

BELAZ-7530G mining dump truck with payload capacity of 220 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
Rated power @ 1800 rpm, kW (hp)	1716 (2300)
Maximum torque @ 1400 rpm, N*m	9060
Number of cylinders	12
Cylinders displacement, l	65.69
Cylinder diameter, mm	180
Piston stroke, mm	215
Specific fuel consumption at rated power, g/kW*hr	199
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 double-circuit fluid type with forced circulation.	
Cooling system impeller drive – hydraulic clutch with automatic control.	
Oil cooling – through water-to-oil heat exchanger.	
Starting preheating system is of fluid type.	
Starting system features electric starter.	
Electric system voltage, V	24

	Transmission
AC/DC electric drive with traction alternator, two traction electric motors, motor-wheel reduction gears, microprocessor control system, adjustment and control devices.	
Double-row planetary motor-wheel reduction gear unit is of differential type.	
Max speed, km/h	43
Motor-wheel reduction gear unit ratio	28.38

Traction alternator	SGTM 1400-8, GST-1600, GSN-1600/8
Traction electric motor	DK-724C, EK-735A, EDP-800

	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	290

	Steering
Hydrostatic	
Steerable front wheels.	
Steerable wheels rotation angle, degrees	39
Turning radius, m	15
Overall turning diameter, m	34
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 double-section axial-piston and variable-flow type.	
Body raising time, s	22
Bodylowering time, s	33
Max pressure in hydraulic system, MPa	18
Max delivery of pumps @ 1900 rpm, dm ³ /min	698
Filtering degree, µm	10

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. Noise level inside the cab is not more than 80 dB(A).

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 as well as with rock-deflectors and rock-ejectors.

Body volume, m³:

struck	heaped 2:1
80.0	112.0
89.5	131
92.0	130.0
100.0	138.0
102.4	141.1
117.0	147.4

BELAZ 7530G



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.

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:

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

UVTR 4x600

Power dissipation, kW

2400

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)

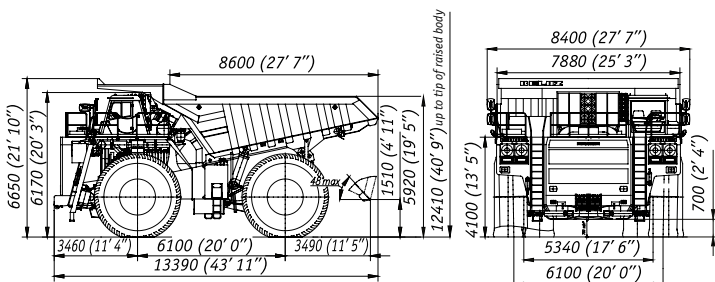
Fettling of the bottom body (option)

Enhanced combined fire-fighting system with automatic actuation (option)

Fuel tank with Wiggins system (option)

Additional cab heater (option)

Overall dimensions, mm



Weight

Maximum payload capacity of the dump truck, kg

220000

Empty weight, kg

156100

Gross weight, kg

376100

Weight distribution on axles, %:

	empty	loaded
front axle	45	33
rear axle	55	67

Refill capacities, l

Fuel tank

2900

Engine cooling system

Engine lubrication system

Hydraulic system

790

Motor-wheel reduction gear units

210 (105x2)

Suspension cylinders:

front

96.6 (48.3x2)

rear

102.0 (51.0x2)

Tires

Pneumatic, tubeless, with quarry tread pattern.

Designation

40.00R57; 46/90-57

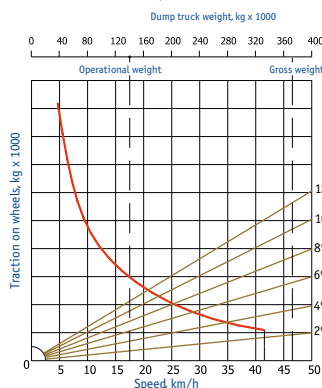
Internal pressure, MPa — in accordance with tire manufacturer instructions.

Rim designation

29.00-57/6.0

Traction and braking performance

Traction performance



Braking performance

