



***BRAKES***

# ENGINEERED SOLUTIONS

**Bulletin BES 06-19**

**Subject:** Calibration of Bench-Type Lathes

**Vehicle Involved:** All

**Condition:** Calibrating shop bench lathe

1. After refinishing a rotor that is thicker than the specified machine to spec, loosen the arbor nut, hold the inside bell clamp, and rotate the rotor 180 degrees.
2. Retighten the arbor nut, and with the use of a dial indicator, measure the rotor run-out if any.
3. Divide that reading number by two and that will be the run-out that is being machined into every rotor that you cut.
4. If there is any run-out, you will have to machine the inside bell clamp in place on the lathe, this procedure is for bench lathes only.

## **Machining the Inside Bell Clamp (Bench –Type Lathe Only)**

1. Inspect the arbor shoulder for nicks or burrs they must be removed.
2. An 80 grit stone and penetrating lubricant held in light contact with the shoulder, with the lathe turning, will polish the shoulder surface.
3. Burrs also must be removed from the inside bell clamp hub surface. Keep the 80 grit stone flat on the hub surface with light pressure while the arbor turns under power.
4. With sharp cutting tool bits, machine the bell clamp face. Remove only enough material to accomplish a 360-degree cut.
5. Before loosening the arbor nut, witness mark the bell clamp hub to the arbor and align the marks whenever a rotor is cut.
6. If a run-out condition continues to exist, contact the lathe manufacture for service.