Mobil

Mobil DTE™ 700 Geared Series

Mobil Industrial , Guam

Premium Turbine Oils

Product Description

Mobil DTE™ 700 Geared Series lubricants are part of the Mobil DTE turbine lubricant family of products, long recognized for their high quality and reliability. They are specifically designed for use in gas, steam and combined cycle turbine as well as gas compressor applications operating under severe conditions. They offer excellent wear protection & optimized varnish control.

Mobil DTE 732 Geared and 746 Geared lubricants optimized formulation offers excellent thermal/oxidation resistance and deposit control required by severe duty gas turbines and gas compressors as well as excellent water separability needed for steam turbine operation. The formulations also include a non-zinc antiwear system to meet the load carrying requirements of the most demanding geared turbines.

The performance features of Mobil DTE 700 Geared Series oils translate into excellent equipment protection, reliable operation, with reduced down-time and extended oil charge life. These products also provide the ultimate flexibility to the operator because they can be used in all turbine types: steam, gas and geared-turbines as well as gas compressors

Features and Benefits

Mobil DTE 700 Geared Series oils offer the following features and potential benefits:

Features	Advantages and Potential Benefits
Meets or exceeds requirements of key gas / steam turbine and compressor builders	Avoids lube misapplication and costly change-out Reduces inventory costs
Excellent thermal/oxidation stability	Reduced downtime, more reliable operation Extended oil charge life; lower product costs Varnish protection and deposit control
Excellent antiwear protection	Excellent protection for highly loaded geared turbines (gas- and steam-), lower maintenance and replacement costs Extended equipment protection/life and reduced replacement costs
Excellent water separability	Helps to insure good lubrication film to protect turbine bearings / Maximizes water removal system efficiency and minimizes oil replacement costs
Rapid air release and resistance to foaming	Allows for reduced reservoir capacity, Prevents erratic operation and pump cavitation, reducing pump replacement and increasing pump efficiency

Applications

Mobil DTE 700 Geared lubricants are designed to meet or exceed the requirements of circulation systems of steam and gas turbines as well as gas compressors. Specific applications include:

• Geared turbines operating under high temperature and extremely high load, requiring excellent anti-wear protection

• Steam turbine or gas turbine units used for electric power generation, natural gas pipeline transmission, process operations and cogeneration plants.

• Combined cycle (CCGT) electric power generation applications including those with a common circulation system for the steam turbine and gas turbine.

• Other industrial applications requiring a high performance gas turbine oil, such as turbo compressors.

Specifications and Approvals

This product has the following approvals:	MOBIL DTE 732 GEARED	MOBIL DTE 746 GEARED
Siemens TLV 9013 04	X	X
Siemens TLV 9013 05	X	X

This product is recommended for use in applications requiring:		
GE Power GEK 28143B	X	

This product meets or exceeds the requirements of:		
ASTM D4304, Type I (2017)	X	X
ASTM D4304, Type II (2017)	X	X
ASTM D4304, Type III (2017)	X	X
Baker Hughes Nuovo Pignone ITN 52220.05	X	X
China GB 11120-2011, L-TGA	X	X
China GB 11120-2011, L-TGE	X	X
China GB 11120-2011, L-TGSB	X	X
China GB 11120-2011, L-TGSE	X	X
China GB 11120-2011, L-TSA(Class A)	X	X
China GB 11120-2011, L-TSA(Class B)	X	X
DIN 51515-1:2010-02	X	X
DIN 51515-2:2010-02	X	X
GE Power GEK 101941A	X	
GE Power GEK 107395A	X	
GE Power GEK 120498	X	
GE Power GEK 121608	X	
GE Power GEK 27070	X	
GE Power GEK 28143A	X	
GE Power GEK 32568Q	X	
GE Power GEK 46506D	X	
GE Power (former Alstom Power) HTGD 90117	X	X

This product meets or exceeds the requirements of:		
ISO L-TGA (ISO 8068:2019)	X	X
ISO L-TGE (ISO 8068:2019)	X	X
ISO L-TGSB (ISO 8068:2019)	X	X
ISO L-TGSE (ISO 8068:2019)	X	X
ISO L-TSA (ISO 8068:2019)	X	X
ISO L-TSE (ISO 8068:2019)	X	X
JIS K-2213 Type 2	X	X
Siemens Industrial Turbo Machinery 65/0027	X	X
Siemens Industrial Turbo Machinery MAT 812101	X	
Siemens Industrial Turbo Machinery MAT 812102		X
Siemens Industrial Turbo Machinery MAT 812106	X	
Siemens Industrial Turbo Machinery MAT 812107		X
Siemens Industrial Turbo Machinery MAT 812108	X	
Siemens Industrial Turbo Machinery MAT 812109		X
Siemens Westinghouse PD-55125Z3	X	
Solar Turbines ES 9-224, Class II	X	X

Properties and Specifications

Property	MOBIL DTE 732 GEARED	MOBIL DTE 746 GEARED
Grade	ISO 32	ISO 46
Air Release Time, 50 C, min, ASTM D3427	2	3
Copper Strip Corrosion, 3 h, 100 C, Rating, ASTM D130	1B	1B
Density @ 15 C, g/ml, ASTM D4052	0.8553	0.8565
Emulsion, Time to 3 mL Emulsion, 54 C, min, ASTM D1401	10	10
FZG Scuffing, Fail Load Stage, A/8.3/90, ISO 14635-1	12	12
Flash Point, Cleveland Open Cup, °C, ASTM D92	225	237
Foam, Sequence I, Tendency/Stability, ml, ASTM D892	5/0	0/0
Foam, Sequence II, Tendency/Stability, ml, ASTM D892	0/0	0/0
Foam, Sequence III, Tendency/Stability, ml, ASTM D892	5/0	0/0

Property	MOBIL DTE 732 GEARED	MOBIL DTE 746 GEARED
Kinematic Viscosity @ 100 C, mm2/s, ASTM D445	5.43	6.55
Kinematic Viscosity @ 40 C, mm2/s, ASTM D445	30.8	42.5
Pour Point, °C, ASTM D97	-32	-30
Rotating Pressure Vessel Oxidation Test, min, ASTM D2272	1434	1407
Rust Characteristics, Procedure B, ASTM D665	PASS	PASS
Turbine Oil Stability Test, Life to 2.0 mg KOH/g, h, ASTM D943	10,000+	10,000+
Viscosity Index, ASTM D2270	112	107

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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