



# SANDVIK LH208L LOW PROFILE LOADER

TECHNICAL SPECIFICATION



Sandvik LH208L is a 7.7 tonnes capacity underground loader designed to work in low-profile room and pillar mining applications and extra low profile reef mining.

Small envelope size and turning radius enable easy navigation in confined spaces. The loader's low-profile design enables operation in mine sections with headroom as low as 1.8 meters.

Sandvik LH208L is equipped with Deutz BF6M2012C diesel engine, Dana transmission and Kessler axles. Sandvik Intelligent Control System allows easy trouble shooting and provides alarms and warnings on the control system display.

ROPS and FOPS certified operator's compartment provides protection for the operator, and efficient LED lights improve visibility. Proximity Detection System Interface for a third-party PDS is available as an option.

## CAPACITIES

Tramming capacity	7 711 kg
Break out force, lift	12 135 kg
Break out force, tilt	12 440 kg
Tipping load	20 859 kg
Standard bucket	3.3 m <sup>3</sup>

## SPEEDS FORWARD & REVERSE (LEVEL/LOADED) WITH DEUTZ BF6M2012C

1st gear	4.1 km/h
2nd gear	8.3 km/h

## BUCKET MOTION TIMES

Raising time	4.0 sec
Lowering time	3.0 sec
Dumping time	3.7 sec

## OPERATING WEIGHTS

Total operating weight	20 830 kg
Front axle	9 275 kg
Rear axle	11 555 kg

## LOADED WEIGHTS

Total loaded weight	28 541 kg
Front axle	20 785 kg
Rear axle	7 756 kg

## OPERATIONAL CONDITIONS AND LIMITS

Environmental temperature	From -20°C to +50°C
Standard operating altitude	Below 2 500 m

## REQUIREMENTS AND COMPLIANCE

Compliance with 2006/95/EC Low voltage directive
Compliance with 2004/108/EC Electromagnetic compatibility directive
Design based on EN 1889-1. Machines for underground mines. Mobile machines working underground. Safety. Part 1: Rubber tyred vehicles.
Electrical system based on IEC 60204-1. Safety of machinery – Electrical equipment of machines – Part 1: General requirements

## POWER TRAIN

### ENGINE

Diesel engine	Deutz BF6M2012C
Output	140 kW @ 2 500 rpm
Torque	671 Nm @ 1 500 rpm
Number of cylinders	In-line 6
Displacement	6.06 l
Cooling system	Liquid cooled
Combustion principle	4-stroke, turbo with intercooler
Air filtration	Two stage filtration, dry type
Electric system	24 V
Emissions	Tier 2, Euro Stage II
Exhaust system	Double wall exhaust pipe with catalytic purifier/muffler
Average fuel consumption at 50 % load	25.2 l/h
Fuel tank refill capacity	200 l

### CONVERTER

Dana SOH C 273
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### TRANSMISSION

Power shift transmission with modulation.	Dana SOH R32421, electrical gear shift control, two gears forward and reverse
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### AXLES

Front axle	Kessler D91, Spring applied hydraulically released brakes, no-spin differential, fixed
Rear axle	Kessler D91, Spring applied hydraulically released brakes, No-spin differential, oscillating

### TIRES

Tire size (Tires are application approved. Brand and type subject to availability.)	17.5 x 25 24 PLY L5S
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## OPERATOR'S COMPARTMENT

### CANOPY

ROPS certification according to EN ISO 3471
FOPS certification according to EN ISO 3449
Adjustable joysticks
No high pressure hoses in the operator's compartment
Inclinometers to indicate operating angle
Emergency exit
Floor washable with water to reduce dust
Three-point contact access system with replaceable and colour coded handles and steps
Remote circuit breaker switch

### OPERATOR'S SEAT

Low frequency suspension
Height adjustment
Adjustment according to the operator's weight
Fore-aft isolation
Padded and adjustable arm rests
Adjustable lumbar support
Two-point seat belt

### CONTROL SYSTEM, DASHBOARD AND DISPLAYS

Sandvik Intelligent Control System	Standard
Critical warnings and alarms	Displayed as text and with light
Instrument panel	5.7" Display with adjustable contrast and brightness
Instrument panel	Illuminated switches

## FRAME

### REAR AND FRONT FRAME

Welded structure, high strength steel	
Central hinge	Adjustable upper bearing
Tanks	Tanks welded to rear frame
Centralized manual lubrication	Standard

### HYDRAULICS

Filling pump for hydraulic oil	Standard
Door interlock for brakes and boom, bucket, and steering hydraulics	Standard
Oil cooler for hydraulic and transmission oil	Standard
Fittings	ORFS and SAE
Hoses	ORFS and SAE
Hydraulic oil tank capacity	200 l
Sight glass for oil level	2 pcs

## STEERING HYDRAULICS

Hydraulically operated, center-point articulation, power steering with two double acting cylinders. Steering controlled by electro-hydraulic joystick. Interlock protection.

Steering main valve	Open center type
Steering hydraulic cylinders	100 mm, 2 pcs
Steering pump	Gear type
Steering and servo hydraulic pumps	No additional steering pump or separate servo hydraulic pump

## BUCKET HYDRAULICS

Joystick bucket and boom control (electro-hydraulic), equipped with gear pump that delivers oil to the bucket hydraulic main valve.

Boom system	Straight boom
Lift cylinders	180 mm, 2 pcs
Dump cylinder	160 mm, 1 pc
Main valve	Open center type
Pump for bucket hydraulics	Gear type

## BRAKES

Service brakes are spring applied; hydraulically released 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. Brake system performance complies with requirements of EN ISO 3450, AS2958.1 and SABS 1589

Neutral brake	Standard
Automatic brake activation system, ABA	Standard
Emergency brake release pump	Electric, 2.2 kW

## ELECTRICAL EQUIPMENT

### MAIN COMPONENTS

Alternator	28 V, 80 A
Batteries	2 X 12V
Starter	4 kW, 24 V
Driving lights	LED lights: 3 pcs in front 4 pcs in rear 2 pcs in canopy
Parking, brake and indicator (blinkers) lights	LED lights: 2 pcs in front 2 pcs in rear
Control system	Standard
Reverse alarm (CE)	Standard
Flashing beacon	Standard

## INCLUDED SAFETY FEATURES

### FIRE SAFETY

Portable fire extinguisher	Standard, 6 kg (CE)
Hot side - cold side design	Standard
Heat insulation on exhaust manifold, turbo, and isolated exhaust pipe	Standard

### ENERGY ISOLATION

Lockable main switch, ground level access	Standard
Emergency stop push buttons according to EN ISO 13850	Standard
Pressure release in the radiator cap	Standard
Automatic discharge for pressure accumulators (brake system and pilot circuit)	Standard
Frame articulation locking device	Standard
Mechanical boom locking device	Standard
Wheel chocks and brackets	Standard

## DOCUMENTATION

### STANDARD MANUALS

Operator's Manual	English and other EU languages
Maintenance Manual	English and other EU languages
Parts Manual	English
Service and Repair Manual	English
ToolMan	2 x USB stick in pdf format, includes all the manuals
Decals	English

## OPTIONS

### SAFETY OPTIONS

Fire suppression system ANSUL, 1 tank, 6 nozzles, including auto shutdown
Proximity Detection System Interface

### OTHER OPTIONS

Spare wheel 17.5-25, 20 ply L5S
Spare rim 14.00-25/1.5 (for tyres 17.5R25)
Toolman CD

## GRADE PERFORMANCE

Deutz BF6M2012C

### Empty

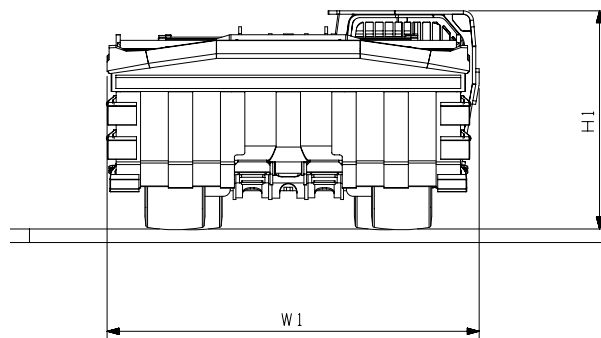
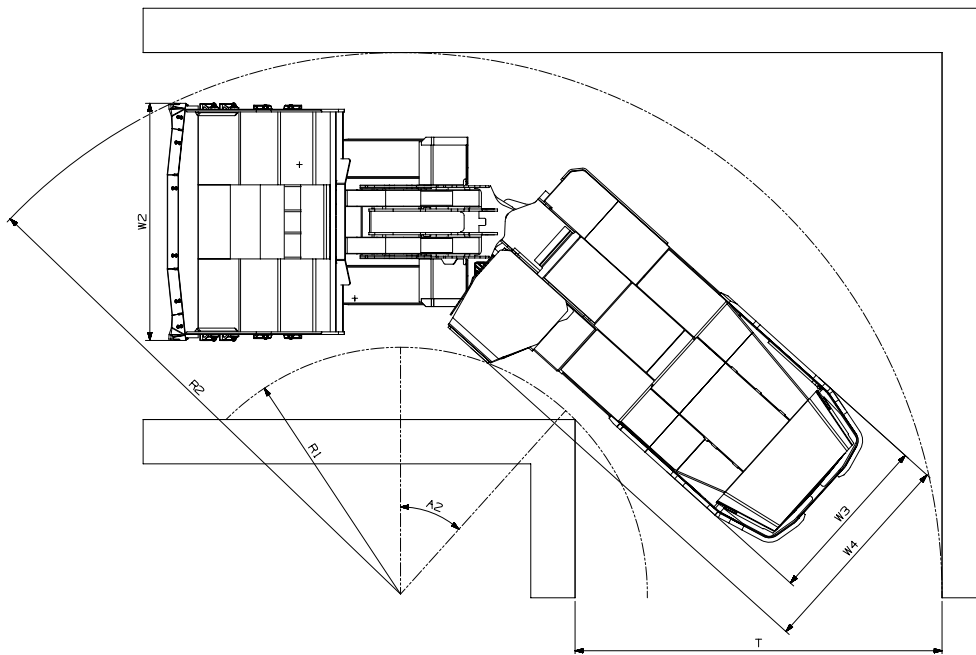
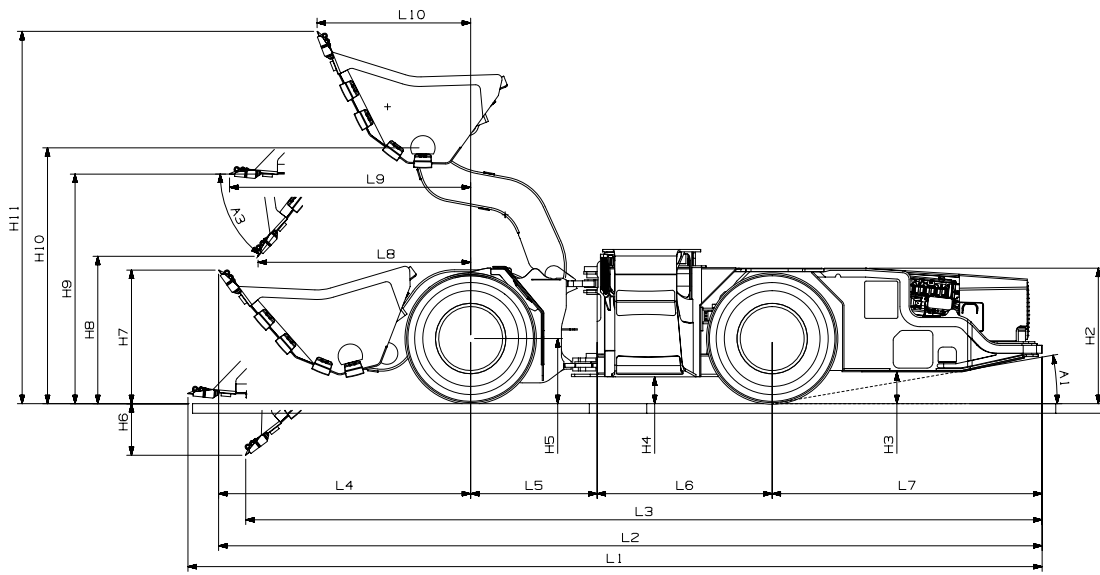
Percent grade	0.0	2.0	4.0	6.0	8.0	10.0	12.5	14.3	17.0
Ratio					1:12	1:10	1:8	1:7	
1st gear (km/h)	4.2	4.1	4.0	4.0	3.9	3.9	3.8	3.8	3.8
2nd gear (km/h)	8.5	8.2	8.0	7.9	7.7	7.3	6.8	6.4	5.8

### Loaded

Percent grade	0.0	2.0	4.0	6.0	8.0	10.0	12.5	14.3	17.0
Ratio					1:12	1:10	1:8	1:7	
1st gear (km/h)	4.1	4.0	4.0	3.9	3.8	3.8	3.7	3.7	3.5
2nd gear (km/h)	8.3	8.0	7.8	7.5	6.8	6.2	5.4	4.8	4.0

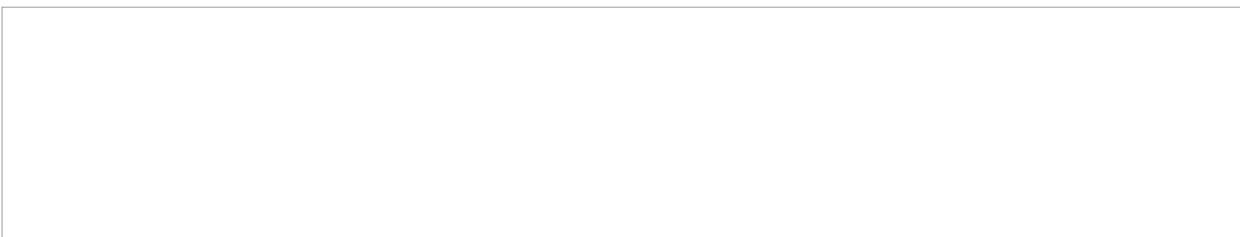


DIMENSIONS



## DIMENSIONS

Bucket alternatives (m <sup>3</sup> )	Standard			
	3.3 m <sup>3</sup>	3.5 m <sup>3</sup>	2.3 m <sup>3</sup>	2.5 m <sup>3</sup>
Lip plate type	Half Arrow	Half Arrow	Ejector	Ejector
L1 (mm)	8792	8793	8890	8936
L2 (mm)	8600	8615	8635	8663
L3 (mm)	7848	7836	8246	8217
L4 (mm)	2630	2646	2666	2694
L5 (mm)	1321	1321	1321	1321
L6 (mm)	1829	1829	1829	1829
L7 (mm)	2819	2819	2819	2819
L8 (mm)	1919	1911	2022	2065
L9 (mm)	2569	2573	2633	2679
L10 (mm)	2118	2135	2107	2181
H1 (mm), canopy	1610	1610	1610	1610
H2 (mm)	1415	1415	1415	1415
H3 (mm)	332	332	332	332
H4 (mm)	281	281	281	281
H5 (mm)	680	680	680	680
H6 (mm)	1069	1082	917	992
H7 (mm)	1383	1374	1455	1488
H8 (mm)	776	761	765	744
H9 (mm)	1689	1672	1661	1670
H10 (mm)	2130	2130	2130	2130
H11 (mm)	3323	3318	3426	3417
W1 (mm)	2747	2797	2696	2746
W2 (mm)	2676	2776	2573	2662
W3 (mm)	1937	1937	1937	1937
W4 (mm)	2378	2378	2378	2378
A1	10°	10°	10°	10°
A2	42°	42°	42°	42°
A3	40°	40°	40°	40°
R1, left turn (mm)	2786	2786	2786	3000
R2, left turn (mm)	6114	6161	6010	6100
T, left turn (mm)	4142	4191	4122	4040
R1, right turn (mm)	2997	2950	3057	3000
R2, right turn (mm)	6112	6161	6043	6100
T, right turn (mm)	3993	4075	3982	4123



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