Onosokki’s chassis dynamometer system has been upgraded to meet the needs of a wide range of motorcycle tests, such as emission performance, horsepower performance, environmental performance and strength analysis tests. It is supported by superior technology and a full line of peripheral equipment. We can also provide technical support for the design of the testing room.

Performance & durability testing system

◆ Test examples
  - Performance testing: horsepower performance, environmental performance, noise
  - Durability testing: for catalyster evaluation, for various components

◆ Features
  - A variety of performance and durability tests for motorcycles can be performed, with a high degree of reliability and accuracy.
  - You can choose the roller’s diameter, width, material, surface texture, etc.
  - Unmanned operation using a driving robot is available.
  - Equipped with applications such as road load setter software, drivers aid and rear wheel output data processing software, necessary for performance and durability testing.

Emission testing system

◆ Test examples
  - Conforms to the following compliance tests: USA, UN, and TRIAS.

◆ Features
  - Consists of a roller of φ 530.5 mm, an AC dynamometer and a flywheel section.
  - Uses a highly accurate strain-gauge torque measurement apparatus.
  - Equipped with components necessary for emission tests, such as front wheel holding unit, engine cooling fan and drivers display.
  - Applications necessary for emission tests are installed, such as road load setter software, drivers aid and gas emission data processing software.

Chassis dynamometer system for ATV

◆ A chassis dynamometer system for ATV (2WD, 4WD)
◆ Supports various performance tests including emission performance test.

Example of specifications (for motorcycle system)

<table>
<thead>
<tr>
<th>Applicable vehicle</th>
<th>Allowable load</th>
<th>300 kg</th>
<th>Power absorption unit</th>
<th>530.5 mm</th>
<th>Cradle method</th>
<th>Roller bearing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roller Diameter</td>
<td>Maximum speed</td>
<td>160 km/h</td>
<td>Torque detector</td>
<td>Vehicle weight setting range</td>
<td>Mechanical and electrical inertia compensation</td>
<td></td>
</tr>
<tr>
<td>Width</td>
<td>Material</td>
<td>Steel</td>
<td>Method</td>
<td>Mechanical stationary inertia</td>
<td>100 kg</td>
<td></td>
</tr>
<tr>
<td>Surface</td>
<td></td>
<td>Flat and smooth (grooved surface: option)</td>
<td>Mechanical variable inertia</td>
<td>4 flywheels (10, 20, 40, 80 kg)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Power absorption unit</th>
<th>Continuous rated power</th>
<th>37 kW / 120 to 160 km/h</th>
<th>Others</th>
<th>Miscellaneous equipment</th>
<th>Roller lock device</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driver</td>
<td>30 kW / 120 to 160 km/h</td>
<td></td>
<td></td>
<td>Front wheel holding unit</td>
<td></td>
</tr>
</tbody>
</table>

| Overload rated power (1 min) | 110 % | | Automatic torque calibrator (option) |

We can provide following options. *1 Roller diameter: 530 mm, 1061 mm *2 Dynamometer capacity: 18kW, 22kW, 30kW, 37kW, 55kW, 75kW, etc. Also available high speed type, etc. for various test purposes.
**System configuration**

- Emission test
- Durability test
- Output performance test
- Environment test
- Sound & vibration test
- Safety & reliability test

**Measurement / control panel**

- **FAMS-8000 Flexible Automatic Measuring System**
  - Since FAMS-8000 Flexible Automatic Measuring System has a wide range of optional software provided in module basis, it can easily be applied to various purposes from basic to high level testing such as emission testing and ECU optimization.
  - A variety of optional software enables it to build up easily the advanced testing system.

**Peripherals**

- **Drivers Display**
  - **Drivers Display**
    - Screen switching function: measurement screen or Drivers Aid screen.
    - Assists a driver by letting him/her know various measurement data in checking the driving conditions.
  - **Drivers Aid**
    - Drivers Aid assists driving operations graphically through displaying target speed patterns and target gear shift timing.

- **TC-7000 Riding System**
  - Airflow and temperature distribution around the engine and driver’s body are get closer to the real driving state because of mannequin like integrated type actuator.
  - The accuracy of simulation on chassis dynamometer for real road test was improved by using predictive control compared with usual PID control.

- **Engine Cooling Fan**
  - Vehicle speed following engine cooling system.
  - Applicable fan type: centrifugal fan, axial flow fan, etc.
  - Can be adjusted easily when setting the wheel base since it is connected to the front wheel holding unit.

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*Outer appearance and specifications are subject to change without prior notice.*

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