

Product Information Bulletin

New Natural Gas Engine Oil Specification

May 2016

Lubricants play a vital role in providing engine performance and protection, and Cummins Westport natural gas engines require special natural gas engine oil. Careful attention must be paid to engine oil specifications because natural gas engine oils have different properties than diesel engine oil.

The long standing natural gas engine oil specification from Cummins was described in Cummins Engineering Standards (CES) 20074. The ash requirement of 0.4%-0.6% in this specification protected natural gas engines from combustion chamber deposits and pre-ignition, while providing the oil performance customers required.

With the increased acceptance and usage of natural gas engines in a wide range of applications, and new engine models from 6.7 to 12 litres being made available, Cummins has recently reviewed natural gas engine oil requirements, revising the CES 20074 specification by tightening base oil quality limits, and adding a new natural gas engine oil specification. This new oil formulation is CES 20085.

What is CES 20085?

CES 20085 is a new formulation designed to protect natural gas engines in all operating conditions and is a premium quality medium ash engine oil. With a sulfated ash limit of 0.7-0.9%, the higher alkalinity levels (Total Base Number (TBN) and ash) protect against acids present in degraded oil. The new CES 20085 specification offers an enhanced level of corrosion protection and helps to ensure that oil quality is maintained through the recommended oil service intervals.

Both the revised CES 20074 and new CES 20085 oils meet Cummins Westport natural gas engine requirements, however lubricating oils meeting the new CES20085 specification may provide better performance for ISB6.7 G, ISL G, ISL G Near Zero and ISX12 G natural gas engines.

Below is a comparison of some of the specifications. As seen in the table, the allowable ash ranges for the two CES specifications make them mutually exclusive. **There should be no product claiming to carry both approvals.**

New Spec CES 20085	Old Spec CES 20074
<ul style="list-style-type: none"> • Sulfated Ash Level 0.7 - 0.9% • Calcium 1,800 – 2,300 ppm • Phosphorous 700 – 900 ppm • Zinc 800-1,000 ppm 	<ul style="list-style-type: none"> • Sulfated Ash Level 0.4 - 0.6% • Calcium < 1,200 ppm • Phosphorous 600 – 800 ppm • Zinc 600 - 850 ppm





Engine operating guidelines and maintenance schedules may be changed to reflect these new oil specification recommendations. Customers with ISB6.7 G, ISL G, ISL G Near Zero, and ISX12 G natural gas engines should also be aware that using oils that meet the CES 20074 specification in these engines may result in reduced oil drain intervals in both hours and miles.

Oil that conforms to the revised CES 20074 specification is still recommended for B5.9G, B Gas Plus, B Gas International, B5.9LPG, B LPG Plus, C8.3G, C Gas Plus, and L Gas Plus engines. It is recommended that customers operating Plus series engines should review their current natural gas engine oil specification with their supplier or consult with your Cummins representative before operating CES 20085 oil in Plus series natural gas engines.

Cummins has recently restructured its Oil Registration process to secure the highest quality standards for oils used in Cummins engines. Accordingly, all oils approved prior to January 1, 2016 must be re-registered. Check the packaging or contact your oil supplier for confirmation that the supplier has obtained the new approval.

Cummins no longer supplies registration letters to suppliers. Oil Registration lists including approved CES 20085 oil, as well as CES 20074 oils, are now published on Cummins QuickServe Online (QSOL) under Service Tools. The website now includes a banner announcing the new registration process and instructions where to find the registered oil lists.

Customers and oil suppliers can sign up for a QuickServe Online account by navigating to quickservice.cummins.com and either logging in with a current username and password or creating a new account by selecting "Create an Account" under Information, choose Limited Owners Plan, and register.

Consult your owner's manual, QSOL, or your Cummins / Cummins Westport representative for more information on natural gas engine oils and oil drain intervals.

For further information on Cummins Westport products visit www.cumminswestport.com

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