Standard Oil Filter Test Oil – SAE J1260 JUN83

SAE Standard
Approved June 1983

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PREPRINT

STANDARD OIL FILTER TEST OIL—J1260 JUN83

SAE Standard

Report of the Engine Committee, Filter Test Methods Subcommittee, approved June 1983.

1. Scope—This SAE Standard defines the requirements for an oil to be used in the following SAE HS J806 JUN83 Oil Filter Test Procedures: Resistance to Flow, Filter Capacity and Contaminant Removal Characteristics of Full Flow Filters, Media Migration Test, Collapse Test for Lube Oil Elements, and Mechanical Tests and Relief Valve Performance.

2. Property Requirements—The Filter Test Oil shall be formulated from solvent refined petroleum stocks and blended with additives required to meet the specifications shown in Table 1. It shall not contain any Viscosity Index Improver.

The Filter Test Oil shall also meet Engine Oil Performance and Engine Service Classification SE/CC as outlined in SAE J183a.

3. Performance Characteristics Approval—The following oil performance characteristics must be approved by a panel of test oil users selected by the SAE Filter Test Methods Subcommittee:

3.1 0.8 μm Membrane Filterability—A panel judgment of slow filtration rates, relatable to additive removal or contamination, would constitute grounds for rejection.

3.2 SAE HS J806 Filterability—A panel judgment of filter performance, which deviates measurably from previously qualified batches of oil, would constitute grounds for rejection.

3.3 Odor—A panel judgment of objectionable odor, generated during any portion of SAE HS J806, would constitute grounds for rejection.

4. Source Information—Approved (February 1980) Filter Test Oil, RM 99, is available by contacting the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096. This oil has generally been called RFO-3-79 in the past.

TABLE 1—OIL FILTER TEST OIL SPECIFICATIONS

Property	Specification Limit	Test Designation
Viscosity	114–127 cSt (mm²/s) at 100°F (37.8°C) 100–112 cSt (mm²/s) at 40°C	ASTM D-445
	11.6–12.5 cSt (mm²/s) at 210°F (98.89°C) 11.2–12.2 cSt (mm²/s) at 100°C	ASTM D-445
Specific Gravity	0.888–0.876 at 60/60°F (15.5/15.5°C) 0.889–0.877 at 15/15°C	ASTM D-1298
Color	5.5 Max	ASTM D-1500
Viscosity Index	95 Min	ASTM D-2270
Flash Point	410°F (210°C) Min	ASTM D-92
Pour Point	0°F (−17.8°C) Max	ASTM D-97
Trace Sediment (including water)	0.05%, Volume, Max	ASTM D-2273
Foaming Tendency (after 5 min blowing)	Seq. I 10 mL Seq. II 50 mL Seq. III 10 mL	ASTM D-892
Foaming Stability (after 10 min setting)	Seq. I 0 mL Seq. II 0 mL Seq. III 0 mL	ASTM D-892
Additive Composition		
Sulfated Ash Wt., %	0.90–1.10	ASTM D-874
Calcium Wt., %	0.220–0.260	Atomic Absorption
Zinc Wt., %	0.110–0.130	Atomic Absorption
Phosphorus Wt., %	0.090–0.110	Atomic Absorption