

NUMBER:

DATE:

06-32-03

11/01/03

### SERVICE BULLETIN

**APPLICABILITY:** All Models; All Years

**SUBJECT:** Brake Vibration Diagnostics and

Revised Flat Rate Time

### INTRODUCTION

The purpose of this bulletin is twofold:

Studies confirm that rarely is it necessary to resurface Brake Rotors and/or Drums on all four wheels when a confirmed brake vibration exists. With proper diagnostics, front or rear brake vibrations can be isolated eliminating the need to resurface all four rotors and/or rear brake drums.

Warranty policy states that only the actual source of the issue is warrantable and preventative repairs for what might occur in the future are not a matter for warranty. Therefore, it is required that each brake vibration complaint be narrowed to the source and only that repair be completed.

### ADJUSTMENT TO FLAT RATE TIME ALLOWANCES

With the introduction of on-car brake resurfacing equipment and even more recent advances of this equipment that reduce the times necessary for set-up / calibration, measurement and use, the flat rate time allowances will be reduced. The reductions in flat rate time allowances will become effective January 1, 2004.

# Please provide the following information to the appropriate personnel at your dealership.

The labor operation numbers for brake rotor resurfacing on vehicles has not changed. Listed below is the new time allowance.

Labor Operation	Time
A511-111	0.5 hour
A511-114	1.0 hour
A521-111	0.5 hour
A521-114	1.0 hour



## CAUTION: VEHICLE SERVICING PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS.

Subaru Service Bulletins are intended for use by professional technicians ONLY. They are written to inform those technicians of conditions that may occur in some vehicles, or to provide information that could assist in the proper servicing of the vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do the job correctly and safety. If a condition is described, DO NOT assume that this Service Bulletin applies to your vehicle, or that your vehicle will have that condition.



#### REPAIR PROCEDURE

Use the following procedure along with the troubleshooting chart shown on the next page.

Road test the vehicle to confirm brake vibration. If vibration is felt while braking, verify at what speed. Typically, front rotor vibration is felt at higher speeds (above 50mph) and in the steering wheel (circumference direction and/or side to side). If this is the case, the front rotors and pads will need to be inspected.

Typically, rear brake vibration is felt at lower speeds (below 50mph). Vibration will also be felt in the floor of the vehicle, pedal, seats and dash. If this is the case, the rear rotors and pads will need to be inspected.

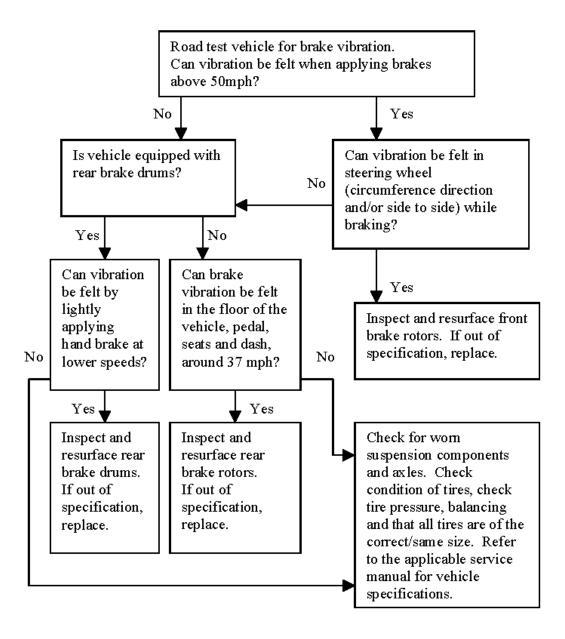
To check for rear drum vibration, road test the vehicle at lower speeds. Be extremely careful not to lock the rear brakes. With the parking brake release button pushed in, pull the parking brake lever slowly and gently, which applies the rear parking brakes. If vibration is felt, the rear drums and shoes will need to be inspected.

Always refer to the applicable service manual for brake, brake drum, and rotor specifications. When resurfacing always check rotor/drum thickness before and after. These measurements must be noted on the repair order. If the rotor/drum is out of specification after resurfacing, it will need to be replaced.

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### BRAKE VIBRATION TROUBLESHOOTING CHART

**Diagnostics:** Whenever diagnosing for vibration, the first items that should be checked are; worn and/or loose suspension components, axles, tire pressure, conditions of tires and check that all tires are of the correct/same size. In some cases tires out of balance can also cause vibration. Always refer to the applicable Service Manual for vehicle specifications.



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