

# Sandvik LH203

## Technical Specification



### APPLICATIONS

Sandvik LH203 is a compact and lightweight Load Haul Dump (LHD) for narrow vein mining. Best payload to own weight ratio in its class.

### Capacities

Tramming capacity	3 500 kg	7 716 lb
Break out force, lift	6 220 kg	13 710 lb
Break out force, tilt	5 600 kg	12 360 lb
Tipping load	8 300 kg	18 298 lb
Standard bucket	1,5 m <sup>3</sup>	2,0 yd <sup>3</sup>

### Main dimensions

Total length	7 040 mm	277 "
Maximum width	1 480 mm	58 "
Height without canopy	1 595 mm	63 "
Height with safety canopy	1 840 mm	72 "

### Bucket Motion Times

Raising time	5,5 sec
Lowering time	2,9 sec
Dumping time	3,0 sec

### Speeds Forward & Reverse (Level / Loaded)

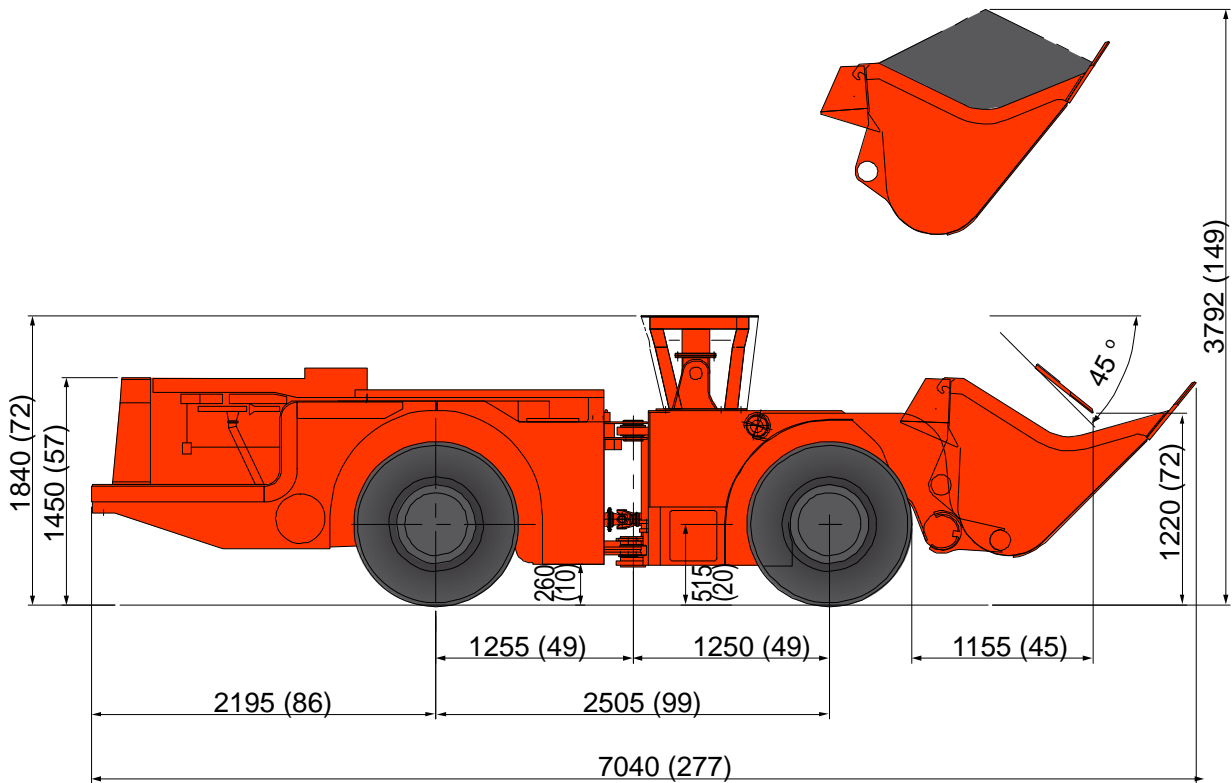
1st gear	5,5 km/h	3,4 mph
2nd gear	10,3 km/h	6,4 mph
3rd gear	25,2 km/h	15,7 mph

Sandvik Mining and Construction Reserves the right to change this specification without further notice.

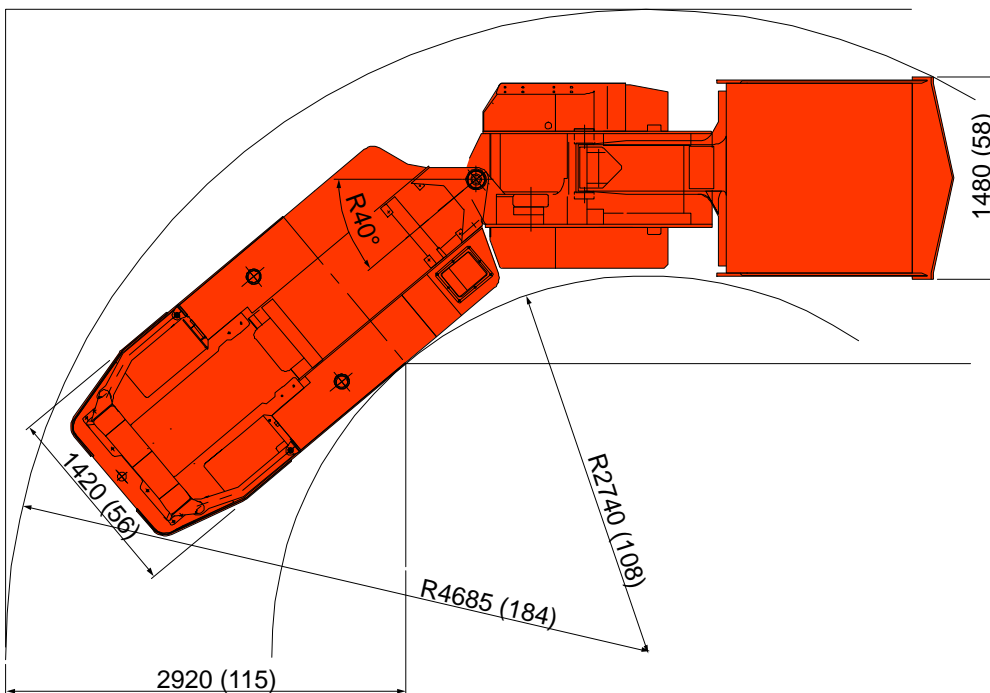
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## DIMENSIONS (SIDE VIEW)



## DIMENSIONS (TOP VIEW)



## POWER TRAIN

### Engine

Diesel engine	Deutz BF6L914
Output	71,5 kW (95hp) @ 2 300 rpm
Torque	400 Nm @ 1 650 rpm
Number of cylinders	In-line 6
Displacement	6 472 cm <sup>3</sup> (395 in <sup>3</sup> )
Cooling system	Air cooled
Combustion principle	4-stroke, turbo, direct injection
Air filtration	Dry type
Electric system	24 V
Emissions	Tier II
Exhaust system	Double wall exhaust pipe with catalytic purifier / muffler
Average Fuel Consumption	9,5 l/h (at 50% load)
Fuel Tank Capacity	130 l (43 gal)

### Converter

Dana SOH C2122
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### Transmission

Dana SOH RT20324	Power shift (mechanical control) transmission, three gears forward and reverse
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### Axles

Front axle	Kessler D71, spring applied, hydraulic operated brakes, limited slip differential
Rear axle	Kessler D71, spring applied, hydraulic operated brakes, limited slip differential
Oscillation stabilizer	

### Tires

Tire size	12,00 x 20 L5S, 20 ply
Brand and type	subject to availability

## VEHICLE WEIGHTS

### Operating weights

Total operating weight	8 700 kg	19 180 lb
Front axle	3 700 kg	8 157 lb
Rear axle	5 000 kg	11 023 lb

### Loaded weights

Total loaded weight	12 200 kg	26 897 lb
Front axle	9 050 kg	19 952 lb
Rear axle	3 150 kg	6 945 lb

## STANDARD OPERATORS COMPARTMENT

ROPS/FOPS certified safety canopy	
Height	1 840 mm 72"

## FRAME

Rear and front frame	Welded steel construction
Central hinge	Box constructed, adjustable

## STEERING HYDRAULICS

Full hydraulic, centre-point articulation, power steering with one double acting cylinder. Steering controlled by stick. Emergency steering is optional.

### Turning Radius

Turning angle		±40 °
Inner	2 740 mm	108 "
Outer	4 685 mm	184 "

## Main Components

Main valve	
Servo control valve	
Steering cylinders	100 mm (3,9 ")
Steering and servo hydraulic pumps	

## BUCKET HYDRAULICS

Dual stick bucket and boom control. Full hydraulic, mechanically controlled system, equipped with one gear type pump. Oil flows to bucket hydraulic system from the main pump and from the steering hydraulics

## Main Components

Boom system	Direct dump
Lift cylinders	ø180 mm (7.1 ")
Dump cylinder	ø140mm (5.5 ")
Servo control valve	
Main valve	
Pump for bucket hydraulics	
Fittings	JIC
Hydraulic oil tank	120 l (32 gal)

## BRAKES

Service brakes are hydraulically operated multidisc wet brakes on all wheels.

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

Parking brake is spring applied, hydraulically released dry disk brake affecting on the front axles drive line

In case of a sudden pressure drop in brake hydraulics the parking brake functions as an emergency brake

## Main Components

Pressure accumulator
Brake pedal valve
Parking brake
Charging valve

## 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

## ELECTRICAL EQUIPMENT

Alternator	24 V 55 A, Bosch
Batteries	2 x 12V 70 Ah
Starter	4 kW, 24 V, Bosch
Driving and working lights	2 pcs 65 W Nordic Lights, front & rear
Parking and brake lights	2 pcs 5 W LED lights, front & rear

## 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, 6 kg (CEN)
Flashing beacon
Neutral brake

## OPTIONAL EQUIPMENT

### Replaces standard equipment

<input type="checkbox"/> Ejector bucket size 1,5 m <sup>3</sup> (2,0 yd <sup>3</sup> )
<input type="checkbox"/> Wide open cabin
<input type="checkbox"/> Electrical gear shift control

### Alternative buckets

Material density (t/m <sup>3</sup> )	2,0
Volume, heaped (m <sup>3</sup> )	1,75
Width(mm)	1 690

### Additional options

<input type="checkbox"/> 3 <sup>rd</sup> gear disabled
<input type="checkbox"/> Fire supp. system ANSUL, 1 tank, 6 nozzles (CEN) incl. auto engine shutdown
<input type="checkbox"/> Fire supp. system ANSUL, 1 tank, 6 nozzles (CEN), CHECKFIRE incl. auto engine shutdown
<input type="checkbox"/> Fire suppression system Sandvik FS1000 with auto engine shutdown
<input type="checkbox"/> Pressure accumulator certificates
<input type="checkbox"/> RRC HBC analogue, complete
<input type="checkbox"/> RRC interface HBC
<input type="checkbox"/> RRC recovery kit (brake release by radio signal), hook included
<input type="checkbox"/> Cover grills for lamps
<input type="checkbox"/> Spare rim (12.00-20)
<input type="checkbox"/> CatBase spare part manual
<input type="checkbox"/> LinkOne electronic spare part manual

## GRADE PERFORMANCE

Deutz BF6L914, 71,5 kW  
 Calculated with 2% rolling  
 resistance  
 Without lock-up

### Empty

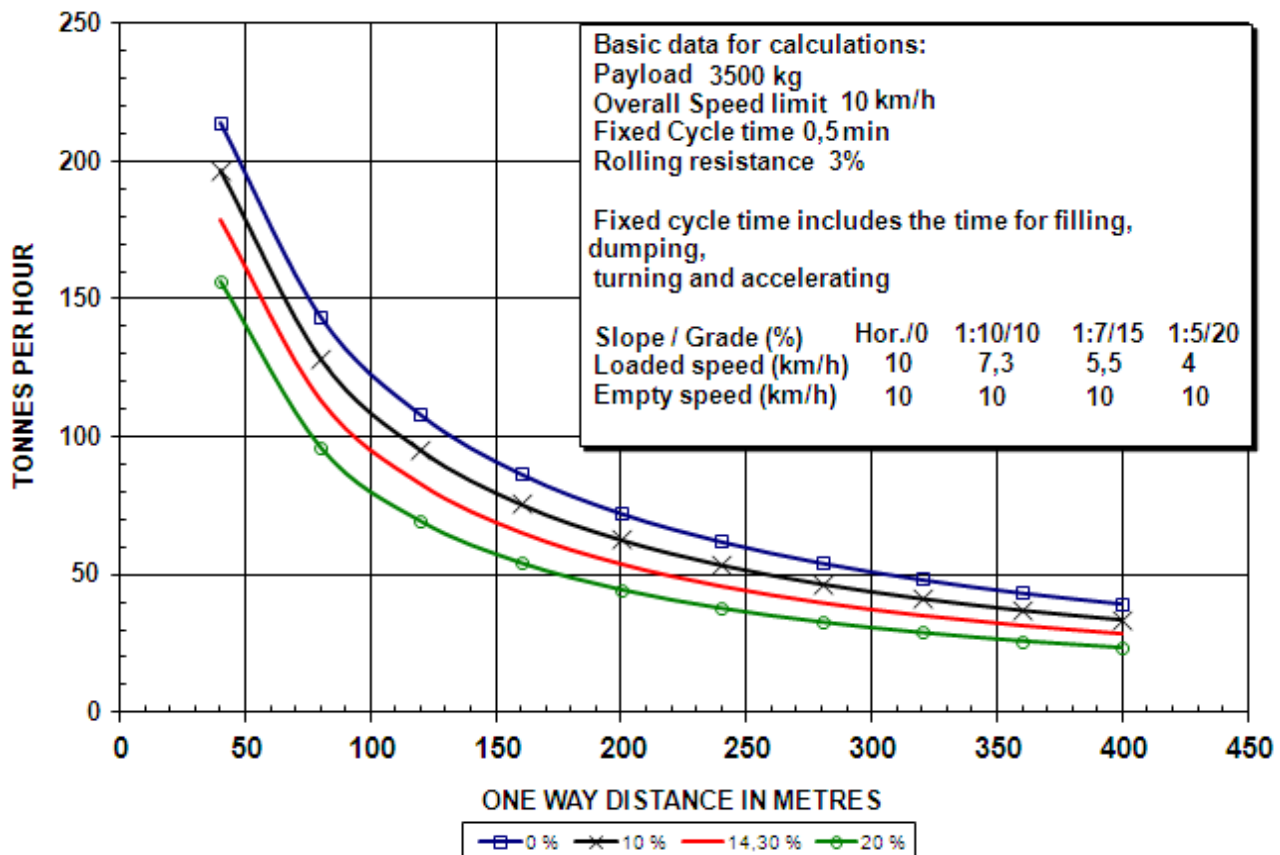
Percent grade	0	2.0	4.0	6.0	8.0	10.0	12.5	14.3	17
Ratio					1:12	1:10	1:8	1:7	
1 <sup>st</sup> gear (km/h)	5,6	5,4	5,3	5,2	5,1	5,0	4,9	4,8	4,7
2 <sup>nd</sup> gear (km/h)	10,6	10,2	9,8	9,4	9,1	8,7	8,1	7,6	6,9
3 <sup>rd</sup> gear (km/h)	27,0	23,9	19,4	14,4	10,0				

### 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 <sup>st</sup> gear (km/h)	5,5	5,3	5,2	5,0	4,9	4,8	4,6	4,5	4,3
2 <sup>nd</sup> gear (km/h)	10,3	9,8	9,3	8,8	8,1	7,3	6,3	5,5	4,5
3 <sup>rd</sup> gear (km/h)	25,2	19,4	12,6						

## PRODUCTIVITY CURVE

### LH203 PRODUCTIVITY CURVE



## TRACTIVE EFFORT CURVE

