

# GOLDENSTONE® Tps EP 32, EP 46

## Technical Data Sheet (TDS) POWER GENERATION OILS

### Description and Application

**Goldenstone® Tps EP** turbine oils are formulated with a special selection of highly refined hydrotreated base stocks, with very high resistance to deterioration, blended with a special, highly efficient ash-free additive package providing excellent oxidation stability, reliable corrosion protection and good anti-wear properties.

The premium quality turbine oils **Goldenstone® Tps EP** are designed to lubricate steam, water and gas turbines.

These turbine oils have superior oxidation stability demonstrated by more than 1000 hours in RBOT Test, and provide good corrosion protection. They are designed specifically for application in gas turbines and compressor units with a common (combined) lubricating system, requiring lubricants with mild EP properties. They meet and exceed the stringent requirements of Alstom, Siemens, GE and ASTM for lubricants passing minimum load stage 8 of FZG test

**Goldenstone® Tps EP** turbine oils are also suitable for lubrication of equipment and assemblies associated with turbines, as well as for systems governing them. Baths and circulating systems, oil-lubricated bearings of different types, from moderately to medium loaded assemblies and hydraulic systems under low to moderate pressures are among the other typical applications. The improved corrosion performance in synthetic sea water makes these turbine oils suitable for application in on-board compressors and turbines of different vessels as well as in other auxiliary ship equipment.

### Benefits

- Outstanding oxidation stability
- Very good water separability
- Maximum resistance to degradation
- Good antiwear properties

### Specifications

	Tps 32 EP	Tps 46 EP
ISO 6743-5	ISO L-TSA, TGA	
ISO 8068: 2006	L-TGB, L-TGSB	
ISO 8068	Type AR	
DIN 51515	Part 1 (L-TD), Part 2 (L-TG)	
British Standard	489 (CIGRE)	
ASTM D 4304	Type II (EP)	
MIL-L	17672 D	
Siemens TLV	9013 05 with EP properties	
ABB	HTGD 90117 V0001R117	
Skoda Power	Tp0010P/97	
Solar	ES9-224U	
CEGB Standard	207001	
Cincinnati Machine	P-38	P-55
General Electric	GEK 28143A, GEK 32568 F, GEK 46506D,	GEK 28143A

### Typical Characteristics

Parameter	Test Method	Typical Values	
		Tps 32 EP	Tps 46 EP
Density at 20°C, g/ml	EN ISO 3675	0.860	0.862
Kinematic Viscosity at 40°C, mm <sup>2</sup> /s	EN ISO 3104	32	46
Kinematic Viscosity at 100°C, mm <sup>2</sup> /s	EN ISO 3104	5.55	6.95
Viscosity Index	ISO 2909	110	107
Flash point COC, °C	EN ISO 2592	220	226
Pour point, °C	ISO 3016	-12	-9

Copper strip corrosion, 3h at 100°C, rating	EN ISO 2160	1a	1a
Air release properties, 50°C, min	ISO 9120	4	4
Water separability, sec	DIN 51589-1	30	40
Foaming characteristics, Tendency/ Stability, ml Seq I Seq II Seq III	ISO 6247	0/0 20/0 0/0	0/0 20/0 0/0
Oxidation stability test, - time to acid number of 2.0 mg KOH/g	ISO 4263	10 000	10 000
Oxidation stability test, - RBOT, min	ASTM D 2272	1100	1000
FZG test - fail load stage	DIN 51534- part 2	10	10

Important note: typical data values do not constitute a specification but are an indication based on current production and can be affected by allowable production tolerances. The right to make modifications is reserved.

### Health, Safety and Handling

Based on currently available information, this product is not expected to produce adverse effects on health when used for the intended application.

For more information about product MSDS, terms and conditions for storage and shelf life please visit:

[www.goldenstoneoils.com](http://www.goldenstoneoils.com)

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