**Efficient ore moving and lower costs**
Equipment low own weight, 63 tonnes payload capacity and high ramp speeds enable an efficient ore moving process. In addition to boosting productivity, reduced own weight also results in reduced fuel consumption and less tire wear, lowering equipment total operating costs.

**Full utilization of the truck's capacity**
With wide range of box options, you can achieve the truck’s rated capacity. Sandvik dump boxes are already designed with extra volume when selecting the right box for your broken material density. A built-in 90% fill factor in box selection ensures the truck can be loaded to its true rated capacity and reduces spillage during tramming. The smooth box design improves material flow during dumping, while the reinforced steel structure uses wear resistant steel for extended box lifetime. Optional ejector box is available for backfilling and unloading in areas of restricted dump height.

**Production monitoring**
To ensure maximum utilization of the rated payload on every trip, Sandvik TH663i can be equipped with Sandvik’s Integrated Weighing System (IWS) for trucks. For an accurate result, the IWS considers the environmental temperature and the truck’s inclination angle and is equipped with three-point measurement of the loaded weight in the box. Real-time weighing and signal lights – red, orange and green – advise the loader operator to ensure the rated capacity is reached before moving forward.

In addition to accurately measuring the payload when loading the box, the IWS records the results to My Sandvik Digital Services Knowledge Box™. The Knowledge Box™ can transfer this production monitoring data through Wi-Fi connection for customer access via My Sandvik internet portal. Alternatively, data can be downloaded manually in the operator’s compartment onto a USB stick.

**Stronger together**
Designed to work seamlessly together, Sandvik TH663i and Sandvik LH621i are a matching pair for three pass loading, considering the designed payload capacities.
READY FOR DIGITALIZATION

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 TH663i for faster retrofitting later in the truck’s lifetime. To maintain a fast retrofit time, the AutoMine® Onboard Package now has one small enclosure and electrical quick connectors for fast installation, and no hydraulic changes are needed. All sensors have increased protection from rock fall. With AutoMine®, a fleet of Sandvik TH663i 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.

KNOWLEDGE BOX™
The Knowledge Box™ onboard Sandvik TH663i transfers monitoring data through a Wi-Fi connection to the My Sandvik internet portal for visualization of fleet health, productivity and utilization. Transferred data can also be used by OptiMine®, an analytics and process optimization suite to improve mining process efficiency.

PROXIMITY DETECTION SYSTEM INTERFACE
A Proximity Detection System (PDS) interface option is also available on Sandvik TH663i 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 truck on the signal from a PDS system.

MY SANDVIK DIGITAL SERVICE SOLUTIONS 365
My Sandvik Digital Service Solutions are designed to help you maximize your productivity, operational efficiency and safety. Once activated, the Knowledge Box™ onboard Sandvik TH663i collects and transfers equipment data into easy-to-use knowledge about your fleet’s performance in the form of dashboards.
CABIN COMFORT
Comfortable working conditions contribute to utilizing the truck’s full capacity, including high ramp speeds. The industry leading cabin of Sandvik TH663i offers premium ergonomics with air conditioning, dust and noise resistant upholstery materials, and a significant number of adjustment possibilities.

FOR OPERATOR SAFETY
The ROPS and FOPS certified cabin protects the operator in case of roll over or falling objects. The cabin has 3-layer laminated safety glass windows, illuminated cabin entrance with three-point contact handles and anti-slip steps. The door system features a magnetic interlock switch, which automatically applies brakes when the door is opened.

SMOOTH RIDE OVER ROUGH TERRAIN
Sandvik TH663i front frame suspension provides a smooth ride for the operator even on a rough terrain, supporting full utilization of the trucks capacity.

COMFORTABLE SEATING
The operator’s seat has low frequency pneumatic suspension, adjustable arm rests and lumbar support, selectable damping and adjustable steering wheel, to name a few of the adjustments. To support efficient and safe training, the cabin incorporates a trainer seat with three-point safety belt, right behind the operator.

BEST IN CLASS VISIBILITY
Flat equipment covers help to improve visibility, supported with LED lights as standard. A 5.7” LCD color display with adjustable contrast and brightness has all the needed information and alarms on one display, giving the operator more time to keep eyes on the road. To further improve visibility, the truck is equipped with reversing and right hand side cameras as standard. In cold conditions, an optional arctic package helps to keep windows and mirrors free of ice and mist.

FIRE SAFETY
To reduce the risks relating to fire, fire safety has been designed in to the equipment. To name a few solutions, the turbo charger, the double wall exhaust manifold, and the fuel tank are all covered. A remote circuit breaker is located in the cabin for isolating the batteries and electric system.

For fire suppression, Eclipse™ from Sandvik is available as an option. The Eclipse™ equipped with the fluorine-free Sustain agent is a sustainable choice. For conditions where the temperature may drop under zero, the Eclipse™ Extreme provides fire protection.
MAINTENANCE FRIENDLY

Sandvik TH663i is designed for ground level daily maintenance. When getting to the top of the equipment is required, the access systems provide a steady grip, including 3-point contact high contrast handles and anti-slip steps. The top covers are perforated to reduce risks for slipping, and where perforation is not practical, anti-slip tapes are fitted. Standard features improving safety of maintenance work include lockable main switch, started isolator switch, articulation lock, box support and wheel chocks, among others. Optionally available safety rails improve safety on top of the equipment, and they are recommended for all conditions.

SMART MAINTENANCE
To minimize the need to move around the machine or use special tools, Sandvik Intelligent Control System 5.7” touch screen color display provides service information, easy system diagnostics and alarm log files. For example, for identifying the need for a filter change, the control system monitors the condition of engine air filters as well as hydraulic and transmission filters. An automatic brake test with diagnostics and logging can also be performed from the display.

EASY FUEL FILTER FILLING
Filling up fuel filters can be easily done by pushing a button instead of doing the work manually. Potential fuel spills are collected on a tray under the filters, from where the fuel can be drained to a container, avoiding spills to the ground.

EASY TO CLEAN DPF FILTER
The optionally available diesel particulate filter (DPF) is made of sintered metal, and has an open filter structure, which makes it easy to clean on site with steam cleaner. Using sintered metal as the DPF material also results in a long service interval.

MAINTENANCE KITS AND PERFORMANCE FLUIDS
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.
SAFER AND FASTER TYRE CHANGE
For a safer and faster method to jack up the truck in case of tyre failure, the optional integrated jacking system is at your service. The hydraulic system can jack up the truck even when the box is fully loaded. The jacking system is operated with a remote controller.

ACCURATE OIL SAMPLING
Monitoring the condition of the equipment fluids helps to understand component health and enables informed maintenance decisions to extend the equipment lifetime and reduce total lifecycle cost. Sandvik TH663i live oil sampling option enables taking oil samples when the engine is running, contributing to accurate results. Naturally, all oils are easy to drain with hoses or with the optionally available Wiggins quick fill system.
LOW COST PER TONNE HAULED

FUEL EFFICIENT VOLVO ENGINE WITH LONG ENGINE LIFETIME
A fuel efficient 565 kW Stage II / Tier 2 Volvo engine offers long engine lifetime and low cost of ownership. Equipment low own weight, efficient engine technology, fast ramp speeds for short cycle times and up to 25% lower fuel consumption compared to competition result in low cost per hauled tonne. Reduced fuel consumption also supports reduction of CO₂ emissions. The optionally available sintered metal DPF reduces diesel particle emissions by more than 99% (particle count) in the size range of 20–300 nm. The exhaust system is well protected with covers to contribute to long lifetime.

MINIMIZED TRANSMISSION AND BRAKE WEAR
The diesel engine in Sandvik TH663i is equipped with a combined engine brake and transmission retarder as standard, minimizing brake and transmission overheating and brake wear. Activated automatically, the engine brake provides smooth and responsive braking to control vehicle speed downhill.

EFFICIENT COOLING FOR INCREASED PERFORMANCE
Separate brake, hydraulic, transmission and transfer box cooling provide increased performance in hot conditions underground. A more efficient cooling circuit results is lower oil temperatures, reducing stress on the system, extending component lifetimes, and minimizing oil leaks.

OPTIMIZED GREASE CONSUMPTION AND EXTENDED COMPONENT LIFETIMES
The standard automatic central lubrication system optimizes grease consumption and extends the life of the bushes and bearings. In addition to extending component lifetime, the central lubrication system improves safety. Activated by Sandvik Intelligent Control System when the parking brake is released, hard to reach areas are well lubricated and service time is reduced.

LONGLIFE STEEL PIPING
Extensive use of hydraulic steel piping throughout Sandvik TH663i delivers longer lifetime and easier maintenance access than traditional hydraulic hoses. Stainless steel piping is used extensively for corrosion protection. For harsh conditions, an aggressive water package is available as an option, including water cooled alternator. Zinc aluminum coated fasteners throughout Sandvik TH663i provide corrosion protection and prevent seizing.
Proudly keeping you on track!

Sandvik 365 Parts & Services offer a variety of possibilities to enhance your Sandvik TH663i truck’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 TH663i

Sandvik TH663i is a high productivity 63 tonne articulated underground dump truck for use in 6 x 6 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 TH663i 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, Sandvik TH663i enables autonomous haulage for both transfer level and decline ramp application.

Sandvik TH663i 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.

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

**CAPACITIES**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Payload capacity (SAE heaped 2:1)</td>
<td>63 000 kg</td>
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<tr>
<td>Standard dump box</td>
<td>36.0 m³</td>
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<tr>
<td>Dump box range</td>
<td>24 - 40 m³</td>
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**SPEEDS (LEVEL/LOADED)**

<table>
<thead>
<tr>
<th>Gear</th>
<th>Speed (km/h)</th>
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</thead>
<tbody>
<tr>
<td>1st</td>
<td>5.4</td>
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<td>2nd</td>
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<tr>
<td>3rd</td>
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<td>4th</td>
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<tr>
<td>5th</td>
<td>21.0</td>
</tr>
<tr>
<td>6th</td>
<td>30.7</td>
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</table>

**DUMP BOX MOTION TIMES & MOVEMENTS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharging time</td>
<td>16 sec</td>
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<tr>
<td>Dumping angle</td>
<td>62°</td>
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</table>

**OPERATING WEIGHTS ***

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total operating weight</td>
<td>43 000 kg</td>
</tr>
<tr>
<td>Front axle</td>
<td>30 200 kg</td>
</tr>
<tr>
<td>Rear axle</td>
<td>12 800 kg</td>
</tr>
</tbody>
</table>

**LOADED WEIGHTS ***

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total loaded weight</td>
<td>106 000 kg</td>
</tr>
<tr>
<td>Front axle</td>
<td>45 000 kg</td>
</tr>
<tr>
<td>Rear axle</td>
<td>61 000 kg</td>
</tr>
</tbody>
</table>

* Unit weight is dependent on the selected options
OPERATIONAL CONDITIONS AND LIMITS

Environmental temperature From -20°C to +50°C
Standard operating altitude With engine Volvo TAD1643VE-B from -1500 m to +1000 m at 25 °C without rated power derate

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: 1.500 kg
CO2e: 2,145 tons
GWP: 1430
Information based on the F Gas Regulation (EU) No 517/2016

Power train

Engine

Diesel engine Volvo TAD1643VE-B (Tier 2)
Engine brake Yes
Output 565 kw (760 hp) @ 1900 rpm
Torque 3261 Nm @ 1300 rpm
Number of cylinders In-line 6
Displacement 16.1 l
Cooling system Liquid cooled
Combustion principle 4-stroke, direct injection, turbo, after cooler
Air filtration Dry type
Electric system 24 V
Emissions Tier 2, Euro Stage II
Exhaust system Catalytic converter with muffler
Average estimated fuel consumption at 50% load 50 l/h
Fuel tank refill capacity 850 l

Converter

Allison with lock-up

Transmission

Fully automatic transmission with electric shifting system and retarder. Six gears forward and one reverse
Allison 6625

Up Box

Katsa Ratio 1:1

Drop Box

Katsa Ratio 1:1

AXLES

Front axle

Kessler D111 series, spring applied hydraulic operated brakes, hydraulic suspension

Rear axle

Kessler D111 series, spring applied hydraulic operated brakes, fixed

TIRES

Tire size (Tires are application approved. Brand and type subject to availability) 35/65 R33 -E4

Operator’s compartment

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 and heating unit as a standard
Cyclone pre-filter for A/C device
Adjustable steering wheel
No high pressure hoses in the operator’s compartment
Inclinometers to indicate operating angle
Emergency exit
Illuminated steps to the cabin
Three-point contact access system with replaceable and colour coded handles and steps
12 V output
Remote circuit breaker switch
Mirrors defrost
Trainer’s seat (behind operator)

Control system, dashboard and displays

Sandvik Intelligent Control System
Critical warnings and alarms displayed as text and with light, warning and alarm recorded to the control system log
5.7” display with adjustable contrast and brightness
Instrument panel with illuminated switches
My Sandvik Digital Services Knowledge Box™ on-board hardware
AutoMine® Trucking 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
Four-point seat belt on operator’s seat
Three-point seat belt on trainer’s seat
MEASUREMENTS 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 $a_r$ [m/s²] 0.64 (driving with load)
VDV $\omega$ over 15 min period [m/s¹/²] 5.9 (driving with load)

MEASUREMENTS 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 TAD1374VE Tier 2.

Sound pressure level $L_p$ [dB re 20 $\mu$Pa] 76 dB
Sound power level $L_W$ [dB ew 1 p W] 118 dB

FRAME

REAR AND FRONT FRAME
High strength structure with optimized material thicknesses. Reduced own weight for higher overall hauling capacity and long structural lifetime. Welded steel construction.
Central hinge with adjustable lower bearing
Tanks stand alone structures, bolted onto main frame
Automatic central lubrication

HYDRAULICS
Filling pump for hydraulic oil
Door interlock for brake hydraulics
Oil cooler for hydraulic and transmission oil, capability up to 55°C ambient temperature
ORFS Fittings
Hydraulic oil tank capacity 280 l
Sight glass for oil level, 2 pcs

STEERING HYDRAULICS
Fully hydraulic, center articulated, power steering with two double acting cylinders. Closed-center system with a load sensing piston type pump and pilot operated orbital wheel steering.

Steering main valve Solenoid operated
Steering hydraulic cylinders 140 mm, 2 pcs
Steering pump Variable displacement 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.

Hydraulic pump Variable displacement piston pump
Control valve Solenoid operated
Main valve Solenoid operated
Cylinders 180 mm, 2 pcs

ELECTRICAL EQUIPMENT

MAIN COMPONENTS
Alternator 28 V, 150 A
Batteries 2 X 12V, 180 Ah
Starter 24 V, 7 kW
Driving lights LED lights: 4 pcs in front 4 pcs in rear
Working lights LED lights: 4 pcs in front 4 pcs in rear
Parking, brake and indicator (blinkers) lights LED lights: 2 pcs in front 2 pcs in rear
Control system 5.7” Color display, 5 modules, inbuilt system diagnostics
Reverse alarm (CE)
Flashing beacon
Reverse camera

ILLUMINATION
Illuminance $E_{av}$ with 2 pieces of 50 W led lights at a distance of 20 m in front of the truck:
Head lights, low beam $E_{av}$ 12 lx
Illuminance $E_{av}$ with 2 pieces of 50 W led lights at a distance of 20 m behind the truck:
Reversing lights, low beam $E_{av}$ 13 lx
Sandvik TH663i is compliant with the South African Mine health and safety act 29 of 1996, as the average light intensity in the direction of travel is more than 10 lux at a distance of 20 m.
**INCLUDED SAFETY FEATURES**

**FIRE SAFETY**
- Portable fire extinguisher, 12 kg (IE)
- 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, 1 pc in front frame and 2 pcs in rear frame
- Pressure release in the radiator cap
- Automatic discharge for pressure accumulators (brake system and pilot circuit)
- Frame articulation locking device
- Mechanical dump box locking device
- Wheel chocks and brackets

**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 and other EU languages

**OPTIONS**
- Fire suppression system ANSUL, 2 tanks, 8 nozzles (CE), including auto shutdown (not for automation)
- Fire suppression system ANSUL, 2 tanks, 8 nozzles (CE), CHECKFIRE, including auto shutdown
- Eclipse™ fire suppression system with auto shutdown; Sustain or Extreme agents delivered separately
- Safety rails
- Emergency steering (IE)
- Proximity Detection System (PDS) Interface
- Tyre Pressure Monitoring System
- AutoMine® Trucking: Onboard Package
- Jump start interface
- Cover grills for lamps
- Spare rim 33-28.00/3.5 (for tyres 35/65R33)
- Wiggins quick filling set for fuel and oils (hydraulic, engine and transmission)
- Wiggins fuel fill system
- Arctic package 120V or 230V (preheater for hydr. oil, brake oil transmission, up-box, drop box, and engine)
- DPF exhaust system, HUS
- Partial flow DPF exhaust system for > 50 ppm Sulphur content fuel
- Live oil sampling
- Integrated jacking system
- CE Declaration of conformity (CE)
- Service stand

**AVAILBLE BOXES**

With 90% fill factor

<table>
<thead>
<tr>
<th>Box capacity (m³)</th>
<th>32 m³</th>
<th>34 m³</th>
<th>36 m³</th>
<th>38 m³</th>
<th>40 m³</th>
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<tbody>
<tr>
<td>Material broken density (kg/m³)</td>
<td>2200 kg/m³</td>
<td>2100 kg/m³</td>
<td>2000 kg/m³</td>
<td>1800 kg/m³</td>
<td>1700 kg/m³</td>
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**GRADE PERFORMANCE**

**Volvo TAD1643VE-B**

**Empty**

<table>
<thead>
<tr>
<th>Percent grade</th>
<th>0.0</th>
<th>2.0</th>
<th>4.0</th>
<th>6.0</th>
<th>8.0</th>
<th>10.0</th>
<th>12.5</th>
<th>14.3</th>
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<tbody>
<tr>
<td>Ratio</td>
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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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<tr>
<td>1st gear (km/h)</td>
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<td>5.3</td>
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<tr>
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<td>8.0</td>
<td>7.9</td>
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<td>6th gear (km/h)</td>
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**Loaded**

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<tr>
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<td>7.8</td>
<td>7.7</td>
<td>7.6</td>
<td>7.5</td>
<td>7.5</td>
<td>7.3</td>
<td>6.9</td>
</tr>
<tr>
<td>3rd gear (km/h)</td>
<td>10.6</td>
<td>10.5</td>
<td>10.4</td>
<td>10.2</td>
<td>10.1</td>
<td>9.9</td>
<td>9.6</td>
<td>9.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4th gear (km/h)</td>
<td>15.7</td>
<td>15.4</td>
<td>15.1</td>
<td>14.8</td>
<td>14.0</td>
<td>10.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5th gear (km/h)</td>
<td>21.0</td>
<td>20.4</td>
<td>19.7</td>
<td>17.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6th gear (km/h)</td>
<td>30.7</td>
<td>28.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
MATCHING PAIR SANDVIK TH663i AND SANDVIK LH621i

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

Sandvik LH621i is a 21 tonne loader for rapid mine development and large scale underground production. With superior hydraulic power for fast bucket filling and drivetrain power for high ramp speed, Sandvik LH621i is designed to quickly clear tunnel headings for rapid advance rates.

Sandvik LH621i is equipped with a fuel efficient 352kW Tier 2 / Stage II engine as standard. A 375kW Tier 4f / Stage IV low emission engine option is available with the use of Ultra Low Sulphur Diesel fuel. This optional engine comes with an engine break.

The equipment cabin offers superior operator ergonomics and comfort through slim line dash board, 7” colour touch screen display, greater headroom, increased leg space and improved pedal positions. To improve maintainability and serviceability, the loader has been designed with smarter placement of key service areas and safer service access.

In the area of digitalization and intelligence, Sandvik LH621i features multiple smart solutions such as Sandvik Intelligent Control System, My Sandvik Digital Services The Knowledge Box™ on-board hardware and AutoMine® readiness as standard. The Integrated Weighing System (IWS) is optionally available for measuring payload in the bucket as well as the number of buckets filled during a shift.

SHARK™ Ground Engaging Tools are available on a wide range of bucket sizes, optimized for loader productivity and extended bucket service life.

**CAPACITIES**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tramming capacity</td>
<td>21 000 kg</td>
</tr>
<tr>
<td>Break out force, lift</td>
<td>38 500 kg</td>
</tr>
<tr>
<td>Break out force, tilt</td>
<td>35 100 kg</td>
</tr>
<tr>
<td>Standard bucket</td>
<td>8.0 m³</td>
</tr>
</tbody>
</table>

**BUCKET MOTION TIMES**

<table>
<thead>
<tr>
<th>Time</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raising time</td>
<td>8.4 sec</td>
</tr>
<tr>
<td>Lowering time</td>
<td>4.5 sec</td>
</tr>
<tr>
<td>Dumping time</td>
<td>1.8 sec</td>
</tr>
</tbody>
</table>

**OPERATING WEIGHTS * **

<table>
<thead>
<tr>
<th>Weight</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total operating weight</td>
<td>58 800 kg</td>
</tr>
<tr>
<td>Front axle</td>
<td>25 400 kg</td>
</tr>
<tr>
<td>Rear axle</td>
<td>33 400 kg</td>
</tr>
</tbody>
</table>

**LOADED WEIGHTS * **

<table>
<thead>
<tr>
<th>Weight</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total loaded weight</td>
<td>79 800 kg</td>
</tr>
<tr>
<td>Front axle</td>
<td>58 100 kg</td>
</tr>
<tr>
<td>Rear axle</td>
<td>21 700 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>Stage II / Tier 2</th>
<th>Stage IV / Tier 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>4.7 km/h</td>
<td>5.0 km/h</td>
</tr>
<tr>
<td>2nd</td>
<td>8.4 km/h</td>
<td>9.0 km/h</td>
</tr>
<tr>
<td>3rd</td>
<td>14.5 km/h</td>
<td>15.6 km/h</td>
</tr>
<tr>
<td>4th</td>
<td>25.9 km/h</td>
<td>27.8 km/h</td>
</tr>
</tbody>
</table>