Product Data

Aero™ 40 Range

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 3-32C, 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.

Berreteaga N°6, A, 48150, Sondika (Bizkaia) · mendoza@comercialmendoza.es

Expertos en lubricación industrial y automoción

Experts in industrial and automotive lubrication

Typical Characteristics

Name	Method	Units	Aero 40	Aero 40 Red
API Gravity @ 16°C / 60°F	ASTM D287	°API	29.2	29.2
Density of finished oil @ 16°C / 60°F	In-house test	lb/gallon	7.332	7.332
Kinematic Viscosity @ 100°C / 212°F	ISO 3104 / ASTM D445	mm²/s	4.71	4.71
Kinematic Viscosity @ 40°C / 104°F	ISO 3104 / ASTM D445	mm²/s	13	13
Kinematic Viscosity @ -40°C / -40°F	ISO 3104 / ASTM D445	mm²/s	510	510
Kinematic Viscosity @ -54°C / -65°F	ISO 3104 / ASTM D445	mm²/s	2670	2670
Viscosity Index	ISO 2909 / ASTM D2270	-	344	344
Flash Point - open cup method	ISO 2592 / ASTM D92	°C/°F	108 / 225	108 / 225
Fire Point	ISO 2592 / ASTM D92	°C/°F	116 / 240	116 / 240
Pour Point	ISO 3016 / ASTM D97	°C/°F	-57 / -70	-57 / -70
Copper corrosion (72 hrs@121°C/250°F)	ISO 2160 / ASTM D130	Rating	1a	1a
Four Ball Wear test - Wear Scar Diameter (40 kgf / 75°C / 1200 rpm / 1 hr)	ASTM D4172	mm	0.43	0.43
Falex Pin & Vee Block test - Extreme Pressure properties	ASTM D 3233-03 (method A)	Pass	Pass	Pass

Subject to usual manufacturing tolerances.

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Castrol Industrial, Technology Centre , Whitchurch Hill , Pangbourne , Reading , RG8 7QR , United Kingdom

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