ExxonMobil

Mobil Turbo 319A-2

ExxonMobil Aviation , New Zealand

Synthetic Aircraft-Type Gas Turbine Lubricant

Description

Mobil Turbo 319A-2 is a fully synthetic lubricant developed to meet the performance requirements of Russian gas turbine aircraft engines which operate on mineral-oil-based lubricants. Formulated from a synthetic hydrocarbon combination of polyalphaolefin (PAO) and hindered ester based stock, Mobil Turbo 319A-2 is fortified with a unique chemical additive system. The resulting product has far superior thermal and oxidation stability than mineral-oil-based lubricants. The ability of Mobil Turbo 319A-2 to resist deterioration and deposit formation allows the potential for extended oil drain intervals and less frequent maintenance.

The closely controlled viscosity of Mobil Turbo 319A-2 at -51° C, along with a -60°C pour point, ensure good low-temperature fluidity, permitting engine starting and lubrication at low temperatures. Mobil Turbo 319A-2 exhibits excellent bulk oil stability at temperatures up to 200° C (392° F). The evaporation rate of Mobil Turbo 319A-2 at high temperatures is significantly lower than mineral-oil-based products, and helps minimize oil consumption. The lubricant has excellent resistance to foaming.

Mobil Turbo 319A-2 is compatible with existing seal materials, including F Rubber (Viton A), H Rubber (Buna N), and silicone, as well as 11 metals used in gas turbine construction.

Features and Benefits

Mobil Turbo 319A-2 offers the following advantages and benefits:

- Low evaporation loss and oil consumption
- Reduced sludge and carbon deposits
- Improved bulk oil oxidation stability and extended oil drain intervals
- Compatible with existing seal materials
- Reduced engine maintenance, including potential for extended drain intervals

Applications

Mobil Turbo 319A-2 is recommended for aircraft gas turbine engines that normally operate on mineral-oil-based lubricants, as well as engines approved to operate on oils meeting the

specifications listed below.

Mobil Turbo 319A-2 is approved against the following specification of the Russian Central Institute of Aeronatutical Motors (CIAM):

- IMP-10
- MS, 8P, MS-8RK
- 36/1 Ku-A
- VNII NP 50-1-4f and -4u
- B3V and LZ-240
- Mobil Turbo 319A-2 also meets U.S. Military Specification MIL-L-6081C, as well as the essential performance requirements of U.S. MIL-L-7808K, Grade 3.

Typical Characteristics

Mobil Turbo 319A-2	
Physical properties are listed in the table below. Values shown are typical and may vary slightly.	
Viscosity	
cSt at 40° C	16.2
cSt at 100° C	3.70
cSt at -40° C	2917
cSt at -51° C	12545
Flash point, ° C (°F)	234 (453.2)
Pour point, ° C (°F)	-60 (-76)
Specific Gravity	0.852
TAN	0.03

Evaporation Loss, %	0.999
5 hr at 175 °C (347°F)	2.4
Foam, ml	
Sequence 1, 24°C (75°F)	30
Foam Stability, after 1 min settling, ml	0
Rubber Swell, %	
NBR-H, 168 hr at 70°C (158°F)	11.9
FKM, 72 hr at 175°C (347°F)	3.0

Health and 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.

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Due to continual product research and development, the information contained herein is subject to change without notification. Typical Properties may vary slightly.

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