

Mobil DTE 10M Series

Hydraulic Oils

Product Description

Mobil DTE 10M Series oils are supreme performance anti-wear hydraulic oils engineered for wide temperature range applications. They exhibit optimum flow characteristics at sub-zero temperatures and are resistant to shearing and viscosity loss so that system efficiency is maintained and internal pump leakage is minimised at high operating temperatures and pressures. These high quality hydraulic oils with controlled low-temperature flow properties also provide maximised anti-wear protection for high pressure vane, piston and gear pumps. They provide long oil/filter life and optimum equipment protection reducing both maintenance costs and product disposal costs. They were developed in conjunction with the major OEMs to meet the stringent requirements of severe hydraulic systems using high pressure, high output pumps as well as handling the critical requirements of other hydraulic system components such as close clearance servo-valves and the high accuracy numerically controlled (NC) machine tools. Their multi-metal compatibility properties allow their use with system components employing various alloys in their designs.

The DTE 10M Series Oils are formulated with high quality base oils and a carefully balanced super-stabilised additive system that helps neutralise the formation of corrosive materials. They are designed to work with systems operating under severe conditions where high levels of anti-wear and film strength protection are needed, yet they are formulated to work where non-anti-wear hydraulic oils are generally recommended.

The DTE 10M Series Oils also have a history of proven performance in rotary screw compressor service in the natural gas industry.

Features and Benefits

The Mobil DTE 10M Series hydraulic oils provide outstanding low and high temperature performance. Their excellent oxidation resistance allows extension of oil and filter change intervals while assuring clean systems. Their high level of anti-wear properties and excellent film strength characteristics result in exceptional equipment performance that not only results in fewer breakdowns but helps improve production capacity. Their controlled demulsibility permits the oils to work well in systems contaminated with small amounts of water yet readily separate large amounts of water.

Features	Advantages and Potential Benefits
Quality Reserve	Assures long-term oil and equipment performance Maintains a high level of performance under extended severe service conditions
Exceptional Anti-Wear Protection	Reduces wear Protects systems using various metallurgy
High Viscosity Index	Wide temperature range performance Assures equipment protection at cold start-up temperatures Protects system components at high operating temperatures
High Shear Stability	Stay-in-grade viscosity under high shear conditions
Outstanding Oxidation Stability	Provides long oil and equipment life Reduces sludge and deposit formation Extends filter life



Features	Advantages and Potential Benefits
Desired Keep-Clean Properties	Reduces critical valve sticking and sluggish system performance Eliminates system deposit and sludge formation Improves filterability and filter life
Excellent Corrosion Protection	Prevents internal hydraulic system corrosion Reduces negative effects of moisture in systems Provides corrosion protection of multi-metallurgy component designs
Very Good Multi-Metal Compatibility	Assures excellent performance of various components Reduces requirements for additional products
Meets a Wide Range of Equipment Requirements	One product can replace several Minimises inventory requirements Reduced potential for product misapplication
Excellent Air Separation Characteristics	Reduces foaming and it's negative effects
Good Water Separation	Protects systems where small quantities of moisture are present Readily separates larger quantities of water
Innovative Keep Clean Properties	Reduces system deposits and sludging Protect critical components such as servo-valves Improves system response and eliminates valve sticking Improves total system performance

Applications

- Hydraulic systems critical to deposit build-up such as sophisticated Numerically Controlled (NC) machines, particularly where close clearance servo-valves are used
- Systems where cold start-up and high operating temperatures are typical
- Where small amounts of water are unavoidable and this water could damage components
- In systems containing gears and bearings
- Systems requiring a high degree of 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 are unavoidable
- Machines employing a wide range of components using various metallurgy
- Rotary screw compressors in natural gas service

Specifications and Approvals

Mobil DTE 10M Series meets or exceeds the following industry specifications:	11M	12M	13M	15M	16M	18M	19M
FZG Gear Test, DIN 51534 - Fail Stage	-	-	11	11	11	11	11
Vickers I-286-S (Quality Level)			X	X	X		
Vickers M-2950-S (Quality Level)			X	X	X		

Typical Properties

Mobil DTE 10M Series	11M	12M	13M	15M	16M	18M	19M
ISO Viscosity Grade	15	22	32	46	68	100	150
Viscosity, ASTM D 445							
cSt @ 40° C	15	22	32	46	68	100	150
cSt @ 100° C	3.72	4.85	6.10	7.86	10.02	12.84	16.55
Viscosity Index, ASTM D 2270	140	149	141	141	131	124	118
Brookfield Viscosity @ -18° C, ASTM D 2983, cP	400	530	1300	2150	5800	14000	25000
Shear Stability, CEC L-14-A-93, %KV Loss	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Density 15° C, ASTM D 4052, kg/L	0.859	0.859	0.874	0.879	0.884	0.888	0.895
Copper Strip Corrosion, ASTM D 130, 3 hrs @ 100° C	1B						
Rust Characteristics, ASTM D 665B	Pass						
FZG Gear Test, DIN 51534, Fail Stage	-	-	11	11	11	11	11
Pour Point, °C, ASTM D 97	-42	-48	-45	-42	-45	-37	-36
Flash Point, °C, ASTM D 92	188	188	210	216	218	228	268
Foam Sequence I, II, III, ASTM D 892, ml	20/0	20/0	20/0	20/0	20/0	20/0	20/0
Dielectric Strength, ASTM D 877, kV	35	50	45	40	42	45	-

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.

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