

AUTOMOTIVE AIR CONDITIONING REPAIR

Question:

When are noisy compressors not bad compressors?

Answer:

Through all the years that auto air conditioning has been around, vibration of the compressor has been a problem. It generally shows up just off engine idle speed. The engine speed can be increased high enough for the vibration to stop.

There are conditions where the compressor acts as a sounding board. Engine main bearings, mechanical fuel pumps, timing chains, and pulley bearings can be heard only when the AC is on. The noise seems to be coming from the compressor but if further checks are made, the noise will be found elsewhere.

GM had a TSB on a vibration just off idle that was caused by the discharge hose. It required replacement of the hose to correct the problem.

Chrysler had a TSB on compressor vibration caused by the incorrect bolts being used when mounting the compressor. The mounting hole was for a bolt $\frac{3}{4}$ inches long bolt and if a 1 inch bolt was installed, it would look like it was tight but the bolt bottomed out. This allowed the compressor to vibrate just off idle.

There are occasions where a discharge hose will vibrate because a muffler was removed from the hose when a repair was made. Mufflers are installed in both the discharge hose and the suction hose for this reason. This was important because of being a new vehicle. On older vehicles, no one pays any attention or cares if there was a vibration.

There are occasions where a compressor clutch will cause a vibration. The original clutch had counter weights or rubber dampers. If that type clutch is not available when replacement is required, a clutch without these dampers may cause a vibration.

On some of the older V-8 engines, loose crankshaft pulley mounting bolts or compressor bracket mounting bolts would cause vibrations.