



Regal EP oils are premium performance, anti wear type turbine oil formulated from highly refined base stocks, an ashless anti wear additive system, rust, oxidation and foam inhibitors, and metal passivators. Specifically designed for use in gas turbines with reduction gear sets.

APPLICATIONS

- Stationary industrial gas turbines with reduction gear sets.
- Other gas turbines in moderate service where the lubricant is not exposed to extremely high temperatures. For high severity applications that do not require EP gear performance, GST Oil is recommended.
- Steam and hydraulic turbines under all operating conditions.
- All rotating machinery in gas and steam combined cycle cogeneration units.
- Bath and circulating systems supplying moderately loaded gear sets, moderate pressure hydraulic pumps, vacuum pumps, rolling element bearings, machine tools, conveyors, and electric motors.
- Air compressors, turbo blowers and centrifugal pumps requiring a rust and oxidation inhibited oil.

BENEFITS

- **Protects reduction gear sets**
Antiwear additive system forms a protective chemical film on heavily loaded gear tooth surfaces to assist in reducing wear and scuffing.
- **Good service life**
Highly refined base stocks and inhibitor system provide good long-term oxidation stability to resist oil breakdown. The metal passivators minimise the catalytic effect of copper components on oil breakdown.
- **Potential maintenance and downtime savings**
Highly refined base stocks and oxidation inhibitor system resist the formation of harmful deposits in high temperature bearings and other hot areas of the turbine. The rust inhibitor protects system components against corrosion. Good water separability ensures rapid settling of water accumulated from steam condensate, or leakage from saltwater contamination.
- **Potential inventory savings**
Non-silicone foam inhibitor allows rapid release of entrained air while minimising foam formation to enable reliable operation of sensitive hydraulic control devices. The multipurpose nature of the formulation enables use in a wide range of industrial applications, simplifying oil inventories and reducing the possibility of using the wrong lubricant.



PERFORMANCE STANDARDS

Approved against

Alstom	HTGD 90 117 V0001 W (ISO 32)
Siemens	TLV 9013 04 for turbosets with and without gearboxes

Meets the test requirements of the following specifications

ASTM	D4304-06a Type II
British Standard	BS 489:1999
German Standard	DIN 51515 Part 1 (2001)
Siemens	MAT 812101, 812106, 812108 (ISO 32) MAT 812102, 812107, 812109 (ISO 46)

TYPICAL CHARACTERISTICS

Product Code	3084	3085
ISO Viscosity Grade	32	46
Density at 15°C, kg/L	0.86	0.86
Flash Point, COC, °C	216	228
FZG, Failure Load Stage, A/8.3/90	9	9
Oxidation Stability, D943, h to 2.0 Acid No. IP 280 (TOP), m%	10,000+ 0.22	10,000+ 0.16
Pour Point, °C	-30	-30
Viscosity, at 40°C, mm ² /s at 100°C, mm ² /s	32 5.4	46 6.8
Viscosity Index	111	109

PACK SIZES

1000L, 205L



SERVICE CONSIDERATIONS

Premium quality turbine oils must be capable of lubricating and cooling the bearings while protecting the system against rust, corrosion and harmful deposits. Since turbine equipment is normally used in key applications, the reliability of the rotating machinery and its lubricant is critical.

Periodic monitoring of the oil in service is recommended to assure satisfactory performance of the turbine. The principal reasons for monitoring are two-fold: firstly, to determine the condition of the used oil and secondly, to disclose environmental or operational problems within the equipment. The oil should be visually inspected by the operator at frequent intervals for contaminants and/or appearance changes. Refer to ASTM D4378 for guidance on sampling and testing frequency. Samples should be taken from the discharge side of the oil pump while the system is circulating.

During service, effective purification of the lubricating oil is recommended for the removal of contaminants such as water and solids.

Care should be taken to insure against top-up and/or contamination from other products, as this could reduce the performance characteristics of Regal EP.

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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