



# BP Turbo Oil 2389

## Description

- BP Turbo Oil 2389 is a 3 cSt synthetic lubricant.
- BP Turbo Oil 2389 is approved against US military specification MIL-PRF-7808L grade 3 and incorporates a level of technology from Type II (5 cSt) commercial turbine lubricants.

## Applications & Approvals

- This lubricant combines the thermal and oxidation stability of our commercial 5 cSt synthetic lubricant, BP Turbo Oil 2380, with the ability to flow at extremely low environmental temperature. In addition, it has gear-carrying ability equal to or better than other approved MIL-PRF-7808L Grade 3 oils.
- BP Turbo Oil 2389 thus affords the military operator the lower viscosity advantage of MIL-PRF-7808L Grade 3 oils while providing the higher quality advantages of the Type II commercial oils, especially with respect to better thermal and oxidation stability.
- BP Turbo Oil 2389 has been approved by a wide range of engine and accessory manufacturers for their applicable equipment, including:

Rolls-Royce Ltd, Rolls-Royce Allison, GE, Pratt & Whitney, Pratt & Whitney Canada, Honeywell, Hamilton Sundstrand, CFMI, MTU, Solar and Turbomeca.

Please contact our local representatives shown in the Air BP website for approval details.

## Features & Benefits

- A major advantage of BP Turbo Oil 2389 is its ability to limit the formation of vapor phase deposits
- BP Turbo Oil 2389 provides load carrying ability well in excess of requirements established by the engine and accessory manufacturers.
- The superior low temperature viscosity of BP Turbo Oil 2389 makes it a better product for low temperature application. Many APU operators prefer to use 3 cSt oil, such as BP Turbo Oil 2389 for lubrication in order to improve its cold start reliability.

## Storage & Shelf Life

- The shelf life of BP Turbo Oil 2389 can extend beyond ten years when stored in original, unopened quart cans under recommended storage conditions, i.e. in a well ventilated and covered area away from extreme heat and moisture etc. 55-gallon drums and 5-gallon pails have an expected shelf life of three years minimum.
- For all package styles, shelf life can be increased significantly beyond those stated above, depending upon storage conditions.

Please contact your Air BP representative if you have any questions about product usability.



# BP Turbo Oil 2389

## Typical Properties

BP Turbo Oil 2389	Test Method	Result
Density @ 15°C, Kg/l	ASTM D1298	0.9511
Kinematic Viscosity, cSt, mm <sup>2</sup> /sec		
@ 100°C	ASTM D445	3.19
@ 40°C	ASTM D445	12.46
@ -51°C @ 3 hours	ASTM D-2532	7,800
Pour Point, °C	ASTM D97	- 60
Flash Point, °C	ASTM D92	220
Deposition test, avg. deposition rating	FED. Test Method	0.59
Acid no. change, mgKOH/g	STD.NO.791, 5003	11.2
Viscosity @40°C, % change		96
Oil consumption, ml		100
Evaporative Loss, % (6.5h, 205°C)	ASTM D972*	20.0
Foaming Characteristics (dynamic), Foam Volume, ml/collapse time, sec.	FED. Test Method STD. NO. 791, 3214	
80°C@1000cc/min		15/8
80°C@1500cc/min		45/8
80°C@2000cc/min		105/15
110°C@1000cc/min		20/8
110°C@1500cc/min		55/8
110°C@2000cc/min		170/18
Corrosion and Oxidative Stability, 96 hrs @ 200°C	FED Test Method STD.NO.791, 5307	
Al, wt. change, mg/cm <sup>2</sup>		0.00
Ag, wt. change mg/cm <sup>2</sup>		-0.02
Bronze, wt. change mg/cm <sup>2</sup>		+0.04
Fe, wt. change mg/cm <sup>2</sup>		+0.02
M-50, wt. change mg/cm <sup>2</sup>		-0.02
Mg, wt. change mg/cm <sup>2</sup>		-0.02
Ti, wt. change mg/cm <sup>2</sup>		0.00
Viscosity change, % @40°C		+9.5
Neut. No., change		0.96

Health, safety and environmental information are provided for this product in the Materials Safety Data Sheet. This gives details of potential hazards, precautions and First Aid measures, together with environmental effects and disposal of used products. Before using the product other than directed, please contact Air BP for consultation.

Created: January 31, 2005