

CHANNEL POINT TESTER FOR GEAR OIL



Channel Point Tester for Gear Oil TT-40A

Channel Point Tester for Gear Oil TT-40A complies with FTMS-791B-3465.1 and SH/T 0030 standards. It is utilized to determine the channel point of gear oil at low temperatures.

The test involves storing an oil sample for 18 hours at a low temperature, cutting a channel in the lubricant with a metal strip, and determining whether the lubricant flows together to cover the bottom of the container within 10 seconds.

APPLICATIONS

The primary application of the Channel Point Tester for Gear Oil TT-40A is to determine the channel point of gear oils at low temperatures, in compliance with standards like SH/T 0030. The channel point is a specific low-temperature flow characteristic where the test determines if an oil is fluid enough to flow back and "heal" a channel cut into it. This is a critical performance property for lubricants used in splash-lubricated systems, like axles and differentials, to ensure that the gears will pick up the oil and receive adequate lubrication immediately upon a cold start.

Key Industries

- **Lubricant Manufacturing:** This is a crucial quality control and product development test for lubricant blenders who formulate automotive and industrial gear oils. It allows them to certify that their products will provide effective lubrication and not "channel" (i.e., become too stiff to flow) in equipment operating in cold climates.
- **Automotive and Heavy Equipment:** This industry relies on the channel point test to specify and qualify the gear oils and axle fluids for their vehicles and machinery. It is a key parameter for ensuring the durability and reliable performance of driveline components like differentials and final drives during cold weather operation.
- **Additive Manufacturing:** Chemical companies that produce pour point depressant (PPD) and other cold-flow improving additives use this test to evaluate the performance of their products. It helps them demonstrate how their additives can improve the low-temperature fluidity of finished gear oils.

FEATURES

- The tester features a floor-standing integrated structure with four universal wheels installed at the bottom, facilitating easy movement.
- It is equipped with a 5-inch LCD touch screen for intelligent temperature control.
- The built-in heating and cooling system enables precise control of both high and low temperatures within the same chamber, ensuring convenience and accuracy.
- Additionally, it comes with a glass window; after sampling, simply turn on the power and heating switch, and the test will be completed automatically.

TECHNICAL SPECIFICATIONS

1. Preheat temperature range: 46~48°C
2. Cooling temperature range: -60°C~0°C±1°C
3. Rated voltage: AC220V±10%, 50Hz (110V also available)
4. Power: 1500W



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