

TROUBLE-SHOOTING A HIGH-MILEAGE ELAN

by Dick White

Over the past several months three interesting problems occurred with our Elan, and I want to mention them in the hope someone can profit from our experiences.

On our way back from the LOTUS/WEST Millerton Lake camping trip, our car had an intermittent loss of power; but when we would stop and restart it, everything seemed okay. We thought it was electrical but finally found it was carburetion and "knew" it was the fuel pump. It wasn't - it was a cracked hose which connects the fuel line to the gas tank outlet. It is located near the top of the tank in the trunk and is easy to inspect and replace. If you have a similar problem, look at that connection early in the game. Better yet, inspect it occasionally to avoid the problem.

The other two items are related: timing chain and vibration damper in the timing case of the twin-cam. Recently, the timing marks on the camshaft sprockets no longer lined up the way they did for years. I didn't know the reason and incorrectly thought the chain tensioner should adjust for any change in the timing chain. Fortunately, I talked with Larry Imel about the problem and he explained that the chain can stretch after many miles of use and the tensioner will not correct the problem. A new chain brought things back to normal and a comparison of the new and old chains showed a difference of approximately half a link - a matter of 4 or 5 degrees in the timing.

When starting to replace the timing chain, I noticed that the vibration damper had fatigued and was so loose I could lift off the top of it. The damper is a flat piece of metal approximately eight inches long and one-half inch wide which is screwed to the inside of the timing chest on the exhaust side of the engine. You can see it when you remove the cam cover. The original damper is very thin and has a backing plate which fits from the bottom of the damper to the top of the section of the timing case to which it is attached. This leaves the upper part of the damper (approximately two inches) extending above any support. The replacement damper has been redesigned so it is twice as thick as the original and avoids the problem of fatigue very nicely. Perhaps newer cars were built using the redesigned piece, but I strongly urge you to inspect the damper whenever you have the timing chest out of the car and replace it if it is the original design. If it breaks as mine did, it means going through the same process as a water pump job -- and who needs that.