PRODUCT DATA SHEET

Marathon AW Zinc Free Hydraulic Oil

Product Description

Marathon AW Zinc Free Hydraulic Oils feature ashless and zinc free formulation, ideal for environmentally sensitive areas. The oils contain viscosity index improvers with high shear stability. This component means dependable, year-round use in high-output hydraulic systems. Zinc Free Hydraulic Oils extend drain intervals and optimize oxidation, combatting sludge and varnish deposits, especially versus conventional anti-wear hydraulic oils. These fluids are also energy-conserving, with a low pour point to aid in cold temperatures. Zinc Free Hydraulic Oils provide a wide range of low-to-high operating temperatures, making them a stable fit in the harshest of operating conditions.

Features & Benefits

- ➔ **Zinc free (ashless)**
  Formulated for environmentally sensitive areas. Boosts oxidation stability and combats varnish
- ➔ **Reduced oil consumption**
  Improved anti-wear properties, shear, and oxidation stability, and extended oil change intervals
- ➔ **Superior demulsification (water separation)**
  Assists in water removal
- ➔ **Minimal viscosity variation and fast startups**
  Advanced polymer technology for dependable performance across extreme low-to-high operating temperatures and under severe service and heavy loads. Viscosity index improvers counter machine stress and lead to longer oil life
- ➔ **Robust filterability**
  Reduces filter blockages
- ➔ **Quick air release and antifoam properties**
  Limits pump cavitation in systems with high circulation rates

Industry and OEM Applications[1]

- Parker Denison HF-0 (HF-1 & HF-2 included under HF-0 designation)
- Eaton Vickers E-FDGN-TB002-E (supersedes I-286 & M-2950-S)
- DIN 51524 Part 2 & Part 3
- FIVES (formerly MAG, formerly Cincinnati Milacron) P-68, 69 & 70
- ASTM D6158-16
- ISO 1158 HV
- BOSCH Rexroth RE 90220

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Technical Data
(typical values)

ISO Grade		32	46
Viscosity @ 40°C, cST	D445	32.88	47.16
Viscosity @ 100°C, cST	D445	6.69	8.65
Viscosity Index	D2770	166	164
Specific Gravity @ 60°F, none	D21250	0.8582	0.8645
Pour Point, °C	D5950	-54	-51
Flash point, °C	D92	220	227
Color ASTM	D1500	L0.5	L0.5
Copper Corrosion, 3 hours @ 100°C	D130	2a	2a
Demulsibility	D1401	40-39-1 (10')	40-38-2 (10')
Oxidation Life, 3 hrs. to TAN = 2.0, min	D943	7,000	> 10,000
Rust, Procedures A & B, 24 hr	D665	PASS	PASS
Total Acid Number, mg KOH/g	D64	0.4	0.31
Dielectric Breakdown, kV2	D877	46	39

(1) Consult your owner's manual regarding its suitability for use in equipment from other OEMs. These hydraulics perform in most equipment without concern for fluid-related harm
(2) Breakdown Voltage (Dielectric strength) values were measured at point of origin and they will decrease if the oil becomes contaminated with dirt or even trace amounts of water

The recommended shelf life for these oils is typically 24 months from manufacturing date when stored properly in the original sealed containers.

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