



Model: All Serial #: N/A	Mar. 25, 2020
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Top Drive Lube Oil Requirements

Canrig has updated the requirements for the Top Drive lube oil and provided recommended oils for specific temperature ranges. Canrig approved oils that meet the below specifications and required ISO or SAE Grade are shown on the next page. For approval of a specific oil not listed, contact RIGLINE 24/7™ Support.

Top Drive Gearcase Oil

Canrig top drives are designed to be used with ISO Industrial EP (Extreme Pressure) gear oils. EP oils are high quality, extreme pressure compounded type oils for use in all types of industrial gear sets except those with built-in variable speed type friction drive mechanisms. The use of EP ensures increased unit life under heavily loaded or shock loaded service conditions. The EP oils give superior rust protection to ferrous metal surfaces and are non-corrosive to steel, copper, brass, bronze and other common bearing materials. EP can be used in continuous service, with normal re-lubrication intervals, at temperatures up to 93°C. Above 93°C, the rate of sludging and additive depletion increases and more frequent oil changes may become necessary. Synthetic EP Gear Oils tend to resist thinning with increasing temperatures better than regular mineral EP Gear Oils and may be suitable over a wider temperature range.

Canrig Top Drives are designed to be used with gear oils that meet the following specifications or equivalent:

- ANSI/AGMA 9005
- API GL-5, MT-1

Table 1: Gear Oil

Ambient Temperature	A.G.M.A Number	Maximum Operating Temperature	ISO Grade	SAE Grade
-45°F to -4°F (-45°C to -20°C)	---	77°F (25° C)	32	---
-22°F to 32°F (-30°C to 0°C)	---	98.6°F (37° C)	68	---
14°F to 68°F (-10° to +20°)	2 EP	125.6°F (52°C)	100	75W-90
50°F to 104°F (10°C to 40°C)	3 EP	145.4°F (63° C)	150	75W-90
86°F to 140°F (30°C to 60°C)	4 EP	165.2°F (74°C)	220	75W-140 80W-140
104°F and up (40°C and up)	5 EP	176°F (80°C)	220 320	75W-140 80W-140

Table 2: Canrig-Approved Gear Oils

Approved Gear Oil	Ambient Temperature °F (°C)					
	-45°F to -4°F (-45°C to -20°C)	-22°F to 32°F (-30°C to 0°C)	14°F to 68°F (-10° to +20°)	50°F to 104°F (10°C to 40°C)	86°F to 140°F (30°C to 60°C)	104°F and up (40°C and up)
Shell Geartherm Arctic AS	X	X				
Chevron Delo Syn-Gear XDM 75W-90			X			
Chevron Delo Syn-Gear XDM 80W-140					X	X
Phillips 66 Triton Synthetic 75W-90			X	X		
Phillips 66 Triton Synthetic 80W-140					X	X
Phillips 66 Triton Syngear FE 75W-90			X	X		
Canrig All-Purpose Gear Oil 75W-90			X	X		
CITGO Citgear HD Synthetic 75W-90			X	X		
CITGO Citgear HD Synthetic 75W-140				X	X	
Shell Omala S2 G 68		X				
Shell Omala S2 G 100			X			
Shell Omala S2 G 150				X		
Shell Omala S2 G 220				X	X	
Chevron Meropa Synthetic EP 150				X		
Chevron Meropa Synthetic EP 220				X	X	X
Castrol Alphasyn EP 150				X		
Castrol Alphasyn EP 220					X	X
Mobil 1 Syn Gear Lube LS 75W-140				X	X	
AMSOIL Severe Gear Synthetic EP 75W-90			X			
AMSOIL Severe Gear Synthetic EP 75W-110				X		
AMSOIL Severe Gear Synthetic EP 75W-140				X	X	
Pilot SPx SynGear 75W-90			X	X		
Pilot SPx SynGear 80W-140					X	X