



Product Data

Castrol Hyspin AWH-M

High viscosity index anti-wear hydraulic oils

Description

The Castrol Hyspin™ AWH-M hydraulic oil range of shear stable high viscosity index lubricants are based on the latest stabilised zinc additive technology.

Application

Hyspin AWH-M contains a shear stable additive system which 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. It exhibits excellent corrosion and wear protection as well as outstanding thermal and oxidative stability. In addition, Hyspin AWH-M has excellent hydrolytic stability and separates rapidly from water contamination upon standing.

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 AWH-M 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 AWH-M is classified as follows:
DIN 51502 classification – HVLP
ISO 6743/4 - Hydraulic Oils Type HV

Hyspin AWH-M 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
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.
- Good filterability gives a cleaner system with less frequent filter changes.

Typical characteristics

Test	Method	Units	AWH-M 15	AWH-M 32	AWH-M 46	AWH-M 68	AWH-M 100	AWH-M 150
ISO Viscosity Grade	-	-	15	32	46	68	100	150
Density @ 15°C	ISO 12185/ ASTM D4052	g/ml	0.88	0.88	0.88	0.88	0.89	0.89
K.V. @ 40°C	ISO 3104/ ASTM D445	mm ² /s	15	32	46	68	100	150
K.V. @ 100°C	ISO 3104/ ASTM D445	mm ² /s	3.83	6.41	8.32	11.09	13.45	18.01
Viscosity Index	ISO 2909/ ASTM 2270	-	>150	>150	>150	>140	>130	>130
Pour Point	ISO 3016/ ASTM D97	°C/°F	<-51/<60	-45/-49	-42 /-44	-36/-33	-30/-22	-30/-22
Flash Point, COC	ISO 2592/ ASTM D92	°C/°F	205/401	210/411	215/419	226/440	226/440	232/450
Flash Point, PMCC	ISO 2719/ ASTM D93	°C	160	200	220	220	220	220
Foam Seq I	ISO 6247/ ASTM D892	mls	20/0	20/0	20/0	20/0	20/0	20/0
Water Separability @ 54°C	ISO 6614/ ASTM D1401	Mins	5	10	15	15	-	-
Water Separability @ 82°C	ISO 6614/ ASTM D1401	Mins	-	-	-	-	20	20
Air Release Value	ISO 9120/ ASTM D3427	Mins	4	4	8	8	12	24
FZG fail stage (A8.3/90)	ISO 14635-1/ DIN 51354	-	-	11	12	12	12	12
Rust Test (24 hrs Distilled water)	ISO 7210/ ASTM D665A	-	Pass	Pass	Pass	Pass	Pass	Pass
Rust Test (24 hrs Synthetic sea water)	ISO 7210/ ASTM D665B	-	Pass	Pass	Pass	Pass	Pass	Pass
K.V. @ 100°C after 4 hours KRL	DIN 51350 T6	% loss	-	-	9.5	-	-	-

Subject to usual manufacturing tolerances.

Castrol Hyspin AWH-M
02_10_2006, version 1.0
Castrol Hyspin AWH-M and the Castrol logo are trademarks of Castrol Limited.

All reasonable care has been taken to ensure that the information contained in this publication is accurate as of the date of printing. However, such information may, nevertheless, be affected by changes in the blend formulation occurring subsequent to the date of printing. Material Safety Data Sheets are available for all Castrol Ltd products. The MSDS must be consulted for appropriate information regarding storage, safe handling and disposal of a product.

Castrol Industrial North America Inc. 150 West Warrenville Road, 605 3E Naperville, IL 60563
Tel: (877) 641 1600 Fax: (877) 648 9801

www.castrol.com/industrial