

Menzi Muck **M415**

M4



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muck[®]

SWISSPOWER 

Menzi Muck M415

The latest technology & innovation



menzi
muck®





Triple Power Boom

With the launch of the M4 series, the unique, patented and proven Menzi Muck boom has been further refined. The result: a crawler excavator engineered for maximum power and precision. The M415's advanced hydraulic system delivers consistent performance and responsive handling as standard. An increase of 114% in breakout force on the boom cylinder, combined with 22% more force on the stick cylinder, ensures significantly enhanced digging power and operational efficiency.



Undercarriage

Equipped with our innovative stepless drive system, which delivers maximum torque across the entire adjustment range, the Menzi Muck M415 offers outstanding efficiency and performance. Independently extendable crawler frames ensure exceptional flexibility and maneuverability, allowing you to always achieve the optimal working position. With a climbing ability of up to 90%, the M415 handles steep slopes and challenging terrain with ease, making it ideal for a wide range of applications.



New Design by Alberto Bicego

The M4 series stands out not only for its advanced technology and performance, but also for its modern, innovative design that is both functional and practical. Through strategic design, the components of the upper carriage and cab have been optimally adapted to meet the specific demands of the machine.



I-Control

The intelligent machine control architecture ensures that the full potential of the crawler excavator can be fully utilized. Software-controlled electronics open up a wide range of possibilities for the hydraulic system. An intuitive operating concept, new functions, and smart interfaces for attachments complement the system. The result: increased efficiency, reduced fuel consumption, more direct control, and exceptional sensitivity with maximum precision and power.



Panoramic Spacious Cab

Best-in-class all-round visibility, state-of-the-art cab design, and optimized ergonomics for healthy, focused, and fatigue-free operation. A newly engineered thermal management system with increased heating and cooling capacity ensures maximum comfort. The clearly arranged and intuitively designed 12" touchscreen color display provides full machine control at all times. Smart details such as inductive smartphone charging, a cooled beverage compartment, and multiple storage options make everyday work noticeably easier.

Triple Power Boom

Innovations matured over many years have led to the unique boom kinematics of the Menzi Muck M4 series. The result is a kinematic system that turns this crawler excavator into a true powerhouse. As standard, the well-engineered technology of the M415 ensures consistent power delivery and dynamic handling at all times. With 114% more breakout force on the boom cylinder and 22% more power on the stick cylinder, overall performance is significantly enhanced.

Boom Cylinder

The top-mounted boom cylinder gives this power boom outstanding lifting capacity as well as unmatched stabilizing force.

Well-Engineered Power Line

The direct alignment of boom and stick cylinders provides an ideal force transmission.

Wide-Angle Kinematics with Power Booster

Patented boom kinematics ensure maximum force distribution across the entire working range.

Slew Function

A Menzi Muck innovation that allows controlled precision even on the steepest terrain.



Telescopic Arm

The 1.6 m extendable telescopic stick provides the arm with the required reach and completes the power boom.

Tool Interface

Standardized Menzi Muck M-Series interface for all attachments. The interface is always within the operator's field of view, located on the left side of the arm.

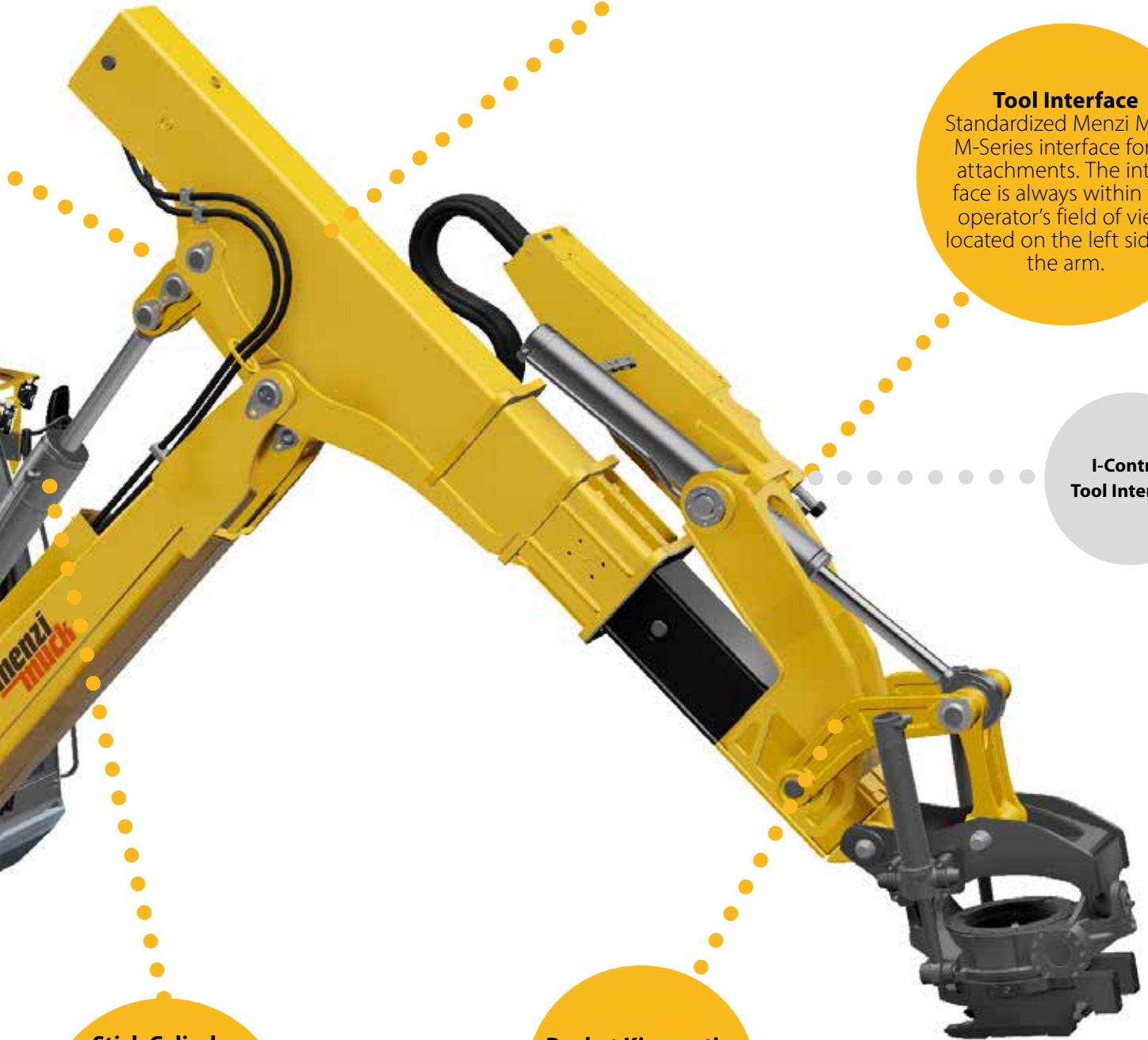
I-Control Tool Interface

Stick Cylinder

Optimized wide-angle kinematics combined with a shortened telescopic section enable exceptionally high tear-out forces.

Bucket Kinematics

Impressive breakout forces complement this powerful arm.



Modern & Functional Cab Design.



Joystick

The proven and Highly Functional Menzi Muck joystick.

Undercarriage Control

The crawler undercarriage can be operated either via the drive pedal or the joystick.

12" Touchscreen

All information and functions clearly visible within the operator's field of view.

I-CONTROL Central electrics

Fuses with LED monitoring, clear arrangement, optimum accessibility.

I-Steering

By rotating the joystick, a new control level has been created, allowing the crawler undercarriage to be steered.

I-CONTROL Multifunctional Operating Concept

Simple and intuitive layout. Touchscreen combined with physical switches.

Inductive smartphone charging

Place the smartphone on the non-slip pad and it charges automatically.

Air Distribution

A large-area air duct evenly supplies all air outlet nozzles, increasing overall efficiency.

12-inch touchscreen

Cockpit

Speeds, temperatures, and fill levels clearly visible at a glance.

Camera

Easily switch views and connect up to 4 cameras.

Driver Menu

Easily save individual settings.



Active Functions

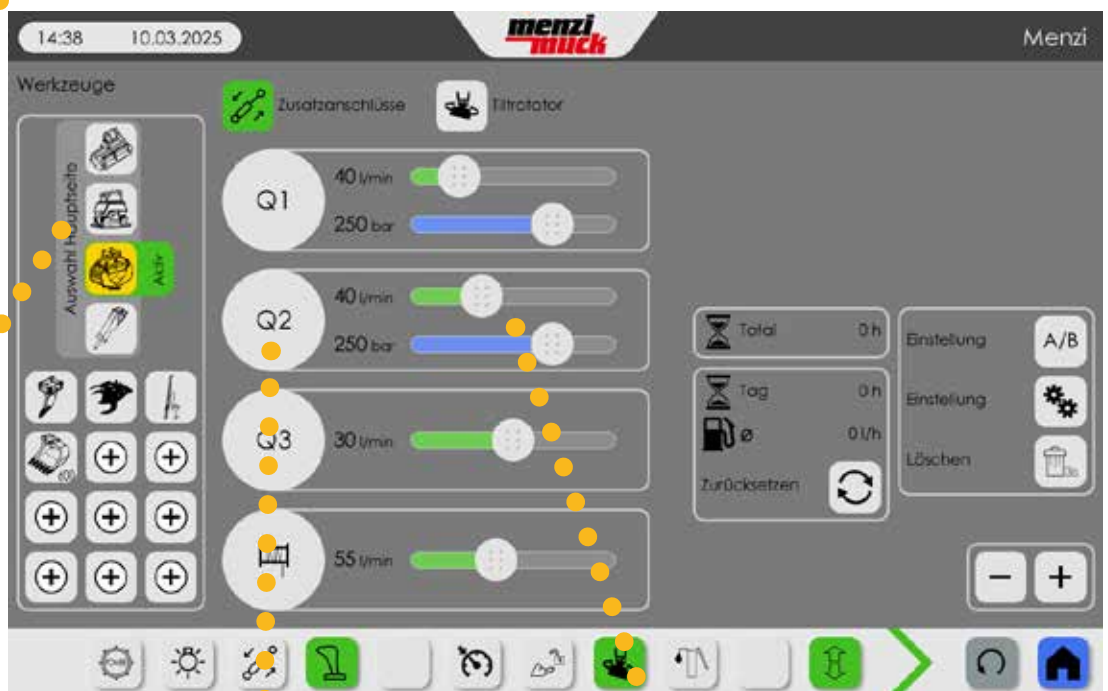
Clearly shows which options are currently active.

Custom Button Layout

Buttons can be arranged flexibly to suit individual preferences.

Tools

Select your attachments, add new ones, or easily remove old ones.



Hydraulic Circuit

Individually select which hydraulic circuit the attachment is connected to and save the settings.

Flow Rate & Pressure

Depending on the attachment, pressure and flow rate can be conveniently adjusted using the sliders.

Maintenance & Support



Refueling
Convenient refueling of diesel and AdBlue from the operator's side. The diesel filling pump ensures easy handling.

Left Side Panel
Access to diesel tank, AdBlue tank, diesel filling pump, and central lubrication system.

Fleet Management
I-Telematics enables efficient management of the Menzi Muck fleet. This includes machine data acquisition, data analysis, fleet management, and service. All key machine data is accessible at any time via web browser

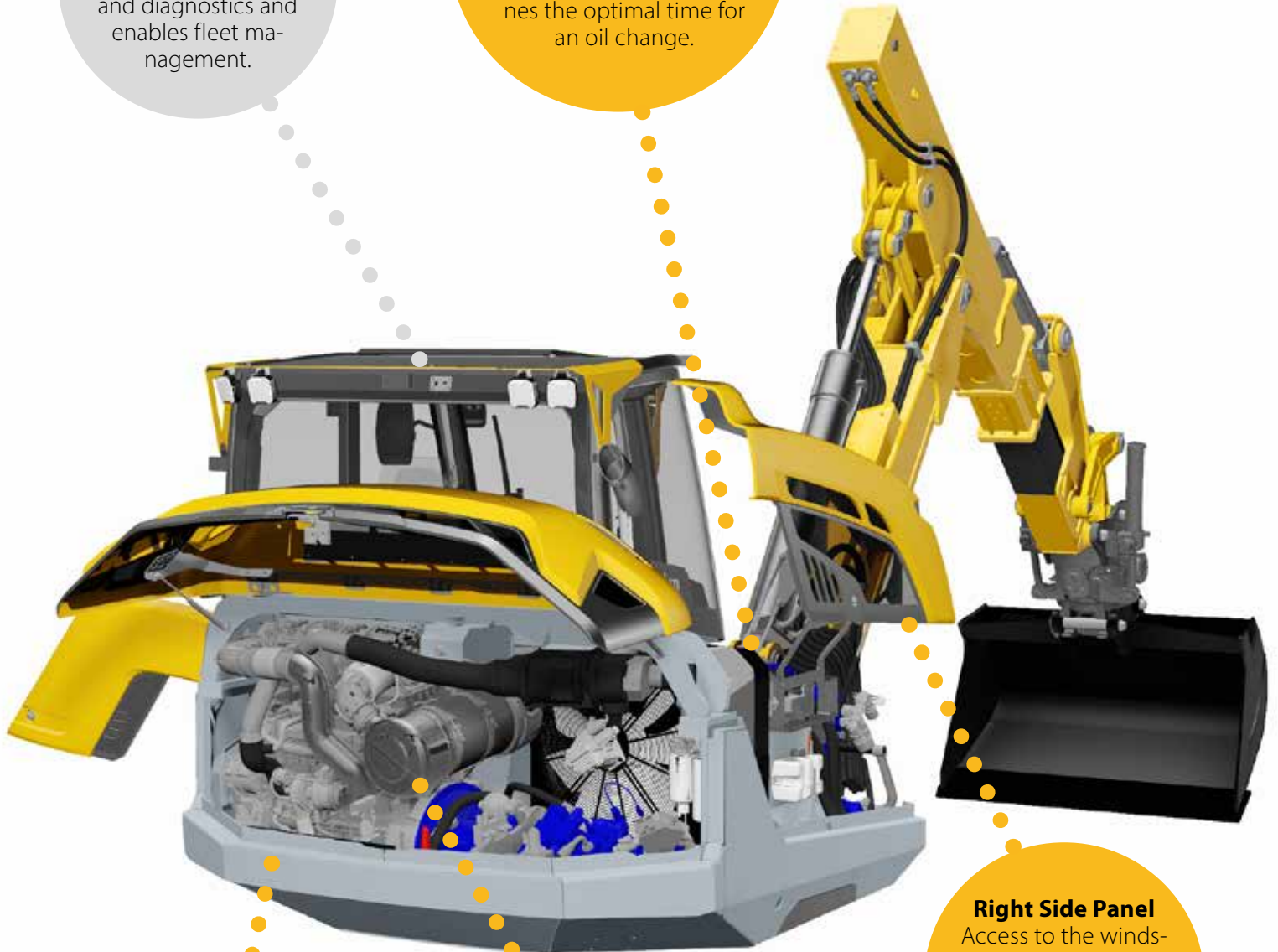


I-Telematik

A data transmission and tracking system that simplifies service and diagnostics and enables fleet management.

Resources

Resource-efficient hydraulic oil management. An oil analysis (every 1,000 operating hours or once a year) determines the optimal time for an oil change.



Right Side Panel

Access to the windshield washer fluid reservoir, hydraulic oil filling port, and hydraulic tank level indicator.

Engine Area

Air filter in an optimal maintenance position, easily accessible: pressure test port for hydraulic system, oil dipstick with engine oil filling port.

Web Service Interface

Access your machine's information via the web. Use the data directly within your own system.

I-Control & Undercarriage

I-Control

The intelligent machine control architecture ensures that the full potential of our crawler excavator can be fully utilized. The combination of electronics and software expands the capabilities of the hydraulic system. The result: increased efficiency, reduced fuel consumption, more direct control, and exceptional sensitivity with maximum precision and power.

Intelligent performance management

The power of the 3.6-liter Deutz engine is distributed to the hydraulic pumps according to demand. The three modes: Power, Eco, and Fine, have been perfectly adapted to the M415. The electronic system recognizes the operator's performance requirements, enabling efficient and resource-saving utilization of the Deutz diesel engine.

Pump technology

Proven pump technology combined with advanced control systems and innovative pump management increases efficiency and reduces fuel consumption.

Mooring Winch

The well-known Menzi Muck mooring winch can also be mounted on the M415, further expanding its range of applications.

Latest-Generation Valve Technology

The latest-generation hydraulic control block provides more direct control, exceptional sensitivity, and maximum precision combined with power.

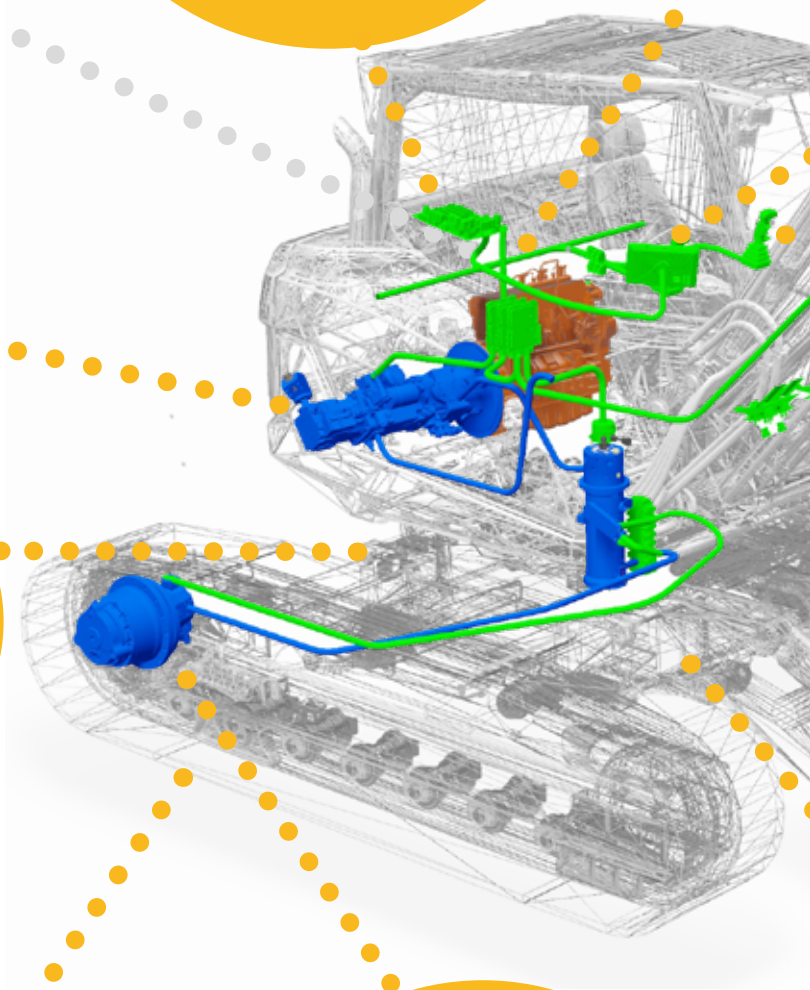
Ground Pressure

Crawler tracks up to 900 mm wide ensure ground-friendly operation by minimizing ground pressure

Continuously Variable

Continuously variable power drive up to 6 km/h, delivering maximum torque throughout the entire adjustment range and during every driving phase. A maximum tractive force of 168 kN ensures powerful propulsion. Synchronized, economical control of engine speed and undercarriage pump.

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Hydraulic oil system

Advanced filtration technology, a flow-optimized hydraulic tank, and I-101-monitored return flow extend the hydraulic service life and reduce maintenance costs.

Increased Efficiency through Customization

Customized operator profiles allow the operator to add a personal touch to the crawler excavator. Joystick configurations can be individually adjusted according to attachments. These personalized profiles can easily be transferred to other machines at any time.

Attachment Interface

The attachment interface of the Menzi Muck excavator has been designed for the future. This enables direct communication between the machine and attachments, optimizing the construction process.

Steering system

A new and unique steering system using joystick rotation, distinguished by fine proportional control and enabling simultaneous operation of the telescopic function.

- Steering via drive pedals (standard)
- Steering via joystick buttons
- Steering via joystick rotation

Width adjustment

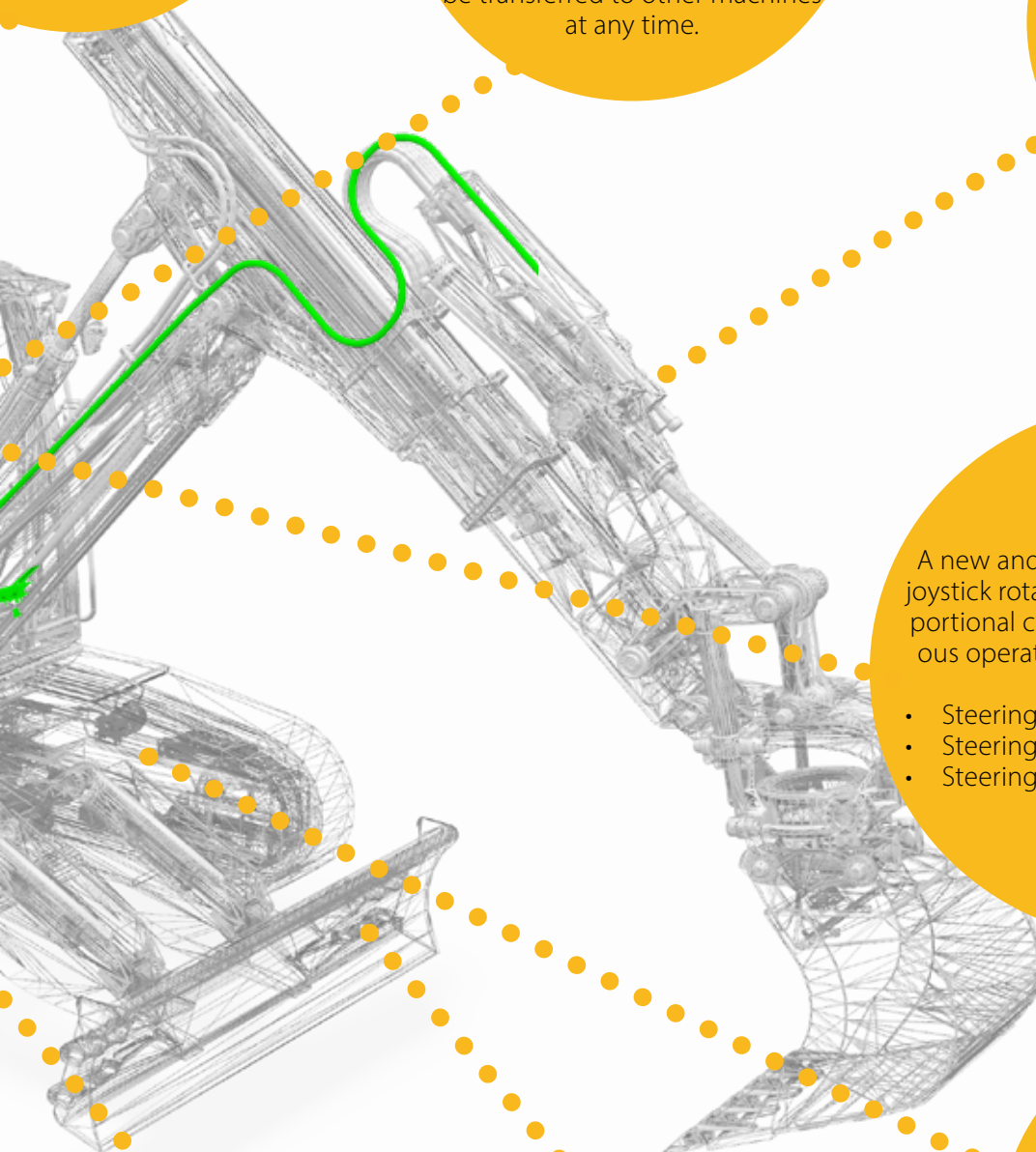
For specific applications and situations, the adjustable width of the crawler frames increases safety and versatility. The left and right crawler frames can be adjusted independently. Maximum stability is achieved at maximum width.

Steel components

The robust steel construction and undercarriage components in size class D5 ensure durability, even under heavy-duty operations. The undercarriage structure is designed to accommodate various crawler dimensions and track types.

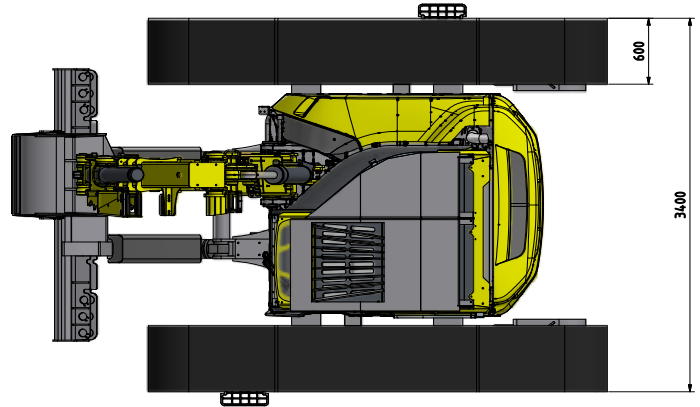
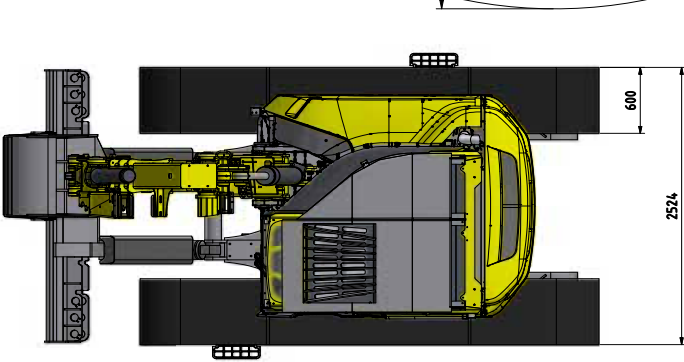
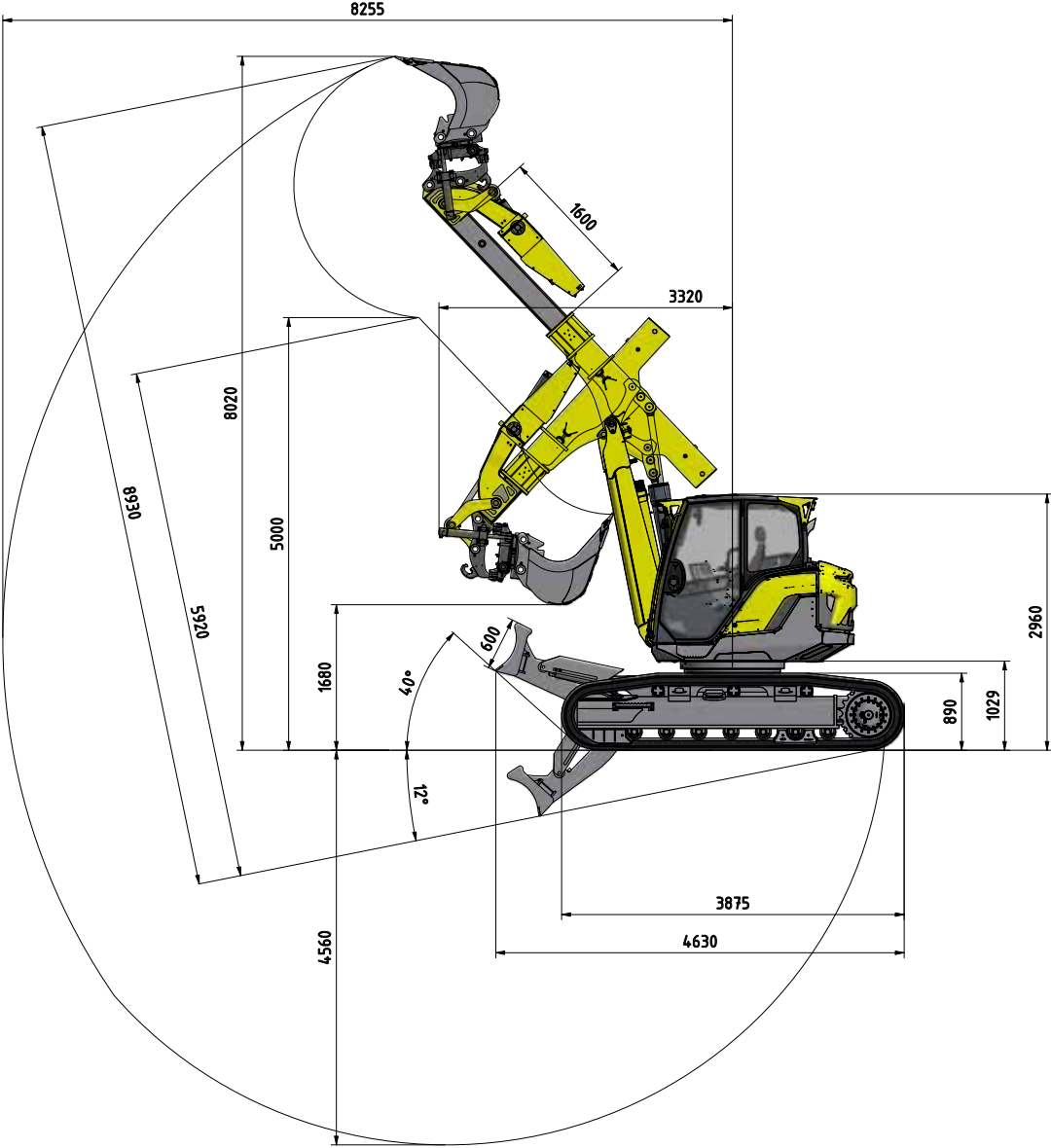
Blade

The adjustment range of 52° is designed to provide ideal stabilization even on steep terrain, enhancing both safety and operational versatility.



Menzi Muck M415 with 600 mm crawler tracks

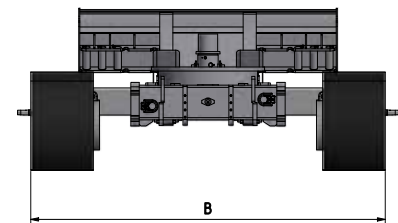
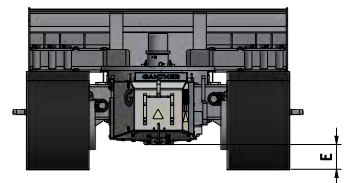
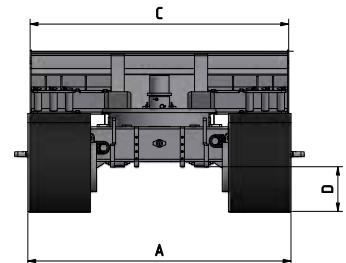
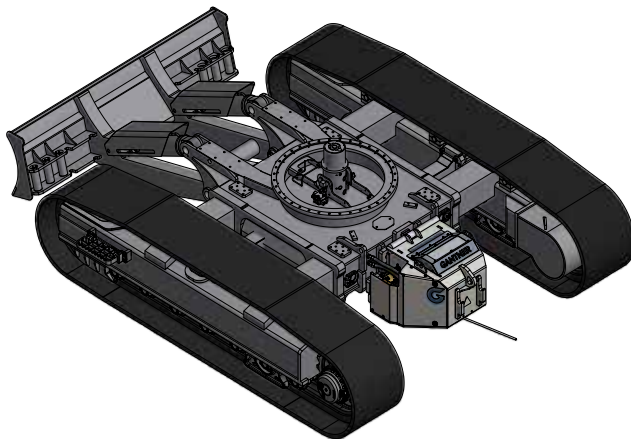
Dimensions & Specifications



Dimensions in mm. Dimensions vary depending on crawler width and attachment.



Undercarriage M415 Dimensions & Specifications



Undercarriage Dimensions in mm

| | Crawler track width | 500 | 600 | 700 | 800 | 900 |
|----------|---|-------------|------|------|------|------|
| A | Min. undercarriage width | 2300 | 2500 | 2700 | 2900 | 3100 |
| B | Max. undercarriage width | 3300 | 3400 | 3500 | 3600 | 3700 |
| C | Blade width (with extension) | 2480 (3036) | | | | |
| D | Ground clearance (with rubber pads) | 410 (469) | | | | |
| E | Ground clearance with winch (and rubber pads) | 285 (344) | | | | |

Ground pressure undercarriage in kg/cm²

| | Crawler track width | 500 | 600 | 700 | 800 | 900 |
|--|--|------|------|------|------|------|
| | M415 with tiltrotator | 0.50 | 0.42 | 0.37 | 0.33 | 0.30 |
| | M415 with rubber pads and tilt rotator | 0.53 | 0.45 | 0.40 | 0.35 | 0.32 |

Technical data, dimensions & values M415

Engine

| | |
|--------------------------------------|------------------------------|
| Deutz 4-cylinder diesel | TCD 3.6 L4 HP |
| Exhaust gas stage | EU Stage V / US Tier 4 |
| Displacement | 3621 ccm |
| Performance according to ISO 14396 | 105 kW (143PS) at 2000 U/min |
| SCR catalytic converter | with AdBlue supply |
| Integrated diesel particulate filter | with automatic regeneration |
| Max. Torque | 550Nm at 1600 U/min |

Drive system

| | |
|---------------------------------|---------------------------|
| Maximum continuous travel speed | 0 - 6 km/h |
| Tractive force | 168kN |
| Climbing ability | max. 90% |
| Separate hydraulic pump | 180 l/min, max. 350 bar |
| Service brake | hydrostatic |
| Holding brake | Spring-loaded accumulator |

Weight without attachments

| | |
|--------------------------|----------------|
| M415 with 600 mm crawler | from 14800 kg* |
| M415 with 900 mm crawler | from 15500 kg* |

Unmatched Forces

| | |
|--------------------------------|---------|
| Lifting capacity @ 3.0 m reach | 9100 kg |
| Lifting capacity @ 4.5 m reach | 4750 kg |
| Lifting capacity @ 6.0 m reach | 3100 kg |
| Breakout force | 109 kN |
| Tear-out force | 77 kN |
| Push force telescopic | 191 kN |

Schwenkung

| | |
|--|-----------------|
| Radial Piston Motor with Automatic Plate Hold Brake acts directly on the internal gearing of the large-diameter, double-row ball slewing ring. | |
| Slew range | 360° continuous |
| Slew torque | 48000 Nm |
| Slew speed | bis 10 U/min |
| Slewing ring module 10 | Ø 1200 mm |

* Depending on the equipment

Hydraulics

| | |
|------------------------|-------------------------------|
| Working hydraulic | Rexroth LUDV |
| Pumps | Swashplate axial piston pumps |
| Working pump | 260l/min, 300bar |
| Fan pump | 50l/min, 180bar |
| Additional connections | 6 |

Hydraulic circuits

| | |
|--|--------------------------------|
| Adjustment of hydraulic auxiliary connections via the touchscreen | |
| Circuit Q1 on Arm: Proportional, adjustable flow and pressure | max. 150 l/min 50 - 320 bar |
| Circuit Q2 on Arm: Proportional, adjustable flow and pressure (Opt.) | max. 100 l/min 50 - 320 bar |
| Circuit Q3 on Arm: Proportional, adjustable flow and pressure (Opt.) | max. 50 l/min 50 - 320 bar |
| Circuit Q4 on Arm (Quick Coupler) (Opt.) | 30 - 300 bar |
| Powerline, Proportional, adjustable flow and pressure (Opt.) | max. 150 l/min 50 - 350 bar |
| Winch connection on Chassis Proportional, adjustable flow and pressure (Opt.) | max. 120 l/min |
| Return line | |
| Leak oil line (Opt.) | |

Filling Volumes

| | |
|-----------------------------|------|
| Fuel tank | 130l |
| AdBlue tank | 20l |
| Hydraulic oil system volume | 220l |

Crawler Tracks

| | |
|---|--------------------|
| Standard | Track width in mm |
| 3-Track Steel crawler | 600 |
| Optional | |
| 3-Track Steel crawler | 500, 700, 800, 900 |
| Rubber pads bolted on 3-Track Steel Crawler | All sizes |
| 3-Track Steel crawler offset | 500, 700, 800, 900 |

Innovative Standard Equipment & Useful Options

standard + optional o

Uppercarriage

| | |
|---|---|
| Diesel filling pump with automatic shutoff | + |
| Gas spring-assisted opening of side and rear cover | + |
| Integrated tool compartment | + |
| Additional tool box | o |
| Travel direction detection with automatic switching | + |
| Cylinder on the arm with end-position damping | + |
| Powerline | o |
| Leak oil line | o |
| Hydraulic circuit Q1 + Q2 | + |
| Hydraulic circuit Q3 + Q4 | o |
| Comfort switching block Q1 and PL | o |
| Pressure adjustment hydraulic circuit Q2 + Q3 | o |
| Return filter with optimized air separation (In to OUT) | + |
| Reversible fan | o |
| Locking valves for arm cylinders | o |
| Boom protection | o |
| Winch on the arm | o |
| Equipment for lifting device (CH and EU) | o |
| Lift and slew limitation (boom & slew) | o |

Cabin

| | |
|---|---|
| „Roll-Over-Protection-System“ – DIN ISO 3471 | + |
| FOPS protective grid roof Level II according to DIN ISO 3449 Compact | + |
| FOPS protective grid roof Level II according to DIN ISO 3449 Forestry | o |
| Removable front window OPS tested according to ISO 8084 | o |
| Safety front window for forestry according to ISO 21876 | o |
| Vibration- and noise-insulated cab | + |
| Comfort driver's seat Grammer | + |
| Comfort driver's seat Grammer Evolution with seat climate control | o |
| Ergonomic joystick | + |
| Tiltable cabin with hydraulic hand pump | + |
| Roof-mounted headlamp ring with up to 6 LED headlights | o |
| 5 LED work lights | + |
| LED auxiliary lights on the arm or cabin (various options) | o |
| LED rotating light | o |
| Protective grid for front window (various options) | o |
| Safety glazing (various options) | o |
| Door with sliding window | o |
| Spacious, ergonomic cockpit | + |
| Rearview camera | + |
| Right-side camera | o |

| | |
|---|---|
| Powerful heater with 8 adjustable air vents | + |
| Air conditioning | o |
| Parking heater | o |
| Pollen filter | + |
| DAB+ radio with USB/MP3 player | + |
| Three-point seatbelt | o |
| Start & Stop on the joystick | + |
| Air compressor | o |
| Wiper and washer system | + |
| Telematics tracking system | + |
| 12.1" LCD display touchscreen | + |
| USB charging station | + |
| Inductive charging station | + |
| Central electrics with LED fuse monitoring | + |

Undercarriage

| | |
|--|---|
| Optimal protection of components | + |
| Winch mount at the back possible | + |
| Winch preparation at the back | o |
| Winch preparation for mooring | o |
| Automatic parking brake | + |
| 2-way grader blade | + |
| 6-way grader blade | o |
| Adjustable width of crawler frames | + |
| Blade extension | o |
| Active Rotational speed sensors | + |
| Bolt-on rubber pads | o |
| Cylinders with check valves | + |
| Removable and mountable crawler frames | + |

Additional Options

| | |
|---|---|
| Vacuum pump for hydraulic system | o |
| Idle stop system | o |
| Step shifting | o |
| Automatic central lubrication (only upper carriage) | o |
| Central lubrication cartridge filling | o |
| Biodegradable hydraulic oil (various manufacturers) | o |
| Hydraulic bypass filter | o |
| Drilling equipment | o |
| Special paintwork (various options) | o |
| Low-temperature package | o |
| Radio remote control for winch | o |

How to find us.

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