Oxidation Stability
RBOT and TFOUT Bath

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ASTM D2112
ASTM D2272
ASTM D4742
IP 229

ASTM D2112
Oxidation Stability of Inhibited Mineral Insulating Oil by Pressure Vessel.
This test method is intended as a rapid method for the evaluation of the oxidation stability of new mineral insulating oils containing a synthetic oxidation inhibitor. This test is considered of value in checking the oxidation stability of new mineral insulating oils containing 2,6-ditertiary-butyl para-cresol or 2,6-ditertiary-butyl phenol, or both, in order to control the continuity of this property from shipment to shipment. The applicability of this procedure for use with inhibited insulating oils of more than 12 cSt at 40°C (approximately 65 SUS at 100°F) has not been established.

ASTM D2272
Oxidation Stability of Steam Turbine Oils by Rotating Pressure Vessel (RBOT).
This test method utilizes an oxygen-pressured vessel to evaluate the oxidation stability of new and in-service turbine oils having the same composition (base stock and additives) in the presence of water and a copper catalyst coil at 150°C.

ASTM D4742 - Oxidation Stability of Gasoline Automotive Engine Oils by Thin-film Oxygen Uptake (TFOUT)
This test method evaluates the oxidation stability of engine oils for gasoline automotive engines.
This test, run at 160°C, utilizes a high pressure reactor pressurized with oxygen along with a metal catalyst package, a fuel catalyst, and water in a partial simulation of the conditions to which an oil may be subjected in a gasoline combustion engine. This test method can be used for engine oils with viscosity in the range from 4 mm2/s (cSt) to 21 mm2/s (cSt) at 100°C, including re-refined oils.

IP 229 - Relative Oxidation Stability by Rotating Bomb of Mineral Turbine Oil (RBOT)
This method covers a rapid means for estimating the oxidation stability of new turbine oils having the same composition.

Art. LT/OS-197000/M
RBOT and TFOUT Bath
ASTM D2112 - D2272 - D4742

- Bath made in stainless steel for four vessels with capacity about 35 litres where the oxidation cylinders are turned at 100 rpm with a 30° angle according to ASTM specifications
- Bath temperature range from ambient to 199°C ± 0.1°
- Controlled by a digital thermo regulator PID with over-temperature alarm and PT100A
- Each rotating place is independent with motor switching
- Drain tap

Accessories

- LAB-101-971: oxidation pressure vessel RBOT/RPOVT, made in stainless steel, complete with O-ring, stem, needle valve, fast connection
- LAB-101-972: pressure gauge 0-200 psi, div. 5 (for each vessel)

Accessories for ASTM D2112

- LAB-101-974/A: glass container 175 ml
- LAB-101-974/C: glass cover
- LAB-101-922/CU: copper wire catalyst; 3 meters, pack of 5 pcs.
- LAB-101-441/P: silicon carbide paper 100 grit, pack of 100 pcs.
- LAB-100-371/50: silicone oil, can of 25 litres
- T-AS96C: thermometer ASTM 96C

Accessories for ASTM D2272

- LAB-101-974/A: glass container 175 ml
- LAB-101-974/B: cover in Teflon®
- LAB-101-974/D: spring made in stainless steel as per ASTM D2272
- LAB-101-922/CU: copper wire catalyst 3 meters, pack of 5 pcs.
- LAB-101-441/P: silicon carbide paper 100 grit, pack of 100 pcs.
- T-IP37C: thermometer IP 37C

Accessories for ASTM D4742

- LAB-101-978/A: glass container
- LAB-101-978/B: cover in Teflon®
- LAB-101-978/D: spring made in stainless steel as per ASTM D4742
- LAB-101-978/E: aluminum insert made of 2024
- T-AS102C: thermometer ASTM 102C

Alternative Pressure Gauge

- LAB-102-001-DPS-RF: digital manometers with record function
  - · Autonomous battery powered instrument with digital display designed to record pressure and temperature over long periods.
  - · High measuring accuracy, resolution and robustness
  - · High data security due to the use of a non-volatile memory
  - · Display of the actual pressure and the record status
  - · Recording of the pressure and temperature
  - · Connectable to a Data software for PC via USB
  - · Pressure connection with G1/4" thread (other threads on demand)

Optional Accessories

- LT/WM-227200: electric winding mandrel for copper wire catalyst coiling, mounted on solid base whit possibility to fix to bench, 220Vac 50/60 Hz