



HYDRAULIC HVI BLUE FLUIDS

PRODUCT DESCRIPTION

Hi-Tec Hydraulic HVI Blue Fluids are specialised premium hydraulic fluids which have been formulated to handle 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 Hydraulic HVI Blue Fluids** ensure excellent filterability with hydrolytic and demulsibility stability.

Hi-Tec Hydraulic HVI Blue Fluids 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.

BENEFITS

WEAR PREVENTION. The anti-wear additives in **Hi-Tec Hydraulic HVI Blue Fluids** ensure special protection where very high pressures, power densities and temperatures are inherently experienced with high horsepower hydraulic pumps operating at pressures up to 28,000 kPa (4000 psi). Thus these oils allow hydraulic systems to give long, trouble-free service when operating with the increased horsepower, increased temperatures, reduced oil volume reservoirs and resultant reduced de-aeration times.

Hi-Tec Hydraulic HVI Blue Fluids possess excellent filterability even in the presence of moisture contamination where other lubricants may cause deposition products which plug filter systems (formed as a result of hydrolytic instability particularly with non-ferrous hydraulic components). This may lead to pump starvation and ultimately premature wear, cavitation and equipment failure.

Hi-Tec Hydraulic HVI Blue Fluids are multigrade oils which, unlike the more conventional fluids, have smaller viscosity changes with temperature variations. At very high operating temperatures experienced in high horsepower hydraulic systems this property results in improved full-bodied, wear reducing, lubricating films compared to the thinned-out fluidity of the more conventional hydraulic fluids. This special viscosity control property is maintained by the very high shear stable viscosity improver (VI) incorporated in **Hi-Tec Hydraulic HVI Blue Fluids**, where other lesser VI's would shear down to less wear-protective thinned-out fluids and thus shorten the life of the hydraulic equipment.

The high aniline point of **Hi-Tec Hydraulic HVI Blue Fluids** ensures good compatibility with synthetic rubbers, giving extended life to seals. The powerful anti-oxidation inhibitors of **Hi-Tec Hydraulic HVI Blue Fluids** reduce oxidation so that degradation is inhibited; thereby reducing corrosion related problems of shortened hydraulic life, erratic control valve operation, filter plugging, down time and so on.

Hi-Tec Hydraulic HVI Blue Fluids 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, in severe operating service, prevent corrosion of steels and the above more easily attacked metals. While formulated with a low zinc formula, it is NOT recommended for silver components used in Lucas PM pumps. For these products use the Hi-Tec ZF range of products.

The anti-foam additive ensures any entrained air will quickly separate from the fluids so that wear producing metal-to-metal contact is avoided.

SPECIFICATIONS

Hi-Tec Hydraulic HVI Blue Fluids meet or exceed the following demanding performance requirements:

- Vickers I-286-S, M-2950S
- Racine-Variable volume vane pumps
- DIN 51524, Part 2
- AFNOR N FE 48-691 (wet)
- SS 155434; ISO 6743/4 (HM, HV)
- AFNOR N FE 48-603 (HM, HV)
- Haggblunds-Denison HF-1, HF-2, HF-0
- Cincinnati Milacron P-68, P-69, P-70
- US Steel 127, 136
- VDMA 24318
- SEB 181 222
- Other commercial hydraulics

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

PROPERTY		METHOD	22	32	46	68	100
ISO Viscosity		-	22	32	46	68	100
Item Code (HI5-)		-	2739A	2740	2742	2744	2746
Density @ 15°C	kg / L	ASTM D 1298	0.855	0.863	0.879	0.887	0.883
Viscosity @ 40°C	cSt	ASTM D 445	22	32	46	68	100
Viscosity @ 100°C	cSt	ASTM D 445	4.7	6	7.8	10.2	13.4
Viscosity Index		ASTM D 2270	136	136	139	135	133
Flash Point	°C	ASTM D 92	200	207	215	228	233
Pour Point	°C	ASTM D 97	-27	-25	-25	-25	-21
Foaming Characteristics- All sequences after settling		ASTM D 892	Nil	Nil	Nil	Nil	Nil
Oxidation Characteristics- Hours to TAN 1.5		ASTM D 943	1500	1500	1500	1500	1500
Rust Prevention, Salt Water After 48 hours		ASTM D 665 B	Pass	Pass	Pass	Pass	Pass
Carbon Residue Conradson % Mass		ASTM D 524	0.03	0.03	0.04	0.04	0.04
FZG Load Test	Stages Passed	DIN 51534/12	12	12	12	12	12