

Various Semi-Met Pad Installation Tips

Semi-met pads require special attention during brake service to prevent potential customer comebacks.

Many vehicles will experience a "clicking" condition during low speed brake application if the rotor surface finish is not compatible with the semi-met pads. Typically when the rotor is machined, the surface is left with too rough of a surface texture. On brake application, the semi-met pad may grip the directional or grooved surface finish of an improperly machined rotor. As this happens, the pad may move toward the outer edge of the rotor. When caliper mounting hardware cannot be tensioned any further, the caliper and pads snap back toward the hat section of the rotor producing the clicking noise.

The proper surface finish will be non-directional in nature, with a surface texture or roughness of 10-50 micro-inches (almost polished). To obtain this finish, adapters are available for most popular lathes from the lathe manufacturers. As an alternative, wrap one end of a short length of 2 x 4 with 180 to 220 grit sandpaper. After making the finish cut with lathe feed and speed set as low as possible, back the cutting bits away from the rotor.

Firmly grasp the block of wood and hold it against the machined surface of the rotor while the rotor is still turning on the lathe. While the rotor turns, work the sandpaper in and out toward the hat section of the rotor to smooth out the "threaded" effect of the rotor for about 2-3 minutes. Thoroughly clean the rotor before installing the rotor on the car.

REPLACE CALIPER MOUNTING HARDWARE

Caliper mounting hardware fatigues with repeated heating and cooling, even with the heat generated on cars using organic pads. Since semi-metallic pads are used in high heat conditions, caliper mounting hardware is subjected to even more heat and subsequent fatigue, and should therefore be replaced to reduce the tendency to squeal.