

# **BELAZ-7530D** 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

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Gross power @ 1900 rpm, kW (hp)	1715 (2300)
Maximum torque @ 1500 rpm, N.m	9053
Number of cylinders	16
Cylinders displacement, l .	60.2
Cylinder diameter, mm	159
Piston stroke, mm	190
Specific fuel consumption, g/kW hr	208
Air cleaning is performed by three-stage filter with dry-type	e elements.
Exhaust expulsion is routed through dump truck body.	

Pressurized circulation lubrication system with "wet" sump.

Double-loop fluid cooling system with forced circulation.

Oil cooling is through oil-to-water heat exchanger. Fluid preheating system. Fuel cooling is through radiator.

Starting system is actuated by pneumatic starter.

Cooling system impeller actuation is performed through hydraulic clutch with automatic control.

Starting system air pressure, MPa	0.6 - 0.8
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### Transmission

KTEP-1500 AC drive with traction alternator, two traction motors, motor-in-wheel differential-type double-row planetary reduction gears, adjustment and control devices. 28.38 Gear ratio

Maximum travel speed, kmh	
Traction alternator	GST 1600
Traction motor	DAT-740

### Suspension

Conventional suspension for front axle and driving axle with trailing arms, central joints and transverse rods. Cylinders are pneumohydraulic (nitrogen and oil) 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

Overall turning The steering meets ISO 5010 requirements.

### Brakes

Steering

Braking system meets ISO 3450 international safety requirements and guidelines and consists of service, parking, auxiliary and emergency brake systems.

### Service brake system:

Front wheels - disk brakes with four brake gears per disk.

Rear wheels - disk brakes with two brake gears per disk and automatic gap adjustment. Brake disks are mounted on shafts of traction motors. Brake actuator is hydraulic and separate for front and rear wheels.

Parking brake system - permanently closed system with two brake gears of rear wheels per disk. Spring actuation and hydraulic control. Auxiliary brake system - electrodynamic braking by traction motors

with forced air cooling of brake resistors. Emergency brake system - parking brake and operable circuit of service brakes are used

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

### Tires

Diagonal and radial pneumatic tubeless tires with quarry tread pattern. Designation 46/90-57; 40.00R57 Inflation pressure, MPa upon recommendation of tire producer Rim designation 29.00-57/6.0

# Hydraulic system

Combined system for body dumping gear, steering and brake actuator. Two-section variable-displacement axial-piston oil pump. Three-stage telescopic body lift cylinders with one stage of double action. Body lifting time, s 22 33 Body lowering time, s Maximum pressure in hydraulic system, MPa 18 Maximum pump delivery @ 1900 rpm, dm<sup>3</sup>/min 698 Filtration degree, mcm 10

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# 7530D

# Frame

Bucket-type welded body with FOPS safety system, rops and heating by engine exhaust. The body is equipped with device for mechanical fixing in raised position, rock-deflectors and rock-ejectors. Body capacity, m<sup>3</sup>:

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High-strength low-alloyed steel welded frame with cast elements in places of maximum loading. Box-section variable-height side rails are interconnected by cross-members.

# BELAZ

# **Special equipment**

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Combined fire-fighting system

with remote actuation and subsystem in back axle (standard)

Starting preheater (standard)\*\* Heating and conditioning unit (standard)

Centralized lubrication system (standard)

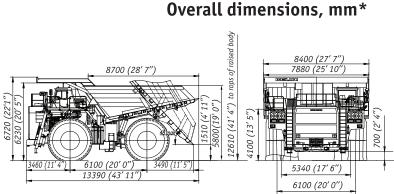
Fuel and loading control system (standard)

Tire-pressure monitoring telemetry system (standard)

Video observation system (standard)

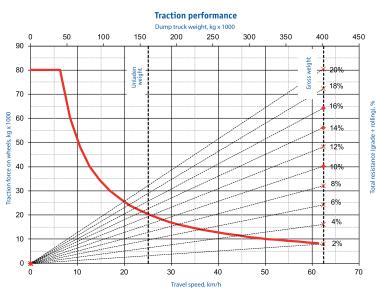
High-voltage line attention device (standard)

Fettling of body floor (option) Combined fire-fighting system with automatic control and subsystem in back axle (option)



\*Overall dimensions are specified for standard equipping of the dump truck

\*\*Excepting dump trucks of tropicalized design



	Refill capacities, l
Fuel tank	2800
Engine cooling system	650
Engine lubrication system	240
Hydraulic system	790
Motor-in-wheel reduction gears	210(105x2)
Suspension cylinders:	
- front	97.4 (48.7x2)
- rear	103.0 (51.5x2)

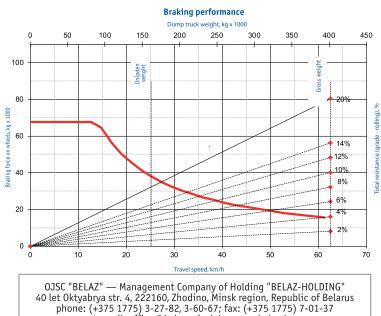
### Weight

Maximum pay	load capacity, kg		220000
Unladen weig	ht, kg		156100
Gross weight,	kq		376100
Dump truck w	eight distribution on ax	des, %:	
	unloaded	loaded	
front	45	33	
rear	55	67	

Cab

Two-man two-door cab with air-sprung adjustable seat for driver, auxiliary seat for trainee and adjustable steering column. The cab meets requirements of EN 474-1 and EN 474-6 standards for in-cab noise, vibration, content of harmful substances and dust. Driver's workplace meets ROPS safety requirements. In-cab noise level is not more than 80 dB(A).

# Traction and braking performance



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