DYNAMO LUBRICANTS

DYNA TURBINOL

ZINC FREE TURBINE LUBRICANTS

Dyna Turbinol Series lubricants are long recognized for their high quality and reliability. Dyna Turbinol Series are Zinc-Free turbine lubricants specifically designed for use in gas and steam turbine applications. Dyna Turbinol Series lubricants are formulated with carefully selected base stocks and additives, including antioxidants, rust and corrosion inhibitors and anti-foam agents. These components provide outstanding resistance to oxidation and chemical degradation over time. Dyna Turbinol lubricants exhibit excellent water separability, resistance to emulsion formation and anti-foaming characteristics which provide reliable operation. Their enhanced air release properties are critical for turbine hydraulic control mechanisms. The performance features of Dyna Turbinol Series oils translate into excellent equipment protection helping increase turbine operation reliability, enabling reduced downtime and extended oil charge life. Dyna Turbinol Series performance is evidenced by its ability to meet or exceed a wide range of industry standards and equipment builder specifications for steam and gas turbines used around the world.

Dyna Dyna Turbinol Series Oils are available in ISO VG 32, 46, 68

FEATURES & BENEFITS

Dyna Turbinol Series Oils offers the following features and potential benefits:

- Meets or exceeds most major turbine equipment builder specifications and industry specifications (ISO VG 32). Simplifies lubricant selection and application / Assures compliance with equipment builder's warranty / Minimizes lubricant inventory.
- Superior oxidation, chemical and color stability. Designed to provide extended oil charge life and help reduce oil purchases and disposal costs. Helps control deposit formation to help reduce filter plugging and equipment fouling for reducing downtime and maintenance costs. High level of turbine system reliability and reduced unscheduled downtime.
- Excellent water separability that helps to insure good lubrication film to protect turbine bearings / Maximizes water removal system efficiency and minimizes oil replacement costs.
- Enhanced rust and corrosion protection. Prevents corrosion of critical oil system components for reducing maintenance and prolonging component life.
- Rapid air release and resistance to foaming that prevents erratic operation and pump cavitation, reducing pump replacement and increasing pump efficiency.
- Zinc Free. It reduces environmental impact.

APPLICATION

Dyna Turbinol Series Oils are designed to meet or exceed the requirements of circulation systems of steam and gas turbines. Specific applications include

- Electric power generation for high output base load utilities.
- Gas Turbine Combined Cycle Power Plants operating in base load or peak generation modes.
- Gas turbines in Captive Power plants.
- Gas or steam turbine prime movers.
- Hydroelectric turbine applications

MANUFACTURED BY
D.K. LUBRICANTS (M) SDN BHD
SELANGOR D.E., MALAYSIA

INTERNATIONALLY MARKETED BY
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SINGAPORE

ISO CERTIFIED

PLATINUM

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DYNAMO LUBRICANTS

SPECIFICATIONS AND APPROVALS

Dyna Turbinol Series Oils meet or exceed the performance requirements of: ASTM D-4304 TYPE I, ASTM D-4304 TYPE II, ASTM D-4304 TYPE III, BRITISH STANDARD BS 489, DIN 51515 PART 1, DIN 51524 PART 1, DIN 51515 PART 2, Fives Cincinnati P-38, General Electric GEK-32568H, ISO 8068 L-TSA and L-TGA, ISO 8068 TGE TSE, ISO 11158 HH, ISO 11158 HL, SIEMENS AG TLV 9013 04 STANDARD THERMAL STABILITY, SIEMENS AG TLV 9013 05 HIGH THERMAL STABILITY

SPECIFICATION OF DYNA TURBINOL

PARAMETERS	ISO VG 32	ISO VG 46	ISO VG 68
Viscosity, ASTM D 445			
cSt @ 40°C	30	44	64
cSt @ 100°C	5.5	6.8	8.6
Viscosity Index, ASTM D 2270	117	113	110
RPVOT, ASTM D2272, minutes	1000	1000	1000
TOST, time to 2.0 NN hours, ASTM D 943, hours	10,000	10,000	8000
Neutralization Number,mg/KOH g ASTM D 974	0.10	0.10	0.10
Pour Point, °C, ASTM D 97	-30	-30	-30
Flash Point, °C, ASTM D 92	228	230	242
Density @ 15°C, kg/l, ASTM D 1298	0.85	0.86	0.87
Foam Sequence I, mL ASTM D 892	0/0	0/0	0/0
Foam Sequence II, mL ASTM D 892	0/0	10/0	0/0
Foam Sequence III, mL ASTM D 892	0/0	0/0	0/0
Air Release, 50°C, mins,ASTM D 3427	2	3	4
Demulsibility, @ 54 °C, time to 3ml emulsion, ASTM D 1401, minutes	10	10	10
Rust Protection, ASTM 665B	pass	pass	Pass
Copper Corrosion, ASTM D 130	1B	1B	1B

These characteristics are typical of current production.
Whilst future production will conform to Dynamo specification, variations in these characteristics may occur.