

ARTICULATED DUMP TRUCK SAT40C

Optional Equipment	Note
Retarder (integrated in transmission)	Suitable for speed control on long downhill roads
Heating type body	Engine exhaust gas heating structure
Low-temperature start-up system	Suitable for extremely low temperature regions
Automatic fire-extinguishing system	Fire extinguishing forengine cab
Automatic lubrication system	For regular grease filling in a specified amount



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Nominal Payload
41tonnes/45tons

Gross Vehicle Weight (GVW) up to
75tonnes/83tons

Gross Power
390kW

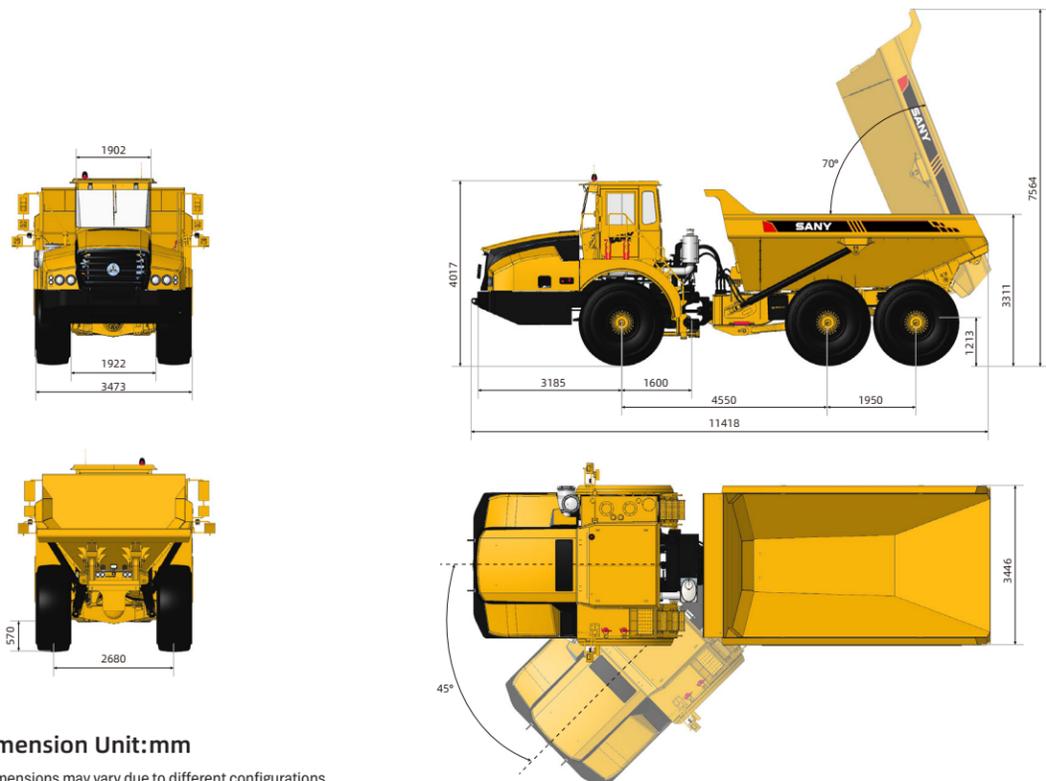
Technical Data

Overall Parameters	Unit	Value
Overall dimensions: L × W × H	mm/in	11,418×3,473×4,017(7,564) /450×137×158(298)
Wheelbase	mm/in	4,550+1,950/179+77
track width	mm/in	2,680/106
Ground clearance	mm/in	570/22
Max.steering	°	45
Min. steering radius	mm/in	8,900/350
Gross power	kW/hp	390/523
Max. speed	km/h	42/50
Max.Gradeability	%	40
Struck SAE	m ³ /yd ³	20/26
Heaped SAE 2:1	m ³ /yd ³	25.5/33

Weight Distribution

Axle Capacity	Front Axle	Intermediate Axle	Rear Axle
Unloaded	55%	23%	22%
Loaded	30%	35%	35%

Overall Dimensions



Dimension Unit:mm

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

Fluid Capacities

Fluid Capacities	L
Engine crankcase and filter (engine oil)	28
Transmission, torque converter, retarder and oil cooler(automatic transmission exclusive oil)	55
Engine cooling system (antifreeze)	55
Fuel tank (diesel)	500
Hydraulic oil tank (hydraulic oil)	420
Front suspension · each (hydraulic oil)	3.5
Intermediate/rear suspension · single side (hydraulic oil)	9.5
Front/Rear axle · each (gear oil)	55
Intermediate axle (gear oil)	59
Wheel rim reducer · each (gear oil)	5
Transfer case (gear oil)	28

Weight Parameters

Item	kg	lb
Chassis, with hoists	29,036	64,013
Body, standard	4964	10,944
Net weight	34,000	74,957
Rated payload	41,000	90,390
Max. gross weight	75,000	165,347

* 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!

Main Configurations

Engine

- Model: WeichaiWP13G530E310;
- Type: 4 cycle turbocharged charge air cooled;
- Max. power: 390kW/2100rpm;
- Max. torque: 2300Nm/1500rpm;
- Number of cylinders/configuration: 6, straight type;
- Bore stroke: Φ127mm × 165mm/Φ5"×6.5";
- Displacement: 12.54L。

Transmission

FC mining special electronic automatic transmission is adopted to realize 6 forward gears and 1 reverse gear. This type of transmission can realize automatic speed change according to the load. The integration of hydraulic torque converter and hydraulic retarder is selected to provide the truck with the hydraulic retarding function.

	Forward						Reverse
	1st	2nd	3rd	4th	5th	6th	r1
Ratio	4.4	2.33	1.53	1	0.72	0.61	3.97
km/h	4.3	9.4	16.1	26.4	35.3	42	4.4
Mile/h	2.7	5.8	10	16.4	22	26.1	2.7

Brakes

- Brake type: full disc wet brake;
- Service brake: Equipped with full power hydraulic brake system, each wheel equipped with fully closed, forced-oil-cooled multi-disc brake, for traveling and operation safety and operating comfort;
- Retarder brake: transmission retarder brake as optional for auxiliary braking;
- Parking brake: Caliper brake is used to lock the drive shaft; spring-applied type, hydraulic release;
- Emergency brake: Service braking and parking braking controlled by solenoid valve;
- Brakes meet the requirements of ISO 3450.

Steering

- The full-hydraulic articulated steering features stable and sensitive steering;
- The closed-core load-sensing steering gear and the load-sensing plunger pump ensure high efficiency and energy-saving;
- The independent emergency grounded steering pump safeguards the driving safety throughout the journey

Cab

- Meet 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 conforms to the requirements of ISO 3471. The cab provides a sound exposure Leq (equivalent sound level) of less than 78 dB(A) when tested with doors and windows closed.

Frame

- Having been carefully analyzed, calculated and designed, the frame is made of high strength steel plates, of box type construction, and features light weight, good impact resistance, high bending and torsional resistance, and good durability. Casting structure can preferentially reduce stress concentration and extend the service life.

Suspension

- The front and rear suspension of the truck is provided with the oil-gas (nitrogen) suspension cylinder characteristic of variable damping, featuring good damping effect and maintainability; thus, the road impact can be well absorbed; even in the extreme environment, the driver can still enjoy comfort during operation;
- Front suspension travel: 200mm(7.9 in);
- Middle and rear suspension travel: 155mm(6.1in)。

Hoist

- Independent hydraulic system, with two double acting oil cylinders installed outside the frame, ensuring a smooth lifting process. It has the lifting-in-place and falling-in-place functions;
- Body hydraulic pump flow rate: (2200r/min)308L/min ;
- Liftings ≤ 13s, Lowering ≤ 10s。

Drive Axle

- The heavy-duty rigid drive axle features reliable and stable performances;
- The wet brakes are installed to provide long-acting and reliable braking force;
- The automatic limited slip differential lock mechanism guarantees high efficiency and reliability, requiring no driver's intervention.

Body

- 'V' type tilted body, made of high strength wear-resistant steel plate, with high wear and impact resistance. The optimized body structure guarantees smooth dumping without materials stuck; standard body: welded from 16mm bottom plate, 10mm side plate, and 8mm front plate;
- Struck: 20m³(26yd³);
- Heaped 2:1 (SAE std): 25.5m³(33yd³).

Tires

- Standard: 29.5R25;
- Specification of wheel rim: 25-25.00/3.5;
- Under certain working conditions, TKPH(ton-Km/h) capabilities of standard tires could be exceeded. Please kindly consult tire manufacturers for optimum tire selection.