

Sandvik LH307

Technical Specification



APPLICATIONS

Sandvik LH307 is a 6,7 tonnes Load-Haul-Dump (LHD) developed specially for underground use for the most diverse application, including development work, mining and tunnelling construction.

Capacities

Tramming capacity	6 700 kg	14 800 lb
Break out force, lift	13 700 kg	30 200 lb
Break out force, tilt	11 400 kg	25 100 lb
Tipping load	16 070 kg	35 430 lb
Standard bucket	3,0 m ³	3,9 yd ³

Main dimensions

Total length	8 631 mm	340 "
Maximum width	2 136 mm	84 "
Height without safety canopy	1 720 mm	68 "
Height with safety canopy	2 212 mm	87 "

Bucket Motion Times

Raising time	6,5 sec
Lowering time	3,8 sec
Dumping time	2,0 sec

Speeds Forward & Reverse (Level / Loaded)

1st gear	4,8 km/h	3,0 mph
2nd gear	9,5 km/h	5,9 mph
3rd gear	15,9 km/h	9,9 mph
4 th gear	26,4 km/h	16,4 mph

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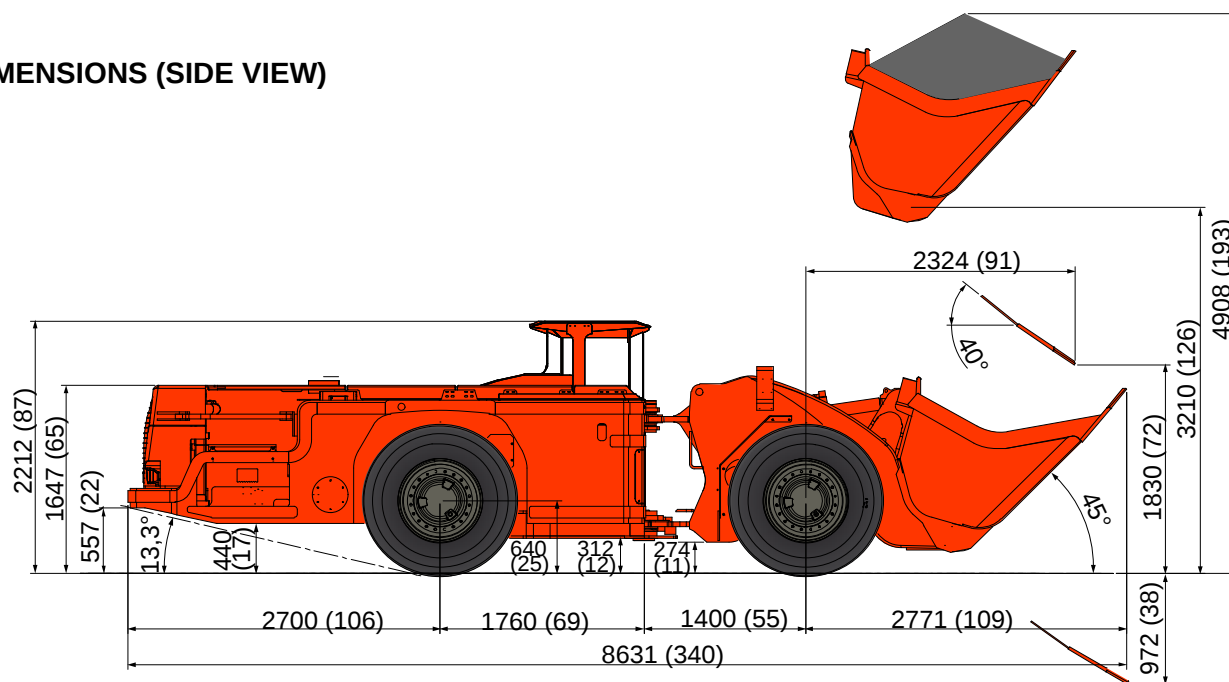
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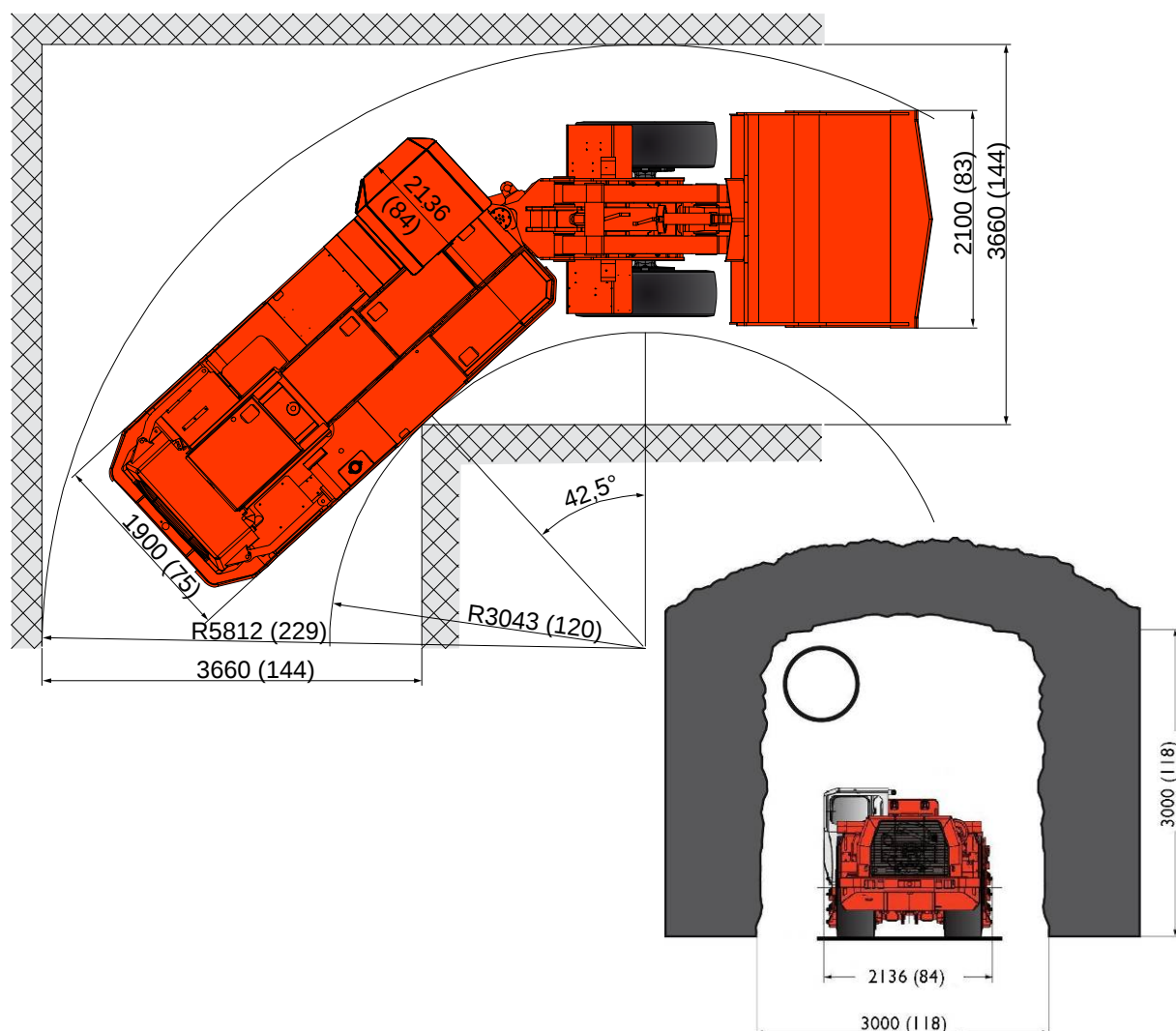
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DIMENSIONS (SIDE VIEW)



DIMENSIONS (TOP VIEW)



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POWER TRAIN

Engine

Diesel engine	Mercedes-Benz OM 906 LA
Output	150 kW (201 hp) @ 2 200 rpm
Torque	750 Nm @ 1 400 rpm
Number of cylinders	In-line 6
Displacement	6 400 cm ³ (409,6 in ³)
Cooling system	Water cooled
Combustion principle	Direct injection, four stroke
Air filtration	Dry type
Electric system	24 V
Emissions	Tier III, Euro Stage 3
Exhaust system	Double wall exhaust pipe with catalytic purifier / muffler
Average Fuel Consumption	19,0 l/h (at 50% load)
Fuel Tank Capacity	210 l (55 gal)

Converter

Dana C273,1 stage	Single
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Transmission

Dana RT32421	Power shift transmission with modulation, four gears forward and reverse, automatic gear control
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Axles

Front axle	Kessler D91, Spring applied hydraulic operated brakes, limited slip differential, fixed
Rear axle	Kessler D91, Spring applied hydraulic operated brakes, limited slip differential, oscillating $\pm 8^\circ$ (with roller bearings)

Tires

Tire size	17.5x25 L5S, 20 ply
Brand and type subject to availability	

VEHICLE WEIGHTS

Operating weights

Total operating weight	18 020 kg	39 730 lb
Front axle	7 950 kg	17 500 lb
Rear axle	10 070 kg	22 200 lb

Loaded weights

Total loaded weight	24 720 kg	54 500 lb
Front axle	18 050 kg	39 800 lb
Rear axle	6 670 kg	14 700 lb

STANDARD OPERATORS COMPARTMENT

ROPS/FOPS certified safety canopy		
Height	2 212 mm	87"
Width	2 136 mm	84"

FRAME

Rear and front frame	Welded steel construction
Central hinge	Fully sealed, adjustable upper bearing

Rear tanks, hydraulic tank and cabin base are welded to frame

STEERING HYDRAULICS

Centre-point articulation, power steering with two double acting cylinders. Steering system is equipped with electric controlled joystick. Emergency steering is optional.

Turning Radius

Turning angle	$\pm 42,5^\circ$	
Inner	3 043 mm	119 "
Outer	5 812 mm	228 "

Main Components

Main valve	
Pilot control valve	
Steering cylinders	$\varnothing 100$ mm (3,9 ")
Steering and pilot hydraulic pumps	Gear type

BUCKET HYDRAULICS

Monostick bucket and boom control (electric), equipped with gear 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	$\varnothing 140$ mm (5,5 ")
Dump cylinder	$\varnothing 200$ mm (7,9 ")
Pilot control valve	
Main valve	
Pump for bucket hydraulics	Gear type
Fittings	ORFS
Hydraulic oil tank	230 l (61,8 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, ABA

Main Components

Pressure accumulator	Piston type
Brake pedal valve	
Charging valve	

ELECTRICAL EQUIPMENT

Alternator	24V 100A, Bosch
Batteries	2x 12V, 145Ah
Starter	24V Bosch
Driving and working lights	2 pcs in front 65 W 2 pcs in rear 65 W 2 pcs in canopy 65 W
Parking lights	2 pcs in front, LED lights
Brake lights	
Blinkers	
Electronic control system with 5,7" display and inbuild system diagnostics	

SAFETY AND ERGONOMICS

Seat belt
Lockable main switch
Reverse alarm (CEN)
External shutdown, 2 pcs in rear
Low frequency seat

STANDARD MANUALS

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

OTHER STANDARD EQUIPMENT

Automatic central lubrication
Fire extinguisher, 12 kg (CEN)
Flashing beacon
Neutral brake
Wheel chocks and brackets

Additional options

☐ Emergency steering (CEN)
☐ Fire suppression system ANSUL, 6 nozzles (CEN), incl. auto engine shutdown
☐ Fire suppression system ANSUL, 6 nozzles (CEN), CHECKFIRE, incl. auto engine shutdown
☐ Fire suppression system Sandvik FS1000 with auto engine shutdown
☐ Cover grills for lamps
☐ Gear limit (specify max gear to factory)
☐ Spare rim (17.5-25)
☐ Boom suspension (ride control)
☐ Driving direction lights (red/green)
☐ Wiggins fill set (hydraulic, transmission, engine oil)
☐ Wiggins fuel fill set
☐ Jump start
☐ Accordance with CE-norms (CEN)
☐ Pressure accumulator certificates
☐ RRC HBC CAN complete
☐ RRC interface for HBC, analogue, not with automation
☐ RRC recovery kit (brake release by radio signal), hook included
☐ Integrated scale
☐ Monitoring camera system
☐ Tyre Pressure Monitoring System
☐ LinkOne electric spare part manual
☐ CatBase spare part manual
☐ Cabin heater

Alternative buckets

Material density (t/m ³)	2,5	2,0	1,8
Volume, heaped (m ³)	2,7	3,3	3,7
Width(mm)	1 953	2 153	2 153

GRADE PERFORMANCE

Mercedes-Benz OM 906 LA, 150 kW
Calculated with 2% rolling resistance
Without lock-up

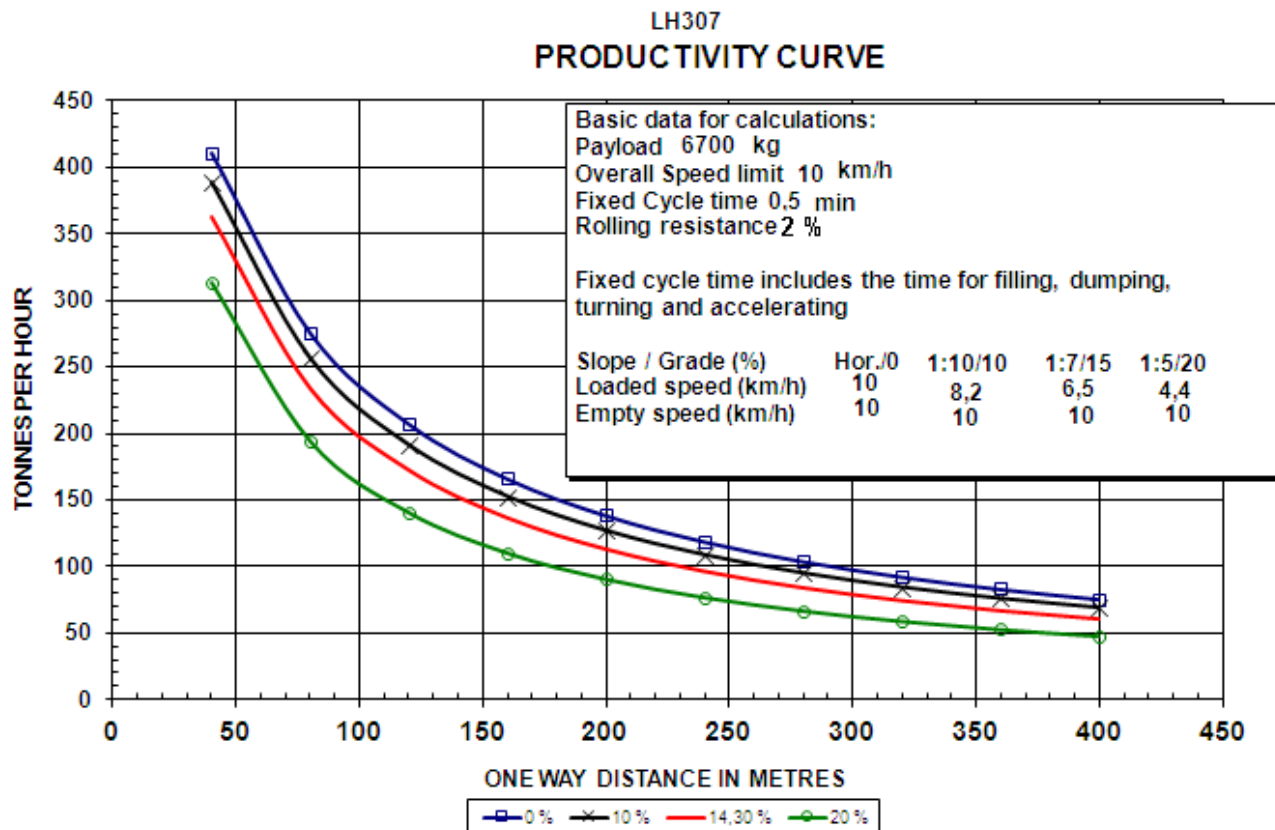
Empty

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)	4,8	4,7	4,6	4,5	4,4	4,4	4,3	4,3	4,2
2 nd gear (km/h)	9,7	9,3	9,1	8,9	8,7	8,5	8,3	8,1	7,5
3 rd gear (km/h)	16,2	15,5	15,0	14,5	13,5	11,9	9,8	8,3	
4 th gear (km/h)	27,1	25,5	22,9	17,8	13,0				

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)	4,8	4,6	4,5	4,4	4,3	4,3	4,2	4,2	4,1
2 nd gear (km/h)	9,5	9,1	8,8	8,6	8,4	8,0	7,2	6,5	5,4
3 rd gear (km/h)	15,9	15,1	14,4	12,8	10,4	8,2			
4 th gear (km/h)	26,4	24,0	17,2	10,9					

PRODUCTIVITY CURVE



TRACTIVE EFFORT CURVE

