

News Release

New ASTM International Test Methods for Used Oil and Fuel Analysis

LITTLETON, Massachusetts, February 6, 2002 - A task group within the American Society for Testing and Materials (ASTM International) Committee D-2 on Petroleum Products and Lubricants has developed new test methods to determine wear metals and contaminants in used lubricating fluids and fuels by rotating disc electrode (RDE) atomic emission spectroscopy. ASTM recently approved the two new test methods, one for used lubricants and the other for gas turbine and diesel engine fuels. The official designations of the methods are:

ASTM D6595 Standard Method for Determination of Wear Metals and Contaminants in Used Lubricating Oils or Used Hydraulic Fluids by Rotating Disc Electrode Atomic Emission Spectrometry.

ASTM D6728 Standard Method for Determination of Contaminants in Gas Turbine and Diesel Engine Fuel by Rotating Disc Electrode Atomic Emission Spectrometry.

The RDE technique has experienced a recent rebirth due to instrumentation improvements and enhanced capabilities. Use of this technique continues to expand, because of its major benefits e.g. no sample preparation, fast and simultaneous analysis, simplicity, mobility of the spectrometer and readily available consumables. The need for a standard test method has been consumer driven and requested by numerous oil analysis laboratories. In these days of quality conscious consumers and ISO certification, standard test methods are a means to assure a consumer that testing is performed by an accepted and traceable procedure.

ASTM International is the world's foremost developer and provider of voluntary consensus standards and related technical information that contribute to the reliability of systems and services. Petroleum products and lubricant related standards are the responsibility of ASTM Committee D-2. Within D-2, Subcommittee 3 on Elemental Analysis is responsible for the development of standards for the chemical determination of elements in petroleum products.

The procedure for developing and adopting new test methods is very thorough and, on average, the process takes three years. A task group made up of key stakeholders in the new method was formed to write a draft in accordance with the form and style specified by the ASTM. When the task group was satisfied with the draft, an inter-laboratory test program was initiated with actual oil or fuel samples to test and evaluate each method and to show its precision and suitability as a laboratory test. After a satisfactory inter-laboratory test, the task group recommended the new method for a subcommittee ballot. After a successful subcommittee ballot without any negative votes, the methods were submitted to ASTM International Headquarters for a Committee D-2 ballot. Now that both of the new test methods have been approved, they will be reviewed every four years and revised as appropriate.

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