

# INSTALLATION



## Guardian<sup>®</sup> and Guardian<sup>®</sup> HP Seal Installation

**Step 1** Remove all burrs from the hub bore and spindle. Thoroughly clean the entire wheel cavity. Apply a thin layer of No. 2 sealant to the OD of the spindle shoulder. Place the seal assembly on the spindle so the words “Oil Bearing Side” are exposed to the oil. [Photo 1]

**WARNING:** Do not install the seal into the hub bore.

**Step 2** Using the recommended Stemco Universal Axle Tool, drive the seal assembly on until the tool bottoms against the shoulder. [Photo 2] Make sure the ring is flush with the shoulder. Wipe away any excess sealant.

**Step 3** Dip the inner bearing in oil and place on the spindle. *NOTE: The OD of the seal must be coated with a thin coat of oil. NOTE: When using grease, pre-pack the inner bearing before placement into the hub.*

**Step 4** With the wheel mounted on a wheel dolly, carefully push the wheel onto the spindle until it contacts the seal. [Photo 3] Dip the outer bearing in oil and place it on the spindle. *NOTE: When using grease, pre-pack the inner bearing before placement into the hub.* Tighten the inner spindle nut hand tight and remove the wheel dolly.

**Step 5** Tighten the inner nut to 200 ft/lbs. [Photo 4] Rotate the wheel several times and then back-off nut one full turn. Make final bearing adjustment according to TMC recommended bearing adjustment procedure. Install the appropriate axle fastener.

**Step 6** Install the hub cap with a new gasket and fill the cavity with lubricant until the proper oil level is indicated on the window. On drive axles, be sure the differential oil level is high enough (manufacturer’s recommended level) to ensure oil flow through the tube to the wheels. It is recommended to jack-up one side and then the other until flow starts. Make certain the breather plug is clear. Recheck steers and trailers to insure proper fill levels.

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## **Tech Tip #5**

### **Guardian HP Wheel Seals – Proper Installation Practices**

All Stemco Guardian seals are pre-lubricated in the Stemco facility to provide the smoothest installation possible. While this provides ample lubrication in most instances, there are occasions where this lubrication will not be sufficient to ensure proper installation and seating of these high performance sealing products. Certain hub, seal, and installation conditions may cause the seal to experience abnormally high installation loading. Installations of this type may damage the seal, and will most certainly limit the high life potential of this product.

To avoid the possibility of seal damage and reduced component life, we **strongly suggest** that all OEM and aftermarket installations include a pre-lubrication step at the point of assembly. Lubrication should be completed as follows:

1. Install the seal onto the spindle shoulder per normal installation instructions
2. *Apply a thin coating of gear lubricant to the outer diameter of the seal*
3. Complete the installation per normal installation instructions

Adoption of this modified installation technique will help to insure that our customers receive the long life potential designed into the Guardian HP products.

This change has been made to all installation literature produced and distributed by Stemco Inc.

Jon A. Cox  
Vice-President Engineering  
Stemco Inc.