Subject: Brake Pad Burnishing

Vehicle Involved: Severe Duty applications, such as police service or before track testing

Condition: After replacing brake pads following install procedure

Repair Procedure: When replacing brake pads, a “break-in” or “burnishing” procedure is recommended to properly condition both the brake pads and brake rotors for best service and long life.

The burnish process, if done correctly, does at least three things to the pads and/or the rotor:

1. Physically and thermally converts the composition of the pad and/or rotor surfaces.
2. Smoothes the asperities (roughness, unevenness) of the mating surfaces.
3. Heat cycles the entire pad structure.

For anticipated severe duty, such as police service, or before track testing, a more intensive burnish procedure should be performed.

The recommended procedure is:

1. Five moderate brake applications from 65 to 30 km/h with a three quarter to one mile cool-down interval between brake applications. Allow Brakes to cool (drive one mile without brake application)
2. Five somewhat harder brake applications from 100 to 30 km/h with a three quarter to one mile cool-down interval between brake applications. Allow Brakes to cool (drive one mile without brake application)
3. Five hard (but less than ABS) applications from 100 to 30 km/h with a one mile cool-down interval between brake applications. Drive at least two miles after last application
4. Allow brakes to cool at least 15 minutes either by parking the vehicle or continuing to drive at moderate speeds with minimal brake applications. The brake friction materials and rotors are now ready for service

Notes:
The burnishing procedure offers optimal braking and minimizes noise issues.
The "moderate", "somewhat harder", and "hard" applications do not need to be at precise deceleration rates as the amount of energy dissipated will be the same.
Some odor and smoke from the brakes are normal during and after the 60 mph sections.
Perform in a safe location where you can legally and safely follow the procedure.

If brake rotor is equipped with coating do not remove the coating manually with sanding discs. It is removed during the break in procedure. During installation remember to wash brake rotors with soap and water to remove oils and/or metal particles.