## TECHNICAL

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

This Bulletin replaces PIP5490D. Please discard PIP5490D.

| Brand: | Model: | Model Year: |  | VIN: |  | Engine: | Transmission: |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | to | from | to |  |  |  |
| Buick | Encore | 2016 |  |  |  |  |  |


| Involved Region or Country | North America, Israel, South America |
| :--- | :--- |
| Condition | Some customers may comment on a rough running engine with the Malfunction Indicator <br> Lamp (MIL) Illuminated. <br> Upon inspection, a technician may find DTC P0300 (Engine Misfire Detected) set in the <br> Engine Control Module (ECM) along with a misfire and low compression in one or more <br> 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 <br> 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 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 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) | 12687228 | 1 |
|  | Filter, Oil | 12696048 | 1 |
|  | Seal, Cr/Shf Frt Oil | 12661527 | 1 |
|  | Seal Kit, F/Injrn Fuel RI | 12659782 | 1 |
|  | GASKET, TMG CHAIN TENSR | 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 |
|  | Gasket, O/Pump | 12644558 | 1 |
|  | Gasket, O/Pump | 12644557 | 1 |
|  | Bolt, Eng Mt | 11610904 | 3 |
|  | Bolt, Eng Mt | 11547918 | 2 |
|  | 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 |

## Warranty Information

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

| Version | 5 |
| :--- | :--- |
| Modified | Released May 22, 2018 <br> August 06, 2018 - Added the Encore model and Parts Information section. <br> February 19, 2019 - Added a Note to the Parts Information section. <br> July 09, 2019 - Added the Trax model, Parts Information and Additional Keywords. <br> August 20, 2019 - Added the 2019 Model Year, updated the Involved Region or Country <br> section and updated the Parts Information table. |

Additional Keywords: P0301, P0302, P0303, P0304

