coated nuts were supplied by Rafna as new and replacement parts since January 1st 2004. Any vehicle which has had new disc-lock nuts installed from Rafna since this date may be affected by this technical service bulletin and will require action.

Additionally, Rafna’s supplier of the R-071 Wheel Studs used on the wheel spacers on these vehicles has recommended a lower maximum wheel nut torque value than what Rafna and Disc-Lock International previously recommended when using R-080 Disc-Lock Nuts on these studs. Any vehicle which has the zinc coated R-080 Disc-Lock Nut installed on R-071 Wheel Studs may be affected by this technical service bulletin and will require action.

IMPACT:

If the current torque specification outlined in the Operation, Parts, and Service manual or Installation manual is used on either the zinc or Magni coated nuts, the wheel studs may be overstressed, leading to stud failure and / or wheels separating from the vehicle. It is imperative that all disc-lock nuts used on the vehicle are of the same type and the correct torque values as detailed in this technical service bulletin are used.

ACTION:

Each applicable vehicle must be inspected to determine which type of disc-lock nuts are used on the vehicle. Note that it is possible that a mix of the two types of nuts have been installed on the same vehicle, so check every nut.

In the case of 1998 – 2000 GMC / Chevy 2500 and 3500 pick-up trucks, the disc-lock nuts were used to hold all four vehicle wheels to the wheel spacers via R-071 Wheel Studs.

In the case of 1999 – 2002 Ford F-450 and F-450 chassis cab trucks, the disc-lock nuts were used to hold the OEM front hub extender to the front spacer via R-071 Wheel Studs.

The zinc coated disc-lock nut and the Magni coated disc-lock nut can be identified as follows (see attached photograph):

Zinc Coated R-080 Disc-Lock Nut: Shiny silver appearance, no markings other than possible stamping of the digits “D” and “L” in the disc portion of the nut.

Magni Coated R-080 Disc-Lock Nut: Dull gray appearance, stamping of digits “D”, “L” and “9-16” in the face of the hex portion of the nut.

Inspect your vehicle for which disc-lock nuts are used:

If only zinc coated R-080 Disc Lock Nuts are found on the vehicle:

1. Disassemble the wheel kit.
2. Inspect all R-071 Wheel Studs for signs of over torquing, damage, elongation, wear, corrosion, cracking etc.
3. If any studs are found to be suspect, **REMOVE THE VEHICLE FROM SERVICE IMMEDIATELY!!**
4. Replace any suspect studs with only new R-071 Wheel Studs from Rafna Industries.
5. Re-install the wheel kit as per the installation manual except use the new torque value given below for zinc coated R-080 Disc-Lock Nuts.
6. If ever you need to replace any of your disc-lock nuts, ensure that all disc-lock nuts on the vehicle are replaced at the same time with new Magni coated nuts and then use the new torque specification given below for Magni coated R-080 Disc-Lock Nuts.

If any Magni coated R-080 Disc-Lock Nuts are found on the vehicle:

1. ***REMOVE THE VEHICLE FROM SERVICE IMMEDIATELY!!***
2. Remove all the disc-lock nuts from the vehicle.
3. Remove all the R-071 Wheel Studs from the spacer and replace them all with new components from Rafna Industries.
4. Re-install the wheel kit as per the installation manual using all new Magni coated R-080 Disc-Lock Nuts where called for and the new torque specification given below for Magni coated R-080 Disc-Lock Nuts.

Torque Specification For R-080 Disc-Lock Nuts w/ Zinc Coating: 165 ft-lbs dry.

Torque Specification For R-080 Disc-Lock Nuts w/ Magni Coating: 125 ft-lbs dry.

