Honeywell TSCP 700 APU

Mobil Jet™ Oil II outperforms competitive HTS oil

Summary

Mobil Jet Oil II consistently outperforms competitive high thermal stability (HTS) oils in auxiliary power units (APUs), in both laboratory and field tests. Testing confirmed the oil's ability to keep O-rings pliable.

Oil comparison details

Oil in use	Mobil Jet™ Oil II	Competitive HTS Oil
Aircraft type	McDonnell Douglas MD-11	McDonnell Douglas MD-11
APU type	Honeywell TSCP 700	Honeywell TSCP 700
APU hours	8,446 (total hours)	Unknown
Hours since last repair	2,891 hours	3,221 hours
APU cycles	7,008 (total cycles)	Unknown
Cycles since last repair	2,638 Cycles	2,197 Cycles
Oil Change	None	None
Removal	Unknown	Oil leakage

APU inspection results

1. O-rings lubricated with Mobil Jet Oil II were in good condition; those lubricated with competitive HTS oil were significantly degraded.
2. Deposits in APU with Mobil Jet Oil II are darker than those with competitive oil, but deposit level is comparable.
3. Competitive HTS oil caused high level of leakage problems causing the airline to change to special O-ring materials.
4. Jet engine oil should allow an operator to achieve normal and acceptable engine performance without incurring additional maintenance or operational costs.

Low pressure turbine bearing support/housing

Mobil Jet Oil II. Thin black varnish and carbon deposits.

Competitive HTS oil. Very thin black varnish and carbon deposits.

Mobil Jet™

Technology by ExxonMobil

Honeywell TSCP 700 APU

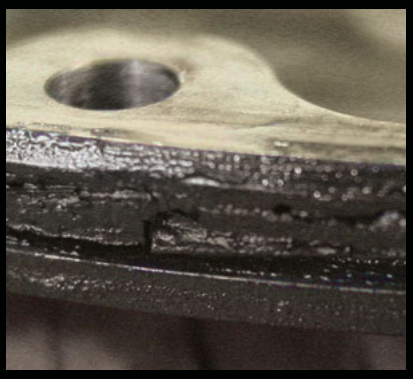
Turbine rear hub — bearing & seal

Mobil Jet™ Oil II. Thin black varnish and carbon deposits.

Competitive HTS oil. Thin tan varnish deposits.

Bearing carrier O-rings

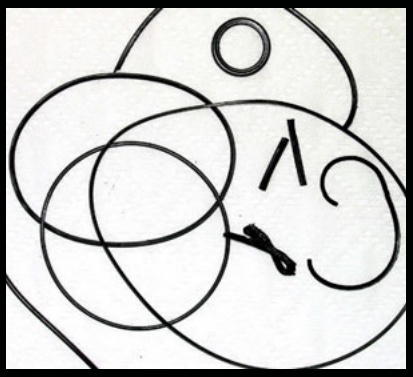
Mobil Jet Oil II. O-rings in grooves in very good condition and sealing.



Competitive HTS oil. O-rings severely deteriorated and flattened; grooves filled with deposits; seal not functional.

O-ring seals

Mobil Jet Oil II. O-rings in very good condition, pliable.



Competitive HTS oil. O-rings in poor condition; some spongy, some brittle and broken.

Conclusion

Actual in-service performance is the final and most important indicator of how well oil keeps a jet engine running. Mobil Jet Oil II has provided outstanding performance in aircraft-type turbine engines for more than 50 years. It is the lubricant of choice for many of today's leading airlines.

A comparison of Mobil Jet Oil II and a competitive High Thermal Stability (HTS) oil in two Honeywell TSCP 700 auxiliary power unit engines confirmed Mobil Jet Oil II's world-class performance.

For more information

Please contact your ExxonMobil aviation sales representative.