

# Mining dump truck BELAZ-75581

## Payload capacity 90 tonnes (99 short tons)

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	CUMMINS QST30-C
Diesel four-cycle engine with V-type cylinders arrangement, electric control system, direct fuel injection, gas turbine charging and intermediate cooling of charged air.	
Rated power	
@ 2100 rpm, kW (hp)	783 (1050)
Number of cylinders	12
Cylinders displacement, l	30
Cylinder diameter, mm	140
Piston stroke, mm	165.1
Specific fuel consumption, g/kW hr	202
Air cleaning is performed by three-stage filter with dry-type elements.	
Exhaust gas expulsion is routed through dump truck body.	
Circulation pressurized lubrication system with "wet" sump.	
Single-loop fluid cooling system with forced circulation.	
Oil cooling is performed through water-to-oil heat exchanger.	
FLuid preheating system.	
Starting system is actuated by electric starter.	
Electric system voltage, V	24

### Transmission

AC electric drive with traction alternator, two traction electric motors, motor-in-wheel reduction gears, auxiliary electric machines, adjustment and control devices.	
Motor-in-wheel reduction gear ratio	30.36
Maximum travel speed, km/h	60

AC drive	KTE-90
Traction alternator	GST 700-8
Traction motor	TAD-9

### Steering

Hydrostatic steering with steerable front wheels.	
Steerable wheels turning angle, degrees	38
Turning radius, m	11
Overall turning diameter, m	24
Steering meets the requirements of ISO 5010.	

### Suspension

Conventional suspension for front and rear wheels. Cylinders are pneumohydraulic (nitrogen and oil).	
Cylinder piston stroke, mm	
- front	260
- rear	210

### Hydraulic system

Combined hydraulic system for body dumping gear, steering and brake actuator.	
Body lifting cylinders are telescopic and three-stage with one stage of double action.	
Body lifting time, s	19
Body lowering time, s	19
Maximum pressure in hydraulic system, MPa	16.5
Maximum pump delivery @ 2100 rpm, dm <sup>3</sup> /min	464
Filtering degree, mcm	10

### Tires

Pneumatic tubeless tires with quarry tread pattern.	
Designation	27.00R49 or 31/90-49
Inflation pressure, MPa	upon recommendation of tire producer
Rim designation	19.50-49/4.0

