### Suspension

Conventional suspension for front and rear wheels. Cylinders are pneumohydraulic (nitrogen and oil) with in-built hydraulic damper, two cylinders both on the front axle and on the rear axle.

- Cylinder piston stroke, mm
  - front 320
  - rear 190

### Steering

Hydrostatic
- Steerable front wheels
  - Steerable wheels rotation angle, degrees 42
- Turning radius, m 13
- Overall turning diameter, m 28
- Complies with ISO 5010 requirements.

### Hydraulic system

Combined hydraulic system for body hoist, steering and brake system.

- Body hoist cylinders are telescopic with three stages and one stage of double action.
- Oil pump is of axial-piston variable-flow type.
- Exhaust gases evacuation is being made through body structure.
- Lubrication system is of forced circulation type under pressure with "wet" crankcase oil pan design.
- Cooling system is of single-circuit fluid type with forced circulation.
- Air cleaning is performed by three-stage filter with dry-type elements.
- Air cooling – through water-to-oil heat exchanger.
- Starting preheating system is of fluid type.
- Starting system features pneumatic starter.
- Electric system voltage, V 24

### Engine

**Model:** MTU DD 12V4000

- Diesel, four-cycle engine with V-type cylinders arrangement, direct fuel injection, electric control system, gas turbine charging and intermediate cooling of the charged air. The engine complies with toxic substances emission requirements of Tier1.
- Rated power @ 1900 rpm, kW (hp) 1193 (1600)
- Maximum torque @ 1500 rpm, N*m 7612
- Number of cylinders 12
- Cylinders displacement, l 48.8
- Cylinder diameter, mm 165
- Piston stroke, mm 190
- Specific fuel consumption at rated power, g/kW*hr 201
- Air cleaning is performed by three-stage filter with dry-type elements.
- Exhaust gases evacuation is being made through body structure.
- Lubrication system is of forced circulation type under pressure with "wet" crankcase oil pan design.
- Cooling system is of single-circuit fluid type with forced circulation.
- Air cooling – through water-to-oil heat exchanger.
- Starting preheating system is of fluid type.
- Starting system features pneumatic starter.
- Electric system voltage, V 24

### Transmission

AC electric drive with traction alternator, two traction electric motors, motor-wheel reduction gear units, microprocessor control system, adjustment and control devices.

- Motor-wheel reduction gear unit is of two-stage type with spur gears.
- Max speed, km/h 64
- Motor-wheel reduction gear unit ratio: produced by General Electric 28.80, produced by BELAZ 30.36

<table>
<thead>
<tr>
<th>Traction alternator</th>
<th>5GTA22X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traction electric motor</td>
<td>5GEB31A, 5GEB23E</td>
</tr>
</tbody>
</table>

### Cab

Two-seat, two-door, with an additional seat for the passenger and pneumatically cushioned adjustable operator’s seat. The cab meets the requirements of EN 474-1 and EN 474-6 for permissible limits of internal sound levels, vibration, concentration of poisonous substances and dust. Operator’s workplace complies with ROPS safety system requirements. Noiselevel inside the cab is not more than 80 dB(A).
# Weight

- Maximum payload capacity of dump truck equipped with tires 33.00-51, kg: 130000
- Equipped with tires 33.00R51, kg: 136000
- Empty weight, kg: 110400
- Gross weight, kg: 240400-246400

## Refill capacities, l

- Fuel tank: 1900
- Engine cooling system: 440
- Engine lubrication system: 253
- Hydraulic system: 510
- Motor-wheel reduction gear units: 92 (46х2)
- Suspension cylinders:
  - Front: 63.2 (31.6х2)
  - Rear: 58.2 (29.1х2)

## Tires

- Pneumatic, tubeless, with quarry tread pattern.
- Designation: 33.00R51; 33.00-51; 36/90-51
- Internal pressure, MPa — in accordance with tire manufacturer instructions. Rim designation: 24.50-51/5.0

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### Braking system

The braking system meets international safety requirements according to ISO 3450 and comprises service, parking, auxiliary and emergency brakes.

#### Service brake:
- Front wheels – dry disk brakes with automatic clearance adjustment.
- Rear wheels – dry disk brakes with automatic clearance adjustment. The disks are mounted on the shafts of traction electric motors.

#### Parking brake:
- Constantly closed brake gears for rear wheels. Spring actuation, hydraulic control.

#### Auxiliary brake:
- Electrodynamical braking with traction electric motors in alternator mode with forced air cooling of brake resistors.

#### Emergency brake:
- Parking brake and intact circuit of service brake are used.

#### Brake resistors
- Power dissipation, kW: 1865

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### Frame

Frame is a welded structure of high-strength low-alloyed steel. Longitudinal box-section variable height side rails are interconnected by cross-members. Castings are applied in highload zones.

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### Body

Bucket type body is a welded structure with FOPS, has a protective canopy and is heated by exhaust gases. It is equipped with a device for mechanical locking in raised position and with rock-ejectors.

#### Body volume, m³:

<table>
<thead>
<tr>
<th>Struck</th>
<th>Heaped 2:1</th>
</tr>
</thead>
<tbody>
<tr>
<td>45.5</td>
<td>71.2</td>
</tr>
<tr>
<td>50.1</td>
<td>75.5</td>
</tr>
<tr>
<td>55.0</td>
<td>80.0</td>
</tr>
<tr>
<td>59.6</td>
<td>84.0</td>
</tr>
<tr>
<td>63.4</td>
<td>86.6</td>
</tr>
<tr>
<td>103.8</td>
<td>134.8</td>
</tr>
</tbody>
</table>

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### Special equipment

- Fire-fighting system with remote control (standard)
- Engine liquid preheater (standard except for tropical modification of dump trucks)
- Video surveillance system (standard)
- Automatic centralized lubrication system (standard)
- Telemetering tire inflation control system (standard)
- Loading and fuel control system (standard)
- High-voltage line proximity alarm (option)
- Heater and conditioner unit (standard)
- Fettling of the bottom body (option)
- Enhanced combined fire-fighting system with automatic actuation (option)
- Rock deflectors (option)

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### Overall dimensions, mm

![Overall dimensions diagram](image)

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### Traction and braking performance

#### Traction performance

- Maximum load on wheels, kg x 1000:
  - Operational: 4000
  - Maximum: 4500
- Speed, km/h:
  - Traction on wheels: 0-40

#### Braking performance

- Maximum load on wheels, kg x 1000:
  - Operational weight: 4000
  - Gross weight: 4500
- Speed, km/h:
  - Braking force on wheels: 0-100