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WORLDWIDE PERFORMANCE SPECIFICATIONS FOR DIESEL ENGINE OILS - ADDITIONAL SPECIFICATIONS NOW INTRODUCED FOR LIGHT-DUTY OPERATION

An article in the Lubetech section of Issue number 44 February 2001 of 'Lube' referred to the announcement of the development of the world's first truly global worldwide performance specification for vehicle crankcase lubricants, namely, the WWHD-1 diesel engine oil. A draft specification, devised following collaboration between the European Automobile Manufacturers Association (ACEA), the Engine Manufacturers Association (EMA), and the Japan Automobile Manufacturers Association (JAMA), had already been circulated for comment in June 2000 from interested parties, including fuel suppliers, additive suppliers, fuel distributors and others. Comments were due October 1, 2000.

ACEA, EMA and JAMA received several general comments regarding the nature and purpose of the specification, as well as specific questions regarding test procedures and limits. Based on those comments, summarised below, and subsequent discussions with interested parties over the past several months, ACEA, EMA and JAMA clarified certain matters and made a number of other improvements to the specification.

A revised specification, see below, was circulated for final comment, and announced in a Press Release later in 2001. The oil would now be designated 'Global DHD-1'. This specification was considered to be a significant first step towards a structure where a small number of global engine oil specifications replace larger numbers of localized specifications, the advantages being reduced costs for test development and approval tests, as well as improved customer understanding."

Global DHD-1 was described as a performance specification for engine oils used in high-speed, four-stroke heavy-duty diesel engines designed to meet 1998 and newer exhaust emission standards worldwide. Oils meeting this specification would also be compatible with certain older engines, although application of these oils would be subject to the recommendation of individual engine manufacturers.

JAMA welcomed the introduction of this oil since Global DHD-1 would provide an appropriate guideline to the users of Japanese-made engines in choosing engine oils when neither OEM's genuine oils nor JASO DH-1 oils were available.

This recommended guideline was developed from existing specifications of the three

Organizations mentioned above. It does not contain all the elements of the API CH-4, JASO DH-1 or ACEA E5 specifications.

To illustrate further the nature of the consultative process summaries of comments received on WWHD-1 are listed below:

GENERAL

Comment: Recommendation that the Specification have a self certification process (similar to ACEA).

Response: Producers are expected to self-certify to the Specification. ACEA, EMA and JAMA recommend that any producer or marketer claiming that an engine oil meets the Specification have adequate performance data to support such claim and make such performance data reasonably available to interested parties upon request.

Comment: Concern that the Specification does not include a review and approval system, together with the associated bureaucracy and costs.

Response: There is no review or approval process associated with the Specification.

Comment: Proposal - (i) Define WWHD-1 for oils used in older equipment with minimal emission capability and more modern engines at reduced drain

levels; (ii) Define DHD-2 for oils used in current heavy-duty diesel engines meeting current emission standards; (iii) Develop a more cost effective version of WWHD-1 (bearing in mind the current approval status of several products already in the marketplace).

Response: The Specification defines a single oil performance level needed for 1998 and newer emission controlled engines. Oils meeting this Specification may also be used in older non-emission controlled engines. While the development of tiered specifications as suggested was considered, the complexity of such a system was believed to be beyond the scope of this initial effort. As future global specifications are developed, such a proposal may be more appropriate.

Comment: Recommendation that a three-tiered proposal, similar to that made by Ford for passenger cars a few years ago, be developed.

Response: A three-tiered approach was determined to be beyond the scope of the Associations' initial effort.

Comment: Concern that another specification without API endorsement will add to confusion in the marketplace.

Response: There are a number of non-API endorsed specifications currently in the marketplace. The engine manufacturer customer is generally capable of sorting these out properly.

Comment: Concern that, to be successful, WWHD-1 needs support from the OEMs and sufficient publicity.

Response: While individual engine manufacturers have sole discretion as to oil recommendations for their engines, the members of ACEA, EMA and JAMA have approved the Specification.

Comment: Question regarding the intent of the Specification.

Response: Engine oils meeting the minimum performance requirements of the Specification are intended to provide a consistent oil performance worldwide and therefore may be recommended by engine manufacturers to maintain engine durability wherever their engine is being used.

Comment: Question regarding whether the OEMs will use WWHD-1 as the basis for their individual oil drain recommendations.

Response: The manner in which the Specification will be utilized is within the discretion of the individual OEM.

Comment: Recommendation that read-across guidelines and regional codes of practice be applied.

Response: Additional language to that effect has been added to the Specification.

Comment: Concern that WWHD-1 will detract from PC-9, API SL and ILSAC GF-3 development.

Response: The Specification is an effort that is independent of, and should not detract from, these other categories.

Comment: Concern that the stated aim of "common test development" hasn't been achieved in any area.

Response: While common test development was a goal, timing and resource constraints necessitated the use of existing tests. It continues, however, to be a goal for the next specification.

Comment: Concern that the Specification makes no mention of viscosity grades or Noack limits.

Response: Oils claiming to meet the Specification must have the same performance level regardless of the viscosity grade or chemical and physical properties, including Noack.



Volvo D7 engine

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