Mine dump truck BELAZ-7540B
of payload capacity 30 tonnes (33 short tons)

It's designed for transportation of rock mass in difficult mining and technical conditions of deep mines, at mineral deposit open pits on technological roads under various climatic operating conditions (at ambient temperature from -50 to +50 °C).

### Engine

<table>
<thead>
<tr>
<th>Model</th>
<th>YaMZ-240M2-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four-cycle direct diesel engine with V-type cylinders arrangement.</td>
<td>265 (360)</td>
</tr>
<tr>
<td>Rated power @ 2100 rpm, kW (hp)</td>
<td>1275</td>
</tr>
<tr>
<td>Maximum torque @ 1600 rpm, N.m</td>
<td>12</td>
</tr>
<tr>
<td>Number of cylinders</td>
<td>223</td>
</tr>
<tr>
<td>Cylinders displacement, l</td>
<td>130</td>
</tr>
<tr>
<td>Cylinder diameter, mm</td>
<td>140</td>
</tr>
<tr>
<td>Piston stroke, mm</td>
<td>230</td>
</tr>
<tr>
<td>Specific fuel consumption at rated power, g/kW hr</td>
<td>35</td>
</tr>
<tr>
<td>Air cleaning is performed by two-stage filters with dry-type elements</td>
<td>8,7</td>
</tr>
<tr>
<td>Engine exhaust expulsion is performed through body</td>
<td>20</td>
</tr>
<tr>
<td>Mixed-type lubrication system is designed with ‘wet’ crankcase</td>
<td>265</td>
</tr>
<tr>
<td>Fluid cooling system with forced circulation.</td>
<td>24</td>
</tr>
<tr>
<td>Oil cooling is performed by oil cooler.</td>
<td>20</td>
</tr>
<tr>
<td>Electric starter starting system.</td>
<td>24</td>
</tr>
<tr>
<td>Electric equipment system voltage, V</td>
<td>24</td>
</tr>
</tbody>
</table>

### Suspension

Suspension is conventional for front and driving axles and equipped with longitudinal and transverse rods. Cylinders are pneumohydraulic (nitrogen and oil) with inbuilt hydraulic shock absorber.

Cylinders on the front axle and two cylinders are on the rear axle.

- Cylinder piston stroke, mm
  - front: 200
  - rear: 265

### Steering

Hydrostatic steering with steerable front wheels.

- Steering angle, degree: 35
- Turning radius, m: 8,7
- Overall turning diameter, m: 20

The steering meets ISO 5010 requirements.

### Brakes

Dump truck brake system meets ISO 3450 international safety requirements and is equipped with service, parking, auxiliary and emergency brake systems.

**Service brake system** consists of shoe-drum brake gears for front and rear wheels with pneumatic actuator separated for front and rear wheels.

**Parking brake system** is permanently closed shoe brake gear on final drive driving shaft with spring actuator and pneumatic control.

**Auxiliary brake system** is hydraulic retarder on gearbox driving shaft with electric control.

**Emergency brake system** uses parking brake and operable circuit of service brakes.

### Hydraulic drive

Hydraulic system is combined for body dumping gear and steering. The system is equipped with gear-type oil pumps and three-stage telescopic body lifting cylinders with one stage of double action.

- Body lifting time, s: 25
- Body lowering time, s: 20
- Maximum pressure in hydraulic system, MPa: 13,5
- Maximum pump delivery @ 2100 rpm, dm³/min: 173
- Filtration degree, mcm: 10
**Fire-fighting system with remote actuation (standard)**

**Starting preheater (standard)**

**Centralized lubrication system (standard)**

**High-voltage line attention device (standard)**

**Conditioner (option)**

**Auxiliary heater (option)**

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**Special equipment**

**Fuel tank**

420

**Engine cooling system**

80

**Engine lubrication system**

46

**Hydromechanical transmission**

70

**Hydraulic system**

115

**Final drive**

18

**Hub drives**

18 (9x2)

**Suspension cylinders:**

- Front: 6.6 (3x2)
- Rear: 8.0 (4x2)

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**Overall dimensions, mm**

*Overall dimensions are specified for dump truck with standard options

**Excepting dump trucks of tropicalized design

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**Propulsion and Retarding**

**Propulsion performance**

<table>
<thead>
<tr>
<th>Load, kg</th>
<th>0</th>
<th>6</th>
<th>12</th>
<th>18</th>
<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed, km/h</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Retarding performance**

<table>
<thead>
<tr>
<th>Load, kg</th>
<th>0</th>
<th>6</th>
<th>12</th>
<th>18</th>
<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed, km/h</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

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**BELAZ**

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