# BELAZ-7558B mining dump truck
## with 90 tonnes payload capacity

**It's designed for transportation of rock in severe mining conditions of deep mines, at open pit mines on roads under various climatic operating conditions (at ambient temperature from -50 to +50°C)**


## Engine

| | |
|---|---|
| Rated power at 1900 rpm, kW (hp) | 895 (1200) |
| Maximum torque at 1300 rpm, N*m | 5086 |
| Number of cylinders | 12 |
| Cylinder displacement, l | 30 |
| Cylinder diameter, mm | 140 |
| Piston stroke, mm | 165 |
| Specific fuel consumption at rated power, g/kW*h | 199 |

Air is cleaned by three-stage filter with dry-type elements.
Engine exhaust is routed through dump truck body.
Circulating and pressurized lubrication system with «wet» sump.
Single-loop fluid cooling system with forced circulation.
Oil is cooled by oil-to-water heat exchanger.
Fluid preheating system.
Electric starting system.

| | |
|---|---|
| Electric system voltage, V | 24 |

## Transmission

AC drive with traction alternator, two traction motors, motor-in-wheel reduction units, adjustment and control devices. Antilock and antiskid functions.
Power control cabinet modular structure.
Control cabinet – BELAZ-7558B-2112010.

| | |
|---|---|
| Maximum dump truck speed, km/h | 64 |
| Motor-in-wheel reduction unit ratio | 30.36 |

| | | |
|---|---|---|
| Traction alternator | SGT 700-8UHL2 | GSN 700 |
| Traction motor | TAD-320-6V3 | MY4450 K/6 |

## Suspension

Conventional suspension for front and rear wheels with pneumohydraulic (nitrogen and oil) cylinders 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 | 260 |
| rear | 210 |

## Steering

Hydrostatic steering with steerable front wheels.

| | |
|---|---|
| Steering angle, degree | 38 |
| Turning radius, m | 11 |
| Overall turning diameter, m | 24 |

The steering meets ISO 5010 requirements.

## Hydraulic system

Combined hydraulic system for body dumping gear, steering and brakes.
Three-stage telescopic body lifting cylinders with one stage of double action.
Variable-displacement axial-piston oil pump.

| | |
|---|---|
| Body lifting time, s | 21 |
| Body lowering time, s | 19 |
| Maximum pressure in hydraulic system, MPa | 18 |
| Maximum pump delivery at 1900 rpm, $dm^3$/min | 474 |
| Filtration degree, μm | 10 |

## Cab

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

## Body

Welded bucket-type body with FOPS, ROPS, engine exhaust heating, device for mechanical fixing in raised position, rock-fenders and rock-ejectors.
Body capacity, $m^3$:

| struck | heaped 2:1 |
|---|---|
| 37.7 | 53.3 |
| 44.5 | 60.0 |
| 75.0 | 93.0 |
| 86.5 | 103.0 |

## Frame

Welded high-strength low-alloy steel frame. Box-section variable-height side-members are interconnected by cross-members. Cast elements are used in places of maximum loading.

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## Brake system

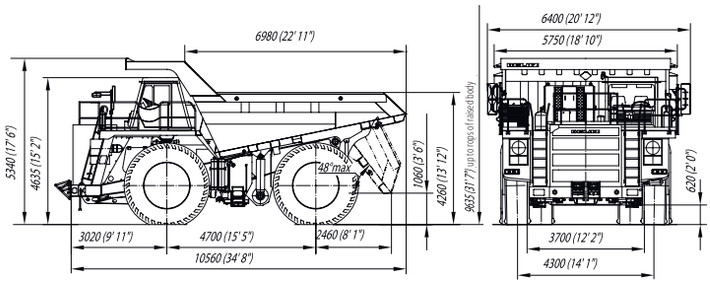
Brake system meets international safety regulations and requirements of ISO 3450 and includes service, parking, auxiliary and emergency brakes.
Service brakes:
front wheels – dry single-disk brakes with two brake gears per disk and automatic gap adjustment;
rear wheels – dry single-disk brakes with one brake gear per disk and automatic gap adjustment.
Parking brakes:
Permanently closed brakes of rear wheels, spring drive and hydraulic control.
Auxiliary brakes:
Electrodynamic braking by traction motors in generator mode with forced cooling of brake resistors.
Emergency brakes:
Parking brake and operable circuit of service brakes.

| | |
|---|---|
| Brake resistors | UVTR 2x600 |
| Dissipated power, kW | 1200 |

## Special equipment

Remotely actuated fire extinguishing system (standard)
Starting preheater (standard, excepting tropicalized dump trucks)
Video observation system (standard)
Centralized automatic lubrication system (standard)
Telemetering tire-pressure monitoring system (standard)
High-voltage line approach attention device (standard)
Loading and fuel control system (standard)
Heating and conditioning unit (standard)
Body floor lining (optional)

## Overall dimensions, mm




Overall dimensions are specified for basic configuration of the dump truck.
The above specifications are subject to change without notice due to the continuous improvement of the vehicle design.

## Weight

| | | |
|---|---|---|
| Maximum payload capacity, kg | | 90000 |
| Unladen weight, kg | | 74000 |
| Gross weight, kg | | 164000 |
| Dump truck weight distribution on axles, %: | | |
| | unloaded | loaded |
| front axle | 50.9 | 33.0 |
| rear axle | 49.1 | 67.0 |

## Refill capacities, l

| | |
|---|---|
| Fuel tank | 1105 |
| Engine cooling system (tropicalized dump truck) | 260 (380) |
| Engine lubrication system | 140 |
| Hydraulic system | 510 |
| Motor-in-wheel reducers | 80 (40x2) |
| Suspension cylinders: | |
| front | 31.4 (15.7x2) |
| rear | 58.0 (29.0x2) |

## Tires

Pneumatic, tubeless tires. Open cast mine tread pattern.

| | |
|---|---|
| Tire designation | 27.00R49; 31/90-49 |
| Tire inflation pressure as recommended by tire producer | |
| Rim designation | 19.50-49/4.0 |

## Towing and braking performance