



## Brayco 717

Fluid, Power Transmission

### Description

Castrol Brayco™ 717 is a straw-colored, medium viscosity hydraulic fluid. It is a blend of highly refined petroleum basestocks and additives, which provide resistance to oxidation and corrosion, anti-wear properties and a high viscosity index.

### Application

Brayco 717 is designed for the hydraulic transmission of power in Naval ordinance hydraulic equipment. It provides corrosion protection in the presence of salt water and spray.

It can be used over an operating temperature range of -40°C to 122°C (-40°F to 250°F) and meets the requirements of military specification MIL-DTL-17111E which requires first article testing rather than formal qualification and approval.

This fluid is identified by NATO Code Number H-575.

# Typical Characteristics

Name	Method	Units	MIL-DTL-17111E specification	Brayco 717
<b>Base fluid</b>				
Acid Number	ASTM D 974	mg KOH/g	0.05 max.	0.01
Aniline Point change	ASTM D 611	°C	2.8 max.	0.6
Precipitation Number	ASTM D 91	-	0.05 max.	0.02
Aniline Point	ASTM D 611	°C	77 min.	83.4
<b>Finished Product</b>				
API Gravity	ASTM D 287	-	30-33 typical	30.9
Specific Gravity @ 15°C / 59°F	ASTM D 1298	-	0.859-0.875 typical	0.871
Density @ 15°C / 59°F	ASTM D 4052	lbs/gal	-	7.25
Kinematic Viscosity @ -35°C / -31°F	ASTM D 445	mm²/s	1000 max.	828
Kinematic Viscosity @ -20°C / -4°F	ASTM D 445	mm²/s	500 max.	278
Kinematic Viscosity @ 40°C / 104°F	ASTM D 445	mm²/s	25 min.	26.4
Kinematic Viscosity @ 100°C / 212°F	ASTM D 445	mm²/s	8 min.	8.8
Flash Point - open cup method	ASTM D 92	°C/°F	104 / 220 min.	110 / 230
Fire Point	ASTM D 92	°C/°F	113 / 235 min.	118 / 245
Acid Number	ASTM D 974	mg KOH/g	0.3 max.	0.1
Precipitation Number	ASTM D 91	-	0.05 max.	0
Water Content - Dean-Stark distillation test	ASTM D 95	% wt	0.0 max.	0
Color	ASTM D 1500	-	2 max.	<1
Low Temperature Turbidity (72 hrs @ -37°C / -35°F)	MIL-DTL-17111E spec 4.5.3.2	Pass	Pass	Pass
Rust test - distilled water (24 hrs)	ASTM D 665A	-	Pass	Pass
<b>Corrosion &amp; Oxidation Stability - 72 hrs @ 93.3°C / 201°F:</b>				
Change in Viscosity @ 100°C / 212°F	MIL-DTL-17111E spec 4.5.3.4.2	%	0 to 15	4.4
Change in Viscosity @ -20°C / -4°F		%	0 to 15	24.5
Acid Number - Oil Layer		mg KOH/g	0.5 max.	0.08
Acid Number - Water Layer		mg KOH/g	0.5 max.	0
Loss of liquid		g	10 max.	2.6
Evaporation Loss	ASTM D 972	% wt	20 max.	7.1
Water Sludging tendency @ 38°C	MIL-DTL-17111E spec 4.5.3.5	% Viscosity change	-2 to 10	8.1
Workmanship	MIL-DTL-17111E spec 3.2.5	Pass	Pass	Pass

Subject to usual manufacturing tolerances.

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