SANDVIK LH517i
SAFER. STRONGER. SMARTER.
SAFER. STRONGER. SMARTER.

Sandvik LH517i provides superior hydraulic power for fast bucket filling, and drivetrain power for high speed tramming and increased productivity. A quiet, spacious and ergonomic cabin ensures operator comfort throughout the shift.

Designed with operator and maintenance safety in mind, the rugged Sandvik LH517i is digitalization ready and offers long component lifetimes and low cost per tonne.
Increased productivity
Fast bucket filling, efficient Load Sense Hydraulics, smart boom geometry and powerful thrust increase Sandvik LH517i productivity. The optionally available Integrated Weighing System enables accurate payload measurement and supports production monitoring. Improved ride and comfortable cabin reduce operator fatigue and help to maintain performance.

Ready for digitalization
The intelligent loader features multiple smart solutions, such as Sandvik Intelligent Control System, My Sandvik Digital Services Knowledge Box™ on-board hardware and automation readiness as standard. Take optimization further with OptiMine®, our powerful suite of process optimization solutions, and MySandvik Digital Service Solutions, for a scalable array of intelligent services, providing a true productivity boost.

Superior operator environment
The spacious, air-conditioned cabin provides premium comfort. Redesigned leg space and pedal positions improve operator ergonomics. For overall safety, an additional cabin window provides over-shoulder visibility, and the rear frame covers have been designed flat. Efficient LED lights together with optional monitoring camera systems further improve visibility.

Maintenance friendly
Sandvik LH517i features smartly placed key service areas and safer service access - including redesigned safety rails and boom locking mechanism. To minimize the need to move around the machine or use special tools, the 7” color display in the operator’s compartment provides service information, easy system diagnostics and alarm log files.

Low cost per tonne
Sandvik LH517i has been developed for demanding mine conditions and to achieve the lowest cost per tonne while maintaining productivity and ease of maintenance. The loader’s robust frame structures resist shock loads and protect the components housed inside the frame. Efficient cooling extends component lifetimes, and heavy-duty axles enable long axle lifetime in demanding conditions.

See Sandvik LH517i on Youtube:
INCREASED PRODUCTIVITY

FAST BUCKET FILLING
Sandvik LH517i smart boom geometry is optimized to provide superior hydraulic power for fast bucket filling and handling of oversized rocks. The powerful boom and bucket hydraulics combined with smart geometry enables the use of both lift and tilt functions simultaneous when penetrating the muck pile. Heavy-duty rear frame with added weight in the rear balances the machine perfectly when lifting and pushing into the muck pile.

FUEL EFFICIENT AND LOW EMISSION ENGINES
A fuel efficient 310kW Tier 2 / Stage II Volvo engine delivers powerful thrust for bucket filling and high speed trammimg resulting in high productivity with low cost per loaded tonne.

When ultra low Sulphur diesel fuel is available, Sandvik offers Volvo Stage V and Tier 4f low emission 315kW engine options. The Stage V engine meets the relevant European emission regulations whereas the Tier 4f delivers significantly reduced MSHA and CANMET ventilation rates - still maintaining loader performance and fuel efficiency. The engine brake both in the Tier 4f and Stage V engine provides better control of vehicle speed downhill, minimizes brake and transmission overheating and brake wear.

EFFICIENT AND EASY TO USE
Continuing the proven Load Sense Hydraulics of its predecessors, Sandvik LH517i reduces fuel consumption with variable displacement piston pumps that provide on-demand pressure and increased efficiency. A new boom and bucket hydraulic circuit delivers faster movement through increased flow, as well as an improved bucket shaking functionality for faster dumping times. Steering control has been optimized with a new steering valve with integrated pilot pressure. Steering and boom soft stops reduce shock loads and vibration and extend cylinder lifetime.

PRODUCTION MONITORING
Sandvik Integrated Weighing System (IWS) accurately measures payload when lifting the boom – as well as the number of buckets filled during a shift – and records the result to the My Sandvik Digital Services Knowledge Box™.

The Knowledge Box™ can transfer this production monitoring data through Wi-Fi connection for access via My Sandvik internet portal. Alternatively, data can be downloaded manually in the operator’s compartment onto a USB stick. Monitoring the loader payload can assist in maximizing productivity, identifying needed operator training, and reducing overloading.
PREMIUM ERGONOMICS
Sandvik LH517i cabin offers premium operator ergonomics and comfort following the same design philosophy as the industry leading cabin in Sandvik TH551i. The cabin uses dust and noise resistant upholstery materials, is ROPS and FOPS certified to protect the operator in case of roll over or falling objects, has 3-layer laminated safety glass windows, emergency escape windows, and illuminated cabin entrance with three-point contact handles and anti-slip steps.

To improve safety, the cabin door includes a new door lock and latch mechanism with improved reliability. Further, the door system features a magnetic interlock switch, which automatically applies brakes and inactivates boom, bucket, and steering when the cabin door is opened. A seat belt and door latch monitoring system is available as an option.

REDUCED OPERATOR FATIGUE
A 7” color display with advanced touch screen functionality has all the needed information and alarms on one large display giving the operator more time to keep eyes on the road. New, darker background graphics with clearer symbols have been designed to reduce eye fatigue in the underground environment.

RELIABLE AND EFFICIENT COOLING
A new air conditioning and filtration system with increased cooling capacity and efficiency is featured in the Sandvik LH517i cabin. The new air conditioning system is directly driven off the engine for increased reliability and is independent of other hydraulics for easy troubleshooting.
READY FOR DIGITALIZATION

Sandvik LH517i has been optimized for use with AutoMine®, Sandvik’s robust mining automation system for increased safety, productivity and lower costs.

**AutoMine®**

AutoMine® is the industry leader in automation for underground loaders and trucks. This high-performing, comprehensive solution is working around the world, backed by Sandvik experts across the globe.

AutoMine® readiness is built into Sandvik LH517i for faster retrofitting later in the loader’s lifetime. To maintain a fast retrofit time of 2 – 3 days, the AutoMine® Onboard Package now has one small enclosure and electrical quick connectors for fast installation, and no significant hydraulic changes are needed. All sensors have increased protection from rock fall.

With AutoMine®, a fleet of Sandvik LH517i is converted into a high performing autonomous production system, providing significant safety and productivity improvements for mine operations.

**OptiMine®**

Take optimization further with OptiMine®, the powerful suite of digital tools for real time visualization, analysis, and optimization of mining production and processes. OptiMine® integrates all relevant data into one source, delivering both real-time and predictive insights to improve operations.

OptiMine® is open, OEM independent and scalable, providing the flexibility to add on and incorporate other equipment, systems, and networks.

**My Sandvik Digital Service Solutions**

365 My Sandvik Digital Service Solutions are designed to help you maximize your productivity, operational efficiency and safety. The Knowledge Box™ onboard Sandvik LH517i collects, processes and transfers monitoring data into My Sandvik Insight and My Sandvik Productivity dashboards which you can access 24/7 via My Sandvik customer portal for visualization of fleet health, productivity and utilization.

**Proximity Detection System Interface**

A proximity detection system (PDS) interface option is also available on Sandvik LH517i for mines to interface with their site PDS system. The PDS interface offers easy installation and connection to the Sandvik Intelligent Control System with the capability to slow down and stop the loader on a signal from a PDS.
MAINTENANCE FRIENDLY

A new boom lock integrated into the front frame enables one-handed operation and maintaining 3-point contact. The boom uses robust solid floating pins with a M30 pull out thread for easier pin removal, along with new bush lip sealings to prevent the ingress of dirt, reducing wear. Sandvik LH517i is equipped with more greasing points in the boom geometry, well protected grease lines and automatic central lubrication system with increased capacity for longer time between refilling.

An electric filling pump for hydraulic oil quickly fills the hydraulic tank through a filter to ensure clean oil to protect the hydraulic system components. Live oil sampling offers health monitoring of main components to increase availability. All hydraulic test points are accessible at ground level.

Safety rails improve safety of maintenance work. The first rail is opened from the ground level. Maintenance access to the top of the machine includes 3-point contact high contrast handles and anti-slip steps.

The 7” color display in the operator’s compartment provides service information, easy system diagnostics and alarm log files.

Engine coolers, side coolers for transmission, brakes and hydraulics, each have a swing out fan for easy cleaning.

The hot side of the loader includes heat shielding for exhaust components, backed up by an optional Ecplise™ fire suppression system from Sandvik to improve fire safety.

Separate battery and starter isolation switches are located at ground level access for troubleshooting while the engine is locked out for service.
The cold side includes a filter station for engine and brake filters with ground level access. An efficient Power Core engine filter is housed well within the frame, and it utilizes an ejector valve system for increased filter lifetime.

Increased fuel tank capacity enables operation for a full shift. An optional fast filling system for fuel and oils increases equipment availability and eliminates fuel and oil spills.

Tailor-made maintenance kits include all relevant parts and other materials for planned maintenance.

Sandvik Performance Fluids preserve the machine’s high performance. Smooth operation throughout its lifetime can be ensured with Sandvik Long-Life Engine, Transmission and Hydraulic Oils, which are available in different viscosity grades.
MINIMIZED IMPACT DAMAGES
The robust structure of Sandvik LH517i has been developed for demanding conditions and to achieve the lowest cost of ownership while maintaining productivity and ease of maintenance.

A new heavy duty rear frame and mask with integrated reaction bars minimizes damage from impacts. Welded steel box structures used in the frame and boom provide strong resistance to shock loads and are optimized to reduce stresses and extend frame lifetime, while ensuring superior strength to weight ratio.

RETRIEVAL HOOK
A fully hydraulic retrieval hook releases the equipment brakes through hydraulic pressure allowing faster, easier and safer removal from under unsupported roof. Strong structures in the equipment withstand high pulling forces.

EXTENDED COMPONENT LIFETIMES
Brake, hydraulic and transmission cooling capacity is increased for efficient operation at higher ambient temperatures. A more efficient cooling circuit leads to lower oil temperatures, reducing stress on the system, extending component lifetimes, and minimizing oil leaks.

The number of brake discs has been optimized for smoother braking along with a simpler brake hydraulic circuit requiring less maintenance. The optional Stage V and Tier 4f engines come with an engine brake, which provides better downhill speed control and minimizes brake and transmission overheating and brake wear.

Sandvik LH517i features heavy-duty axles to ensure long axle life in demanding conditions. Increased rear axle oscillation provides greater movement over rough terrain with a re-enforced steel structure to reduce stress. An optional traction control system reduces wheel spin and slipping when penetrating to the muck pile, extending tyre lifetime and reducing need for tyre change.

LOWER BUCKET MAINTENANCE COSTS AND REDUCED DOWNTIME
SHARK™ Ground Engaging Tools (G.E.T.) are available on a wide range of bucket sizes, optimized for loader productivity and extended bucket service life. Available as either mechanical or weld on systems, G.E.T. solutions provide lower overall bucket maintenance costs and reduced downtime.
SANDVIK 365 PARTS & SERVICES

PROUDLY KEEPING YOU ON TRACK!
Sandvik 365 Parts & Services offer a variety of possibilities to enhance your Sandvik LH517i 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.
TECHNICAL SPECIFICATION
SANDVIK LH517i

Sandvik LH517i is a high capacity loader for 5 x 5 meter mining tunnels. With superior hydraulic power for fast bucket filling and drivetrain power for high ramp speed, Sandvik LH517i is designed to quickly clear tunnel headings for rapid advance rates.

Sandvik LH517i is equipped with fuel efficient 310kW Tier 2 / Stage II engine as standard. 315kW Stage V and Tier 4f low emission engines are available with use of Ultra Low Sulphur Diesel fuel. These optional engines come with an engine break.

The intelligent loader features many improvements in operator and maintenance ergonomics. The already high level of safety has been further increased to make the operation and maintenance more fluent.

Higher productivity and profitability is achieved by better balanced machine and larger bucket size. Rebalancing makes the bucket filling easier and reduces tire wear. Combined with unique bucket filling, Sandvik LH517i can boost operations to the next level.

Sandvik LH517i has integrated intelligence in the form of Sandvik Intelligent Control system, My Sandvik Digital Services Knowledge Box™ on-board hardware and automation readiness. Additional examples of available options are Integrated weighing system and AutoMine® Loading Onboard Package.

**CAPACITIES**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Tramming capacity</td>
<td>17 200 kg</td>
</tr>
<tr>
<td>Break out force, lift</td>
<td>35 000 kg</td>
</tr>
<tr>
<td>Break out force, tilt</td>
<td>29 450 kg</td>
</tr>
<tr>
<td>Standard bucket</td>
<td>7.0 m³</td>
</tr>
</tbody>
</table>

**BUCKET MOTION TIMES**

<table>
<thead>
<tr>
<th>Operation</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raising</td>
<td>8.3 sec</td>
</tr>
<tr>
<td>Lowering</td>
<td>4.3 sec</td>
</tr>
<tr>
<td>Dumping</td>
<td>2.0 sec</td>
</tr>
</tbody>
</table>

**OPERATING WEIGHTS * **

<table>
<thead>
<tr>
<th>Weight Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total operating weight</td>
<td>46 500 kg</td>
</tr>
<tr>
<td>Front axle</td>
<td>19 700 kg</td>
</tr>
<tr>
<td>Rear axle</td>
<td>26 300 kg</td>
</tr>
</tbody>
</table>

**LOADED WEIGHTS * **

<table>
<thead>
<tr>
<th>Weight Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total loaded weight</td>
<td>63 200 kg</td>
</tr>
<tr>
<td>Front axle</td>
<td>47 000 kg</td>
</tr>
<tr>
<td>Rear axle</td>
<td>16 200 kg</td>
</tr>
</tbody>
</table>

* Unit weight is dependent on the selected options

**SPEEDS FORWARD & REVERSE (LEVEL/LOADED, WITH LOCK-UP)**

<table>
<thead>
<tr>
<th>Gear</th>
<th>Forward</th>
<th>Reverse</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>5.3 km/h</td>
<td>5.4 km/h</td>
</tr>
<tr>
<td>2nd</td>
<td>9.5 km/h</td>
<td>9.6 km/h</td>
</tr>
<tr>
<td>3rd</td>
<td>16.5 km/h</td>
<td>16.8 km/h</td>
</tr>
<tr>
<td>4th</td>
<td>29.3 km/h</td>
<td>29.7 km/h</td>
</tr>
</tbody>
</table>
**OPERATIONAL CONDITIONS AND LIMITS**

<table>
<thead>
<tr>
<th>Environmental temperature</th>
<th>From -10°C to +50°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard operating altitude</td>
<td>With engine Volvo TAD1342VE from -1500 m to +3000 m at 25 °C without rated power derate</td>
</tr>
</tbody>
</table>

**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 MDG 15. Guideline for mobile and transportable equipment for use in mines. (Equipment for Australia, achieved with relevant options)
- Electrical system based on IEC 60204-1. Safety of machinery – Electrical equipment of machines – Part 1: General requirements

**CONTAINS FLUORINATED GREENHOUSE GASES**

Refrigerant R134a under pressure max 38 bar/550 PSI:
- Filled weight: 1.600 kg
- CO2e: 2.288 tons
- GWP: 1430

Information based on the F Gas Regulation (EU) No 517/2016

**POWER TRAIN**

**ENGINE**

- Diesel engine: Volvo TAD1342VE Without engine brake
- Output: 310 kW @ 2 100 rpm
- Torque: 2,005 Nm @ 1,260 rpm
- Number of cylinders: In-line 6
- Displacement: 12.78 l
- Cooling system: Liquid cooled and piston pump driven cooler fan
- Combustion principle: 4-stroke, direct injection, turbo with intercooler
- Air filtration: Two stage filtration, dry type
- Electric system: 24 V
- Emissions: Tier 2, Euro Stage II
- Ventilation rate (Ultra low sulphur diesel): CANMET 12.74 m³/s MSHA 18,500 CFM
- Particulate index (Ultra low sulphur diesel): MSHA 10,500 CFM
- Exhaust system: Catalytic purifier and muffler, double wall exhaust pipe
- Average estimated fuel consumption at 40% load: 32 l/h
- Fuel tank refill capacity: 580 l

**CONVERTER**

- Dana SOH 9000 series with lock-up

**TRANSMISSION**

- Power shift transmission with modulation: Dana SOH 6000 series, automatic gear shift control, four gears forward and reverse

**AXLES**

- Front axle, spring applied hydraulic operated brakes. Fixed: Kessler D106, limited slip differential
- Rear axle, spring applied hydraulic operated brakes. Oscillating ± 8°: Kessler D106, limited slip differential

**TIRES**

- Tire size (Tires are application approved. Brand and type subject to availability): 29.5x29 L55 34 ply

**HYDRAULICS**

- Door interlock for brakes, boom, bucket, and steering hydraulics
- Filling pump for hydraulic oil: Electric
- Oil cooler for hydraulic and transmission oil: Capability up to 50°C ambient temperature
- Fittings: ORFS
- Hoses: MSHA approved
- Hydraulic oil tank capacity: 333 l
- Sight glass for oil level: 2 pcs

**STEERING HYDRAULICS**

- Full hydraulic, centre-point articulation, power steering with two double acting cylinders. Steering lock.
- Steering controlled by electric joystick
- Steering main valve: Open circuit type
- Steering hydraulic cylinders: 125 mm, 2 pcs
- Steering pump: Piston type, LS controlled
- Steering and servo hydraulic pumps: Piston type

**BUCKET HYDRAULICS**

- The oil flow from steering hydraulic pump is directed to bucket hydraulics when steering is not used.
- Joystick bucket and boom control (electric), equipped with piston pump that delivers oil to the bucket hydraulic main valve.
- Boom system: Z-link
- Lift cylinders: 180 mm, 2 pcs
- Dump cylinder: 220 mm, 1 pc
- Main valve: Open circuit type
- Pump for bucket hydraulics: Piston type, LS controlled

**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. Brake system performance complies with requirements of EN ISO 3450, AS2958.1 and SABS 1589.
- Automatic brake activation system, ABA
- Electrically driven emergency brake release pump
- Brake oil tank capacity: 77 l
ILLUMINATION

Illuminance $E_{av}$ with 2 pieces of high and low beam lights and 1 piece of wide flood 50 W led lights at a distance of 20 m in front of the loader:

- $E_{av}$ low beam: 31 lx
- $E_{av}$ high beam: 158 lx

Illuminance $E_{av}$ with 2 pieces of high and low beam lights and 1 piece of wide flood 50 W led lights at a distance of 20 m behind the loader:

- $E_{av}$ low beam: 35 lx
- $E_{av}$ high beam: 91 lx

Sandvik LH517i is compliant with South African Mine health and safety act 29 of 1996, because average light intensity in the direction of travel is more than 10 lux at a distance of 20 m.

OPERATOR’S COMPARTMENT

Sandvik LH517i cabin offers superior operator ergonomics through increased leg space and improved pedal position to reduce operator fatigue. With a slim line dash and greater headroom, the cabin is spacious for the operator’s comfort, providing also additional storage for a water bottle and supplies needed for a full shift.

Sandvik LH517i cabin uses dust and noise resistant upholstery materials, is ROPS/FOPS certified to protect the operator in case of roll over or falling objects, has 3-layer laminated safety glass windows, emergency exits, illuminated cabin entrance with three-point contact handles and anti-slip steps. In addition, the cabin is mounted on oil dampened bushings to reduce whole body vibration.

CABIN

- 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
- Laminated glass windows
- Cabin mounted on rubber mounts to the frame to reduce vibrations
- Air conditioning unit located inside the cabin
- Powered pre-filter for A/C device
- 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
- 12 V output
- Remote circuit breaker switch

CONTROL SYSTEM, DASHBOARD AND DISPLAYS

Sandvik Intelligent Control System
- Critical warnings and alarms displayed as text and with light
- Instrument Panel with 7” color display with touch screen function and adjustable contrast and brightness
- Instrument Panel with illuminated switches
- My Sandvik Digital Services Knowledge Box™ on-board hardware
- AutoMine® Loading readiness

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
- Selectable damping
- Two-point seat belt

MEASURED VIBRATION LEVEL

Whole body vibration was determined while operating the loader 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 $a_{rms}$ (m/s²): 1.02
- VDV $a_{rms}$ over 15 min period (m/s²): 9.05

MEASURED SOUND LEVEL

The sound pressure level and sound power level at the operator’s compartment have been determined in stationary conditions on high idle and at full load, with engine Volvo TAD1342VE Tier 2.

- Sound pressure level $L_p$ (dB re 20 μPa): 73 dB
- Sound power level $L_w$ (dB re 1 p W): 119 dB

FRAME

REAR AND FRONT FRAME

- Central hinge with adjustable upper bearing
- Tanks welded to the frame
- Automatic central lubrication

ILLUMINATION
ELECTRICAL EQUIPMENT

MAIN COMPONENTS
- Alternator: 28 V, 150 A
- Batteries: 2 x 12 V, 180 Ah
- Starter: 7 kW, 24 V
- Driving lights: LED lights: 4 pcs in front, rear and cabin
- Working lights: LED lights: 1 pc under boom 2 pcs corner light
- Parking, brake and indicator (blinker) lights: LED lights: 2 pcs in front and rear
- Control system: 5 modules, inbuilt system diagnostics
- Dual horn configuration with separate alarms for start and reverse
- Flashing beacon

INCLUDED SAFETY FEATURES

FIRE SAFETY
- Portable fire extinguisher, 12 kg (CE)
- Hot side - cold side design
- Isolation of combustibles and ignition sources
- Heat insulation on exhaust manifold, turbo, and isolated exhaust pipe

ENERGY ISOLATION
- Lockable main switch, ground level access
- Starter isolator
- Emergency stop push buttons according to EN ISO 13850: 1 pc in cabin, 2 pcs in rear
- Pressure release in the expansion tank cap
- Automatic discharge for pressure accumulators (brake system and pilot circuit)
- Frame articulation locking device
- Mechanical boom locking device
- Wheel chocks and brackets

OPTIONs
- Additional cabin heater element for air conditioning
- Cover grills for lamps
- Spare rim 25.00-29/3.5 (for tyres 29.5R29)
- Boom suspension (ride control)
- Wiggins quick filling set for fuel, coolant and oils (hydraulic, engine and transmission)
- Integrated weighing system
- CE Declaration of conformity
- Arctic package (120V) Includes cabin heater for new AC unit, hydraulic oil heater, transmission heater, engine heaters and arctic oils
- Arctic package (230V) Includes cabin heater for new AC unit, hydraulic oil heater, transmission heater, engine heaters and arctic oils
- Tyre pressure monitoring system
- High back rest seat with four point seatbelt
- Cabin lift kit (150 mm)
- Disabled 4th gear
- Line of Sight Radio remote control HBC CANBUS controlled
- Line of Sight Radio remote control HBC CANBUS controlled with Video camera system
- Retrieval hook (hydraulic brake release by pulling the hook)
- Driving direction lights (red / green)
- Eclipse™ Fire suppression system with auto shutdown, Sustain or Extreme agent delivered separately (CE)
- Ansul twin agent fire suppression system (CE)
- Safety rails
- Emergency steering (CE)
- Neutral brake
- AutoMine® Loading: Onboard Package
- Door latch and seatbelt monitoring system
- Jump start interface
- Monitoring camera system
- Proximity detection system (PDS) interface

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, Russian
- ToolMan: 2 x USB stick in pdf format, includes all manuals
- Decals: English, Finnish, Swedish, Spanish, Russian, French, Polish, Portuguese, Turkish, German, Norwegian, Estonian, Chinese, Greek
### AVAILABLE BUCKETS

<table>
<thead>
<tr>
<th>TYPE</th>
<th>VOLUME</th>
<th>WIDTH</th>
<th>MAX. MATERIAL DENSITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>G.E.T. (standard)</td>
<td>7.0 m³</td>
<td>3070 mm</td>
<td>2400 kg/m³</td>
</tr>
<tr>
<td>G.E.T.</td>
<td>7.6 m³</td>
<td>3070 mm</td>
<td>2100 kg/m³</td>
</tr>
<tr>
<td>G.E.T.</td>
<td>8.6 m³</td>
<td>3070 mm</td>
<td>1800 kg/m³</td>
</tr>
<tr>
<td>G.E.T. Half Arrow</td>
<td>9.1 m³</td>
<td>3436 mm</td>
<td>1700 kg/m³</td>
</tr>
<tr>
<td>Bare Lip</td>
<td>7.6 m³</td>
<td>3000 mm</td>
<td>2200 kg/m³</td>
</tr>
<tr>
<td>Bare Lip</td>
<td>8.4 m³</td>
<td>3000 mm</td>
<td>2000 kg/m³</td>
</tr>
</tbody>
</table>

### OPTIONAL ENGINE

<table>
<thead>
<tr>
<th>Type</th>
<th>Model</th>
<th>Output</th>
<th>Engine Brake</th>
<th>Emissions</th>
<th>Ventilation rate (Ultra low sulphur fuel, AdBlue)</th>
<th>Particulate index (Ultra low sulphur fuel, AdBlue)</th>
<th>Average estimated fuel consumption at 40% load</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel engine</td>
<td>Volvo TAD1382VE</td>
<td>315 kW @ 1 900 rpm</td>
<td>Yes</td>
<td>Tier 4 Final</td>
<td>CANMET 6.61 m³/s, MSHA 13,500 CFM</td>
<td>MSHA 2,000 CFM</td>
<td>32 l/h</td>
</tr>
<tr>
<td>Engine brake</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average estimated fuel consumption at 40% load</td>
<td>32 l/h</td>
<td></td>
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### Diesel engine Volvo TAD1372VE

- **Output**: 315 kW @ 1 900 rpm
- **Engine Brake**: Yes, modulating engine brake
- **Emissions**: Stage V
- **Ventilation rate**: CANMET 6.61 m³/s, MSHA 13,500 CFM
- **Particulate index**: MSHA 2,000 CFM
- **Average estimated fuel consumption at 40% load**: 32 l/h

### Diesel engine Volvo TAD1382VE

- **Output**: 315 kW @ 1 900 rpm
- **Engine Brake**: Yes
- **Emissions**: Tier 4 Final
- **Ventilation rate**: CANMET 6.61 m³/s, MSHA 13,500 CFM
- **Particulate index**: MSHA 2,000 CFM
- **Average estimated fuel consumption at 40% load**: 32 l/h
### GRADE PERFORMANCE

**Volvo TAD1342VE, EU Stage II, Tier 2** (3% rolling resistance, with lock-up)

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<td>1:10</td>
<td>1:8</td>
<td>1:7</td>
<td>1:6</td>
<td>1:5</td>
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<td><strong>2nd gear (km/h)</strong></td>
<td>9.5</td>
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<td>9.2</td>
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<td>8.2</td>
<td>7.4</td>
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<tr>
<td><strong>3rd gear (km/h)</strong></td>
<td>16.6</td>
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<td>14.6</td>
<td>12.9</td>
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<tr>
<td><strong>4th gear (km/h)</strong></td>
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<th>14.3</th>
<th>17.0</th>
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<td>11.4</td>
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<td><strong>4th gear (km/h)</strong></td>
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### GRADE PERFORMANCE

**Volvo TAD1382VE, Stage V and Volvo TAD1372VE, Tier 4f** (3% rolling resistance, with lock-up)

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<td>1:5</td>
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<td><strong>3rd gear (km/h)</strong></td>
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### GRADE PERFORMANCE

**Volvo TAD1382VE, Stage V and Volvo TAD1372VE, Tier 4f** (3% rolling resistance, with lock-up)

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</table>
DIMENSIONS WITH 7m³ GET BUCKET
MATCHING PAIR SANDVIK LH517i AND SANDVIK TH551i

Be safer, be stronger, and be smarter – together.

Loader Sandvik LH517i is a matching pair for three-pass loading with dump truck Sandvik TH551i considering the designed payload capacities.

Sandvik TH551i is a high productivity 51 tonne articulated underground dump truck for use in 5 x 5 meter haulage ways.

This next generation intelligent truck is a safer, efficient, high capacity and easy to maintain underground truck for optimized fleet management.

Sandvik TH551i truck features a wide range of intelligence integrated technology, such as Sandvik Intelligent Control system, My Sandvik Digital Services and Automation Readiness as standard, supplemented with Onboard Weighing System option for tracking the payload. With the latest addition of the AutoMine® Trucking Onboard option, the Sandvik TH551i enables autonomous haulage for both transfer level and decline ramp application.

Sandvik TH551i offers a reliable and safer solution that can significantly increase the efficiency and productivity of operations while decreasing the cost per tonne, providing smart productivity for our customers.

Operator safety, health and comfort are enhanced by the mining focused, sound suppressed, ROPS and FOPS certified cabin.

**CAPACITIES**

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<th>Parameter</th>
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<td>(SAE heaped 2:1)</td>
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<tr>
<td>Standard dump box</td>
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<td>Dump box range</td>
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**SPEEDS**

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<th>Speed (km/h)</th>
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<td>2nd</td>
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**DUMP BOX MOTION TIMES & MOVEMENTS**

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<tr>
<td>Discharging time</td>
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<tr>
<td>Dumping angle</td>
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**OPERATING WEIGHTS * **

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<tr>
<td>Front axle</td>
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<tr>
<td>Rear axle</td>
<td>12 000 kg</td>
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**LOADED WEIGHTS * **

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<tbody>
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<td>Total loaded weight</td>
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<tr>
<td>Front axle</td>
<td>40 700 kg</td>
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<tr>
<td>Rear axle</td>
<td>51 300 kg</td>
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* Unit weight is dependent on the selected options