Bulletin No.: PIP5197A

Date: Feb-2015

Service Bulletin

PRELIMINARY INFORMATION

Subject: Possible Oil Consumption - Oil Leaks - Blue Smoke From The Exhaust - MIL - Or Fuel Trim Codes

Models:
2011 - 2014 Chevrolet Cruze
2013 - 2014 Buick Encore
2013 - 2014 Chevrolet Sonic
2013 - 2014 Chevrolet Trax (Canada Only)
Equipped with 1.4L (RPO LUJ or LUV)

This PI was superseded to update Recommendation/Instructions. Please discard PIP5197.

The following diagnosis might be helpful if the vehicle exhibits the symptom(s) described in this PI.

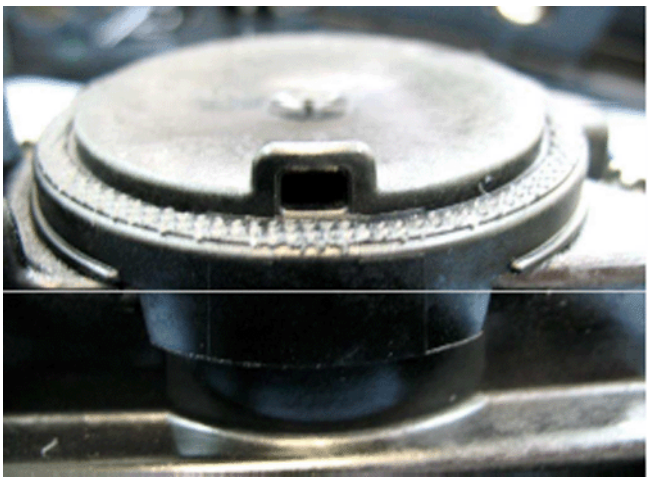
Condition/Concern

You may encounter a customer concern of oil consumption, oil leaks, blue smoke from the exhaust, MIL or fuel trim codes.

Any or all of the following DTCs may be current or set in history: P0106 P0171 P0299 P0507 P1101 P2096

Recommendation/Instructions

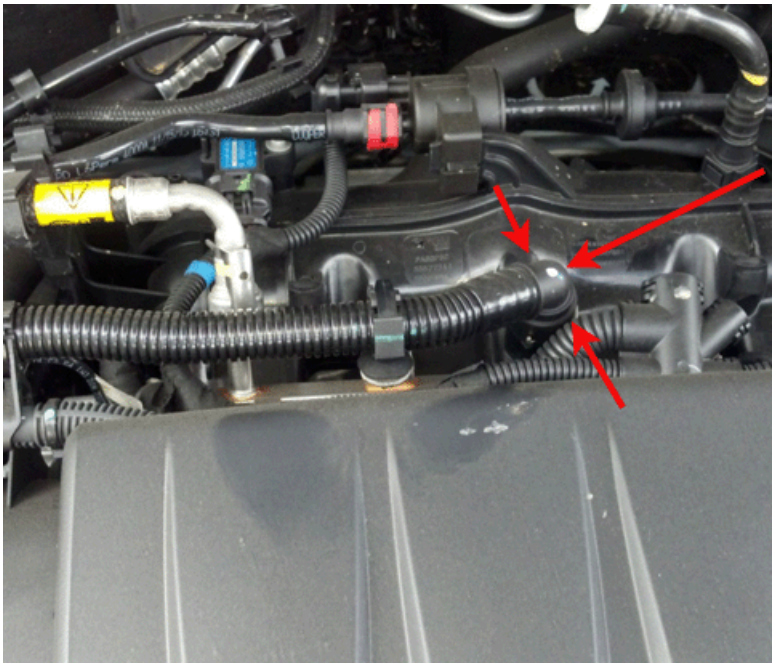
Check the PCV orifice for leaking oil or drawing vacuum at idle thru its external port. (The PCV orifice is an integral part of the camshaft cover). (See picture below).

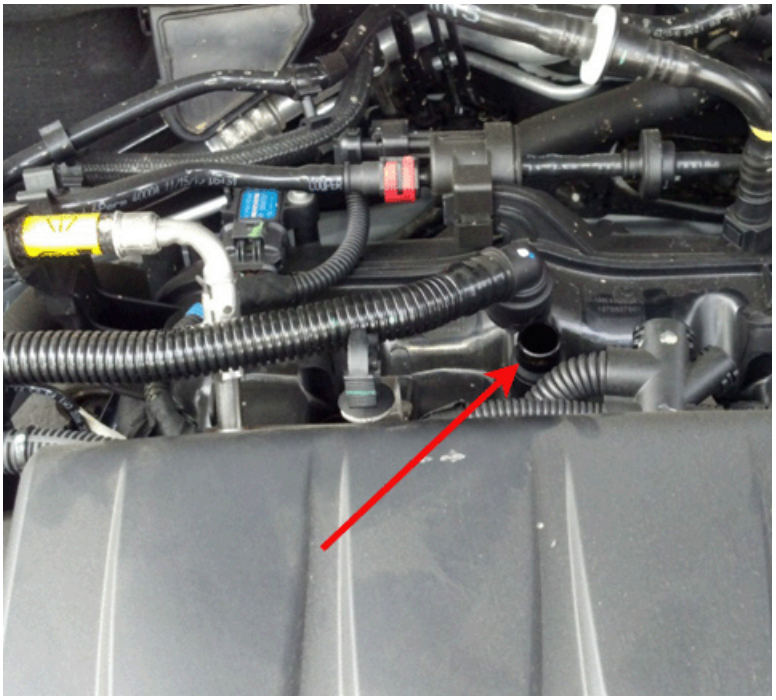


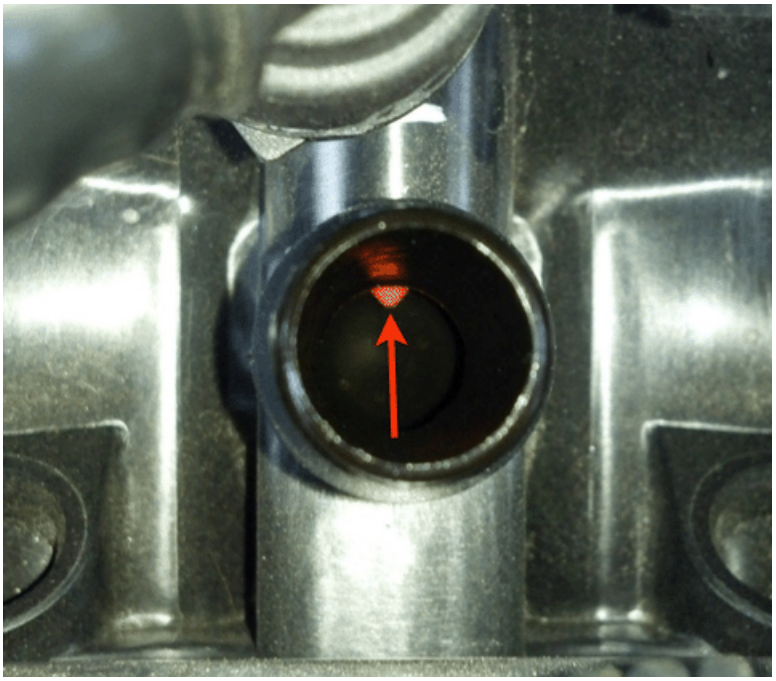
If the PCV orifice external port is leaking oil or vacuum, replace the camshaft cover assembly.

Clean oil from all induction system components and retest for oil consumption, leaks or DTCs resetting

Check for a missing intake manifold Non Return Valve that may have damaged the PCV orifice diaphragm. (See pictures below for inspection procedure).



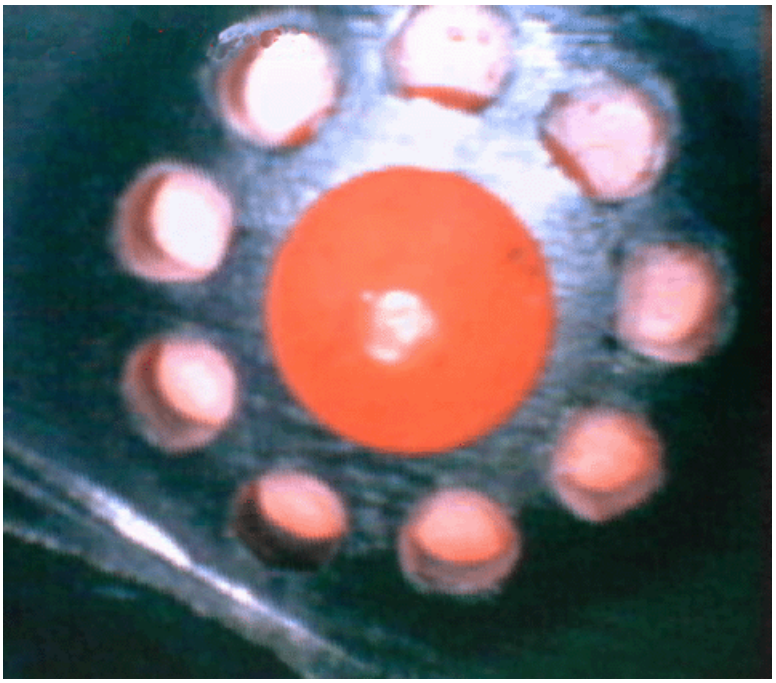




If the non return valve is not visible as shown in picture, then use a long cotton swab to wipe any excess oil from the valve to validate.

If the non return valve is still not visible, then intake manifold removal for inspection is required to validate.

Properly seated Non Return Valve as viewed with the intake manifold removed.



If the intake manifold Non Return Valve is missing, then replace the intake manifold assembly,

Clean oil from all induction system components and retest for oil consumption, leaks or DTCs resetting

If the intake manifold Non Return Valve is seated properly, then perform the following.

Inspect the spark plugs for signs of oil fouling.

Engine cranking compression utilizing GDS2.

Cylinder leakage testing utilizing proper tools.

Repair any issues with compression or leakage testing.

PI0552 to check the engine oil dipstick and oil fill cap for proper sealing.

PIP4925 to check for any air leaks to the intake system.

Record the crankcase pressure. (Normal crankcase pressure readings are between -11 & -18 inches of water in park at hot idle) / (ESST gage works best,

see pictures below for connection of ESST at the engine oil dipstick hole in the camshaft cover).

Note: The connection must be made with the engine off. The engine is then started and the pressure reading is recorded

If the crankcase pressure is in the proper range, clean oil from all induction system components and retest for oil consumption, leaks or DTCs resetting.

If the crankcase pressure is excessively positive, above 0 inches of water (0 inches of HG / vacuum) then a cylinder leakage / crankcase pressure concern exists.

If the crankcase pressure is excessively negative, below -30 inches of water (-2 inches of HG / vacuum) then excessive intake vacuum is being applied to the crankcase, requiring further PCV system testing.

Warranty Information

The correction for this concern may be one of several repairs described above. For vehicles repaired under warranty, please use the appropriate warranty labor operation based on the original cause in addition to well documented straight time.

Please follow this diagnostic or repair process thoroughly and complete each step. If the condition exhibited is resolved without completing every step, the remaining steps do not need to be performed.
