

# Sandvik TH320 Technical Data



## APPLICATIONS

The Sandvik TH320 is a narrow 20 metric tonne hauler that fits in a 3 x 3 metre heading. Available with a standard forward facing, open operators compartment or an optional forward facing, fully enclosed and air conditioned cab, the TH320 offers superior comfort without compromising visibility. The TH320 is well suited for:

- Ramp or level production and development haulage in small to medium sized mines.
- Small tunneling projects.
- Tight backfill haulage with the optional ejector box.
- Three pass loading with an LH307.

## Capacities

Payload	20 tonnes
Standard box volume	10.2 m <sup>3</sup>
Dump box volume (SAE)	10.2 - 14.0 m <sup>3</sup>

## Main Dimensions

Total length	9093 mm
Total width	2210 mm
Height of safety canopy	2438 mm
Height of dump box	2286 mm
Dump Height	4547 mm

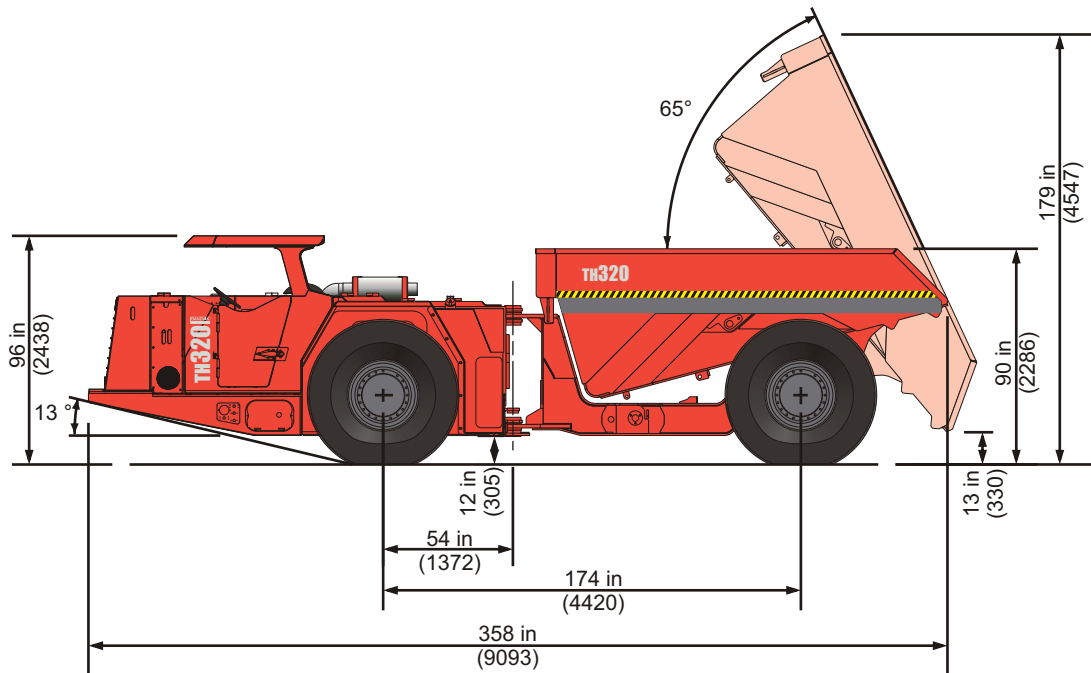
## Dump Box Motion Times

Discharging time	14 sec.
Dumping angle	65 °

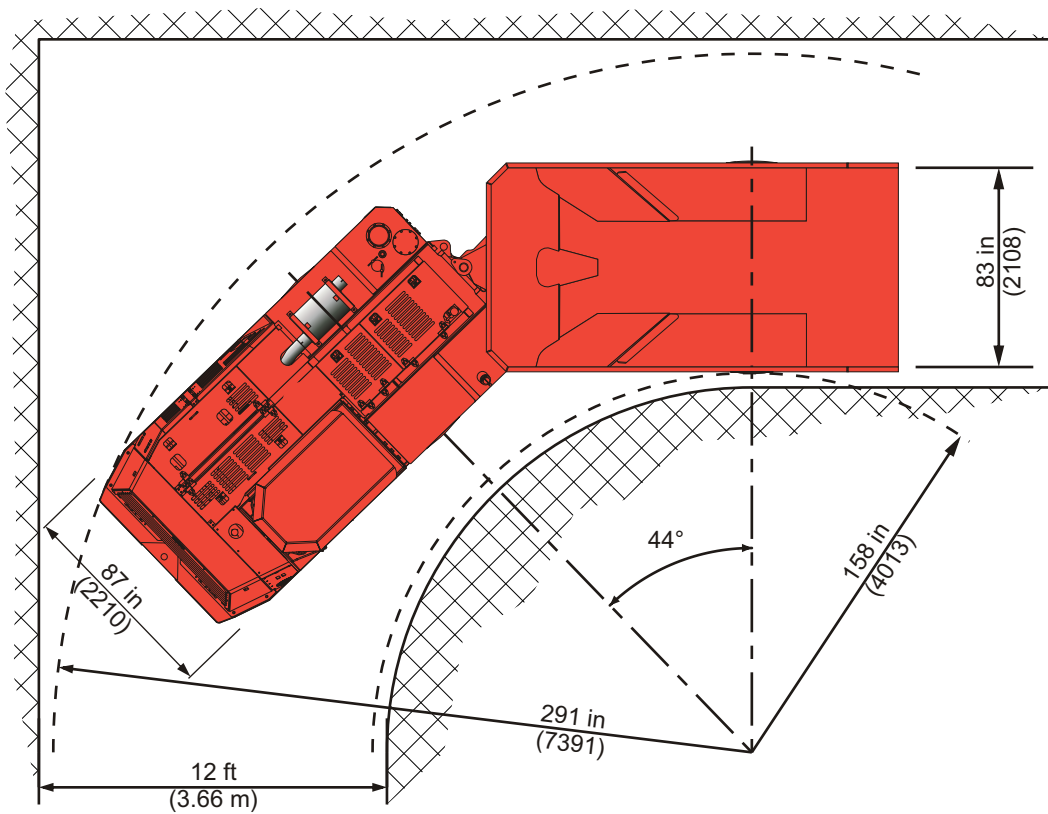
## Speeds Forward & Reverse (Level / Loaded)

1st gear	6.6 km/h
2nd gear	11.9 km/h
3rd gear	20.6 km/h
4th gear	36.5 km/h

## DIMENSIONS (SIDE VIEW)



## DIMENSIONS (TOP VIEW)



## POWER TRAIN

### Engine

Diesel engine	Mercedes OM 926 LA, Tier 3	
Output	240 kW (322 HP) @ 2200 RPM	
Torque	1300 Nm (959 lb.ft.) @ 1300 - 1600 RPM	
Number of cylinders	In line 6	
Displacement	7.2 litres (439 in <sup>3</sup> )	
Cooling system	Liquid Cooled	
Combustion principle	Direct injected, turbo charged, after cooled	
Air filtration	Donaldson, dry type	
Electric system	24 V	
Exhaust system	Catalytic purifier with silencer	
Fuel Capacity	341 l	90 US gal.
Fuel Consumption (60% duty factor)	35.8 l/h	9.47US gal./h

### Converter

Dana C8000 series	Single stage, 2.292 torque multiplication ratio, 0.895 offset ratio with manual lock-up	
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### Transmission

Dana 6000 series	4-speed forward and reverse
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### Axles

Dana 19D	Front - standard differential, oscillating ± 7° Rear - standard differential, fixed.	
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### Tires

Tire size	18.00R25 E4	
Air pressure, front	689 kPa	6.89 bar
Air pressure, rear	689 kPa	6.89 bar

## WEIGHTS AND GRADEABILITY

### Operating Weights

Total maximum weight (depending on options)	26500 kg
front axle	19550 kg
rear axle	6950 kg

### Loaded Weights

Total maximum weight (depending on options)	46500 kg
front axle	22450 kg
rear axle	24050 kg

### Empty Gradeability (2% rolling resistance)

Grade%	1st Gear km/h	2nd Gear km/h	3rd Gear km/h	4th Gear km/h
0%	6.6	11.9	20.7	37.7
5%	6.5	11.6	20.2	35.0
10%	6.5	11.2	19.5	20.1
15%	6.4	11.1	15.7	
20%	6.3	11.0	11.5	

### Loaded Gradeability (2% Rolling resistance)

Grade%	1st Gear km/h	2nd Gear km/h	3rd Gear km/h	4th Gear km/h
0%	6.6	11.9	20.6	36.5
5%	6.5	11.5	19.5	17.7
10%	6.3	11.0	11.0	
15%	6.3	7.7		
20%	6.0	6.0		

## SYSTEMS

### Frame

Rear and front frame	Welded steel box construction
Material	G40.21 - 50wt Cat. #3
Central hinge	Full plate, clevis type with spherical bearings

### Hydraulic Tank

Hydraulic oil tank approx. capacity	378 l
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### STEERING HYDRAULICS

Full hydraulic power steering, centre articulated with double acting steering cylinders. Open centre system with a gear pump and wheel steer control.

### Turning Radius

Inner	4013 mm
Outer	7391 mm
Turning angle	44 °

### Main Components

Hydraulic pump	Gear
Control valve	Pilot operated
Steering cylinders	114.3 mm bore X 63.5 mm rod

### Pressure Settings

Main relief	18.6 MPa	186 bar
Port relief valves	16.5 MPa	165 bar

### DUMP BOX HYDRAULICS

Full hydraulic open-centre system with one gear pump. Oil flows to the dump box hydraulic system from the pump when the steering system is not in use. Push button dump box control.

### Main Components

Dump cylinders	Telescopic, 159 mm bore X 133 mm first sleeve X 108 mm second sleeve	
Hydraulic pump	Gear pump	
Control valve	Pilot operated	

### Pressure Settings

Main relief	15.1 MPa	151 bar
Port reliefs	16.5 MPa	165 bar

### STANDARD BRAKES

Service brakes are spring applied/hydraulically released, liquid cooled (LCB) multi-disc brakes on all wheels. Service brakes also function as an emergency brake, when the emergency brake system is engaged.

### Main Components

Pressure accumulators	Piston type with charging valve
Brake pedal valve	Modulated

### ELECTRICAL EQUIPMENT

Alternator	24V, 175 Amp min.
Batteries	2 x 12 V, 950 CCA
Starter	24 V, Heavy Duty
Driving lights	4pcs front, 2pcs rear

## OTHER STANDARD EQUIPMENT

- SAE ROPS/FOPS Canopy
- Electric shift
- Central hydraulic pressure test points
- Central manual lubrication system
- SAE ORS hose fittings

## STANDARD MANUALS

### Paper Manuals (1 Copy)

Instructions Manual

- Operator's Manual
- Maintenance Manual

EU Languages

EU Languages

Parts Manual

English

Service and Repair Manual

English

### Toolman CD (2 Copys in pdf format)

Instructions Manual

- Operator's Manual
- Maintenance Manual

Parts Manual

Service and Repair Manual

## ADD-ON OPTIONS

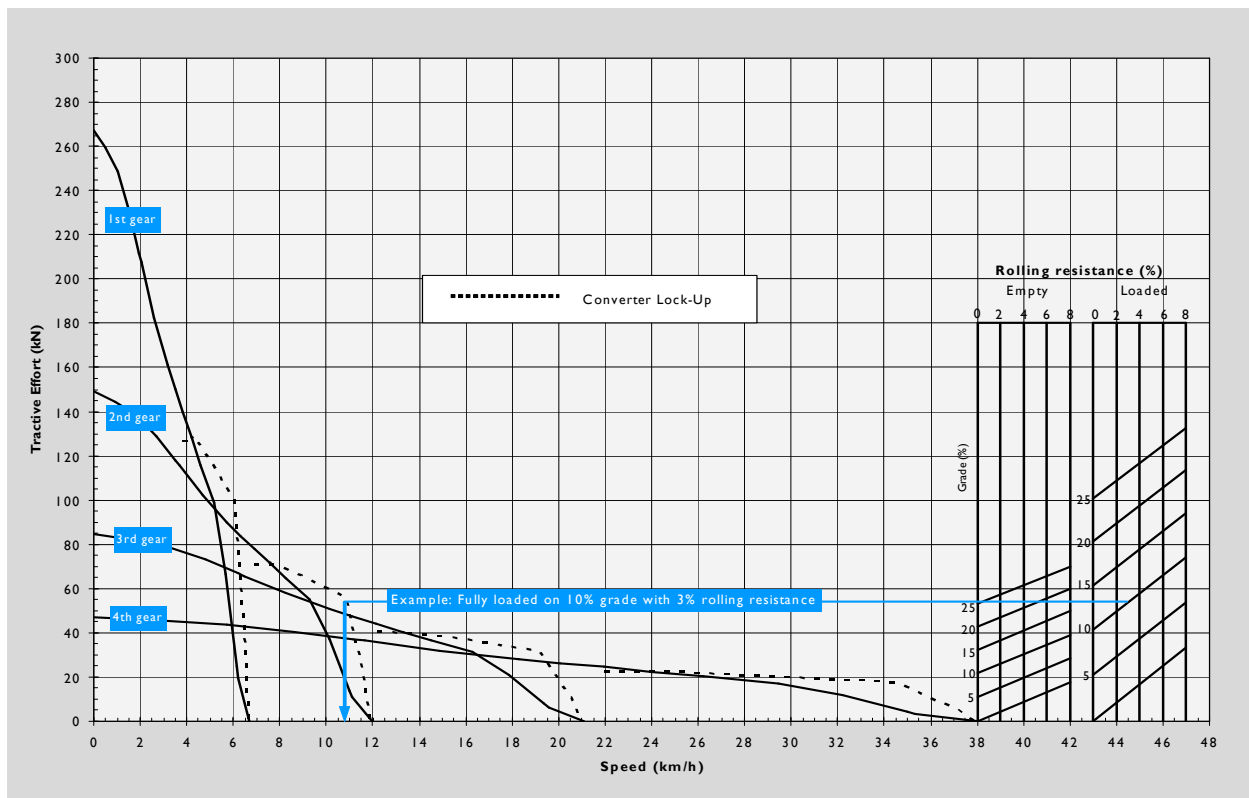
- Heating system for enclosed cabin option
- Manual fire suppression system - Ansul 6 nozzles, 1 tank
- Automatic fire suppression system - Ansul Checkfire II 6 nozzles, 1 tank
- 10 lb. (4.5 kg) hand held Ansul fire extinguisher
- 20 lb. (9.1 kg) hand held Ansul fire extinguisher
- Exhaust brake system
- Emergency steering system (EC regulations)
- Extra CD-ROM manuals
- Extra paper manuals

## OPTIONAL EQUIPMENT

### ALTERNATIVE OPTIONS

- Enclosed ROPS/FOPS, forward facing operator's compartment with air conditioning and wheel type steering control
- Ejector box with automatic hydraulic tail gate
- Lincoln Autolube

## TRACTIVE EFFORT CURVE (METRIC UNITS)



## PRODUCTIVITY CURVE (METRIC UNITS)

