

Tire Maintenance Procedure



SUBJECT: Approved Tire and Rim Lubricants
SECTION: Tools & Repair Materials
PROCEDURE: 17.04
VERSION: 1.2 **LAST REVISED:** August 13, 2010
SUPERSEDES: v1.1, dated September 1, 2004

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1. PURPOSE The purpose of this procedure is to explain the advantages of Freylube and Niagra tire mounting and demounting lubricants. The proper application of tire mounting and demounting lubricants is also described.

2. CURRENT REVISIONS Information on Tire Demounting Lubricants has been added to this procedure.

3. SHOP SAFETY REQUIREMENTS Before beginning any work, pay close attention to the following shop safety requirements:

- Ensure all required personal protective equipment is worn per shop policy,
- Remove vehicle ignition key and ensure lock out/tag out procedure is followed,
- Set the parking brake,
- Chock the front and rear tires, and
- Be sure to adhere to any other safety requirements that may be specified in this document.

IMPORTANT: When mounting an original or recap (new or used) that has been repaired, follow the additional safety precautions cited in Tire Maintenance procedure 11.88.01, "Inspecting Tires That Have Been Run Underinflated."

4. TIRE MOUNTING LUBRICANTS **TOPICS IN THIS SECTION**

- 4.1 - Advantages
- 4.2 - Correct Application

4.1 Advantages Freylube and Niagra lubricants are specifically designed to protect tire bead and rim surfaces on conventional and tubeless tires. They contain a bead lubricant and rust inhibitor to retard the formation of rust and scale on the tire side of rim surfaces, as well as in the rim and ring channels of conventional rims. In tube-type tires they also protect the tire flap, which extends flap life through multiple tire changes.

The use of Freylube and Niagra lubricants is a guarantee that the tire beads will not be fused to the rim. Heavy tools, which often cause damage to the tire in the dismounting operation, will no longer be required when these lubricants are used.

Scale and rust on the tire side of rim surfaces affect the sectional thickness of the rim and prevent proper seating of tire bead on the rim components at points of contact, a condition that hastens bead failure.

4.2 Correct Application

The proper application of tire mounting lubricants is as follows:

1. Thoroughly remove rust, dirt or other foreign materials from all surfaces. Hand or electric wire brushes may be used.

NOTE: This is especially important for drop center tubeless rims, because the 15° bead seat is the air sealing element.

2. Lightly apply lubricant with a bristle brush to insure that bare metal surfaces on the tire side of the rim are covered.

NOTE: This is especially important for drop center tubeless rims and aluminum wheels because warm and sometimes moist air is in constant contact with the metal surfaces on the tire side of the rim. Condensation can form on the rim surface when the warm air is cooled by the rim and cause corrosion or rusting to start forming on the wheel surface.

3. Lubricate the tire with a two inch (2") paint brush, or swab using Freylube or Niagra Five Star Lube mounting compound. Completely lubricate the portion of both tire beads, from the bead toe to the bead heel, and both rim flanges.

5. TIRE DEMOUNTING LUBRICANTS

Both Freylube and Niagra Five Star paste type lubricants are approved for tire demounting. After the bead is released from the wheel, apply either lubricant with a brush or swab to the bead area of the tire, in order to aid removal of the tire without damaging the bead.

Due to the difficulty experienced with paste lube on some tire and wheel assemblies, you may prefer to use Niagra E-Z Mount liquid lubricant. After the bead is released from the wheel, apply in the same manner as paste type lubricant.

IMPORTANT: Niagra E-Z Mount liquid lubricant is approved **ONLY** for **DEMOUNTING** tires.