



## Preliminary Information

### PIP5637 3.0L (RPO LM2) Engine Exchange Program

#### Models

| Brand:    | Model:                     | Model Years: | VIN: |     | Engine:    | Transmissions: |
|-----------|----------------------------|--------------|------|-----|------------|----------------|
|           |                            |              | from | to  |            |                |
| Chevrolet | Silverado 1500 (New Model) | 2019         | All  | All | 3.0L (LM2) | All            |
| GMC       | Sierra 1500 (New Model)    | 2019         | All  | All | 3.0L (LM2) | All            |

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Involved Region or Country</b> | <b>North America</b>   |
| <b>Condition</b>                  | Engine Exchange        |
| <b>Cause</b>                      | New Product Monitoring |

**This PI will cover the Engine Exchange Program only for the 2019 model listed above.**

**Additional PIs will be published for each engine component as they are introduced.**

**During the launch of the 2019 model year the following engine will be under an exchange program:**

**3.0L Engine Assembly (RPO LM2)**

**Product teams continually seek valuable information for engineering improvements.**

**To assist in this effort, an engine exchange program will be used for the listed engine and vehicles**

**The 2019 model year engine exchange program will be administered by the GM Product Quality Center (PQC).**

**Dealerships are required to call the PQC, not GM Technical Assistance (TAC), to request an exchange.**

**Prior to calling the PQC, please make sure to complete the "OEM Engine Exchange" template in this PI.**

**Use of the templates will minimize the time spent on the telephone and avoid the need of a second call to the PQC.**

**Guidelines for honoring exchange requests under this program are being strictly enforced.**

The PQC may refer the dealer technician to TAC if additional diagnosis is required.

TAC will be available for product inquiries that do not require assembly replacement.

| Division                     | PQC Telephone Number |
|------------------------------|----------------------|
| US Cars and Trucks           | 1-866-654-7654       |
| Canada -- English and French |                      |

Components that may be removed and serviced without exchange are identified by an "X" in the appropriate column of the table below

Any repairs involving engine components not identified in the table below engine noise concerns, oil consumption, or related symptoms may require an engine exchange.

**Important: Engine block and internal components along with any component in which a cylinder head has to be removed to perform the repair will require an engine exchange.**

Please note that this list is subject to change as the program progresses.

You will be notified by the PQC consultant if additional items are considered serviceable on a particular engine.

| Serviceable Components                     | 3.0L (LM2) |
|--|------------|
| Accessory Drive                            | X          |
| A/C Compressor                             | X          |
| Aftertreatment System and Sensors          | X          |
| All Cooling System Hoses                   | X          |
| All Engine Sensors                         | X          |
| Brackets                                   | X          |
| Camshaft Covers                            | X          |
| Camshaft Position Sensor                   | X          |
| Closed-Coupled SCR-F                       | X          |
| Coolant Outlet Assembly                    | X          |
| Coolant Pump                               | X          |
| Coolant Rotary Valve                       | X          |
| Cooling System Radiator Inlet/Outlet Pipes | X          |
| Crankshaft Dampner                         | X          |
| Crankshaft Position Sensor                 | X          |
|  |            |

|  |          |
|--|----------|
| <b>DEF Injector</b>                                    | <b>X</b> |
| <b>EGR Coolers</b>                                     | <b>X</b> |
| <b>EGR Valves</b>                                      | <b>X</b> |
| <b>Engine Control Module(ECM)</b>                      | <b>X</b> |
| <b>Engine Cover / BeautyCover</b>                      | <b>X</b> |
| <b>Engine Mounts /Transaxle Mounts</b>                 | <b>X</b> |
| <b>Engine Wiring Harness</b>                           | <b>X</b> |
| <b>Exhaust Manifold/ Gasket</b>                        | <b>X</b> |
| <b>Flywheel / Flexplate</b>                            | <b>X</b> |
| <b>Fuel Injectors</b>                                  | <b>X</b> |
| <b>Fuel Injector Wiring Harness</b>                    | <b>X</b> |
| <b>Fuel Rail</b>                                       | <b>X</b> |
| <b>Fuel Pipes &amp; HP Fuel Pump Assembly</b>          | <b>X</b> |
| <b>Generator</b>                                       | <b>X</b> |
| <b>Hi / Lo Pressure Fuel Lines</b>                     | <b>X</b> |
| <b>Heater Outlet / Inlet Fittings</b>                  | <b>X</b> |
| <b>Intake Air Ducts &amp; Related Components</b>       | <b>X</b> |
| <b>Intake Air Temperature Sensor</b>                   | <b>X</b> |
| <b>Intake Manifold</b>                                 | <b>X</b> |
| <b>Knock Sensors (NOx)</b>                             | <b>X</b> |
| <b>Map or Baro Sensor</b>                              | <b>X</b> |
| <b>Mass Air Flow Sensor</b>                            | <b>X</b> |
| <b>Oil Cooler / Pipes</b>                              | <b>X</b> |
| <b>Oil Fill Cap</b>                                    | <b>X</b> |
| <b>Oil Filter</b>                                      | <b>X</b> |
| <b>Oil Level Indicator(Dipstick)</b>                   | <b>X</b> |
| <b>Oil Pressure Switch</b>                             | <b>X</b> |
| <b>Oil Pressure Control Solenoid Valve</b>             | <b>X</b> |
| <b>Oxygen Sensors</b>                                  | <b>X</b> |
| <b>PCV System / Hose's</b>                             | <b>X</b> |
| <b>Purge Solenoid</b>                                  | <b>X</b> |
| <b>Starter Motor Assembly</b>                          | <b>X</b> |
| <b>Thermostat Housing/ Gasket</b>                      | <b>X</b> |
| <b>Throttle Body / Related Components</b>              | <b>X</b> |
| <b>Turbo Assembly / POA parts / Brackets / Gaskets</b> | <b>X</b> |

**Important: Engine repairs or failures that are caused by components external to the engine do NOT fall under the exchange program. For example, if an engine failure is caused by incorrectly installed engine coolant lines, the engine assembly (or parts required to complete a repair) must be obtained from General Motors Customer Care and Aftersales (GMCC&A) through the normal parts ordering process. The exchange program is created as a way to correct internal concerns and to take what is learned and find a way to eliminate these concerns. External components causing a failure do not provide any useful information in improving an engine. The engine received from GMCC&A through the normal parts ordering process will be a new service engine.**

### Engine Broadcast Code Location 3.0L Engine Assembly (RPO LM2)

#### Engine Front Cover



As shown in the above photos, the engine broadcast code can be found on the engine front.

#### Procedures:

A thorough diagnosis must be performed on the condition in order to prevent unnecessary component replacements.

Contact the Product Quality Center (PQC) to verify the proper diagnosis has been performed.

Upon review of the diagnosis, the PQC will establish a case reference number and make arrangements for shipping an exchange unit to your dealership.

The replaced engine must be returned to the Warranty Parts Center (WPC).

**DO NOT SHIP AN ENGINE TO THE (WPC) WITHOUT AN OFFICIAL WPC REQUEST**

**Important: Failure to return the replaced engine by the due date will result in the dealership being debited the entire warranty claim (parts and labor).**

The removed unit must be returned complete in the original exchange shipping container

For effective engineering analysis, please do not remove any components.

Dress items on the removed unit must remain the same as the replacement engine (e.g., exhaust manifolds, throttle body etc.). Dealerships returning engines/components that have been even partially disassembled will be judged as violating this procedure and, as such, will be billed for all materials furnished.

Notice: The exchange unit will be shipped with a quantity of oil; check oil level before starting the engine.

#### **WPC Request:**

The Warranty Parts Center (WPC) will fax a Special Part Request to your dealership requesting the return of the removed engine.

**DO NOT** wait for the warranty claim to be paid before returning the removed engine.

The Special Part Request will provide a request number

This request number must be written on the outside of the return container using a permanent marker.

Failure to write the request number on the return container may delay the processing of your return.

If you do not receive the WPC Special Part Request, contact Julie Cumo at 248-371-9939 (for French call PQC 1-866-654-7654) to obtain the proper paperwork in order to return the removed engine. Failure to return the engine may result in a debit.

#### **Shipping Preparation:**

1. Remove the engine assembly/component as outlined in the applicable Service Manual.
2. Drain all fluids from the removed engine.
3. Retorque any fasteners that were loosened or removed to the original torque specification.
4. Remove any plastic shipping plugs and covers from the exchange unit and install them on the removed unit.
5. If the concerned engine leaks, mark the area directly on the engine with a permanent marker
6. Write the PQC case reference number on the repair order form.
7. Write the PQC case reference number directly on the component in a visible location.
8. Insert a copy of the WPC Special Part Request, repair order with technician comments, and the completed OEM EngineExchange Worksheet (template in this bulletin) into a plastic bag and

securely fasten to the engine.

9. Place the removed engine into the original shipping container

## Shipping Instructions:

1. Write the WPC request number and the PQC case reference number on the outside of the container with a permanent marker.
2. U.S. Dealers - Please go to [www.gmwpc.com](http://www.gmwpc.com), click on the UPS emblem, enter your BAC and select "dealer inquires." Select "available forms" located on the left side of the screen in blue, then select "Central Transport BOL." A partially complete BOL will appear. Please print this Central Transport BOL and fill out "from" section with your dealer information and complete the descriptive fields.

Canadian Dealers - Refer to the latest version of Corporate Bulletin Number [99-00-89-019](#) for detailed shipping information.

3. Contact the specified carrier to arrange for pick-up of the removed engine. If lift gate service is necessary, please request it at the time of arranging pick-up service.
4. Have the driver sign the bill of lading. Retain a copy of the signed bill of lading. Attach your copy to the original repair order. This will be your proof of returning the removed engine.
5. Ship all return exchanges/components Third Party Freight Collect with appropriate paperwork to

GM Warranty Parts Center  
45 Northpointe Drive  
Orion, MI 48359

## OEM Engine Exchange Template

- Caller's Name/Position:
- Parts Manager name:
- Technician Name and Direct Phone:
- Parts Dept fax number:
- Dealership's Current Address:
  
- Vehicle Times In/Days Down
- Is the part being requested for customer pay?
- If yes, why is this unit being requested for Customer Pay (ex: accident, theft etc)
- If no, continue with the following questions.
- What is the customer's concern?
- Was the customer's concern duplicated?
- Was TAC contacted? (Y/N)
- If yes, provide the following information
- TAC Case#:
- TAC Recommendations
- Was the DMA contacted? (Y/N):
- If yes, provide the DMA name/email:
- Has the vehicle been modified with non-production accessories?
- Is the vehicle for personal or commercial use?
- Describe the engine failure:
- Engine Broadcast Code: Example on label is "9GUG"
- Engine Serial Number: Example on label is "18029006"
- Does the vehicle have any DTCs in the ECM/TCM/BCM?
  
- Are there any leaks (Y/N)
  
- If no, continue to next question

- **If yes,**
- **What type of leak?**
- **Location of the leak?**
- **Are there any Noises (Y/N)**
- **If no, continue to next question**
- **If yes, complete the following**
- **What kind of noise?**
- **Location and frequency of the noise?**
- **When does it occur?**
- **How long does it last?**
- **Any Lubrication Concerns (Y/N)**
- **If no, continue to next question**
- **If yes, complete the following**
- **Oil pressure readings:**
- **Results of oil consumption test:**
- **Was the oil contaminated?**
- **If yes, what type of contamination?**
- **Any Performance Concerns (Y/N)**
- **If no, continue to next question**

- **If yes, List**
- **Low power?**
- **Misfire?**
- **Detonation?**
- **Blue smoke?**
- **White smoke?**
- **Will engine crank?**
- **Vibration?**
- **Did the engine show evidence of the following**
- **Overheating? (Y/N)**
- **Coolant consumption?(Y/N)**
- **Coolant contamination?(Y/N)**
- **Low compression?(Y/N)**
- **If yes, List Compression test readings:**
- **Are there any leaks (Y/N)**
- **If no, continue to next question**
- **If yes,**
- **What type of leak?**
- **Location of the leak?**
- **Are there any Noises (Y/N)**
- **If no, continue to next question**
- **If yes, complete the following**



- **What kind of noise?**
- **Location and frequency of the noise?**
- **When does it occur?**
- **How long does it last?**
- **Any Lubrication Concerns (Y/N)**
- **If no, continue to next question**
- **If yes, complete the following**
- **Oil pressure readings:**
- **Results of oil consumption test:**
- **Was the oil contaminated?**
- **If yes, what type of contamination?**
- **Any Performance Concerns (Y/N)**
- **If no, continue to next question**
- **If yes, List**
- **Low power?**
- **Misfire?**
- **Detonation?**
- **Blue smoke?**
- **White smoke?**
- **Will engine crank?**
- **Vibration?**
- **Did the engine show evidence of the following**
- **Overheating? (Y/N)**
- **Coolant consumption? (Y/N)**

- **Coolant contamination? (Y/N)**
- **Low compression? (Y/N)**
- **If yes, List Compression test readings:**
- **Once a glow plug is removed, inspect each ceramic glow plug tip.**
- **If a broken glow plug is identified, document the cylinder**

### Parts Information

Parts listed below will need to be replaced with engine replacement. Confirm part numbers in the parts system when ordering. Part numbers can be subject to change.

| Description                            | Part Number | Quantity |
|--|-------------|----------|
| GASKET-EGR CLR INL PIPE                | 55496995    | 1        |
| GASKET-EGR CLR INL PIPE                | 55496996    | 1        |
| GASKET-EGR OTLT PIPE                   | 55496936    | 1        |
| GASKET-CTLTC CONV                      | 55494570    | 1        |
| GASKET-EGR VLV INL                     | 55496877    | 1        |
| GASKET-EXH SYS FRT                     | 55494714    | 1        |
| GASKET-TURBO COOL FEED AND RETURN PIPE | 55496956    | 1        |
| GASKET-EXH SYS FRT                     | 84201691    | 1        |
| CLAMP-EMIS RDCN FLUID INJR             | 55506825    | 1        |
| CLAMP ASM-CTLTC CONV                   | 55503171    | 1        |
| NUT-EXH PRTLTL FLTR                    | 15032594    | 3        |
| NUT-CTLTC CONV                         | 15032594    | 4        |

### Warranty Information

For vehicles repaired under the Bumper-to-Bumper coverage (Canada Base Warranty coverage), use the following labor operation. Reference the Applicable Warranties section of Investigate Vehicle History (IVH) for coverage information.

| Labor Operation  | Description              | Labor Time                         | Labor Time |
|--|--------------------------|------------------------------------|------------|
| 4067490  | Engine Replacement       | Use Published Labor Operation Time | \$400.00   |
| Add  | Administrative Allowance | 0.2 hr                             |            |
| *Use published labor operation time plus the administrative allowance indicated above. |                          |                                    |            |

**Important: Applicable miscellaneous items such as engine oil and coolant should be added to the part allowance amount and claimed in the Parts Cost column and not included in the Net Amount (DMN) column of the warranty claim.**

**Your cooperation is greatly appreciated. Prompt return of the original engine will increase the effectiveness of this program.**

**If you have any questions regarding the exchange program administrative procedures, please contact the Product Quality Center**

### Version History

|          |                          |
|----------|--------------------------|
| Version  | 1                        |
| Modified | 04/23/2019 - Created on. |



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