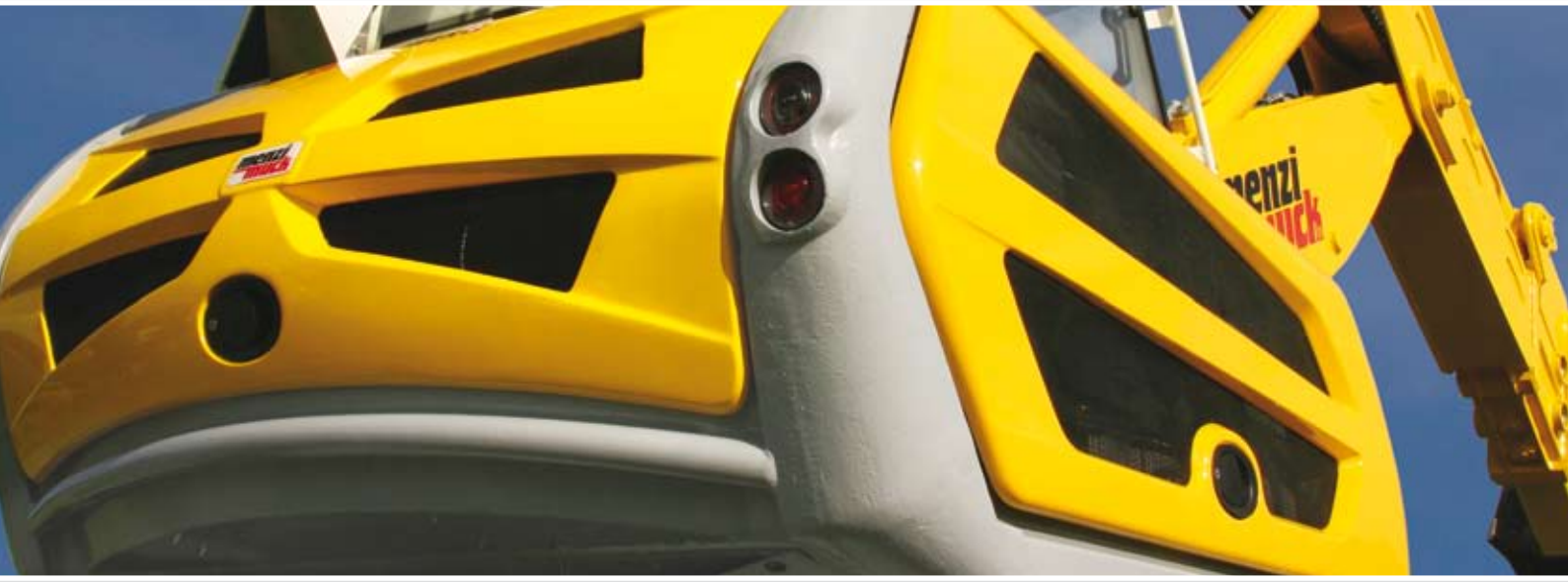
menzi muck



# The king‘s class of mobile Allterrain-Excavators.

Menzi Muck A91 mobile
Menzi Muck A91 4x4
Menzi Muck A91 4x4 plus
Menzi Muck A91 4x4 sensor
Menzi Muck A111

www.menzimuck.com

SWISSPOWER

# The mobile multi-purpose technology. The Menzi Muck A91 and A111.

The new generation of Menzi Muck A91 and A111 is based on long-standing experience. Since their debut, the world's best-selling machine in their weight class has passed through various evolutionary stages. New technologies, ecological and economic aspects, customer suggestions and practical experience have been packaged in a new version. The convincing result: optimised efficiency with increased cooling, low noise values and minimised fuel consumption.

The various model designs feature the same top section but have different chassis. Depending on the application of the mobile multi-purpose excavator, numerous options in the module system are available for creating tailored solutions.

Thanks to continuous performance enhancements, greater mobility and powerful drive technologies, new and interesting applications have been developed for the Menzi Muck in addition to its original use on steep slopes and also on lowlands.

It delivers an above-average hydraulic performance for its empty weight. The result is a powerful tool carrier with maximum ground preservation.

Thanks to the adjustable chassis, the benefit of progressive movement on difficult terrain is offered by all model variants.


menzi muck

# Model versions at a glance.

### 1 Menzi Muck A91 Mobile

Hydrostatic two-wheel drive via the large wheels.
Two dismountable fully-floating axles with bogie wheels.
Hydraulic telescopic stabilizers.
Optional: rear steering.

### 2 Menzi Muck A91 4x4

Hydrostatic all-wheel drive.
Variable parallel track widths.
Hydraulic telescopic stabilizers.
Optional: Hydraulic lifting axle for raising the small wheels.
Optional: rear steering.

### 3 Menzi Muck A91 4x4 plus

Hydrostatic H-drive all-wheel drive.
P-Matik parallel stabilizers.
Optional: Hydraulic mountain stabilizers.

### 4 Menzi Muck A91 4x4 sensor

Hydrostatic H-drive all-wheel drive.
All-wheel steering.
P-Matik parallel stabilizer.
Optional: Hydraulic mountain stabilizers.

### 5 Menzi Muck A111

Hydrostatic H-drive all-wheel drive.
Directionally stable articulated steering;
gravitational displacement.
Optional: Hydraulic mountain stabilizers.





# Economic. Powerful. Efficient.
# The heart: engine, hydraulics & cooling.

The objective when tuning engine, hydraulics and cooling system was to find the optimum balance between economy and ecology. The new design achieves maximum efficiency with cooling, low noise levels and minimised fuel consumption.

## Hydraulic system

Optimised hydraulic tuning has been a Menzi tradition. The harmonious operating cycle is geared towards smooth and optimised performance.
Load sensing hydraulics from Rexroth (LUDV - load-independent flow distribution) with electronic load limit control. The pump distributor gearbox (PVG) is fitted as standard with two output-controlled swash plate axial piston pumps, one for the working hydraulics (P1) and one for the driving hydraulics (P2). A gear pump (P3) supplies the electro-hydraulically controlled cooling fan drive. Total capacity of the hydraulic system 200 litres.

## Load limit control

Electronic load limit control for fast, smooth and constant interaction between engine and hydraulics. An additional operating mode is provided: In smooth mode, work to the millimetre can be carried out at full power.

## Automotive driving

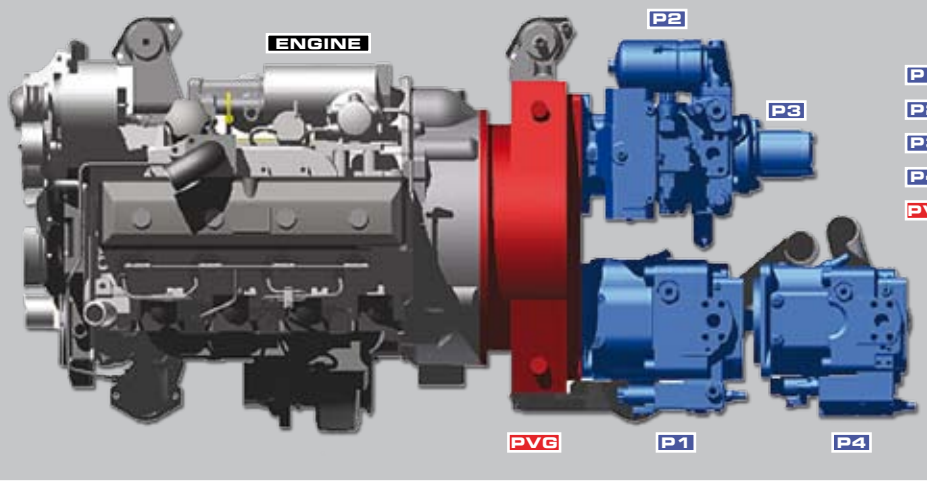
The load limit control also enhances comfort when driving on roads and conveys a new drive feel. Engine revs and drive pump are synchronised via the accelerator pedal. This achieves an automatic-like characteristic; the revs increase on acceleration and decrease on deceleration. The potentiometer limits the top speed; the accelerator is released more smoothly.

## Swing

An axial piston engine with automatic multi-disc brake acts on the internal gears of the double-row slewing ring via a planetary gear. Hardened tooth profiles. A proportional, demand-driven torque control is applied to regulate the turning force via the joystick. Swing range 360° endless. Swing speed up to 10 rpm. Swing torque 46'000 Nm.

## Pump transfer gear

The pump transfer gear (PVG) ensures enhanced performance for economy and power. This is arranged between engine and hydraulic pumps. Transmission raises the engine's output speed, thus increasing the output of the hydraulic pumps.




## Pump capacities

| | | |
|---|---|---|
| P1 | Working hydraulics | 220 l/min. (max.280 bar) |
| P2 | Driving hydraulics | 160 l/min. (max.400 bar) |
| P3 | Fandrive | 36 l/min. |
| P4 | Powerline | 170 l/min. (max.340 bar) |
| PVG | Pump transfer gear | |

## The John Deere Engine.

| | |
|---|---|
| Brand | John Deere |
| Type | 4-cylinder Turbodiesel |
| Name | 4045HF285 |
| Maximal output | 104 kW / 140 PS |
| Displacement | 4'500 ccm |
| governed to | 1'850 rpm |
| Maintenance intervals | 500 h |

## Hydraulic Connections

Control circuit 1 (standard)
via foot pedal up to 160 l/min. /
42 US/gall., proportional - double action

Control circuit 2 (standard)
via joystick up to 60 l/min. / 16 US/gall.
(optional 80 l/min. / 21 US/gall.)
digital - double action

Control circuit 3 (option)
via joystick up to 40 l/min. /
10.5 US / gall., digital - double action

Control circuit 4 (option)
for hydr. quick changer
digital - double action

„Powerline" (option)
via joystick up to 170 l/min. /
45 US /gall. (see further information)

Winch connection (option)
via foot pedal up to 120 l/min. /
32 US/gall., proportional - double action

Return pipe (standard)
for hydraulic hammer

Leak oil line (option)

## Powered by John Deere

Power is supplied by the reliable technology of John Deere, the long-standing engine partner with a worldwide service network. The 4-cylinder turbo diesel engine with charge air cooling is set apart by high torque and extremely smooth running.
The directly-injected common rail engine satisfies the requirements for emission tier 3a in accordance with Standard 97/68 (TIER 3). Vibration-free installation through oil filled engine support.

JOHN DEERE

## Cooling with more effiency

The suctioning fan system is generously dimensioned for superior effiency has features cooling reserves. Optimised air flow through three coolers arranged side by side. The cooling elements for water, hydraulic oil and charge air are size-optimised. Energy-saving progressive control of the hydraulic fan motor.
Optional: reversible fan.

# The Powerline.
# When power makes a difference.

The optional Powerline makes the Menzi Muck an even more efficient tool carrier. If attached devices such as mowers, harvesters, milling cutters or drill rigs demand high consumption, the Powerline is recommended to boost performance.

A separate pump supplies the additional connection via a 1-inch line with up to 170 litres per minute. The independent performance-controlled swash-plate axial piston pump governs and continuously supplies the additional connection. The maximum pressure level is 340 bar.

Performance is significantly enhanced by the constant high oil supply to the attached device. The performance setting can be conveniently selected as required from the display in the cab.
There are various Powerline versions to choose from to suit requirements.

## The Powerline versions.

### Powerline Standard 1
Single-acting connection.
Three different litre volumes programmable on the display.

### Powerline Standard 2
Double-acting connection.
Three different litre volumes programmable on the display.

### Powerline Plus 1
Single-acting connection.
Three different litre volumes programmable on the display.
Continuous pressure setting from 80-340 bar via potentiometer.

### Powerline Plus 2
Double-acting connection.
Three different litre volumes programmable on the display.
Continuous pressure setting from 80-340 bar via potentiometer.

# The individual choice. The Menzi Muck to suit your requirements.

## Automatic central lubrication

The correct lubrication of pivot points minimises wear and increases service life. Depending on the model, the Menzi Muck can have more than 60 grease points requiring lubrication at various intervals. Leave this laborious task to the automatic central lubrication system. During operation, the pivot points are optimally and reliably lubricated as they move.

## Biodegradable hydraulic oil

If using biodegradable hydraulic oil, we recommend, based on long-standing good experience, the product PANOLIN HLP SYNTH 46. A guarantee declaration must be obtained from the manufacturer if using different oils.

## Hydraulic bypass filter (optional)

The careful handling and maintenance of the hydraulic oil determine its lifespan and preserve the components. While the machine is operating, five litres of hydraulic oil per minute continuously pass through the auxiliary flow filter over a fine filter.

## A host of other options

We will be happy to advise you on further machine options, such as track equipment, forestry equipment, air-conditioning systems, auxiliary heating, comfort seat, lighting designs, special paint, safety windows, impact protection grilles, travel limiter, check valves on the boom cylinders etc. We will meet your individual requirements wherever possible.

PANOLIN® Swiss High-Quality Oil +

## Country-specific optional equipment:

### Hoist

If loads are lifting using a hook, the law of many countries prescribes the use of appropriate safety equipment. This usually comprises: burst hose safety device on the boom cylinder and activatable and audible overload warning signal

### Soot particle filter

Passive filter system with catalytic converter-coated filters with pre-oxidation catalytic converter. Regeneration from an emission temperature of 210 degrees. Post-treating the emission guarantees 97% soot separation. Data logger and on-road display are supplied as standard. An ash-free engine oil must be used.

### Road equipment

The specified equipment for driving on public roads varies from country to country.
The undercarriage technology.
The concept for a safe stance.

menzi muck

# The operator‘s cab. Comfortable, generous.


## Safety cab

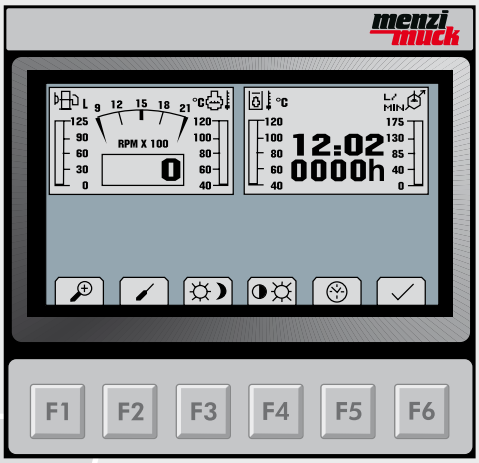
Comfortable and spacious cab with all-round view and suspension seat, low-vibration on rubber mounts, roll prevention, ROPS test according to DIN ISO 3471. Efficient heating with high defrost capacity. Large storage shelves and document compartments.
Cab can be tilted hydraulically.

Optional: air condition, FOPS roof, comfort-seat with seat-heating.

## Controls

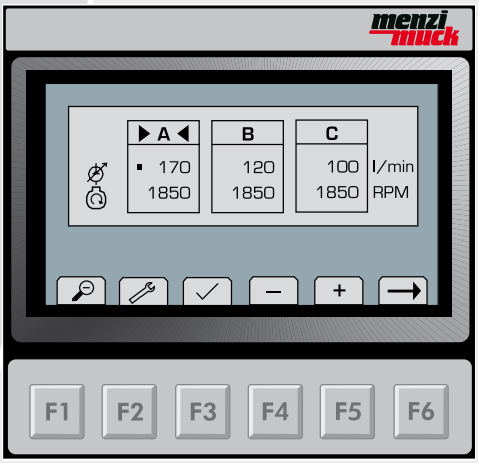
Two ergonomic multi-joysticks, each with max. 25 functions. Logical design for ease of use of chassis and excavator functions. No double functions. Foot pedals for actuation of telescope, drive, hydraulic attachment and winch. Operator's seat, joysticks and foot pedals can be adjusted to suit to the operator.

# The information centre.
# User friendly layout.



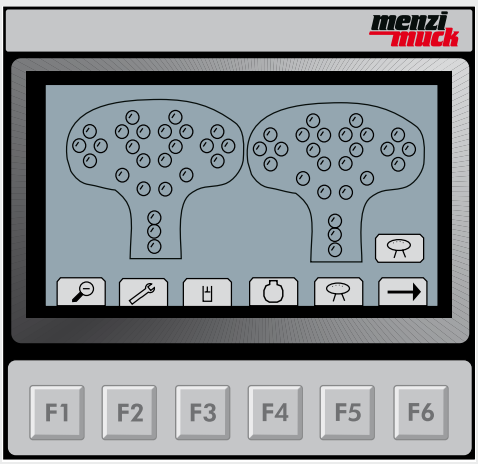

## Menu: Main view

The main screen accommodates all the important operating displays: engine speed, fuel gauge, cooling water and hydraulic oil temperature. Selected litre setting for the "Powerline" option. The key basic information also includes various warning symbols combined with audible signals.
The sub-menu displays the individual operating modes in figures.




## Menu: Powerline

Arbitrary settings can be programmed for three different tools. Litre quantity and engine speed can be configured as required. The specified performance data are automatically activated when the desired tool is selected via the joystick.




## Menu: Diagnostics

All control units are checked and the status displayed when the machine is started-up. The various sub-menus offer the following diagnostic displays: hydraulic control circuit, diesel engine, joystick output signals, solenoid output signals The machine is checked for operability and a fault diagnostic report created where applicable.

# The undercarriage technology. The concept for a safe stance.

## Undercarriage control.

The large number of hydraulic functions in the undercarriage are controlled by the CAN bus system. This guarantees an independent and fast handling of the hydraulic stabilizers. No double functions.

## Water-resistant.

All components arranged in the undercarriage are suitable for continuous operation in water. Use in water is permitted down to a depth of 2 meters.

## Structural master performance.

As market leader and inventor of the mobile multi-purpose excavator technology, great importance was attached to the structural calculations. Long-standing practical experience provided us with the correct design for the structural FEM calculations.

nokian HEAVY TYRES

## Quality forest tyres.

We went for optimised quality in the choice of tyres. The robust NOKIAN traction tyres with very good self-cleaning properties guarantees longevity. Burst protection from steel and a robust rubber compound set these forest tyres apart. Strong rim flange and valve protection also prevent damage from external influences.

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# Menzi Muck A91 and A111.
# The basic information.

## Engine

| | |
|---|---|
| Brand | **John Deere** |
| Type | **4-cylinder Turbo** |
| No. | **4045HF285** |
| Emission tier | **3a (TIER 3)** |
| Output | **104 kW / 140 PS** |
| Displacement | **4‘500 ccm** |
| Maximal rpm | **1‘850 min-1** |
| Maintenance intervals | **500 h** |
| Injection | **Commonrail** |

## Weights

| | |
|---|---|
| A91 Mobil | **> 9‘800 kg**<br>**21‘605 lb** |
| A91 4x4 | **> 10‘500 kg**<br>**23‘149 lb** |
| A91 4x4 plus | **> 11‘000 kg**<br>**24‘250 lb** |
| A91 4x4 sensor | **> 11‘000 kg**<br>**24‘250 lb** |
| A111 | **> 12‘000 kg**<br>**26‘455 lb** |

*Empty weight without tool.*
*Varies depending on optional equipment.*

## Tank fuel capacities

| | |
|---|---|
| Operating tank (diesel) | **130 litres**<br>**35 US./gal.** |
| Reserve tank (diesel) | **200 litres**<br>**53 US./gal.** |
| Hydraulic system capacity | **200 litres**<br>**53 US./gal.** |

## Electric system

| | |
|---|---|
| Voltage | **24 Volt** |
| Batteries | **2 dry batteries** |
| Capacity | **2x 95 Ah** |
| Starter | **7.2 kW** |
| Alternator | **45 Amp** |
| optional | **100 Amp** |
| Electrical output | **1‘080 watt** |
| optional | **2‘400 watt** |

## Swing

| | |
|---|---|
| Swivel speed | **up to 10 rpm** |
| Swivel force | **46‘000 Nm** |

## Forces

| | |
|---|---|
| Breakout force | **73‘600 N** |
| Max. Lifting force @ 3 m | **6‘400 kg**<br>**14‘110 lb** |
| Max. Lifting force @ 5 m | **3‘400 kg**<br>**7‘496 lb** |
| Max. Lifting force @ 7 m | **2‘200 kg**<br>**4‘850 lb** |

*Max. lifting forces with boom and shaft cylinder.*

# The model versions.

## Menzi Muck A91 Mobile.

### Rear steering.

The additional steering of the large wheels (optional) gives the Mobile and 4x4 versions a smaller turning diameter:
A91 mobile: 11‘500 mm / 37‘8“
A91 4x4: 11‘800 mm / 38‘8“
The steering angle of +/- 20° helps the diagonal and transverse movement on inclines.

### The original in its toughest form. For use on extreme hill slopes.

On the „Mobile“ version, two large wheels are hydrostatically driven. The single-phase traction drive reaches a top speed of 8 km/h. The optional fast runner version with two-phase traction drive reaches a top speed of 15 km/h. The two smaller bogie wheels, laterally mounted at the stabilizers, can be dismounted. The stabilizer feet with claws are hydraulic and telescopic.

Weight without accessories
from 9‘800 kg / 21605 lb

Speed - single stage drive
up to 8,0 km/h / 5,0 mph (standard)

Speed - dual stage drive
up to 15,0 km/h / 9,4 mph (option)

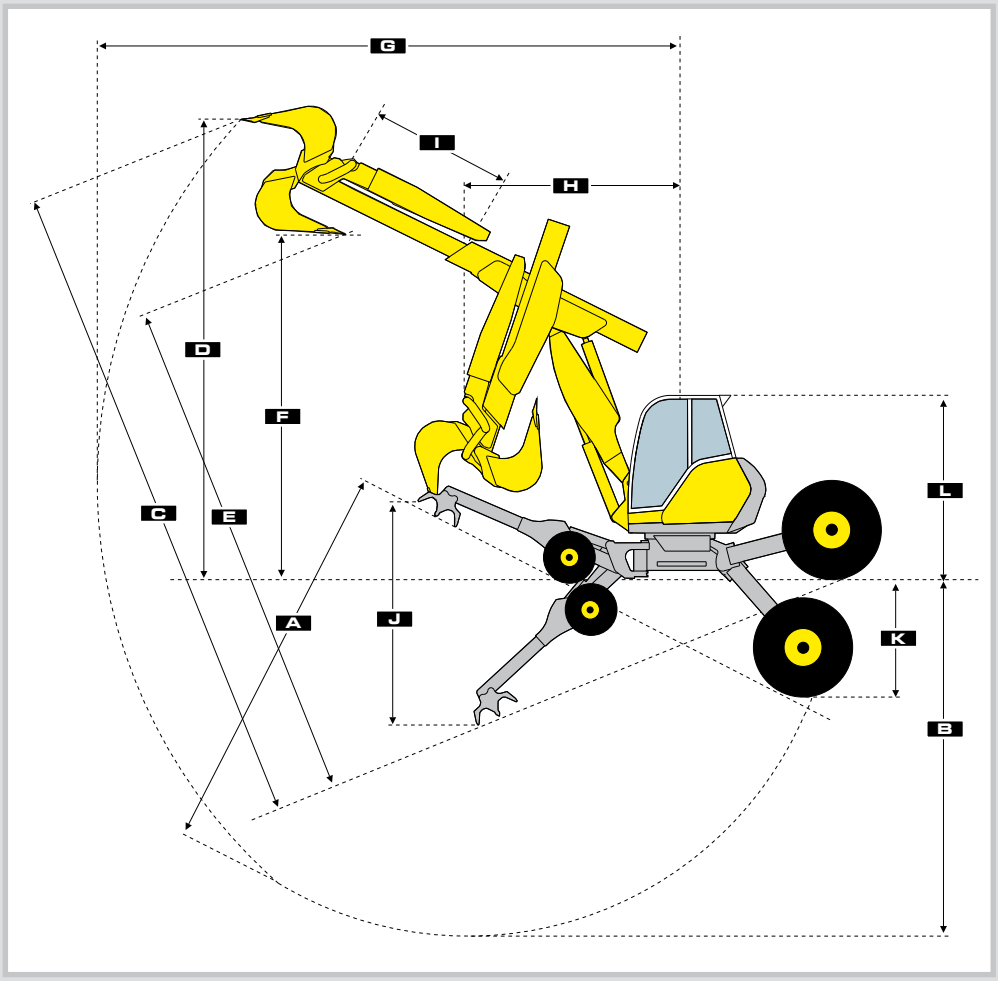
Hub drive (standard) 600/50-22.5, 16 pr
Nokian Forestry tyres with steel insertions
1‘140 x 600 mm / 3‘7“ x 2‘ inch

Hub drive (option) 600/55-26.5, 16 pr
Nokian Forestry tyres with steel insertions
1‘350 x 600 mm / 4‘5“ x 2‘ inch

Hub drive (option) 600/50-R23
Bandenmarkt Flota Grip-Radial
1‘350 x 570 mm / 4‘5“ x 1‘10“

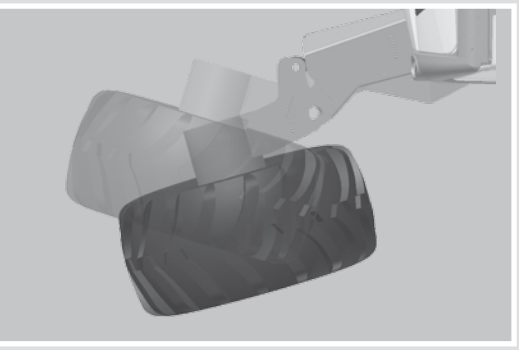
Front drive (standard) 300-15
800 x 300 mm / 2‘7“ x 1‘ inch

Front drive (optional) 400/55-17.5
880 x 400 mm / 2‘11“ x 1‘4“ inch




### A91 Mobile & A91 4x

| | |
|---|---|
| A | Max. Excavation depth with adjusted cha |
| B | Max. Excavation depth chassis horizontal |
| C | Max. Excavation height with adjusted cha |
| D | Max. Excavation height chassis horizonta |
| E | Max. Discharge height with adjusted cha |
| F | Max. Discharge height chassis horizontal |
| G | Max. Jib Range |
| H | Min. Swivelling radius |
| I | Dipper length |
| J | Positioning range stabilizers |
| K | Positioning range hub drive |
| L | Transport height |
| a | Minimum width hub drive, transport widt |
| b | Max. positioning width hub drive |
| c | Max. positioning width stabilizers |
| d | Chassis length |



# Menzi Muck A91 4x4.

Weight without accessories
from 10‘500 kg / 23‘148 lb

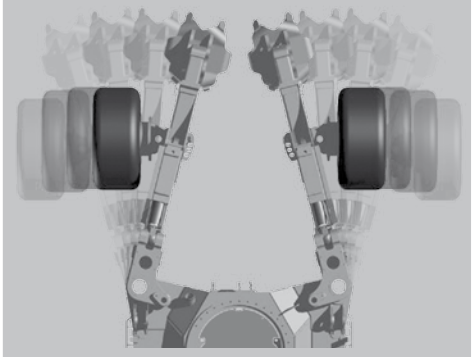
Speed - dual stage drive
up to 10,0 km/h / 6,25 mph

Hub drive 600/55-26.5, 16 pr
Forestry tyres with steel insertions
1‘350 x 600 mm / 4‘5“ x 2‘ inch

Front drive 400/55-17.5, foamed
880 x 400 mm / 2‘11“ x 1‘4“ inch

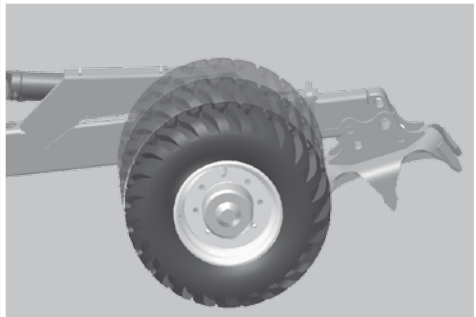
## The concept for extreme applications. With added traction.

The „4x4“ version is all-wheel drive and fitted with two-phase traction drives as standard. Two large and two small wheels laterally mounted at the stabilizers. Maximum drive power in the first traction phase up to 4 km/h, second traction phase up to 10 km/h. Hydraulic telescopic stabilizer feet.



### Variable track.

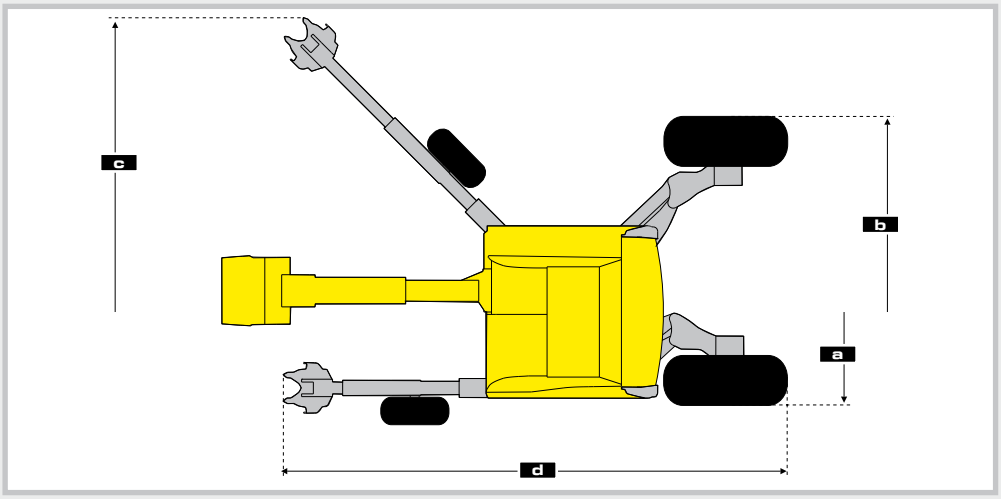
The four-way parallel track adjustment of the small drive wheels from 2‘500 mm (8‘2“) to 3‘800 mm (12‘5“) enables flexible driving positions.



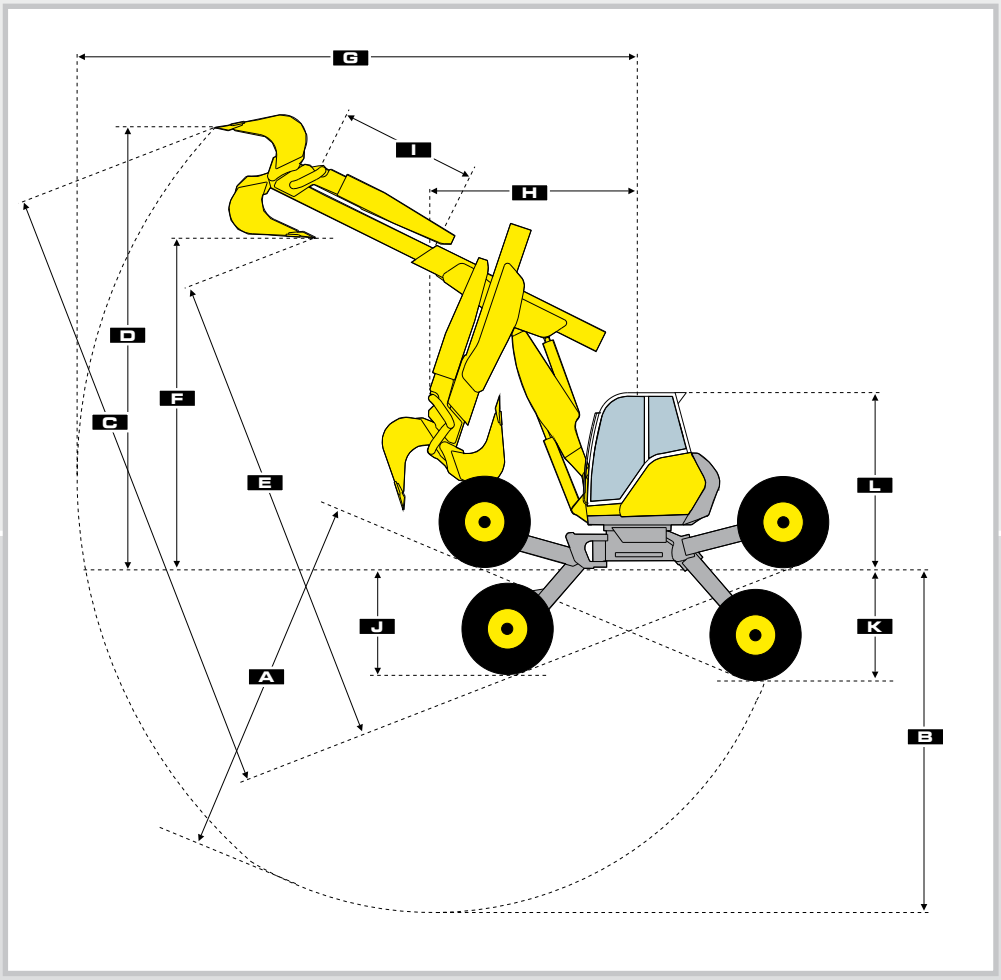
### Hydraulic lifting axle.

The optional lifting axle allows the small drive wheels to be hydraulically raised by 25 cm on extreme inclines. This creates additional ground clearance for the stabilizers.

| 4 | T2 | (T1,8) |
|---|---|---|
| ssis .... mm/inch..... | 6600/21‘8“ | (6210/20‘4“) |
| ..... mm/inch..... | 5430/17‘9“ | (5670/18‘7“) |
| ssis.... mm/inch..... | 9510/31‘2“ | (9650/31‘8“) |
| l ..... mm/inch..... | 6870/22‘6“ | (6910/22‘8“) |
| ssis .... mm/inch..... | 7030/23‘ | (7160/23‘5“) |
| ..... mm/inch..... | 4830/15‘10“ | (4860/15‘11“) |
| ..... mm/inch..... | 8570/28‘1“ | (8790/28‘10“) |
| ..... mm/inch..... | 3000/9‘10“ | (2980/9‘9“) |
| ..... mm/inch..... | 1960/6‘5“ | (1800/5‘10“) |
| ..... mm/inch..... | 3110/10‘2“ | (3110/10‘2“) |
| ..... mm/inch..... | 1650/5‘5“ | (1650/5‘5“) |
| ..... mm/inch..... | 2570/8‘5“ | (2570/8‘5“) |
| h..... mm/inch..... | 2‘190/7‘2“ | 2‘190/7‘2“ |
| ..... mm/inch..... | 4‘490/14‘9“ | 4‘700/14‘9“ |
| ..... mm/inch..... | 6‘590/21‘7“ | 6‘590/21‘7“ |
| ..... mm/inch..... | 5‘660/18‘6“ | 5‘660/18‘6“ |



# Menzi Muck A91 4x4 plus.
# Menzi Muck A91 4x4 sensor.




## H-Drive system. Powerful drive.

The intelligent Menzi H-Drive control with torque overlay optimises efficiency in any operating position. The power is distributed over the four drive wheels in such a way that the highest possible traction is automatically achieved. Drive components with even more traction round out the new Menzi drive concept.

## Road Traction module. Maximum ground preservation.

An additional hydraulic lock can be switched on and off to allow a setting between maximum traction and maximum ground preservation to be selected via the RTM module.

## Drive potentiometer. Speed as required.

All product variants features a potentiometer for the traction drive. The maximal speed can be individually set - the accelerator pedal is released more smoothly.

| | A91 4x4 plus / 4x4 sensor | | T2 | (T1,8) |
|---|---|---|---|---|
| A | Max. Excavation depth (with adjusted chassis) | mm/inch | 5680/18'8" | (5920/19'5") |
| B | Max. Excavation depth (chassis horizontal) | mm/inch | 5420/17'9" | (5670/18'7") |
| C | Max. Excavation height (with adjusted chassis) | mm/inch | 9100/29'1" | (9300/30'6") |
| D | Max. Excavation height (chassis horizontal) | mm/inch | 6620/21'9" | (6760/22'2") |
| E | Max. Discharge height (with adjusted chassis) | mm/inch | 6900/22'7" | (7040/23'1") |
| F | Max. Discharge height (chassis horizontal) | mm/inch | 4830/15'10" | (4860/15'11") |
| G | Max. Jib Range | mm/inch | 8570/28'1" | (8790/28'10") |
| H | Min. Swivelling radius | mm/inch | 3000/9'10" | (2980/9'9") |
| I | Dipper length | mm/inch | 1960/6'5" | (1800/5'10") |
| J | Positioning range front drive P-Matik | mm/inch | 1'450/4'9" | (1'450/4'9") |
| K | Positioning range hub drive | mm/inch | 1'640/5'4" | (1'640/5'4") |
| L | Transport height | mm/inch | 2'570/8'5" | (2'570/8'5") |

Weight without accessories
from 11‘000 kg / 24‘250 lb

Speed - dual stage drive
up to 13 km/h / 8 mph

Forestry tyres with steel insertions
(standard) 600/50-22.5, 16 pr
1‘140 x 600 mm / 3‘8“ x 2‘ inch

Forestry tyres with steel insertions (optional)
600/55-26.5, 16 pr
1‘350 x 600 mm / 4‘5“ x 2‘ inch

Bandenmarkt Flota Grip-Radial
600/50-R23
1‘350 x 570 mm / 4‘5“ x 1‘10“ inch

## Two-phase traction drive. Power or speed.

The hydrostatic all-wheel technology offers two traction phases. A setting between maximum power or increased drive speed can be selected to suit the requirement.

## All-wheel sensor steering. Unbelievable agility.

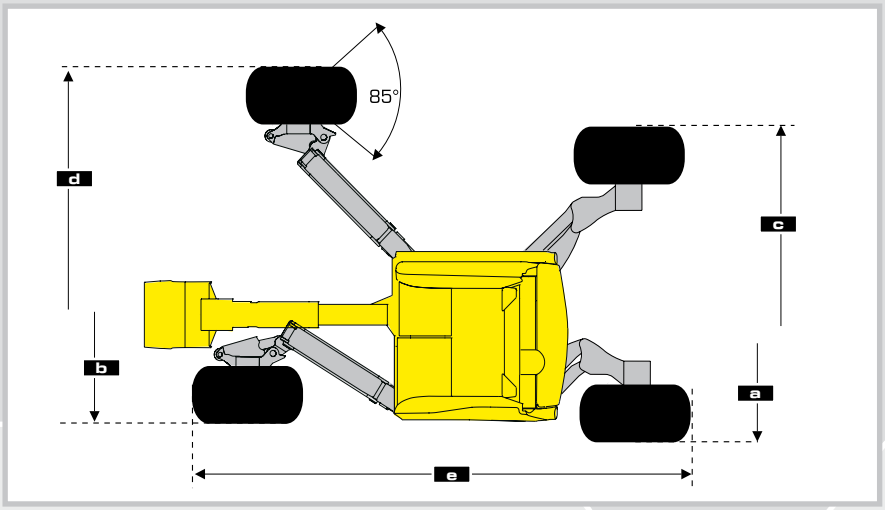
The all-wheel sensor steering achieves a turning circle of less than 10 meters. Eight steering sensors ensure the correct angle is calculated for the four wheels. The wheels are automatically moved to the correct position, which guarantees extended tyre life. There are five different steering designs to choose from:

1) Stub axle steering.
2) Automatic all-wheel steering.
3) Crab steering.
4) Parallel rear steering.
5) Hydraulic steering (without sensors).

## P-Matik stabilizers. More ground clearance.

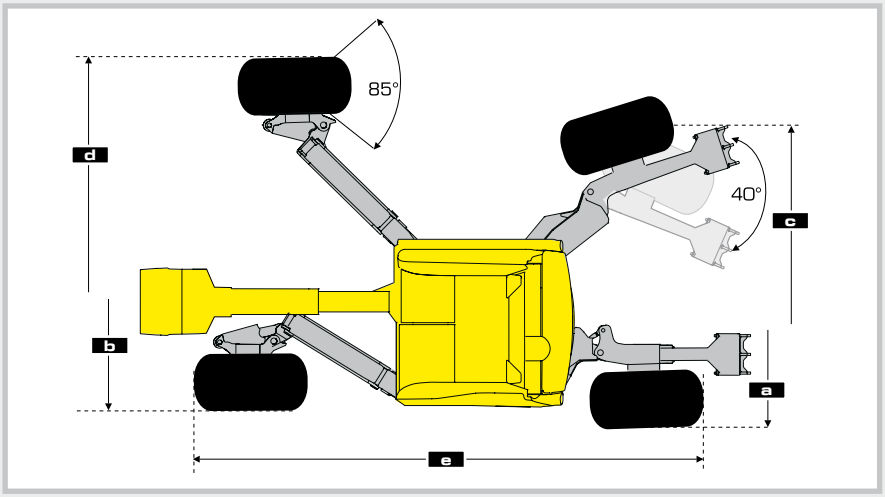
Consistent ground clearance in any position, as well as a permanent pivot point of the stub axle steering guarantees the parallelogram of the Menzi P-Matik stabilizers.

## Menzi Muck A91 4x4 plus




| | | | |
|---|---|---|---|
| a | Minimum width hub drive (transport width) | mm/inch | 2‘400 / 7‘10“ |
| b | Minimum width front drive | mm/inch | 2‘380 / 7‘9“ |
| c | Maximum width hub drive | mm/inch | 4‘725 / 15‘6“ |
| d | Maximum width front drive | mm/inch | 6‘150 / 20‘1“ |
| e | Chassis length | mm/inch | 5‘725 / 18‘9“ |

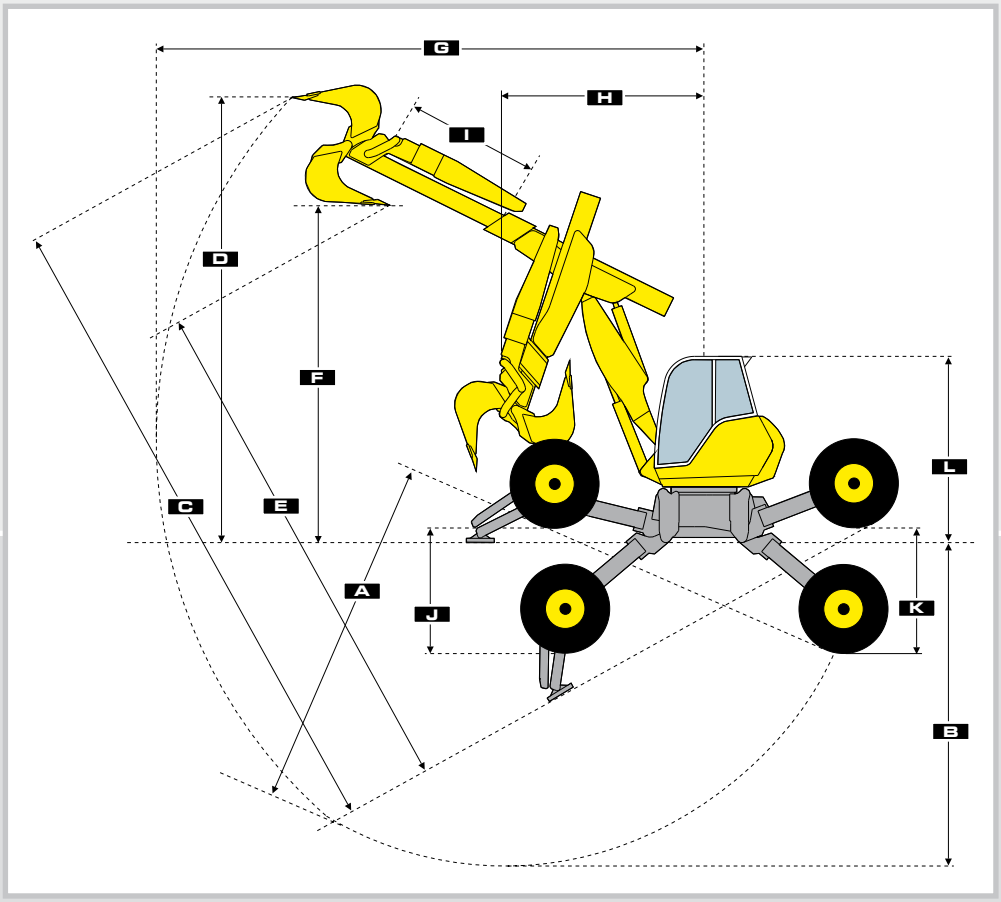
## Menzi Muck A91 4x4 sensor




| | | | |
|---|---|---|---|
| a | Minimum width hub drive (transport width) | mm/inch | 2‘440 / 8‘ |
| b | Minimum width front drive | mm/inch | 2‘380 / 7‘9“ |
| c | Maximum width hub drive | mm/inch | 4‘750 / 15‘7“ |
| d | Maximum width front drive | mm/inch | 6‘150 / 20‘1“ |
| e | Chassis length | mm/inch | 5‘890 / 19‘7“ |

# The Menzi Muck A111.

The Menzi Muck A111 is the heaviest Menzi Muck version.
The robust chassis with low centre of gravity ensures outstanding stability.
It is suitable for carrying heavy attached accessories.




Weight without accessories
from 12'000 kg / 26'455 lb

Speed - dual stage drive
up to 13 km/h / 8,1 mph

Minimum turning diameter
12'000 mm / 39'4"

Forestry tyres with steel insertions (standard)
600/50-22.5, 16 pr
1140 x 600 mm / 3'9" x 2' inch

Forestry tyres with steel insertions (option)
600/55-26.5, 16 pr
1350 x 600 mm / 4'5" x 2' inch

## Menzi Muck A111

| | | T2 | (T1,8) |
|---|---|---|---|
| A | Max. Excavation depth with adjusted chassis | mm/inch | 5'690/18'8" (5'930/19'5") |
| B | Max. Excavation depth chassis horizontal | mm/inch | 5'250/17'3" (5'490/18') |
| C | Max. Excavation height with adjusted chassis | mm/inch | 10'120/33'2" (10'280/33'9") |
| D | Max. Excavation height chassis horizontal | mm/inch | 7'050/23'2" (7'080/23'3") |
| E | Max. Discharge height with adjusted chassis | mm/inch | 8'000/26'3" (8'210/26'11") |
| F | Max. Discharge height chassis horizontal | mm/inch | 5'010/16'5" (5'040/16'6") |
| G | Max. Jib Range | mm/inch | 8'570/28'1" (8'790/28'10") |
| H | Min. Swivelling radius | mm/inch | 2'990/9'10" (2'980/9'9") |
| I | Dipper length | mm/inch | 1'960/6'5" (1'800/5'11") |
| J | Positioning range front drive | mm/inch | 1'860/6'1" (1'860/6'1") |
| K | Positioning range hub drive | mm/inch | 1'860/6'1" (1'860/6'1") |
| L | Transport height | mm/inch | 2'760/9'1" (2'760/9'1") |
| a | Steering angle | degrees | 40 (40) |
| b | Maximum positioning width | mm/inch | 4'800/15'9" (4'800/15'9") |
| c | Minimum width, transport width | mm/inch | 2'450/8' (2'450/8') |
| d | Chassis Length | mm/inch | 5'610/18'5" (5'610/18'5") |

## Articulated steering.

Articulated steering guarantees absolute directional stability of the rear and front axle. The simple chassis operation enables the operator to concentrate on the functions of the upper carriage.

## Gravitational displacement.

For lateral work, additional stability can be gained by displacing the centre of gravity via the articulated steering.

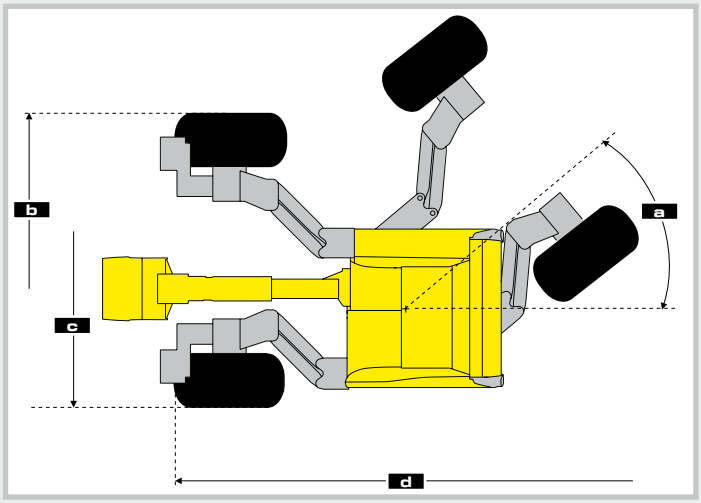
## Mountain stabilizers.

It is possible to equip the machine on one or both sides with two mountain stabilizers per side (optional).

## Preferred applications

The Menzi Muck A111 is extremely popular for forestry work with harvester and also for work with heavy drill mounts.

menzi muck


b
a
c
d

# The attachments.
# A short extraction.

With quality tools, the Menzi Muck sets the perfect scene. We set high quality standards here too. Bucket and gripper come from our proprietary production, while we also rely on the long-standing partnerships with specialist suppliers. The optimised co-ordination between carrier device and tool guarantees the economy of the working machine.

## The bucket.

You have gone for the original Hardox bucket - a quality tool in a tough design. The buckets certified with the „Hardox in my Body" label have a guaranteed long life expectancy. Opening and closing angles are designed specifically for the Menzi Muck.


## The universal grab.

The development of this grab type comes from Menzi Muck. The robust structure is ideally suited to positioning applications, such as moving stones, and also demolition work. Menzi Muck AG produces this type of grab in seven different sizes and also supplies various excavator and accessory dealers.

## The Tiltrotator.

1 device - 4 functions. Endless rotation in both directions, 40 degree lateral swivel to left and right, hydraulic quick-changer and a hydraulic additional function. The rotating and swivel movement allow a new, more rational mode of operation, unexpected corners and angles can now be reached.

## The winch.

A winch for securing the machine has been developed specifically for Menzi Muck. A forest winch is offered for professional reversing.


## The drill mounts.

We are the ideal partner for the most diverse drilling work. From simple blast holes to anchor holes to complex superimposed holes. We collaborate with expert partners to offer integrated, tailored solutions. With all-terrain capability, high hydraulic capacity and outstanding lifting force, the Menzi Muck excels as a carrier machine for ground drills.

## A host of other applications.

For hammers, quick-couplers and other accessories and detailed information can be found in our accessory brochure.

# The standards.
# The options.

The modular system enables standard equipment to be expanded by a number of options geared towards meeting the customer's needs.

| Operator's cab | A91 Mobile | A91 4x4 | A91 4x4 plus | A91 4x4 sensor | A111 |
|---|---|---|---|---|---|
| Vibration-free driver cab ROPS | + | + | + | + | + |
| FOPS roof to cab | o | o | o | o | o |
| Air-sprung driver seat Klepp | + | + | + | + | + |
| Air-sprung comfort seat Grammer | o | o | o | o | o |
| Folding arm rest for hydraulic safety | + | + | + | + | + |
| Adjustable armrests (incline and height) | + | + | + | + | + |
| Ergonomic joystick with hand rest | + | + | + | + | + |
| Lexan safety windows | o | o | o | o | o |
| CD player/radio | + | + | + | + | + |
| State-of the-art LCD function/operator display | + | + | + | + | + |
| Sun visor | + | + | + | + | + |
| Documents/stowage compartment/bottle holder | + | + | + | + | + |
| Shelf/clothes hook | + | + | + | + | + |
| Mobile phone socket | + | + | + | + | + |
| Heater | + | + | + | + | + |
| Air-conditioning unit | o | o | o | o | o |
| Lap strap | + | + | + | + | + |
| „Belt and suspender" three-point safety belt | o | o | o | o | o |
| Auxiliary heater with timer | o | o | o | o | o |

| Stabilizing | A91 Mobile | A91 4x4 | A91 4x4 plus | A91 4x4 sensor | A111 |
|---|---|---|---|---|---|
| Hydraulic telescopic feet | + | + | – | – | – |
| Hydraulic hill stabilizers - 2 x | – | – | o | o | o |
| Hydraulic hill stabilizers - 4 x | – | – | – | – | o |
| Hydraulic lifting axle | – | o | – | – | – |
| P-Matik stabilizers (parallelogram) | – | – | + | + | – |

| Hydraulic system | A91 Mobile | A91 4x4 | A91 4x4 plus | A91 4x4 sensor | A111 |
|---|---|---|---|---|---|
| Mineral hydraulic oil | + | + | + | + | + |
| Biologically biodegradable hydraulic Panolin | o | o | o | o | o |
| Hydraulic connection for winch (chassis) | o | o | o | o | o |
| Double-acting connection on boom, proportional | + | + | + | + | + |
| Double-acting connection on boom, digital | + | + | + | + | + |
| 3rd Double-acting connection on boom 40 l/min. | o | o | o | o | o |
| Double-acting connection for hydr. quick-change | o | o | o | o | o |
| Powerline | o | o | o | o | o |
| Bypass filter | o | o | o | o | o |
| Leak oil line | o | o | o | o | o |
| Return line for hydraulic hammer | + | + | + | + | + |

| Tyres | A91 Mobile | A91 4x4 | A91 4x4 plus | A91 4x4 sensor | A111 |
|---|---|---|---|---|---|
| Steering wheels | | | | | |
| Stacking truck wheels 300-15 | + | – | – | – | – |
| Alliance 400/55-17.5 (foam-filled) | o | + | – | – | – |
| Traction wheels | | | | | |
| Forest tyres Nokian 600/50-22.5 | + | – | + | + | + |
| Forest tyres Nokian 600/55-26.5 | o | + | o | o | o |
| Forest tyres Nokian 710/45-26.5 | – | – | o | o | o |
| other tyres | o | o | o | o | o |

| Traction / Steering | A91 Mobile | A91 4x4 | A91 4x4 plus | A91 4x4 sensor | A111 |
|---|---|---|---|---|---|
| Hydrostatic two-wheel drive | + | – | – | – | – |
| Hydrostatic all-wheel drive | – | + | + | + | + |
| Menzi H-Drive drive system | – | – | + | + | + |
| RTM module (Road Traction Module) | o | + | + | + | + |
| Hydraulic pendulum axis (level-balance) | – | – | + | + | + |
| Automatic all-wheel steering (sensor-controlled) | – | – | – | + | – |
| Crab gear steering | – | – | – | + | – |
| Rear steering | o | o | – | + | – |
| Stub axle steering | – | – | + | + | – |
| Parallel steering via axle adjustment cylinder | + | + | + | + | – |
| Driving potentiometer | + | + | + | + | + |
| Two-phase traction drive | o | + | + | + | + |
| Hydraulic idle running gear | o | – | – | – | – |

| Boom | A91 Mobile | A91 4x4 | A91 4x4 plus | A91 4x4 sensor | A111 |
|---|---|---|---|---|---|
| Equipment for hoist operation | o | o | o | o | o |
| Mechanical protection for boom cylinder | o | o | o | o | o |
| Advertising space on hydraulic pipe on boom | o | o | o | o | o |
| Travel limited boom | o | o | o | o | o |
| Burst hose safety device on boom cylinder | o | o | o | o | o |
| Telescopic 1800 mm (T1.8 instead of T2) | o | o | o | o | o |
| Sensor-controlled travel limited telescopic boom | o | o | o | o | o |
| All hoses are in the driver's field of vision | + | + | + | + | + |

| Lighting | A91 Mobile | A91 4x4 | A91 4x4 plus | A91 4x4 sensor | A111 |
|---|---|---|---|---|---|
| 2 front spotlights | + | + | + | + | + |
| 2 rear spotlights | + | + | + | + | + |
| Protected indicators / reversing light | + | + | + | + | + |
| Spotlight on boom (with impact protection) | o | o | o | o | o |
| Rotating light on roof | o | o | o | o | o |
| LED spotlight | o | o | o | o | o |
| Xenon spotlight | o | o | o | o | o |
| Spotlight crown (roof); alternator 100 Amp | o | o | o | o | o |
| Interior lighting | + | + | + | + | + |

| Other accessories | A91 Mobile | A91 4x4 | A91 4x4 plus | A91 4x4 sensor | A111 |
|---|---|---|---|---|---|
| Forest cab | o | o | o | o | o |
| Holder for motor saw | o | o | o | o | o |
| Impact protection (side cover) | o | o | o | o | o |
| Protection grille for windscreen | o | o | o | o | o |
| Swing limit | o | o | o | o | o |
| Switchable check valves for all boom cylinders | o | o | o | o | o |
| Paintwork in corporate colour | o | o | o | o | o |
| Particle filtre | o | o | o | o | o |
| Anti-slip covers on stabilizers | + | + | + | + | + |
| Manual lubrication block for telescopic inner pipe | o | o | o | o | o |
| Central lubrication of chassis / upper carriage | o | o | o | o | o |
| Country-specific road equipment | o | o | o | o | o |
| Toolbox integrated into engine compartment | + | + | + | + | + |
| Reversible fan motor (hydr. reversible fan) | o | o | o | o | o |

## Legend

Standard + Option o No –

# The Menzi Muck at work.











Please find further informations to special applications in these brochures:

The Menzi Muck 3-Way-Excavator
The Menzi Muck Harvester
Civil Engineering and the Menzi Muck

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