

BELAZ

DUMP TRUCK BELAZ-7555B

55 TONS



SPECIFICATIONS

Engine

Rated power at 2100 rpm, kW (hp)	522 (700)
Maximum torque at 1400 rpm, N*m	2731
Number of cylinders	6
Cylinder displacement, l	18,9
Cylinder diameter, mm	15
Piston stroke, mm	159
Specific fuel consumption at rated power, g/kW*h	209
Air purification - three-stage with dry type filter elements.	
Exhaust gases are released through the body.	
The lubrication system is mixed, based on the «wet» sump principle.	
Oil cooling - water-oil heat exchanger.	
The cooling system is liquid, with forced circulation, combined with a hydromechanical transmission cooling system and multi-disc oil-cooled brakes.	
The starting system is electric starter.	
Voltage in the electrical system, V.	24

Transmission

Hydromechanical transmission with a complex single-stage lockable torque converter, shaft gearbox with friction clutches, automatic and command control system.

Maximum speed of the dump truck, km/h 55

Gearbox ratios:

gear	forward	reverse
1	4,07	4,53
2	2,86	
3	2,04	
4	1,43	
5	1,01	
6	0,72	

Suspension

Dependent for the front axle and drive axle with longitudinal and transverse rods. Pneumohydraulic cylinders (oil and nitrogen) with a built-in hydraulic shock absorber, two per front axle and rear axle.

Cylinder piston stroke, mm:

-front	300
-rear	270

Steering

Meets the requirements of the ISO 5010 standard.	
Turning radius, m	9
Overall turning diameter, m	20,5

Hydraulic system

combined for the body tipping mechanism, steering and braking system.
Oil pumps are gear-type.
The bodylift cylinders are telescopic, three-stage with one double-acting stage.

Bodylifting time, s	11
Bodylowering time, s	14
Maximum pressure in the hydraulic system, MPa	17
Maximum pump performance at 2100 rpm, dm ³ /min	370
Degree of filtration, microns	10

Cabin

Double, two-door, with an additional seat for a passenger, the driver's seat is air-sprung, adjustable. Meets the requirements of standards (EN 474-1 and EN 474-6) establishing levels of internal noise, vibration, concentration of harmful substances and air dust. The driver's workplace meets the requirements of the ROPS safety system. The soundlevel in the cabin is no more than 80 dB(A).

Brake system

Working system: dry-type brake mechanisms, single-disc for the front and multi-disc oil-cooled for the rear wheels. Drive - hydraulic, separate for the front and rear wheels.
Parking system: shoe brake mechanism, permanently closed type on the drive shaft of the main gear. Drive - spring, control hydraulic.
Assistance system: rear wheel motors are used. Braking for deceleration purposes is carried out by a separate foot pedal, the drive is hydraulic.
Spare system: the parking and service brake circuits are used.

Drive axle

Mechanical with a single-stage main gear with bevel gears with a circular tooth, a differential with spur bevel gears and four satellites, planetary wheel gears with spur gears.
Gear ratios:

main gear	2,733
wheel drive	7,615
total drive axle	20,815

Cardan gear

Two open-type cardan shafts with hinges on needle bearings connecting the hydromechanical transmission to the engine and drive axle. An elastic coupling is installed between the front cardan and the engine. There is a protective guard for the front driveshaft.

Body

Bucket type, with FOPS safety system, welded, with a protective canopy and heating by engine exhaust gases, equipped with a device for mechanical locking in the raised position and stone ejectors.
Body capacity, m³:
flush with the sides - 22,3; 22,7; 28,0; 34,6
stroke «heaped» 2:1 - 32,3; 35,3; 37,3; 46,1

Chassis

Welded, made of high-strength low-alloy steel. The longitudinal spars are box-shaped, of variable height, connected to each other by cross members. Cast elements are used in areas of the highest loads.

Tires

Pneumatic, tubeless, tread pattern - quarry.
Designation 24.00-35 HC 42; 24.00R35
Internal pressure, MPa according to the manufacturer's recommendation
Rim designation 17.00-35/3.5

Weight

The largest load weight (payload capacity), kg	55000
Dump truck weight without load, kg	40500
Total weight, kg	95500
Distribution of dump truck weight along axes, %:	
front	without load 51,0 with load 33,0
rear	without load 49,0 with load 67,0

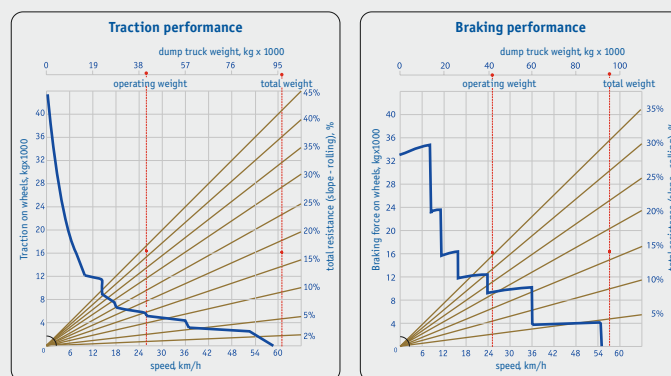
Refill tanks

Fuel tank, l	740
Engine cooling system, l	210
Engine lubrication system, l	54
Hydromechanical transmission	146
Hydraulic system	300
Main gear	
Suspension cylinders:	
-front	15,6 (7,8x2)
-rear	32,4 (16,2x2)

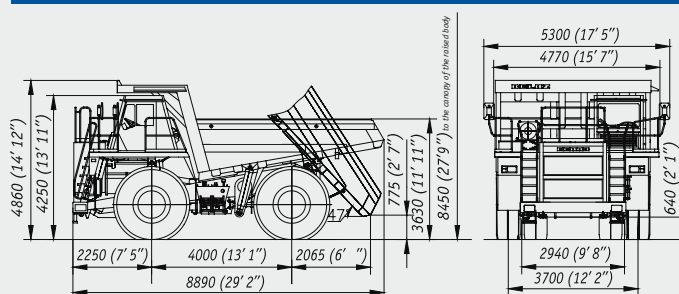
Application

Designed for transportation of rock mass in difficult mining conditions of deep quarries, in open-pit mining of mineral deposits along technological roads in various climatic operating conditions (at ambient temperatures from -50 °C to +50 °C).

Traction and braking characteristics



Dimensions, mm



Overall dimensions are indicated for the basic configuration. Due to continuous improvements in technology, specifications provided are subject to change without notice.



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