

The ConMet Connection

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Part One of a Three-Part Series on Preventative Maintenance for Hub Assemblies

Identification and Inspection Keys to Proper Preventative Maintenance

The next three issues of the ConMet Connection will be devoted to describing the maintenance requirements on hub assemblies throughout the life of your vehicle.

- **Part One:** Identification, periodic inspection and driver pre-trip
- **Part Two:** Twelve (12) month inspection
- **Part Three:** Recommended Service at 500,000 miles

WHEEL END IDENTIFICATION

There are three unique wheel end systems available on Class 8 trucks and trailers today. These include the traditional hub assembly with manually adjusted bearings, PreSet® or LMS™ hub assemblies with factory adjusted bearing systems, and unitized hub assemblies with bearing systems that are adjusted, lubricated, and sealed at the factory. While they each have unique installation and service requirements, they all have the same basic inspection requirements.

There are several methods of identifying the wheel end system on your equipment:

- Your equipment dealer can identify the type of wheel end system your vehicle was built with through the vehicle serial number. There also may be decals on the chassis or body of the vehicle that provide information about the wheel end system.
- In some cases, the hubcap may contain information about the wheel end system and the lubrication.
- LMS™ hub assemblies may have a yellow identification ring as a part of the spindle nut system.
- The hub may also have identification decals and typically will have a stamped assembly part number that can be used to identify the wheel end type. See the Fall 2008 issue of *The ConMet Connection* for more details.

DRIVER PRE-TRIP VISUAL INSPECTION

(Each time prior to operating the vehicle on the road)

Regardless of the wheel end type, visual inspection of the wheel end is a critical part of each Pre-Trip Inspection. Park the vehicle on level ground and set the parking brake. Walk around the vehicle and visually inspect the wheel end assembly for the following items:

1. Loose, damaged, or missing fasteners
2. Loose, damaged, or missing hubcaps

3. Oil leaks at the hubcap, axle flange gasket, seal, or fill plug
4. Lubricant on the hub, brake components, or inside of the wheel and tire
5. Insufficient oil level and poor oil condition

If any of the above conditions are found, the vehicle should be placed out of service until the item can be repaired.

IN CONJUNCTION WITH PREVENTATIVE MAINTENANCE SCHEDULE

WARNING:

Do not work under a vehicle supported only by jacks. Jacks can slip and fall over. Serious personal injury and damage to components can result. Park the vehicle on a level surface. Block the wheels to prevent the vehicle from moving. Support the vehicle with safety stands. To prevent serious eye injury, always wear safe eye protection when you perform vehicle maintenance or service.

1. Check all items listed in the driver pre-trip visual inspection.
2. Lift and support the axle and rotate the wheel. Check that the wheel rotates freely. Listen and feel for any sign of rough bearing operation or vibration.
3. On oil lubricated steer and trailer hubs, place a magnet through the hub cap fill plug into the lubricant. Check for any signs of metal picked up by the magnet.
4. Push and pull on the top of the tire or use a pry bar to lift against the bottom of the tire to check for loose bearings or "chucking".

If any of the above conditions are found, the vehicle should be placed out of service until the item can be repaired.



Inspecting for loose, damaged or missing fasteners and hubcaps is an important part of a driver's pre-trip routine and preventative maintenance requirements.