

Preliminary

# MHL 420



95 kW



20,9 - 21,9 t



up to 15 m



**FUCHS**<sup>®</sup>

A TEREX BRAND

## TECHNICAL SPECIFICATIONS

### OPERATING WEIGHT WITHOUT ATTACHMENT

MHL420	20,9 - 21,9 t
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### Diesel engine

	EU Stage V / US Tier 4	EU Stage IIIA / US Tier 3**
<b>Manufacturer and model</b>	Deutz TCD 3.6 L04	Deutz TCD 3.6 L04
<b>Design</b>	4-cylinder in-line engine	4-cylinder in-line engine
<b>Operation</b>	4-stroke diesel, common rail direct injection, turbocharger with charge air cooling, regulated exhaust gas recirculation, diesel particle filter with continuous regeneration and SCR catalytic converter	4-stroke diesel, common rail direct injection, turbocharger with charge air cooling
<b>Engine rating</b>	95 kW	95 kW
<b>Rated speed</b>	1800 rpm	1800 rpm
<b>Displacement</b>	3.6 L	3.6 L
<b>Cooling system</b>	Water and charge air cooling with demand driven, temperature-dependent fan drive and reversible fan	Water and charge air cooling with demand driven, temperature-dependent fan drive and reversible fan
<b>Emission standard</b>	EU Stage V / US Tier 4 / China 4	EU Stage IIIA / US Tier 3*
<b>Fuel tank (Diesel)</b>	275 L	275 L
<b>Urea Tank (AdBlue)</b>	20 L	—

### Electrical system

<b>Alternator</b>	28 V / 100 A	28 V / 100 A
<b>Operating voltage</b>	24 V	
<b>Battery</b>	2 × 12 V / 105 Ah / 750 A (according to EN)	
<b>Lighting system</b>	2 × LED floodlights at the front of the machine, rear parking lights and indicator lights, 2 × LED working lights on cab	

### Travel drive

Hydrostatic travel drive via infinitely variable axial piston motor with directly mounted travel brake valve, two-speed manual gearshift, 4-wheel drive

<b>Traveling speed 1st gear</b>	max. 5 kph
<b>Traveling speed 2nd gear</b>	max. 19 kph
<b>Turning radius (all-wheel steering)</b>	4.5 m

### Slewing drive

<b>Slewing ring</b>	Internally geared, double-row ball turning ring, greasing via automatic lubrication system
<b>Drive</b>	2-stage planetary gear with integrated multi-disc brake
<b>Uppercarriage rotation speed</b>	0–8 rpm
<b>Swivel lock</b>	Electrically activated

\*\*for low-regulated markets

## TECHNICAL SPECIFICATIONS

### Undercarriage

<b>Front axle</b>	Planetary drive axle with integrated, low-maintenance drum brake, rigidly mounted
<b>Rear axle</b>	Oscillating planetary drive axle with integrated, low-maintenance drum brake and selectable oscillating lock
<b>Outrigger</b>	4-point stabilizers, individually operated 2-point stabilizers and support blade, individually operated
<b>Tires</b>	Forestry tires 600/50 - 22.5

### Brakes

<b>Service brake</b>	Hydraulic braking system acting on all four wheel pairs
<b>Parking brake</b>	Electrically operated spring-loaded drum brake at transmission, acting on both front and rear axle

### Hydraulic system

<b>Axial piston variable displacement pump</b>	With load sensing, coupled with a load-independent flow distribution, allows simultaneous independent control of all work functions.
<b>Max. Flow rate</b>	305 lpm
<b>Max. Working pressure</b>	320 / 360 bar
<b>Hydraulic oil tank</b>	272 l
<b>Filtration</b>	Flow-optimized return filter, integrated in the oil tank. Filter fineness defined at a beta value $\beta(10) = 200$ guarantees 99.5% separation of dirt particles with 10 $\mu\text{m}$ . Very good separation values are already achieved with particle sizes of 3 $\mu\text{m}$ . Generously dimensioned for long operating times.
<b>Cooling system</b>	Separated high-performance cooler with demand driven, temperature-dependent fan drive and reversible fa

### Cab

<b>Cab</b>	Infinitely variable hydraulic height-adjustable cabin with sliding door. Reinforced steel structure, soundproofed, heat-insulated panoramic windows for best all-round visibility, front window with roller blind, glass panel in the cabin roof with sliding blind. Heating and air conditioning, separate heat exchangers, fresh and recirculated air filters. Multifunction touch display, bottle holder, paper clip and multiple storage and mounting options. Digital radio (DAB+, USB, Bluetooth and hands-free), USB charging station 5V. Infinitely variable hydraulic height-adjustment with eye level up to 5.3 m above ground
<b>Air-conditioning system</b>	Automatic air-conditioning. Hot water heating with variable temperature control and 8-speed fan, 8 adjustable air nozzles, 3 defroster nozzles
<b>Operator's seat</b>	Air-cushioned comfort seat with swinging armrests / joysticks, safety belt, lumbar support and headrest. Enables fatigue-free work due to universal adjustment options for the seat position, seat inclination and the arrangement of the seat cushion in relation to the armrests and joysticks..
<b>Monitoring</b>	Ergonomically arranged, glare-free multifunction display, multifunction display, automatic monitoring and storage of deviating operating states (including all hydraulic oil filters, hydraulic oil temperature, coolant and charge air temperature, loading of diesel particulate filter, steering), visual and acoustic warning systems. Diagnostic option for the individual sensors via the multifunction display. Rear view and side view camera on the right with separate monitor.

	EU Stage V / US Tier 4	EU Stage IIIA / US Tier 3*
<b>Sound level</b>	Sound power level (outdoor)  $L_{WA}$ 97.7 dB(A) (measured) according to directive 2000/14/EC  $L_{WA}$ 99 dB(A) (guaranteed) according to directive 2000/14/EC  Sound pressure level (inside the cabin) according to ISO 6396 standard  $L_{pA}$ 72 dB(A)	Sound power level (outdoor)  $L_{WA}$ 99.3 dB(A) (measured) according to directive 2000/14/EC  $L_{WA}$ 100 dB(A) (guaranteed) according to directive 2000/14/EC  Sound pressure level (inside the cabin) according to ISO 6396 standard  $L_{pA}$ 69 dB(A)
<b>Vibrations</b>	Weighted r.m.s. value of acceleration of upper limbs is below 2.5 m/s <sup>2</sup> (98 in/s <sup>2</sup> )  Weighted r.m.s. value of acceleration for seat area and feet is below 0.5 m/s <sup>2</sup> (20 in/s <sup>2</sup> )	
<b>Certification in accordance with CE guidelines</b>		
<b>Voluntary DGUV type examination</b>		

## EQUIPMENT

	Standard	Option
<b>Diesel engine</b>		
Direct electronic fuel injection / common rail	●	
ECO and Power Mode	●	
Water and charge air cooler	●	
DEF injection, passive regeneration	●	
Advanced automatic idling with engine shutdown function	●	
Engine diagnostic interface	●	
Temperature-controlled fan drive	●	
Engine preheating		●
<b>Undercarriage</b>		
All-wheel drive	●	
All-wheel steering	●	
Low maintenance drum brakes	●	
Rear axle oscillating lock	●	
2-speed powershift transmission		●
2-speed manual transmission	●	
4-point stabilizers	●	
Dozer blade in addition to the 4-point stabilizers		●
2-point stabilizers and support blade		●
Stabilizer cylinders with integrated two-way check valves	●	
Piston rod protection on stabilizer cylinders	●	
Protection guard for drivetrain		●
Tool box	●	
Special paint (customer paint work)		●
Forestry tires 600/50 - 22.5	●	
<b>Uppercarriage</b>		
Separated high-performance cooling system for engine, hydraulics and air-conditioning system	●	
Adjustable reversing fan	●	
Automatic central lubrication system	●	
Rear view camera	●	
2 x side cameras on the right	●	
Service platform	●	
2 rotating beacons on the counterweight		●
Electric refuelling pump		●
Light protection		●
<b>Cab</b>		
Vertically adjustable cabin	●	
Tilttable cab up to 30°		●
Single-pane safety glass (ESG)	●	
Polycarbonate safety screens (front & roof)		●
Sliding window in cab door	●	

## EQUIPMENT

	Standard	Option
<b>Cab</b>		
Cabin with penetration resistant glass front and top (classification P5A)		●
Cabin with bullet-proof glass (classification P8B)		●
Windshield washer system(front windshield)	●	
Washing device for roof window		●
Enlarged roof window	●	
Air-cushioned operator seat with headrest, seatbelt and lumbar support	●	
Seat heating		●
Joystick steering		●
Steering column, height and tilt adjustable	●	
Automatic air conditioning	●	
Auxiliary heating		●
Multifunction display	●	
Bottle holder with cooler	●	
Document net	●	
Protective front and roof guard		●
Voltage converter 12 V		●
Digital radio (DAB+, USB, Bluetooth and hands-free)	●	
12V socket / cigarette lighter		●
Fire extinguisher, dry powder		●
Travel alarm w/ rotating beacons		●
<b>Other equipment</b>		
Close proximity range limiter for dipperstick	●	
Coolant and hydraulic oil level monitoring system	●	
Filter system for attachments		●
Pressure switch 250 bar / 320 bar for attachments	●	
Rupture valves for lifting cylinders		●
Active cyclone prefilter		●
Preheating of hydraulic oil		●
Lubrication of the grab suspension by central lubrication system		●
Basic LED light packages		●
Power LED light packages		●
Basic LED working lights cabin roof front	●	
Basic LED head lights at the front of the machine	●	
Boom cylinder damping system (piston accumulator)		●
Lift cylinder protection		●
Paint color according to customer's request		●
Road permission		●
Fuchs Connect telematics system, including 5-year license	●	

## CAB

- Fuchs comfort cab
- Tilttable cab up to 30°\*
- Large panoramic roof for optimal overhead visibility
- Polycarbonate safety screens \*
- Wiper arms and motors out of the field of view
- Automatic climate control

## ATTACHMENTS & LOADING EQUIPMENT

- Telescopic stick with a maximum reach up to 15 m
- Robust loading equipment designed for heavy-duty applications in the timber industry and tree care applications
- Hydraulic preparation for various forestry attachments

## UNDERCARRIAGE

- Specially developed for heavy-duty forestry and tree care applications
- Individually controllable extended outrigger, enlarged support plates
- Powerful travel drive
- Forestry tires

### Various undercarriage variants:

- 4-point stabilizers
- 2-point stabilizers & parallel guided support plate\*

## FUCHS SERVICE PLATFORM

- Unique on the market
- Easily accessible, spacious service platform
- Convenient access to engine compartment, main control block, central lubrication system, air filter, tanks, and much more.
- Maintenance work can be completed quickly, safely and comfortably

## DRIVE

### Diesel engine

- Low emissions thanks to state-of-the-art EU Stage 5 exhaust gas cleaning system
- ROW solutions
- Best in class fuel consumption
- Exhaust system incl. DPFs are optimally protected against mechanical damage

## UPPERCARRIAGE

- High-performance cooling systems, with physically separated coolers for water, charge air, hydraulic oil and air conditioning
- Thermostatically controlled cooler
- Highly efficient mobile hydraulics
- Rear view and side camera
- 2 x side cameras on the right



# GREAT FEATURES COME STANDARD WITH YOUR FUCHS



COMFORTABLE AND SPACIOUS CAB



COMFORTABLE ACCESS

FORESTRY TYRES

ENLARGED SKYLIGHT



EXTENDED OUTRIGGERS



ALL-WHEEL STEERING



FUCHS SERVICE PLATFORM



2 X SIDE CAMERAS ON THE RIGHT



ENLARGED SUPPORT PLATES



# SPECIAL OPTIONS – FOR TREE CARE APPLICATIONS



PROTECTION GUARD EAT SYSTEM



PROTECTION GUARD LIFT FRAME



PROTECTION GUARD AIR FILTER



PROTECTION GUARD LUBRICATING BOX



FRAME FOR ATTACHMENT TOOL



PARALLEL GUIDED SUPPORT PLATE

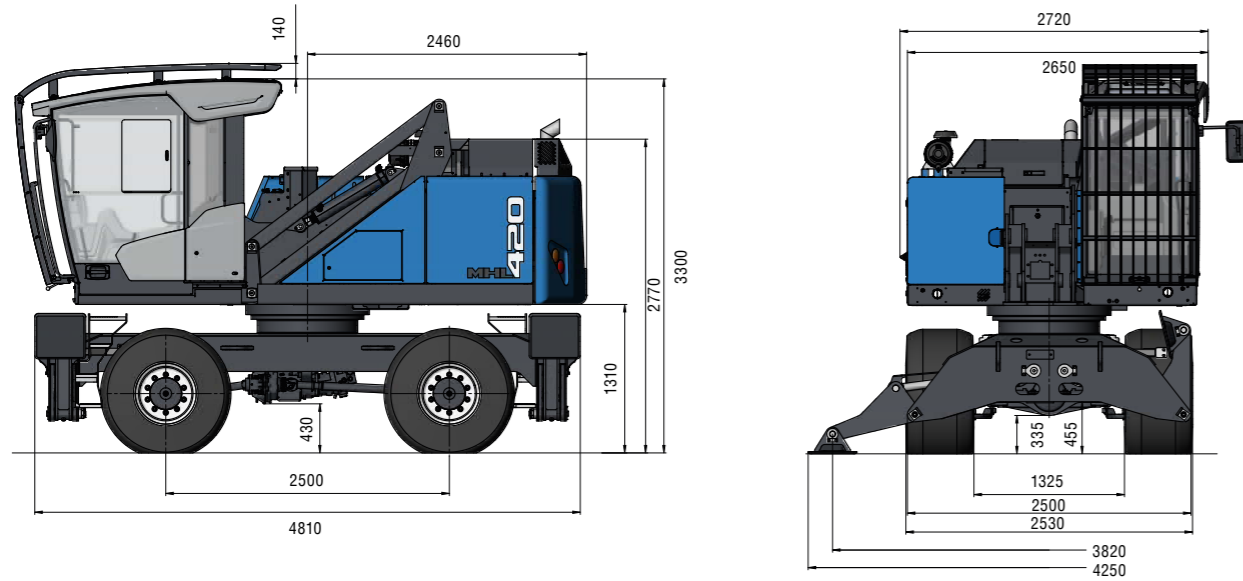


### TECHNICAL DIMENSIONS

#### 4-point stabilizers

**Side view**

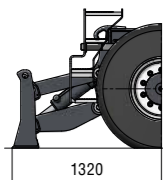
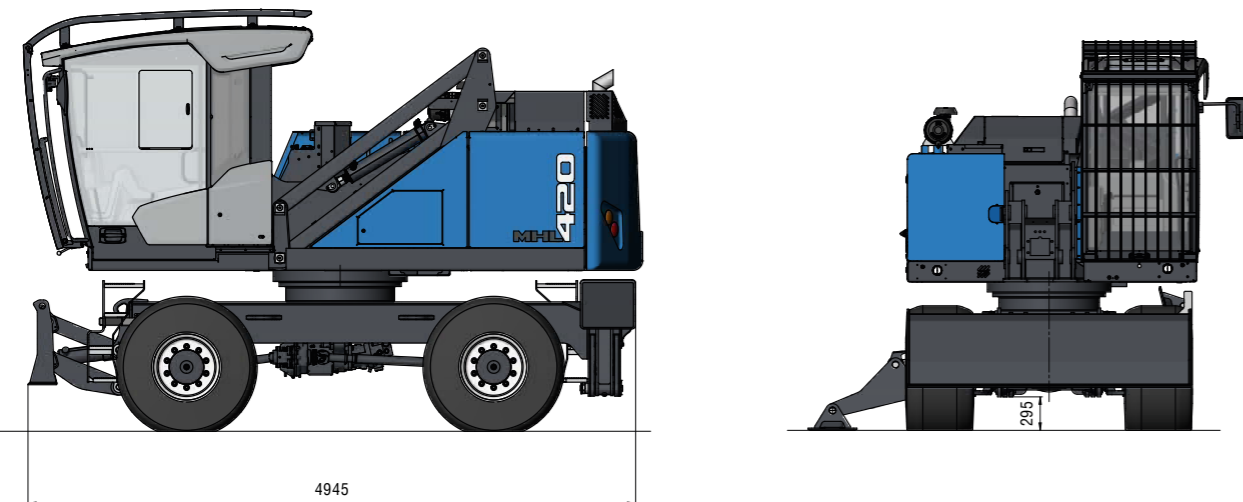
all dimensions in mm



#### 2-point stabilizers and support plate

**Side view**

all dimensions in mm



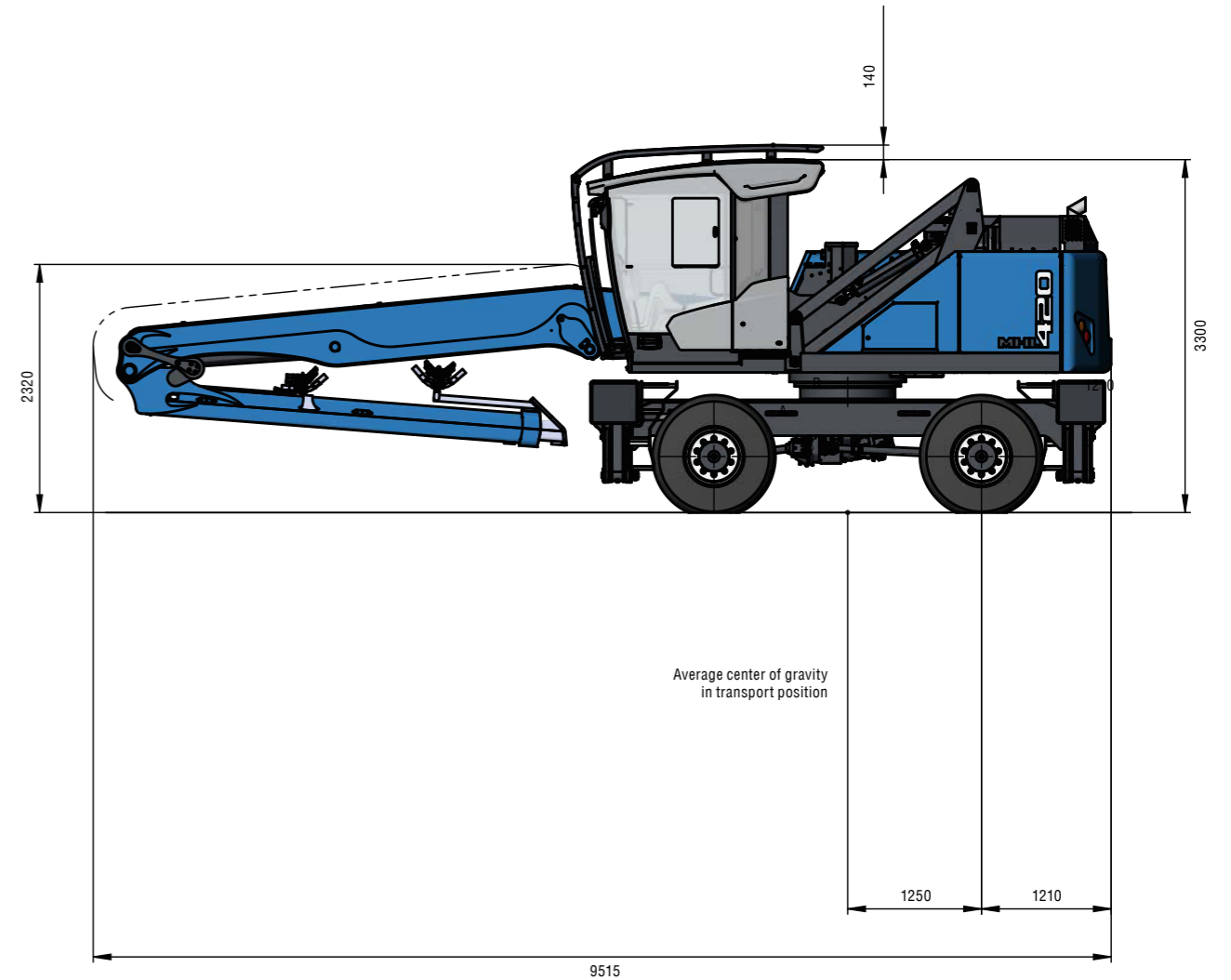
Support blade in addition to 2-point stabilizers

1320

### TRANSPORT DIMENSIONS

**Side view**

all dimensions in mm

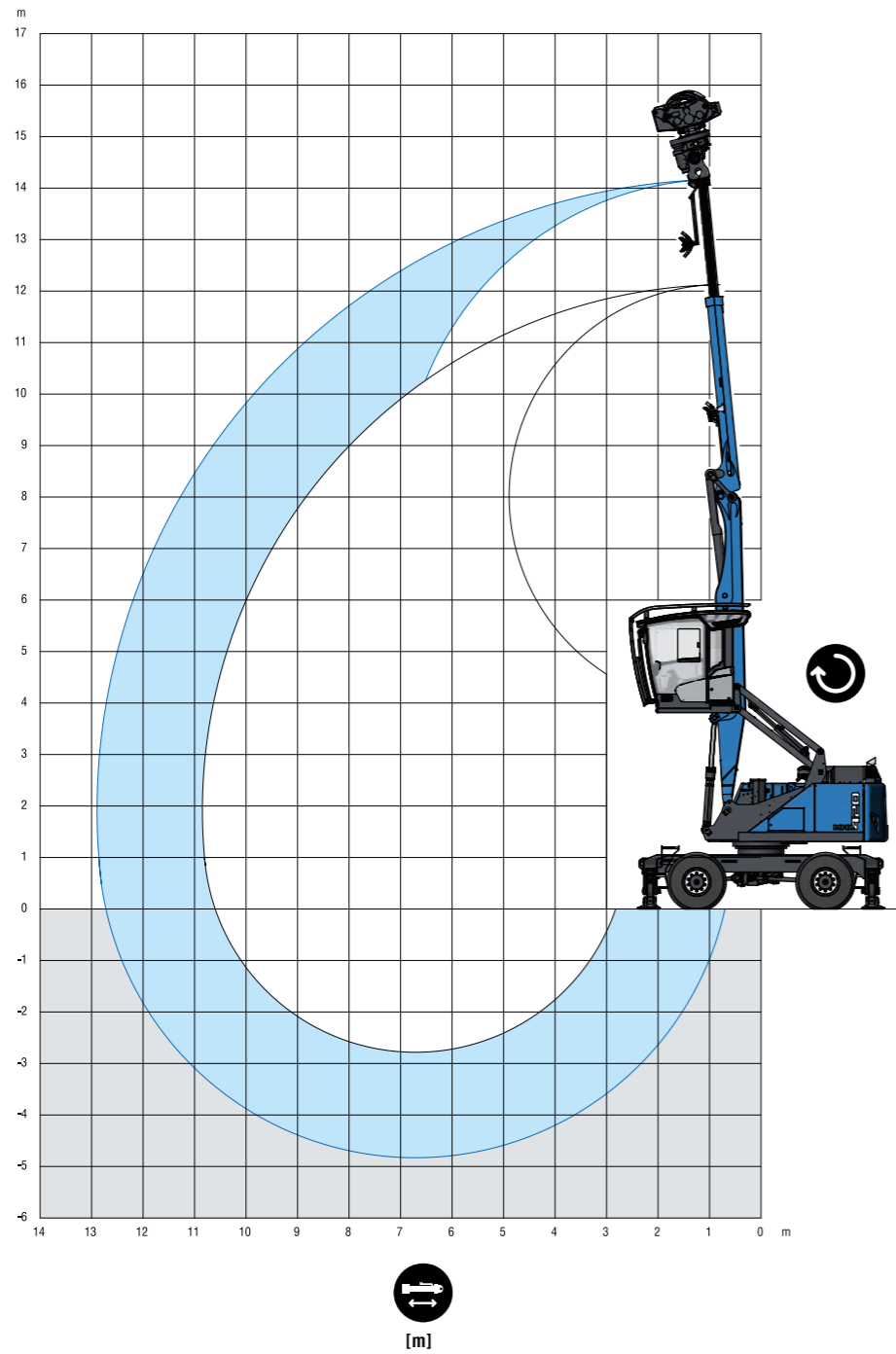




## REACH

up to 15 m with telescopic stick

Boom: 6.1 m · Telescopic stick: 4.2 / 6.2 m · Grapple saw



## LIFTING CAPACITY

Loading equipment: boom 6.1 m, telescopic stick 4.2/6.2 m

height m	Undercarriage Outrigger	Reach in m						
		4.5 m	6 m	7.5 m	9 m	10.5 m	12 m	
13.5		5,9° 5,9°						
12			3,3° 3,3°	3,7° 3,7°				
10.5				2,8° 2,8°	2,9° 2,9°			
9				2,8° 2,8°	2,6° 2,6°	2,6° 2,6°		
7.5				2,9° 2,9°	2,7° 2,7°	2,5° 2,5°		
6				3,2° 3,2°	2,9° 2,9°	2,6° 2,6°	2,3° 2,3°	
4.5			3,6° 3,6°	3,6° 3,6°	3,3° 3,3°	2,8° 2,8°	2,4° 2,3	
3		4,4° 4,4°	4,8° 4,8°	4,5° 4,5°	3,9° 3,6	3,2° 2,9	2,5° 2,3	
1.5		8,7° 8,7°	6,3° 6,3°	4,9° 4,6	4,0° 3,5	3,3° 2,8	2,6° 2,3	
0		9,2° 9,2°	6,5° 6,1	5,0° 4,4	3,9° 3,4	3,1° 2,7	2,3° 2,3°	
-1.5		7,1° 7,1°	6,2° 5,8	4,7° 4,3	3,6° 3,3	2,7° 2,7	1,6° 1,6°	
-3		5,8° 5,8°	5,3° 5,3°	4,0° 4,0°	3,0° 3,0°	2,0° 2,0°		
-4.5			3,8° 3,8°	2,9° 2,9°				
							max. reach 12.8 m	
1.5							2,0° 2,0°	

### Recommended attachments on request

- Height
- Reach
- Center of rotation
- 4-point supported
- 2-point supported with blade

The carrying capacity values are stated in metric tons (to) and are valid on the end of the extended telescope stage without attachment. The figures represent 75% of the static tipping load or 87% of the hydraulic lifting force, in accordance with ISO 10567 (marked °). On firm, level ground the values apply to a swing range of 360°. The weights of the attached hoisting equipment (grab, load hook, etc.) must be deducted from the carrying capacity values. The safe working load of the hoisting equipment must be observed. In accordance with EU Standard EN 474-5, hose rupture safety devices on the lift and dipperstick cylinders, an overload warning device, and a table of carrying capacity in the cab are required for hoisting. Hoisting should only be performed when the machine's outriggers are up.





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