

STEMCO Wheel End Recommended Inspection & Maintenance Schedule

Simple Inspection

Interval: Daily Pre-Trip & In-Service

Oil Lubrication

Recommended Steps:

- STEP 1.** Check through the hub cap window to verify proper oil fill level and lubricant integrity.
- STEP 2.** Visually check for signs of lubricant leakage around the wheel seal and hub cap gasket.
- STEP 3.** Check for broken, damaged, or abnormal components.

Semi-Fluid Grease

Recommended Steps:

- STEP 1.** Visually check for signs of lubricant leakage around the wheel seal and hub cap gasket.
- STEP 2.** Check for broken, damaged, or abnormal components.

Detailed External Inspection

Interval: Annually or Every 100K Miles

Oil Lubrication

Recommended Steps:

- STEP 1.** Visually check for signs of lubricant leakage around the wheel seal and hub cap gasket.
- STEP 2.** Check through Sentinel® hub cap sight window to verify proper oil fill level and lubricant integrity.
- STEP 3.** If lubricant is low, but in good shape, add the same type of lubricant.
- STEP 4.** If lubricant is contaminated, proceed to Step 7 for further action.
- STEP 5.** Verify the wheel end has smooth, quiet rotation.
- STEP 6.** Inspect for any wheel end abnormalities.
- STEP 7.** If, during an inspection, a notable concern arises, disassemble the wheel end and replace the wheel seal, lubricant, ProTorq Keeper, and any other components as needed.

Detailed External Inspection (continued)

Interval: Annually or Every 100K Miles

Semi-Fluid Grease Perform Level III Inspection (per TMC RP631B)

Recommended Steps:

- STEP 1.** Lock brake for the wheel end to be inspected, this is done so the wheel seal is NOT disturbed (Refer to TMC RP 631B). Remove hub cap, spindle nut, and the outer bearing.
- STEP 2.** Check grease condition and fill level (recommended fill to 3 and 9).
Note: When using semi-fluid grease, the only way to accurately check lubricant level and condition is to remove the outer bearing.
- STEP 3.** If lubricant is low, but in good shape, add the same type of lubricant to the 3 and 9 o'clock level.
- STEP 4.** If lubricant is contaminated, proceed directly to Step 8.
- STEP 5.** Clean, inspect, and repack the outer bearing. If damaged, go directly to Step 8. If the bearing is good, repack and reassemble axle fastener, replace ProTorq Orange Keeper, and adjust to STEMCO ProTorq/ZipTorq specifications. Dial indicate wheel end to verify proper end play of .001" to .005".
- STEP 6.** Verify the wheel end has smooth, quiet rotation.
- STEP 7.** Inspect for any wheel end abnormalities.
- STEP 8.** If, during an inspection, a notable concern arises, disassemble the wheel end and replace the wheel seal, lubricant and any other components as needed.

Full Service

Interval: Completion of Warranty Period

Oil & Semi-Fluid Grease

Recommended Steps:

- STEP 1.** Simple Inspection (above)
- STEP 2.** Detailed External Inspection (above)
- STEP 3.** If wheel end requires disassembly, Perform Full Recommended Wheel End Service. Replace the wheel seal, lubricant, ProTorq keeper, and Sentinel Hub Cap.
- STEP 4.** If bearing Cup and Cones need replacing, refer to TMC RP 622.
- STEP 5.** For lubricant fill levels, refer to TMC RP631B instructions for Oil or Semi-Fluid Grease.
- STEP 6.** For proper ProTorq/ZipTorq installation, refer to STEMCO's 2-1-1 Torque procedures. Follow the link at <https://www.stemco.com/resource/zip-torq-2-1-1-instructions/>