BELAZ-7513B mining dump truck with payload capacity of 130-136 tonnes

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

**Engine**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated power @ 1900 rpm, kW (hp)</td>
<td>1193(1600)</td>
</tr>
<tr>
<td>Maximum torque @ 1500 rpm, N.m</td>
<td>7612</td>
</tr>
<tr>
<td>Number of cylinders</td>
<td>12</td>
</tr>
<tr>
<td>Cylinders displacement, l</td>
<td>48.8</td>
</tr>
<tr>
<td>Cylinder diameter, mm</td>
<td>165</td>
</tr>
<tr>
<td>Piston stroke, mm</td>
<td>190</td>
</tr>
<tr>
<td>Specific fuel consumption at rated power, g/kW hr</td>
<td>201</td>
</tr>
<tr>
<td>Engine exhaust expulsion is performed through two exhaust manifolds and body. Circulating lubrication system is pressurized and designed with &quot;wet&quot; sump. Double-loop fluid cooling system with forced circulation. Pneumatic starter starting system. Electric equipment system voltage, V</td>
<td>24</td>
</tr>
</tbody>
</table>

**Suspension**

Suspension is conventional for front and rear wheels. Cylinders are pneumohydraulic (nitrogen and oil). Two cylinders are on the front axle and two cylinders are on the rear axle. Cylinder piston stroke, mm:
- front: 320
- rear: 290

**Steering**

Hydrostatic steering with fluid amplifier and drive from variable-flow pump. The steering consists of pump-dosing unit, two double-action hydraulic cylinders and trapezium. Pneumatic-hydraulic accumulator emergency drive.
- Steering angle, degree: 42
- Turning radius, m: 13
- Overall turning diameter, m: 28

**Brakes**

Service brakes are dry disk brakes with hydraulic actuator separated for front and rear wheels.
- Parking brake consists of permanently closed dry disk brakes on traction motor shafts with spring actuator and hydraulic control.
- Auxiliary brake is electrodynamic braking by traction motors with forced air cooling of brake resistors (17EM137).
- Emergency brake uses parking brake and operable circuit of wheel brakes.

**Electric drive**

AC KTE-136 drive with traction alternator, two traction motors, motorized wheels differential-type double-row planetary reduction units, control cabinet and dynamic braking unit, adjustment units and control devices.
- Transmission ratio: 30.36
- Maximum travel speed, km/h: 64

<table>
<thead>
<tr>
<th>Component</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control cabinet</td>
<td>ShU-136</td>
</tr>
<tr>
<td>Traction alternator</td>
<td>GST-800</td>
</tr>
<tr>
<td>Traction motor</td>
<td>TAD-5</td>
</tr>
</tbody>
</table>

**Hydraulic drive**

Hydraulic system is combined for body dumping gear, steering, actuator of brakes. The system consists of oil tank, variable-capacity axial-piston pump with cardan drive from traction alternator shaft, fluid distribution equipment on the basis of three-position spool hydraulic distributor with safety valves and high-pressure hoses. Electrohydraulic control. Diagnostic socket is provided. The system meets EH477-1, EH477-6 and EH53 safety requirements. Two three-stage hydraulic cylinders with final stage of double action. Automatic lowering at start of motion and limitation of maximum body lifting angle.
- Body lifting time, s: 20
- Body lowering time, s: 18
Body

Welded bucket-type body with rOPS, engine exhaust heating, device for mechanical fixing in raised position, rock-fenders and rock-ejectors.

Body capacity, m³:
- struck: 45,5
- heaped: 71,2 (standard)
- 50,1
- 75,5 (option)
- 55,0
- 80,0 (option)
- 59,6
- 84,0 (option)

Frame

Frame is welded of high-strength low-alloy steel and equipped with box-section variable-height side-members interconnected by cross-members.

Tires

Tubeless air tires with quarry tread pattern.

<table>
<thead>
<tr>
<th>Tire designation</th>
<th>Inflation pressure, MPa</th>
<th>Rim designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>33.00-51; 33.00R51</td>
<td>0.62; 0.7</td>
<td>24.00-51/5.0</td>
</tr>
</tbody>
</table>

Cab

Two-man cab with air-sprung adjustable driver seat, ROPS safety system.

The cab meets requirements of standards that specify permissible levels of in-cab noise, vibration, content of hazardous substances and dust.

In-cab noise level is not more than 80 dB(A).

Local vibration level is not more than 126 dB(A).

Overall vibration level is not more than 115 dB(A).

Special equipment

- Fire-fighting system (standard)
- Heating and conditioning unit (standard)
- Starting preheater (standard)
- Automatic lubrication system (optional)
- Loading control system (optional)
- Telemetering tire-pressure monitoring system (optional)
- Body floor lining (optional)
- Attention device of approach to high-voltage line (optional)
- Air purification system (optional)

Weight

Maximum payload capacity of the dump truck equipped with:
- diagonal tires 33.00-51, kg
- radial tires 33.00R51, kg

- Operating weight, kg
- Gross weight of the dump truck equipped with:
  - diagonal tires 33.00-51, kg
  - radial tires 33.00R51, kg

- Dump truck weight distribution on axles, %:
  - front
  - rear

- unladen
- laden

Capacities, l

- Fuel tank
- Engine cooling system
- Engine lubrication system
- Oil tank
- Reduction units of motorized wheels
- Suspension cylinders:
  - front
  - rear

Overall dimensions, mm*

<table>
<thead>
<tr>
<th>Overall dimensions</th>
<th>2800 (9' 10&quot;)</th>
<th>5200 (17' 1&quot;)</th>
<th>3000 (10' 0&quot;)</th>
<th>5600 (18' 3&quot;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2200 (7' 3&quot;)</td>
<td>5300 (17' 5&quot;)</td>
<td>2900 (9' 6&quot;)</td>
<td>5160 (16' 11&quot;)</td>
<td></td>
</tr>
<tr>
<td>1950 (6' 4&quot;)</td>
<td>4350 (14' 3&quot;)</td>
<td>2300 (7' 7&quot;)</td>
<td>4200 (13' 9&quot;)</td>
<td></td>
</tr>
</tbody>
</table>

*Overall dimensions are specified for dump truck with standard options