

Sandvik TH550B

Safer.
Stronger.
Smarter.



Technical specification

Sandvik TH550B



Capacities *SAE heaped 2:1

Maximum payload	50 000 kg
Standard dump box	28 m ³
Dump box range	24 – 31 m ³

Main dimensions

Overall length	11 055 mm
Overall width	3348 mm
Overall height	2891 mm

Speed

Level/loaded	37 km/h
1:7 (ramp - loaded)	13.5 km/h

Other specifications*

Maximum speed	38.5 km/h
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*Speeds over 20 km/h subject to application approval

Dump box motion times

Discharging times	10 sec.
Dumping angle	70°

Operating weights – unloaded*

Total operating weight	50 100 kg
Front axle	38 500 kg
Rear axle	11 600 kg

OPERATING weights – loaded*

Total loaded weight	100 100 kg
Front axle	52 600 kg
Rear axle	47 500 kg

*Unit weight dependent on selected options

Operational conditions and limits

Environmental temperature	From 0 to +45°C
Standard operating altitude	Altitude capability from -1500 m to + 3000 m

Requirements and compliance

Compliance with 2006/95/EC Low voltage directive
Compliance with 2004/108/EC Electromagnetic compatibility directive
Compliance with 2006/42/EC Machinery directive (Equipment for EU area, achieved with relevant options)
Design based on ISO 19296:2018 Mining - Mobile machines working underground - Machine safety
Design based on MDG 15. Guideline for mobile and transportable equipment for use in mines. (Equipment for Australia, achieved with relevant options)

Power train

Electric/traction motor(s) ×4	
Locations	Wheel hubs
Motor type	Permanent Magnet, AC
Continuous power output	180 kW each
Regenerative braking	Equipped
ATF cooling system volume	38 l
Cooling system volume	35 l
Power (continuous)	720 kW

Auxillary motor

Torque, continuous	1200 Nm
Power	200 kW

Primary Battery

(Skid consisting of 2 battery packs)	
Nominal energy	354 kWh
Nominal capacity	576 Ah
Continuous power	540 kW
Dimensions (LxWxH)	1800 × 2130 × 1680 mm
Approx. weight	8255 kg

Tramming battery

Nominal energy	22 kWh
Nominal capacity	72 Ah
Dimensions (LxWxH)	270 × 640 × 1250 mm
Approx. weight	280 kg

Tires

Tire size (Tires are application approved. Brand and type subject to availability.)	875/65R29
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Hydraulics

Main components
Door interlock for brakes
Filling pump for hydraulic oil
Hydraulic oil tank capacity 156 l
Oil cooler for hydraulic and transmission oil with capability up to 45°C ambient temperature
ORFS fittings
Sight glass for oil level, 2 pcs

Steering Hydraulics

Center articulated, power steering with two double acting cylinders
Hydraulic cylinders - 140mm, 2 pcs 140mm, 2 pcs
Pilot operated steering main valve
Variable displacement steering piston pump

Dump box hydraulics

Fully hydraulic system, equipped with variable displacement piston pump. Oil flows to box hydraulic system from the steering hydraulics. Oil flow from the brake circuit pump is divided to the brake system and oil cooler motor.

Fully hydraulic system, equipped with variable displacement piston pump. Oil flows to box hydraulic system from the steering hydraulics.

Control valve	Solenoid operated
Cylinders	170 mm, 2 pc
Hydraulic pump	Variable displacement piston
Main valve	Solenoid operated

Brake hydraulics

Automatic brake application, ABA
Electrically driven emergency brake release pump
Foot operated brake pedal valve
Neutral brake
Service brakes are spring applied, hydraulically operated multi-disc 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.

Main components

24 V Low voltage batteries 2×12V, 180Ah	
24 V Solid-state Power Distribution System for improved reliability and diagnostic capabilities	
Camera system	7 point camera system
Control system	12" colour display with Sandvik integrated control system hardware modules
Driving lights	LED lights: 4 pcs in front 2 pcs in rear
Flashing beacon	
Marker lights	
Parking, brake and indicator (blinkers) lights	LED lights: 2 pcs in front 2 pcs in rear
Reverse alarm (CEN)	
Reverse camera	
Working lights	

Axles

Front axle	Proprietary direct drive
Rear axle	Proprietary direct drive

Fire safety

Portable fire extinguisher, 12 kg (CE)	
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Energy isolation

Automatic discharge for pressure accumulators (brake system and pilot circuit)	
Emergency stop push buttons according to EN ISO 13850:	1 pc in the cabin 2 pc in front frame 2 pcs in the mid-ship
Frame articulation locking device	
Lockable main switch, ground level access	
Mechanical dump box locking device	
Wheel chocks and brackets	

Operator's seat

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

Cabin

12V and 24V outputs	
Air conditioning unit located outside the cabin to reduce noise inside the cabin	
Cabin mounted on rubber mounts to the frame to reduce vibrations	
Cyclone pre-filter for A/C device	
Drive by wire ergonomic joystick	
Dump box up alarm buzzer in the cabin	
Emergency exit	
Floor washable with water to reduce dust	
Inclinometers to indicate operating angle	
Remote circuit breaker switch	
ROPS certification according to EN ISO 3471	
FOPS certification according to EN ISO 3449	
Sealed, air conditioned, over pressurized, noise suppressed closed cabin	
Sound absorbent material to reduce noise	
Safety glass windows	
Three-point contact access system with replaceable and colour coded handles and steps	

Control system, dashboard and displays

12" display with adjustable contrast and brightness	
Illuminated switches	
Instrument panel with illuminated switches	
My Sandvik Digital Services Knowledge Box™ on-board hardware	

Measured vibration level

Whole body vibration was determined while operating the truck in a simulated working cycle consisting of loading, unloading and driving with and without load. The value is determined applying standards EN 1032 and ISO 2631-1.

Maximum r.m.s. value a_w [m/s^2], driving with load	0.82
VDV_w over 15 min period [$m/s^{1.75}$], driving with load	7.31

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 × USB stick in pdf format, includes all manuals
Decals	English and other EU languages

Options

Blue flashing beacon
ANSUL 210 fire suppression system
Clear flashing beacon
Cold climate package
Connection for external 24V power supply
Cover grills for lamps
Driving direction lights (red / green)
Emergency steering (CE)
Integrated weighing system (IWS) for trucks
Monitoring camera system
Proximity Detection System Interface
Safety rails
Spare rim
Tyre pressure monitoring system
Wiggins quick filling set for oils

Available boxes (optional)

Box capacity SAE heaped 2:1 (m ³)	20	22	24	26	31
Height (mm)	2590	2610	2760	2910	3010
Total height (mm)	3370	3420	3540	3690	3840

* According to SAE 1363/ISO 6483

Grade performance*

Assumed 3% rolling resistance

Empty

Percent grade	0.0	2.0	4.0	6.0	8.0	10.0	12.5	14.3	17.0	20.0
Ratio					1:12	1:10	1:8	1:7	1:6	1:5
Speed	38.5	38.5	36	33	30.4	28.5	26.2	24.5	22.5	20.5

Loaded

Percent grade	0.0	2.0	4.0	6.0	8.0	10.0	12.5	14.3	17.0	20.0
Ratio					1:12	1:10	1:8	1:7	1:6	1:5
Speed	37	32	27.5	24	21	18	15.5	13.5	12	10.5

*Speeds are performance estimates based on the new 482kWh battery system design available in 2023 and may be subject to change

Dimensions with 28 m³ box
The dimensions are indicative only



