



Service Bulletin


Bulletin No.: 23-NA-020

Date: January, 2025

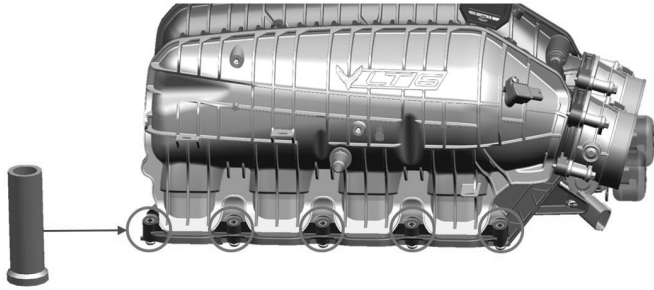
TECHNICAL

Subject: Oil Leak from Front of Engine

Brand:	Model:	Model Year:		VIN:		Engine:	Transmission :
		from	to	from	to		
Chevrolet	Corvette	2023	2023	—	—	5.5L (RPO LT6)	—

Involved Region or Country	North America, Europe, Israel, Palestine, Japan, Thailand, Australia/New Zealand
Condition	Some customers may comment that there is a visible engine oil leak coming from underneath the middle of the vehicle. During inspection, some technicians may notice that there is a small oil leak coming from the engine front cover area.
Cause	 <p>This condition may be caused by improper front cover bolt torque or inadequate sealer adhesion at one of the six T-Joint locations. 6267588</p> <ul style="list-style-type: none"> - The oil leak can be found at the T-Joint location where the cylinder head meets the engine block, or at one of the other T-Joint locations (shown in yellow) in the graphic above.
Correction	To correct this condition, it will be necessary to install new front cover gaskets and follow the revised RTV sealing procedure as noted below.

Important: Service agents must comply with all International, Federal, State, Provincial, and/or Local laws applicable to the activities it performs under this bulletin, including but not limited to handling, deploying, preparing, classifying, packaging, marking, labeling, and shipping dangerous goods. In the event of a conflict between the procedures set forth in this bulletin and the laws that apply to your dealership, you must follow those applicable laws.

Service Procedure

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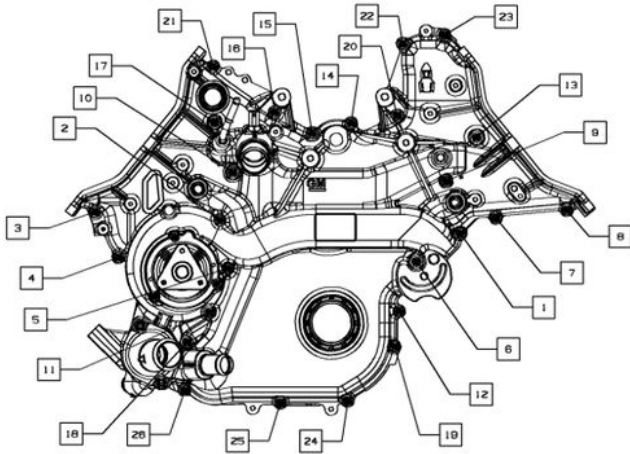
Important: When performing this service procedure, the intake manifold needs to be removed and reinstalled. During installation, ensure that all 10 compression limiters are installed and present in their correct positions before fastening the intake to the cylinder head. Intake Assembly left hand side shown (right side similar).

Important: Ensure all front cover bolts are torqued in proper sequence and to specification.

Refer to *Engine Front Cover Replacement*.

Cover Design

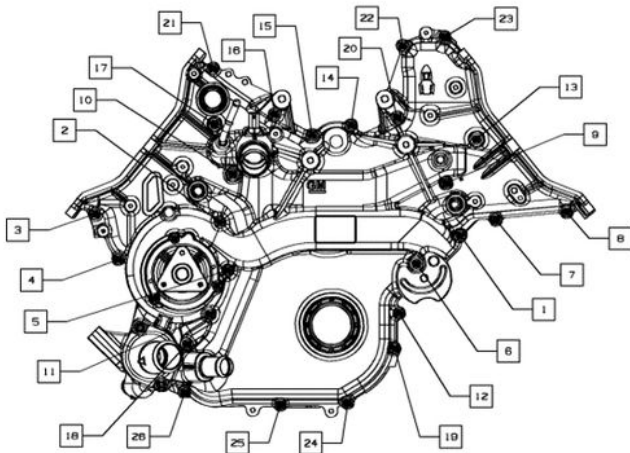
Note: Design 1: All fasteners are M5



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- Positions 2, 5 and 11 are M5 X 72.65 mm
- Position 9 is M5 X 55 mm
- All other positions are M5 X 30 mm

Note: Design 2: Positions 2 and 5 are M6

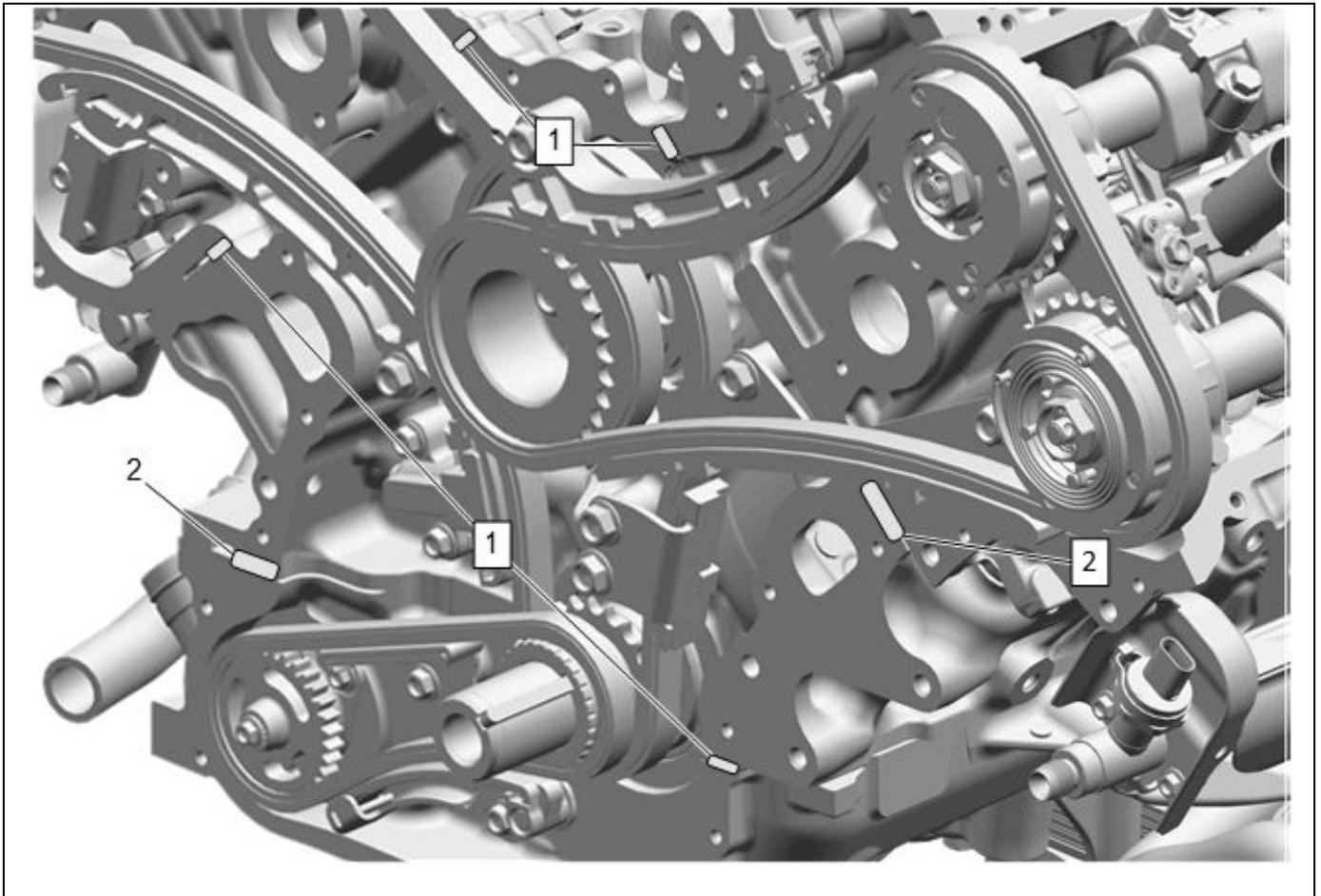


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- Positions 2 and 5 are M6 X 73.65 mm
- Position 11 is M5 X 72.65 mm
- Position 9 is M5 X 55 mm
- All other positions are M5 X 30 mm

Additional Information

Important: Application of the RTV has changed. Please refer to the picture and steps below for proper RTV application.



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Note: The sealing surface must be clean and free of contaminants prior to applying the RTV sealant. Do not touch the sealing surface once it has been cleaned.

1. Clean the sealing surface at the T-Joints (1 and 2) with low VOC brake cleaner, then wipe dry with a clean lint-free cloth.

Note: Do not allow RTV to skin over. The engine front cover gaskets and engine front cover must be installed within 8 minutes of RTV application.

2. Apply a 5 mm wide x 15 mm bead of sealant to the 4 T-Joints (1) between the cylinder head-to-engine block and the engine block-to-lower crankcase.
3. Apply a 5 mm wide x 25 mm bead of sealant to the 2 T-Joints (2) between the cylinder head-to-engine block and the engine block-to-lower crankcase.

Parts Information

Note: Follow the procedure in SI for additional parts that may be required for the repair.

Causal Part	Description	Part Number	Qty
X	GASKET, ENG FRT CVR	12707585	1
X	GASKET, ENG FRT CVR	12707584	1
X	GASKET, ENG FRT CVR	12707583	2
N/A	SEALANT	19369831 (U.S) 19369832 (Canada)	1
N/A	SEAL, OIL TRFER TUBE O-RING	12697070	1
N/A	SEAL, OIL TRFER TUBE O-RING	12697071	1
N/A	SEAL, O.PMP HSG O-RING	12670121	1

Causal Part	Description	Part Number	Qty
N/A	GASKET, PCV OIL SEP	12695546	1
N/A	GASKET, EXH MANIF	12673594	2
N/A	GASKET, INT MANIF	12668302	8
N/A	FILTER KIT, OIL	12730579	1
N/A	PIPE, FUEL FEED INTER RIGHT	12663298	1
N/A	PIPE, FUEL FEED INTER LEFT	12663297	1
N/A	SEAL, W/PMP O-RING	12668422	1
N/A	BOLT, R/AXL SHF	11601876	12
N/A	SEAL, A/C CMPR HOSE	13418808	1
N/A	SEAL, A/C CMPR HOSE	13418809	1
N/A	BOLT, CR/SHF BALR	11547975	1
N/A	SEAL, CM/SHF HSG CVR (right)	12672530	1
N/A	SEAL, CM/SHF HSG CVR (left)	12672531	1
N/A	GASKET, CM/SHF POSN ACTR MAGNET	55499462	2
N/A	SEAL, SPLG SHLD	12672529	8
N/A	GASKET, CTLTC CONV	12672379	2
N/A	BOLT, W/PMP	11548811	As Required
N/A	BOLT, ENG COOL FLOW CONT VLV	11548166	As Required
N/A	BOLT, THROT BODY	11548393	As Required
N/A	BOLT/SCREW.	11604854	As Required

Warranty Information

For vehicles repaired under warranty, use:

Labor Operation	Description	Labor Time
4063610	Engine Front Cover Replacement	Use Published Labor Operation Time

Version	3
Modified	Released April 27, 2023 Revised March 26, 2024 – Added a graphic and first Important statement under Service Procedure and updated Parts Information section. Revised January 30, 2025 – Added Cover Design section and updated the Parts Information.

