Product Data

Hyspin HVI Range

High Viscosity Index Anti-Wear Hydraulic Oils

Description

The Castrol Hyspin™ HVI range of high viscosity index (VI) oils is based on a carefully selected ashless (zinc free) additive system designed to meet and exceed the most exacting performance standards.

Applications

Hyspin HVI oils are intended for severely stressed hydraulic systems requiring a high level of anti-wear performance and fine filtration. In addition, Hyspin HVI exhibits excellent corrosion protection as well as outstanding thermal and oxidative stability. Hyspin HVI has excellent hydrolytic stability and separates rapidly from water contamination.

Hyspin HVI contains a shear stable additive system helps maintain the viscosity characteristics of the product over a wide temperature range even during prolonged use and imparts a very low pour point which enables the product to be used in very cold environments.

Applications include:

- Outdoor equipment which are likely to operate in wide temperature ranges, such as machinery subjected to cold start up conditions and high temperature continuous running. Examples include off-highway and marine applications.
- Indoor manufacturing equipment that incorporates control systems requiring minimal viscosity change with temperature. Examples include precision machine tools.

The Hyspin HVI range is fully compatible with elastomer materials commonly used for static and dynamic seals, such as nitrile, silicone and fluorinated (e.g. Viton) polymers.

Hyspin HVI is classified as follows:

DIN 51502 classification – HVLP
ISO 6743/4 - Hydraulic Oils Type HV

Hyspin HVI grades meet the requirements (for appropriate viscosity grade) of:

DIN 51524 Part 3
Cincinnati Lamb (Milacron) P 68-69-70
Denison (Parker Hannafin) HF-0
US Steel 126 & 127
Eaton (formerly Vickers) I-286-S & M-2950-S
Frank Mohn
Bosch Rexroth RE07075/RE90220

Advantages

- High viscosity index and low pour point enables the product to be used over a wide temperature range, with good shear stability which means no excessive loss in viscosity due to mechanical shearing.
- Excellent anti-wear performance provides extended wear protection for hydraulic pumps. Reduced down time due to unscheduled maintenance and savings from replacement part costs.
- Excellent water separation and hydrolytic stability means reduced down time through prolonged lubricant life and increased equipment reliability.
- Excellent thermal and oxidative stability provides reliable performance and extended oil life in severe applications. Minimal deposit formation gives a cleaner system and reduced frequency of filter changes.
- Excellent filterability characteristics (including in the presence of water) enables cost savings to be made due to increased filter life.

Typical Technical Characteristics

Test	Method	Units	HVI 15	HVI 32	HVI 46
ISO Viscosity Grade	-	-	15	32	46
Density @15.6°C	ASTM D 4052	g/ml	0.88	0.88	0.88
Viscosity @ 40°C	ASTM D 445	cSt	15	32	46
Viscosity @ 100°C	ASTM D 445	cSt	3.8	6.3	8.1
Viscosity Index	ASTM D 2270	-	>150	>150	>150
Pour Point	ASTM D 97	°C/°F	-48 / -54	-39 / -38	-36 / -33
Flash Point, COC	ASTM D 93	°C/°F	144 / 291	186 / 337	186 / 337
Foam Sequence I, Tendency, Stability	ASTM D 892	ml / ml	20 / 0	20 / 0	20 / 0
Demulsification 54°C, minutes to 40/37/3	ASTM D 1401	min	5	10	15
Air Release – minutes to 0.2%v @ 50°C	ASTM 3427	min	4	4	8
FZG Gear Failure Load Stage (A/8.3/90)	DIN 51354	-	-	11	12
Rust Test (24 hours Distilled Water)	ASTM D 665	-	Pass	Pass	Pass
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