Product Data

Castrol Alpha® EP Gear Oils

High Performance Gear Oils

Castrol Alpha EP Gear Oils are formulated with premium solvent-refined, base oils to promote health, safety and performance. They are fortified with advanced extreme pressure additives containing no heavy metals. The combination of base oils and additives is designed to meet all industrial gear oil applications. **Castrol Alpha EP Gear Oils** meet AGMA, U.S. Steel and other industrial gear lubricant specifications.

Performance Benefits

- Excellent load carrying capacity - prevents premature wear of gear surfaces under rigorous operating loads.
- Highly resistant to oxidation - prevents sludging and varnishing, thus providing long service life.
- Excellent corrosion resistance - protects internal surfaces from entrained air and moisture-induced corrosion.
- Highly foam resistant - inhibited to prevent foam under the most rigorous operating loads.
- Increased lubricity/wear protection - the sulfur/phosphorous anti-wear package promotes wear protection and increased lubricity, thereby reducing gear case bulk oil temperatures.

Metal Safety

Castrol Alpha EP Gear Oils are compatible with all oil-resistant seals and metals. These oils can be added to competitive products. However, for optimum performance drain the reservoirs completely and refill with the OEM recommended viscosity grade.

Recommended Applications

Castrol Alpha EP Gear Oils are designed for use in all industrial lubricant applications where EP gear oils are specified by the equipment manufacturers or called for by system requirements. Longer gear life can be promoted by maintaining the full level specified on the gear case and by changing the oil as required by operating or ambient conditions.

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Typical Characteristics

Test Results	Alpha® EP 68	Alpha® EP 100	Alpha® EP 150	Alpha® EP 220	Alpha® EP 320	Alpha® EP 460	Alpha® EP 680
AGMA Grade	2 EP	3 EP	4 EP	5 EP	6 EP	7 EP	8 EP
ISO Viscosity Grade	68	100	150	220	320	460	680
Viscosity, ASTM D-445,							
@ 40°C, mm^2/sec	65.8	97.8	159.3	220	320	460	672.6
@ 100°C, mm^2/sec	8.7	11.1	15.3	19.4	25.3	31.3	36.4
Viscosity Index, ASTM D-2250	98	98	98	96	96	96	95
Flash Point, ASTM D-92, °C / °F	215/420	219/427	223/435	225 / 438	226 / 440	225 / 438	229/445
Specific Gravity @ 60°F, ASTM D-1298	0.88	0.88	0.89	0.89	0.90	0.90	0.91
Timken OK Load, ASTM D-2670, lbs	75	75	75	75	75	75	75

Summary Of Performance

TEST	Specification or Procedure*	Castrol Alpha EP 220 GO
Copper Corrosion, 3 hr/100C	D-130	1a
Timken OK Load, lbs.	D-2782	75
4 Ball EP		
Welding Load (kgf)	D-2783	250
LWI (kgf)		47
FZG Failure Load	DIN 51354 Part 2	13
Demulsibility	D-2711	
Free Water		83
Water in Oil (%)		0.5
Emulsion (ml)		0.01
Demulsibility (82.2C)	D-1401	39-41-0 (15 minutes)
Turbine Oil Rust	D-665	
a. Distilled Water		Pass
b. Synthetic Sea Water		Pass
Oxidation Test	US Steel 224	3.5
Viscosity Increase (%)		

*ASTM unless otherwise indicated.

Subject to usual manufacturing tolerances.

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