AEROSHELL TURBINE OIL 750

AeroShell Turbine Oil 750 is a 7½ mm²/s synthetic mixed ester oil containing a thickener and additives which provide excellent load carrying, thermal and oxidation stability.

APPLICATIONS

AeroShell Turbine Oil 750 was developed to meet the requirements of DERD 2487 (now DEF STAN 91-98) and to provide a high standard of lubrication in British civil gas turbines, particularly turbo-prop engines where a good load carrying oil was required for the propeller reduction gearbox.

AeroShell Turbine Oil 750 is also approved by the Russian authorities as an analogue to MN-7.5u and for those Russian turbo-prop applications which require the use of mixtures of mineral turbine oil and aircraft piston engine oil.

AeroShell Turbine Oil 750 contains a synthetic ester oil and should not be used in contact with incompatible seal materials and it also affects some paints and plastics. Refer to the General Notes at the front of this section for further information.

SPECIFICATIONS

U.S.	–
British	Approved DEF STAN 91-98 (replaces DERD 2487)
French	Equivalent AIR 3517
Russian	Analogue to TU 38.1011722-85 Grade MN-7.5u
NATO Code	O-149 (equivalent O-159)
Joint Service Designation	OX-38

EQUIPMENT MANUFACTURER'S APPROVALS

AeroShell Turbine Oil 750 is approved for use in all models of the following engines:

Honeywell	Auxiliary Power Units (some models)
Pratt & Whitney Canada	PT6 (some models)
Rolls-Royce	Dart, Tyne, Avon (some early models only), Gnome, Pegasus, Palouste, Nimbus, Proteus, Orpheus, Olympus 200 and 300
Sikorsky	S-61N transmissions
Soloviev	D30 engine
Turbomeca	Astazou, Bastan, Turmo, Artouste, Arriel, Malika

PROPERTIES		DEF STAN 91-98	TYPICAL
Oil type		Synthetic ester	Synthetic ester
Density @ 15°C	kg/l	Report	0.947
Kinematic viscosity mm²/s			
@ 40°C		36.0 max	32
@ 100°C		7.35 min	7.47
@ –40°C		13000 max	10140
@ –40°C after storage @ –54°C for 12 hr		-	10800

Table continued

Table continued

PROPERTIES		DEF STAN 91-98	TYPICAL
Flashpoint Cleveland Open Cup	°C	216 min	242
Pourpoint	°C	–54 max	Below –54
Total Acidity	mgKOH/g	Report	0.03
Foaming characteristics		Must pass	Passes
Sediment Total ash of sediment	mg/l mg/l	10 max 1 max	Less than 10 Less than 1
Trace element content		Must pass	Passes
Elastomer swell tests		Must pass	Passes
Corrosivity, metal weight change		Must pass	Passes
Gear Machine Rating		Must pass	Passes
Shear Stability – viscosity change @ 40°C – condition of oil	% 	 2 max Must pass	 Less than 2 Passes
Compatibility and miscibility		Must pass	Passes
Homogeneity @ 210°C @ –40°C		 Must pass Must pass	 Passes Passes

A viscosity/temperature chart is shown at the end of this section.

AERO DERIVED IGTs: APPROVED STATUS
AEROSHELL TURBINE OILS

Engine Manufacturer	Engine	AEROSHELL TURBINE OIL				
		390	500	555	560	750
Allison	501K, 570K and 571K Series		Approved			
General Electric	LM 100, 250, 350 and 150		Approved	Approved	Approved	
	LM 2500		Approved	Approved	Approved	
	LM 5000		Approved		Approved	
	LM 6000		Approved		Approved	
Pratt & Whitney Canada (PWAC)	ST6-75, -76		Approved		Approved	
	ST6-73		Approved	Approved (1)	Approved	
	ST6A, ST6B, ST6J, ST6K, ST6L		Approved		Approved	
Rolls-Royce	Trent		Approved			
	Avon	Approved	Approved		Approved	
	Gnome					Approved
	Olympus			Approved	Approved	Approved
	Proteus					Approved
	RB211-22			Approved (2)	Approved (3)	
	RB211-24				Approved (3)	
	Spey Industrial	Approved			Approved	
	Spey Marine				Approved	Approved
	Tyne				Approved	Approved
Solar	Centaur		Approved (4)		Approved (4)	
	Mars		Approved (4)		Approved (4)	
	Saturn		Approved (4)		Approved (4)	
Honeywell	TF-25, -35, -40		?		?	

Table continued

Engine Manufacturer	Engine	AEROSHELL TURBINE OIL				
		390	500	555	560	750
Turbomeca	Astagaz XII & XIV	Approved	Approved			Approved
	Astazou IV	Approved				Approved
	Bastangaz IV, VI & VII	Approved	Approved			Approved
	Oredon IV		Approved			
	Turmagaz III	Approved				Approved
Turbo Power & Marine (Pratt & Whitney)	GG3/FT3		Approved		Approved	
	GG4/FT4		Approved		Approved	
	GG12/FT12		Approved		Approved	
	GG8/FT8				Approved	

Notes:

? Consult the engine manufacturer for details on latest approvals

(1) AeroShell Turbine Oil 555 can be used if SB 49-59 has been incorporated

(2) -22/Mk1 lube system combination only

(3) 10,000 hours max. on Viton "O" seals

(4) Oils approved on a unit by unit basis, not all units can use synthetic oils thus the manual for specific unit must be consulted or the unit manufacturer contacted.