

BELAZ SERIES 7557

90 mt/ 100 t payload capacity



Engine

Model CUMMINS QST30-C- meets Tier 2 emissions
 Pending model MTU 12V2000- meets Tier 4i emissions
 Diesel, four-cycle turbocharged/ intercooled V-block, direct injection diesel engine with electronic controls.

	Metric	SAE
CUMMINS QST30-C:		
Rated power @ 2100 rpm, kW/ hp	783	1050
Maximum torque @ 1300 rpm, N.m/ ft lbs	4640	3422
Number of cylinders	12	12
Cylinders displacement, l/ cu in	26.8	1635

Air cleaning is performed by three-stage filter with dry-type elements.
 Engine exhaust routed through body.
 Circulating lubrication system is pressurized and designed with wet sump. Single-loop fluid cooling system with forced circulation.
 Oil cooling is performed by oil-to-water heat exchanger.
 Fluid preheating system.
 Starting system is actuated by pneumatic starter.
 Electric equipment system voltage, V

24

Transmission

Hydromechanical transmission is equipped with pump drive, planetary gearbox with torque converter, automatic control system.
 The transmission cooling system is operated through heat exchangers.
 Maximum dump truck travel speed, km/h/ mph 55/ 34

Gearbox ratios:	forward	reverse
gears		
1	4.75	4.03
2	3.45	
3	2.58	
4	1.87	
5	1.38	
6	1.00	

Pending model

Allison

Suspension

Suspension is conventional for front axle and drive axle and equipped with trailing arms, central joints and transversal rods. Cylinders are pneumohydraulic (nitrogen and oil) and equipped with built in hydraulic shock absorber. Two cylinders are on the front axle and two cylinders are on the rear axle.

	Metric, mm	SAE, in
Cylinder piston stroke		
- front	260	10
- rear	210	8

Steering

Hydrostatic steering with steerable front wheels.

	Metric, m	SAE, ft
Steering angle, degree	38	38
Turning radius	11	36
Overall turning diameter	24	79

The steering meets ISO 5010 requirements.

Brakes

Dump truck brake system meets ISO 3450 international safety regulations and requirements. The system is equipped with service, parking, auxiliary and emergency brake systems.

Service brake system

Front wheels dry-type disc brakes and rear wheels multiple-disc oil-cooled brakes. Actuator is hydraulic and separate for front and rear wheels.

Parking brake system

Disc brake on final drive shaft

Auxiliary brake system

Rear wheels multiple-disc oil-cooled brakes with hydraulic actuator. Service brakes operate by separate foot pedal.

Emergency brake system

Parking brake and operable circuit of service brakes.

Hydraulic Drive

Hydraulic system is combined for body dumping gear, steering and brakes actuator. The system is equipped with gear-type oil pumps and three-stage telescopic body lifting cylinders with one stage of double action.

Body lifting time, s	20
Body lowering time, s	19
Maximum pressure in hydraulic system, MPa	16.5
Maximum pump delivery @ 2100 rpm, dm ³ /min/ gal/min	464/ 123
Filtration degree, mcm	10

Body

Welded bucket-type body with FOPS safety system, protective canopy, engine exhaust heating, device for mechanical fixing in raised position, rock-fenders and rock-ejectors.

Body capacity:

struck		heaped 2:1	
Metric, m ³	SAE, yd ³	Metric, m ³	SAE, yd ³
37.7	49	53.3 (standard)	70
44.5	58	60.0 (optional)	58
75.0	98	93.3 (optional)	98



Frame

Frame is welded of high-strength low-alloy steel with castings at the maximum loading points and equipped with box-section variable-height side-members interconnected by cross-members.

Drive axle

Mechanical drive axle is equipped with single-stage bevel final drive, bevel differential with planetary hub drives.

Ratios:

final drive	2.56
hub drive	7.44
driving axle total	19.05

Driveline

Driveline consists of two open-type cardan shafts that join transmission to engine and drive axle. Flexible coupling is mounted between front cardan shaft and engine. Front cardan shaft is equipped with protective guard.

Cab

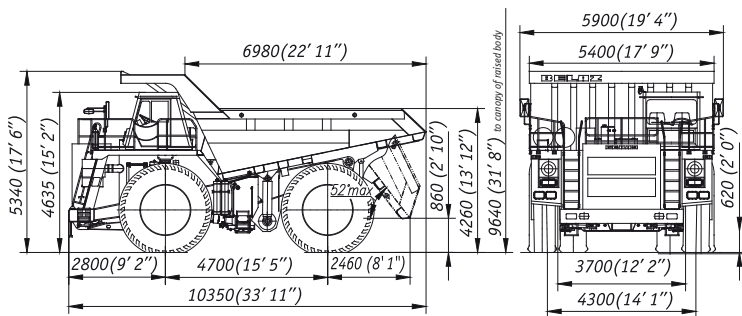
Two-man two-door cab is equipped with air-sprung adjustable driver seat, additional trainee seat and adjustable steering column. The cab meets EN 474-1 and EN 474-6 requirements that specify permissible levels of noise, vibration, and dust. Cab meets ROPS safety requirements. In-cab noise level is not 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).

Tires

Radial or diagonal tubeless air tires with quarry tread pattern.

Tire designation	27.00R49 or 31/90-49
Inflation pressure, MPa/ psi	0.6 (87.02) 0.65/ 94
Rim designation	19.50-49/4.0

Overall dimensions, mm*



*Overall dimensions are specified for basic truck with standard options

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Weight

	Metric, kg	SAE, lbs
Maximum payload capacity	900001	98416
Unladen weight	74000	163142
Gross weight	164000	361558
Dump truck weight distribution on axles, %:		
	unladen	laden
front	50.9	33.0
rear	49.1	67.0

Capacities

	Metric, l	SAE, gal
Fuel tank	1400	370
Engine cooling system	380	100
Engine lubrication system	140	37
Hydraulic system	405	107
Hydraulic cooling system of multiple-disk oil-cooled brakes	360	
Gearbox	120	32
Final drive	145	38
Hub drives (2)	90	24
Suspension cylinders:		
front (2)	33	9
rear (2)	86	23

Special equipment

- Fire-fighting system (standard)
- Preheating system (standard)
- Automatic lubrication system (standard)
- Loading and fuel control system (standard)
- Telemetering tire-pressure monitoring system (optional)
- Body floor lining (optional)
- Exhaust routed undertruck (optional)
- Diagonal stairs (optional)

Propulsion and braking performance

