



	SERVICE BULLETIN No. 36 R4	DOA No. EASA.21J.020
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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
- Mobil Jet Oil II
- BP/Castrol/Eastman Turbo Oil 2380
- Total Aeroturbine 540, Turbonycoll 600

MIL-PRF-23699-HTS (High Thermal Stability), please see note below

- AeroShell Turbine Oil 560
- **Mobil Jet Oil 387**
- ~~BP/Castrol/Eastman Turbo Oil 2197~~
- ~~Mobil Jet Oil 254~~

SAE AS5780-SPC (Standard Performance Capability)

- AeroShell Turbine Engine Oil 500 and 560
- Total Aeroturbine 540, Turbonycoll 600
- Eastman Turbo Oil 2380

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
- Total Turbonycoll 160
- BP/Castrol/Eastman Turbo Oil 2389

RON 424 (Rotax Norm)

- AeroShell Sport Plus 4

DIN 51517-3 (Austro Engine)

- **Klübersynth GEM 4-68 N**

RON 451 (Rotax Norm)

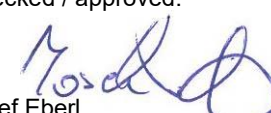
- **XPS 5W-50**

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 Techsupport, techsupport@mt-propeller.com, +49-9429-9409-44

ATTENTION:

In case oil with MIL-PRF-23699-HTS or SAE AS5780-HPC standard other than AeroShell Turbine Oil 560 is used, it needs to be replaced with the approved AeroShell Turbine Oil 560 within the next planned oil change interval or after 300 operation hours.

Edition:  Martin Albrecht Office of Airworthiness	Original Issue: November 19th, 2019 Revision 4: May 5th, 2026	Checked / approved:  Josef Eberl Head of Office of Airworthiness
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Approved mineral oils according to standard:

SAE-J-1966 (former MIL-L-6082)

Examples:

- AeroShell 65, 80, 100, 120
- Total Aero100, Aero120
- Phillips 66 Type M

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

ACEA A3/B4/C2/C3/E4/E7 (European Standard)

- 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:

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