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The Engine Oil Performance and Engine Service Classification Maintenance Procedure—SAE J1146

SAE Information Report
Editorial change February 1977

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**THIS IS A PREPRINT AND WILL
APPEAR IN THE NEXT EDITION
OF THE SAE HANDBOOK**

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THE ENGINE OIL PERFORMANCE AND ENGINE SERVICE CLASSIFICATION MAINTENANCE PROCEDURE—SAE J1146

SAE Information Report

Report of Fuels and Lubricants Technical Committee approved June 1976. Editorial Change February 1977.

The Engine Oil Performance and Engine Service Classification is designed to keep abreast of changing requirements by redefining existing, or adding new oil categories. To accomplish such action expeditiously requires close coordination among the API, ASTM, and SAE.

Although it is neither possible nor desirable to develop rigid operating rules, the following guidelines are recommended:

1. Any individual, company, or society can request changes in, or additions to, the oil categories. Such requests shall be referred to SAE (Fuels and Lubricants Technical Committee).

2. SAE shall inform both API (Marketing Department—Fuels and Lubricants Committee) and ASTM (Committee D-2, Technical Division B on Automotive Lubricants) of the request and ask for a member from each to serve on an SAE Task Force to study the request. These API and ASTM representatives shall reflect the viewpoints of their respective societies.

3. The SAE Task Force shall consider whether the request is consistent with the overall classification objectives which include:

- retention of flexibility.
- avoidance of unnecessary and unsound changes or proliferation.
- discouragement of the use of obsolete categories.

4. The SAE Task Force shall recommend acceptance or rejection of the request with the concurrence of both the API and ASTM representatives. The recommendation of the Task Force shall be forwarded to API and ASTM.

a. Criteria for justifying establishment of a new category shall include the following:

(1) A reasonable existing or potential market for oil of the proposed category.

(2) A service, engine, or requirement not covered by existing categories.

(3) A significant difference in performance capability (either increased or decreased) of newly-developed lubricants compared to that of previously available lubricants.

b. Revision or redefinition of existing classifications is to be discouraged. However, changes such as updating existing test techniques may be desirable, provided that they do not result in significant performance differences.

c. Revised or new categories must be describable by suitable tests; if suitable techniques are not available, they must be developed. New tests may be suggested by any individual or company, or they may be developed by groups such as CRC.

5. SAE shall letter ballot the Task Force recommendation for either a new or revised category. A consensus negative ballot, as determined by normal SAE policy, would reject the requested revision. An affirmative ballot would initiate a request from SAE: 1) to ASTM to select the test techniques and to develop performance criteria; and 2) to API to develop the user language.

6. ASTM shall appoint a Task Force, that includes at least one representative from API and one from SAE, to select test techniques and to develop performance criteria.

a. Criteria considered in selecting test techniques shall include:

- Correlation with service.
- Precision.
- An adequate supply of spare parts.
- Availability of reference oils and test fuel(s).

b. The development of performance criteria shall include such factors as:

- Correlation of laboratory and field data.
- Performance of reference oils.

COORDINATION GUIDE

This guide indicates the coordination required among API, ASTM, and SAE in developing new or revising existing oil categories. It should also be of value in indicating the minimum time required to effect such a change.

Date	SAE	ASTM	API
May-June 19XX	Receive expression of approximate requirements. (Consult with ASTM and API). Appoint Task Force that includes an ASTM and an API representative, to determine if revision is needed.		
October 19XX	Letter ballot Task Force recommendation.		
November 19XX	Request: 1) ASTM to establish test techniques and performance criteria, and 2) API to develop user language.	Establish test techniques and performance criteria.	Develop user language.
May 19XX + 1		Letter ballot test technique and performance criteria recommendations.	
June 19XX + 1			Letter ballot user language recommendations.
August 19XX + 1	Issue final report for publication in SAE Handbook.		

c. Selection of test techniques and performance criteria shall consider the availability of laboratory and vehicle tests data.

(1) Ideally, data should be available from more than one engine make, oil type, and oil performance level.

(2) If an inadequate or marginal data bank exists, requests for further data will be made to all concerned and particularly to the group(s) requesting the new category.

7. ASTM shall letter ballot the test techniques and performance criteria. A consensus negative ballot, as determined by normal ASTM policy, would result in reconvening the ASTM Task Force to resolve the problem. If the problem cannot be resolved, ASTM will advise SAE and request further direction. The results of an affirmative ballot would be sent to both API and SAE.

8. API shall appoint a Task Force, that includes at least one representative from ASTM and one from SAE, to develop user language.

9. API shall letter ballot the user language. A consensus negative ballot, as determined by normal API policy, would result in reconvening the API Task Force for further study and development of a user language for rebalancing. The results of an affirmative ballot would be sent to ASTM and SAE. If either society is opposed to the user language, API shall be notified and representatives of the three societies will convene to resolve the differences.

10. The SAE Task Force shall issue a final report for inclusion in the SAE Handbook.

A coordination guide for suggested category changes is attached.

NOTE: The above procedures are also recommended for use in establishing categories for other lubricants such as hydraulic/transmission fluids, etc.