

JASO M342-18 Smoke Test

Specifications

- JASO
- ISO 13738

Objective

- Evaluate the exhaust smoke formation performance of a lubricant used in two-stroke cycle engines.

Field Service Simulated

- Two-stroke cycle gasoline engine operation such as motorcycle, utility, and outboard engines.



Test Fixture

- A Suzuki generator SX800R, single-cylinder, forced air-cooled, two-stroke cycle, spark-ignition engine is connected to an electrical load absorber.
- A light-absorbing smoke meter is used to measure the smoke density level.

Test Parameters

- The normal running order for a test is reference, candidate, and reference lubricants. A test consists of a fuel flush and three test runs for each lubricant.
- The test fuel/lubricant ratio for the reference and candidate lubricants is 10:1.
- A test run consists of:
 - 15-minute burn-off (750 W, 60 Hz, 320°C exhaust gas temperature)
 - Cool-down to plug gasket temperature of 60°C
 - 20-minute idle at 50 Hz
 - Power phase at 50 Hz, 670 W

Test Parts Evaluation

- None.

Used Lubricant Analysis

- None.

Grade	Minimum Exhaust Smoke Index
FB, EGB	45
FC, EGC	85
FD, EGD	85

Pass/Fail Criteria

- Lubricants in each grade correspond to the following two-stroke cycle lubricants:
 - The FB and EGB grades correspond to lubricants that have high performance in lubricity, but are non-low-smoke type.
 - The FC and EGC grades correspond to lubricants typical of low-smoke type lubricants in the Japanese market.
 - The FD and EGD grades correspond to lubricants that have greater detergency performance as identified in International Standard 13738.

We welcome your inquiries.

**For additional information,
please contact:**

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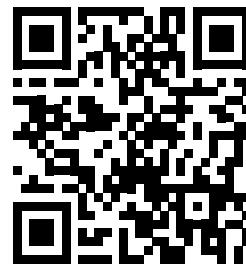
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