



XHVI HYDRAULIC OILS 32 - 150

PRODUCT DESCRIPTION

Hi-Tec XHVI Hydraulic Oils are specialised premium hydraulic fluids which have been formulated to handle the extremes of operating temperatures, pressures, power densities and fluid flow rates which are associated with very high horsepower hydraulic systems. The oils provide unique, long life operating service characteristics by a combination of anti-wear, detergent and very shear stable viscosity-improving additives with proven rust, oxidation, corrosion and foam inhibitors. **Hi-Tec XHVI Hydraulic Oils** ensure excellent filterability with hydrolytic and demulsibility stability.

BENEFITS

The anti-wear additives in **Hi-Tec XHVI Hydraulic Oils** ensure special protection where inherently high pressures, power densities and temperatures are experienced with high horsepower hydraulic pumps operating at pressures up to 28,000 kPa (4000 psi). These oils allow hydraulic systems to give long, trouble-free service when operating with this increased horse-power, increased temperatures, reduced oil reservoir volumes and resultant reduced de-aeration times.

Hi-Tec XHVI Hydraulic Oils possess excellent filterability even in the presence of moisture contamination; whereas other lubricants may have deposition products (formed as a result of hydrolytic instability particularly with non-ferrous hydraulic components) which plug filter systems leading to pump starvation, cavitation and ultimately premature equipment wear and failure.

Hi-Tec XHVI Hydraulic Oils are multi-grade oils which have smaller viscosity changes with temperature variations than the more conventional fluids. At the very high operating temperatures experienced in high horsepower hydraulic systems, this property results in improved full-bodied, wear reducing, lubricant films compared to the thinned-out fluidity of the more conventional hydraulic fluids. This special viscosity control property is maintained by the very shear stable viscosity improver (VI) incorporated in **Hi-Tec XHVI Hydraulic Oils**, when other lesser VIs would shear down to less wear-protecting thinned-out fluids shortening the life of the hydraulic equipment.

The high aniline point of **Hi-Tec XHVI Hydraulic Oils** ensures good compatibility with synthetic rubbers, giving extended life to seals.

The powerful oxidation inhibitors of **Hi-Tec XHVI Hydraulic Oils** reduce oxidation so that oil degradation is inhibited, thereby reducing the corrosion related problems of shortened hydraulic fluid life, erratic control valve operation, filter plugging, down time, etc.

The anti-foam additive in **Hi-Tec XHVI Hydraulic Oils** ensures any entrained air will quickly separate from the fluids so that wear producing metal-to-metal contact is avoided.

Hi-Tec XHVI Hydraulic Oils have multi-metal compatibility with the ability to control wear and corrosion of copper and aluminium alloys used in high performance pumps. Corrosion inhibitors and metal passivators formulated in these fluids prevent corrosion of steels and the previously mentioned more easily attacked metals in severe operating service conditions. While formulated with a low zinc formula, **Hi-Tec XHVI Hydraulic Oils** are NOT recommended for use with silver components as found in Lucas PM pumps. For these situations, use the Hi-Tec ZF range of products.

Hi-Tec XHVI Hydraulic Oils are not normally recommended as a lubricant for compressors, circulating systems, bearings, general purpose lubrication and enclosed gears where extreme high-pressure, load characteristics are not required. For these applications, use Hi-Tec Compressor Oils.

SPECIFICATIONS

Hi-Tec XHVI Hydraulic Oils meet the requirements specified for industrial and mobile hydraulic systems:

Vickers I-286-S, M-2950S
 Denison HF-1, HF-2, HF-0
 Cincinnati Milacron P-68, P-69, P70
 DIN 51524, Part 2 and 3
 SEB 181 222
 AFNOR NFE 48 603 (HM, HV)
 Other commercial hydraulics.

VDMA 24318
 SS 155434
 ISO 6743/4 (HM, HV)
 US Steel 127, 136
 AFNOR N FE 48-691 (wet)
 ASTM-D2619 HF-0

Hi-Tec suggests that the equipment manufacturers' recommendations for viscosity grade, performance requirements and general operating conditions should be checked prior to use.

TYPICAL PROPERTIES

Property	ASTM Method	Typical Results				
		32	46	68	100	150
ISO Viscosity Grade		2741	2743	2745	2747	2748
Item code (HI5-)						
Density (kg/Lt) @ 15°C	D-1298	0.869	0.863	0.871	0.875	0.894
Viscosity (cSt) @ 40°C	D-445	32.0	46.0	68.0	100	150
@ 100°C	D-445	6.38	8.40	11.0	14.8	20.0
Viscosity Index	D-2270	156	161	153	154	154
Flash Point, COC (°C)	D-92	207	215	228	229	230
Pour Point (°C)	D-97	-36	-36	-36	-33	-24
Colour	D-1500	1.0	1.0	1.0	1.0	1.0
Foaming Characteristics -						
All Sequences after Settling	D-892	Nil	Nil	Nil	Nil	Nil
Oxidation Characteristics -						
Hours to TAN 1.5	D-943	1500	1500	1500	1500	1500
Rust Prevention, Salt Water -						
After 48 hours	D-665B	Pass	Pass	Pass	Pass	Pass
Carbon Residue, Conradson (% wt)	D-524	0.03	0.04	0.04	0.04	0.05
Shear Stability, Viscosity Loss -						
At 40°C after 250 cycles	DIN 51382	1.6	2.5	3.3	3.3	5.0
TAN (mg KOH/g)	D-664	0.6	0.6	0.6	0.6	0.6
Zinc (% wt)	IP 308	0.030	0.030	0.042	0.030	0.030
Sulphated Ash (% wt)	D-874	0.071	0.071	0.071	0.071	0.071
Hydrolytic Stability	D-2619	Pass	Pass	Pass	Pass	Pass
FZG Gear Load, Stages Passed	DIN 51354/2	11	12	12	12	12