



TORONTECH

APPARATUS FOR LEAKAGE TENDENCIES OF AUTOMOTIVE BEARING GREASE



Apparatus for Leakage Tendencies of Automotive Bearing Grease TT-4290

Apparatus for Leakage Tendencies of Automotive Bearing Grease TT-4290 conforms to ASTM D4290 Standard Test Method for Determining the Leakage Tendencies of Automotive Wheel Bearing Grease Under Accelerated Conditions.

This method assesses the leakage tendencies of automotive wheel bearing grease, particularly relevant for automotive wheel bearing applications.

APPLICATIONS

The Torontech TT-4290 performs the accelerated leakage test for automotive wheel bearing greases as specified by ASTM D4290. This method subjects the grease to more severe conditions than standard tests to rapidly determine its ability to stay in place under high thermal and rotational stress. It is a critical tool for predicting lubricant performance in the most demanding wheel hub environments.

This accelerated evaluation is essential for qualifying greases in high-performance sectors:

- **Automotive R&D:** Accelerating the development cycle for next-generation greases intended for electric vehicles (EVs) and high-performance cars where hub temperatures are a primary concern.
- **High-Performance & Racing:** Certifying that specialty greases can withstand the extreme temperatures and speeds generated during racing conditions without leaking, which is critical for safety and reliability.
- **Heavy-Duty & Fleet Operations:** Qualifying robust greases for commercial trucks and buses, ensuring long-term retention and protection under the severe, continuous-use conditions of fleet service.
- **Lubricant Manufacturing (Premium Lines):** Serving as a stringent quality control benchmark for premium or synthetic grease formulations, rapidly verifying their superior thermal stability and retention properties.

FEATURES

- DC motor for rotation, ensuring low noise, stable speed, excellent mechanical performance, and minimal wear.
- The hub and shaft assembly feature a compact structure with minimal end clearance, utilizing bearings for reliability and wear resistance.
- Equipped with a digital display timer to record test time, along with a thermometer hole on the shaft assembly.
- Standard motor with 1/4 horsepower, operating at 1000 ± 50 revolutions per minute (r/min), with a total heating power of 1800W.
- The instrument is designed with integration for a durable appearance and easy operation.
- Incorporates a microcomputer temperature controller with digital display, providing accuracy within $\pm 1.5^{\circ}\text{C}$, utilizing a PT100 sensor.
- Features a unique heat pipe rod insert casting body box heating system for efficient heating.

TECHNICAL SPECIFICATIONS

1. Temperature range: Ambient to $180^{\circ}\text{C} \pm 1.5^{\circ}\text{C}$.
2. Timing method: Digital four-digit timer.
3. Heating method: Metal bath.
4. Temperature control mode: PID temperature controller.
5. Timing range: 0.01 seconds to 99 hours 99 minutes.
6. Power: 2.5KW.
7. Rated Voltage: AC 220V/50Hz.

8. Motor speed: 1000 revolutions per minute (r/min) $\pm$ 50 r/min.

9. Fan motor speed: 1550 r/min.

10. Thrust: 111N.



Torontech Inc.

251 Consumers Road, Suite 1200
Toronto, Ontario, M2J 4R3, Canada 

Phone: +1 416 368 2721 | Fax: +1 416 981 7652
Email: info@torontech.com

Torontech, LLC

601 Brickell Key Drive, Suite 700
Miami, FL 33131, USA 

Toll-Free: 1-866-383-7919
Email: sales@torontech.com

Torontech ME FZE

Meydan Grandstand, 6th Floor,
Meydan Road, Nad Al Sheba,
Dubai-261440, UAE 

Phone: +971 488 19252
Email: me@torontech.com

