# Z-Transmission - Benefits

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Conventional Mechanical Transmission</th>
<th>Z-Transmission</th>
<th>Advantage of Z-Transmission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clutch</td>
<td>X</td>
<td></td>
<td>Fewer wear prone elements</td>
</tr>
<tr>
<td>Gear Box</td>
<td>X</td>
<td></td>
<td>No gear shifting required</td>
</tr>
<tr>
<td>Hydrostatic Braking</td>
<td></td>
<td>X</td>
<td>Improved brake life</td>
</tr>
<tr>
<td>Continuous Variable Speed</td>
<td></td>
<td>X</td>
<td>Improved fuel efficiency</td>
</tr>
<tr>
<td>Anti-Slip</td>
<td></td>
<td>X</td>
<td>Improved fuel efficiency</td>
</tr>
<tr>
<td>Hot Start</td>
<td></td>
<td></td>
<td>Rapid shifting from transmission onset</td>
</tr>
<tr>
<td>Weight (Approx.)</td>
<td>150 kg</td>
<td>52 kg</td>
<td>Improved fuel efficiency</td>
</tr>
<tr>
<td>Operator Comfort</td>
<td>Average</td>
<td>Better</td>
<td>Less operator fatigue</td>
</tr>
<tr>
<td>Productivity</td>
<td>Average</td>
<td>Better</td>
<td>Increased per shift output</td>
</tr>
<tr>
<td>Length</td>
<td>617 mm</td>
<td>379 mm</td>
<td>~ 8% Compact*</td>
</tr>
<tr>
<td>Height</td>
<td>356 mm</td>
<td>282 mm</td>
<td>~ 16% Compact*</td>
</tr>
<tr>
<td>Width</td>
<td>314 mm</td>
<td>300 mm</td>
<td>~ 4% Compact*</td>
</tr>
<tr>
<td>Assembly</td>
<td>Complex</td>
<td>Simple</td>
<td>Reduced packaging design-time</td>
</tr>
<tr>
<td>Installation time</td>
<td>More</td>
<td>Less</td>
<td>Increased through put production</td>
</tr>
</tbody>
</table>

* Package size comparison with conventional 12F X 12R mechanical gear box & Z-Transmission Gear Pump speed

## Potential Applications

- Fork Lift
- Mid Size Combine Harvester
- Compact Tractor
- Post Hole Digging
- Light Dozing / Grading
- Finish Mowing

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Printed in USA
Document No. E-TROV-MR001-E
September 2012

Z-Transmission - Compact Hydrostatic Transmission
Conventional Mechanical Transmission

Hydrostatic Transmission

Benefits

System Integration
- The mechanical coupling of the variable piston pump and the replacement of the conventional power take-off (PTO) with a remote-controlled hydraulic motor
- Electronic control and monitoring of the whole transmission system

Programmable Vehicle Control
- Controls the oil flow to the motor, providing precise control over the vehicle's speed and direction

Optimized Engine Performance
- Optimized oil flow to the motor, improving engine efficiency and reducing wear

Eaton Z Transmission Specifications


definitions

Z-Transmission Options

Z Transmission with 7240 Pump - Service Control

- Smooth & precise control
- Lower operator effort
- Modular design

Additional Features

- Displacement Valves and Pumps
- Improved fuel efficiency
- Smaller, more compact design
- Faster cycle times

Hydraulics Remote Control
- External operator pressure input
- Control options
- Neutral lockout
- Electronic control not feasible

Electronic Proportional Control

- Adjustable vehicle performance
- Simultaneous control of multiple functions
- Reduced wear on control levers

Eaton Transmission Automotive Control (ETAC)

- Improved fuel efficiency
- Electronic control
- Smaller, more compact design
- Faster cycle times

Supporting Electronic Controllers
- Control system is designed to be adaptable to customer specifications
- Improved fuel efficiency
- Smaller, more compact design
- Faster cycle times

Technical Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>7240</th>
<th>7241</th>
<th>7250</th>
</tr>
</thead>
<tbody>
<tr>
<td>Displacement</td>
<td>15T (ANSI B92.1)</td>
<td>15T (SAE J498b)</td>
<td>15T (SAE J498b)</td>
</tr>
<tr>
<td>Input Mounting Flange</td>
<td>380 (550)</td>
<td>380 (550)</td>
<td>380 (550)</td>
</tr>
<tr>
<td>Output Mounting Flange</td>
<td>180 (260)</td>
<td>180 (260)</td>
<td>180 (260)</td>
</tr>
<tr>
<td>Weight</td>
<td>380 (550)</td>
<td>380 (550)</td>
<td>380 (550)</td>
</tr>
<tr>
<td>Temperature</td>
<td>2 (25)</td>
<td>2 (25)</td>
<td>2 (25)</td>
</tr>
</tbody>
</table>

Further details about the Eaton Z Transmission Technology - Benefits World’s Largest Tractor Manufacturer by enabling compact & ergonomic machine design and increased production throughput.