

OVERHAUL (Continued)

Never use a brake lathe that cuts only one face of the rotor at a time. It must be a simultaneous straddle cut. All rotor refinishing must adhere to the rule that equal amounts of rotor stock are removed from each braking surface each time a rotor is refinished.

On vehicle brake lathes machine the rotor while it is on the hub and is turning perpendicular to the axis of the hub, the same axis as the hub. This procedure reduces rotor lateral runout to near zero by cutting the rotor therefore cancelling the affect of stacked tolerance of the hub, rotor and spindle. Follow the on vehicle brake lathe manufacturers instructions on machining procedures.

A bench mounted disc brake lathe machines the rotor to the axis of the lathe arbor and will not reduce total lateral runout associated with stacked tolerances of the hub, rotor and spindle. Follow the manufacturers instructions on machining procedures.

With both types of brake lathes set cutting tool to just contact the high spots on the rotor, then adjust cutting tool to the minimum depth required to clean up the rotor face. Best results are obtained with a first cut that totally removes the old rotor surfaces followed by a second light finish cut. The total material removed (combination of both sides) must not exceed the minimum discard thickness and is marked on the inside of the rotor.

To improve initial brake pedal feel and surface finish on a machined rotor, lightly sand rotor surface with 120 grip paper prior to road testing.

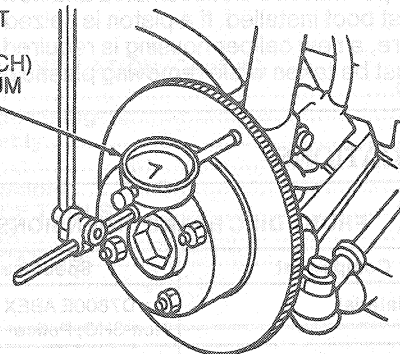
Runout Check

NOTE: Whenever brake rotor has been separated from hub face, clean any rust or foreign material from mating surface on hub face and rotor. Failure to do this may result in increased lateral runout of the rotor and brake pulsation.

Install rotors on hubs and hold in place by using inverted wheel lug nuts and washers to seat rotors to hubs. Tighten wheel lug nuts to 115 N-m (85 lb-ft).

Using a dial indicator measure rotor lateral runout as shown. The dial indicator should be centered on braking surface. Rotate rotor while measuring runout. If runout is greater than 0.08mm (0.003 inch), rotor must be repositioned (indexing) on hub to obtain the lowest possible runout.

CHECK
ROTOR
RUNOUT
0.08mm
(.003 INCH)
MAXIMUM

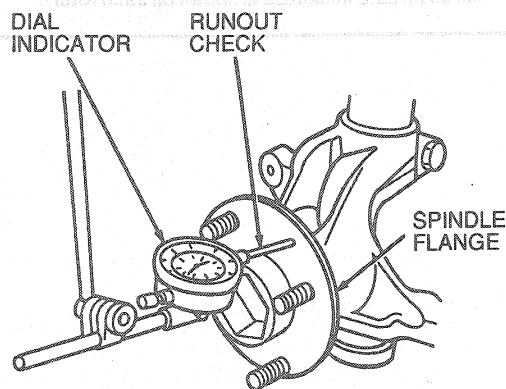


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If lateral runout rotor is above 0.08mm (0.003 inch) after repositioning (indexing), the hub and bearing assembly must be inspected. Using a dial indicator measure hub and bearing assembly face runout as shown. Hub runout must be less than 0.06mm (0.002 inch). If hub face runout is greater than 0.06mm (0.002 inch) a new hub must be installed.

NOTE: If rotor lateral runout remains greater than 0.08mm (0.003 inch) after the following service procedures, this indicated that the brake lathe requires service:

- Rotor machining.
- Rotor repositioning (indexing) and
- Verifying hub face runout is less than 0.06mm (0.002 inch)



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NOTE: Rotunda Disc Brake Lathe 054-00080 or equivalent should be used to refinish disc brake rotors.

Cleaning and Inspection

1. Remove wheel and tire from hub and rotor.
2. Inspect brake shoes and lining for wear. If lining is worn to within 3.2mm (1/8 inch) of shoe, replace all four shoe and lining assemblies (complete axle set) on front or rear wheels as appropriate.