

**Wheels:** A letter from Dale says, “I own a 1986 Pontiac Parisienne four-door sedan bought new with 82,000 plus miles on it. The problem is that the brakes chatter if going over 30 MPH when stopping. I have had one dealership mechanic (ASE certified) and three other service garage mechanics work on it. The brake shoes and pads have been replaced. The rear brake drums have been reground. The rotors on the front wheels have been replaced. The tires have all been replaced, high-speed balanced and then rotated twice.

I have spent more than \$1,000 trying to correct the problem. The car still rides nice, handles perfectly and looks like it is new. I want to save it. Can you enlighten me on what is wrong?”

**Halderman:** Brake noise is sometimes very difficult to correct. The following should be checked:

- A non-directional finish should be made on the rotors. The new rotors should not have been machined because they are manufactured with the correct surface finish.
- The disc brake pads should be high-quality and the hardware and slides should have been lubricated with synthetic grease or replaced.

The brake drum could have been machined with a slight groove, which could cause the brake shoes to be pulled away from the backing plate, and then be forced back against the backing plate by the hold-down spring during braking, causing the noise you describe. Resurfacing or replacing the drums may stop the noise.

