Bulletin BPI 05-06

Subject: ON-THE-CAR BRAKE LATHE

Vehicle Involved: SUV'S, Pickups, Heavy Duty Trucks, All Wheel Drive Vehicles

Condition: Reoccurring brake pulsation

Repair Procedure: Machine rotors to match hubs

It is possible to turn these rotors with an on-the-car brake lathe on most of the above listed applications. This ability becomes increasingly valuable with vehicles utilizing captured rotor assemblies. The horsepower of the lathe motor should be able to turn the largest brake axle assemblies at the appropriate revolution per minute.

An experienced technician and a high quality on-car-lathe have the ability to machine a rotor to match the axle flange to less than .002 run-out specification, eliminating reoccurring pedal pulsation.

Always refer to the specific vehicle and on-car-lathe manufactures warnings and recommendations when resurfacing rotors.

If you are working on a vehicle with all- wheel- drive, you may want to remove all four wheels. On some of these vehicles, if you turn one wheel the rest will turn. Removing the extra mass of the wheels will put less stress on your on-car brake lathe and also maintain consistent RPMs while cutting.

Locking or "Detroit Locker" differentials may require extra time, but not impossible to do with an on-car-lathe. With these types of axles and differentials, if they are turned to fast, they are designed to lock the differential. This can make the assembly very hard to turn, damaging the lathe or perhaps the vehicle. One lathe manufacturer has a speed control that can slow the lathe down to a speed where the differential does not lock.

One approach is to separate the axle from the rest of the drivetrain. This can be done by removing the drive shaft at the flange, or by removing the passenger-side axle. After the rotors have been machined, remember to check or replace the oil in the differential.