



BP Bartran HV

High viscosity index antiwear hydraulic oils

Description

The BP Bartran™ HV range of high viscosity index (VI) lubricants are based on a carefully selected ashless additive system designed to meet and exceed the most exacting performance standards.

Application

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

The selection of a shear stable VI Improver ensures that there is no excessive loss in viscosity due to mechanical shearing. The VI Improver also imparts a very low pour point which enables the product to be used in very cold environments.

These grades are intended for two main types of duty:

- Outdoor plant likely to operate in wide ranges of temperature - 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 a hydraulic fluid whose viscosity change with temperature is minimal. Examples include precision machine tools.

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

Bartran HV is classified as follows:

DIN classification – HVLP

ISO 6743/4 – Hydraulic Oils Type HV

Bartran HV 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 (formally Vickers) I-286-S & M-2950-S

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Advantages

- High viscosity index and low pour point enables the product to be used over a wide temperature range, with good shear stability means no excessive loss in viscosity due to mechanical shearing.
- Excellent antiwear performance provides extended wear protection for hydraulic pumps. Reduced down time due to unscheduled maintenance and savings from reduced 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.
- Good filterability characteristics in both wet and dry conditions enables cost savings to be made due to increased filter life.

Typical Characteristics

Test	Method	Units	HV 15	HV 22	HV 32	HV 46	HV 68	HV 100
ISO Viscosity Grade	-	-	15	22	32	46	68	100
Density @ 15°C	ISO 12185/ ASTM D4052	g/ml	0.88	0.88	0.88	0.88	0.88	0.89
K.V. @ 40°C	ISO 3104/ ASTM D445	mm ² /s	15	22	32	46	68	100
K.V. @ 100°C	ISO 3104/ ASTM D445	mm ² /s	3.83	4.8	6.41	8.32	10.8	13.45
Viscosity Index	ISO 2909/ ASTM 2270	-	>150	>150	>150	>150	>140	>130
Pour Point	ISO 3016/ ASTM D97	°C/°F	<-51/ <-60	-48/-54	-45/-49	-42/-44	-36/-33	-30/-22
Flash Point, COC	ISO 2592/ ASTM D92	°C/°F	205/401	205/401	210/411	215/420	226/440	226/440
Flash Point, PMC	ISO 2719/ ASTM D93	°C	160	175	200	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	10	15	15	-
Water Separability @ 82°C	ISO 6614/ ASTM D1401	Mins	-	-	-	-	-	20
Air Release Value	ISO 9120/ ASTM D3427	Mins	4	4	4	8	8	12
FZG fail stage (A8.3/90)	ISO 14635-1/ DIN 51354	-	-	-	11	12	12	12
Rust Test (24 hrs Distilled water)	ISO 7210/ ASTM D665B	-	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.

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BP Limited, Pipers Way, Swindon, Wiltshire SN3 1RE, UK
www.castrol.com/industrial