



# GST<sup>®</sup> EP

## High performance anti-wear type steam and gas turbine fluid

### Product description

GST EP is a high performance anti-wear turbine fluid designed for use primarily in industrial gas and steam turbines, including those with reduction gear systems.

GST EP is formulated with premium base oils and an ashless anti-wear additive system, in combination with effective rust, oxidation and foam inhibitors.

### Customer benefits

- Ashless anti-wear additives promote reliable protection against wear and scuffing in loaded reduction gearbox component surfaces.
- Premium base oils and inhibitor systems contribute to long-term oxidation stability and resistance to oil breakdown, increasing system uptime.
- Premium base oils and oxidation inhibitors help resist harmful deposit formation in high temperature bearings and other hot areas.
- Rust inhibitor helps protect system components against corrosion. Good water separability offers rapid settling of water accumulated from steam condensate, or leakage from saltwater cooling.
- Non-Silicone foam inhibitors aid rapid release of entrained air, contributing to reliable operation of sensitive hydraulic control devices.

### Product highlights

- **Designed to promote reliable wear protection**
- **Contributes to long-term oxidation stability**
- **Helps resist harmful deposit formation**
- **Promotes corrosion protection**
- **Aids operation of sensitive hydraulic control devices**

#### Selected specification standards include:

ASTM	Ansaldo Energia
British Standard	Cincinnati Machine
DIN	GE
GEC Alstom	General Electric
ISO	JIS
MAN	Siemens
Solar	

## Applications

- Stationary industrial gas and steam turbines.
- Stationary industrial gas turbines with reduction gear sets.
- Industrial gas turbines in severe service.
- Hydraulic turbines.
- Rotating machinery in gas and steam combined-cycle cogeneration units.
- Bath and circulating systems supplying moderately loaded gear sets, low pressure hydraulic systems, vacuum pumps, rolling element bearings, machine tools, conveyors and electrical motors.
- Air compressors, turbo-blowers and centrifugal pumps requiring a rust and oxidation inhibited anti-wear oil.

*Not intended for use in aviation-derivative gas turbines.  
Must not be used in breathing air compressors.*

## Product maintenance and handling

Do not use in high pressure systems in the vicinity of flames, sparks, and hot surfaces. Use only in well-ventilated areas. Keep container closed.

Do not use in breathing air apparatus or medical equipment.

Avoid any spillage of used and unused product to the environment

Product residue and package/container should be disposed of in dedicated collection points.

## Approvals, performance and suitable for use

	GST EP 32	GST EP 46	GST EP 68
Ansaldo Energia AD00020487 (previous Ansaldo Energia G-HTCT689029 )	A	A	
Ansaldo EnergiaTGO2-0171-E00000/C, AE64.3A	A	A	
GE HTGD 90117 V0001 AC	A	A	
SIEMENS TLV 9013 04 / 05	A	A	
MAN Energy Solutions 10000494596 <sup>(1)</sup>	A	A	A
TGM Kanis WN000023 Rev. 15	A	A	
ASTM 4304 - typ I / typ II / typ III	M	M	M
ANSI/AGMA 90005-E02-R&O	M	M	M
ANSI/AGMA 90005-E02-EP	M	M	M
BS-489: 1999	M	M	
China National std GB 11120-2011 L-TSA Type A	M	M	M
China National std GB 11120-2011 L-TSA Type B	M	M	M
China National std GB 11120-2011 L-TSE Type A (Type B not existed)	M	M	M
China National std GB 11120-2011 L-TGA	M	M	M
China National std GB 11120-2011 L-TGE	M	M	M
China National std GB 11120-2011 L-TGSB	M	M	M
China National std GB 11120-2011 L-TGSE	M	M	M
DIN 51515 Pt. 1 2010-02, TD32, 46, 68,100	M	M	M
DIN 51515 Pt. 2, 2010-02, TG32&46	M	M	
GEC Alstom NBA P50001A	M	M	
GEC Alstom NBA P50003A	M	M	
GEK 101941A / 107395A / 120498 / 27070	M		
GEK 28143B	M	M	M
GEK 28143B, AW	M	M	
GEK 32568e-P	M		
GEK46506 d, e	M		
GE Oil and Gas, ITN52220.02 Table 1 Section 1, 2,3	M	M	
GE Oil and Gas, ITN52220.03 Par 16, Table 1 Section 1,2, 4	M	M	

ISO 8068 AR	M	M	M
ISO 8068 B	M	M	M
ISO 8068 L-TSA	M	M	M
ISO 8068 L-TGA	M	M	M
ISO 8068 L-TSE	M	M	M
ISO 8068 L-TGE	M	M	M
ISO 8068 L-TGB	M	M	M
ISO 8068 L-TGSB	M	M	M
ISO 8068 L-TGF	M	M	M
ISO 8068 L-TGSE	M	M	M
JIS K2213 type 2	M	M	M
Siemens MAT 812101	M		
Siemens MAT 812102		M	
Siemens MAT 812106	M		
Siemens MAT 812107		M	
Siemens MAT 812108	M		
Siemens MAT 812109		M	
Siemens Westinghouse PD-55125Z3	M		
SOLAR ES-9-224 Class II W	M	M	M
Toshiba LST-GMH-XUTW2-0005 Rev. 2	M		
Skoda Power TP0010P	M	M	
Cincinnati Machine (MAG) P-38	M		
Cincinnati Machine (MAG) P-55		M	
Cincinnati Machine (MAG) P-54			M
ASTM D6158-HL	M	M	M
ISO 11158-HM	M	M	M
DIN 51524/1 HL	M	M	M

<sup>(1)</sup> Restrictions are applicable: The product is only released for use if FZG requirement of FZG>10 exist on the part of the gearbox manufacturer or MDT system engineering.

**A:** Approved

**M:** Meets or exceeds requirements

Typical test data				
Test	Test Methods	Results		
Viscosity Grade		32	46	68
<b>Shelf Life: 60 months from date of filling indicated on the product label</b>				
Density at 15°C, kg/l	ASTM D1298	0.8618	0.8618	0.8618
Kinematic viscosity at 40°C, mm <sup>2</sup> /s	ASTM D445	32	46	68
Kinematic viscosity at 100°C, mm <sup>2</sup> /s	ASTM D445	5.4	6.8	8.8
VI	ASTM D2270	102	102	102
Pour Point, °C	ASTM D97	-30	-30	-30
Flash Point, °C	ASTM D92	222	224	245
Air release at 50°C, mins	ASTM D3427	2.1	2.3	3.6
FZG fail Load Stage	ASTM D5182	>12	>12	>12
Oxidation Stability				
Tost, hrs to 2.0 Acid N°	ASTM D 943	10.000+	10.000+	10.000+
RPVOT	ASTM D2272	1700	1400	1400

**Disclaimer:** Data provided in this Product Data Sheet (PDS) is based on standard tests under laboratory conditions and is indicative only. This product should not be used for any purpose other than those expressly set out in this PDS. The user has sole responsibility for verifying that this product is suitable for the user's intended application. Neither Chevron nor its subsidiaries (i) make any warranty or representation as to the accuracy or completeness of this PDS; and/or (ii) accept liability for any loss or damage suffered as a result of the use of this product other than in accordance with the terms of this PDS.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

When disposing of used product, take care to protect the environment and follow local legislation.

Safety Data Sheets (SDS's) are available for all Chevron products. If you require a SDS or any further information regarding a Chevron product, please contact your local sales office or see <http://europe.chevronlubricants.com>.

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