Machining a Brake Rotor

Meets NATEF Task: (A5-D-9) Refinish rotor off the vehicle; measure final rotor thickness. (P-1)

Name _____ **Date** _____ **Time on Task** _____

Make/Model/Year _____ **VIN** _____ **Evaluation: 4 3 2 1**

_____ **1.** Carefully inspect the rotor for hot spots or damage.

OK _____ **NOT OK** _____ (requires replacement of the rotor)

_____ **2.** Determine minimum rotor thickness = _____ or machine to thickness = _____

_____ **3.** Measure the rotor thickness = _____. **OK to machine**___ **NOT OK to machine**___

_____ **4.** Clean the brake lathe spindle.

_____ **5.** Select the proper tapered cover and/or collets to properly secure the rotor to the lathe spindle.

_____ **6.** Install the self-aligning spacer (SAS) and tighten the spindle nut.

_____ **7.** Install the silencer band (noise damper).

_____ **8.** Perform a scratch test.

_____ **9.** Stop the lathe and loosen the spindle nut.

_____ **10.** Rotate the rotor 180° (one-half turn) and tighten the spindle nut.

_____ **11.** Perform another scratch cut. If the second scratch cut is in the same location as the first scratch cut or extends completely around the rotor, the machining of the rotor can continue. (If the second scratch cut is 180 from the first scratch cut, remove the rotor and clean the spindle and attaching hardware. Repeat the scratch test.)

_____ **12.** Machine the rotor removing as little material as possible.

_____ **13.** Measure the rotor with a micrometer to be sure rotor thickness is still within limits.

_____ **14.** Use 150 grit aluminum oxide sandpaper on a block of wood for 60 seconds on each side or a grinder to provide a smooth nondirectional finish.

_____ **15.** Thoroughly clean the rotor friction surface.

_____ **16**. Remove the rotor from the lathe.