Mine dump truck BELAZ-75135 of payload capacity 110-130 tonnes

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

- **Model:** CUMMINS KTA 38-C
- Four-cycle gas-turbocharged and intercooled direct diesel engine with
- V-type cylinders arrangement.
- Rated power @ 1900 rpm, kW (hp) 895 (1200)
- Maximum torque @ 1300 rpm, N·m 4726
- Number of cylinders 12
- Cylinders displacement, l 37.8
- Cylinder diameter, mm 159
- Piston stroke, mm 159
- Specific fuel consumption at rated power, g/kW hr 207
- Air cleaning is performed by three-stage filter with dry-type elements.
- Engine exhaust expulsion is performed through body.
- Circulating lubrication system is pressurized and designed with "wet" sump. Single-loop fluid cooling system with forced circulation.
- Fluid preheating system.
- Starting system is actuated by pneumatic starter.
- Electric equipment system voltage, V 24

### Transmission

Transmission is equipped with alternating current - direct current drive with traction alternator, two traction motors, motorized wheels double-reduction units with spur gears, microprocessor-based control system and control devices, adjustment units.

- Transmission ratio 30.36
- Maximum dump truck travel speed, km/h 48

<table>
<thead>
<tr>
<th>Traction alternator</th>
<th>SGT-1000</th>
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<tbody>
<tr>
<td>Traction motor</td>
<td>EDP-600; EK-590; TED-6; ED-136; EK-420A</td>
</tr>
</tbody>
</table>

### Suspension

Suspension is conventional for front axle and driving axle and equipped with trailing arms, central joints and transversal rods. Cylinders are pneumohydraulic (nitrogen and oil) and equipped with inbuilt hydraulic shock absorber. 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 steerable front wheels.
- Steering angle, degree 42
- Turning radius, m 13
- Overall turning diameter, m 28
- The steering meets ISO 5010 requirements.

### Brakes

- **Hydraulic system**: Combined for body dumping gear, steering and brakes actuator. The system is equipped with variable-displacement axial-piston oil pump and three-stage telescopic body lifting cylinders with one stage of double action.
- Body lifting time, s 20
- Body lowering time, s 18
- Maximum pressure in hydraulic system, MPa 18
- Maximum pump delivery @ 1900 rpm, dm³/min 474
- Filtration degree, mcm 10
### Body
Welded bucket-type body with FOPS safety system, protective canopy, engine exhaust heating, device for mechanical fixing in raised position and rock-ejectors.

- **Body capacity, m³**:
  - struck: 45.5
  - heaped: 71.2

### Frame
Frame is welded of high-strength low-alloy steel with application of cast elements at the maximum loading points and equipped with box-section variable-height side-members interconnected by cross-members.

### Tires
- **Tire designation**: 33.00-51
- **Inflation pressure, MPa**: 0.62
- **Rim designation**: 24.00-51/9.0

### Cab
Two-man two-door cab is equipped with air-sprung adjustable driver seat, additional trainee seat and adjustable steering column. The cab meets EN 474-1 and EN 474-6 requirements that specify permissible levels of in-cab noise, vibration, content of hazardous substances and dust. Driver's workplace meets ROPS safety requirements.

- **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)
- System of loading and fuel control (optional)
- Telemetering tire-pressure monitoring system (optional)

### Overall dimensions, mm*

<table>
<thead>
<tr>
<th>Direction</th>
<th>Measurement</th>
</tr>
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<tbody>
<tr>
<td>Front</td>
<td>5300 (17' 6&quot;)</td>
</tr>
<tr>
<td>Rear</td>
<td>5300 (17' 6&quot;)</td>
</tr>
<tr>
<td>Width</td>
<td>7450 (24' 6&quot;)</td>
</tr>
<tr>
<td>Height</td>
<td>4600 (18' 7&quot;)</td>
</tr>
<tr>
<td>Length</td>
<td>7000 (22' 11&quot;)</td>
</tr>
</tbody>
</table>

*Overall dimensions are specified for basic kitting-up of the dump truck

### Weight
- **Maximum payload capacity, kg**: 110000-130000
- **Unladen weight, kg**: 100100
- **Gross weight, kg**: 230100
- **Dump truck weight distribution on axles, %:**
  - laden:
    - front: 50.0
    - rear: 49.1
  - unladen:
    - front: 33.0
    - rear: 37.0

### Refill capacities, l
- **Fuel tank**: 1900
- **Engine cooling system**: 380
- **Engine lubrication system**: 156
- **Oil tank**: 490
- **Reduction units of motorized wheels**: 92 (46x2)
- **Suspension cylinders**:
  - front: 33,8 (16,9x2)
  - rear: 57,4 (28,7x2)

### Towing and braking performance

![Towing performance graph](image1)

![Braking performance graph](image2)

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