

OFF-HIGHWAY MINING TRUCK
SET150S
DIESEL ELECTRIC POWER



Nominal Payload
136tonnes/150tons

Gross Vehicle Weight (GVW) up to
251tonnes/276tons

Gross Power
≥1,400kW

Technical Data

Overall Parameters	Unit	Value
Overall dimensions: L × W × H	mm/in	11,810×6,900×6,185 /465×272×243
Wheelbase	mm/in	5,300/208
Front track width	mm/in	5,725/225
Rear track width	mm/in	4,875/192
Ground clearance	mm/in	490/19
Max. steering angle of front wheels	°	40
Min. steering radius	m/in	13.2/519
Gross power	kW/hp	≥1,400/1,877
Max. speed	km/h/ mph	65/40
Max. Gradeability	%	30
Struck SAE	m ³ /yd ³	60/78.5
Heaped SAE 2:1	m ³ /yd ³	78/102

Weight Distribution

Axle Load	Front Axle	Rear Axle
Unloaded	51%	49%
Loaded	33%	67%

Fluid Capacities

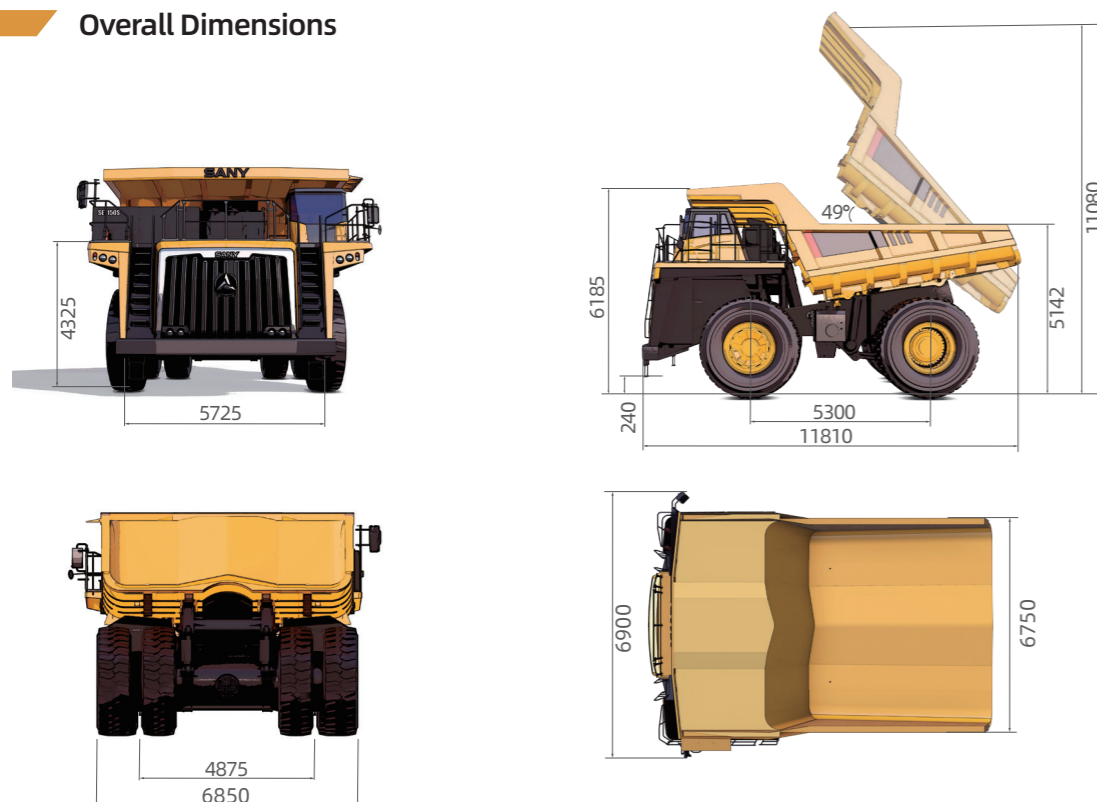
Fluid Capacities	L
Engine crankcase and filter (engine oil)	90×2
Hydraulic oil tank (Sany exclusive)	378
Engine cooling system (antifreeze)	85×2
Battery cooling system (antifreeze)	13
Fuel tank (diesel)	1,700
Front suspension system (engine oil)	29×2
Rear suspension system (engine oil)	25×2
Motorized wheel reducer of rear axle (gear oil)	46×2

Weight Parameters

Item	kg	lb
Chassis, with hoists	96,800	213,400
Body, standard	18,200	40,120
Net weight	115,000	253,530
Rated payload	136,000	300,000
Max. gross weight	251,000	553,360

* The maximum gross vehicle weight (GVW) includes optional equipment, all accessories, fully filled fuel tank, loadings, etc; Overload will seriously deteriorate the lives of the components and the truck!

Overall Dimensions



Dimension Unit:mm

* Dimensions may vary due to different configurations. The specific parameters are subject to actual conditions.

Main Configurations

Engine × 2

- Model: Weichai WP17;
- Type: 4-cycle, turbocharged, intercooled;
- Rated power: 2×565kW/1900rpm;
- Max. torque: 3,000Nm/1,500rpm;
- Number/type of cylinders: 8/V shape, turbocharged;
- Bore stroke: Φ127mm×165mm/Φ5"×6.5";
- Displacement: 16.72L/1020in³.

Electric Drive System

- Alternator: 2×560kVA;
- Wheel reduction ratio: 30.36:1;
- Control module: tPower-TC42;
- Battery pack: 79kWh;
- Max. travel speed: 65km/h/40mpf;
- Note: The performance of drive system depends on the gross vehicle weight, gradient and length of transport road, rolling resistance, engine power, and other parameters. The drive system can adjust to the actual working conditions to realize the optimal performance of the mining dump truck.

Brakes

- Max. power of electric brake: 1,800kW(2,412hp);
- Max. rated power of continuous braking: 1,400kW (1,876hp);
- Front: Single disc per side, dual caliper per disc; Dia. of brake disc: 984mm(38in); Total area of brake lining: 2,632cm²(408in²);
- Rear: Single disc per side, dual caliper per disc; Dia. of brake disc: 704mm(28in); Total area of brake lining: 2,632cm²(408in²);
- Service brake: All hydraulic brake system control. Transmission PTO mounted pressure compensating piston pump provides hydraulic pressure for brakes and steering. Independent circuits front and rear. Each circuit incorporates accumulator which stores energy to provide instant braking response;
- Parking brake: Rear brakes applied by spring loaded opposing piston on disc pack, hydraulically released;
- Loading brake: Switch on/off to control;
- Emergency brake: The service brake is automatically applied when the pressure of hydraulic system is below the set value;
- The electric brake is equipped with continuous air-cooled resistance grid, electric retarder brake, loading brake, and standard reversing brake system;
- The brake systems conform to the requirements of ISO3450.

Steering

- Independent hydraulic steering with closed-center steering valve, pressure compensating piston pump and accumulator. Accumulator provides uniform steering regardless of engine speed. In the event of loss of engine power, it provides emergency power to system for steering;
- Min. turning radius: 13.2m/520";
- The steering system meets the SAE1151/5010 standard.

Frame

- Dual variable-section box structures welded from high-strength alloy steel plates and steel castings, integrated with the FOPS/ROPS structures to achieve excellent bending capacity, strong distortion resistance, endurant impact ductility and extended life.

Suspension

- Independent front suspension. The smaller swing arm motion reduces the lateral displacement of tires and prolongs the lives of tires. It features extended life and maintenance period.
- Front suspension travel: 280mm(11.02in);
- Rear suspension travel: 200mm(7.87in).

Hoist

- Independently hydraulic system with retarders at limiting positions. Two 3-section hoist cylinders are mounted on both sides of the frame rails to keep stable of body while raises the body.
- Body hydraulic pump flow rate: (1,900rpm)500L/min(132USgal/min);
- Liftings ≤20s, Lowerings ≤19s.

Body

- The body is W-shape structures. The side plates are constructed from extra wide high tensile strength abrasion-resistant steel. The body is highly impact resistance and needs lower load height. Tilted angle 49°;
- Standard thickness: Floor: 20mm; Side: 10mm; Front: 10mm;
- Struck: 60m³ (78.5yd³);
- Heaped 2:1 (SAE std): 78m³ (102yd³).

Cab

- The cab conforms to the requirements of ISO 3471, FOPS/ROPS certified Equipped with integral four-pillar tipping protection design;
- Adjustable cushioned seat, luxury upholstery, and tiltable and telescopic steering wheel to provide a comfortable operating space The cab provides a sound exposure Leq (equivalent sound level) of less than 78 dB(A) when tested with doors and windows closed.

Tires

- Standard: 33.00R51;
- Specification of wheel rim: 51-24.00/5.0;
- Under certain working conditions, TKPH(ton-Km/h) capabilities of standard tires could be exceeded. Please kindly consult tire manufacturers for optimum tire selection.

Other Standard Equipment

- Automatic lubrication system;
- Automatic weighing system;
- Fast fuel fill;
- Engine muffler.

Optional Equipment	Note
Engine	Volvo TAD1643
Heating type body	Engine exhaust gas heating structure
Low-temperature start-up system	Suitable for extremely low temperature regions
Cruise Speed Control	Suitable for long transport distance condition
Chain type stone deflector	Clearing of stones from rear tires
360° Full View Monitor System	For wraparound safety of the truck
Enlarged body	Suitable for lighter weight material
Heavy-duty body	Suitable for heavier weight material
Wear-resistant truck body liners	Suitable for very abrasive material
Automatic fire-extinguishing system	Automatic fire extinguishing for engine and rear axle case
Tire pressure monitor	Realtime tire pressure and temperature monitoring

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