

**Wheels:** Jon from West Boothbay Harbor, Maine writes, “I have a 1988 Toyota Tercel 1500 cc that starts great and high idles perfectly. When it reaches operating temperature, it stalls and runs rough and hesitates. The car was sitting for some time and ran fine for about 300 miles with only occasional hesitation after recommissioning with new filters, plug wires, etc. Now it does not clear. I took it to a mechanic who looked at it for about 10 minutes and said it needed a \$600 rebuilt carburetor. It seems odd that it runs so well when cold. Alternatives are to try to clean the carburetor chemically, buy a used carburetor for about \$100 or the \$600 rebuilt carburetor. I do not want to spend the money until I am satisfied with an explanation of why the difference between cold and warm operation.”

**Halderman:** The first thing I thought of was that the engine has a vacuum (air intake) leak causing the air-fuel mixture to be leaner than normal, which would explain how the engine runs. Why does it run OK when cold? A carburetor has a valve that closes off the air when cold. This valve is called the choke and it helps create a richer air-fuel mixture when it is cold and would, therefore, more than compensate for any small vacuum leak. Then when the engine is warm, the choke is off and the carburetor delivers the normal air-fuel mixture. I suggest that you get another opinion. I think the problem could be as simple as a split vacuum hose.

