

Bulletin BPI 02-17

Subject: ABS Equipped Vehicles / On car Lathe

Vehicle Involved: All Vehicles

Condition: Lathe metal shavings may trigger a wheel speed sensor code, or cause false Anti-Lock Brake Modulation.

Prior to using an on the car lathe review the manufactures instructions.

All Anti-Lock brake systems utilize speed sensor inputs. Some of these systems have very narrow tolerances in regard to wheel speed data. Speed sensor concerns include air gap that can easily be altered during the course of brake maintenance. When using an on the car brake lathe it is important to prevent metal shavings from contacting and collecting on the sensor. The sensor is a magnet with a coil of wire wrapped around it. Metal filings or shavings from the on car lathe naturally are attracted to the magnet reducing the air gap. See figure 1. This may or may not illuminate the ABS warning light. Metal shavings may even cause intermittent or false ABS brake modulation. Additional speed sensor concerns are reviewed in Bulletin 94-18.

Anti-Lock Brake System false codes may be triggered if the ignition key is in the "on" position. While the key is in the on position, the lathe is rotating a hub or axle. The wheel speed sensor is generating a data stream to the electronic control module.

Repair Procedure: Clean and remove any build up of metal particles on all sensors and tone rings. Clean and remove all metal particles from the rotor surface, hub, bearing or axle. Soap and water does an excellent job of lifting and floating metal particles away. See figure 2. Do not use compressed air to remove metal filings from sensors.

Fig. 1



Fig. 2

