Model 6900
Commercial Vehicle Brake Dynamometer
Product Overview

The Model 6900 Commercial Vehicle Brake Dynamometer (Model 6900) is a full-sized system robustly designed to evaluate braking performance characteristics up to 35,000 Nm for off-highway and commercial vehicle applications. This state-of-the-art machine incorporates a multi-disc inertia section combined with electric motor I-Sim capability to replicate exact test conditions required for brake testing. The Model 6900 is a qualified machine for research and development of drum brakes, air disc brakes, hydraulic disc brakes, and friction material within a structured test setting that is proven to compare with full vehicle results.

Key Benefits

- Latest technology software and controls
- Proven components with low maintenance
- Controls and power cabinet integrated onto machine
- Safety interlocks on all guard doors
- Fold-away brake chamber for ease of technician test part setup
- Compact pedestal workstation
- Calibration fixture for torque
Optional Systems

- Static torque break-away system
- Water spray and brake soak system
- Dust intrusion system
- Disc Thickness Variation (DTV) measurement
- Increased test speed from 1200 rpm to 1500 rpm
- NVH measurement system
- Off-brake drag torque measurement
- High pressure pneumatic apply system
- NI DIAdem data converter
- Video monitoring camera
- NVH walk in chamber

Test Procedures

- FMVSS121
- SAE J2115
- European standards
- Performance wear
- Durability
- Thermal capacity
- City traffic route simulations

Key Features

- Tabular step-by-step test script generation
- Customizable brake engineer graphical data review software (RevDataPlus)
- Automated reporting tools through MS-Excel
- High accuracy electric inertia simulation (I-Sim)
- Servo brake profile control
- Precision sensors for measurement: shaft speed, torque, pressure, stroke, brake temperature, cooling air speed, air temperature, humidity
- Integrated solution to auxiliary systems (DTV measurement, NVH, water spray, etc.)
<table>
<thead>
<tr>
<th>Specifications</th>
<th>Model 6900 Dyno (standard)</th>
<th>Model 6900 Dyno (with enhanced options)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Software</td>
<td>ProLINK</td>
<td>ProLINK</td>
</tr>
<tr>
<td>Sample Rate</td>
<td>5000 samples/sec</td>
<td>5000 samples/sec</td>
</tr>
<tr>
<td>Drive Motor</td>
<td>186 kW</td>
<td>223 Kw</td>
</tr>
<tr>
<td>Shaft Speed</td>
<td>0 - 1200 rpm</td>
<td>0 - 1500 rpm</td>
</tr>
<tr>
<td>Brake Torque</td>
<td>35,000 Nm</td>
<td>35,000 Nm</td>
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<tr>
<td>Drag Torque</td>
<td>-</td>
<td>400 Nm</td>
</tr>
<tr>
<td>Mechanical Inertia</td>
<td>156 - 2093 kgm²</td>
<td>156 - 2691 kgm²</td>
</tr>
<tr>
<td>Inertia Range with I-Sim</td>
<td>20 - 2500 kgm²</td>
<td>20 - 3131 kgm²</td>
</tr>
<tr>
<td>Pneumatic Brake Pressure</td>
<td>10 bar</td>
<td>16 bar</td>
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<tr>
<td>Pneumatic Apply Rate</td>
<td>20 bar/sec</td>
<td>20 bar/sec</td>
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<tr>
<td>Hydraulic Apply Pressure</td>
<td>-</td>
<td>206.8 bar</td>
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<tr>
<td>Hydraulic Apply Rate</td>
<td>-</td>
<td>689 bar/sec</td>
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