

ATC View on Products Making Unsubstantiated Claims

(This article was prepared for Lube Magazine, February 2020 – www.lube-media.com)

The bottom half of the page features several large, light blue, abstract shapes that resemble oil droplets or bubbles. These shapes are scattered across the bottom, with some overlapping. They vary in size and shape, some being circular and others more elongated or teardrop-shaped.

DOCUMENT 137
March 2020

Quality matters – if it sounds too good to be true, would you trust it in your engine?

For a number of years engines have been changing at a rapid rate in response to emissions and fuel economy demands and they require ever more complex performance attributes from the lubricant; the days of simply using the correct viscosity grade are long gone. Recent articles in the industry press have highlighted issues such as counterfeit lubricants (<https://atiel.org/industry-info/counterfeiting-and-fraud> and article in Lubes and Greases) and the need for out-of-warranty vehicles to maintain the correct lubricating regime (ref – VLS article in Lube Magazine). There is a third threat to add to the list: products in the market that have not been developed or validated according to industry and Original Equipment Manufacturer (OEM) quality standards and consequently are not entitled to formally claim OEM or industry specifications. Typically, these products make claims based on “suitable for use” and “technical judgement

Engine oil development according to OEM and industry quality standards is a costly and time-consuming business, but ultimately ensures that the oil marketer and the end consumer get the necessary performance specified by the OEM for their application. OEM specifications are complex and critical to ensure the vehicle’s specific lubricating requirements are met, such as maintaining the correct oil pressure, to the more complex valvetrain specific performance requirements and protection against specific potential failure modes for example Low Speed Pre-Ignition (LSPI).

An engine oil is a complex approved formulation comprising specific components e.g. additive packages, viscosity modifiers (VM) and base oils, at defined treat rates. The formulation and the performance credentials are captured in key documents that any credible additive technology supplier will share with their oil marketer customers. These documents are

- (1) Candidate Data Package (CDP) which details the formulations tested, the engine and bench performance test data, as well as the guidelines defined in the industry Codes of Practice used to support the final formulation.
- (2) Formal approval documentation from the relevant OEM, if applicable.

Using products that cannot make formal claims against OEM or Industry Specifications bring many risks. OEMs, oil developers and oil marketers dedicate significant time, money and resources to make sure lubricants, developed and validated according to the specification, not only protect the engine but also maintain fuel economy, emission compliance and engine performance. Using unapproved lubricants, may even result in sudden catastrophic engine failure.

Responsible oil marketers are signing up to The European Engine Lubricant Quality Management System (EELQMS), a voluntary quality management system for automotive engine lubricants. It is designed to assist oil marketers in assuring the quality of their lubricants and the performance claims made for them in the marketplace. The EELQMS embraces various European, North American and global quality standards, test methods and procedures, together with industry Codes of Practice and the requirements of the ACEA European Oil Sequences.

Each element of the EELQMS specifies detailed requirements that should be followed in the course of designing, developing, manufacturing or marketing engine lubricants. By incorporating all of these elements, the EELQMS provides comprehensive guidelines for developing high quality lubricants for which a valid ACEA performance claim can be made. Meeting the requirements of each of the constituent elements of EELQMS is the responsibility of the oil marketer.

Additive technology suppliers who don't follow the industry rules relating to transparency and testing whilst marketing products claiming to meet the latest industry or OEM specifications using language like "suitable for use" or "based on technical judgement" cannot provide actual engine test data in the tests required by the OEMs to demonstrate performance. One is left to ask how they can use "technical judgement" when they do not have technical data in place to refer to. Such additive technology suppliers often combine claims that are mutually exclusive, recommend treat rates that are far below that of formally approved products, and supply the packages without any guidance on basestock or VM choice - two engine oil ingredients that are critical to defining performance capability and compatibility with the additive package.

Ultimately, ACEA claims are self-certified by the oil marketer but to market a lubricant with an ACEA claim the oil marketer is required to sign a Letter of Conformance to the EELQMS. The oil marketer is responsible for all the claims they make on their products. This is an important point as any issues with the performance of the fluid will be brought to the oil marketer and not to the additive technology supplier that failed to provide the test data. Quality surveys that monitor oil quality are increasing in number as the industry sees more false performance claims and these will expose the unscrupulous suppliers albeit after much of the damage is done to consumers' engines.

The industry has developed quality standards for lubricant testing and approval processes based on decades of experience addressing real service issues. An average engine oil requires €1 - €1.5M of testing in order to ensure it will meet the demands of the modern engine. If your additive technology supplier cannot provide the data according to the industry Codes of Practice, you need to question what that oil will do in the engine.

This article was prepared for Lube Magazine, February 2020