



MINETRUCK MT5020

Underground articulated truck
with 50-tonne load capacity



Atlas Copco

MINETRUCK MT5020

FAST, EFFICIENT UNDERGROUND HAULAGE

MT5020 IS AN ARTICULATED UNDERGROUND TRUCK WITH 50 METRIC TONNES LOAD CAPACITY. IT HAS BEEN ENGINEERED FOR FAST AND EFFICIENT HAULAGE IN MEDIUM TO LARGE MINING AND CONSTRUCTION OPERATIONS.

+ MAIN BENEFITS

Safety by design: Features such as ISO ROPS and FOPS certified cabin with 3-point contact for entry and exit into cabin, SAHR brakes, retarder, machine stop, rear camera, fire suppression system, guard rails and safety stands/locking pins increases the safety in your operation.

Power and productivity: Minetruck MT5020 is easy to operate, has a compact design and front-axle suspension system. All to ensure continuous power and increased productivity in underground operations.

Easy maintenance: MT5020 is easy to service and maintain. With service points easy to reach the service is more convenient than ever.



Spacious ISO ROPS and FOPS certified operator's cabin with trainer seat

Tiltable cabin for easy access

Front axle suspension for superior comfort and increased productivity



With service friendly design through a service bay and service points easy to reach work gets easily done.



The spacious, ergonomically designed cabin with air suspended seat and front axle suspension system, allowing the operator to work safe and comfortable.



The optional teletram dump box (ejector style) pushes material off horizontally. This can be suitable in lowered areas with a low back height.



Dump box design adapted to mining operations for long life and fast dump cycles

Dump box safety support

Articulation safety lock

SAHR brakes at all wheel ends

Rear camera

FEATURES

Safety

- Spring-apply, hydraulic-release (SAHR) brakes
- ISO ROPS and FOPS-certified cabin with three-point entry and exit
- Rear-view camera and monitor for driver assistance and maximum safety
- Box-up stand, articulation lock and cabin tilt stand for safer machine maintenance
- Anti-skid materials at service access points
- Optional guard rails on top of the truck

Comfort

- Spacious, ergonomic cabin to reduce operator fatigue and ensure safety
- Front-axle suspension and pneumatics to improve operator comfort and vehicle handling
- Sound level in cabin: 85 dB(A)
- Air conditioning
- Air-cushioned front seat
- Trainer seat
- Tilt/telescopic steering wheel

Sustainability

- Reliable design, proven at countless work sites in the field
- Box optimized for quick, clean dumping
- Protection from hydraulic hoses, electric cables and hot surfaces by design

Productivity

- Articulated truck with 50-tonne load capacity and front-axle suspension
- High power-to-weight ratio to enable greater speeds on inclines
- Electronic transmission and engine control system for smooth, accurate shifting
- Automatic lock-up

Serviceability

- Easier maintenance with centrally located service points and a service bay to access main filters
- Atlas Copco's unique power train, including an up-box, drop box and a combined transmission and converter to improve visibility and service accessibility
- Cabin is tiltable for easy access to the engine
- Long-life roller bearing central hinge
- Optional: centralized automatic lubrication



SPECIFICATIONS

Capacities	
Tramming capacity	50 000 kg
Motion times	
Dumping	15 sec
Weights (Standard equipped vehicle, empty weight)	
Approximate weight	42 900 kg
Front axle load	30 800 kg
Rear axle load	12 100 kg

ENGINE

Brand/model:	Cummins QSK19 EPA Tier 3
Power rating	522 kW / 700 hp @ 2 000 rpm
Maximum torque	2 983 Nm @ 1 500 rpm
MSHA Part 7 ventilation rate*	TBA
MSHA Part 7 particulate index**	TBA

Dry type air cleaner, catalytic exhaust purifier and silencer, exhaust heat protection, remote engine oil and cooling fluid drain, cooling package with tube type radiator.

** MSHA = Mine Safety and Health Administration, USA. Ventilation rate = quantity of additional ventilation air required to dilute raw exhaust emission to a respective level per engine.

** Particulate Index = Calculated air flow for minimum diesel particulate matter (DPM) dilution to a safe level per engine

FUEL

Fuel tank capacity: 844 litres	●
Fuel filtration, primary, including water trap: 10 µm	●
Diesel filter with heater element	○

AXELS

Brand/model: Kessler D106	●
Differentials: Front, Open	●
Differentials: Rear, Open	●
Front-axle oscillating suspension solution with hydraulic suspension cylinders and accumulator cushioning.	●

BRAKES

Fully enclosed, force-cooled, multiple wet discs at each wheel end	●
Service/parking/emergency brakes: SAHR	●
Brake apply after 3 sec in neutral	●
Retarder, hydraulic retarder, with separate pedal	●

TYRES

Tubeless tyres design for underground mine service*	●
Tyre size front and rear: 35/65 x 33 (treaded)	●

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

ELECTRICAL SYSTEM

System voltage: Start & accessories 24 V	●
Mine duty high output alternator: 140 Amps	●
Isolation switch lockout	●
Main switch isolator	●
Engine starter isolator	○
24/12V converter	●
Driving lights LED: 10 x 40 W	●
Tail and brake lights	●
Load lights	●
Front & rear turn signals	●
Front & rear position lights	●
Detachable service light (Required for CE Approval Vehicles)	○
Battery jump start receptacle	○
Amber strobe light - Power on	○

OPERATOR'S COMPARTMENT

Forward seated cabin with steering wheel (ISO ROPS and FOPS)	●
Pressurizer	●
Air condition system, pressurized with filtered air	●
Trainer seat	●
Open door retainer	●
Air seat suspension seat with 2-point retractable seat belt	●
Sliding window on door	●
Air condition system	●
Heater	○
Canvas seat cover	●
External sound level according to ISO 6395 LwA: 124.5 dB(A)	
Sound level in cabin according to ISO 6396 LpA: 85 dB(A)	
Whole body vibration value according to EN 14253 A(8) w maximum 0.65+/-0.2m/s²	

HYDRAULIC SYSTEM

Heavy duty gear type pumps	●
System pressure: 20.7 Mpa	●
Hydraulic tank capacity 315 litres	●
Filtration, return line: 12 µm	●
Electric pump for hydraulic tank fill, 24 V	●
Cylinders; chrome plated stems, diameter: Suspension cylinders (2): 125 mm	
Cylinders; chrome plated stems, diameter: Steer cylinders (2): 160 mm	
Cylinders; chrome plated stems, diameter: Dump cylinders (2): 179 mm	

TRANSMISSION

Planetary, automatic 6 speeds forward/2 speeds reverse with integral single stage converter with automatic lock up	●
Brand/model: Allison M6620AR	●
Upbox, power transmitted through a gear box	●
Dropbox, power transmitted through a gear box	●

PARTS AND SERVICES

Preventive maintenance kits	○
Repair and rebuild kits	○
Upgrade kits	○
Face mechanics tool set	○
Shop mechanics tool set	○

CONTROL SYSTEM

Load camera and load lights	○
Rear camera and monitor	●
Audio-visual reverse alarm	●
Dump box up warning	●
Speedometer	●
Blockout 5th and/or 6th gears	○
Hold in 3:d gear inclination switch	○
Steering soft stop	●
Certiq telematics solution professional*	○

*Certain country restriction may exist

SYSTEM

Ansul manually activated fire suppression system with engine shut down	○
Ansul Checkfire automatically activated fire suppression system	○
Hand held fire extinguishes	○
3 x Machine stop buttons with fuel shut off valve	●
Emergency steering	○
Front-axle oscillating suspension solution with hydraulic suspension cylinders and accumulator cushioning. Maximum travel, 140 mm	●
Wiggins fast fuel fill	○
Wiggins Fast Fill for engine oil, transmission, hydraulic & radiator	○

MAIN FRAME

Lock or support stand on articulation, raised dump box and tilted cabin	●
Optional box sizes	○
Teletram dump box (ejector style)*	○
Wheel chocks and brackets	○
Knockdown construction	○
Central automatic lubrication system	○
Guard rails	○

*Teletram dump box changes dumping method and vehicle dimensions (consult with your local customer center)

POWER UNIT

Engine oil pre lube	●
Turbo cooling alternatives; Turbo timer or post lubrication	○
Arctic oil	○
Cold weather package 120 V or 240 V: Block heater, battery warmer, fuel heater, hydraulic oil heater, transmission oil heater, arctic oil	○
Corrosion resistant radiator	○

**ATLAS COPCO SERVICE
IT'S NOT JUST ABOUT
PROMISES, IT'S ABOUT
DELIVERY**

We offer several levels of service agreements to meet the requirements of your operation and safeguard your productivity. Our service agreements help you build a quality operation focused on proactive, planned maintenance to minimize unplanned downtime. We support maintenance with detailed parts information on every item in our full inventory of components, accessories, and tools.



GRADE PERFORMANCE

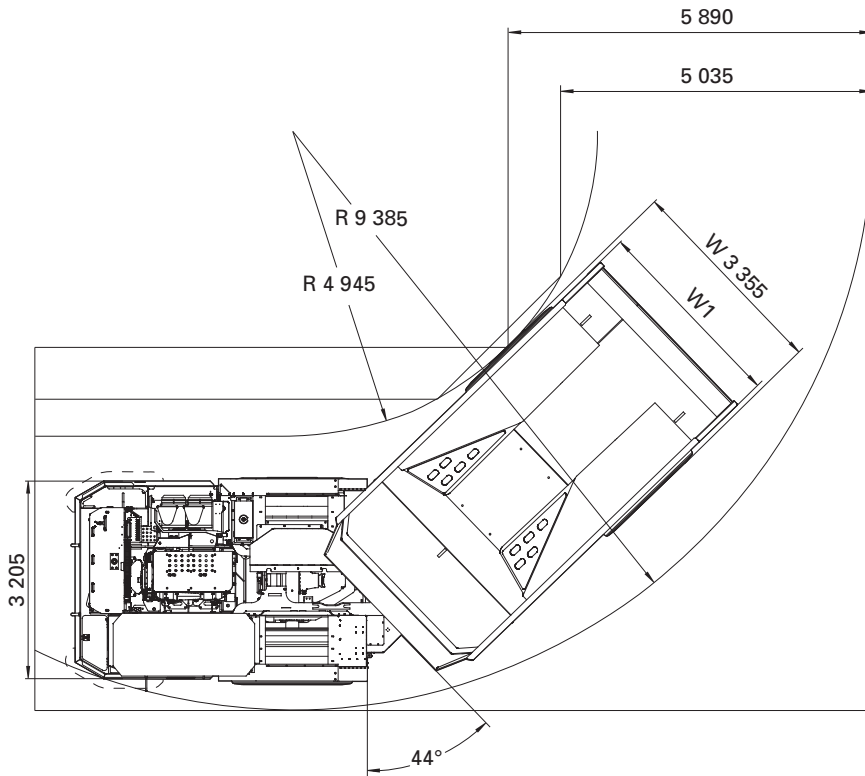
Standard configuration, box loaded												
%	Grade	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0
Ratio	Grade	–	–	–	–	1:12	1:10	1:8	1:7	–	–	1:5
km/h	1st gear	5.2	5.2	5.2	5.2	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	2nd gear	7.7	7.7	7.7	7.7	7.6	7.6	7.6	7.5	7.5	7.1	6.4
	3rd gear	10.3	10.3	10.2	10.1	10.1	10.0	9.9	8.7			
	4th gear	15.0	14.8	14.7	14.6	13.5	10.3					
	5th gear	20.5	20.3	20.1	16.0							
	6th gear	30.4	29.6									
Standard configuration, box empty												
%	Grade	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0
Ratio	Grade	–	–	–	–	1:12	1:10	1:8	1:7	–	–	1:5
km/h	1st gear	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.1
	2nd gear	7.8	7.8	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.6	7.6
	3rd gear	10.3	10.3	10.3	10.3	10.2	10.2	10.2	10.2	10.1	10.1	10.1
	4th gear	15.0	15.0	14.9	14.9	14.8	14.8	14.7	14.7	14.6	14.6	15.3
	5th gear	20.7	20.6	20.5	20.4	20.3	20.2	20.1	18.9	16.5		
	6th gear	30.8	30.6	30.4	30.1	29.1	24.0					

*These are theoretical calculations and should be seen as a reference only. 3% rolling resistance assumed. Actual performance may vary depending on the application. Continuous operation is recommended on maximum 1:7 grade.



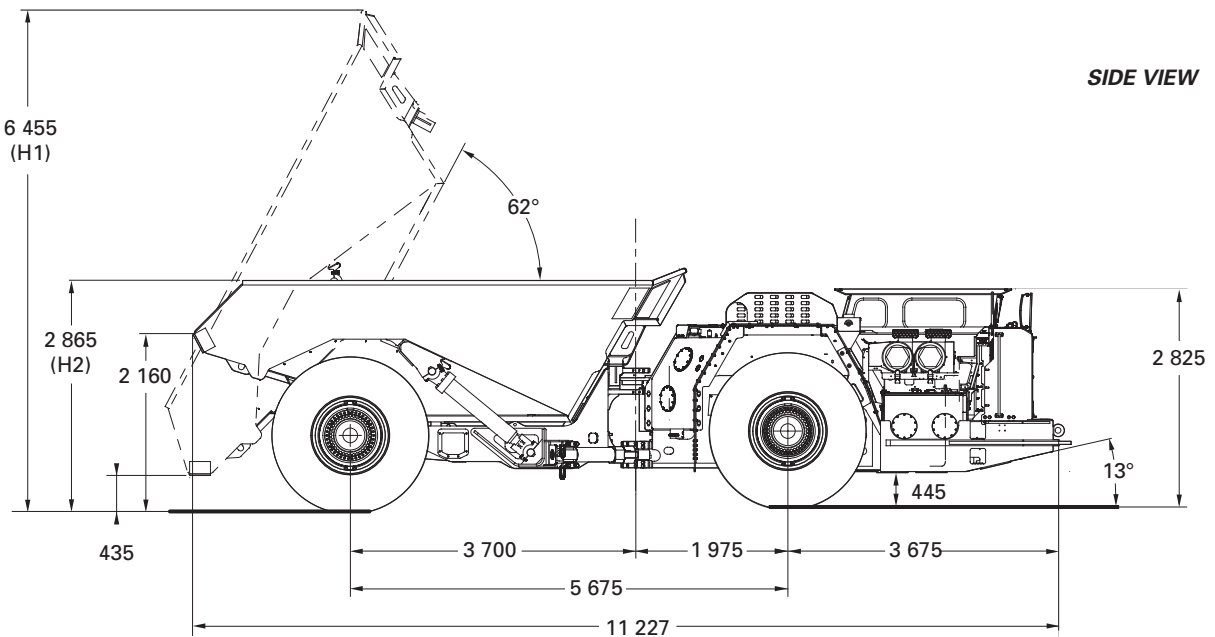
MEASUREMENTS AND WEIGHTS

TURNING RADIUS



Dimensions

- All dimensions are shown in millimetres
- All dimensions shown are based on standard vehicle configuration with 32 mm tire deflection, unloaded



SIDE VIEW

DUMP BOXES

		Dump boxes			STD	Teletram boxes*	
Volume, SAE heaped (m ³)		30.5	27.5	25.0	23.5	25.8	23.1
Volume, Semi heaped (m ³)		28.0	25.0	23.0	21.0	24.9	21.6
Volume SAE struck (m ³)		25.0	23.0	20.5	18.5	21	17
Maximum material density (t/m ³)		1.6	1.8	2.0	2.2	1.8	2.0
Box height max: dump position (mm)	H1	6 830	6 770	6 610	6 455	3 510	3 000
Box height max: haulage position (mm)	H2	3 245	3 180	3 020	2 865	3 265	3 000
Width: dump box (mm)	W1	3 400	3 200	3 200	3 200	3 200	3 200

*Teletram box has a different functionality, reduced capacity, different dimensions affecting turning radius etc. More sizes can be available, please consult Atlas Copco for more information.

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COMMITTED TO SUSTAINABLE PRODUCTIVITY

We stand by our responsibilities towards our customers,
towards the environment and the people around us.

We make performance stand the test of time.
This is what we call – Sustainable Productivity.

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