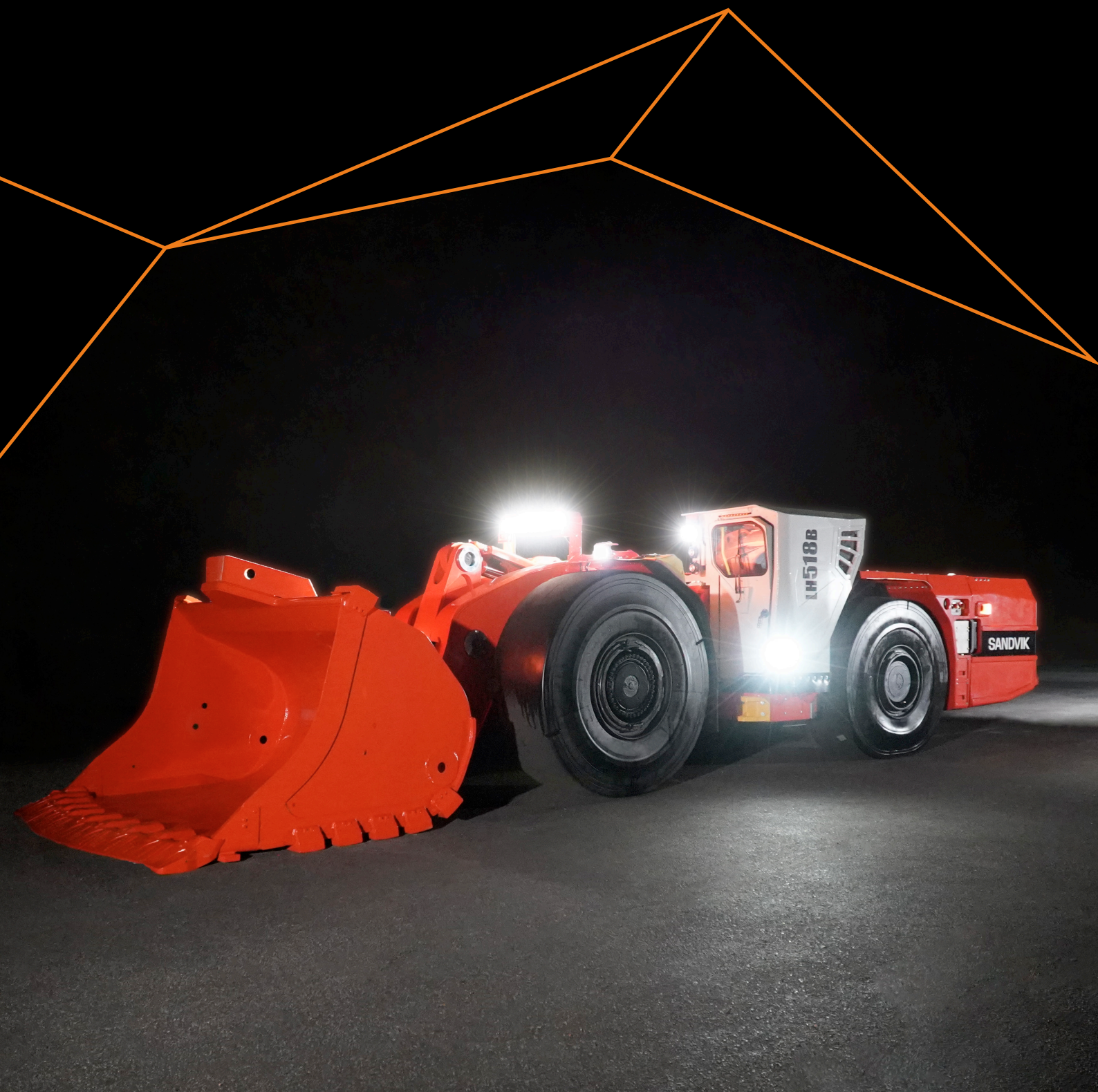




# SANDVIK LH518B BATTERY ELECTRIC LOADER





# RETHINK THE FUTURE OF MINING

## REPLACE OR REDESIGN? RETHINK.

It was not enough to replace some components or redesign only a part of the machine. This technology compelled us to rethink the entire design. The LH518B battery-electric loader from Sandvik has been designed from the ground-up to take advantage of all the benefits of electric drive technology. We've rethought the machine so that you don't need to rethink the whole mine.

## LESS HEAT, ZERO DIESEL EMISSIONS

The LH518B from Sandvik utilizes today's cutting edge battery technology, based on Lithium-Iron Phosphate chemistry (LiFePO<sub>4</sub>). The fully battery-driven LH518B produces no underground exhaust emissions and significantly less heat than traditional diesel engines, supporting the mines to reach sustainability targets for example by means of reduced CO<sub>2</sub> emissions. On a practical level, battery-powered equipment helps to reduce ventilation requirements deep underground, having a positive impact on the bottom line.

## HIGH-POWER ELECTRIC DRIVELINE

As battery equipment power is not constrained by mine ventilation limitations, nothing is stopping us from using the most powerful electric motors available for underground use. The electric drivetrain delivers over 600kW of power, allowing higher acceleration and fast ramp speed which results in short cycle times. With more than 460kN of tractive effort, the LH518B fills a bucket like no other machine on the market.

## AUTOSWAP

The LH518B is equipped with a unique AutoSwap, a patented self-swapping system for the Artisan® battery system. Battery swapping with the AutoSwap is fast and easy with minimum amount of manual handling. All this together with the purpose-designed battery improves overall safety and productivity underground.

## MINIMAL INFRASTRUCTURE IMPACT

Thanks to the AutoSwap, the LH518B battery loader does not require any heavy mine infrastructure such as overhead cranes or forklifts to hoist or move batteries; all that is needed is a passing bay or an old re-mucking bay. Further, the charging system is easy to relocate as operations advance, giving your mine the flexibility required for success.







# TECHNICAL SPECIFICATION

## SANDVIK LH518B

### CAPACITIES

Maximum tramming capacity	18 000 kg
Standard bucket size	6.6 m <sup>3</sup>

### BUCKET MOTION TIMES

Raising time	8.3 sec
Lowering time	4.3 sec
Dumping time	2.0 sec

### OPERATING WEIGHTS

	Unloaded	Loaded
Total operating weight	52 000 kg	70 000 kg
Front axle	19 000 kg	47 500 kg
Rear axle	33 000 kg	22 500 kg

### BRAKES

Service Brakes	Electric Motor Regen with SAHR
Secondary (Emergency) Brake	SAHR
Park Brake	SAHR
CAN/CSA-M424.3-90	Certified

### TIRES

Tire Size Front	29.5R29 RL-5S (L-5S)
Tire Size Rear	26.5R25 RL-5S (L-5S)

### OPERATION

Recommended Heading	4.5m
Operator's Compartment	ROPS / FOPS Enclosed Cab
Operator's Seat Facing	Side seated
Air Conditioning system	Equipped

### DRIVE TRAIN

Front Axle	Kessler D111
Rear Axle	Kessler D106
Front Differential Type	limited slip lockable Open Diff. (Option)
Rear Differential Type	limited slip

### TRACTION MOTORS

Motor Type	Permanent Magnet, AC
Motor Count	3
Continuous Power Output	180 kW each
Peak Power Output	315 kW each
Total CPO x3	540 kW
Total PPO x3	945 kW
Locations	2 front axle, 1 rear axle
Regenerative Braking	Equipped

### AUX MOTORS

Application Type/Count	Hydraulic Pump x2
Rated Power	100 kW each
Efficiency	>96%

### AVAILABLE BUCKETS

TYPE	VOLUME	WIDTH	MAX MATERIAL DENSITY
G.E.T.	6.3 m <sup>3</sup>	2896 mm	2800kg/ m <sup>3</sup>
G.E.T.	6.6 m <sup>3</sup> (standard)	2872 mm	2700kg/ m <sup>3</sup>
G.E.T.	7.0 m <sup>3</sup>	3066 mm	2500kg/ m <sup>3</sup>
G.E.T.	7.6 m <sup>3</sup>	3066 mm	2200kg/ m <sup>3</sup>
G.E.T.	8.6 m <sup>3</sup>	3066 mm	1900kg/ m <sup>3</sup>

### GRADE PERFORMANCE

Percent grade	0	2.0	3	5	6.7	7.1	7.7	8.3	9.1	10	11.1	12.5	14.3	16.7	20
Ratio	1:inf	1:50	1:33	1:20	1:15	1:14	1:13	1:12	1:11	1:10	1:9	1:8	1:7	1:6	1:5
Speed Loaded (km/h)	27.5	25.2	24	21.7	19.8	19.4	18.8	18.3	17.6	16.9	16	15	14	12.8	11.5
Speed Unloaded (km/h)	28.3	26.6	25.7	23.9	22.5	22.1	21.6	21.2	20.5	19.8	18.9	18	16.9	15.6	14

### STANDARD MANUALS

Operator's Manual	English
Maintenance Manual	English
Parts Manual	English
Service and Repair Manual	English
Decals	English, Swedish

### OPTIONS

Battery Financing / Batteries as a service or lease
Line of Sight Radio RC HBC CANBUS controlled with VIDEO
Driving direction lights (red / green)
Ansul 210 fire suppression system
Safety Handles, Rails, and Steps
Payload weighing system
Monitoring camera system
Spare Tires



## BATTERY

Cell Chemistry	LiFePO4
Cell Monitoring System	Artisan BMS
Number of Battery Packs	2 main + 1 Trimming
Power Rating	660kW peak/560kW continuous
Energy Capacity - total	353 kWh
Ah Rating	576Ah
Nominal Voltage	614V
Cooling Method	liquid
Operating Temp Limits (ambient)	55C/-20C
Weight	10730 kg
Charging Current	300A x2
Optimal Charging Power	180kW x2
Charge Time (0% to 100%)	~60min
Battery Swapping	Self swapping. <5 minutes
Auto Connect System Equipped	

## ENERGY ISOLATION

Lock-out for main switch, ground level access
Lock-out for battery pack(s), ground level access
Emergency stop push buttons according to EN ISO 13850: 1 pcs in the cabin, 2 pcs in the rear
Frame articulation locking device
One hand operation mechanical boom locking device
Wheel chocks and brackets

## CHARGER

Mobile Charging Station: 2 Charging Units, 1 Cooling Unit	
Charging Power	320kW *2
Liquid Cooling Power	60kW
Input Voltage (AC/DC)	480/600/1000Vac
Output Voltage (DC)	min 480Vdc, max 850Vdc, Full Power 500..750Vdc
Enclosure Dimensions / Unit	L: 1550 mm W: 1550 mm H: 1600 mm x 3
Enclosure Weight	2100kg *2 + 1200 kg
Enclosure Specifications / Ratings	IP54
Operating Temperature and Humidity	+10..40degC 100% Humidity
Control and Monitoring	CAN

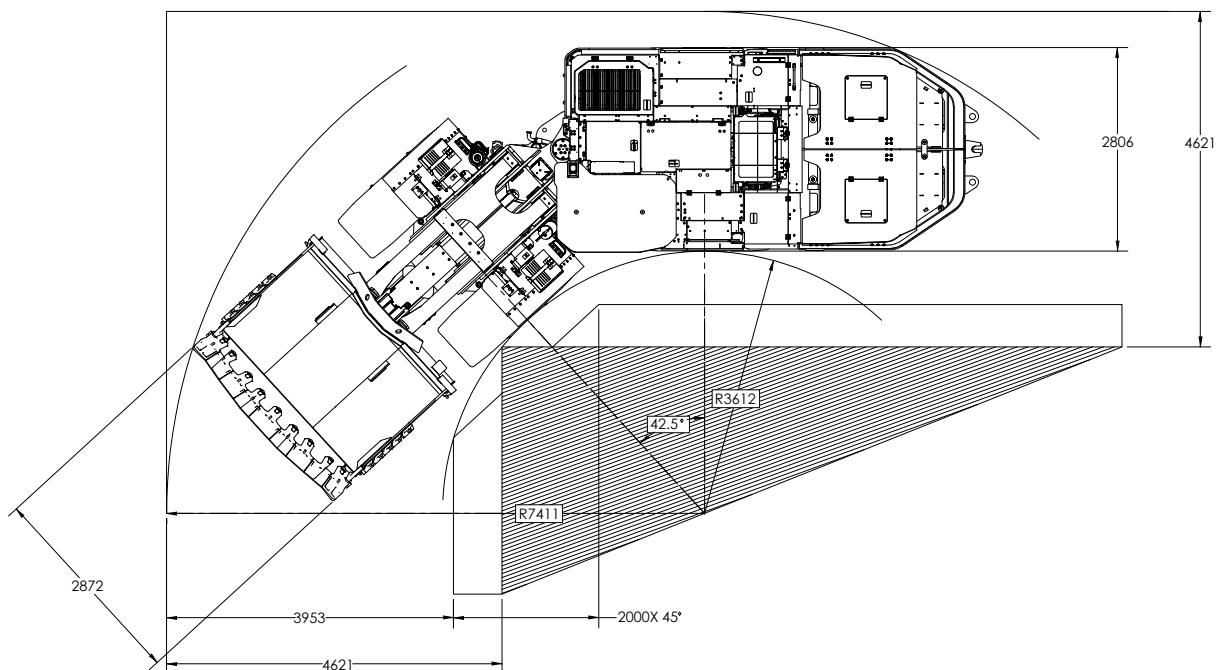
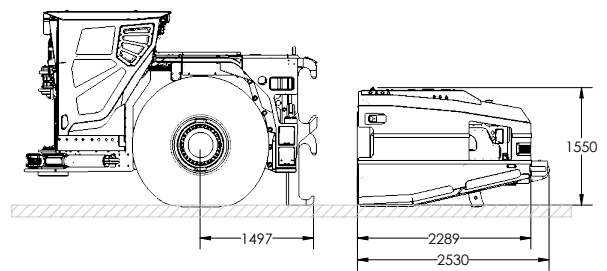
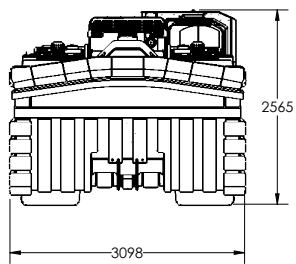
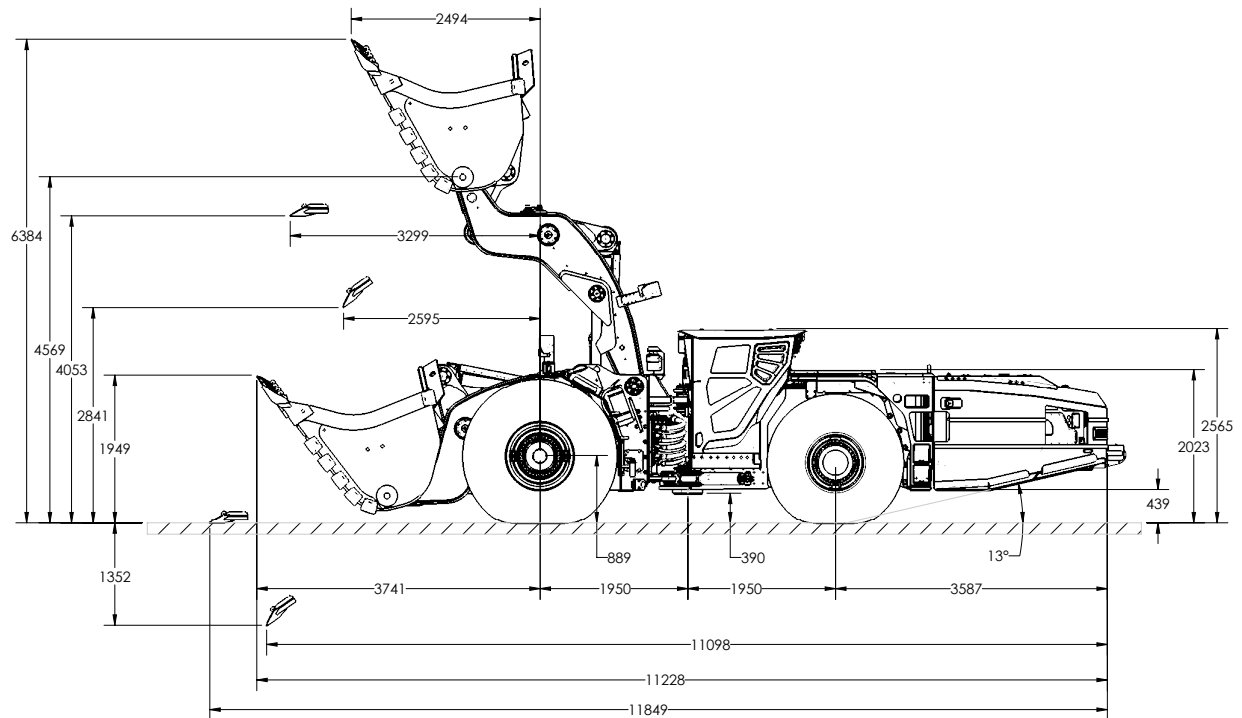


Charging unit dimensions.



## DIMENSIONS WITH 6.6 M³ BUCKET (STANDARD)

The dimensions are indicative only





# SANDVIK 365 PARTS & SERVICES

## PROUDLY KEEPING YOU ON TRACK!

Sandvik 365 Parts & Services offer a variety of possibilities to enhance your Sandvik LH518B loader's performance. As an OEM, we provide the best-suited choices to preserve your machine's high performance throughout its lifetime. These consist of highly skilled service specialists supporting you 365 days a year, all using Sandvik Genuine parts and components complemented by a range of robust tools. In addition, you get to enjoy the benefits of advanced digital services and a global infrastructure dedicated to keeping your Sandvik fleet on track.

## BENEFIT FROM OUR 365 SOLUTIONS

Our Sandvik 365 Parts & Service solutions will enable your equipment to function safely at peak condition and allow you to achieve the most demanding production targets. Our aftermarket portfolio attends all possible needs throughout your equipment's lifecycle, ranging from the most basic and traditional offerings to the most sophisticated ones.

## YOUR EQUIPMENT UPTIME IS OUR FOCUS – SANDVIK 365 COMPONENT SOLUTIONS

We have all your key components available to you under our various commercial offerings to suit your needs. Whether you have an ad-hoc failure or you are planning your maintenance in advance – we can assist, manage your components to maximize your uptime.

## MAXIMIZE YOUR PRODUCT LIFETIME WITH SANDVIK 365 REBUILD SOLUTIONS

One of the most effective ways to optimize equipment lifecycle lies in the quality and range of the Sandvik Rebuild Solutions. Planning and executing rebuilds at optimal intervals helps you keeping your equipment's operating cost and productivity on track. A rebuild by the manufacturer can optimize your total cost of ownership (TCO) and increase the level of predictability around our fleet lifecycle.

## CHOOSE FROM OUR RANGE OF SERVICE AGREEMENTS

With Sandvik Service Agreements, you can improve productivity and minimize unplanned downtime by making use of our expertise, systems and processes. They can be adapted to the specific level of support you require – helping you proactively manage your fleet and avoid any unexpected surprises.

## GAIN PRODUCTIVITY THROUGH CONNECTIVITY

365 My Sandvik Digital Service solutions will provide you with visualization of fleet utilization, productivity, safety and health on 24/7 basis. The digital service dashboards can be accessed through the My Sandvik customer portal, where you can subscribe to My Sandvik Insight or Productivity. This way, My Sandvik Digital Service Solutions enable you to minimize unplanned downtime and set exact targets for improvement.



