

Mobil DTE 700 Series

Premium Turbine Oils

Product Description

Mobil DTE 700 Series lubricants are the latest addition to the Mobil DTE turbine lubricant family of products, long recognized for their high quality and reliability. Mobil DTE 700 Series are Zinc-Free turbine lubricants specifically designed for use in gas and steam turbine applications. Mobil DTE 700 Series lubricants are formulated with carefully selected basestocks and additives, including antioxidants, rust and corrosion inhibitors and anti-foam agents. These components provide outstanding resistance to oxidation and chemical degradation over time. Mobil DTE 700 lubricants exhibit excellent water separability, resistance to emulsion formation and anti-foaming characteristics which provide reliable operation. Their enhanced air release properties are critical for turbine hydraulic control mechanisms.

The performance features of Mobil DTE 700 Series oils translate into excellent equipment protection helping increase turbine operation reliability, enabling reduced downtime and extended oil charge life. Mobil DTE 700 Series performance is evidenced by its ability to meet or exceed a wide range of industry standards and equipment builder specifications for steam and gas turbines used around the world.

Features and Benefits

Mobil DTE 700 Series offers the following features and potential benefits:

Features	Advantages and Potential Benefits
Meets or exceeds most major turbine equipment builder specifications and industry specifications (ISO VG 32)	Simplifies lubricant selection and application Assures compliance with equipment builder's warranty Minimize lubricant inventory
Superior oxidation, chemical and color stability	Designed to provide extended oil charge life and help reduce oil purchases and disposal costs Helps control deposit formation to help reduce filter plugging and equipment fouling for therefore reducing downtime and maintenance costs
	High level of turbine system reliability and reduced unscheduled downtime
Excellent water separability	Helps to insure good lubrication film to protect turbine bearings Maximizes water removal system efficiency and minimize oil replacement costs
Enhanced rust and corrosion protection	Prevents corrosion of critical oil system components for reducing maintenance and prolonging component life
Rapid air release and resistance to foaming	Prevents erratic operation, pump cavitation, reducing pump replacement and increasing pump efficiency
Zinc Free	Reduces environmental impact



Applications

Mobil DTE 700 Series are designed to meet or exceed the requirements of circulation systems of steam and gas turbines. Specific applications include

- Electric power generation for high output base load utilities
- Gas Turbine Combined Cycle Power Plants operating in base load or peak generation modes
- Gas turbines in Captive Power plants
- Gas or steam turbine prime movers
- Hydroelectric turbine applications

Specifications and Approvals

Mobil DTE 700 Series meets, exceeds or is approved against the following industry and builder specifications:	Mobil DTE 732	Mobil DTE 746
Alstom Power - HTGD 90117	X	X
ASTM 4304 Type I and III	X	
GEC Alstom NBA P50001A	X	X
China National Std GB 11120-89 L-TSA	X	X
DIN 51515 L-TD	X	X
DIN 51515 L-TG	X	X
GE GEK-27070	X	
GE GEK-28143A	X	X
GE GEK 32568 F	X	
GE GEK-46506D	X	
ISO 8068 L-TGB (Quality Level)	X	X
ISO 8068 L-TGSB (Quality Level)	X	X
JIS K-2213 type 2 w/add.	X	X
Siemens Industrial Turbomachinery MAT 81 21 01	X	
Siemens Industrial Turbomachinery MAT 81 21 02		X
Siemens Power Generation TLV 9013 04	X	X
Siemens Westinghouse PD-55125Z3	X	

Typical Properties

Mobil DTE 700 Series	732	746
ISO VG	32	46
Viscosity, ASTM D 445		
cSt @ 40°C	30	44
cSt @ 100°C	5.5	6.8
Viscosity Index, ASTM D 2270	117	113
RPVOT, ASTM D2272, minutes	1000	1000
TOST, time to 2.0 NN hours, ASTM D943, hours	10,000	10,000
Neutralization Number,mg/KOH g ASTM D974	0.10	0.10

Mobil DTE 700 Series	732	746
Pour Point, °C, ASTM D 97	-30	-30
Flash Point, °C, ASTM D 92	228	230
Density@15°C, kg/l, ASTM D 1298	0.85	0.86
Foam Sequence I, mL ASTM D892	0/0	0/0
Foam Sequence II, mL ASTM D892	0/0	0/0
Foam Sequence III, mL ASTM D892	0/0	0/0
Air Release, 50 C, mins,ASTM D3427	2	3
Demulsibility, @54C, time to 3ml emulsion, ASTM D1401, minutes	10	10
Rust Protection, ASTM 665B	pass	pass
Copper Corrosion, ASTM D130	1B	1B

Health and Safety

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application, following the recommendations provided in the Material Safety Data Sheet (MSDS). MSDSs are available upon request through your sales contract office, or via the Internet on <http://www.exxonmobil.com>. 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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