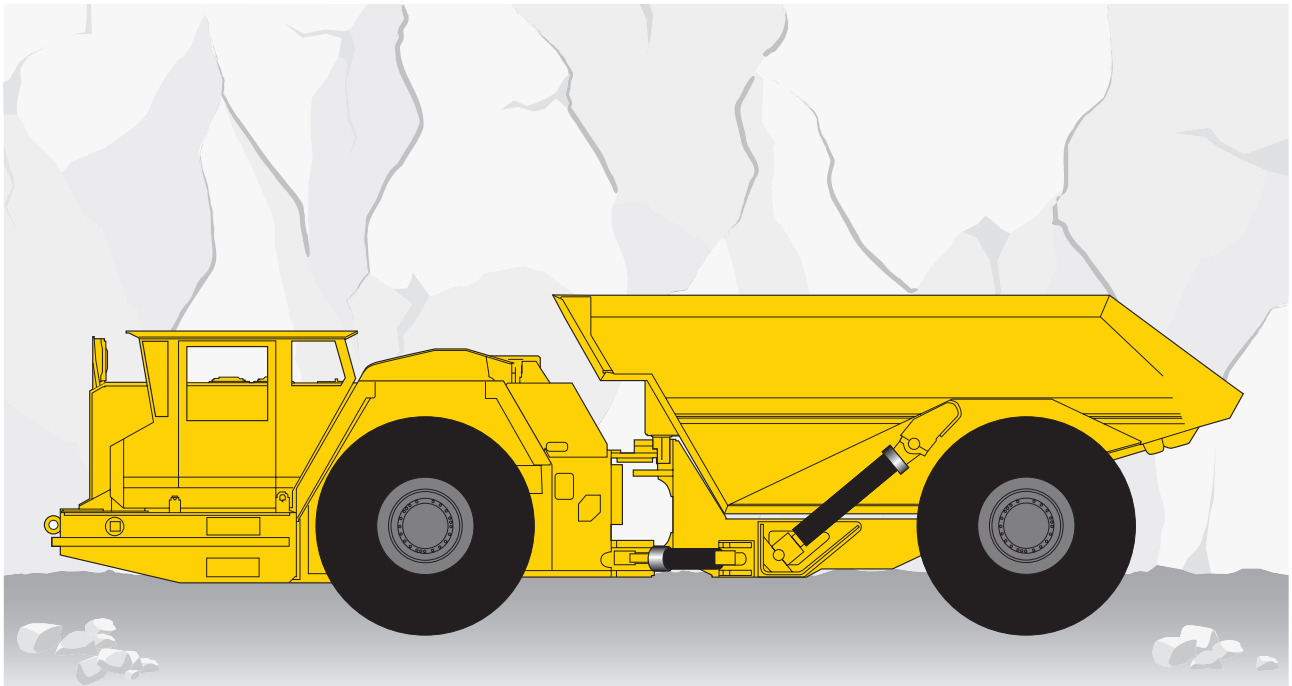


Minetruck MT5020

Technical specification



The Minetruck MT5020 is a fast 50 metric ton capacity underground truck, with an ergonomically designed operator's compartment for unparalleled productivity in demanding underground mines.

Features

Dump box

- Optimum box profile for clean and fast dumping
- Box support and lock for safe work under box

Operator's compartment

- Ergonomically and spacious designed compartment for maximum safety and minimal operator fatigue with:
 - Forward seating enclosed cabin
 - ROPS and FOPS certified for maximum safety
 - Air conditioning for convenient working conditions
 - Tilt-telescopic steering wheel
 - Trainer seat
 - Compliant with sound regulations to minimize operator's fatigue; reduced noise level to 83 dB(A) inside the cab
 - Wide windows for safety and enhanced operator's visibility
 - 3 point mounting points for entry and exit from operator's compartment
 - Back up camera and monitor for operator assistance

Power frame

- Front axle suspension, a gas-hydraulic system for improved operator comfort and vehicle handling

- Atlas Copco unique powertrain includes an upbox and a combined transmission and converter for improved visibility and accessibility to components
- Electronic transmission and engine control system for smooth and precise shifting
- A high power-to-weight ratio

General

- Great serviceability with centralized service points
- Long-life roller bearing centre hinge
- Anti skid material at service access points
- Maximum operating ambient temperature 52°C (125F)
- Central manual lubrication
- Hydraulic hoses, electric cables and hot surfaces are well routed and protected
- Carries the highest speed per tonne

Specifications

Capacities

SAE

Tramming capacity	50 000 kg
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Engine

- Cummins Diesel Engine, QSK19-C650, EPA Tier 1/EU Stage I
- Power rating at 2100 rpm 485 kW/650 hp
- Maximum torque at 1300 rpm 3 084 Nm
- MSHA Part 7 ventilation rate 1 274 m³/min
- Ventilation particulate index 934 m³/min
- Catalytic exhaust purifier and silencer
- Dry type air cleaner
- Exhaust heat protection
- Remote engine oil drain

Transmission and converter

- Planetary, automatic 6 speeds forward/2 speeds reverse with integral single stage converter with automatic lock up
- Up box: Power transmitted through a 1:1 gear ratio box
- Drop box: Power transmitted through a 1:1 gear ratio box
- Allison M6610AR

Axles

- Conventional front and rear differential
- Front-axle oscillating suspension "A" frame with hydraulic suspension cylinders and accumulator cushioning
- All wheel drive
- Kessler 106

Brakes

- Fully enclosed, force cooled, spring applied hydraulic release multiple wet discs at each wheel end
- Hydraulic retarder
 - Service/parking/emergency SAHR



The MT5020 is standard equipped with a rear vision camera. A small detail, but definitely worth viewing - is the standard equipped camera for improved operator's visibility.

Motion times

Dump box

Dumping	15 seconds
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Tyres

- Tubeless, steel radial, lug tread design for underground mine service
- Dimension 35/65, R33*

* As applications and conditions vary, Atlas Copco recommends that the user consults with tyre suppliers to obtain the optimum tyre selection

Suspension

- The suspension is a gas-hydraulic system for improved operator comfort and vehicle handling while minimizing frame stress
- Individual self levelling suspension
 - Suspension, max: 140 mm

Operator's compartment

- Forward facing seat
- Cabin ISO ROPS/FOPS approved
- KAB 555 seat with retractable seat belts
- Air conditioner
- Trainer seat
- Back up video monitor

Hydraulic system

- System pressure 20.7 MPa
- Hydraulic tank capacity 238 litres
- Filtration, return line 4.0 micron
- Heavy duty gear type pumps
- Cylinders diameter:
 - Steer cylinders (2) 160 mm
 - Dump cylinders (2) 177.8 mm
 - Suspension cylinders (2) 125 mm

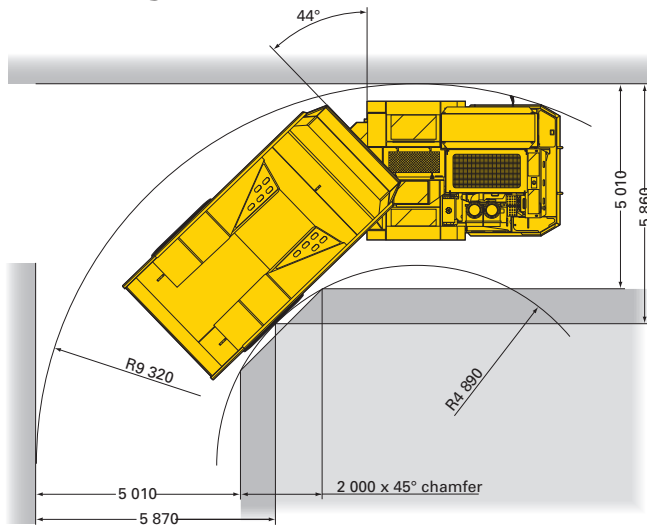
Electrical system

- Voltage, system start & accessories 24 V
- Alternator, high output 100 A
- Hydraulic warning system; level, hyd. temp. oil
- Hella projection lights
- Isolation switch lockout

Fuel

- Fuel tank capacity 844 litres
- Fuel consumption, full load 57 litres/hour
- Fuel filtration 10 µm
- Anti-siphon fuel supply

Turning radius



- Turning angle +/-42.5°
- Dimensions shown are based on standard vehicle configuration with 27 mm tyre deflection
- All dimensions are shown in millimetres

Grade performance

NB. 3% rolling resistance assumed. Actual performance may vary depending on the application

Standard configuration, box empty

Percent grade	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0
Ratio					1:12	1:10	1:8	1:7			1:5
1st gear (km/h)	6.9	6.9	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.7	6.7
2nd gear (km/h)	10.2	10.2	10.2	10.1	10.1	10.1	10.0	10.0	10.0	9.9	9.9
3rd gear (km/h)	13.6	13.6	13.5	13.5	13.4	13.3	13.3	13.2	13.1	13.1	13.0
4th gear (km/h)	19.8	19.7	19.5	19.4	19.3	19.2	19.0	18.9	17.6	16.3	15.1
5th gear (km/h)	27.2	27.0	26.7	26.5	26.2	25.4	22.7	20.5	17.2		
6th gear (km/h)	40.4	39.8	39.3	37.0	31.4						

Standard configuration, box loaded

Percent grade	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0
Ratio					1:12	1:10	1:8	1:7			1:5
1st gear (km/h)	6.8	6.8	6.8	6.7	6.7	6.7	6.6	6.6	6.6	6.5	6.3
2nd gear (km/h)	10.2	10.1	10.0	9.9	9.8	9.8	9.6	8.7	8.0	7.3	
3rd gear (km/h)	13.5	13.4	13.2	13.1	12.9	11.5	10.2				
4th gear (km/h)	19.5	19.2	18.9	16.6	14.0						
5th gear (km/h)	26.7	26.1	21.6								
6th gear (km/h)	39.2	30.5									

Optional equipment

Main frame

- Wheel chocks and chock brackets
- Tele dump

Ergonomic

- Grammer seat with retractable seat belts
- Heater

System

- Ansul dual bottle fire suppression with engine shutdown

- Electric hydraulic tank fill pump
- Lincoln auto lube with timer
- Wiggins fast fuel-, transmission-, hydraulic- oil fill

Drive train

- Neutral brake apply

Electrical system

- Amber strobe light - power on
- Load lights
- Side light opposite operator
- Tail and brake lights
- Turn signals, front and rear

- 24/12 V power converter
- Loading camera
- Battery heater, 120 V
- Block heater, 120 V
- Hydraulic oil heater, 120 V
- Engine oil heater, 120 V
- Diesel Filter with heater and water separation (7 micron)
- Fire extinguisher (8 kg)

Controls and instruments

- Blockout 5th and/or 6th gears
- Emergency steering- accumulator type
- Extended data gauge package

Power unit

- Epoxy coated radiator

Documentation

- LinkOne parts catalogue, CD
- Parts and service manual - plasticised

Parts kit

- 1 000 hour consumables

Other

- Tool box

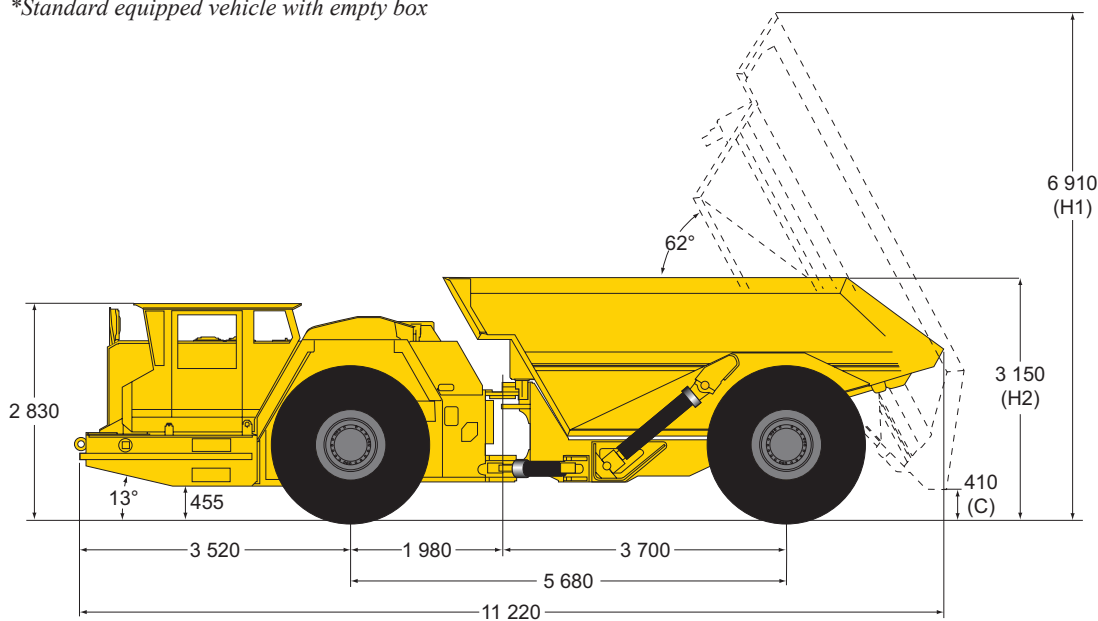
Dump boxes

Dump box data		STD			
Material density (t/m ³)	1.8	2.0	2.2	2.4	
Volume, SEA struck (m ³)	26.2	23.1	20.3	18.5	
Volume, Semi-heaped (m ³)	27.8	25.5	22.7	20.8	
Volume, SAE heaped (m ³)	31.3	27.8	25.0	23.4	
Width, dump box (mm)	W	3 400	3 200	3 200	3 200
Dump position: Box height, max (mm)	H1	7 015	6 910	6 800	6 720
Tramming position: Dump box height (mm)	H2	3 255	3 150	3 000	2 885
Dump position: Clearance (mm)	C	410	410	410	410

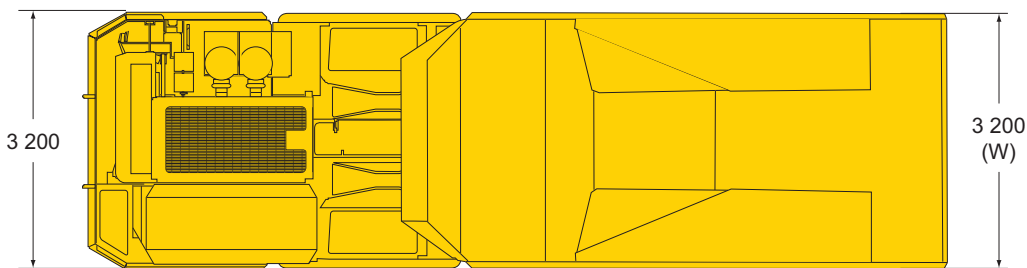
Dimensions and weights*

Approximate weight.....42 000 kg
 Axle load, front end29 700 kg
 Axle load, back end.....12 300 kg

*Standard equipped vehicle with empty box



Side view



Top view

- Dimensions shown are based on standard vehicle configuration with 27 mm tyre deflection
- All dimensions are shown in millimetres



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