CALTEX

PRODUCT BULLETIN

Regal® R&O

Industrial Turbine Oil

Premium quality, inhibited turbine oil formulated from highly refined base stocks and special rust, oxidation and foam inhibitors.

APPLICATIONS

- Steam and hydraulic turbines operating under all service conditions
- Industrial gas turbines operating under moderate service conditions where the oil is not exposed to excessively high temperatures
- Centrifugal, rotary and reciprocating compressors, turbo-blowers and centrifugal pumps, requiring a rust and oxidation inhibited oil (not recommended for use in breathing air compressors)
- Bath and circulating systems supplying rolling element bearings of all types, lightly loaded gear sets, vacuum pumps, machine tools (including computer controlled units), conveyors, electric motors, and low to moderate pressure hydraulic pumps where anti-wear properties are not required

PERFORMANCE STANDARDS

- British Standard BS 489:1983 (ISO 32 to 68)
- German Standard DIN 51515 Part 1
- Meets the requirements of major turbine builders including GE, Westinghouse, ABB and Siemens
- David Brown Table M Gear Oil Grades OM, IM, 2M, 3M (ISO 32 to 100, respectively)
- ANSI/AGMA 9005-D94: AGMA Lubricant Nos. 1,2,3 (ISO 46, 68, 100, respectively)
- Cincinnati Milacron P-38, P-55, P-54 (ISO 32, 46, 68, respectively)

KEY PROPERTIES

BENEFITS

Prolonged oil service life

The superior oxidation stability provided by the multi-component inhibitor system resists oil breakdown during exposure to high temperature conditions for longer service life.

Saves on maintenance and downtime

The highly refined base stocks and multi-component oxidation inhibitor system resist the formation of harmful sludge and varnish deposits. The special rust inhibitor protects components against corrosion.

Trouble-free operation

The excellent water separability of the highly refined base stocks and special inhibitor system ensure rapid settling of harmful water accumulated from steam condensate. The non-silicone foam inhibitor allows rapid release of entrained air while minimizing foam formation to enable reliable operation of sensitive hydraulic control devices.

Saves on inventory

The premium quality rust and oxidation inhibited formulation has multipurpose capability in a wide range of industrial applications for which this type of product is recommended, simplifying oil inventories and reducing the possibility of using the wrong lubricant.

ENVIRONMENT, HEALTH and SAFETY

Information is available on this product in the Caltex Material Safety Data Sheet (MSDS) and Caltex Customer Safety Guide. Customers are encouraged to review this information, follow precautions and comply with laws and regulations concerning product use and disposal. To obtain a MSDS for this product, visit www.caltexoils.com.

ISO Grade	32	46	68	100
Air Release @ 50°C, mins	2.9	3.8	6.2	–
Flash Point, COC, °C	212	224	234	254
Oxidation Stability,				
D943, hrs to 2.0 Acid No.	3000	3000	2700	2500
IP 280 (TOP), m %	0.24	0.26	0.27	0.28
Pour Point, °C	-9	-9	-9	-9
Viscosity,				
mm²/s @ 40°C	30.6	44.0	65.0	95.5
mm²/s @ 100°C	5.3	6.6	8.4	10.8
Viscosity Index	102	100	98	96

9708

Produced by ChevronTexaco Global Lubricants Solutions

CALTEX

Regal® R&O

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.

Regal R&O oils have demonstrated superior service in all types of industrial steam, gas and hydraulic turbines. Turbine equipment is expected to have a long, reliable service life because of its high cost and type of service such as electrical power generation.

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. If the appearance is normal, then semi-annual samples are sufficient for laboratory evaluation. 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 cross-contamination with other oils, as this could reduce the performance characteristics of Regal R&O.