

BACKGROUND

The Next Heavy Duty Diesel ASTM Lubricant Specification

The current performance category for emission-controlled, four-stroke cycle heavy duty diesel engines is API CI-4, which was available for licensing in September 2002. While the tests for this category were under development by the ASTM Heavy Duty Engine Oil Classification Panel, it was known as PC-9, or proposed "C" category, 9th change. These oils were intended for use in on-highway heavy duty trucks using advanced emission-control systems such as exhaust gas recirculation (EGR) or the proprietary Caterpillar ACERT (R-TM) system.

The Engine Manufacturers Association (EMA) has advised the DEOAP that a new performance category will be required by the third quarter of 2006 to match the availability of ULSD arriving in June 2006. The desire is to have licensing and market availability of these new oils in the third quarter, even though the new emission limits do not take effect until January 2007. This timing is driven by the OEMs desire to begin introducing their new engines as soon as the ULSD fuel is readily available. In order to meet this timing and still allow time for a major reformulation of all HD oils, the ASTM new test development work **was targeted to complete by the third quarter of 2005. Although that timing was missed, all of the proposed new tests had completed their precision and/or BOI Matrix testing by the start of the fourth quarter. Following several months of intense work by all of the new test development Task Forces and the HDEOCP, all of the tests and limits to define this new category (currently being referred to within ASTM as PC-10) were finalized in January 2006.**

The primary focus of PC-10 is to develop a category to define oils for use in heavy duty diesel engines that are equipped with exhaust aftertreatment devices to control emissions to 2007 limits. Ideally, all parties involved in PC-10 development would prefer to have a performance test to measure the impact of lubricant formulations on exhaust aftertreatment devices. However, the short time available, the costs involved in test development and the demonstrated difficulty in developing such tests have led to the use of chemical limits on PC-10 formulations in lieu of an available test.

Based on the final category requirements and the read-across rules developed for the new engine tests, the DEOAP has agreed to recommend October 15, 2006 as the first license date for a new API Category to be called CJ-4, which is based on the PC-10 tests and limits.