



Service Bulletin

Bulletin No.: 18-NA-171

Date: December, 2022

TECHNICAL

Subject: Malfunction Indicator Lamp (MIL) Illuminated with DTC P0300

This bulletin replaces PIP5490D. Please discard PIP5490D.

Brand:	Model:	Model Year:		VIN:		Engine:	Transmission:
		from	to	from	to		
Buick	Encore	2016	2019	—	—	1.4L (LE2)	—
Chevrolet	Cruze						
	Trax	2018					
Holden	Astra-K Hatch HB5	2017	2017				
	Astra-K Hatch HB5 and Wagon	2018	2020				
	Astra Sedan NB4	2017	2018				

Involved Region or Country	North America, Brazil, Chile, Colombia, Israel, Australia/New Zealand
Condition	Some customers may comment on a rough running engine with the Malfunction Indicator Lamp (MIL) illuminated. Upon inspection, a technician may find DTC P0300 (Engine Misfire Detected) set in the Engine Control Module (ECM) 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 an engine compression test. Refer to *Engine Compression Test* in SI.

- If low compression is found, perform a cylinder leakage test. Refer to *Cylinder Leakage Test* in SI 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 Service Bulletin 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 a throttle body inspection and cleaning. Refer to *Throttle Body Inspection and Cleaning* in SI, followed by Throttle Body Idle Air Flow Compensation Reset function in GDS2.

Note: For the Cruze vehicles only – A calibration has been released that will help to reduce the possibility of a cracked piston. Update the engine control module to the latest calibration available.

Parts Information

Note: The piston and rod assembly referenced in this bulletin arrives with rod bolts that are allowed to be removed and reused one time for final assembly to the complete repair.

Causal Part	Description	Part Number	Qty
X	Piston, Kit	12705612	4
	Rings, Piston	55588455	4
N/A	Rod Asm-Conn	12688858	4
	Bearing Kit, Con Rod	12674806	4
	Gasket Kit, Cyl Head (inc bolts)	12709179	1
	Filter, Oil	12706595	1
	Seal, Cr/Shf Frt Oil	12661527	1
	Seal Kit, F/Injrn Fuel RI	12659782	1
	GASKET, TMG CHAIN TENSER	12636523	1
	Nut, Turbo	11546365	4
	Gasket, Ctltc Conv	12641115	1
	Shield, Turbo Ht	12673929	1
	Pipe, Fuel Feed Inter	12684046	1
	Pan, Lwr Oil	12637773	1

Causal Part	Description	Part Number	Qty
N/A	Gasket, O/Pump	12644558	1
	Gasket, O/Pump	12644557	1
	Bolt, Eng Mt	11610904	3
	Bolt, Eng Mt	11547918	2
	BOLT, ENG MT	11588755	3
	Bolt, Cr/Shf Balr	11611070	1
	Seal, Turbo Cool Rtn Pipe	12662185	4
	Washer, Turbo Oil Feed Pipe	12662184	2
	Gasket, Turbo Oil Rtn Pipe	12640468	1
	BOLT, F/INJR	55570735	8
	GASKET, EXH SYS FRT	23238284	1
	GASKET, EXH SYS INTER	13453263	1
	GASKET, TURBO OIL RTN PIPE	12653753	1 (AS REQUIRED)
Oil	Refer to 16-NA-367	As Required	

Warranty Information

For vehicles repaired under warranty, use the appropriate labor operation associated with the repair performed.

Version	9
Modified	<p>Released May 22, 2018</p> <p>Revised August 06, 2018 – Added the Encore model and Parts Information section.</p> <p>Revised February 19, 2019 – Added a Note to the Parts Information section.</p> <p>Revised July 09, 2019 – Added the Trax model, Parts Information and Additional Keywords.</p> <p>Revised August 20, 2019 – Added the 2019 Model Year, updated the Involved Region or Country section and updated the Parts Information table.</p> <p>Revised July 08, 2020 – Added Bolt, F/Injrn P/N 55570735 to the Parts Information table.</p> <p>Revised February 05, 2021 – Removed Transmission RPO, updated Involved Region or Country section and replaced Gasket Kit P/N 12687228 with P/N 12709179 and Oil Filter P/N 12696048 with P/N 12706595.</p> <p>Revised April 13, 2021 – Added Holden models and Australia/New Zealand to Involved Region or Country section.</p> <p>Revised December 01, 2022 – Updated the Parts Information section.</p>

Additional SI Keywords: P0301, P0302, P0303, P0304

