

Sandvik LH517

Technical Specification



APPLICATIONS

Sandvik LH517 is a high capacity Load-Haul-Dump (LHD) featuring excellent safety, productivity and reliability. It has a unique fast and efficient way to fill the bucket, compact lightweight design and high capacity. For excellent reliability LH517 has onboard Vehicle Control and Maintenance system (VCM) for easy operation and fast maintenance.

Capacities

Tramming capacity	17 200 kg	38 000 lb
Break out force, lift	35 000 kg	77 160 lb
Break out force, tilt	29 450 kg	64 930 lb
Tipping load	35 500 kg	78 260 lb
Standard bucket	7,0 m ³	9,2 yd ³

Main dimensions

Total length	11 120 mm	438"
Maximum width	3 000 mm	118"
Height with canopy / cabin	2 754 mm	108"

Bucket Motion Times

Raising time	8,3 sec
Lowering time	4,3 sec
Dumping time	2,0 sec

Speeds Forward & Reverse (Level / Loaded)

1st gear	5,9 km/h	3,7 mph
2nd gear	10,7 km/h	6,6 mph
3rd gear	18,8 km/h	11,7 mph
4th gear	33,9 km/h	21,1 mph

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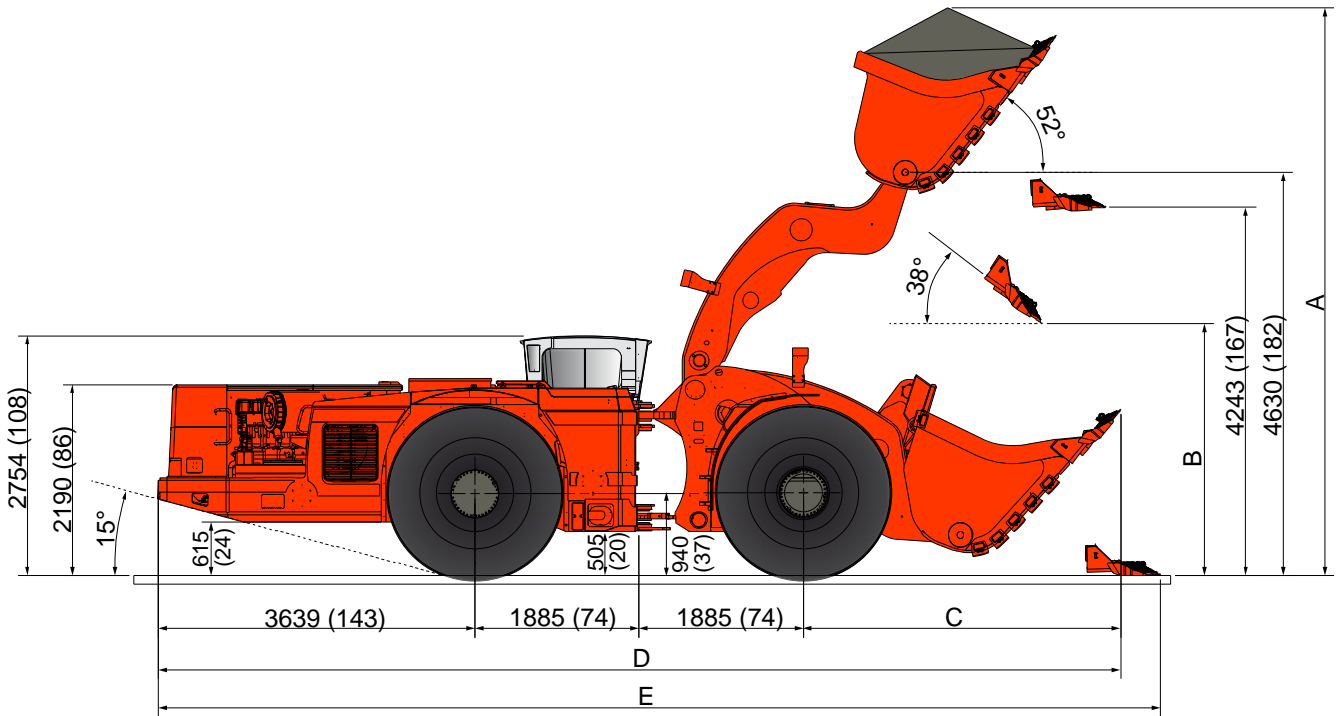
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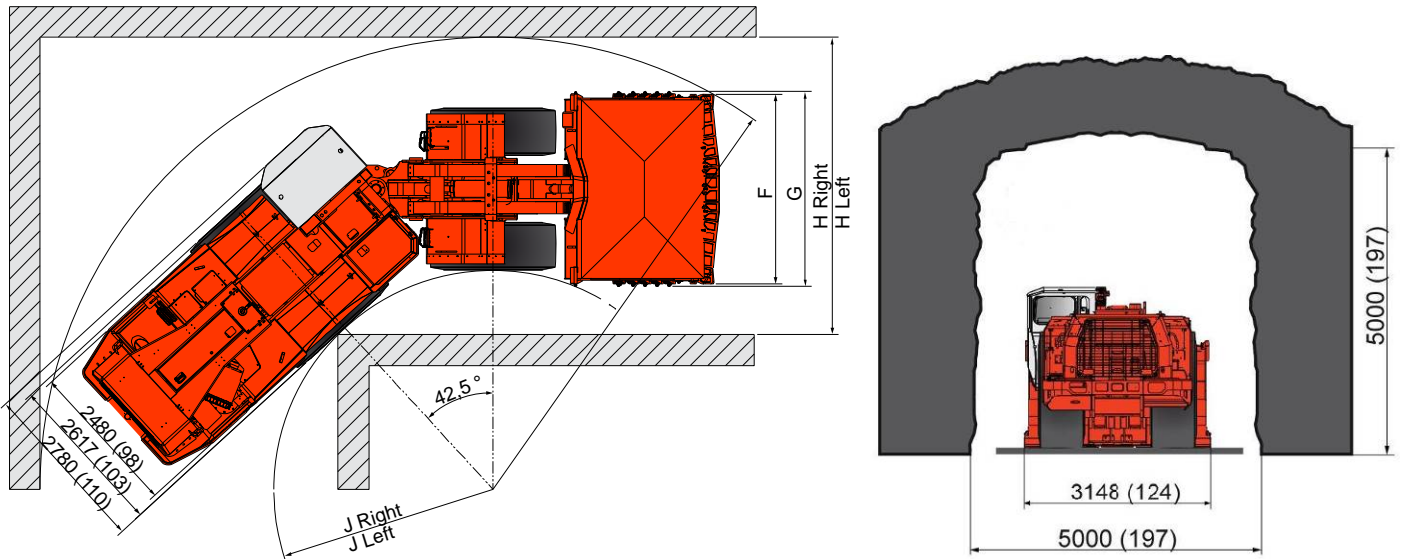
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DIMENSIONS (SIDE VIEW)



DIMENSIONS (TOP AND REAR VIEW)



Bucket	Size	A	B	C	D	E	F	G	H Right	H Left	I	J Right	J Left
Shark	7.0m ³	6522	2896	3646	11055	11506	3066	3148	4798	4841	R7297	R3534	R3474
Shark	8.6m ³	6822	2711	3848	11257	11806	3066	3148	4899	4941	R7397	R3542	R3474

POWER TRAIN

Engine

Diesel engine	Volvo TAD1341VE, Tier 2
Output	275 kW (369 hp) @ 2 100 rpm
Torque	1 905 Nm @ 1 260 rpm
Number of cylinders	In-line 6
Displacement	12,78 l
Cooling system	Liquid cooled
Combustion principle	4-stroke, direct injection, turbo with intercooler
Air filtration	Donaldson Power Core
Electric system	24 V starter and accessories
Exhaust system	Catalytic purifier and muffler, double wall exhaust pipe
Average Fuel Consumption	35,0 l/h (at 50% load)
Fuel Tank Capacity	485 l (128 gal)

Converter

Dana C9602	No lock-up
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Transmission

Dana 6422	Power shift transmission with modulation, four gears forward and reverse, automatic gear shift control
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Axles

Front axle	Kessler D106, Posi Stop brakes, limited slip differential, fixed
Rear axle	Kessler D106, Posi Stop brakes, limited slip differential oscillating $\pm 8^\circ$ (oscillation with roller bearings)

Tires

Tire size	29,5x29 L5S, 34 ply
Brand and type subject to availability	

VEHICLE WEIGHTS

Operating weights

Total operating weight	44 030 kg	97 000 lb
Front axle	18 270 kg	40 210 lb
Rear axle	25 760 kg	56 800 lb

Loaded weights

Total loaded weight	61 200 kg	135 000 lb
Front axle	45 070 kg	99 630 lb
Rear axle	16 130 kg	35 560 lb

STANDARD OPERATORS COMPARTMENT

ROPS/FOPS Safety Cabin with air condition		
Height	2 754 mm	108"

FRAME

Rear and front frame	Welded steel construction
Central hinge	Adjustable upper bearing

Tanks are welded to frame.

STEERING HYDRAULICS

Full hydraulic, centre-point articulation, power steering with two double acting cylinders. Steering controlled by electric joystick. Interlock protection. Emergency steering is optional.

Turning Radius

Turning angle		$\pm 42,5^\circ$
Inner right	3 540 mm	139"
Inner left	3 420 mm	135"
Outer	7 235 mm	285"

Main Components

Main valve	
Servo control valve	
Steering hydraulic cylinders	2 pcs, 125 mm (4,9")
Steering pump	piston type

BUCKET HYDRAULICS

Joystick bucket and boom control (electric), equipped with piston pump that delivers oil to the bucket hydraulic main valve. The oil flow from steering hydraulic pump is directed to bucket hydraulics when steering is not used.

Main Components

Boom system	Z-link
Lift cylinders	2 pcs \varnothing 180 mm (7,1")
Dump cylinder	1 pc \varnothing 220 mm (8,7")
Servo control valve	
Main valve	
Pump for bucket hydraulics	
Fittings	ORFS
Hoses	High temperature
Hydraulic oil tank capacity	Appr. 320 l (85 gal)

Oil cooler for hydraulic and transmission oil, capability up to 52°C ambient temperature.

BRAKES

Service brakes are spring applied; hydraulically operated multidisc wet brakes on all wheels.

Two independent circuits: one for the front and one for the rear axle.

Service brakes also function as an emergency and parking brake.

Electrically driven brake release pump

Automatic brake activation system, ABA.

Main Components

Pressure accumulator	
Brake pedal valve	
Brake/Charging valve	
Tank capacity	75l

ELECTRICAL EQUIPMENT

Alternator	24 V, 150 A, Bosch
Batteries	2 x 12 V, 180 Ah
Starter	9 kW, 24 V
Driving and working lights	2 pcs in front 65W, Nordic lights 4 pcs in rear 65W, Nordic lights
Parking and indicator (blinkers) lights	2 pcs in front, LED lights 2 pcs in rear, LED lights
Brake lights	
Control system	5,7" display, 5 modules, inbuilt system diagnostics

SAFETY AND ERGONOMICS

ROPS/FOPS certified operators compartment
Seat belt
Lockable main switch
Reverse alarm (CEN)
External shutdown, 2 pcs in rear
Decals in EU-languages
Door interlock for boom, bucket and steering hydraulics
Low frequency suspension seat
Adjustable armrests

STANDARD MANUALS

Instructions Manual	
- Operator's Manual	EU-languages
- Maintenance Manual	EU-languages
Parts Manual	English
Service and Repair Manual	English
ToolMan CD (2pcs)	in pdf format, includes all the above manuals

OTHER STANDARD EQUIPMENT

Automatic central lubrication
Cyclone pre-filter for A/C device
Electrical filling pump for hydraulic oil
Fire extinguisher, 12 kg (CEN)
Flashing beacon
Neutral brake
Wheel chocks and brackets

OPTIONAL EQUIPMENT

Replaces standard equipment

<input type="checkbox"/>	Engine Volvo TAD1361VE, 285 kW / (382 hp) / 1900r/min, Torque 1966 Nm / 1200 rpm Euro Stage 3B / Tier 4i (for EU & Japan)
<input type="checkbox"/>	Safety cabin with swivel seat (high backrest) & controls ±25°, ROPS/FOPS, height 2990 mm, width 2 975 mm (without bucket)
<input type="checkbox"/>	Converter with lock-up, Dana SOH
<input type="checkbox"/>	Xenon lights (2 in front, 2 in rear)

Alternative buckets

Material density (t/m ³)	2,6	2,25	2,05	2,0
Volume, heaped (m ³)	6,5	7,6	8,4	8,6
Width(mm)	3 000	3 000	3 000	3 000

Blue Pointer available

All buckets are available with bare lip or Sandvik GET

Additional options

Safety options	
<input type="checkbox"/>	Emergency steering (CEN)
<input type="checkbox"/>	Fire suppression system ANSUL, two tanks, 8 nozzles (CEN), incl. auto engine shutdown
<input type="checkbox"/>	Fire suppression system ANSUL, two tanks, 8 nozzles (CEN), CHECKFIRE, incl. auto engine shutdown
<input type="checkbox"/>	Fire suppression system Sandvik FS1000, with auto engine shutdown
<input type="checkbox"/>	Accordance with CE-norms (CEN)
<input type="checkbox"/>	Safety rails
<input type="checkbox"/>	Gear limit
Electrical options	
<input type="checkbox"/>	Driving direction lights (red/green)
<input type="checkbox"/>	Sandvik integrated scale for load weighing
<input type="checkbox"/>	Monitoring camera system
<input type="checkbox"/>	Jump start
<input type="checkbox"/>	RRC HBC CAN, complete
<input type="checkbox"/>	RRC interface HBC
<input type="checkbox"/>	RRC recovery kit (brake release by radio signal), hook included
<input type="checkbox"/>	RRC recovery kit (brake release by pulling the hook)
<input type="checkbox"/>	Tyre pressure monitoring system
Other additional options	
<input type="checkbox"/>	Cabin heater
<input type="checkbox"/>	Cabin lift kit (150 mm) for standard cabin only
<input type="checkbox"/>	Cover grills for lamps
<input type="checkbox"/>	Spare rim (29,5-29)
<input type="checkbox"/>	Boom suspension (ride control) with boom floating
<input type="checkbox"/>	Wiggins fill set (hydr., transmission and engine oil)
<input type="checkbox"/>	Wiggins fuel fill system
<input type="checkbox"/>	LinkOne spare part manual
<input type="checkbox"/>	CatBase spare part manual
<input type="checkbox"/>	Pressure accumulator certificates



GRADE PERFORMANCE

Volvo TAD1341 VE, 275 kW
 Calculated with 2% rolling
 resistance
 With lock-up

Empty

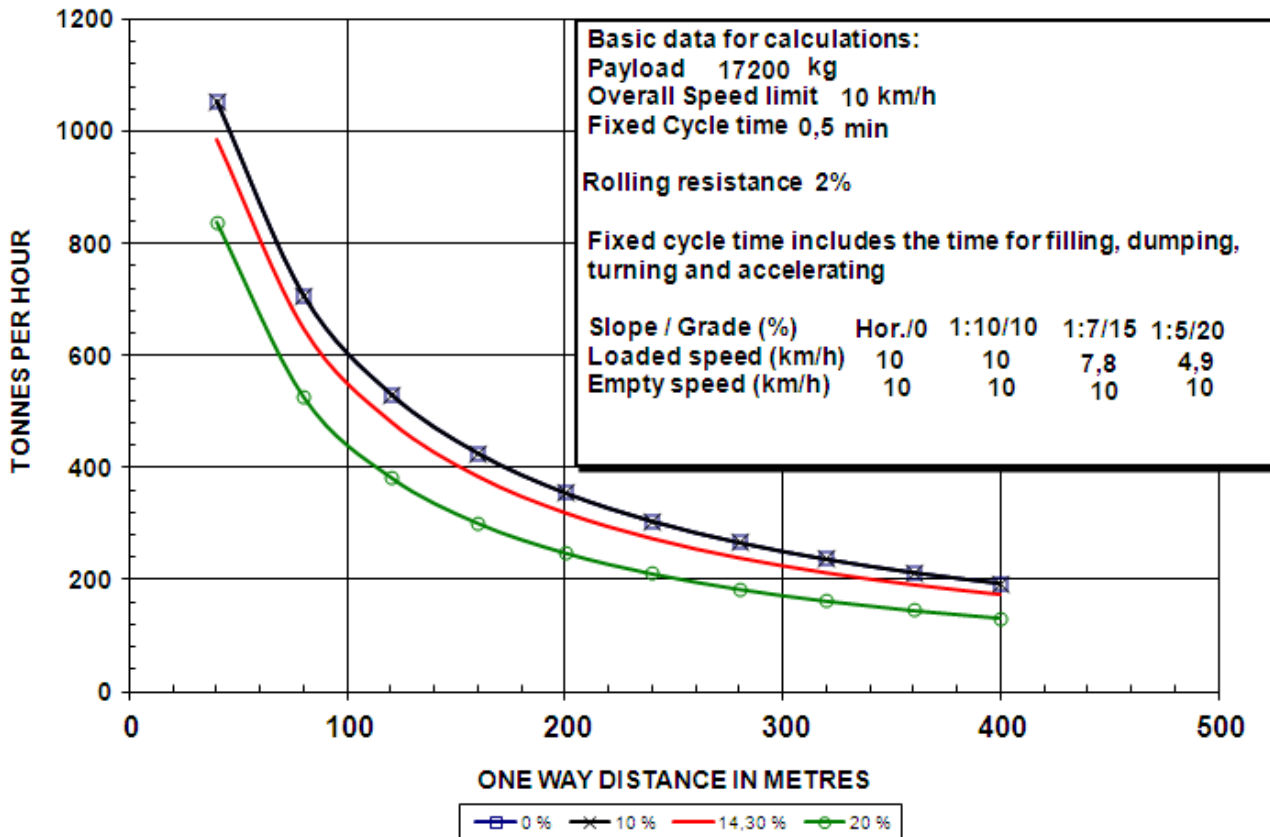
Percent grade	0	2.0	4.0	6.0	8.0	10.0	12.5	14.3	17
Ratio					1:12	1:10	1:8	1:7	
1 st gear (km/h)	5,9	5,9	5,9	5,9	5,8	5,8	5,8	5,8	5,7
2 nd gear (km/h)	10,7	10,6	10,5	10,4	10,3	10,3	10,2	9,9	8,8
3 rd gear (km/h)	18,8	18,5	18,3	18,0	17,5	15,0	12,7		
4 th gear (km/h)	33,9	33,1	32,3	25,5					

Loaded

Percent grade	0	2.0	4.0	6.0	8.0	10.0	12.5	14.3	17
Ratio					1:12	1:10	1:8	1:7	
1 st gear (km/h)	5,9	5,9	5,9	5,8	5,8	5,8	5,7	5,7	5,7
2 nd gear (km/h)	10,7	10,5	10,4	10,3	10,2	10,0	8,6	7,8	6,8
3 rd gear (km/h)	18,8	18,4	18,1	17,1	13,8				
4 th gear (km/h)	33,9	32,8	27,0						

PRODUCTIVITY CURVE

**LH517
 PRODUCTIVITY CURVE**



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TRACTIVE EFFORT CURVE

