



Mine dump truck BELAZ-75174 of payload capacity 160 tonnes (176 short tons)

It's designed for transportation of rock mass in difficult mining and technical conditions of deep mines, at mineral deposit open pits on technological roads under various climatic operating conditions (at ambient temperature from -50 to +50 °C).



Engine

Model MTU DD 12V4000
 Four-cycle turbocharged and intercooled direct diesel engine with V-type cylinders arrangement and electronic control system. The engine meets Tier1 toxic substances emission requirements.
 Rated power @ 1900 rpm, kW (hp) 1400(1875)
 Maximum torque @ 1500 rpm, N.m 7610
 Number of cylinders 12
 Cylinders displacement, l 48,8
 Cylinder diameter, mm 165
 Piston stroke, mm 190
 Specific fuel consumption at rated power, g/kW hr 201
 Air cleaning is performed by three-stage filter with dry-type elements.
 Engine exhaust expulsion is performed through body.
 Circulating lubrication system is pressurized and designed with "wet" crankcase. Single-loop fluid cooling system with forced circulation.
 Fluid preheating system.
 Pneumatic starter starting system.
 Electric equipment system voltage, V 24

Electric drive

AC-AC KTE-160 drive with traction alternator, two traction motors, motorized wheels differential-type double-row planetary reduction units, adjustment units and control devices.
 Transmission ratio 30,54
 Maximum dump truck travel speed, km/h 64

Transmission	AC -AC
Traction alternator	SGT 1600-8
Traction motor	TAD-5

Suspension

Suspension is conventional for front and driving axles and equipped 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 220
 - rear 170

Steering

Hydrostatic steering with steerable front wheels.
 Steering angle, degree 42
 Turning radius, m 14
 Overall turning diameter, m 29
 The steering meets ISO 5010 requirements.

Brakes

Dump truck brake system meets ISO 3450 international safety requirements and is equipped with service, parking, auxiliary and emergency brake systems.
Service brake system consists of disk brakes with two brake gears per disk for front wheels and disk brakes with two brake gears per disk and automatic gap adjustment for rear wheels. The disks are mounted on traction motor shafts.
Parking brake system is permanently closed with one rear wheels brake gear per disk, spring actuator and hydraulic control.
Auxiliary brake system is electrodynamic braking by traction motors with forced air cooling of brake resistors.
Emergency brake system uses parking brake and operable circuit of wheel brakes.
 Brake resistors Gridbox 2x600 - 2 units
 Power, kW 2400

Hydraulic drive

Hydraulic system is combined for body dumping gear, steering and brakes actuator. The system is equipped with two-section variable-displacement axial-piston oil pump and two-stage telescopic body lifting cylinders with one stage of double action.
 Body lifting time, s 20
 Body lowering time, s 22
 Maximum pressure in hydraulic system, MPa 18
 Maximum pump delivery @ 1900 rpm, dm³/min 698
 Filtration degree, mcm 10

