File in Section: -
Bulletin No.: PI1297
Date: August, 2014

Service Bulletin

PRELIMINARY INFORMATION

Subject: Diagnostic Tips for Engine Compartment Whistle Noise

Models: 2013-2014 Buick Encore
2014 Cadillac ELR
2013-2014 Chevrolet Cruze, Sonic, Trax, Volt
Equipped with 1.4L Engine (RPO LUV or LUU)

Condition/Concern

Some customers may comment about a whistle noise heard from the engine area after the vehicle has warmed up. It is also possible for this noise to continue for up to 10 seconds after the engine is shut off.

Recommendation/Instructions

There may be several causes for a whistle noise from the engine compartment. It is important to try and isolate what component could be causing this whistle noise without replacing multiple parts by following the diagnostic tips below:

Vacuum leak at the positive crankcase ventilation (PCV) control valve

- With the engine running, place your finger over the breather port of the PCV diaphragm cover. If the whistle noise stops and/or the fuel trims are high then return to normal levels, this is an indication of a vacuum leak at this location. Proceed to the next tip if the noise is still present. Otherwise, replace the camshaft cover assembly and retest.

Vacuum leak most likely at the front crankshaft seal

- With the engine running, remove the oil dip stick. If the noise stops, it was due to a vacuum leak most likely at the front crankshaft seal. Replace the seal and retest. For this fault, a customer may also comment that they hear the noise for up to 10 seconds after the engine is shut off. This is due to the vacuum in the engine crankcase equalizing with the atmospheric pressure. Proceed to the next tip if the noise is still present.

Water Pump

Whistle noise at the water pump may be caused by one of the following:

- Low coolant with air moving through the cooling system.
- Noisy water pump bearing (rattle or growl).
- The coolant shaft seal (higher pitched whine, typically heard at idle only with engine warm).

Squeeze the upper radiator hose to see if this changes or stops the whistle sound. If not, carefully reduce the pressure in the reservoir tank. If the noise goes away, try adding coolant while thoroughly bleeding the air out of the cooling system. Proceed to the next tip if the noise is still present.

Drive Belt

- Remove the accessory drive belt and start the engine. If the noise goes away, then it could have been due to the water pump or the belt tensioner. The use of a stethoscope to listen for the location of the noise may help to isolate which component is causing the noise.