

PRODUCT & TECHNICAL DATA

HYSPIN AWH-M SERIES Hydraulic Oils

DESCRIPTION

Castrol Hyspin AWH-M is a range of mineral oil based, anti-wear hydraulic fluids. The high viscosity index of the Hyspin AWH-M grades ensures that they are suitable for

use in marine hydraulic power systems such as winches, deck cranes, steering gears, hatch cover and hydraulic valve systems etc. Hyspin AWH-M series may also be used in certain marine gearboxes and for turbocharger lubrication.

FEATURES/BENEFITS

Hyspin AWH-M oils are multigrade hydraulic fluids, that is they have a high viscosity index (VI). This allows a single grade of oil to be used in marine hydraulic systems which operate in different climate zones. A particular feature of Hyspin AWH-M grades is the use of VI improvers with a very high resistance to shear.

Hyspin AWH-M grades contain a highly effective zinc based antiwear additive, as demonstrated by the four ball wear, vane pump wear and FZG gear test results.

To minimise the effects of water contamination Hyspin AWH-M grades have excellent water separability as measured by the severe ASTM D 1401 test.

Hyspin AWH-M grades also contain a highly effective corrosion inhibitor as demonstrated by the excellent result in the IP135B, (steel in sea water) corrosion test.

Hyspin AWH-M grades fully meet the air release and anti foam requirements of the major hydraulic fluid specifications. The oils also have excellent resistance to oxidation.

With the exception of silver plated components Hyspin AWH-M grades are fully compatible with all commonly used system metals and are compatible with most seal materials including Nitrile, Buna-N, Viton, EP & Silicone rubbers.

Hyspin AWH-M grades exceed the requirements on the DIN 51524 Pt.3 and Dennison HF-0 specifications. They also meet the requirement of the Vickers vane pump test.(ASTM D2882)

FEATURES/BENEFITS

Typical Characteristics	Test Method	AWH-M15	AWH-M32	AWH-M46	AWH-M68	AWH-M100	AWH-M150
ISO Grade		15	32	46	68	100	150
Relative Density @ 15°C, kg/ltr	IP160	0.87	0.88	0.88	0.88	0.88	0.89
Viscosity @ 40°C, cSt	IP 71	15.0	32.0	46.0	68.0	100.0	150.0
Viscosity @ 100°C, cSt	IP 71	3.8	6.3	8.1	10.9	13.3	17.7
Viscosity Index		150	150	150	150	130	130
Shear Stability	DIN 51382						
Viscosity Decrease @ 40°C% (250 Cycles)		1.0	1.0	2.0	3.5	5	6
Viscosity Decrease @ 100°C% (250 Cycles)		1.0	1.0	2.0	4.0	5.5	6.5
Flash Point, PMCC, °C	IP 34	144	186	186	190	190	190
Pour Point, °C	IP 15	-51	-42	-39	-39	-30	-30
Rust Prevention	IP 135B	No Rust	No Rust	No Rust	No Rust	No Rust	No Rust
Water Separability @ 54°C (min)	ASTM D1401	5	10	15	15	20	20
Denison Filterability Ratio (wet/dry)	TP-02100	1.5	1.5	1.5	1.5	1.5	1.5
Four Ball Wear (mm) 1h, 30 Kg 1460 rpm							
FZG Gear Test A/8.3/90	IP 239	0.33	0.32	0.3	0.3	0.3	0.3
Vane Pump test	DIN 51354	-	11	12	12	12	12
Total Ring & Vane Weight Loss (mg)	ASTM D2882						
Seal Compatibility Index		50	50	50	50	50	50
Particle Count	IP 278	15	10	9	8	6	4
Air release Valve (min)	ISO 4406	15/12	15/12	15/12	15/12	15/12	15/12
	IP 313	4	8	8	8	12	18

