Nuto H Series

Premium Quality Anti-wear Hydraulic Oils

Product Description

Exxon Nuto H Series oils are premium quality anti-wear hydraulic oils intended for industrial and mobile service applications where anti-wear lubricants are required. They are formulated with high quality base oils and a select additive system that results in products that provide many desirable features to improve and prolong equipment life. Nuto H Series oils are designed to provide good performance in a range of hydraulic components used in systems subjected to moderate to severe operating conditions. Their high level oxidation and chemical stability helps control deposit formation and reduces the potential for sluggish system operation and valve sticking. They provide long oil/filter life and optimum equipment protection reducing both maintenance and product disposal costs. They provide good protection against rust and corrosion in high humidity operations or where low levels of moisture are unavoidable. Nuto H Series oils separate water readily and have good air release properties. These products meet the performance requirements of a wide range of hydraulic system and component OEMs.

Features and Benefits

The Nuto H Series hydraulic oils help reduce the potential for wear and corrosion, particularly where water or moisture is present. Their excellent oxidation resistance and chemical stability allow extension of oil and filter change intervals. Their high level of anti-wear properties result in exceptional equipment performance that not only results in fewer breakdowns but helps improve production capacity. Their good demulsibility characteristics permit the oils to work well in systems contaminated with small amounts of water yet readily separate large amounts of water.

The Nuto H Series oils offer the following benefits:

- Excellent anti-wear performance reducing pump wear and leading to long pump life
- Reduction of sludge and deposit formation in close-tolerance components such as servo-valves
- High performance and smooth hydraulic operations derived from fast air release, very good foam control and good water separability
- Exceptional corrosion protection reduces the negative effects of moisture on system components
- Excellent filterability to prevent filter blockage even in the presence of water
- Effective oxidation and chemical stability characteristics allows extension of oil and filter life

Applications

- Systems employing gear, vane, radial and axial piston pumps where anti-wear hydraulic oils are recommended
- Hydraulic applications where contamination or leakage are unavoidable
- Where small amounts of water are unavoidable and this water could damage components
- Systems containing gears and bearings where mild anti-wear characteristics are required
- Systems requiring load-carrying capability and anti-wear protection
- Applications where thin oil-film corrosion protection is an asset such as systems where small amounts of water exist
- Machines containing a wide range of components using various alloys in their designs

Specifications and Approvals

Meets or Exceeds the following industry specifications	ExxonNutoH 10	ExxonNutoH 15	ExxonNutoH 22	ExxonNutoH 32	ExxonNutoH 46	ExxonNutoH 68	ExxonNutoH 100	ExxonNutoH 150
Denison HF-0				X	X	X		X
Vickers I-286-S				X	X	X		
Vickers M-2950-S				X	X	X		
DIN 51524 PART 2	X		X	X	X	X	X	
ISO 11158 TYPE HM	X	X	X	X	X	X	X	X
Cincinnati Machine P-68				X				
Cincinnati Machine P-70					X			
Cincinnati Machine P-69						X		

Has the following builder approvals	ExxonNutoH 10	ExxonNutoH 15	ExxonNutoH 22	ExxonNutoH 32	ExxonNutoH 46	ExxonNutoH 68	ExxonNutoH 100	ExxonNutoH 150
Denison HF-0				X	X	X		
Cincinnati Machine								
P-68				x				
P-69						x		
P-70					x			

Typical Properties

Nuto H Series	ExxonNutoH 10	ExxonNutoH 15	EXXONNutoH 22	ExxonNutoH 32	ExxonNutoH 46	ExxonNutoH 68	ExxonNutoH 100	ExxonNutoH 150
ISO Viscosity Grade	10	15	22	32	46	68	100	150
Viscosity, ASTM D 445, cSt @ 40ºC								
cSt @ 40ºC	10	15	22	32	46	68	100	150
cSt @ 100ºC	2.71	3.45	4.42	5.40	6.7	8.5	11.1	14.6
Viscosity Index, ASTM D 2270	97	96	105	104	104	107	95	95
Copper Strip Corrosion, ASTM D 130	1A	1A	1A	1A	1A	1A	1A	1A
Rust Characteristics, ASTM D 665B	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Pour Point, ºC, ASTM D 97	-36	-24	-24	-24	-24	-18	-12	-12
Flash Point, ºC, ASTM D 92	170	182	206	212	226	234	242	258

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Density 15ºC, ASTM D 1298, kg/L	0.850	0.857	0.865	0.872	0.876	0.882	0.884	0.887
Demulsibility time (minutes) to 3ml emulsion;								
@ 54ºC	15	10	15	15	15	20	-	-
@ 82ºC	-	-	-	-	-	-	10	10

Health and Safety

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet (MSDS) are followed. MSDS's are available upon request through your sales contract office, or via the Internet. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment.