

KLONDIKE Zinc Free AW 46 Hydraulic Fluid



PRODUCT DESCRIPTION

KLONDIKE Zinc Free Anti-Wear Hydraulic Fluid is a premium, long life formulation designed for high performance hydraulic systems. This advanced fluid provides outstanding operating and maintenance benefits for increased productivity and long service life.

APPLICATIONS

KLONDIKE Zinc Free Anti-Wear Hydraulic Fluid is designed as an environmentally safer alternative to conventional zinc based hydraulic fluid and is an excellent high pressure, high temperature power transfer fluid where vane, piston, and gear pumps are utilized. This fluid may also be used as a general purpose lubricant where straight mineral oils and conventional rust and oxidation inhibited oils are recommended in the appropriate viscosity grade. Such industrial applications may include (but are not limited to) machine tools, presses, die casting and injection molding machines among others.

Typical applications for KLONDIKE Zinc Free Anti-Wear Hydraulic Fluid include (but are not limited to):

- Heavy duty mobile and stationary equipment in exploration, construction, agriculture, marine, logging and mining industries.
- Specialized hydraulic pump systems with silver bearings as there is no zinc to displace the silver.
- Multi-use industrial equipment lubricant for plain/anti-friction bearings, air-line lubricators and other such uses.



FEATURES AND BENEFITS

KLONDIKE Zinc Free Anti-Wear Hydraulic Fluid is formulated using ultra-pure paraffinic base oils and high performance ashless additive technology. This high viscosity index, highly shear stable fluid has outstanding resistance to viscosity breakdown in the presence of heavy mechanical stress, high temperature, and high pressure resulting in optimum viscosity retention across the life of the fluid.

Zinc Free (ashless) additive technology utilizes specialized antiwear and friction modifying chemistry to achieve outstanding results in all key hydraulic component wear tests as well as a proprietary blend of metal passivator, demulsifier, rust inhibitor, and anti-foam agents for extended fluid life.

KLONDIKE Zinc Free Hydraulic Fluid is classified as 'inherently biodegradable' and 'not harmful' to freshwater and marine invertebrates (OECD 202, US EPA OPPTS 850.1035). It is designed to minimize environmental impact and have low environmental persistence. This greatly reduces the immediate and long-term environmental impact of the fluid in the event of an oil spill.

Meets industry requirements where environmentally sensitive fluids are necessary and recommended for use where fluids with low acute aquatic toxicity or low environmental persistence are preferred.

- **Smooth operation** — excellent fluid stability and viscosity retention for smooth power transfer.
- **Optimal oil service life** — high resistance to fluid oxidation and deposit formation for long expected service life.
- **Zinc-free chemistry** — non corrosive to silver and yellow metals found in some pumps.
- **Low environmental impact** — no heavy metals to contaminate water or soil.



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SPECIFICATIONS AND APPROVALS

KLONDIKE Zinc Free Anti-Wear Hydraulic Fluid meets the requirements of the following specifications and is recommended for use in (but not limited to):

- **Denison** (HF-0, HF-1 and HF-2)
- **Eaton Vickers** (I-186-S, M-2950-S)
- **Cincinnati Machine**
- **Bosch Rexroth** (mineral oil fluids for axial piston pumps RE 90220-01/09.09)
- **ISO 11158** (HV fluids)
- **DIN 51524-3** (HVL oil)
- **ASTM 6158** (HV mineral oils)
- **US Steel** 127, 136
- **GM** LH-04-1, LH-06-1, LH-15-1
- **Sauer Danfoss**
- **John Deere / Hitachi** (SUPER EX 46HN fluid equivalent)
- **Komatsu** (HM 46 fluid equivalent)

Other applicable uses may exist. Please contact KLONDIKE for more information.

TYPICAL TECHNICAL PROPERTIES

PROPERTY	TEST METHOD	ZINC FREE AW 46
Specific @ 15.6°C	ASTM D4052	0.86
API Gravity	ASTM D287	32.5
Viscosity @ 40°C, cSt	ASTM D445	46.0
Viscosity @ 100°C, cSt	ASTM D445	8.3
Viscosity Index	ASTM D2270	160
Pour Point, °C	ASTM D5950	-42
Flash Point, COC, °C	ASTM D92	230
Zinc, wt %	ASTM D5185	nil

All stated properties are typical of standard production and may vary. KLONDIKE reserves the right to change product specifications and/or performance properties at its discretion and without notice.

HEALTH AND SAFETY

This product is not expected to have adverse health implications when used for its intended application. For detailed information on safe handling of this product, refer to its Material Safety Data Sheet (MSDS). To obtain an MSDS on this or any other KLONDIKE product, please visit www.klondikelubricants.com or call 1-877-293-4691. When disposing of used product, be responsible to the environment.

BRAVING THE FORCE OF MOVEMENT

KLONDIKE stands for robust, reliable, high quality products tailored to suit the requirements of the on- and off-road heavy duty, automotive and industrial markets. Our solutions span from trend-setting retail lubricants through small-batch custom formulations to large bulk orders ready for immediate delivery.

The extensive KLONDIKE product range includes premium oils, lubricants, greases, chemicals and specialty fluids formulated with virgin base oils and protective inhibitors. Designed to handle the most extreme climates and operating conditions, the KLONDIKE products protect and extend the life of your equipment, optimize performance and improve productivity while meeting and exceeding industry standards and specifications.

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