

Evaluation of Lubricants for Wear Preventative and Load Bearing Capacity

Reichert tester

The Reichert tester is an excellent tool for lubricant and additive manufacturers to evaluate the wear preventative (WP) and extreme pressure (EP) properties of their samples. This test was developed as a quick method to identify the formation of a lubricating film between two test surfaces. The Reichert Tester uses a drop in noise level (screeching) to identify when a lubricating film is successfully formed between the test surfaces.

This test rig consists of rigidly mounted test roller (cylinder) pressed against friction wheel which is cross-cylinder contact configuration. The friction wheel partially submerged in the lubricant bath under test. In this test, rig loading is applied through dead weights.

The Reichert Tester sees significant utilization by lubricant and additive manufacturers to evaluate and rank their products quickly in their development / product formulation phase. It is also very useful for additive depletion studies and lubricant selection for metallurgy. This tester also sees use as an effective tool to determine lubricant quality while in use in machinery. Its requirement for a small sample volume allows maintenance staff to withdraw small lubricant samples from machinery and run a quick test to determine if it is time to replace the lubricant. This tester is capable of testing both, lubricating oils and greases.

ordering information

| catalog no. | description |
|-------------|-----------------|
| K95800 | Reichert Tester |

accessories

| | |
|----------|----------------------------------|
| K95800-1 | Data Acquisition System |
| K95800-2 | Digital Microscope with Software |
| K95800-8 | Acoustic Emission Sensor |



K95800 Reichert Tester

specifications

Frictional Force:

0 to 980.7N (0 to 100 kg) in 1N (0.1 kg) increments

Friction Force Accuracy: $0.1 \pm 1\%$ measured frictional force.

Normal Load: up to 500N (0 to 50 kg) – Loading level with pivot cam in 9.81 N (1 kg) increments

Normal Load Accuracy: $\pm 2\%$ measured normal load

Speed: up to 1500 RPM (continuously variable)

Temperature: -199 to 200 °C

Temperature Sensor: RTD

Sliding Speed: 0.85 to 2.50 m/s

Test Roller: 12 mm dia. x 18 mm length

Test Duration: 2 to 5 minutes

Sample Volume: approximately 25 mL

Data Acquisition: Online Data Acquisition of Frictional Torque, Temperature, Normal Load.

Electrical Requirements: 220V 50/60Hz 1 ph

Included Accessories

Weights

Dial Gauge

Test Rolls

- Brass (25)
- Copper (25)
- Aluminum (25)
- Bearing Steel (25)
- Friction Wheel (bearing steel) (25)