

Cam & Tappet Wear Test System – CTW150

◆ General Information

The **CTW150** system checks the wear characteristics of a cam and tappet in a vehicle engine.

By using cam and tappet systems used in actual vehicles, this system implements rotation and friction conditions, thereby imitating actual vehicle driving conditions.

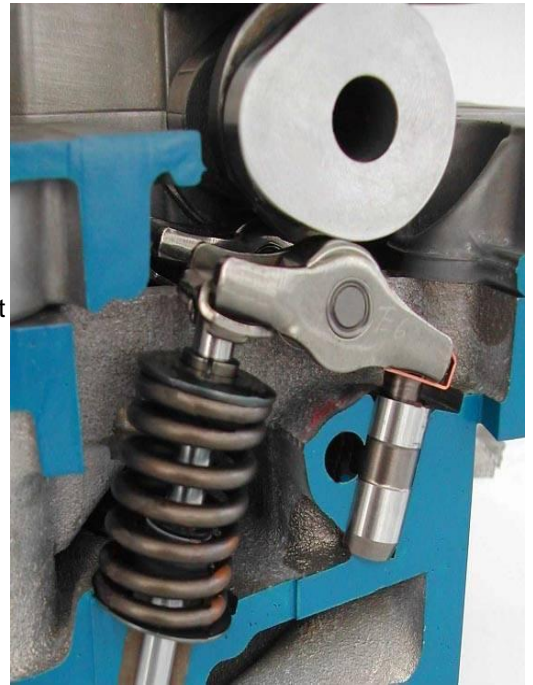
This system is designed to test tappets by installing rod type or roller type tappets. It can simulate various types of cam and tappet wear status by interchanging the cam and tappet according to the necessary size and shape.

This device is designed to lubricate each part of the cam and tappet smoothly to simulate engine operation and is designed to force lubrication to each part when required.

Through each sensor, it is able to monitor friction force, friction coefficient, vibration, temperature change, etc. Testing can be stopped at a specified mode to perform a purpose-driven test.

For rod type testing, the cam contacts with tappet rotation inside the vehicle. It is designed to move the center of contact according to the size of cam and tappet to mimic the same conditions under engine operations.

The contact angle between the cam and tappet should always be the same and a level meter is installed to maintain conditions during the interchange and installation of new specimens.



◆ Control Parameters

- Rotation Speed (rpm)
- Load (N)
- Temperature (°)
- Test Time
- Test Cycle
- Vibration

◆ Recorded Parameters

- Friction Torque
- Rotation Speed (rpm)
- Sliding Speed (m/sec)
- Sliding Distance (m)
- Temperature (°)
- Test Time
- Test Cycle
- Vibration

◆ Applications

- Cam and Tappet Test
- Block-on-Ring Test
(ASTM 3704, ASTM G77)
- Bearing Life Test

◆ Test Modes



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◆ Specifications

Load Range	Max. 10,000 N
Load Control	Motor and spring force manual control Load control screw LM guide for lever control
Rotation Speed	30 – 3,000 rpm
Speed Control	PWM method
Lubricant Flow Method	Jet or Deposition
Heating Range	Ambient to 150°C (oil chamber heating) Cartridge Heater
Vibration Sensor (optional)	Frequency Response 3 – 7,000 Hz Acceleration range: $\pm 100g$
Friction Force	
Lubrication Chamber and Pump	

◆ Rod Type Tappet Test Case

