



HLP-HM

Cost-Effective Hydraulic Oil

Description

A range of cost-effective rust & oxidation inhibited hydraulic oils. They have been formulated incorporating zinc-based anti-wear chemistry to prolong effective hydraulic system components' life and reduce equipment downtime.

The HLP-HM range exhibit excellent properties of anti-wear, oxidation and rust control, as well as good demulsibility and anti-foam characteristics. They are available in ISO grades 32, 46, 68, and 100.

Applications

HLP-HM oils are formulated for highly stressed hydraulic systems where high levels of anti-wear performance are needed and meet the filtration requirements of almost every hydraulic system. They are also suitable for other duties in which lubricants of high oxidation stability and lubrication performance are required, such as in lightly loaded gears, in some variable speed units and in bearings.

HLP-HM range is fully compatible with elastomer materials commonly used for static and dynamic seals, such as :

Nitril butyl (PERBUNAN* or BUNA N*)
Fluorinated (VITON*/TEFLON*)
Perfluorinated (KABREZ*)
Polyurethane (ADIPRENE*)
Polyester (HYTREL*) * Trade Marks

The HLP-HM oils meet the performance requirements of DIN 51 524 Part 2 'Hydraulic Oils Type HLP' and of ISO 6743/4 'Hydraulic Oils Type HM' (NF E 48-603 and NF E 60-203).

They meet the specifications/requirements of major manufacturers, including :

Denison HF-0, HF-1, HF-2
Vickers industrial machinery form I-286-S, M2950-S
Racine variable volume vane pumps
Mannesman Rexroth Hydromatik piston pumps
Sigma-Rexroth gear pumps
Cincinnati Milacron P-68, P-69, P-70
US Steel 127, 136
GM LH-04-1, LH-06-1, LH-15-1

Main Benefits

- Excellent anti-wear protection, oxidation resistance and thermal stability for effective hydraulics performance and extended component life

- Good filterability to maintain system cleanliness
- Good compatibility with Bartran and other mineral oils

Storage

All packages should be stored under cover to avoid the possible ingress of water and the obliteration of drum

markings. Products should not be stored above 60° C.

Health, Safety and Environment

Health, safety and environmental information is provided for this product in the relevant Materials Safety Data Sheet, which can be obtained by contacting the BP Lubricants and Fuels Technical Helpline on 1300 139 700. BP Australia, or its subsidiaries

will not accept liability if the product is used other than in the manner or with the precautions or for the purpose/s specified. Before the product is used other than as directed, advice should be obtained from the local BP office or Lubricants and Fuels Technical Helpline.

HLP-HM

Cost-Effective Hydraulic Oil

Typical Characteristics

Grade:	HLP-HM		32	46	68	100
Mnemonic:			HM32	HM46	HM68	HM100
Product Code:			217232	217256	217268	217281
	Test Method	Units				
Density @ 15°C	ASTM D1298	kg/L	0.879	0.884	0.888	0.892
Colour	ASTM D1500	rating	1.0	1.5	1.5	2.0
Flash Point (PMC)	ASTM D93	°C	210	214	218	220
Kinematic Viscosity						
@ 40 °C	ASTM D445	cSt	32	46	68	100
@ 100 °C	ASTM D445	cSt	5.4	6.8	8.7	11.1
Viscosity Index	ASTM D2270	-	102	101	99	96
Pour Point	ASTM D97	°C	-27	-27	-24	-18
Neutralisation Value	ASTM D664	mgKOH/g	0.50	0.50	0.50	0.50
Rusting Test (Distilled Water)	ASTM D665A		pass	pass	pass	pass
Copper Corrosion 3h/100°C	ASTM D130		1b	1b	1b	1b

Seal Compatibility Index	IP 278		15	13	10	7
24 h at 100 °C						
Foam Tendency/Stability	ASTM D892	mL/mL				
Sequence I			20/0	20/0	20/0	20/0
Sequence II			30/0	30/0	30/0	30/0
Sequence III			20/0	20/0	20/0	20/0
FZG Gear Test :	IP 334	stage	-	11	11	11
A/8.3/90 °C		failure				

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

This Data Sheet and information it contains is considered to be accurate at the date of printing. No warranty or representation, expressed or implied, is made as to the accuracy or completeness of the data and information contained in this publication.

It is the User's obligation to evaluate and use products safely and within the scope advised in the data sheet and to comply with all applicable laws and regulations. No statement made in this publication shall be construed as a permission, recommendation or authorisation given or implied to practice any patented invention without a valid licence.

OAZ9611

The Seller shall not be responsible for any loss or damage resulting from any hazards or risks identified in the data sheet and which are associated with petroleum products concerned (provided that this disclaimer shall not affect any statutory rights of the Buyer of the petroleum products concerned).

BP Australia Pty Ltd Lubes & Fuels Tech. Helpline: 1300 139 700
Melbourne Central Tower Fax (Australia): (03) 9268 4394
360 Elizabeth Street
Melbourne Victoria 3000

ABN 53004 085 616
© BP Oil International Ltd.

Last Modified: 04/09/2003 06:27:13