ExxonMobil
Aviation Lubricants

Mobil Jet Oil II

Aircraft Type Gas Turbine Lubricant

Product Description

Mobil Jet Oil II is a high performance aircraft-type gas turbine lubricant formulated with 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 vapour phases, as well as excellent resistance to foaming. The effective operating range of Mobil Jet Oil II is between -40°C (-40°F) and 204°C (400°F). Mobil Jet Oil II is engineered for aircraft gas turbine engines used in commercial and military service requiring MIL-PRF-23699 level performance. It also is recommended for aircraft-type gas turbine engines in industrial or marine service applications

Applications

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 is also recommended for aircraft-type gas turbine engines used in industrial or marine applications. Mobil Jet Oil II is approved against U.S. Military Specification MIL-PRF-23699. It is also 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 silicone seal materials.

Features & Benefits

Mobil Jet Oil II is formulated to meet the demanding requirements of aircraft-type gas turbines operating over a wide range of severe operating conditions. 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. Key features and benefits include:

Features	Advantages and Potential Benefits
Excellent thermal and oxidation stability	Reduces the formation of carbon and sludge deposits Maintains engine efficiency and extends engine life
Excellent wear and corrosion protection	Extends gear and bearing life Reduces engine maintenance
Retains viscosity and film strength across wide temperature range	Provides effective lubrication at high operating temperatures
Chemically stable	Reduces evaporation losses and lowers oil consumption
Low pour point	Eases start-up in low ambient temperature conditions

Specifications & Approvals

Mobil Jet Oil II has the following builder approvals	
Engines	
Honeywell/Lycoming-Turbine engines	x
Rolls-Royce/Allison Engine Company	x
CFM International	x
General Electric Company	x
IAE International	x
Pratt & Whitney Group	x
SNECMA	x
Pratt & Whitney, Canada	x
Rolls-Royce Limited	x
Honeywell/Garrett-Turbine Engine Company	x
Turbomeca	x
Accessories	
Honeywell-Auxiliary power units and air cycle machines	x
Hamilton Standard-Starters	x
Hamilton Sundstrand corp.- APUs, Constant-speed drives and integrated-drive generators	x

Mobil Jet Oil II	
Approved against U.S. Military Specification Mil-PRF-23699 (STD)	x

Typical Properties

Viscosity	
cSt @ 40°C (102°F)	27.6
cSt @ 100°C (212°F)	5.1
cSt @ -40°C (40°F)	11,000
% change @ -40°C after 72 hours	-0.15
Pour Point, °C (°F), ASTM D 97	-59 (-74)
Flash Point, °C (°F), ASTM D 92	270 (518)
Fire Point, °C (°F)	285 (545)
Autogenous Ignition Temp, °C (°F)	404 (760)
TAN (mg KOH/g sample)	0.03
Density @15°C kg/l, ASMT D 4052	1.003
Evaporation Loss, %	
6.5 hr @ 204°C, 29.5" Hg	3.0
6.5 hr @ 232°C, 29.5" Hg	10.9
6.5 hr @ 232°C, 5.5" Hg (Equals pressure @ 40,000 Ft. altitude)	33.7
Foam, ml	
Sequence I, 24°C	8
Sequence II, 93.5°C	10
Sequence III, 75°C (after 200°F test)	8
Foam Stability, after 1 min settling, ml	0
Rubber Swell	
F Rubber, 72 hr @ 204°C, %	15.6
H Rubber, 72 hr @ 70°C, %	16.4
Sonic Shear Stability, KV @ 40°C, change, %	0.9
Ryder Gear, Ave. lb/in % Hercolube A	2750 ,115

Health & Safety

Based on available toxicological information, this product is not expected to produce adverse effects on health 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 (MSDS) which can be obtained from your local distributor or via the Internet on http://www.exxonmobil.com/lubes.

Exxon Mobil Corporation
3225 Gallows Road
Fairfax, VA 22037-0001

http://www.exxonmobil.com

PDSAV-03