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Preliminary Information

PIP5490D Malfunction Indicator Lamp Illuminated With DTC P0300

Models

Brand:	Model:	Model Years:	VIN:		Engine:	Transmissions:
			from	to		
Chevrolet	Cruze	2016 - 2018	All	All	1.4L LE2	All
Buick	Encore	2016 - 2018	All	All	1.4L LE2	All

Involved Region or Country	Europe, Holden, International Operations (GMIO), Korea, North America and South America
Condition	Some customers may comment on a rough running engine with the Malfunction Indicator Lamp on. Upon inspection, a technician may find DTC P0300 set along with a misfire and low compression in one or more cylinders.
Cause	This condition may be caused by a damaged piston requiring replacement.

Correction:

Repair the engine mechanical concern based on the results of the service procedure below.

Service Procedure:

Perform Engine Compression Testing in Service Information.
If low compression is found, perform Cylinder Leakage Testing in Service Information and record the test results to isolate the concern.
NOTE: (To isolate the source of cylinder leakage to a valve or cylinder sealing issue, it may be necessary to remove the intake and exhaust manifolds).
If excessive leakage to the crankcase is isolated, check all four cylinder walls for damage.
If the cylinder wall surfaces have not been damaged, replace all four pistons and fill the crankcase with current specification Dexos oil. (refer to latest version of Corporate Bulletin Number 16-NA-367).
An un-metered air leak in the induction system, or an engine mechanical issue causing rough running, may cause the ECM to learn an incorrect Throttle Body Idle Airflow Compensation value over time. This incorrectly learned value may cause various symptoms to occur such as, MIL on with P1101 setting, rough or unstable idle speeds and/or engine stall.
Once the mechanical repairs have been completed, perform Throttle Body Inspection and Cleaning in Service Information, followed by Throttle Body Idle Air Flow Compensation Reset function in GDS2.
Shown below are examples of pistons with varying levels of damage.

Shown below are several examples of light vertical marks visible on the cylinder wall.
In these examples, none of the marks in the cylinder walls could be felt with the finger tip or nail and engine replacement is not recommended.

Shown below is an example of a damaged cylinder wall.
In this example the scuffing is wide and has removed the crosshatch from the cylinder wall in the area above the arrow.
This would result in oil consumption and requires engine replacement.

Version History

Version	5
Modified	4/6/2017 - Update Service Procedure to reference 16-NA-367 6/6/2017 - Update service procedure to replace all four pistons 10/11/2017 - Add regions. 03/07/2018 - Add 2018 model year