

Maintenance and Operation L9N



Quick Reference Guide

Important characteristics of this engine are:

- Spark-Ignited 8.9L natural gas engine
- New Engine Control Module (ECM) 2380 for faster processing
- Waste-Gated Turbocharger
- Exhaust Gas Recirculation (EGR)
- Maintenance-Free Three-Way Catalyst Aftertreatment
- On-Board Diagnostics

Maintenance Intervals L9N	
	Hours
Coolant Filter	500
Oil and Filter - CES 20092	1,000
Fuel Filter	1,000
Valve Adjustment	1,000
Spark Plugs	1,500
Crankcase Breather Filter	2,000
Standard Coolant	2,000
Ignition Coil Extension	10,000

Maintenance Part Numbers L9N		
Component	Cummins Part #	Fleetguard Part #
Oil Filter	3401544	LF9009
Crankcase Filter	5288839	x
Fuel Filter	3607140	NG5900
Ignition Coil Extension	5265337	x
Spark Plug Kit**	5473009	x

**Kit includes spark plug and pre-greased boot

L9N Spark Plug Gap Size			
New	Min	0.381 mm	(0.015")
	Max	0.432 mm	(0.017")
Used	Min	0.330 mm	(0.013")
	Max	0.635 mm	(0.025")

Note: Extending the oil and filter change interval beyond the recommended limits will decrease engine life due to corrosion, deposits and wear.

Electronic Features

For best fuel economy and performance, take advantage of the following electronic engine features, setting the parameters to meet your needs:

- Road Speed Governor
- Cruise Control
- Gear Down Protection

For guidance in parameter settings:

<https://www.cummins.com/support/digital-products-and-services-support/powerspec-support>

Maintenance Information

Caution

If your product is equipped with a component or accessory not manufactured or supplied by Cummins Inc., see the maintenance recommendations provided by the component manufacturer.

Natural Gas Oils complying with CES 20092 must be used. 10W30 or 15W40 is recommended.

Cummins Inc. bases the lubricating oil drain specifications on lubricating oil age and contamination level. This contamination occurs in all engines, at varying rates, regardless of design.

Maintaining the correct lubricating oil and lubricating oil filter change intervals are vital factors in preserving the integrity of an engine. Lubricating oil filters must be changed when the lubricating oil is changed.

Drain the fuel filter and check the oil pressure, coolant temperatures and other parameters daily via the OEM instrument panel or gauge cluster to make sure they are operational. Check the instrument panel regularly for any alarm messages. Take appropriate action to rectify alarm condition or contact your nearest authorized Cummins service and support location.

Specifications L9N



Lubricating Oil System

Oil Pressure

At Low Idle (minimum allowable) 70 kPa [10 Psi]

At 1400 rpm or Torque Peak (minimum allowable)
207 kPa [30 Psi]

Oil Capacity of Standard Engine

Standard Oil Pan 18.9 to 22.7 liters [20 to 24 qt]

Total System Capacity Including Filters 26.5 liters [28 qt]

From Low to High on Dipstick 3.8 liters [4 qt]

Lubricating Oil Filter Capacity 0.950 liters [1 qt]

Cooling System

Coolant Capacity (engine only)

12.4 liters [13.1 qt]

Standard Modulating Thermostat Range

82-93°C [180-200°F]

Minimum Recommended Pressure Cap

103 kPa [15 Psi]

Minimum Recommended Operating Temperature

71°C [160°F]

Minimum Fill Rate (without low-level alarm)

11.4 liters/min [3 gpm]

Maximum Deaeration Time

25 minutes

Maximum Top Tank Coolant Temperature (varies by horsepower rating)

320 hp - 100°C [212°F]

Less than 320 hp - 107°C [222°F]

Winterfronts

Minimum allowed air passage area 774 cm²
[120 inch²]

Fuel System for Cummins Natural Gas Engines

Cummins Engineering Standard CES 14624

Minimum Methane Number: 75

Minimum Lower Heating Value: 44,194 kJ/kg [19,000 BTU/lbm]

Note: Both the methane number and higher heating value criteria must be met to pass a given fuel.



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