



Hyspin AWS...HX Range

Anti-wear hydraulic oil

Description

Castrol Hyspin™ AWS...HX hydraulic oil range is based upon highly refined mineral oil enhanced with a stabilised zinc additive system.

Application

Hyspin AWS...HX has been specially formulated to provide good anti-wear and thermal stability performance using proven additive technology. The careful blend of additives with a high quality base stock ensures that Hyspin AWS has excellent hydrolytic and oxidative stability while exhibiting a minimal tendency to produce sludge and deposits. In addition, Hyspin AWS provides corrosion protection to ferrous and yellow metal components found within a hydraulic system. This range is designed for use in industrial hydraulic systems which require antiwear protection such as lightly loaded gears, variable speed units and bearings. The Hyspin AWS range is compatible with the most commonly used nitrile, silicone and fluropolymer seal materials..

Hyspin AWS...HX is classified as follows:

DIN 51502 classification - HLP

ISO 6743/4 - Hydraulic Oils Type HM

Hyspin AWS...HX is approved by:

- Bosch Rexroth Fluid Rating List RDE 90245
- Parker Hannifin (Denison) HF0, HF1 & HF2
- Eaton E-FDGN-TB002-E
- Eaton Brochure 03-401-2010

Hyspin AWS...HX meets the requirements (for appropriate viscosity grades) of:

- DIN 51524 Part 2
- Fives Cincinnati P68, P69 & P70
- ASTM D6158 HM (2005)
- ISO 11158 HM
- US Steel 126

Advantages

Hyspin AWS...HX has the following advantages when compared to conventional hydraulic oils:

- Good thermal and oxidative stability. Oxidative stability reduces deposit formation, resulting in a cleaner system. This can extend the machinery's operating life.
- Excellent anti-wear performance increases wear protection, which can help reduce downtime caused by unscheduled maintenance.
- Good filterability characteristics, including in the presence of water, enables cost savings to be made from increased filter life and reduced maintenance.
- Excellent water separation and hydrolytic stability, measured by industry standard testing. This increases equipment reliability, helping to prolong the lubricant's life and reduce downtime.

Typical Characteristics

Name	Method	Units	Hyspin AWS 32 HX	Hyspin AWS 46 HX	Hyspin AWS 68 HX
Appearance	Visual	-	Clear & Bright	Clear & Bright	Clear & Bright
Density @ 15°C / 59°F	SO 12185 / ASTM D4052	kg/m ³	853	876	881
Kinematic Viscosity @ 40°C / 104°F	ISO 3104 / ASTM D445	mm ² /s	32	46	68
Kinematic Viscosity @ 100°C / 212°	ISO 3104 / ASTM D445	mm ² /s	5.6	7.0	9.2
Viscosity Index	ISO 2909 / ASTM D2270	-	114	113	111
Pour Point	ISO 3016 / ASTM D97	°C/°F	-39/-38	-36/-33	-33/-27
Foam Sequence I tendency / stability	ISO 6247 / ASTM D892	ml/ml	10/0	10/0	10/0
Flash Point - open cup method	ISO 2592 / ASTM D92	°C/°F	216/421	238/461	242/468
Flash Point - closed cup method	ISO 2719 / ASTM D93	°C/°F	205/401	220/428	230/446
Water Separation @ 54°C / 129°F (40/37/3)	ISO 6614 / ASTM D1401	minutes	15	15	15
Air Release @ 50°C / 122°F	ISO 9120 / ASTM D3427	minutes	4	8	8
Rust test - distilled water (24 hrs)	ISO 7120 / ASTM D665A	-	Pass	Pass	Pass
Rust test - synthetic seawater (24 hrs)	ISO 7120 / ASTM D665B	-	Pass	Pass	Pass
FZG Gear Scuffing test - A/8.3/ 90	ISO 14635-1	Failure Load Stage	11	12	12

Subject to usual manufacturing tolerances.

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