STAR ONLINE PUBLICATION

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Symptom/Vehicle Issue: Front Brake Pulsation and/or Clunk Noise

Diagnosis: The customer may experience clunk noise and/or pulsation when braking.

Repair Procedure: One of the two equivalent procedures should be performed on a vehicle with front brake pulsation or a clunk complaint with the original brake pads and rotors. Use the procedure that best fits into the available test drive location. This procedure helps to stabilize the interface between the pads and rotors.

1. Bedding (Burnish) Procedure

    a. **Procedure A** - 20 consecutive brake cycles from 75MPH(120km/h) to 50MPH(80km/h) with a deceleration of 0.4g (available in the g-meter cluster in Dynamic mode). Accelerate to 75MPH(120 km/h) and maintain speed for 80 sec without braking.

OR

    b. **Procedure B** - 30 consecutive brake cycles from 45MPH(70km/h) to 0MPH(0km/h) at 0.4g (available in the g-meter cluster in Dynamic mode). Accelerate to 45MPH(70 km/h) and maintain speed for 45 sec without braking.

c. Once the brake system has returned to ambient temperature, reevaluate for pulsation/clunk complaint.

    a. If OK, return vehicle to customer.

b. If NOT OK, proceed to step 2.

2. Order and replace the brake pads & retention springs.

a. Perform the bedding procedure described in Step 1.

b. Once the brake system has returned to ambient temperature, reevaluate for pulsation/clunk complaint.

c. If OK, return vehicle to customer.

d. If NOT OK, proceed to step 3.

3. Order and replace the Rotors.

a. Measure runout of original rotors on the vehicle at specified diameter. Mark the rotor and hub to allow reinstallation at original orientation.

b. Substitute new rotors on the vehicle and measure rotor runout on vehicle at specified diameter. If not within specification, remove rotor attachment bolts and rotate relative to hub. Reinstall rotor to hub bolts and remeasure. Repeat until within specifications.

Rotor Runout Specifications: .001” / .02mm MAX

b. Perform the bedding procedure described in Step 1.

d. Once brake system has returned to ambient temperature, reevaluate for pulsation/clunk complaint.

1. If OK, return vehicle to customer

2. There have been no reports of vehicles still exhibiting the concern after being fitted with new pads and rotors.

Verification: Perform several brake cycle tests when driving at low speeds to ensure condition has been eliminated.

Contact STAR Center, or your Technical Assistance Center Via TechConnect, eCONTACT or Service Library entry if no solution is found.