

Hyspin HVI

High viscosity index anti-wear hydraulic oils

Description

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.

Application

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.

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 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

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 Characteristics

Test	Method	Unit	HVI 32	HVI 46	HVI 68
Density @15°C	ASTM D4052	g/ml	0.86	0.87	0.87
KV 40°C	ASTM D445	mm ² /s	33	46	68
KV 100°C	ASTM D445	mm ² /s	6.3	8.1	10.8
Viscosity Index	ASTM D2270	-	>150	>150	>140
Pour point	ASTM D97	°C	-54	-33	-33
Flash point, PMCC	ASTM D93	°C	186	206	200
Foam Seq I	ASTM D892	ml/ml	10/0	10/0	0/0
Water separability@54°C	ASTM D1401	min	10	15	10
Air release value	ASTM D3427	min	2.5	7.3	8.2
FZG fail stage (A8.3/90)	DIN 51354	-	11	12	12
Rust test 24 hrs distilled water	ASTM D665A	-	pass	pass	pass
Rust test 24 hrs synthetic sea water	ASTM D665B	-	pass	pass	pass
KV @ 100oC after 4 hrs KRL	DIN 51350	% loss	-	-	-

The above figures are typical of those obtained with normal production tolerance and do not constitute a specification.

Storage

All packages should be stored under cover. Where outside storage is unavoidable drums should be laid horizontally to avoid the possible ingress of water and the obliteration of drum markings.

Products should not be stored above 60°C, exposed to hot sun or freezing conditions.

Castrol Hyspin HVI

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