

PreSet® Hub Inspection and Maintenance

Purpose

This technical bulletin instructs how to inspect, maintain, and service ConMet PreSet wheel ends when cone rotation is evident. Though the root cause of these non-typical cases has not been determined, it has been found to be more prevalent with wide based tires, higher outset wheels, and where extreme loading regularly occurs.

Inspection

The ConMet Service Manual for PreSet Hub Assemblies outlines four different levels of inspections that should help identify problems before they result in a catastrophic failure. They are as follows:

Driver Pre-Trip – Pay attention for signs of seal leaks as they can be an early indicator of damage inside of the hub resulting in metal debris being generated. The ABS light can be another early indicator of wheel end problems due to excessive endplay in the hub. Both can indicate failure may be imminent.

Preventative Maintenance Inspection – With the wheels off of the ground, rotate the wheel and check for any signs of rough bearing operation, noise, or vibration along with Driver Pre-Trip inspection listed above.

Annual or 100,000 Mile Inspection – Check wheel bearing end play and visually inspect lubrication. If end play is found to be over .006 inch, disassemble and inspect the assembly. Note that the wheel with tire, brake drum, and axle shaft must be removed from the hub to get an accurate endplay reading. If the end play is found to be .006 inch or less and the spindle nut is locked correctly, the spindle nut should not be adjusted or retightened.

5 Year or 500,000 Mile Inspection – Consolidated Metco recommends that all PreSet hub assemblies be disassembled and inspected at 5 years, 500,000 miles, or in conjunction with the second brake service on the vehicle, whichever ever comes first. Disassemble and inspect the hub and bearing assembly. Anytime a hub is removed, the wheel seal should be replaced. If cone rotation is evident, replace the bearing spacer. Replace other components as necessary.

Maintenance

For information about these procedures, ConMet Service Manual is online <http://www.conmet.com/literature.php>.

Follow the recommendations in the ConMet PreSet Service Manual to lift and support the axle and remove, disassemble, and clean the PreSet hub assembly and components.

The spindle should be inspected for wear as a result of bearing cone rotation. See axle manufacturer service literature for inspection and maintenance procedures.

The bearing cups and cones should be inspected for signs of wear or damage. The bearing manufacturers have detailed instructions available for proper bearing inspection. If bearing replacement is necessary, follow the instructions in the ConMet Service Manual. If these steps are not followed, permanent damage to the hub can occur resulting in a premature wheel end failure. Bearing cups and cones should be replaced as a set.

It can be difficult to determine if **the spacer** is worn and needs replacement. It is recommended that the spacer be replaced any time the hub is disassembled and there is evidence of bearing cone rotation. Cone rotation can result in spacer wear, therefore if the spacer is reused, preload of the bearings could result. It is recommended to ensure the wheel end can be rotated after service to verify there is not excessive preload.