

# **Preliminary Information**

## PIP5637A 3.0L (RPO LM2) Engine Exchange Program

#### **Models**

Brand:	Model:	Model Years:	VIN:		Engine	Transmissions:
branu.			from	to	Engine:	Transmissions.
Chevrolet	Silverado 1500 (New Model)	2020	All	All	3.0L (LM2)	All
GMC	Sierra 1500 (New Model)	2020	All	All	3.0L (LM2)	All

Involved Region or Country	North America
Condition	Engine Exchange
Cause	New Product Monitoring

This PI will cover the Engine Exchange Program onlyfor the 2020 model listed above.

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

During the launch of the 2020 model yearthe following engine will beunder 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 2020 model year engine exchange program will be administered by the GM Product Quality Center (PQC).

Dealerships are required to call the PQC, not GM &chnical 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 belowengine noise concerns, oil consumption, or relatedsymptoms 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)
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Accessory Drive	X
A/C Compressor	x
Aftertreatement System and Sensors	x
All Cooling SystemHoses	x
All Engine Sensors	x
Brackets	x
Camshaft Covers	x
Camshaft Position Sensor	x
Closed-Coupled SCR-F	x
Coolant Outlet Assembly	х
Coolant Pump	x
Coolant Rotary Valve	x
Cooling System RadiatorInlet/Outlet Pipes	x
Crankshaft Dampner	x
Crankshaft PositionSensor	x
DEF Injector	X
EGR Coolers	x
EGR Valves	x

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

Important: Engine repairs or failures that arecaused 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 programis 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&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 broadcastode 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 mæk arrangements for shipping an exchangeunit 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 dealershipeing 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 procedurend, 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 **B**rt Request, contact Julie Cumo at 248-371-9939 (for **F**ench 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 mack
- 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 **B**rt Request, repair order with technician comments, and the completed OEM EngineExchange Worksheet (template in **t**his 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 towww.gmwpc.com, click on the UPS emblem, enter your BAC and

select "dealer inquires." Select "available forms" located on the leftide of the screen in blue, then select "Central Transport BOL." A partially complete BOL will appearPlease print this Central Transport BOL and fill out "from" section with your dealer information and complete the descriptic fields.

Canadian Dealers - Refer to the latest version of Corporate Bulletin Number 9-00-89-019 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 cop to the original repair order. This will be your proof of returning the removed engine.
- 5. Ship all return exchanges/components Third Prty 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 py?
- IF yes, why is this unit being requested for Customer **B**y (ex: accident, theft etc)
- If no, continue with the following questions.
- What is the customers concern?
- Was the customers 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 is 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 engineshow 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?
<ul> <li>Are there any Noises (Y/N)</li> <li>If no, continue to next question</li> </ul>
If yes, complete the following
What kind of noise?
Location and frequency of the noise?
When does is 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
	in 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	55514453	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 PRTLT 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 Penlacement	Use Published Labor Operation	
4087490	Engine Replacement	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 apprecated. 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

#### <u>Version History</u>

Version	2
	04/23/2019 - Created on.
INIOGINEG	08/14/2019 - Updated to make 2020 model year and update part number for EGR valve inlet gasket.

















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