

## Hub Cap Lubricant Installation Procedure for Oil, Semi-Fluid Grease and Hard Pack Grease

The purpose of this document is to inform customers of proper lubrication methods for Sentinel® hub caps with oil, Sentinel®, stamped steel, duckbill vented stamped steel, dirt exclusion hub caps with semi-fluid grease and stamped steel hubcaps with hard pack grease.

### OIL SENTINEL®

When using oil lubricants, the following procedure should be followed. Adherence to this procedure will result in longer wheel end life and improved performance.

1. After the hub cap has been installed on hub, slowly pour oil through side fill hole. Allow the oil to flow into the hub cavity and do not fill the oil level past the bottom of the red cover or the red shaded area below. Allow two to three minutes for the oil to migrate into the hub cavity and repeat process as needed until the oil level is at the full line on the clear hub cap window.

**DO NOT COVER THE VENT MECHANISM WITH LUBRICANT.**

Failure to follow the above procedure will result in "filming" or cosmetic seepage of lubricant through the center vent onto the external face of the hub cap during initial operation.



Figure 1: Fill Level for Oil

### Semi-Fluid Grease

#### Sentinel®, Dirt Exclusion, Duckbill Vent, and Solid Aluminum Hub Caps

When using semi-fluid lubricants, it is recommended to add lubricant to the hub caps to provide added lubrication to the outer bearing. Adherence to this procedure will result in longer wheel end life and improved performance. Addition of semi-fluid lubricant should be completed as follows:

1. Holding the hub cap as shown (Figure 2), fill the lower side of the hub cap until level with the inner edge of the mounting flange and the edge of the vent mechanism.

**DO NOT COVER THE VENT MECHANISM WITH LUBRICANT.**

Failure to follow the above procedure will result in "filming" or cosmetic seepage of lubricant through the center vent onto the external face of the hub cap during initial operation.



Figure 2: Fill Level for Semi-fluid Grease

2. Install the hub cap quickly to prevent spilling the lubricant.

## Hub Cap Lubricant Installation Procedure (Continued)

### Stamped Steel Hub Caps

The procedure for Stamped Steel hub caps will be very similar to the other hub caps with a step prior to Step 1 above.

1. Using a clean brush or your hand (Figure 3), wipe the inner surfaces of the stamped hub cap with a thin layer of lubricant until all areas are covered as shown.

**DO NOT COVER THE VENT MECHANISM WITH LUBRICANT.**

Failure to follow the above procedure will result in "filming" or seepage of lubricant from the vent onto the external face of the hub cap during initial operation, and may clog the vent in some cases.

2. Proceed with Steps 1 and 2 from previous section.

### Hard Pack Grease Stamped Steel

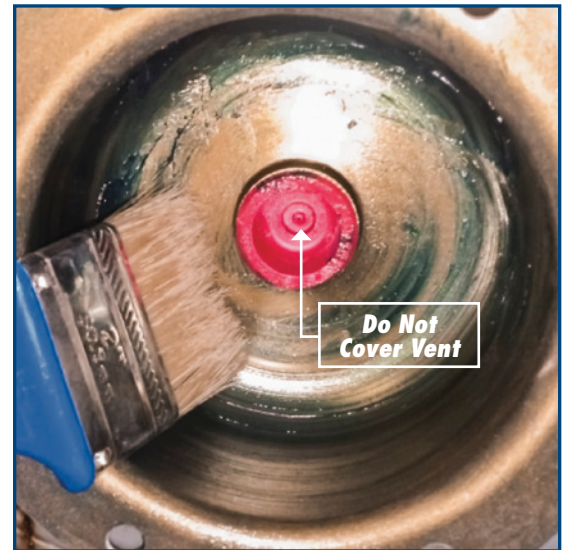
STEMCO stamped steel hub caps are zinc dichromate plated to provide corrosion protection and a superior finish. While the plating provides ample protection in most instances, there are conditions which can accelerate corrosion beyond the capability of the plating. For this reason, STEMCO recommends that all stamped steel hub caps be internally coated prior to installation, except for the vent, with a thin layer of lubricant. Coating should be performed as follows:

1. Using a clean brush or your hand (Figure 3), wipe the inner surfaces of the stamped hub cap with a thin layer of lubricant until all areas are covered as shown.

**DO NOT COVER THE VENT MECHANISM WITH LUBRICANT.**

Failure to follow the above procedure will result in "filming" or seepage of lubricant from the vent onto the external face of the hub cap during initial operation, and may clog the vent in some cases.

2. For this purpose, NLGI grade 2 or 3 hard pack greases are the preferred lubricants, as they do not flow and will maintain coverage of the plating on the internal surface of the hub cap.
3. Install the hub cap per normal installation practices.
4. Use this procedure on all STEMCO stamped steel hub caps.



**Figure 3:** Paint in the inside of stamped steel hub cap will grease