

API CJ-4 and OEM Specifications

The PC-10 specification was finalized in March 2006 when the API CJ-4 ballot was approved by the API Lubricants Committee. First licensing of API CJ-4 will occur on October 15, 2006.

The limits for API CJ-4 are more restrictive than the previous API CI-4 Plus limits, making it a definitive quality upgrade. Products at the API CJ-4/SL level exceed the performance of current API CI-4 Plus/SL products. Many customers will upgrade the PCMO claim set on their top tier product to API SM, which will create a yet higher tier of performance. Several OEM specifications will add additional performance needs beyond API CJ-4/SL. In particular, the Mack EO-O PP-07 specification builds additional requirements yielding an API CJ-4/SM oil.

Engine manufacturers have unconditionally accepted backwards compatibility for PC-10 products for all instances where fuel sulphur is <15 ppm (ULSD). Where fuel sulphur is higher than 15 ppm but less than 500 ppm, consultation with the OEM as to drain interval length is required.

Universal does not anticipate issues in extended drain service with our chemistry, given the long history of having oils at 1% SASH in the market and the absolute TBN of our product offering (10 TBN).

Some products may be closer to 8 TBN and some OEM's, and even end users, may have reservations concerning the use of such lower TBN oils where ULSD may not be available. This may drive a slower product transition than previous categories.

Caterpillar has agreed to delay the issuance of the Caterpillar ECF-2 specification, which covers lubricant needs for pre-2007 engines and engines outside of North America. This specification might be issued during the first half of 2007. Caterpillar ECF-3, which covers the needs of after-treatment engines (2007 emissions controlled) has been issued for final review and is identical to the API CJ-4 specification. Caterpillar ECF-3 lubricants are backwards compatible as long as the fuel sulphur is less than 500ppm. Caterpillar will no longer use ECF-1 after this year.

Cummins has issued the final CES 20081 specification. The Cummins ISB and ISM have slightly tightened limits versus the API CJ-4 limits and the specification requires a Mack T-12 at the same higher level that is required for the Mack EO-O PP-07 specification. Cummins has recognized the need for early launch with no major requirements prior to first official licensing. The backward serviceability language for CES 20081 is restrictive. They will retain CES 20078 for pre-2007 engines and recommend CES 20081 for 2007 emissions controlled engines.

Mack has issued its draft specification and still plans to have a first list in the third quarter of 2006. This specification will define premium quality API CJ-4 products and will include the Sequence IIIG, the Volvo D12D as well as tightened limits in a number of tests (Cummins ISM, ISB, Mack T-12). It will also include limits in various bench tests, such as Base Oil Viscosity and HT/HS. This specification is a substantial upgrade in quality over API CJ-4 and will drive costs higher.

Detroit 93K217 was issued for review and a first list is targeted for around August 2006. The specification will be a combination of CJ-4 and MB 228.3. Detroit 93K215 issued earlier in the year will also be available for older engines. New and old North American HDD technology covers this specification.

Source: Infineum

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