Mobil DTE™ Oil Named Series

Mobil Industrial , Estonia

Premium Performance Circulating Lubricants

Product Description

The Mobil DTE™ Oil Named Series of lubricants are premium performance circulating lubricants designed for applications including steam and hydro turbine sets and other systems where long lubricant service life is required. Mobil DTE Oil Named Series lubricants are formulated from highly refined base stocks and an additive system which provide an extremely high level of chemical and thermal stability, rapid and complete separation from water and a high resistance to emulsification. They provide excellent protection against rust and corrosion, including resistance to salt water, and good antiwear properties. They have a high viscosity index which ensures minimum variation of film thickness with temperature and minimum power loss during the warm up period. These grades have excellent air release properties which allow entrained air to separate, thus avoiding pump cavitation and erratic operation.

Mobil DTE Oil Named are the lubricants of choice for many users because of their reputation for long life, excellent equipment protection and outstanding versatility in the wide variety of industrial applications. DTE Oil Named lubricants are used widely in steam turbines and hydroturbines with splash, bath and ring-oiling arrangements, and all other continuous circulation methods involving pumps, valves and ancillary equipment. This product series is recommended for continuous service in the lubrication of plain and rolling bearings and parallel shaft gearing. They have also been used successfully in rotary air compressor applications and reciprocating natural gas compressors as well as vacuum pumps. Their reputation is based on many decades of successful service and satisfied users.

Features and Benefits

The Mobil DTE family of products is well known and highly regarded worldwide based on their outstanding performance and the R & D expertise and the global technical support which stand behind the brand. The highly versatile performance of Mobil DTE Oil Named oils has made them the oil of choice for a multitude of industrial equipment applications around the world.

Mobil DTE Named oils enjoy an excellent reputation in the lubrication of the circulation systems of steam turbines and hydro turbines, including geared turbines, plus a wide variety of ancillary equipment. As designs change and increase in severity, it is the challenge of our formulation scientists to understand the effect of these changes on the lubricant and to formulate these products for the broad versatility they are recognised for.

For the Mobil DTE Oil Named Series of lubricants, this process has resulted in the use of special base stocks for outstanding oxidation stability, plus a unique additive combination to ensure the excellent, wide-ranging performance of these oils. A review of the features, advantages and potential benefits of the product are shown below.

Features	Advantages and Potential Benefits
Very high level of chemical and thermal stability and resistance to sludging and varnishing	Long oil charge life in circulation systems and reduced oil replacement costs
	Less unplanned downtime and reduced maintenance costs
Excellent water release properties	Improved operating efficiency
Very good antiwear protection	Longer equipment life, reduced maintenance and downtime
Long term protection against rust and corrosion	Longer equipment life, reduced maintenance and downtime
High resistance to foaming and excellent air release	Avoids pump cavitation, noisy and erratic operation
Highly versatile - multiple applications	Rationalize inventory, reduced inventory costs

Applications

The Mobil DTE Oil Named Series of lubricants are premium performance circulating lubricants designed for applications where long lubricant service life is required. Specific applications include:

- Land-based and marine steam turbine, hydro turbine and some gas turbine circulation systems, including pumps, valves and other ancillary equipment
- Continuous service in plain and roller bearings and parallel shaft gearing
- Turbines with oil supplied by splash, bath, ring oiling or other mechanical means
- Moderate severity hydraulic pumps
- Compressors and vacuum pumps handling air, natural gas, and inert gases, and with discharge temperatures not exceeding 150C

Specifications and Approvals

This product has the following approvals:	MOBIL DTE LIGHT	MOBIL DTE MEDIUM	MOBIL DTE HEAVY MEDIUM	MOBIL DTE HEAVY
ABB Turbo HZTL 90572			X	
ABB Turbo HZTL 90617			X	

This product is recommended for use in applications requiring:	MOBIL DTE LIGHT	MOBIL DTE MEDIUM	MOBIL DTE HEAVY MEDIUM	MOBIL DTE HEAVY
GE Power GEK 27070	X			
GE Power GEK 28143A	X	X		
GE Power GEK 46506D	X			

This product meets or exceeds the requirements of:	MOBIL DTE LIGHT	MOBIL DTE MEDIUM	MOBIL DTE HEAVY MEDIUM	MOBIL DTE HEAVY
DIN 51515-1:2010-02	X	X	X	X
GE Power GEK 120498	X			
JIS K-2213 Type 2	X	X	X	

Properties and Specifications

Property	MOBIL DTE LIGHT	MOBIL DTE MEDIUM	MOBIL DTE HEAVY MEDIUM	MOBIL DTE HEAVY
Grade	ISO VG 32	ISO VG 46	ISO VG 68	ISO VG 100
Air Release Time, 50 C, min, ASTM D3427	2	3	4	8
Copper Strip Corrosion, 3 h, 100 C, Rating, ASTM D130	1B	1B	1B	1B
Density @ 15 C, kg/l, ASTM D4052				0.88

Property	MOBIL DTE LIGHT	MOBIL DTE MEDIUM	MOBIL DTE HEAVY MEDIUM	MOBIL DTE HEAVY
Emulsion, Time to 3 mL Emulsion, 54 C, min, ASTM D1401	15	15	20	
Emulsion, Time to 3 mL Emulsion, 82 C, min, ASTM D1401				30
Flash Point, Cleveland Open Cup, °C, ASTM D92	218	221	223	237
Foam, Sequence I, Stability, ml, ASTM D892	0	0	0	0
Foam, Sequence I, Tendency, ml, ASTM D892	20	50	50	50
Kinematic Viscosity @ 100 C, mm2/s, ASTM D445	5.5	6.9	8.7	10.9
Kinematic Viscosity @ 40 C, mm2/s, ASTM D445	31	44.5	65.1	95.1
Pour Point, °C, ASTM D97	-18	-15	-15	-15
Rust Characteristics, Procedure A, ASTM D665	PASS	PASS	PASS	PASS
Rust Characteristics, Procedure B, ASTM D665	PASS	PASS	PASS	PASS
Turbine Oil Stability Test, Life to 2.0 mg KOH/g, h, ASTM D943	5000	4500	3500	2800
Viscosity Index, ASTM D2270	102	98	95	92

Health and Safety

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ http://www.msds.exxonmobil.com/psims/psims.aspx

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Typical Properties are typical of those obtained with normal production tolerance and do not constitute a specification. Variations that do not affect product performance are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice. All products may not be available locally. For more information, contact your local ExxonMobil contact or visit www.exxonmobil.com

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