Subject: Engine oils to be used with MT propellers

Affected types: All propellers using turboprop or reciprocating (also Diesel Jet A1) engines

Reason: Engine oils which are not authorized by MT-Propeller can lead to a swelling of the propeller pitch change piston O-ring. Thus the friction of the O-ring in the pitch change cylinder area is highly increased which may lead to a failure of the O-ring and can cause oil leaks.

Accomplishment: Approved synthetic oils according to standards:

**MIL-PRF-23699-STD** (Standard):
- AeroShell Turbine Engine Oil 500
- BP/Castrol/Eastman Turbo Oil 2380
- Mobil Jet Oil II
- Total Aeroturbine 540, Turbonycoll 600

**MIL-PRF-23699-HTS** (High Thermal Stability), please see note below
- AeroShell Turbine Oil 560
- BP/Castrol/Eastman Turbo Oil 2197
- Mobil Jet Oil 254 and 387

**SAE AS5780-SPC** (Standard Performance Capability)
- AeroShell Turbine Engine Oil 500 and 560
- Eastman Turbo Oil 2380
- Total Aeroturbine 540, Turbonycoll 600

**SAE AS5780-HPC** (High Performance Capability), please see note below
- Eastman Turbo Oil 2197
- Mobil Jet Oil 254 and 387

**MIL-L-7808**
- AeroShell Turbo Oil 308
- BP/Castrol/Eastman Turbo Oil 2389
- Total Turbonycoll 160

**RON 424 (Rotax Norm)**
- AeroShell Sport Plus 4

**NOTE:** If any oil with standard MIL-PRF-23699-HTS or SAE AS5780-HPC is used please note that higher oil temperatures may increase the rate of seal degradation and thus can lead to oil leakage. Please inform MT Propeller tech support:

Email: techsupport@mt-propeller.com, phone 49-(0)9429-9409-44
Approved mineral oils according to standard:

SAE-J-1966 (former MIL-L-6082)
Examples:
- AeroShell 65, 80, 100, 120
- Total Aero100, Aero120

SAE-J-1899 (former MIL-L-22851)
Examples:
- AeroShell W80, W80 Plus, W100, W100 Plus, W120, W120 Plus
- Total Aero D80, D100, D120, XPD100, XPD120, DM15W50, DM20W60
- Phillips 66 X/C, Victory, Type A

Authorized multigrade oils according to standards:

API-SG, -SH, -SJ, -SL, -SM, -SN, -SN PLUS, CI-4 (US Standard)
Examples:
- Exxon Mobil 1 ESP / FS
- EVVA C52 Airmax 10W-40
- Phillips 66 Victory Diesel 10W-40

- Castrol Edge/Magnatec Professional A3
- GULF Formula GX
- Liqui Moly/Austro Engines Aero 5W40
- Liqui Moly Leichtlauf High Tech
- LUKOIL Luxe synthetic
- MEGOL Motorenoel High Condition
- Shell Helix Ultra
- Shell Rimula R6 M
- BP VISCO 5000 5W-30
- Aeroshell Oil Diesel 10W40
- Aeroshell Oil Diesel Ultra
- Exxon Mobil 1 ESP 0W-30

Authorized oils for Jet A1 Piston engine gearbox
- Technify Centurion Gearbox Oil N1
- Shell Spirax S6 ATF ZM
- Shell Spirax GSX 75W-80
- Shell Spirax S6 GXME 75W-80

Inspection Procedure:
Check whether the used engine oil is complying with the standards listed above.

Action:
Prior to using other than the above listed engine oils contact MT-Propeller for technical approval.

Contact:
MT-Propeller Entwicklung GmbH
E-Mail: techsupport@mt-propeller.com
Phone: 49-(0)9429-9409-44