Regal SGT 22

Industrial & Marine Gas Turbine Oil

Product Data Sheet

A synthetic polyol-ester based turbine lubricant for use in aeroderivative gas turbines in stationary and marine service. It contains additives to resist oxidation, corrosion and wear, promoting high temperature thermal and oxidation stability.

APPLICATIONS

Regal® SGT 22 is recommended for aeroderivative gas turbines exposed to severe operating environments in non-aviation applications such:

- industrial power generation
- gas transmission
- marine propulsion.

BENEFITS

- **Extended service life compared to mineral oils**
  Oxidation and thermal stability of the synthetic polyol-ester base fluid and additive system work against oil breakdown under severe, high temperatureconditions. The low volatility of the synthetic polyol-ester acts against evaporative loss.

- **Minimum deposit formation**
  Reduced coking tendency of the synthetic polyol-ester base fluid and additive system minimises deposit formation on bearings and other areas exposed to the heat of the hot gases.

- **Good wide temperature range performance**
  The viscosity-temperature characteristics of the synthetic polyol-ester provide low temperature fluidity to facilitate starting at low temperatures, while promoting the availability of an effective lubricant film under severe, high temperature conditions to engender protection against wear of critical components.

PERFORMANCE STANDARDS

Approved against:

U.S. Military	Specification MIL-PRF-23699F STD (Approved)

Holds formal approvals for use in the following gas turbines:

Rolls Royce	RB211
Rolls Royce	Industrial Avon
Rolls Royce (Allison)	Industrial 501-K
GE Energy	Industrial Aeroderivative units

Not to be used in aircraft service.

Not recommended for applications where Solar Turbines Specification ES 9-224W is required (see Service Considerations).

TYPICAL CHARACTERISTICS

Product Code	TBA
Density at 15°C, kg/L	0.995
Acid No., mg KOH/g	0.16
Flash Point, COC, °C	270
Pour Point, °C	-57
Viscosity, mm^2/s at -40°C mm^2/s at 40°C mm^2/s at 100°C	 9500 25.6 5.1

PACK SIZES

208L.

SERVICE CONSIDERATIONS

Synthetic polyol ester lubricants slowly hydrolyze in the presence of water. High temperatures accelerate this process. Accordingly, Regal® SGT 22 should be stored indoors. Regal® SGT 22 is compatible and miscible with all other MIL-PRF-23699F STD approved oils. For this reason, changeover to Regal SGT 22 can be achieved by topping off. However, by virtue of differences in seal swell characteristics between oils, the engine / accessory manufacturers' approval should be obtained for any proposed oil change. Mixing of different viscosity grades is not recommended. Regal® SGT 22 is not compatible with mineral oils and should not be mixed with phosphate ester hydraulic fluids since such mixtures can adversely affect seal compatibility and coking propensity. Regal® SGT 22 is expected to be compatible with metals normally used in aeroderivative gas turbines and accessory equipment, and the majority of modern paints. Advice should be sought from the equipment manufacturer to confirm the compatibility of polyol ester fluids with the metals and paints used in their equipment. The following seal materials are compatible with Regal® SGT 22: Viton®, nitrile and silicone rubbers, PTFE and nylon.

MIL-PRF-23699F is the specification for synthetic aero-derived gas turbines and covers three classes of turbine oils:
- STD : Standard (Non-corrosion inhibiting);
- C/I : Corrosion Inhibiting
- HTS : High Thermal Stability

Solar Specification No ES 9-224W for lubricating oils for Solar Gas Turbine Engines covers 4 classes:
- Class I : Synthesized Hydrocarbons (like PAO)
- Class II : Petroleum Oils (like mineral oils)
- Class III : Synthetic Esters (complying with MIL-L-23699 Class C/I)
- Class IV : Phosphate Ester

Note that MIL-PRF-23699F STD (against which Regal SGT 22 is approved) does not meet Solar ES 9-224W Class III (which requires oils to comply with MIL-PRF-23699F C/I).

ENVIRONMENT, HEALTH AND SAFETY

Users should consult the MSDS, follow the precautions outlined and comply with all laws and regulations concerning its use and disposal. Used packaging material should not be incinerated or exposed to flame. After use, protect your environment. Do not pollute drains, soil or water with used product.

OTHER INFORMATION

For further information on Caltex products and services call the Lubelink Advisory Service on 1300 364 169 between 8.00am and 6.00pm (EST) Monday to Friday.

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