

Section D02.B0.03 Status Report
to
Subcommittee D02.B0

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ASTM Section D02.B0.03

- Scope
 - This Section is responsible for the promotion of knowledge of, and specifications, test methods and terminology for automotive gear lubricants and fluids. This includes gear lubricants used in rear drive axles, power dividers, and fluids used in manual and automatic transmissions of wheeled or track laying vehicles such as passenger cars, recreation vehicles, taxicabs, trailers, trucks, buses, tractors, construction and farm vehicles.
- Objectives
 - Keep existing performance tests operational, at historic severity and precision levels.
 - Ensure that performance test parts and reference oils are available in adequate supply and of a consistent quality.
 - Develop and maintain performance tests for gear lubricant and transmission fluid categories.
 - Maintain surveillance of test procedures under Section jurisdiction.
 - Work to improve test precision and correlation with field service.
 - Maintain active liaison with related organizations (CEC, SAE, API, etc.)

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Test Procedures Under the Jurisdiction of Section D02.B0.03

Common Designation	ASTM Designation	Purpose of Test
L-33-1	D 7038	To evaluate the rust and corrosion-inhibiting properties of a water-contaminated lubricant
L-37	D 6121	To evaluate the load-carrying, wear, and extreme pressure properties of a lubricant under low-speed, high-torque conditions
L-42	D 7452	To determine the anti-scoring properties of a lubricant subjected to high-speed and shock conditions
L-60-1	D 5704	To evaluate the thermal and oxidative stability of a lubricant
High Temperature Cyclic Durability	D 5579	To evaluate the thermal stability of a lubricant in a high temperature, cyclic durability test
Oil Seal Compatibility	D 5662	To determine the compatibility of a lubricant with specific polyacrylate, fluoroelastomer, and nitrile seal materials
Storage Stability & Compatibility	D 7603	To insure that lubricants maintain their integrity during storage, and that they are compatible with other lubricants intended for use in similar applications

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- Tests under the jurisdiction of the Section are used to evaluate lubricants under the following performance categories:
 - ASTM D 7450
 - Lubricants for automotive axles
 - API Category GL-5
 - ASTM D 5760
 - Lubricants for non-synchronized manual transmissions in buses and heavy-duty trucks
 - API Category MT-1
 - SAE J2360
 - Multipurpose gear-lubricating oils
 - Technical equivalent of the MIL-PRF-2105E Specification
 - Cancelled on February 16, 2005

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- Update on Test Procedures
 - All tests under the jurisdiction of the Section are available for use
 - Status of ASTM D 7038 (L-33-1) test
 - No test stand or hardware problems to report
 - Status of ASTM D 6121 (L-37) test
 - No test stand problems to report
 - Adequate supplies of non-lubrited hardware available
 - Shortage of lubrited hardware should soon be resolved
 - » Manufacture of a new batch is nearing completion
 - » Expect to have hardware approved and available in January, 2012

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- Update on Test Procedures, continued
 - Status of ASTM D 6121 (L-37) test, continued
 - Surveillance Panel recognized need to develop replacement for current test
 - » Want to use electric motor in place of gasoline engine, eliminate use of manual transmission (required when using gasoline engine), and move to updated test hardware
 - » Two labs developed test procedures for consideration; Surveillance Panel selected one for further development
 - » Task Force formed to fine-tune test procedure
 - » Goal is to have a finalized test procedure in place within twelve months

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- Update on Test Procedures, continued
 - Status of ASTM D 7452 (L-42) test
 - No test stand or hardware problems to report
 - Supplies of test hardware are diminishing
 - » New batch of hardware has been ordered
 - » Should be available and approved in 1st quarter of CY 2012
 - Status of ASTM D 5704 (L-60-1) test
 - No test stand or hardware problems to report
 - New batch of hardware has been ordered
 - » No shortages – Preemptive strike

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- Update on Test Procedures, continued
 - Status of ASTM D 5579 (High Temperature Cyclic Durability) test
 - No test stand or hardware problems to report
 - Currently only one test stand available within the industry
 - » Has been able to meet industry's needs
 - » Second stand at second lab being relocated
 - » Timing for availability of second stand uncertain
 - Status of ASTM D 5662 (Oil Seal Compatibility) test
 - No test stand or hardware (elastomer) problems to report
 - Prepared to introduce new reference oil (TMC 169) to replace one which is no longer available (TMC 161) when inventory has been depleted
 - Status of ASTM D 7603 (Storage Stability & Compatibility) test
 - No problems to report

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- Other Activities
 - Section D02.B0.03 volunteered to update ASTM D 4998
 - Standard Test Method for Evaluating Wear Characteristics of Tractor Hydraulic Fluids
 - Used to evaluate lubricants for gear wear
 - Updated document balloted and approved within Subcommittee D02.B0
 - Development of Proposed Category PM-2
 - New performance category to define lubricants for commercial vehicle synchromesh manual transmissions and transaxles
 - Service fill applications
 - As was previously reported, all work on development of this category has been suspended
 - SAE Technical Committee 3 has been asked to revalidate industry's interest in and/or need for this category
 - Indications are that interest/need no longer exists
 - Awaiting formal response from Technical Committee 3