**Wheels:** Travis e-mailed with the following information. I have a 1996 Cutlass Supreme 3.1 L V-6 with 113,000 miles. This car has been serviced by the book – lube, oil, and filter each 3000 miles and recommended service by the dealer at 100,000 miles. Does this engine have a self-tensioning timing chain and is this a non-interference engine – meaning if the chain breaks, will it wipe out the engine? Also, the engine has become a little hard to start. Normally a touch of the starter and it starts immediately. It now sometimes takes 3-4 seconds with the starter to get going and sometimes starts, then dies after 1-2 seconds. Waiting 2 minutes, another try and it starts up OK. Please reply."

**Halderman:** Your engine uses a timing chain without a tensioner because the camshaft is in the block and the chain is short. There is a chain guide that GM calls a damper that should be replaced if the chain and sprockets are replaced. There is no published information regarding this engine whether it is an interference engine because this usually pertains to overhead camshaft engines. Your engine is an overhead valve engine. The longer than normal cranking timing can have numerous causes including:

- 1. Gasoline Try another brand (not another grade) and check to see if this makes a difference.
- 2. Fuel pump check valve leaking and not holding fuel rail pressure
- 3. Leaking fuel pressure regulator
- 4. Leaking fuel injector(s)
- 5. I hope this information helps.

