Hub unit wheel bearing noise

Tech tip

Wheel hub units can often wear out over a period of time due to heavy usage. As a result, ABS sensors can also break down electronically, causing safety risks to the vehicle's driver and passengers. In order to properly diagnosis a vehicle before component replacement, SKF recommends performing a vehicle road test to listen for any unusual noise and to note if the ABS sensor light is on. During the road test, if you find the ABS sensor light is on, SKF recommends following the vehicle's manufacturer's guidelines for testing. The manufacturer's guidelines may include connecting a scanner to determine which brake component system shows failure. If a wheel speed sensor fault is detected, complete inspection of the hub unit with a sensor resistance value reading and further check the value against the manufacturer's specification. Also, verify all wiring and connectors for proper fit or wear. Hub assemblies also can develop excessive endplay and/or growling noises that can affect vehicle handling or alignment. As your first step, check endplay specification. If the endplay is out of specification, replace the hub assembly. Bearing failure noise can be misleading and can sometimes occur at the opposite wheel of the failed bearing. This occurs when an overload takes place during driving on the good bearing. A good way to determine bearing noise is to lift the car on a hoist and run the vehicle at a moderate speed. This relieves the overload on the good bearing. While staying clear of all moving parts, listen to both wheels with a stethoscope or another recommended listening device. This will help determine the noisy bearing. Please note that checks should be done on the spindle assembly, axle joints, wheel flanges, and the vehicle frame for damage. Additionally, an alignment may be necessary to determine a bent component. It is important to follow proper bearing installation procedures and torque specifications to avoid bearing failure or noises.

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