



TRIAX POWERFLOW HYDRAULIC OILS

Long-life Premium HLP Hydraulic Oils with Double Zinc and Extreme Thermal Stability

PROTECTION
LIKE NOTHING
ELSE™



POWERFLOW

FLAWLESS HYDRAULIC PERFORMANCE

**6,000 HOURS OF
UNCOMPROMISING
PROTECTION AND
DURABILITY**

DESCRIPTION

TRIAX PowerFlow Hydraulic Oils are premium quality anti-wear hydraulic fluids designed to provide extreme durability protection in high pressure severe, service applications. TRIAX Powerflow products are formulated to provide excellent rust protection as well as foam inhibition, have excellent oxidation resistance, provide superior anti-wear 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 maximum 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 power lines. TRIAX HLP Hydraulic fluids are also classified as HPLD, ultra high detergent fluids required for specific applications and provide outstanding hydraulic system cleanliness.

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. Powerflow Fluids are 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.

TRIAX POWERFLOW HLP 46 is a direct replacement for CAT HYDO 10 and CAT HYDO 10 Advanced hydraulic fluids from Caterpillar.

PERFORMANCE SUMMARY

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 anti-wear 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 shown 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.

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 and 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.

*6000 hour fluid life
in severe service.*

Reduces fluid related maintenance costs by up to 62% vs standard fluids.

*Virtually ZERO foaming
and ultra rapid aeration*

*Flawless hydraulic response in
severe service applications.*

*Double or triple anti-wear
protection vs regular fluids.*

*High VI INDEX for superior
viscosity stability.*

*Prevents cavitation, overheating
and loss of viscosity.*

*Provide excellent demulsibility
and rust protection.*

*Superb thermal transfer
properties.*

*Excellent shear stability will
maintain fluid viscosity*

SPECIFICATIONS

PARKER HANNIFIN FRANCE (DENISON) 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, 2 and 3
HPLD high detergency fluid
JCB Standard: 4002/1000 (ISO 32)
JCB Standard: 4002/0800 (ISO 46)
JCB Standard: 4002/0700 (ISO 68)



TRIAX POWERFLOW HYDRAULICS

Long-life Premium HLP Hydraulic Oils with Double Zinc and Extreme Thermal Stability

PERFORMANCE CHARACTERISTICS

- Most other fluids (represents an average of over 41 brands of hydraulic oil)
- TRIAX Powerflow HLP Extended Life Hydraulic Fluid



POWERFLOW

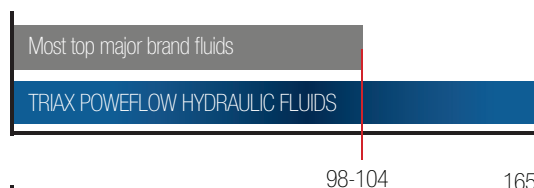
FLAWLESS HYDRAULIC PERFORMANCE

65% Better viscosity stability and high temperature protection than most other hydraulic oils.

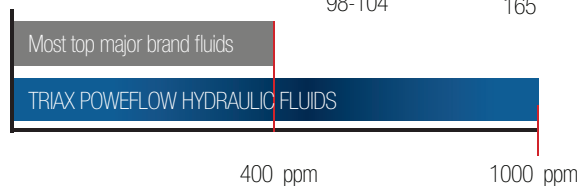
130% better anti-wear protection in the most extreme conditions.

IMPROVED EQUIPMENT & PARTS LIFE

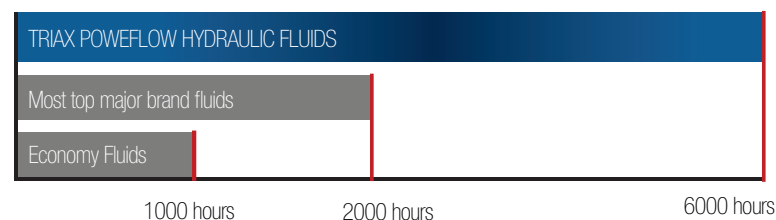
Viscosity Index ISO 46



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



600%-300% guaranteed longer fluid life vs most other hydraulic fluids.
SIGNIFICANTLY LOWER LUBRICANT COSTS

CHEMICAL INFORMATION

	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)	> 165	> 165	> 160
Flash Point (Celsius)	225	225	225
Pour Point (Celsius)	-45	-45	-30
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
ZINC CONTENT (PPM)			

ACTUAL PRODUCTS MAY HAVE SMALL VARIATIONS IN THESE NUMBERS, WHICH IS NORMAL FOR THE MANUFACTURING PROCESS AND DO NOT AFFECT PERFORMANCE