

Water sprinkling vehicle BELAZ-76135 with tank capacity 119 m³

It's effective at execution of watering and sprinkling operations on strip-mining roads under various climatic operating conditions.



Engine

Model	CUMMINS KTA 38-C
Four-cycle turbocharged and intercooled direct diesel engine with V-type cylinders arrangement.	
Rated power @ 1900 rpm, kW (hp)	895(1200)
Maximum torque @ 1300 rpm, N.m	4726
Number of cylinders	12
Cylinders displacement, l	37,8
Cylinder diameter, mm	159
Piston stroke, mm	159
Specific fuel consumption at rated power, g/kW hr	207
Air cleaning is performed by three-stage filter with dry-type elements.	
Pressurized circulation lubrication system designed with "wet" sump.	
Single-loop fluid cooling system with forced circulation.	
Fluid preheating system. Pneumatic starter starting system.	
Electric equipment system voltage, V	24

Electric drive

AC-DC drive with traction alternator, two traction motors, motor-in-wheel double-reduction gear units with spur gears, adjustment devices, microprocessor-based control system and control devices.

Transmission ratio	30,36
Maximum travel speed, km/h	48

Traction alternator	SGT-1000, GST-1, GSN500
Traction motor	EDP-600; EK-590

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	320
- rear	290

Steering

Steering is hydrostatic with steerable front wheels.

Steering angle, dg	42
Turning radius, m	13
Overall turning diameter, m	28
Steering meets ISO 5010 requirements.	

Brakes

Water sprinkling vehicle brake system meets ISO 3450 international safety requirements and is equipped with service, parking, auxiliary and emergency brake systems.

Service brake system consists of front wheels disk brakes with two brake gears per disk and rear wheels disk brakes with two brake gears per disk and automatic gap adjustment. 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 (UVTR 2x600, power 1200 kW).

Emergency brake system uses parking brake and operable circuit of wheel brakes.

Hydraulic drive

Hydraulic system is combined for steering and brakes actuator.

Variable-displacement axial-piston oil pump.	
Maximum pressure in hydraulic system, MPa	18
Maximum pump delivery @ 1900 rpm, dm ³ /min	474
Filtration degree, mcm	10

Foam generator set

Foam generator set consists of foam former, air-foam gun with remote drive, foam mixer, stop and control valves and connections.
 Foam ratio (in foam generator operation mode), not less 6
 Gun turning angle:
 - in vertical plane, dg from -15 to +45
 - in horizontal plane, dg ±35
 Jet range, m 40
 Foam former tank capacity, l 7000

Frame

Frame is welded of high-strength low-alloy steel with application of cast elements at the maximum loading points. Box-section variable-height sidemembers are interconnected by crossmembers.



Tires

Tubeless air tires with quarry tread pattern.
 Tire designation 33.00-51
 Inflation pressure, MPa 0,62
 Rim designation 24.00-51/5.0

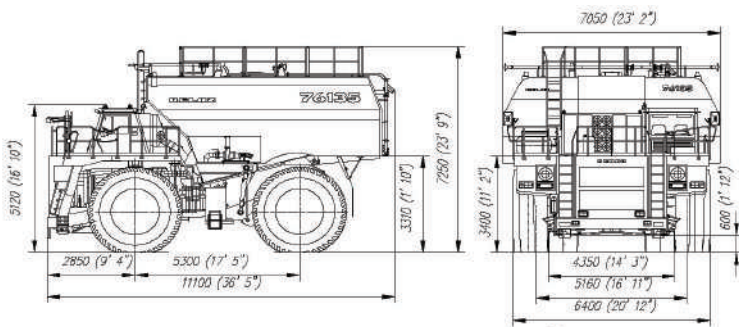
Cab

Two-man two-door cab with air-sprung adjustable driver seat, additional trainee seat and adjustable steering column.
 The cab meets ROPS safety requirements and requirements of standards (EN 474-1 and EN 474-6) that specify permissible levels of in-cab noise, vibration, content of hazardous substances and dust.
 In-cab noise level is not more than 80 dB(A).
 Local vibration level is not more than 126 dB(A).
 Overall vibration level is not more than 115 dB(A).

Special equipment

- Fire-fighting system (standard)
- Heating and conditioning unit (standard)
- Tire-pressure monitoring telemetry system (standard)
- Centralized automatic lubrication system (standard)
- Starting preheater (optional)
- Air purification system (optional)
- Auxiliary heater of cab (optional)

Overall dimensions, mm*



*Overall dimensions are specified for dump truck with standard options

Weight

Maximum tank capacity, l	119000
Unladen weight, kg	110100
Gross weight, kg	229100
Vehicle weight distribution on axles, %:	
- front	unloaded 50,9 loaded 33,0
- rear	unloaded 49,1 loaded 67,0

Capacities, l

Fuel tank	1900
Engine cooling system	380
Engine lubrication system	156
Oil tank	490
Reduction gears of motor-in-wheels	92(46x2)
Suspension cylinders:	
- front	33,8(16,9x2)
- rear	57,4(28,7x2)

Water sprinkling system

Single-stage centrifugal pump	K100-65-250
Drive power, kW	32
Rotational speed, min ⁻¹	2900
Maximum pump delivery, m ³ /min	1,7
Pump thrust, mm of water column	80
Pump drive is hydrostatic.	

Side spraying system

Two fan-shaped sprayers with actuation valves controlled from the cab.

Rear spraying system

Four fan-shaped sprayers with actuation valves controlled from the cab.
 Width of water sprinkling zone, m 24,5

Hydraulic gun

Gun mounted at the tank front top with actuation valve controlled from the cab and mechanism of slewing in vertical and horizontal planes.
 Angle of gun slewing, dg:

upward	50
downward	10
in horizontal plane, radius	35
Water jet range, m	60

Drum with fire-hose barrel

Drums mounted at the tank rear end with rubberized hoses and fire-hose barrels.

Number of drums	1
Hose length, m	10