

**Wheels:** Gary of Springfield writes, “My son has a 1994 Mazda B-4000 pickup truck. He has nearly 170,000 miles on it but it is in good mechanical condition. He wants to keep the truck. My questions concerns the timing chain. He has never replaced it and the manual that came with the truck is basically silent on replacing these. It does say that vehicles that have timing belts should have them replaced after a certain number of miles. Several years ago, I had a pickup truck that had a timing chain that became loose and rattled. To replace it and some other parts that had been damaged was about \$1,000. The question is should we be concerned about the timing chain since the truck does have these many miles on it or should we not be concerned unless we notice a problem?”

**Halderman:** A timing chain can break and it can cause severe engine damage if it does break on many engines. Because it is rare, there are no known guides that show whether or not a particular engine will suffer damage if the chain breaks. However, as the chain wears, it stretches (becomes longer) which causes the valve timing to retard. This retarded valve timing causes the engine to produce less power at low speeds but then produces good power at highway speeds. If this is the case, then I would suggest you have a service technician check the timing chain for wear. If there is more than eight crankshaft degrees of slack, I would suggest replacing the timing chain. While this repair may cost several hundred dollars, it is less expensive than a new vehicle.

