Mining dump truck BELAZ-75601
Payload capacity 360 tonnes

Designed for transportation of rocks in severe technical conditions of deep mines, at open cast mining sites on technological roads under various climatic operating conditions (at ambient temperature range from -50 to +50 °C).

Engine

Model	MTU 20V4000

Diesel, four-cycle engine with V-type cylinders arrangement, electric control system, direct fuel injection, gas turbine charging and intermediate cooling of the charged air. The engine complies with toxic substances emission requirements of Tier2.

Full power	
@ 1800 rpm, kW (hp)	2800(3750)
Maximum torque @ 1700 rpm	15728
Number of cylinders	20
Cylinders displacement, l	90
Cylinder diameter, mm	165
Piston stroke, mm	210
Specific fuel consumption, g/kW hr	198

Air cleaning is performed by three-stage filter with dry-type elements. Exhaust gases evacuation is being made through body structure and mufflers. Lubrication system is of forced circulation type under pressure with "wet" crankcase design.

Cooling system is of double-circuit fluid type with forced circulation. Oil cooling - through water-to-oil heat exchanger. Starting preheating system is of fluid type. Starting system features electric starter.

Cooling system impeller drive - friction electric-hydraulic clutch. Automatic control.

Electric system voltage, V	24

Transmission

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

Double-row motor-wheel reduction gear is of planetary type.

Ratio	39,32
Max traveling speed, km/h	64

Traction alternator	„Kato"
Traction electric motor	"Siemens"

Suspension

Conventional suspension for front axle and driving axle comprises trailing arms with central hinges and transversal rods. 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	300
- rear	170

Steering

Hydrostatic.
Steerable front wheels.

Steerable wheels rotation angle, degrees	37
Turning radius, m	17,2
Overall turning diameter, m	38

Meets the requirements of ISO 5010.

Brakes

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

Service brake:

Front wheels - disk brake with four gears per disk.

Rear wheels - double-disk brakes with one brake gear per disk and automatic clearance adjustment. The disks are mounted on the shafts of traction electric motors.

Separate hydraulic drive for front and rear wheels. Parking brake - constantly closed system with two brake gears per side. Spring actuation, hydraulic control.

Auxiliary brake - electrodynamic 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	Siemens
Power, kW	3760

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75601

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 capacity, cub. m:

struck	heaped 2:1
162,8	218

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 high load zones.

Hydraulic system

Combined hydraulic system for body hoist, steering and brake drive.
Oil pump: double-section axial-piston and variable-flow type.
Body hoist cylinders are telescopic with two stages and one stage of double action.

Body raising time, s	31
Body lowering time, s	20
Max pressure in hydraulic system, MPa	21
Max pump delivery @ 1800 rpm, dm3/min	898
Filtering degree, mcm	10

Cab

Two-seat, two-door, with pneumatically cushioned adjustable operator seat, additional seat for passenger and adjustable steering column. 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.
Noise level inside the cab 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 pneumatic tubeless tires with quarry tread pattern.

Designation	59/80R63
Internal pressure, MPa	0,6
Rim designation	44.00-63/5,0

Refill capacities, l

Fuel tank	4360
Engine cooling system	890
Engine lubrication system	300
Hydraulic system	1410
Motor-wheel reduction gears	300 (150x2)
Suspension cylinders:	
- front	129 (64.5x2)
- rear	125.8 (62.9x2)

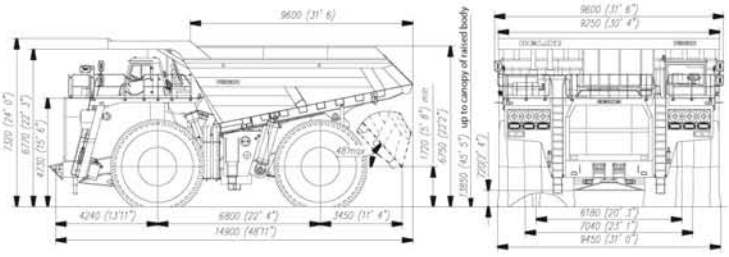
Weight

Maximum payload capacity, kg		360000
Unladen weight, kg		250000
Gross weight, kg		610000
Weight distribution on axles, %:		
	unladen	loaded
- front	49	33
- rear	51	67

Special equipment

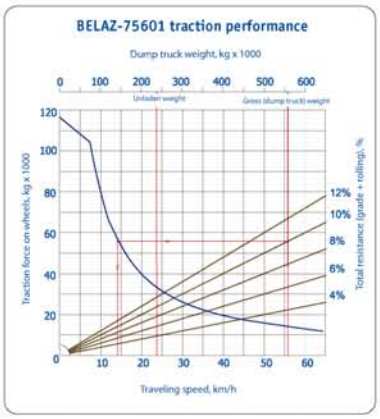
Automatic fire-fighting system (standard)
Starting preheater (standard)
Air conditioner (standard)
Automatic lubrication system (standard)
Loading and fuel control system (standard)
Telemetering tire inflation control system (standard)
Video surveillance system (standard)
Fettling of the bottom body (standard)
High-voltage line proximity alarm (option)

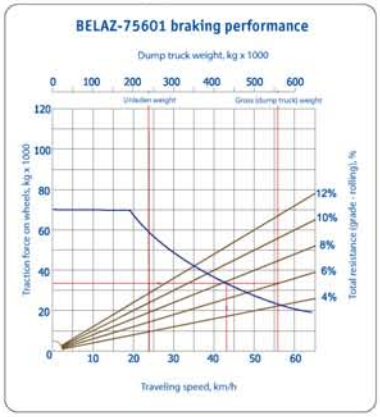
Overall dimensions, mm*



*For standard set of equipment

Traction and braking performance





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