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#PIP3333C: Cylinder 1 Miss On Left Turns And Cylinder 4 Miss On Right Turns - Possible Fuel Contamination - (Oct 7, 2014)

Subject: Cylinder 1 Miss On Left Turns And Cylinder 4 Miss On Right Turns - Possible Fuel Contamination

**Models: 2010-2015 Buick LaCrosse
2011-2015 Buick Regal
2014 Cadillac ELR
2004-2011 Chevrolet Aveo
2004-2005 Chevrolet Cavalier
2005-2010 Chevrolet Cobalt, Cobalt SS
2011-2015 Chevrolet Cruze
2010-2015 Chevrolet Equinox
2006-2011 Chevrolet HHR
2004-2015 Chevrolet Malibu
2013-2015 Chevrolet Sonic
2013-2014 Chevrolet Spark
2011-2015 Chevrolet Volt
2010-2015 GMC Terrain
2007-2010 Pontiac G3 (Wave)
2007-2010 Pontiac G5
2006-2010 Pontiac G6
2005-2006 Pontiac Pursuit (Canada Only)
2004-2005 Pontiac Sunfire
2003-2010 Pontiac Vibe, Vibe GT
2008-2009 Saturn Astra
2003-2007 Saturn Ion, Ion Redline
2007-2010 Saturn Aura, Aura Hybrid
2004-2010 Saturn Vue
2007-2010 Saturn Vue Hybrid
with a 4 Cylinder Engine**

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(RPOs 2H0 L61 L91 LEA LAF LAP LAT LAX LAY LCV LE5 LE8 LE9 LEA LHU LKW LNF LNK LSJ LTG
LUJ LUK LUU LUV LUW LV6 LWE LXT or LXV)

This PI was superseded to update Model Years and RPO Codes. Please discard PIP3333B.

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

Condition/Concern

On rare occasions, an intermittent engine misfire may be experienced on cylinder 1 during or following a left turn or on cylinder 4 during or following a right turn.

The misfire may typically last up to 10 seconds.

A SES light and DTCs P0300, P0301, and/or P0304 may also be present if the misfire lasts long enough.

This may be the result of fuel contamination and is more likely to occur on vehicles with a returnless fuel rail because it is easier for fuel contaminants to become trapped in a returnless fuel rail since they do not have a fuel return line that returns fuel back to the fuel tank.

As a result, any fuel contaminants that make it to the fuel rail tend to gather over the #1 fuel injector inlet when turning left and tend to gather over the #4 fuel injector inlet when turning right, causing this concern.

The cylinder next to the fuel feed line (1 or 4 depending on the model) may also experience some random misfires at idle as contaminants enter the fuel rail from the fuel tank.

Recommendation/Instructions

If the SI diagnostics do not isolate a cause for this concern, inspect the inside of the fuel rail and/or fuel tank for fuel contamination.

If this concern occurs intermittently, it is unlikely that fuel contamination will be found by simply taking a fuel sample from the fuel feed line/fuel pressure test port.

Typically, it will be necessary to turn the engine off as the misfire is occurring, carefully remove the fuel rail (while keeping the fuel in the rail), and drain it into a clear container for inspection.

If this is not possible due to the intermittent nature of the concern, or if no fuel contamination is found by doing this, it may be necessary to inspect the inside of the fuel tank for fuel contamination.

Notice: The Aveo and Vibe have an access cover under the rear seat so the fuel pump module can be removed for inspection without removing the fuel tank.

If fuel contamination is present, refer to the "Fuel System Cleaning" procedure in SI and clean the inside of the fuel tank, fuel lines, and fuel rail.

Once the repairs are complete, advise the customer to only use fuel from high quality, high volume Top Tier filling stations.

Repairs made as a result of fuel contamination should not be considered as a warranty repair

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.

GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your GM dealer for information on whether your vehicle may benefit from the information.



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