

# TRIAX Powerflow HLP Hydraulic Extended Life Service 6000 hour Anti-Wear Extreme Performance Hydraulic Fluids

# PRODUCT Technical Sheet

# **Product Description**

TRIAX PowerFlow Hydraulic Oils are premium quality antiwear hydraulic fluids designed to provide optimal protection in high pressure applications and are formulated to provide excellent rust protection as well as foam inhibition, have excellent oxidation resistance and provide superior antiwear protection and water separating characteristics. TRIAX Powerflow Hydraulic Oils provide the highest level of protection and extremely long service drain interval in the most demanding work conditions, 6000 hours or more of maxium protection. Premium, highly refined base oils, together with NextGen additive package provide outstanding protection for rubber parts, gaskets and hoses in hydraulic system. TRIAX Powerflow HLP Hydraulic Fluids have a dielectric strength above 35kV and are non-conductive and are recommended for use in bucket hydraulic lifters for work on powerlines. TRIAX HLP Hydraulic fluids are also classified as HPLD, ultra high detergent fluids required for specific applications.

# **Benefits and Advantages**

- Specifically designed to maximize protection to hydraulic pump and their parts
- Virtually ZERO foaming in extreme work conditions
- Provide excellent demulsibility and rust protection
- Very high anti-wear additives concentration double that of regular AW fluids.
- Superior heat transfer properties to maximize continous work time.
- Superior filterability is provided with excellent thermal and hydrolytic stability thus preventing the formation of deposits which may interfere with filtration in equipment that has low tolerances
- Very high viscosity index guarantees exceptional viscosity stability, thus minimum viscosity changes with high temperature. Fluid will not thin out at high temperature operation.
- Flawless hydraulic response
- ▶ 6000 hours or more of oxidation and thermal stability allowing for extremely long fluid life

## **Performance Characteristics**

#### VIRTUALLY ZERO FOAMING

Exceptional quality foaming inhibitors and stabilizers, maximize hydraulic oil aeration, preventing the formation of foam and trapping air in the hydraulic system. TRIAX Powerflow products have shown virtually zero foaming in the most demanding conditions.

#### **EXTREME ANTI-WEAR PROTECTION**

Most hydraulic oils contain around 350-450 parts per million of antiwear additives and detergents. Powerflow products have double that amount, to guarantee very long equipment and pump life, up to three times longer than normal hydraulic oils. Hydraulic tests have show **20,000 hours of operation** with no noticeable pump, vane, cylinder, valve wear. Tests were performed on 44 pieces of equipment from Caterpillar, Komatsu, JCB, Hitachi and Terex across 3 years of extreme service. Overall operational savings

#### **CAVITATION PROTECTION**

TRIAX Powerflow hydraulic oils virtually eliminate hydraulic cavitation wear in mechanically sound equipment. Fluid stability, aeration and anti-foaming characteristics all play a critical role in preventing cavitation wear on valves, piston walls, cylinder walls. This fluid is recommended for high- and low-pressure gear, vane and piston stationary and mobile hydraulic systems, including those with bronze metallurgy.

#### **VISCOSITY STABILITY & HIGH TEMP PROTECTION**

Powerflow hydraulic oils have a very high viscosity index and contain premium viscosity stabilizers, preventing the oil breaking down at high temperatures, dramatically increasing high temperature protection, preventing leaks and system overheating, blockages.



Available Packaging 55 US gal (208 Liters) 5 US gal (18.2 Liters)

#### Specifications and Approvals

- PARKER HANNIFIN FRANCE (DENSION) HF-0, HF2, HF2
- EATON BROCHURE 03-401-2010
- MAG IAS P-68, P-69, P-70
- ► GM LS-2
- JCMAS HK
- US STEEL 127 & 136
- ▶ BOSCH REXROTH RD90220
- SAE MS1004
- DIN 51524 Part 1 and 2
- ▶ HPLD high detergency fluid
- ▶ JCB Standard: 4002/1000 (ISO 32)
- JCB Standard: 4002/0800 (ISO 46)
- JCB Standard: 4002/0700 (ISO 68)

## **Applications**

TRIAX Powerflow HLP Hydraulic Fluids are recommended for service in vane, piston, and gear pumps when used in accordance with the manufacturers'recommendations, including Parker Dennison hydraulics. Designed for heavy duty service to provide excellent service life to these pumps as well as to other circuit components such as motors and servos.

TRIAX Powerflow HLP Hydraulic Fluids are also recommended for use as a gear and bearing lubricant in industrial applications where rust and oxidation inhibited oils are required.

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## 42% Avearage Hydraulic Maintenance Savings per Year: Performance Comparison vs Regular Hydraulic Oils



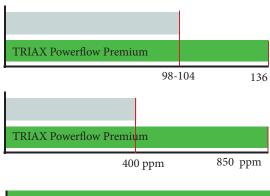
Most other fluids (represents an average of over 41 brands of hydraulic oil)

TRIAX Powerflow HLP Extended Life Hydraulic Fluid

Viscosity Index ISO 46 (resistance to change in temperature)

Anti-Wear Protection Zinc PPM (Parts per Million) - all grades

Useful fluid life: how long it takes for the protective additives in the fluid to



*36% Better viscosity stability and high temperature protection than most other hydraulic oils.* 

## 112.50% better anti-wear protection in the most extreme conditions. DOUBLE EQUIPMENT & PARTS LIFE



# **Chemical Properties and Typical Test Values**

TEST / Criteria	ISO 32	ISO 46	ISO 68
API Gravity	31.3	30.4	29.30
Viscosity Kinematic			
cSt, 40°C	32.9	46.50	68.50
cSt, 100°C	5.5	7.4	12.20
VI (Viscosity Index)	122	136	139
Flash Point (Celsius)	225	225	225
Pour Point (Celsius)	-35	-26	-21
Color	1.50	1.50	1.50
Oxidation Stability – ASTM D943 – Operating Hours to 2.0 AN	6000+	6000+	6000+
Air release - D3427	1.4	1.9	2.2
Foaming Sequences 1,2, 3 ASTM D892	0/0	0/0	0/0
Ш	0/0	0/0	0/0
	10/0	0/0	0/0
FZG test (A8, 3/90) - fail load stage, DIN51345	12	12	12
Copper Corrosion, 3 hrs, 121 C (ASTM D130)	1A	1A	1A
Rust Prevention ASTM D665			
distilled water	PASS	PASS	PASS
synthetic sea water	PASS	PASS	PASS
Water Separability @54 C, 0-W-E ml, min D1401	40-40-0 (15)	40-40-0 (15)	40-40-0 (20)
time to 3 ml emulsion, minutes	15	15	20
time 40-40-0, minutes	15	15	20

DID YOU KNOW THAT HYDRAU-LIC OIL REPRESENTS LESS THAN 3% OF HYDRAULIC SYS-TEM ANNUAL MAINTENANCE COSTS?

97% IS REPRESENTED BY DOWN TIME DUE TO EQUIP-MENT FAILURE AND HYDRAULIC PARTS REPLACEMENT COSTS

TRIAX POWERFLOW QUALITY: ITS ALL ABOUT SAVING YOU A LOT OF MONEY

