

SINGLE CYLINDER ENGINE
TESTS FOR EVALUATING
THE PERFORMANCE OF
CRANKCASE LUBRICANTS

Part II:
Caterpillar IH2 Test Method

Not an ASTM Standard

STP 509A
PART II

04-509020-12



AMERICAN SOCIETY FOR TESTING AND MATERIALS

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SINGLE CYLINDER ENGINE TESTS

CATERPILLAR 1H2 TEST METHOD

Related ASTM Publications

The Relationship Between Engine Oil Viscosity and Engine Performance, STP 621 (1977), \$15.00, 04-621000-12

The Relationship Between Engine Oil Viscosity and Engine Performance, STP 621-S1 (1977), \$12.00, 04-621010-12

The Relationship Between Engine Oil Viscosity and Engine Performance, STP 621-S2 (1978), \$15.00, 04-621020-12

The Relationship Between Engine Oil Viscosity and Engine Performance, STP 621-S3 (1978), \$15.00, 04-621030-12

Multicylinder Test Sequences for Evaluating Engine Oils, STP 315G (1977), \$20.00, 04-315070-12

FOREWORD

The test methods described in this publication have not been subjected to the ASTM Standardization Procedure. They are not standards or standard recommended practices of the American Society of Testing and Materials. However, these procedures are developed and approved by ASTM Committee D-2 Technical Division B on Automotive Lubricants. The membership of both Committee D-2 and Technical Division B is balanced between producer, consumer and general interest members.

One of the most important uses of these test procedures is in the technical description of various oil classifications according to performance and type of service (accomplished by cooperative action of committees in SAE, API and ASTM). Details of the classifications are published in SAE Information report "Engine Oil Performance and Engine Service Classification—SAE J182," API Publication 1509 "Engine Service Classification and Guide to Crankcase Oil Selection" and ASTM Research Report D-2:1004 "Engine Oil Performance Classifications."

The diesel engine oils in use in 1939 or earlier served as a basis for the first diesel oil specifications. Caterpillar Tractor Company was the first diesel engine manufacturer to approve oils on the basis of performance in early versions of the laboratory engine tests. These early manufacturer specifications also served as the basis for the first military specifications for diesel engine oils which were introduced in 1941. Over the years, performance standards have been raised as necessary to meet new service operating conditions and/or new engine requirements.

ASTM Special Technical Publication 509 "Single Cylinder Engine Tests for Evaluating the Performance of Crankcase Lubricants (Abridged Procedures)" was published in 1972. This represents the first time complete test procedures have been published in ASTM format. This current edition of STP509A is offered in four separate independent parts as each becomes available. Specifically, Part I (1G2), Part II (1H2), Part III (1D2), and Part IV (L-38A) may be ordered individually in perfect bound copies or in 8½" x 11" three-hole punched reprints for insertion in loose-leaf binders.

These test procedures are continually undergoing changes to reflect refinements in procedure, obsolescence of parts or reagents, etc. These changes or updates, as well as general information regarding the tests, are issued as information letters by the ASTM Engine Test Monitoring Center. Copies of information letters pertaining to these tests may be obtained by contacting:

ASTM Engine Test Monitoring Center
P. A. Bennett (Administrator)
400 Fifth Avenue
Pittsburgh, Pennsylvania 15213, U.S.A.

This second version was edited by Concept Engineering Services, Inc., P. O. Box 29265, San Antonio, Texas 78229, with the help of the test developer and the ASTM Single Cylinder Surveillance Panel, Chairman and members.

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