ExxonMobil
Aviation Lubricants

Mobil® Jet Oil II

Aircraft-Type Gas Turbine Lubricant

Description

Mobil Jet Oil II gas turbine lubricant is a combination of a highly stable synthetic base fluid and a unique chemical additive package. The combination provides outstanding thermal and oxidative stability to resist deterioration and deposit formation in both the liquid and vapor phases, as well as excellent resistance to foaming.

The effective operating range of Mobil Jet Oil II is between -40°C and 204°C (-40°F and 400°F). Pour point is -59°C (-74°F). The product has a high specific heat in order to ensure good heat transfer from oil-cooled engine parts. In extensive laboratory testing and in-flight performance, Mobil Jet Oil II exhibits excellent bulk oil stability at temperatures up to 204°C (400°F). The evaporation rate at these temperatures is low enough to prevent excessive loss of volume.

Advantages

– Reduces formation of carbon and sludge deposits
– Reduces engine maintenance
– Lengthens gear and bearing life
– Lowers oil consumption

Application

Mobil Jet Oil II is recommended for aircraft gas turbine engines of the turbo-jet, turbo-fan, turbo-prop, and turbo-shaft (helicopter) types in commercial and military service. It also is recommended for aircraft-type gas turbine engines in industrial or marine service applications.

Mobil Jet Oil II is approved against U.S. Military Specification MIL-PRF-23699, as well as by the following engine and accessory manufacturers:

Typical Characteristics*

Viscosity	
cSt at 100°C (212°F)	5.1
cSt at 40°C (102°F)	27.6
cSt at -40°C (-40°F)	11,000
% change at -40°C after 72 hr.	-0.15
Flash Point, °C (°F), min	270 (518)
Fire Point, °C (°F)	285 (545)
Autogenous Ignition Temp, °C (°F)	404 (760)
Pour Point, °C(°F)	-59 (-74)
Specific Gravity, 15/15°C (60/60°F)	1.0035
TAN (mg KOH/g sample)	0.03
Evaporation Loss, %	
6.5 hr at 204°C (400°F), 29.5" Hg	3.0
6.5 hr at 232°C (450°F), 29.5" Hg	10.9
6.5 hr at 232°C (450°F), 5.5" Hg (Equals pressure at 40,000 ft. altitude	33.7
Foam, ml	
Sequence 1, 24°C (75°F)	8
Sequence 2, 93.5°C (200°F)	10
Sequence 3, 75°C (after 200°F test)	8
Foam Stability, after 1 min settling, ml	0
Rubber Swell	
F Rubber, 72 hr at 204°C (400°F), %	15.6
H Rubber, 72 hr at 70°C (158°F), %	16.4
Sonic Shear Stability	
KV at 40°C (104°F), change, %	0.9
Ryder Gear, Average lb/in	2750
% Hercolube A	115

* Physical properties are listed in the table. Values not identified as maximum or minimum are typical and may vary within modest ranges.

Engine Approvals

– Honeywell/Lycoming -Turbine Engines
– Rolls-Royce/Allison Engine Company
– CFM International
– General Electric Company
– IAE International
– Pratt & Whitney Group
– SNECMA
– Pratt & Whitney, Canada
– Rolls-Royce Limited
– Honeywell/Garrett-Turbine Engine Company
– Turbomeca

Accessory Approvals

– Honeywell – Auxiliary power units and air cycle machines
– Hamilton Standard – Starters
– Hamilton Sundstrand Corp. – APUs, Constant-speed drives and integrated-drive generators

Mobil Jet Oil II is compatible with other synthetic gas turbine lubricants meeting MIL-PRF-23699. However, mixing with other products is not recommended because the blend would result in some loss of the performance characteristics of Mobil Jet Oil II. Mobil Jet Oil II is compatible with all metals used in gas turbine construction, as well as with F Rubber (Viton A), H Rubber (Buna N), and other commonly used seal materials.

Health and Safety

Based on available toxicological information, it has been determined that this product poses no significant health risk when used and handled properly. Information on use and handling, as well as health and safety information, can be found in the Material Safety Data Sheet which can be obtained from your local distributor; via the Internet on http://www.exxonmobil.com; or by calling 1-800-662-4525 and selecting prompt 2.

For additional technical information or to identify the nearest U.S. ExxonMobil supply source, call 1-800-662-4525.

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