



SKT90MT Off-Road Wide-Body Mining Vehicle



SRT45 Off-Highway Truck



SRT55D Off-Highway Truck



SRT95C Off-Highway Truck



SET230 Off-Highway Truck



SAT40 Articulated Dump Truck



Address: 16 Kaifa Road, Economic & Technological Development Zone,
Shenyang Liaoning Province, P.R.China

Service hotline: 400-880 8318

Telephone: 0086-24-89318368 Website: www.sanyhe.com



Continuing improvement and advancement of the design may cause changes to technical parameters of the truck that would without notice. The equipments may provide with truck which shown in the fig.
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LARGE OPEN-PIT MINING DUMP TRUCK



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Company Overview

SANY Heavy Equipment is determined to become the leader and pioneer of technology in the open pit mining machinery industry. Since its establishment, it has filled a number of industry gaps, which have significant industry influence and promoted the overall technical improvement of the mining machinery industry. Today, SANY Heavy Equipment has been recognized by more than 80 countries and regions around the world and exported to overseas, whether it is the rugged Zambian mine, the endless Pampas Argentina, or the winding Tunisian harbor.

At present, SANY Heavy Equipment has 4 series and 6 categories of mining machine products, which can produce 40 to 230 tons of loading capacity of mining trucks. SANY mining trucks use its six core technologies to create competitive advantage products. With the advantages of safety, reliability, economy, it has become the leader and pioneer of Chinese new generation of mining truck technology.

SANYI Presentation

Mining Dump Truck Series & Parameters

Mining Dump Truck Cases in China & Overseas



SKT90MT Off-Road Wide-Body Mining Vehicle



Service Data

Service Capacities	L
Engine crankcase and filters	28
Transmission	23
Cooling system	110
Fuel tank	450
Steering hydraulic system (including oil tank)	22
Main retarder (total)	40
Inter-axle differential	2
Planetaries (total)	24
Front spring (each)	3.5
Balancing axle cast (total)	4
Lifting system (including oil tank)	145



Weights

Weights	kg	lb
Chassis, with hoists	20,500	45,200
Body, standard	9,500	20,900
Net Weight	30,000	66,100
Rated Payload	60,000	132,000
Max. Gross Vehicle Weight*	90,000	198,000

* Permissible gross vehicle weight with options, attachments, full fuel tank and payload.

Weight Distribution

Axle capacity	Front Axle	Middle, Rear Axle
Empty	29.4%	70.6%
Loaded	22.2%	77.8%



Optional Equipment

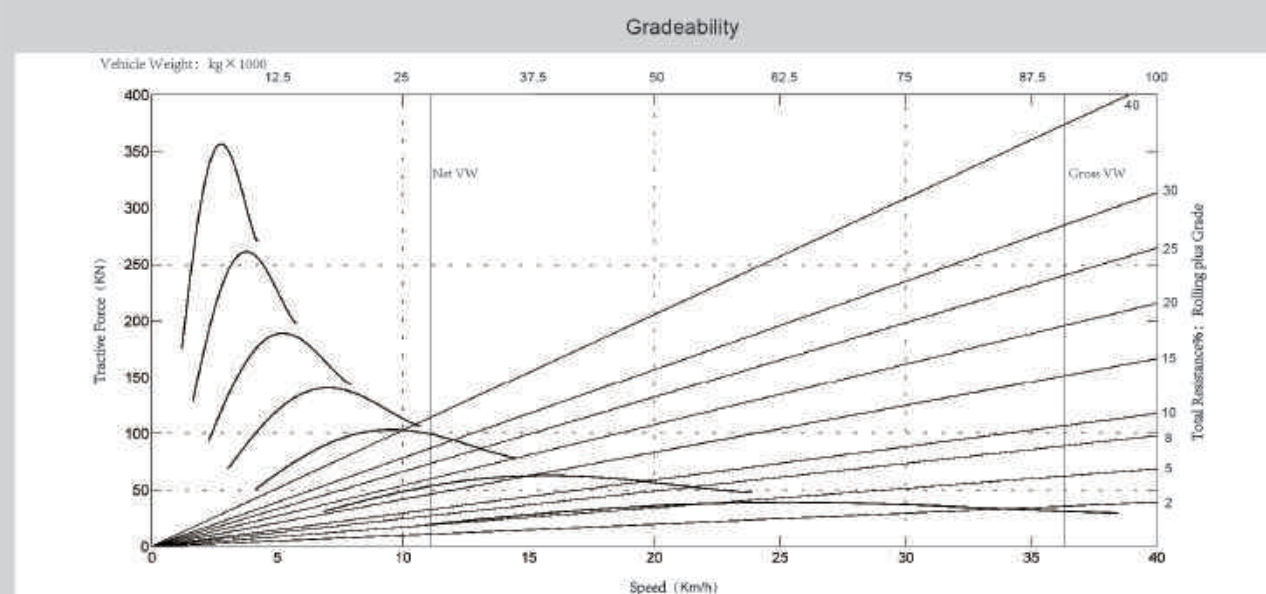
Optional Equipment	Remarks
Engine	weichai WP12G460E310
Tyre	14.00R25 16.00-25-28PR
Silencer	No body heating type
Body, Increase Capacity	Small specific gravity material
Body, Rock Carriage	High specific gravity material
Automatic Lubrication System	
Hydraulic Retarder	



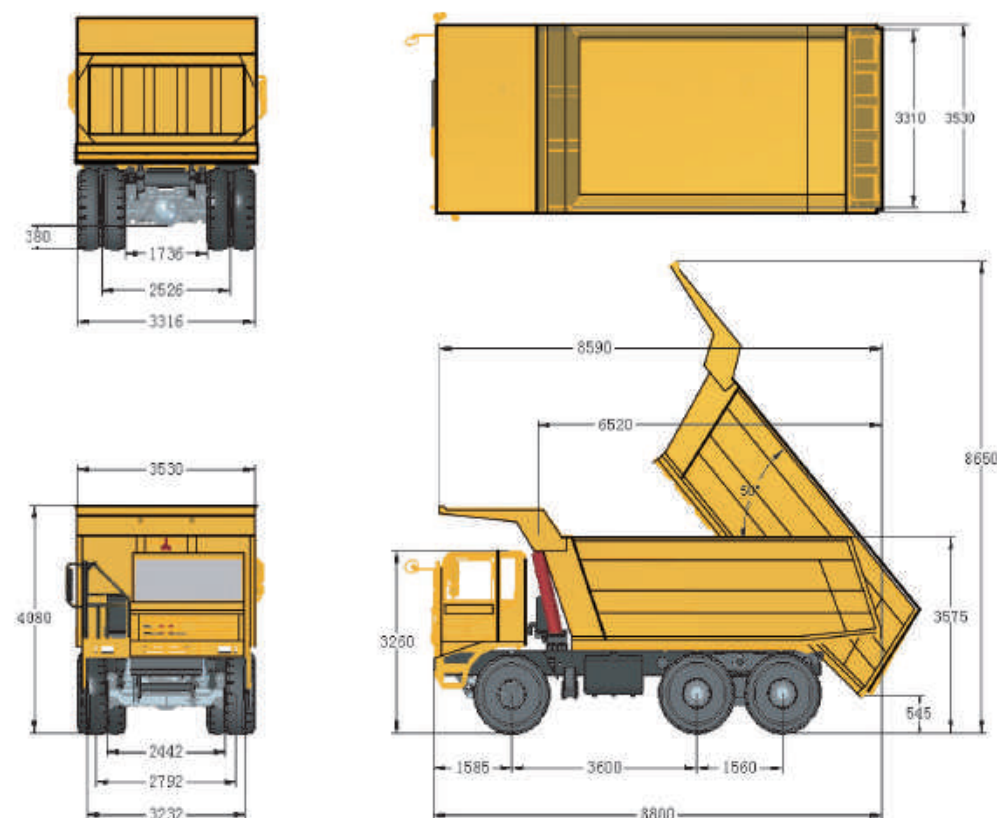


Performance Data

Graphs based on 0% rolling resistance.



Dimensions



Dimension Unit: mm



Engine

Model: WeiChai WP12G460E310
 Type: 4 Cycle Turbocharged / Charge air cooled
 Gross power @2,100rpm: 338kW(460hp)
 Engine emission meets GB20891-2014 off highway mobile machinery directive.
 (Off Highway Stage 3)
 Maximum Torque @1,500rpm: 1,870N·m(1,379lb·ft)
 Bore Stroke: 6, Line type
 Displacement: 11.596L(702in³)



Transmission

Big torque transmission 7DS200K is developed by Fast for mine truck. Double middle shafts and power split are used for big bearing capacity and high reliability. Shifting arrangement is reasonable. Fuel economy is good. Seven speeds forward and one reverse. It is fit for mining station of short distance and complex road conditions.

	Forward							Reverse
	1st	2nd	3rd	4th	5th	6th	7th	R
Ratio	9.13	5.59	4.06	2.99	2.15	1.61	1.00	8.51
km/h	4.2	5.7	7.9	10.7	14.5	23.8	38.4	4.5
mile/h	2.6	3.5	4.9	6.7	9.0	14.8	23.9	2.8



Drive Axle

Heavy duty axle with full floating axle shafts. Compacting main reducer and enhanced planetary wheel reducer transmit strong traction ability. High-tensile cast steel axle structure which is strong and durable.

Differential	3.36:1
Planetary	3.81:1
Total Reduction	12.82:1



Brakes

Full pneumatic actuator, shoe and drum braking system. Independent front and rear double loop control. Each loop has been ensured to supply braking pressure reliably by special storage tanks. Enhanced air chamber springs supply adequate braking force. Automatically emergency braking and warning under low pressure.

Braking air chamber area:	
Front axle	30in ²
Middle and rear axle	36in ²
Break area:	
Front axle	φ500×230mm
Middle and rear axle	φ500×230mm
Braking torque 90,000 N·m (air pressure: 0.8MPa)	



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.

Minimum turning diameter: 11,500mm



Hoist

198mm diameter hoist cylinder. FE hoist type with high hoist point steady performance.
 System pressure: 130bar
 Hydraulic Pump Flow Rate @ 2,100 rpm engine: 195L/min
 Body raise time: 40s
 Body lower time: 25s



Suspension

Front: Non-independent suspension with variable rate, nitrogen/oil cylinder for effective absorption of road shocks.

Maximum strut stroke: 160mm

Rear: 130mm diameter balance shaft, enhanced action rod with joint bearing. Patented locking technology with U bolt. Big thickness leaf spring reduce weight and increase stiffness.

Size of rear leaf spring: 11×32mm×120mm(piece×width×height)



Body

Patented technology rhombus structure stall on chassis compactly. Weight distribution is more reasonable. The bottom and side plates are constructed from high tensile strength import abrasion-resistant steel.

Thickness:	
Floor	16mm
Side	12mm
Front	12mm
Volumes:	
Struck	31m ³
Heaped	35m ³



Frame

Welded box structure with high strength steel provides strong resistance to bending and torsion. Structure of double longitudinal beams, latitudinal beam and typical mine truck rear provides flexibility and resistance to impact loads. Locally strengthen in the high-stress areas for a higher strength and greater life frame.



Cab

Cab is steel structure with strong shock resistance. Large area and curvature of windscreen give operator broad visibility. Adjustable seat, auto-control air conditioner, surrounded instrument desk make driver comfortable.



Tyres

Tyre Model: 14.00-25 (36PR)



SRT45 Off-Highway Truck

Weights

Weights	kg	lb
Chassis, with hoists	28,200	61,858
Body, standard	8,000	17,548
Net Weight	34,500	75,678
Rated Payload	45,000	98,710
Max. Gross Vehicle Weight*	79,500	174,387

*Permissible gross vehicle weight with options, attachments, full fuel tank and

Weight Distribution

Axle capacity	Front Axle	Rear Axle
Empty	49%	51%
Loaded	33%	67%

* Optional Equipment

Optional Equipment
Tyres, 21.00R35 Radial
Muffler (no body heating type)
Automatic Lubrication System

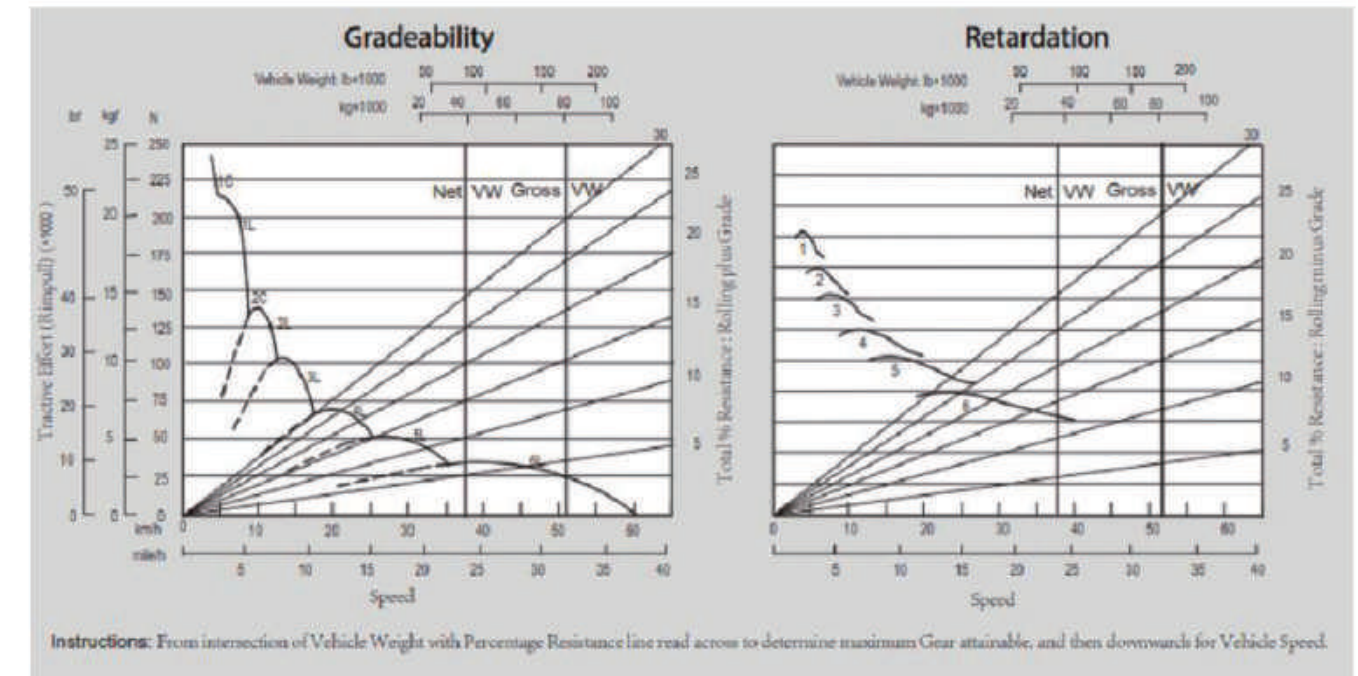
Service Data

Service Capacities	L	(USgal)
Engine crankcase and filters	38	(10.0)
Transmission and filters	54	(14.3)
Cooling system	130	(34.4)
Fuel tank	470	(124.4)
Steering and brake hydraulic tank	63	(16.7)
Steering and brake hydraulic system (total)	71	(18.8)
Body hydraulic tank	158	(41.8)
Body hydraulic and brake cooling system	237	(62.7)
Planetaries (total)	43	(11.4)
Differential	52	(13.7)
Front ride strut (each)	19	(5.0)
Rear ride strut (each)	16	(4.2)
	4	(1.1)

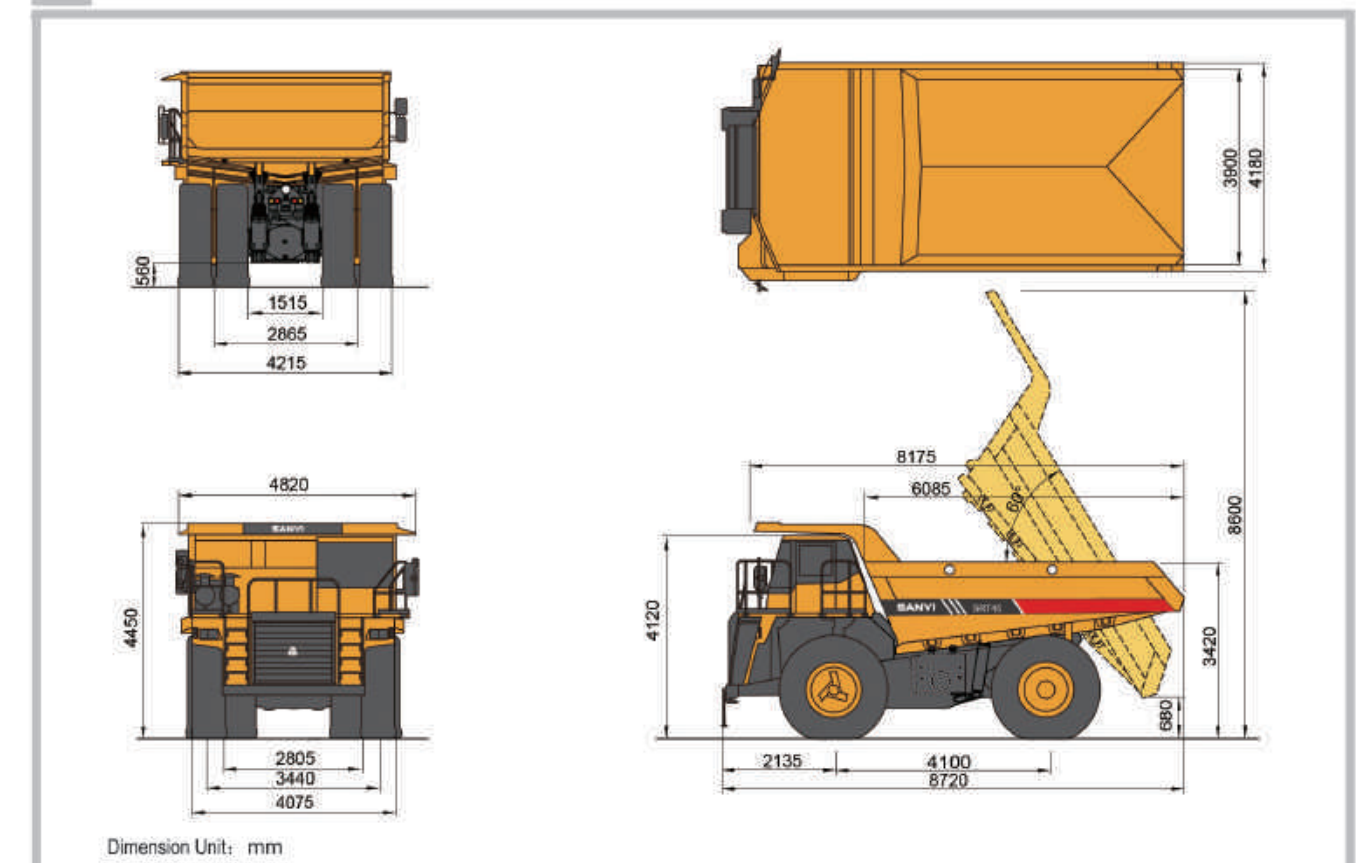


Performance Data

Graphs based on 0% rolling resistance.



Dimensions





Engine

Model.....Benz OM502LA-Tier3
 Type.....4 Cycle Turbocharged / Charge air cooled
 Gross power@1,800.....400KW(545hp)
 Net power@1,800.....375KW(510hp)
 Power definition according to ISO 3046 (ratings also correspond to SAE J1995 and SAE J1349 standard conditions). Exhaust emission EPA 40 CFR 89/Tier 3 compliant and EU 97/68 EC/Stage IIIA compliant.
 Maximum Torque@1,300rpm.....2400N.m(1,770lb.ft)
 Number of Cylinders/Configuration.....8,V type
 Bore Stroke.....Φ130 x 150 mm (5.11 x 5.70 in)
 Displacement.....15.9L(965in³)



Transmission

AT FC6A250DPR electronic automatic control transmission with flexible shift characteristics. Commercial electronic control system Integrated hydraulic converter and hydraulic retarder. Six speeds forward, one reverse. Automatic lock-up in all speed ranges. Transmission is provided with hydraulic retarder and hoist restrict shift protect function.

	Forward						Reverse
Ratio	1st	2nd	3rd	4th	5th	6th	r1
Ratio	4.4	2.33	1.53	1	0.72	0.61	3.97
km/h	6.9	13.1	19.9	30.4	42.3	52.7	7.7
mile/h	4.3	8.1	12.4	18.9	26.3	32.7	4.8



Drive Axle

Heavy duty axle with full floating axle shafts, single reduction spiral bevel gear differential, and planetary reduction at each wheel. High strength cast steel welded construction.

Ratios:
 Differential.....3.73:1
 Planetary.....5.80:1
 Total Reduction.....21.63:1



Suspension

Front: Macpherson type independent suspension with variable rate, nitrogen/oil cylinder for effective absorption of road shocks.

Rear: Variable rate nitrogen/oil cylinders with A-frame linkage and lateral stabilizer bar.

Maximum strut stroke:
 Front.....300 mm (11.8 in)
 Rear.....186 mm (7.3 in)
 Maximum rear axle oscillation.....±6.5°



Frame

Box structure with variable-section provides resistance to bending and torsion. Mild steel used throughout bumper, front and rear longitudinal beams, torque tubes, rear mounting rack provides flexibility and resistance to impact loads. Low alloy cast-steel components are used in the high-stress areas for a higher strength and greater life frame.



Tyres

Tyre Model.....21.00R35E-4
 Under certain working conditions, TKPH(ton-Km/h) capabilities of standard tyres could be exceeded. Consult tyre manufacturers for optimum tyre selection.



Brakes

Service Brakes – 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 a accumulator which stores energy to provide instant braking response.

Front: Dry disc brake
 Disc diameter.....710 mm (28 in)
 Pad area, total.....1,400 cm² (217 in²)

Rear: Oil-cooled, disc brake, completely sealed from dirt and water.
 Braking surface, total.....49,000 cm² (7,595in²)

Parking Brake – Rear brakes applied by spring loaded opposing piston on disc pack, hydraulically released.

Retarding Brake – Two levers separately control the rear disc brakes and hydraulic retarder in transmission.

Emergency Brake – Through solenoid valve to provide service brakes and parking brake.



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. A low pressure indicator light warns of system pressure below 115bar (1,660 lbf/in²).

Minimum turning diameter.....19,060mm



Hoist

Independently hydraulic system.Two hoist cylinders are mounted on both sides of the frame rails to keep stable of body while raises the body.

System Relief Pressure.....180bar(2,610 lbf/in²)
 Body Hydraulic Pump Flow Rate@1,800.....252L/min(65USgal/min)
 Body raise time.....13 sec
 Body lower time.....11 sec



Body

The body is dual "V" structure which gives good load retention and a low centre of gravity. The bottom plates are constructed from high tensile strength import abrasion-resistant steel.

Thickness:
 Floor.....18 mm (0.70 in)
 Side.....10 mm (0.39 in)
 Front.....10 mm (0.39 in)

Volumes:
 Struck (SAE std).....22 m³(28.8 yd³)
 Heaped2:1(SAEstd).....29.5m³(38.6yd³)



Cab

Large area of windscreen gives operator an all-around visibility. Acoustic lining material provides quiet operator space. Suspension seat reduces vibration efficiently.The cab provides a sound exposure Leq (equivalent sound level) of less than 78 dB(A) when tested with doors and windows closed.

ROPS/FOPS meet the requirements of ISO 3471 and the interior dimensions are designed according to ISO 3411.



SRT55D Off-Highway Truck



Weights

Weights	kg	lb
Chassis, with hoists	30,000	66,000
Body, standard	10,000	22,000
Net Weight	40,000	88,000
Rated Payload	55,000	121,000
Max. Gross Vehicle Weight*	95,000	209,000

*Permissible gross vehicle weight with options,attachments,full fuel tank and

Weight Distribution		
Axle capacity	Front Axle	Rear Axle
Empty	48%	52%
Loaded	34%	66%



Optional Equipment

Optional Equipment	Remark
Muffler	No body heating type
Digonal	24.00-35
Automatic centralized lubrication system	



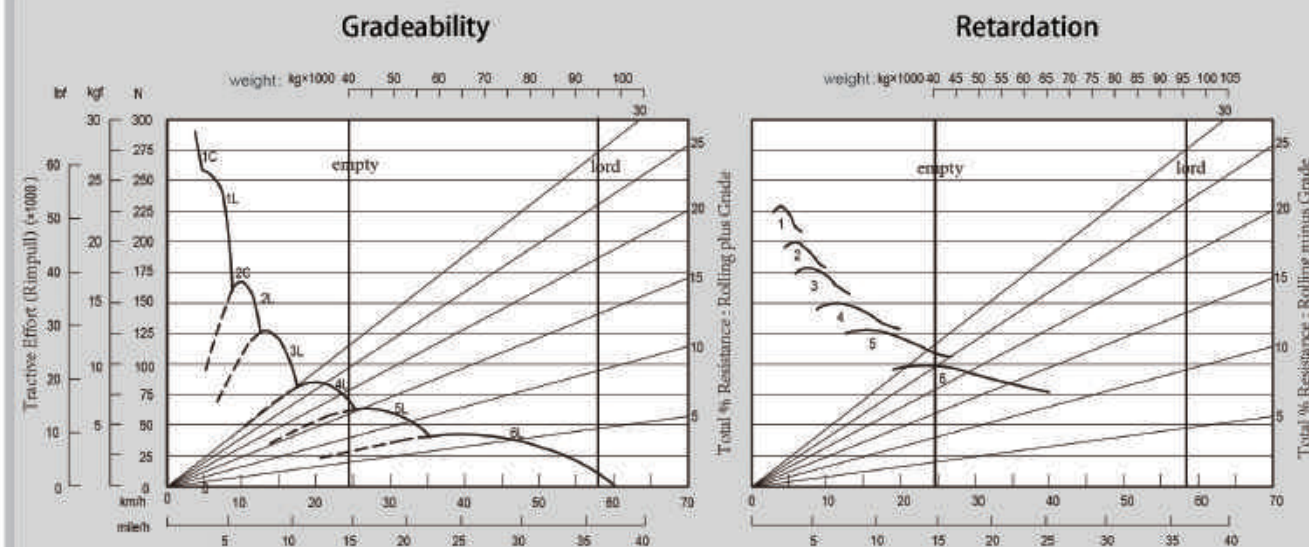
Service Data

Service Capacities	L	(USgal)
Engine crankcase and filters	38	(10.0)
Transmission and filters	85	(22.5)
Cooling system	100	(26.4)
Fuel tank	620	(164.0)
Steering and brake hydraulic tank	73	(19.3)
Steering and brake hydraulic system (total)	76	(20.1)
Body hydraulic tank	239	(63.1)
Body hydraulic and brake cooling system	258	(68.2)
Planetaries (total)	45	(11.9)
Differential	50	(13.2)
Front ride strut (each)	19	(5.0)
Rear ride strut (each)	16	(4.2)



Performance Data

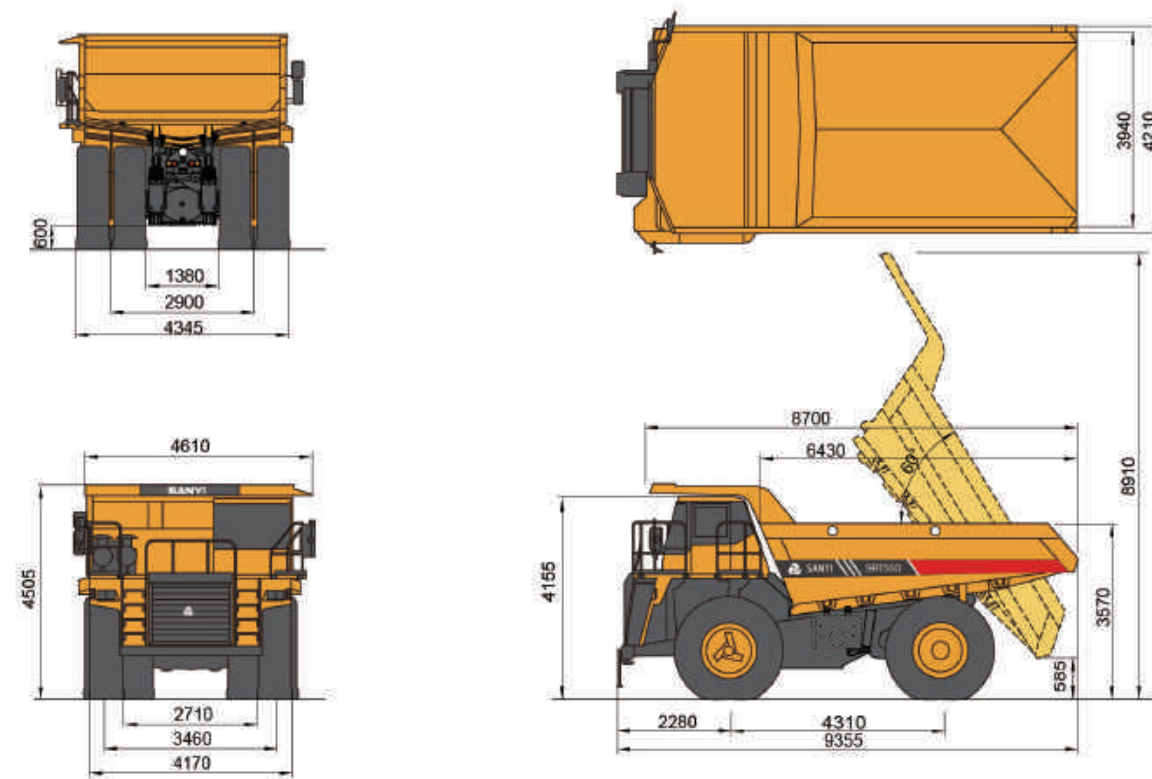
Graphs based on 0% rolling resistance.



Instructions: From intersection of Vehicle Weight with Percentage Resistance line read across to determine maximum Gear attainable, and then downwards for Vehicle Speed.



Dimensions



Dimension Unit: mm



Engine

Type.....Benz OM502LA
 Mode.....4cycle, Turbcharged/Charge air cooled
 Gross power@1,800rpm.....480kW(650hp)
 Net power@1,800rpm.....452kW(615hp)
 Power definition according to ISO 3046 (correspond to SAE J1995 and SAEJ1349 standard conditions). Exhaust emission Tier 3/ EPA 40 CFR89 compliant and EU97/98EC/Stage IIIA compliant.
 Maximum Torque@1,300pm.....2,800N·m(2,065lb·ft)
 Number of Cylinders/Configuration.....8, V type
 Bore Stroke.....φ130×150mm(5.11×5.70in)
 Displacement.....15.9L(965in³)



Transmission

Avtec H6620A electronic automatic control transmission with flexible shift characteristics. Commercial electronic control system integrated hydraulic converter and hydraulic retarder. Six speeds forward, two reverses. Automatic lockup in all speed ranges. Transmission is provide with hydraulic retarder and hoist restrict shift protect function

	Forward						Reverse	
	1st	2nd	3rd	4th	5th	6th	1st	2nd
Ratio	4.0	2.68	2.01	1.35	1.0	0.67	5.15	3.46
km/h	8.9	13.2	17.7	26.3	35.5	53.0	6.0	8.9
mile/h	5.5	8.2	11.0	16.3	22.1	32.9	3.7	5.5



Drive Axle

Heavy duty axle with full floating axle shafts, single reduction spiral bevel gear differential, and planetary reduction at each wheel. High strength cast steel welded construction.

Ratios:
 Differential.....3.73:1
 Planetary.....5.80:1
 Total Reduction.....21.63:1



Brakes

Service Brakes – 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 a accumulator which stores energy to provide instant braking response.

Front: Dry disc brake

Disc diameter.....710 mm (28 in)

Pad area, total.....1,400 cm² (217 in²)

Rear: Oil-cooled, disc brake, completely sealed from dirt and water.

Braking surface, total.....49,000 cm² (7,595 in²)

Parking Brake – Rear brakes applied by spring loaded opposing piston on disc pack, hydraulically released.

Retarding Brake – Two levers separately control the rear disc brakes and hydraulic retarder in transmission.

Emergency Brake – Through solenoid valve to provide service brakes and parking brake.



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. A low pressure indicator light warns of system pressure below 115bar (1,660 lbf/in²).

Minimum turning diameter.....19,080mm



Hoist

Independently hydraulic system. Two hoist cylinders are mounted on both sides of the frame rails to keep stable of body while raises the body.

System Relief Pressure.....180bar(2,610 lbf/in²)

Body Hydraulic Pump Flow Rate@2,100rpm.....252/min(65USgal/min)

Body raise time.....16Sec

Body lower time.....15Sec



Suspension

Front: Macpherson type independent suspension with variable rate, nitrogen/oil cylinder for effective absorption of road shocks.

Rear: Variable rate nitrogen/oil cylinders with A-frame linkage and lateral stabilizer bar.

Maximum strut stroke:

Front.....300 mm (11.8 in)

Rear.....186 mm (7.3 in)

Maximum rear axle oscillation.....±7°



Body

The body is dual "V" structure which gives good load retention and a low centre of gravity. The bottom plates are constructed from high tensile strength import abrasion-resistant steel.

Thickness:

Floor.....18 mm (0.70 in)

Side.....10 mm (0.39 in)

Front.....10 mm (0.39 in)

Volumes:

Struck(SAStd).....26m³(34yd³)

Heaped2:1(SAStd).....35m³(46yd³)



Frame

Box structure with variable-section provides resistance to bending and torsion.

Mild steel used throughout bumper, front and rear longitudinal beams, torque tubes, rear mounting rack provides flexibility and resistance to impact loads. Low alloy cast-steel components are used in the high-stress areas for a higher strength and greater life frame.



Cab

Large area of windscreen gives operator an all-around visibility. Acoustic lining material provides quiet operator space. Suspension seat reduces vibration efficiently. The cab provides a sound exposure Leq (equivalent sound level) of less than 78 dB(A) when tested with doors and windows closed.

ROPS/FOPS meet the requirements of ISO 3471 and the interior dimensions are designed according to ISO 3411.



Tyres

Tyre Model.....24.00R35E-4

Under certain working conditions, TKPH(ton-Km/h) capabilities of standard tyres could be exceeded. Consult tyre manufacturers for optimum tyre selection.



SRT95C Off-Highway Truck

Weights	kg	lb
Chassis, with hoists	52,000	114,000
Body, standard	13,000	29,000
Net Weight	67,000	147,000
Rated Payload	93,000	205,000
Max. Gross Vehicle Weight*	160,000	352,000

*Permissible gross vehicle weight with options, attachments, full fuel tank and payload.

Weight Distribution	Front Axle	Rear Axle
Axle capacity	48%	52%
Empty	48%	52%
Loaded	32%	68%

Optional Equipment

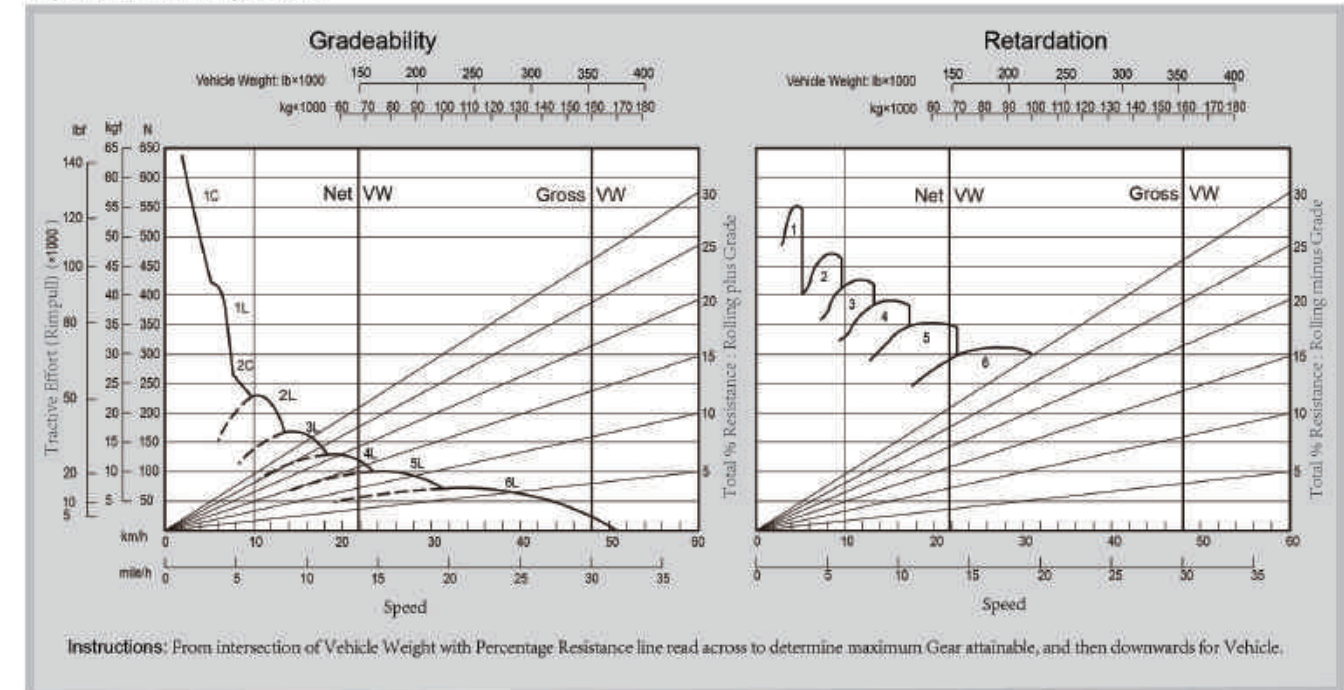
Engine of plateau
Tyres, 27.00R49 Radial
Muffler (no body heating type)
Body, Enlarged Capacity
Rock body
Body, Wear Plates
Automatic Lubrication System
On-board Weighing system
Front oil-cooled, disc brake

Service Capacities	L	(US gal)
Engine crankcase and filters	134	(35.4)
Transmission and filters	100	(26.4)
Cooling system	300	(79.3)
Fuel tank	1,130	(298.5)
Steering and brake hydraulic tank	62	(16.4)
Steering and brake hydraulic system (total)	170	(44.9)
Body hydraulic tank	280	(74.0)
Body hydraulic and brake cooling system	480	(126.8)
Planetaries (total)	57	(15.1)
Differential	61	(16.1)
Front ride strut (each)	30	(8.0)
Rear ride strut (each)	21	(5.5)
Power take off	4	(1.1)

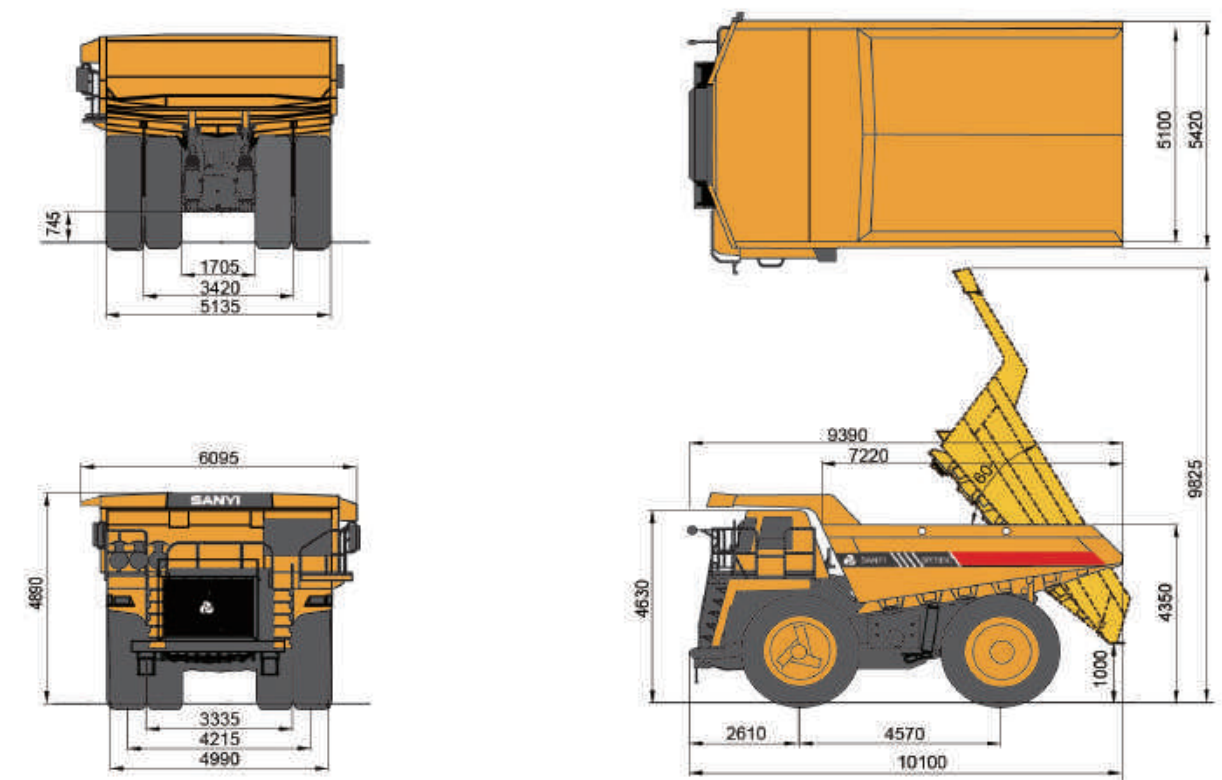


Performance Data

Graphs based on 0% rolling resistance.



Dimensions



Dimension Unit: mm



Engine

Model.....	Cummins QST30-C1050
Type.....	4 Cycle Turbocharged / Charge air cooled
Gross power @2,100rpm.....	783kW(1,050hp)
Net power @2,100rpm.....	728kW(976hp)
Power ratings based on SAE J1995 June 90. Engine emission meets Tier 2 USA EPA/CARB MOH 40 CFR 89 and proposed EU non-road mobile machinery directive.	
Maximum Torque @1,300rpm.....	4,629N·m(3,415 lb·ft)
Number of Cylinders/Configuration.....	12,V type
Bore Stroke.....	Φ140 x 165 mm (5.51 x 6.49 in)
Displacement.....	30.5L(1,846in ³)



Transmission

Allison H8610AR electronic automatic control transmission with flexible shift characteristics. CEC2 commercial electronic control system. Integrated hydraulic torque converter and hydraulic retarder. Six speeds forward, one reverse. Automatic lock-up in all speed ranges. Transmission is provided with hydraulic retarder and hoist restrict shift protect function.

	Forward						Reverse
	1st	2nd	3rd	4th	5th	6th	r1
Ratio	4.24	2.32	1.69	1.31	1	0.73	5.75
km/h	8	14.7	20.1	26	34	48	6
mile/h	5	9.2	12.5	16.2	21.2	30	3.8



Drive Axle

Heavy duty axle with full floating axle shafts, single reduction spiral bevel gear differential, and planetary reduction at each wheel. High strength cast steel welded construction.

Differential.....	2.16:1
Planetary.....	13.75:1
Total Reduction.....	29.70:1



Brakes

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 an accumulator which stores energy to provide instant braking response.

Front: Oil-cooled disc brake	
Disc diameter.....	965 mm (38in)
Pad area, total.....	1,960 cm ² (304in ²)

Rear: Oil-cooled, disc brake, completely sealed from dirt and water.
Braking surface, total..... 91,000 cm² (14,105in²)
Parking Brake – Rear brakes applied by spring loaded opposing piston on disc pack, hydraulically released.

Retarding Brake – Two levers separately control the rear disc brakes and hydraulic retarder in transmission.

Emergency Brake – Through solenoid valve to provide service brakes and parking brake.



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. A low pressure indicator light warns of system pressure below 115bar (1,660 lbf/in²).

Minimum turning diameter..... 24,000mm



Hoist

Independently hydraulic system. Two hoist cylinders are mounted on both sides of the frame rails to keep stable of body while raises the body.

System Relief Pressure.....	180bar (2,610 lbf/in ²)
Body Hydraulic Pump Flow Rate @ 2,100 rpm engine.....	420L/min (111 USgal/min)
Body raise time.....	19 sec
Body lower time.....	18 sec



Suspension

Front: Macpherson type independent suspension with variable rate, nitrogen/oil cylinder for effective absorption of road shocks.

Rear: Variable rate nitrogen/oil cylinders with A-frame linkage and lateral stabilizer bar.

Maximum strut stroke:	
Front.....	345 mm (13.6 in)
Rear.....	200 mm (6.9 in)

Maximum rear axle oscillation..... ±7°



Body

The body is dual "V" structure which gives good load retention and a low centre of gravity. The bottom, side and front plates are constructed from high tensile strength abrasion-resistant steel.

Thickness:	
Floor.....	20 mm (0.79in)
Side.....	10 mm (0.39 in)
Front.....	10 mm (0.39 in)
Volumes:	
Struck (SAE std).....	42 m ³ (55 yd ³)
Heaped 2:1 (SAE std).....	60 m ³ (79 yd ³)



Frame

Box structure with variable-section provides resistance to bending and torsion. Mild steel used throughout bumper, front and rear longitudinal beams provides flexibility and resistance to impact loads. Low alloy cast-steel components are used in the high-stress areas for a higher strength and greater life frame.



Cab

Large area of windscreen gives operator an all-around visibility. Acoustic lining material provides quiet operator space. Suspension seat reduces vibration efficiently. The cab provides a sound exposure Leq (equivalent sound level) of less than 78 dB(A) when tested with doors and windows closed.

ROPS/FOPS meet the requirements of ISO 3471 and the interior dimensions are designed according to ISO 3411.



Tyres

Tyre Model..... 27.00R49E-4
Under certain working conditions, TKPH(ton-Km/h) capabilities of standard tyres could be exceeded. Consult tyre manufacturers for optimum tyre selection.



SET230 Off-Highway Truck

Mass Production Begins From The Middle Of 2019



Technical Specification

Item	Technical Specification
Overall dimensions Length×Width× Height(Hoist)	14690mm×7895mm×7265 (13480) mm
Wheelbase	6400mm
Front track(outsize)	6345 (7465) mm
Rear track(outsize)	5405 (7875) mm
Minimum ground clearance	755mm
Maximum off front wheel corner	40°
Minimum turning diameter	28,400mm
Vehicle no-load mass	163,000kg
Rated load quality	230,000kg
Total vehicle quality	393,000kg
Engine	Cummins QSK60-C2500
Electric power	1864kW(2500hp), 1900rpm
Maximum speed	64km/h
Paperback volume	105m ³ (137yd ³)
Stacking volume 2: 1	146m ³ (191yd ³)



Service Data

Service Capacities	L	(US gal)
Engine crankcase and filters	280	(74.0)
Cooling system	600	(159.0)
Fuel tank	4,200	(1,110.0)
Hydraulic tank	800	(211.0)
Gear motor gearbox (each side)	40	(11.0)
Front axle	22	(5.8)
Front ride strut (each)	33	(7.25)
Rear ride strut (each)	33	(7.25)

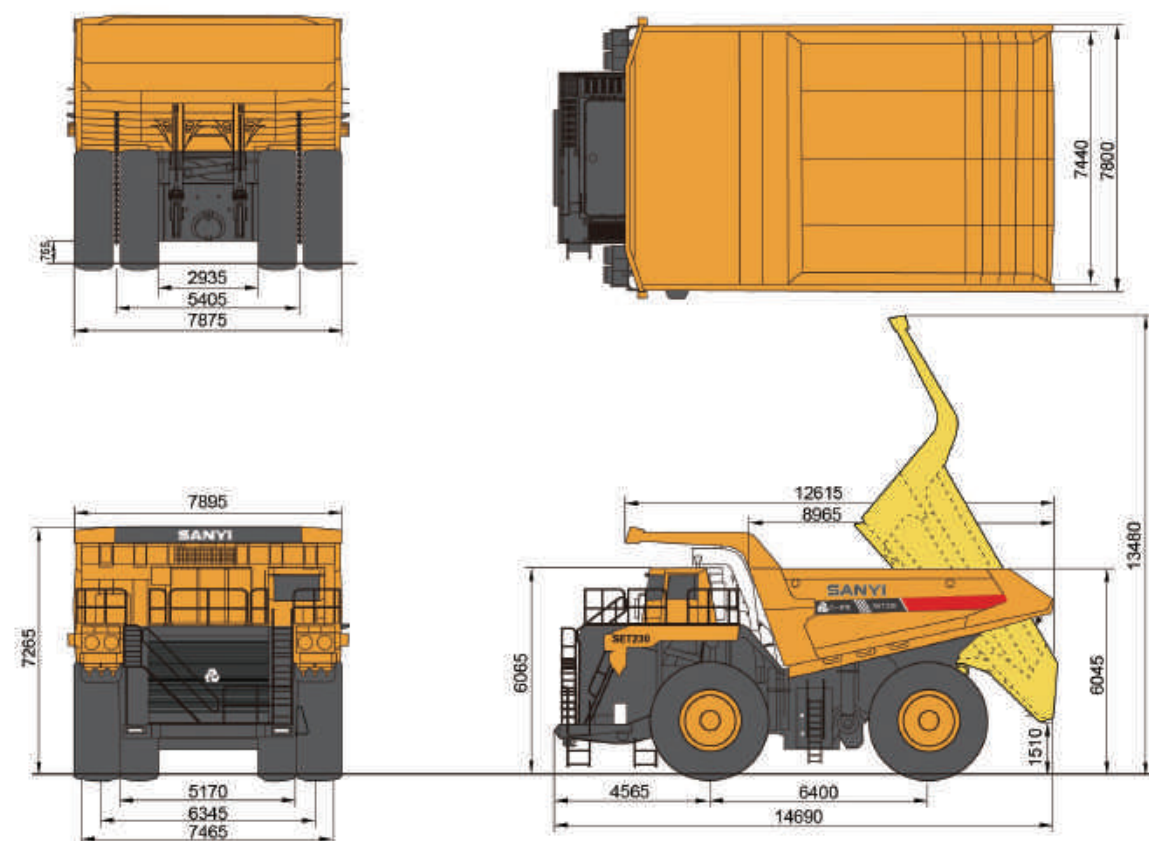


Optional Equipment

Optional Equipment	Remark
Engine	MTU
Electric drive system	SIEMENS
Car exhaust heat	Engine exhaust heating structure
The capacity of car	For small specific gravity materials
Heavy load rock bucket	For big specific gravity materials
Car box wear-resistant lining	For severely worn materials
Centralized lubrication system	Baker Lincoln



Dimensions



Dimension Unit: mm



Weights

Weights	kg	lb
Classis, with hoist	129,000	284,000
Body stand	34,000	24,000
Net Weight	163,000	359,000
Rated Weight	230,000	507,000
Max. Gross Vehicle Weight*	393,000	866,000

*Permissible gross vehicle weight with options, attachments, full fuel tank and loading.

Weight Distribution	Front Axle	Rear Axle
Axle capacity		
Empty	49%	51%
Loaded	33%	67%



Engine

Model	Cummins QSK60-C2500
Type	4 Cycle Turbocharged / Charge air cooled
Gross power@1.900	1,864KW(2,500hp)
Net power@1.900	1,707KW(2,288hp)
Power definition according to SAE J1995 June 90 Exhaust emission Tier 1 USA EPA /EPA MOH 40 CRF89 compliant and EU97/98EC/Stage IIIA compliant	
Maximum Torque@1,500rpm	9,839N.m(7,257lb.ft)
Number of cylinders/Configuration	8, V type
Bore Stroke	Φ159×190mm(6.25×7.48 in)
Displacement	60.2L(3.647in ³)



Electric drive system

Alternator	GE5GTA41
Traction motor	GE5GEB25
Wheel reduction ratio	31.875: 1
Control group	17KG537
Maximum speed	64km/h (40mph)

The performance of the drive system depends on the total weight of the vehicle, the length of the road surface, the rolling resistance, the engine power and other parameters. Each working conditions must be analyzed to ensure optimum equipment performance.



Battery system

The 24V system consists of two sets of 8V batteries, of which 6 sets start the battery and 2 sets control the battery.

Charging motor	28V
Lighting battery	24V
Start battery	24V



Cab

Anti-rollover design, adjustable seat, luxurious interior, adjustable steering wheel for a comfortable environment for the driver. The cab provides a sound exposure of less than 78 dB (A) when tested with doors and windows closed.



Frame

High-strength frame with double box type variable section longitudinal beam and ring beam structure. The main part has a deep-section continuous frame longitudinal beam, together with the PORS bracket to ensure the frame is strong.



Body

Flat bottom plate, r side panel, dumping angle 48°. The body is wear-resistant and shock-resistant, with low loading height. Standard car body with 20mm bottom plate, 10mm side plate and 12mm front plate for welding.

Struck(SAE2:1)	146m ³ (191yd ³)
Struck(SAEstd)	105m ³ (137yd ³)



Brakes

Service Brakes-All hydraulic brake system control. Compensating piston pump provides hydraulic pressure for brakes and steering. Independent circuits front and rear. Each circuit incorporates a accumulator which stores energy to provide instant braking response.

Front: Single disc four caliper

Disc diameter.....1,168(46in)

Pad area, total.....7,845cm² (1216in²)

Rear: Double disc and double caliper

Disc diameter.....635mm(25in)

Pad area, total.....2,632cm² (408in²)

Emergency braking: When the hydraulic system pressure is lower than the set value, the service brake is automatically implemented.

Loading brake: switch control

Parking brake: spring-applied, hydraulically released

Motor maximum power.....2,984KW(4,000hp)

Continuous braking maximum rated power.....2,760kw(3,700hp)

The electric brake is equipped with continuous air-cooled resistance grid, 3-stage extended brake and standard reverse brake. The brake system meets 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 provide emergency power to system for steering.

Minimum turning diameter.....28,400mm

Steering system meets SAE1151/5010 requirements



Hoist

Independently hydraulic system. Two hoist cylinders are mounted on both sides of the frame rails to keep stable of body while raises the body.

System pressure.....165bar(2,393lb/in²)

Body Hydraulic Pump Flow Rate@1,900.....900L/min(237USgal/min)

Body raise time.....25Sec

Body lower time.....24Sec



Suspension

The front suspension uses an independent cantilever system, and the smaller swing arm movement reduces the lateral displacement of the tire. Improve tire life. The front suspension cylinder is free of lateral forces and has a long life and maintenance cycle.

Front suspension stroke.....250mm(9.84in)

Rear suspension stroke.....250mm(9.84in)

Rear axle swing angle.....±5.9°



Tyres

Standard.....40.00R57

Alternative.....46/6.0-57

wheel rim.....29.00/6.-57

Under certain working conditions, TKPH(ton-Km/h) capabilities of standard tyres could be exceeded. Consult tyre manufacturers for optimum tyre selection.



SAT40 Articulated Dump Truck

Mass Production Begins From The Middle Of 2019

Weights

Weights	kg	lb
Chassis, with hoists	26700	58740
Body, standard	5600	12320
Net Weight	32300	71060
Rated Payload	39500	86900
Max. Gross Vehicle Weight*	71800	158000

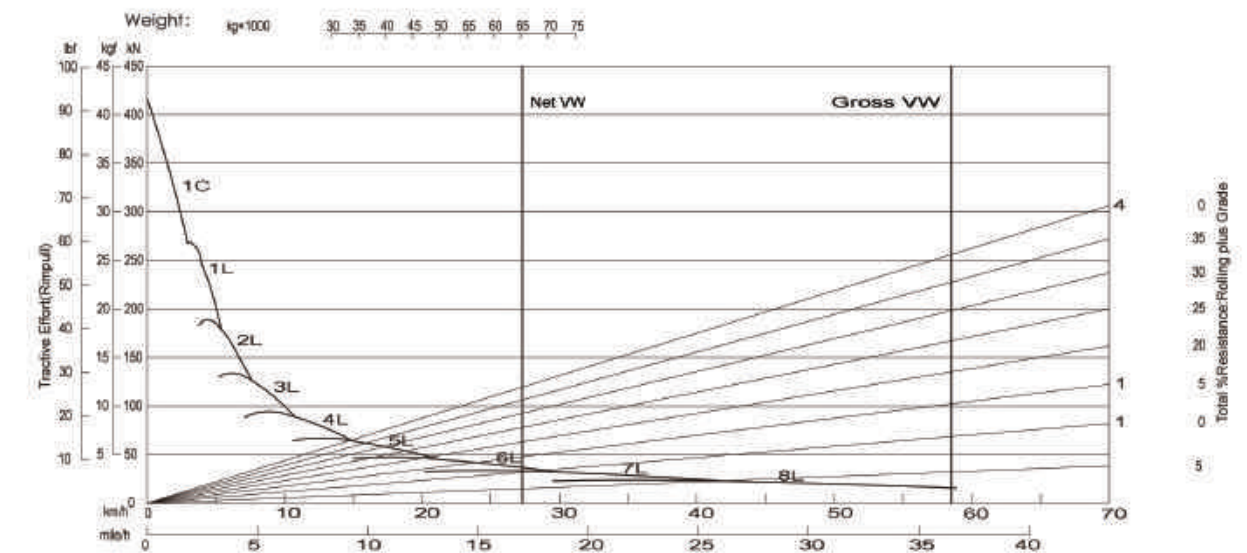
*Permissible gross vehicle weight with options, attachments, full fuel tank and payload.

Weight Distribution		
Axle capacity	Front Axle	Middle and Rear Axle
Empty	48%	52%
Loaded	34%	66%

Service Data

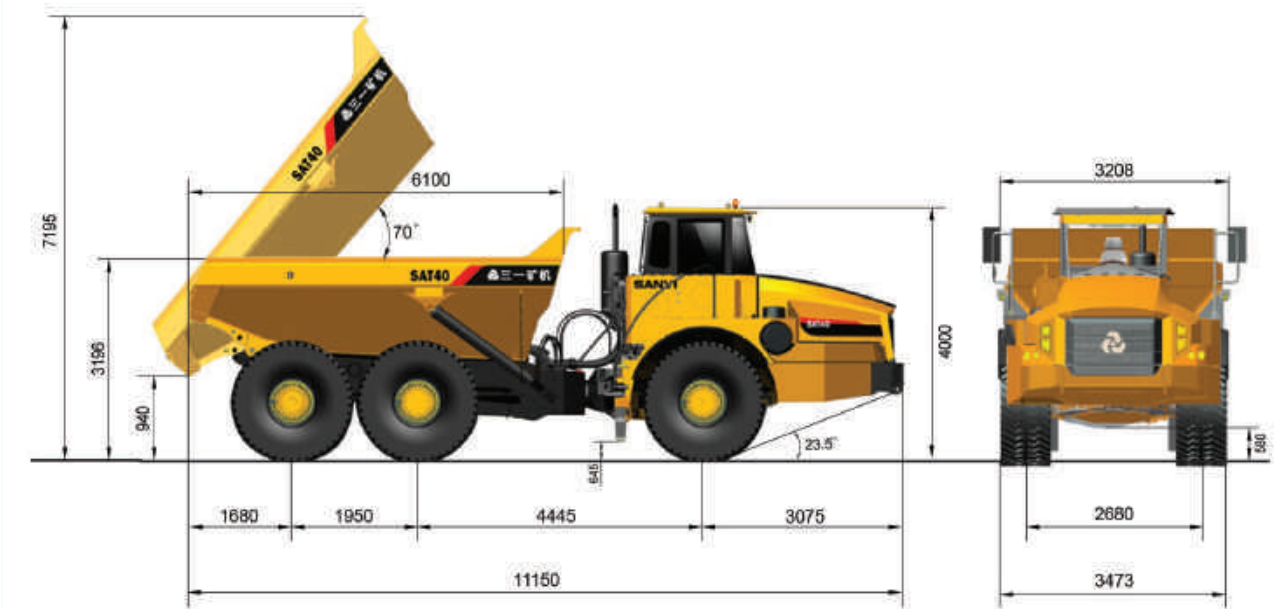
Service Capacities	L	(US gal)
Engine crankcase and filters	38	(10.1)
Transmission system	120	(31.7)
Cooling system	100	(26.4)
Fuel tank	500	(133.3)
Hydraulic tank	270	(71.3)
Hydraulic system (total)	400	(105.6)
Planetaries (each)	28	(7.6)
Middle and Rear Axle (each)	57	(15.1)
Front drive strut (each)	25	(6.6)

Graphs based on 0% rolling resistance.



Instructions: From intersection of Vehicle Weight with Percentage Resistance line, read across to determine maximum Gear attainable, and then downwards for Vehicle Speed.

Dimensions



Dimension Unit: mm



Engine

Equip with the high performance Mercedes Benz (MTU) OM502LA engine, SAT40 has characteristic of strong power and low fuel consumption, the vehicle can keep running stably long time in hard off-road terrain with low emission.

Model..... Mercedes Benz OM502LA
Type..... 4 Cycle Turbocharged / Charge air cooled
Net power @2,100rpm..... 350kW(470hp)
Net ratings based on SAE J1995 June 90. Engine emission meets 97/68/EG Stage 3 and proposed EU non-road mobile machinery directive.
Maximum Torque @1,300rpm..... 2,300N.m(3,118 lbf.ft)
Number of Cylinders/Configuration..... 8/V type
Bore Stroke..... $\phi 130 \times 150 \text{mm}$ (5.12 $\times$ 5.91 in)
Displacement..... 15.93L(962 in³)



Transmission

Equipped with The ZF transmission, which was designed specially for ADT and has 8 forward and 4 backward gears, it can be shifted smoothly automatically to match the off-road terrain. With the built-in lock-up function of the torque converter the transmission improves the efficiency much. Equipped with the retarder, the vehicle can operate soft break without wear. It also has function of the differential lock between the front axle and the rear one.

Forward

	1st	2nd	3rd	4th	5th	6th	7th	8th
Ratio	5.6	4.0	2.85	2.03	1.43	1.02	0.72	0.52
km/h	5.6	7.8	11.0	15.4	21.8	30.3	42.2	57
mile/h	3.5	4.8	6.8	9.6	13.5	18.8	26.2	35.4

Reverse

	r1	r2	r3	r4
Ratio	5.65	4.02	2.86	2.04
km/h	5.6	5.0	11.0	15.3
mile/h	3.48	3.1	6.8	9.5



Drive Axle

Compact designed front axle with two independent planetary type hub reductions. The vehicle can be driven in permanent 6 $\times$ 6, with wet oil disc brake. It can be operate wheels differential lock without stopping.

Differential..... 3.5:1
Planetary..... 6:1
Total Reduction..... 21:1



Body

Body can be warmed by the exhaust gas of engine. The steel is high strength and wear resistant, lightened and durable.

Volumes:
Struck (SAE std)..... 18m³(23.6 yd³)
Heaped 2:1 (SAE std)..... 24m³(31.5 yd³)



Frame

The frame was designed elaborately and to be FEM analyzed. Also it was made of high strength steel with box shape. So it can resist the violent impact but be durable with the light weight.



Cab

ROPS/FOPS meet the requirements of ISO 3471 and the interior dimensions are designed according to ISO 3411. With the whole scenes large size window, powerful low noise air-conditioner provide filtered air, luxury inner decorations, Adjustable soft suspension operators seat, load sensing hydraulic steering system with tilt/telescopic steering wheel, special design for noise and heat resistant. All compose the best operating circumstance.



Brakes

Complies with ISO 3450.

Running brake: Fully hydraulic, wet brakes with enclosed, oil-cooled multiple disc on all wheels works together with the retarders. Separate brake cooling for each axle. Two independent circuits: one for front axle and one for bogie axles.

Parking brake: spring-applied disc brake on the propeller shaft.

Retarders: using hydraulic retarder in ZF transmission and MTU Engine Brake.

MTU Engine Brake: compression brake and exhaust retarder (EPG).

Emergency Brake: Running brake and parking brake work together, controlled by emergent button.



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. A low pressure indicator light warns of system pressure below 115bar (1,660 lbf/in²).

Minimum turning diameter..... 85,000 mm



Hoist

Independently hydraulic system. Two hoist cylinders are mounted on both sides of the frame rails to keep stable of body while raises the body.

System Relief Pressure..... 180bar (2,610 lbf/in²)

Body Hydraulic Pump Flow Rate @ 2,100 rpm engine..... 375L/min (99 Ugal/min)

Body raise time..... 16sec

Body lower time..... 15sec



Suspension

Front suspension: The hydro-pneumatic suspension, two suspension cylinders provide a reliable and stable running.

Rear suspension: 4 rubber dampers with 2 balance beam compose the rear suspension system, good impact absorbing and easy to maintenance.

Maximum strut stroke:

Front..... 167mm(6.6in)

Rear..... 90mm(3.5in)

Maximum rear axle oscillation..... $\pm 7^\circ$



Tyres

Tyre Model..... 29.5R25

Under certain working conditions, TKPH (ton-Km/h) capabilities of standard tyres could be exceeded. Consult tyre manufacturers for optimum tyre selection.

Highlights and Marketing Cases of SANY Mining Machinery Products

Marketing Cases

- China: SANYI's mining dump truck products are sold in metallurgy, iron and steel, coal and cement sectors and are mainly distributed in Inner Mongolia, Liaoning, Shannxi, Ningxia, Sichuan, Yunnan, Xinjiang, Jiangsu, Zhejiang, etc.
- Foreign countries: India, Tunisia, Zambia, Argentina, Zimbabwe, etc.



➤ Shenhua Ningmei

The owner ordered 21 SRT95 mining dump trucks for their service rate and fuel economy better than those of existing models in the market at Shenhua Ningmei and they have been fully put into use.



➤ Zhenjiang, Jiangsu

➤ On March 23, 2013, the SRT45 mining dump truck sample arrived at Jiangsu Chuanshan Group. During trial use period, the service rate was $\geq 96\%$. In September of that year, Jiangsu Chuanshan Group purchased 7 SRT45 mining dump trucks and purchased 6 trucks in 2014. In March 2015, the group purchased another 6 trucks.



➤ **CRC -----Cement industry**

- In June 2018, CRC has purchased 4 unites of SRT45 mining trucks, now working in the sites of Guangxi Province with good conditions.



➤ **Inner Mongolia Hongyu Industry**

- 30 SRT95 mining dump trucks were used at Huolinhe, Inner Mongolia and they averagely operate for over 500h per month, reaching or exceeding the level of the products of the same type in the industry.



➤ **Argentina-----Hydropower Project**

- CGGC group purchased 32 unites SRT55D in June 2015, and the trucks arrived at large hydropower stations in St. Ruth Argentina". SANY products participate in the construction of the world's southernmost hydropower station and help argentinies realize their "dream of hydropower". In March 2018,CGGC group purchase 25 units dump truck again.



➤ **India-----Coal mining and Construction**

- In the end of 2017, 6 unites of SRT55D trucks arrived at VPR mine in India , By June 2018, the mining trucks have been running for more than 6000 hours, and it's good performance has been highly praised by customer. The customer want to purchase another 25 unites in this year again.



➤ **Tunisia-----Phosphate**

- In 2015, 17 unites of SRT95C trucks arrived in Tunisia and have been running for over 8000h. The investment of SANY equipments have greatly increased the capacity of phosphate production and contributed to Tunisia's economic development .



➤ **Zambia-----Copper Mine**

- In May 2017, 4 unites of SRT95C trucks arrived in Zambia and have been running in Copper Mine, in June 2018 they purchased 5 unites again.

