



Technical Service Bulletin

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Lubricating Oil Consumption in Low Load and High Idle Applications	

Lubricating Oil Consumption in Low Load and High Idle Applications

Warranty Statement

The information in this document has no effect on present warranty coverage or repair practices, nor does it authorize TRP or Campaign actions.

Contents

Product Affected

Engines:

- L9N CM2380 L124B
- L9N CM2380 L130B
- L9N CM2380 L142B
- ISL G CM2180 (**Only** engines equipped with steel pistons)

Application:

- Transit Bus 280 horsepower (L9N CM2380 L124B and L9N CM2380 L142B)
- Transit Bus (L9N CM2380 L130B)
- Yard Spotter
- School Bus

Issue

Engines operating in a low load and high idle duty cycle may experience oil consumption above published specification limit in Lubricating Oil Consumption and Acceptable Limits, Service Bulletin 3379214, and fault codes associated with high EGR temperature.

Root Cause

- Obsolete piston rings were unable to fully seat with the cylinder liner with insufficient time (break-in period) under low load.

Verification

- For ISL G CM2180: Verify if CPL is 5232 on the engine dataplate.
 - If **not**, review engine service repair history to determine if the engine is built with or upfitted with steel pistons.
- For engines prior to engine serial number (ESN) 74765136, review engine service repair history to determine if the engine is equipped with the obsolete piston rings.
- Verify if the engine is equipped with obsolete piston rings:

Table 1, Obsolete Piston Rings Part Number		
Engine	Description	Obsolete Part Number
L9N CM2380 L124B	Compression Piston Ring (Top Ring)	5364466
L9N CM2380 L130B		
ISL G CM2180		
L9N CM2380 L124B	Compression Piston Ring (Intermediate Ring)	5364467
L9N CM2380 L130B		
ISL G CM2180		

The part numbers in table 1 were part of the obsolete kits mentioned in table 2:

Table 2, Obsolete Kits Part Numbers		
Description	Obsolete Part Number	Content
Piston Ring Kit (single cylinder)	5406026	1 x Expander Ring 2 x Oil Ring 1 x Top Ring 1 x Intermediate Ring

Table 2, Obsolete Kits Part Numbers		
Description	Obsolete Part Number	Content
Overhaul Kit	5633416	6 x Piston Kit 6 x Cylinder Liner 6 x Piston Ring Kit 12 x Connecting Rod Bearing 1 x Lubrication Oil Filter 1 x Fuel Filter 1 x Lower Engine Gasket 1 x Upper Engine Gasket 1 x Spark Plug Kit 1 x Oil Cooler Core

- Confirm that any of the following fault codes are present:
 - High EGR Temperature Fault Codes:
 - 2961: Exhaust Gas Recirculation Temperature - Data Valid But Above Normal Operating Range - Least Severe Level
 - 2962: Exhaust Gas Recirculation Temperature - Data Valid But Above Normal Operating Range - Moderately Severe Level
- Verify oil consumption is greater than the amount outlined in Lubricating Oil Consumption and Acceptable Limits, Service Bulletin 3379214
- Verify the EGR cooler is fouled or plugged

Resolution

- Follow the troubleshooting for Lubrication Oil Consumption in the Fault Code Troubleshooting Manual.
- If no resolution is found and the engine is equipped with obsolete piston rings, replace all piston rings, pistons and cylinder liners with new part numbers listed table 3.
- Replace fouled EGR cooler. Reference Service Procedure 011-019 EGR Cooler in Section 11.

Table 3, Piston Rings Part Numbers (Non-Saleable, Reference Only)	
Description	New Part Number
Compression Piston Ring (Top Ring)	5627164
Compression Piston Ring (Intermediate Ring)	5627166

The new part numbers in table 3 are part of a saleable kits mentioned in table 4:

Table 4, Saleable Part (Kit) Numbers			
Description	Cummins Part Name	New Part Number	Contents
Overhaul Kit	KIT, OVERHAUL	5633625	6 x Piston Kit (steel) 6 x Cylinder Liner 6 x Piston Ring Kit 12 x Connecting Rod Bearing 1 x Lubrication Oil Filter 1 x Fuel Filter 1 x Lower Engine Gasket 1 x Upper Engine Gasket 1 x Spark Plug Kit 1 x Oil Cooler Core
Single Piston Kit	KIT, ENGINE PISTON	5664020	1 x Piston (steel) 1 x Expander Ring 2 x Oil Ring 1 x Top Ring 1 x Intermediate Ring
Piston Ring Kit	KIT, PISTON RING	5624967	1 x Expander Ring 2 x Oil Ring 1 x Top Ring 1 x Intermediate Ring

Publications Affected

Table 5, Products Affected			
Manual Type	Engine	Bulletin Number	Fault Code / Symptom
Fault Code Troubleshooting Manual	L9N CM2380 L124B	5467495	2961, 2962
Fault Code Troubleshooting Manual	L9N CM2380 L124B	5467495	Lubricating Oil Consumption
Fault Code Troubleshooting Manual	L9N CM2380 L130B	5613179	2961, 2962

Table 5, Products Affected			
Manual Type	Engine	Bulletin Number	Fault Code / Symptom
Fault Code Troubleshooting Manual	L9N CM2380 L130B	5613179	Lubricating Oil Consumption
Fault Code Troubleshooting Manual	L9N CM2380 L142B	5659918	2961, 2962
Fault Code Troubleshooting Manual	L9N CM2380 L142B	5659918	Lubricating Oil Consumption
Fault Code Troubleshooting Manual	ISL G CM2180	4021658	2961, 2962
Fault Code Troubleshooting Manual	ISL G CM2180	4021658	Lubricating Oil Consumption

Document History

Date	Details
2020-5-12	Module Created
2021-3-19	Addition of L9N CM2380 L142B and other changes.
2021-3-19	Typo correction.

Last Modified: 19-Mar-2021
