Sandvik TH320 is a narrow 20 metric tonne truck designed for small and medium-sized hard rock mines, fitting in a 3 x 3 meter heading. Despite the relatively high payload capacity, this underground truck has the same overall width as most 15-ton trucks on the market. As all Sandvik underground mining trucks, it is designed to operate fully loaded and at high speeds on long spiral haulage ways with up to 20% gradients.

Available with a standard forward facing, open operator compartment or with an optional forward facing, fully enclosed and air conditioned cabin, Sandvik TH320 offers superior comfort without compromising visibility.

Advantages:
- Narrow size enables operation in 3x3 meter headings
- Excellent payload capacity reduces the need for additional trucks
- Efficient LED lights reduce eye fatigue and risk of collision, while long LED lifetime offers lower cost of ownership compared to halogen lights
- Ground-level daily maintenance for safer service
- Optional ejector box for tight backfill haulage

### CAPACITIES

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
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<tbody>
<tr>
<td>Payload capacity</td>
<td>20 000 kg</td>
</tr>
<tr>
<td>Standard dump box</td>
<td>10.5 m³</td>
</tr>
<tr>
<td>Dump box range</td>
<td>10.5 - 13.8 m³</td>
</tr>
</tbody>
</table>

### SPEEDS FORWARD & REVERSE (LEVEL/LOADED)

<table>
<thead>
<tr>
<th>Gear</th>
<th>Speed (km/h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st gear</td>
<td>5.1</td>
</tr>
<tr>
<td>2nd gear</td>
<td>9.0</td>
</tr>
<tr>
<td>3rd gear</td>
<td>15.7</td>
</tr>
<tr>
<td>4th gear</td>
<td>27.8</td>
</tr>
</tbody>
</table>

### DUMP BOX MOTION TIMES & MOVEMENTS

<table>
<thead>
<tr>
<th>Description</th>
<th>Time (sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharging time</td>
<td>14.0</td>
</tr>
<tr>
<td>Dumping angle</td>
<td>65°</td>
</tr>
</tbody>
</table>

### OPERATING WEIGHTS *

<table>
<thead>
<tr>
<th>Description</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total operating weight</td>
<td>22 600</td>
</tr>
<tr>
<td>Front axle</td>
<td>16 770</td>
</tr>
<tr>
<td>Rear axle</td>
<td>5 830</td>
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</tbody>
</table>

### LOADED WEIGHTS *

<table>
<thead>
<tr>
<th>Description</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total loaded weight</td>
<td>42 600</td>
</tr>
<tr>
<td>Front axle</td>
<td>21 100</td>
</tr>
<tr>
<td>Rear axle</td>
<td>21 500</td>
</tr>
</tbody>
</table>

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

Environmental temperature: From -20°C to +45°C

Standard operating altitude: With engine Mercedes OM 926 LA from -1500 m to +2500 m at 25 °C without rated power derate

REQUIREMENTS AND COMPLIANCE

Compliance with 2006/95/EC Low voltage directive


Electrical system based on IEC 60204-1. Safety of machinery – Electrical equipment of machines – Part 1: General requirements

CONTAINS FLUORINATED GREENHOUSE GASES (closed cabin option)

Refrigerant R134a under pressure max 38 bar/550 PSI:
Filled weight: 1,800 kg
CO2e: 2,574 tons
GWP: 1430
Information based on the F Gas Regulation (EU) No 517/2016

POWER TRAIN

ENGINE

Diesel engine: Mercedes OM 926 LA Tier 3
Output: 240 kw (322 hp) @ 2200 rpm
Torque: 1300 Nm @ 1300 rpm
Number of cylinders: In-line 6
Displacement: 7.2 l
Cooling system: Liquid cooled
Combustion principle: 4-stroke, direct injection, turbo, after cooler
Air Filtration: Dry type
Electric system: 24 V
Emissions: Tier 3, Euro Stage III A
Ventilation rate (Ultra low sulphur diesel): CANMET 23,500 CFM m3/s (CSA Ventilation)
Exhaust system: Catalytic converter with muffler
Average fuel consumption at 50 % load: 30.0 l/h
Fuel tank capacity: 341 l

CONVERTER

Dana C8000 Series with Lock up

TRANSMISSION

Manual transmission with electric remote shifting system.
Four forward and four reverse gears.
Dana 6000 Series

AXLES

Front axle: Dana 19D series spring applied hydraulic operated brakes, equipped with standard differential, oscillation

Rear axle: Dana 19D series spring applied hydraulic operated brakes, equipped with standard differential, fixed

TIRES

Tire size (Tires are application approved. Brand and type subject to availability): 18.0 R 25 E4

OPERATOR'S COMPARTMENT

CABIN (Cabin option replaces the standard canopy)

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 outside the cabin to reduce noise inside the cabin
Cyclone pre-filter for A/C device
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

CANOPY (Standard)

ROPS certification according to EN ISO 3471
FOPS certification according to EN ISO 3449
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
- Selectable damping
- Two-point seat belt

## DASHBOARD AND DISPLAYS
- Critical warnings and alarms: Displayed with light
- Instrument Panel: Electrical gauges, 2.8” Display
- Instrument Panel: Illuminated switches
- My Sandvik Digital Services Knowledge Box™ on-board hardware: Option

## 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.
- Tanks: Tanks are part of the frame structure
- Automatic central lubrication: Standard

## HYDRAULICS
- Door interlock for brakes and box hydraulics: Standard
- Oil cooler for hydraulic and transmission oil: Capability up to 46°C ambient temperature
- Fittings: ORFS
- Hydraulic oil tank capacity: 378 l
- Sight glass for oil level: 1 pcs

## STEERING HYDRAULICS
Full hydraulic power steering, center articulated with double acting steering cylinders. Open-center system with a gear pump and wheel steer control.
- Steering main valve: Pilot operated
- Steering hydraulic cylinders: 114 mm, 2 pcs
- Steering pump: Gear pump
- Emergency steering: Option

## DUMP BOX HYDRAULICS
Full hydraulic open-center system with one gear pump. Oil flows to the dump box hydraulic system from the pump when the steering system is not in use. Joystick dump box control.
- Hydraulic pump: Gear pump
- Control valve: Pilot operated
- Main valve: Pilot operated
- Cylinders: 159 mm, 2 pcs

## BRAKES
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
- Neutral brake: Standard
- Automatic brake activation system, ABA: Standard
- Electrically driven emergency brake release pump: Standard
- Brake pedal valve: Foot operated pedal, fully modulated

## ELECTRICAL EQUIPMENT
**MAIN COMPONENTS**
- Alternator: 24 V 150 A
- Batteries: 2 X 12V, 950 CCA
- Starter: 24 V, 5.5 kW
- Driving lights: LED lights: 4 pcs in front
- Working lights: LED light, 1 pc rear of cabin
- Reverse camera: Option
- Parking, brake and indicator (blinker) lights: LED lights: 2 pcs in front
- Control system: Color display, inbuilt system diagnostics
- Reverse alarm (CEN): Standard
- Flashing beacon: Standard
- Marker lights: Standard

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INCLUDED SAFETY FEATURES

**FIRE SAFETY**
- Portable fire extinguisher: Standard, 6 kg (CEN)
- Hot side - cold side design: Standard
- Isolation of combustibles and ignition sources: 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 dump box locking device: Standard
- Wheel chocks and brackets: Standard

**INCLUDED SAFETY FEATURES**

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- Portable fire extinguisher: Standard, 6 kg (CEN)
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- Mechanical dump box locking device: Standard
- Wheel chocks and brackets: Standard

**OTHER OPTIONS**
- Mercedes-Benz engine exhaust brake
- Jump start interface
- Cover grills for lamps
- Spare rim 13.00-25/3.0 (for tyres 18.0R25)
- Wiggins fuel fill system
- Aggressive water package (epoxy coated coolers, Ni Cr coated cylinders)
- ToolMan CD

**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

**SAFETY OPTIONS**
- Fire suppression system ANSUL, 1 tank, 6 nozzles (CEN), including auto shutdown
- Fire suppression system ANSUL, 1 tank, 6 nozzles (CEN), CHECKFIRE, including auto shutdown
- Enclosed operator’s cabin with A/C and heater
- Reversing camera
- Emergency steering (CEN)
- Proximity Detection System Interface

**OTHER OPTIONS**
- Mercedes-Benz engine exhaust brake
- Jump start interface
- Cover grills for lamps
- Spare rim 13.00-25/3.0 (for tyres 18.0R25)
- Wiggins fuel fill system
- Aggressive water package (epoxy coated coolers, Ni Cr coated cylinders)
- ToolMan CD
GRADE PERFORMANCE
Mercedes OM 926 LA Tier 3 (3% rolling resistance assumed, with lock-up engaged)

<table>
<thead>
<tr>
<th>Empty</th>
<th>Percent grade</th>
<th>0.0</th>
<th>4.0</th>
<th>8.0</th>
<th>10.0</th>
<th>12.5</th>
<th>14.3</th>
<th>17.0</th>
<th>20.0</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Ratio</td>
<td>1:12</td>
<td>1:10</td>
<td>1:8</td>
<td>1:7</td>
<td>1:6</td>
<td>1:5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st gear (km/h)</td>
<td>5.1</td>
<td>5.1</td>
<td>5.0</td>
<td>5.0</td>
<td>5.0</td>
<td>5.0</td>
<td>4.9</td>
<td></td>
<td></td>
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<tr>
<td>2nd gear (km/h)</td>
<td>9.1</td>
<td>9.0</td>
<td>8.9</td>
<td>8.9</td>
<td>8.8</td>
<td>8.8</td>
<td>8.7</td>
<td>8.6</td>
<td></td>
</tr>
<tr>
<td>3rd gear (km/h)</td>
<td>15.9</td>
<td>15.6</td>
<td>15.3</td>
<td>15.2</td>
<td>14.8</td>
<td>14.0</td>
<td>12.9</td>
<td>11.4</td>
<td></td>
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<tr>
<td>4th gear (km/h)</td>
<td>28.4</td>
<td>27.5</td>
<td>23.2</td>
<td>19.7</td>
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<table>
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<th>10.0</th>
<th>12.5</th>
<th>14.3</th>
<th>17.0</th>
<th>20.0</th>
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</thead>
<tbody>
<tr>
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<td>1:12</td>
<td>1:10</td>
<td>1:8</td>
<td>1:7</td>
<td>1:6</td>
<td>1:5</td>
<td></td>
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<tr>
<td>1st gear (km/h)</td>
<td>5.1</td>
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<td>5.0</td>
<td>4.9</td>
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<tr>
<td>3rd gear (km/h)</td>
<td>15.7</td>
<td>15.2</td>
<td>12.4</td>
<td>10.4</td>
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<tr>
<td>4th gear (km/h)</td>
<td>27.8</td>
<td>19.3</td>
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</table>
### DIMENSIONS

<table>
<thead>
<tr>
<th></th>
<th>Standard</th>
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<tbody>
<tr>
<td><strong>Dump box alternatives (m³)</strong></td>
<td>10.5 m³</td>
</tr>
<tr>
<td><strong>Material broken density (kg/m³) (FF 0.9)</strong></td>
<td>2120 kg/m³</td>
</tr>
<tr>
<td><strong>L1 (mm)</strong></td>
<td>9080</td>
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<tr>
<td><strong>L2 (mm)</strong></td>
<td>3119</td>
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<tr>
<td><strong>L3 (mm)</strong></td>
<td>1372</td>
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<td><strong>L4 (mm)</strong></td>
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<tr>
<td><strong>L5 (mm)</strong></td>
<td>1542</td>
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<tr>
<td><strong>H1 (mm)</strong></td>
<td>2497</td>
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<tr>
<td><strong>H2 (mm)</strong></td>
<td>4973</td>
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<tr>
<td><strong>H3 (mm)</strong></td>
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<td><strong>H4 (mm)</strong></td>
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<td><strong>H5 (mm)</strong></td>
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<td><strong>H6 (mm)</strong></td>
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<tr>
<td><strong>W1 (mm)</strong></td>
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<tr>
<td><strong>W2 (mm)</strong></td>
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<td><strong>W4 (mm)</strong></td>
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</tr>
<tr>
<td><strong>A2</strong></td>
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<td><strong>R2 (mm)</strong></td>
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<td><strong>T (mm)</strong></td>
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