

Mine dump truck BELAZ-75302

of payload capacity 220 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	MTU DD 16V4000
Diesel four-cycle engine with V-type cylinders arrangement, electronic control system, direct fuel injection, gas-turbine charging and intercooling of charging air.	
The engine meets Tier1 toxic substances emission requirements.	
Gross power @ 1900 rpm, kW (hp)	1715(2300)
Maximum torque @ 1500 rpm, N.m	9313
Number of cylinders	16
Cylinders displacement, l	65
Cylinder diameter, mm	165
Piston stroke, mm	190
Specific fuel consumption at rated power, g/kW hr	198
Air cleaning is performed by three-stage filter with dry-type elements.	
Engine exhaust expulsion is performed through dump truck body.	
The engine is equipped with pressurized circulating lubrication system with "wet" crankcase and double-loop fluid cooling system with forced circulation. Oil cooling is performed by oil-to-water heat exchanger.	
Cooling system impeller is actuated by fluid coupling with automatic control. Engagement and disengagement is performed by thermostat.	
Starting system is actuated by pneumatic starter.	
Air pressure in starting system, MPa	0,6-0,8
Electric equipment system voltage, V	24

Transmission

Transmission is equipped with alternating current - direct current drive with traction alternator, two traction motors, motorized wheels planetary double-row reduction units, adjustment units, microprocessor-based control system and control devices.	
Transmission ratio	27,5
Maximum dump truck travel speed, km/h	43

Transmission	AC -DC
Traction alternator	SGT 1400-8
Traction motor	DK-724

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	39
Turning radius, m	15
Overall turning diameter, m	34

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 disk brakes with four brake gears per disk for front wheels and disk brakes with two brake gears per disk and automatic gap adjustment for rear wheels. The disks are mounted on traction motor shafts. Actuator is hydraulic and separate for front and rear wheels.

Parking brake system is permanently closed system with two rear wheels brake gears per disk, spring actuator and hydraulic control.

Auxiliary brake system is electrodynamic braking by traction motors with forced air cooling of brake resistors.

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

Brake resistors	UVTR 2x600 - 2 units
Power, kW	2400

Body

Welded bucket-type body with engine exhaust heating is equipped with FOPS safety system, protective canopy, device for mechanical fixing in raised position, rock-fenders and rock-ejectors.

Body capacity, m³:

struck	heaped 2:1
92,0	130
100	138
103	141
80	112
117	147,4



Frame

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

Hydraulic system

Hydraulic system is combined for body dumping gear, steering and brakes actuator and equipped with two-section variable-displacement axial-piston oil pump and three-stage telescopic body lifting cylinders with one stage of double action.

Body lifting time, s	22
Body lowering time, s	33
Maximum pressure in hydraulic system, MPa	18
Maximum pump delivery @ 1900 rpm, dm ³ /min	698
Filtration degree, mcm	10

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).

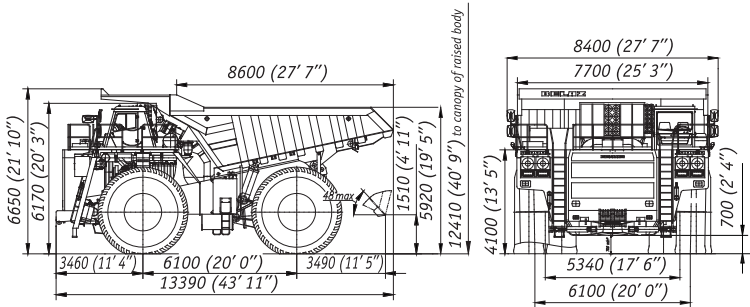
Overall vibration level is not more than 115 dB(A).

Tires

Radial or diagonal tubeless air tires with quarry tread pattern.

Tire designation	40.00R57; 46/90-57
Inflation pressure, MPa	0,7; 0,605
Rim designation	29.00-57/6.0

Overall dimensions, mm*



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

Refill capacities, l

Fuel tank	2900
Engine cooling system	600
Engine lubrication system	265
Hydraulic system	790
Reduction units of motorized wheels	210(105x2)
Suspension cylinders:	
- front	97,4(48,7x2)
- rear	103,0 (51,5x2)

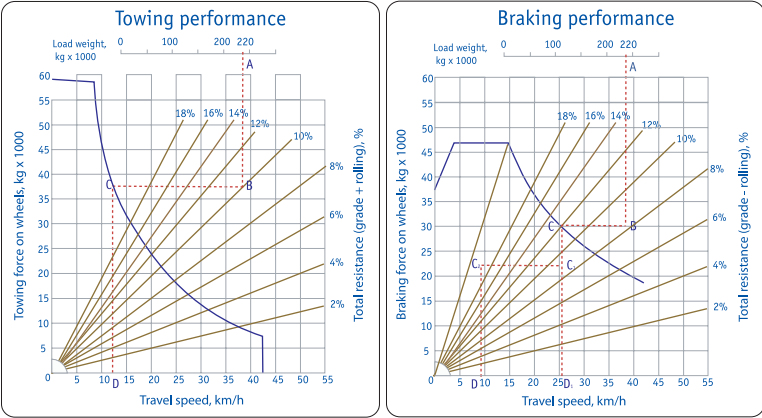
Weight

Maximum payload capacity, kg	220000
Unladen weight, kg	156100
Gross weight, kg	376100
Dump truck weight distribution on axles, %:	
unladen	
front	45
rear	55
laden	
front	33
rear	67

Special equipment

- Fire-fighting system (standard)
- Starting preheater (standard)
- Heating and conditioning unit (standard)
- Automatic lubrication system (optional)
- System of loading and fuel control (optional)
- Telemetering tire-pressure monitoring system (optional)
- Body floor lining (optional)
- Attention device of approach to high-voltage line (optional)
- Engine exhaust expulsion through mufflers (optional)

Towing and braking performance



OJSC "BELAZ" — Management Company of Holding "BELAZ-HOLDING"
 40 let Oktyabrya str. 4, 222160, Zhodino, Minsk region, Republic of Belarus
 phone: +375 1775 3-27-82, 3-26-23, 3-37-37, fax: +375 1775 7-01-37
 e-mail: office@belaz.minsk.by, marketing@belaz.minsk.by,
 export@belaz.minsk.by
www.belaz.by