BELAZ-7555I mining dump truck with payload capacity of 60 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 @ 2100 rpm,kW(hp)	565 (757)
Maximum torque @ 1500 rpm, Nm	3600
Number of cylinders	12
Cylinder displacement, l	24.24
Cylinder diameter, mm	128
Piston stroke, mm	157
Specific fuel consumption @ rated power, g/kW-hr	210

Air cleaning is performed by three-stage filter with dry-type elements.
Engine exhaust is routed through dump truck body.
Mixed lubrication system with "wet" crankcase.
Forced circulation fluid cooling system integrated with hydromechanical transmission cooling system. Hydromechanical transmission oil cooling is performed by oil-to-water heat exchanger.
Fluid preheating system.
Electric starting system.

Driveline

Two exposed propeller shafts with joints on needle bearings join hydromechanical transmission to engine and driving axle.

Transmission

Hydromechanical transmission with complex single-stage four-wheeled torque converter with automatic locking and hydraulic coupling mode, four-shaft gearbox with friction clutches and electrohydraulic gear change control drive. Microprocessor-based automatic control and protection system. Emergency command control of gear change without automatic locking of torque converter.

Maximum travel speed, kmh 55

Gearbox ratio:

gears	forward	reverse
1	4.070	4.530
2	2.865	
3	2.045	
4	1.437	
5	1.011	
6	0.722	

Driving axle

Mechanical driving axle with single bevel final gear drive, bevel-gear differential with four pinions, planetary hub drives with spur pinions.

Ratio:

final drive	2.73
hub drive	7.62
overall ratio	20.8

Suspension

Conventional suspension for front axle and driving axle. Hydropneumatic (nitrogen and oil) cylinders: two cylinders are on front axle and two cylinders are on rear axle.

Cylinder piston stroke, mm:

- front	300
- rear	270

Steering

Hydrostatic steering with steerable front wheels.

Steering angle, degree	42
Turning radius, m	9
Overall turning diameter, m	20.5

The steering meets ISO 5010 requirements.

Hydraulic system

Hydraulic system iscombined for body dumping gear, steering and brake actuator. The system is equipped with gear-type oil pumps and body lift telescoping double-stage cylinders with one stage of double action.

Body lifting time, s	15
Body lowering time, s	14
Max pressure in hydraulic system, MPa	16.5
Max pump delivery @ 2100 rpm, dm³/min	342
Degree of filtration, micrometers	10

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7555I*

Body

Bucket-type welded body with rops, engine exhaust heating, device for mechanical fixing in raised position and rock-ejectors.
Body capacity, m^3:

struck	heaped 2:1
28	37.3

Frame

High-strength low-alloy steel welded frame. Box-section frame girders are of variable height and interconnected by cross-members.

Brakes

Brake system meets international standards and STB ISO 3450 safety requirements and includes service, parking, auxiliary and emergency brakes.
Service brakes:
Rear wheels – oil-cooled multiple-disk brakes.
Front wheels – dry disk brakes.
Brake actuator is hydraulic and separate for front and rear wheels.
Parking brake – permanently closed shoe brake on driving shaft of final drive. Spring actuator and hydraulic control.
Auxiliary brake – oil-cooled multiple-disk brakes of rear wheels are used. Braking is performed by separate foot pedal. Hydraulic actuator.
Emergency brake – operable circuit of service brakes and parking brake are used.

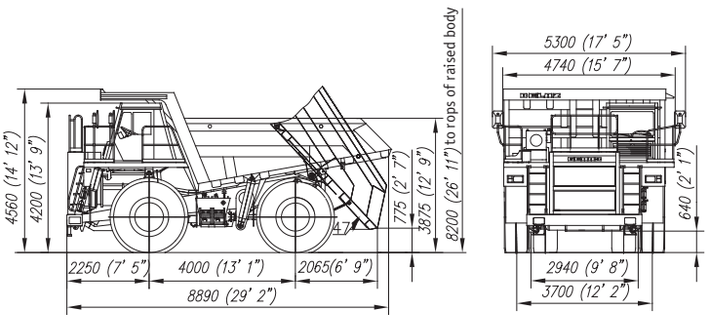
Cab

Two-man two-door cab equipped with air-sprung adjustable seat for driver, auxiliary seat for passenger, adjustable steering column. The cab meets ROPS requirements, EN 474-1 and EN 474-6 requirements for permissible level of in-cab noise, vibration, content of harmful substances and dust. In-cab noise level doesn't exceed 80 dB(A).

Special equipment

Fire-fighting system with remote actuation	(standard)
Starting preheater	**(standard)
Central lubrication system	(standard)
Heating and conditioning unit	(standard)
Loading and fuel control system	(standard)
Telemetry tire-pressure monitoring system	(standard)
Video observation system	(standard)
High-voltage line approach attention device	(standard)
Floorpan lining	(option)
Wiggins fast fueling system	(option)
Fleetgurd fuel filter	(option)

Overall dimensions, mm***



*The given technical data can be changed without preliminary notice
**Excepting dump trucks with tropicalized design
***Overall dimensions are specified for standard equipping of the dump trucks

Weight

Maximum payload, kg		60000
Unladen weight, kg		44100
Gross weight, kg		104100
Dump truck weight distribution on axles, %:		
	unloaded	loaded
front axle	51.0	33.0
rear axle	49.0	67.0

Refill capacities, l

Fuel tank	740
Engine cooling system	130
Engine lubrication system	99
Hydromechanical transmission	146
Hydraulic system	300
Rear axle	108
Suspension cylinders:	
-front	14.2 (7.1x2)
-rear	29.8 (14.9x2)

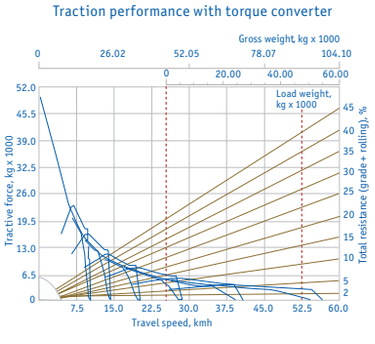
Tires

Pneumatic tubeless tires with quarry tread pattern.

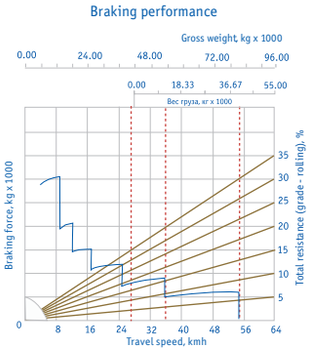
Designation	24.00R35 (E-4)
Tire pressure, MPa	0.65
Rim designation	17.00-35/3.5

Traction and braking performance

Traction performance with torque converter



Braking performance



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