MINETRUCK MT5020
Underground articulated truck with 50-tonne load capacity
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 then ever.
Dump box design adapted to mining operations for long life and fast dump cycles.

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 safety support

Articulation safety lock

SAHR brakes at all wheel ends

Rear camera
### 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

### Specifications

#### 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

#### Technical Specifications

<table>
<thead>
<tr>
<th>AXELS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand/model: Kessler D106</td>
<td></td>
</tr>
<tr>
<td>Differentials: Front, Open</td>
<td></td>
</tr>
<tr>
<td>Differentials: Rear, Open</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BRAKES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fully enclosed, force-cooled, multiple wet discs at each wheel end</td>
<td></td>
</tr>
<tr>
<td>Service/parking/emergency brakes: SAHR</td>
<td></td>
</tr>
<tr>
<td>Brake apply after 3 sec in neutral</td>
<td></td>
</tr>
<tr>
<td>Retarder, hydraulic retarder, with separate pedal</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>TYRES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tubeless tyres design for underground mine service*</td>
<td></td>
</tr>
<tr>
<td>Tyre size front and rear: 35/65 x 33 (treaded)</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>ELECTRICAL SYSTEM</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>System voltage: Start &amp; accessories 24 V</td>
<td></td>
</tr>
<tr>
<td>Mine duty high output alternator: 140 Amps</td>
<td></td>
</tr>
<tr>
<td>Isolation switch lockout</td>
<td></td>
</tr>
<tr>
<td>Main switch isolator</td>
<td></td>
</tr>
<tr>
<td>Engine starter isolator</td>
<td></td>
</tr>
<tr>
<td>24/12V converter</td>
<td></td>
</tr>
<tr>
<td>Driving lights LED: 10 x 40 W</td>
<td></td>
</tr>
<tr>
<td>Tail and brake lights</td>
<td></td>
</tr>
<tr>
<td>Load lights</td>
<td></td>
</tr>
<tr>
<td>Front &amp; rear turn signals</td>
<td></td>
</tr>
<tr>
<td>Front &amp; rear position lights</td>
<td></td>
</tr>
<tr>
<td>Detachable service light (Required for CE Approval Vehicles)</td>
<td></td>
</tr>
<tr>
<td>Battery jump start receptacle</td>
<td></td>
</tr>
<tr>
<td>Amber strobe light - Power on</td>
<td></td>
</tr>
</tbody>
</table>
## TECHNICAL SPECIFICATIONS

### OPERATOR’S COMPARTMENT
- Forward seated cabin with steering wheel (ISO ROPS and FOPS)
- Pressurizer
- Air condition system, pressurized with filertered 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 3rd 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

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**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

<table>
<thead>
<tr>
<th>%</th>
<th>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>12.0</th>
<th>14.0</th>
<th>16.0</th>
<th>18.0</th>
<th>20.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio</td>
<td>Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1:2</td>
<td>1:10</td>
<td>1:8</td>
<td>1:7</td>
<td>–</td>
<td>–</td>
<td>1:5</td>
</tr>
<tr>
<td>km/h</td>
<td>1st gear</td>
<td>5.2</td>
<td>5.2</td>
<td>5.2</td>
<td>5.1</td>
<td>5.1</td>
<td>5.1</td>
<td>5.1</td>
<td>5.1</td>
<td>5.1</td>
<td>5.1</td>
<td>5.1</td>
</tr>
<tr>
<td></td>
<td>2nd gear</td>
<td>7.7</td>
<td>7.7</td>
<td>7.7</td>
<td>7.7</td>
<td>7.6</td>
<td>7.6</td>
<td>7.6</td>
<td>7.5</td>
<td>7.5</td>
<td>7.1</td>
<td>6.4</td>
</tr>
<tr>
<td></td>
<td>3rd gear</td>
<td>10.3</td>
<td>10.3</td>
<td>10.2</td>
<td>10.1</td>
<td>10.1</td>
<td>10.0</td>
<td>9.9</td>
<td>8.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4th gear</td>
<td>15.0</td>
<td>14.8</td>
<td>14.7</td>
<td>14.6</td>
<td>13.5</td>
<td>10.3</td>
<td></td>
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<tr>
<td></td>
<td>5th gear</td>
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<tr>
<td></td>
<td>6th gear</td>
<td>30.4</td>
<td>29.6</td>
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</tbody>
</table>

*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.*
## TURNING RADIUS

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

### Dump Boxes

<table>
<thead>
<tr>
<th></th>
<th>Dump boxes</th>
<th>STD</th>
<th>Teletram boxes*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume, SAE heaped (m³)</td>
<td>30.5</td>
<td>27.5</td>
<td>25.0</td>
</tr>
<tr>
<td>Volume, Semi heaped (m³)</td>
<td>28.0</td>
<td>25.0</td>
<td>23.0</td>
</tr>
<tr>
<td>Volume SAE struck (m³)</td>
<td>25.0</td>
<td>23.0</td>
<td>20.5</td>
</tr>
<tr>
<td>Maximum material density (t/m³)</td>
<td>1.6</td>
<td>1.8</td>
<td>2.0</td>
</tr>
<tr>
<td>Box height max. dump position (mm)</td>
<td>H1</td>
<td>8 830</td>
<td>7 770</td>
</tr>
<tr>
<td>Box height max. haulage position (mm)</td>
<td>H2</td>
<td>3 245</td>
<td>3 180</td>
</tr>
<tr>
<td>Width: dump box (mm)</td>
<td>W1</td>
<td>3 400</td>
<td>3 200</td>
</tr>
</tbody>
</table>

*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.
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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