



Product Data

Castrol Aero 40

Landing Gear Shock Strut Fluid

Description

Castrol Aero™ 40 is a high quality, mineral based MIL-H-5606 hydraulic fluid containing a highly shear stable viscosity index improver, an anti-oxidant, anti-wear agents, and an approved EP additive which reduce martensitic streaking of landing gear outer cylinders and galling of shock strut upper bearings. Aero 40 is available in either dyed red (Douglas Aircraft) or undyed, straw colored (Boeing Spec BMS 3-32, Type II).

Application

Aero 40 is designed for use in landing gear shock struts. It is compatible with approved MIL-PRF-6083 and other MIL-H-5606 qualified hydraulic fluids. It is not completely compatible with synthetic gas turbine lubricants nor with phosphate-ester hydraulic fluids. It is compatible with other petroleum-based and synthesized hydrocarbon lubricants but contamination should be avoided in order to maintain the unique properties of Aero 40. This product is compatible with seals, hoses and paints normally used in shock struts and dispensing equipment connected with this application. While certain grades of the above materials are fully compatible with Aero 40, it is advisable to confirm acceptability of use with either the material manufacturer or Castrol.

Specification

Aero 40 -Red is formulated in accordance with Douglas Aircraft Specification DPS 3.334, referenced as Douglas stock number DPM 6176. Additionally, Aero 40 is formulated as an alternative to Boeing Service Letters 707-SL-12-2; 727-SL-12-2; 737-SL-12-2; and 757-SL-27-15-B, which instruct the addition of an EP additive to either the standard or corrosion inhibited mineral based hydraulic fluid for use in their landing gear shock struts.

Typical Characteristics

TEST (ASTM)	DESCRIPTION	RESULT
D 287	API Gravity @ 15.6/15.6 °C (60/60 °F)	29.2
	Pounds per Gallon @ 16°C (60°F)	7.332
D 445	Kinematic Viscosity, cSt @ 100°C (212°F) @ 40°C (104°F) @ -40°C (-40°F) @ -54°C (-65°F)	4.71 13 510 2670
D 2270	Viscosity Index	344
D 92	Flash Point, COC, °C (°F)	108 (225)
	Fire Point, COC, °C (°F)	116 (240)
D 97	Pour Point, °C (°F)	-57 (-70)
D 130	Copper Strip Corrosion, 72 hrs @ 121°C (250°F)	1a
D 4172	Four-Ball Wear-Test, AWSD, mm 1 hr @ 1200 rpm, 40 hgf 75°C (167°F)	0.43
D 3233	Falex Wear Characteristics, 500 lbf, Reference Load	Pass

Subject to usual manufacturing tolerances.

Castrol Aero 40
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Castrol Industrial North America Inc. 150 West Warrenville Road, 605 3E Naperville, IL 60563
Tel: (877) 641 1600 Fax: (877) 648 9801
www.castrol.com/industrial