

Preliminary

MHL 420



95/97 kW



19.3–22.2 t



max. 12.8 m



FUCHS®


A TEREX BRAND

TECHNICAL SPECIFICATIONS

OPERATING WEIGHT WITHOUT ATTACHMENT			
MHL420	19.3–22.2 t		
Diesel engine			
	EU Stage V / US Tier 4	EU Stage IIIA / US Tier 3**	EU Stage V / US Tier 4
Manufacturer and model	Deutz TCD 3.6 L04	Deutz TCD 3.6 L04	Cummins F3.8
Design	4-cylinder in-line engine	4-cylinder in-line engine	4-cylinder in-line engine
Operation	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	4-stroke diesel, common rail direct injection, turbocharger with charge air cooling, diesel particle filter with continuous regeneration and SCR catalytic converter
Engine rating	95 kW	95 kW	97 kW
Rated speed	1800 rpm	1800 rpm	1800 rpm
Displacement	3.6 L	3.6 L	3.8 L
Cooling system	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	Water and charge air cooling with demand driven, temperature-dependent fan drive and reversible fan
Emission standard	EU Stage V / US Tier 4 / China 4	EU Stage IIIA / US Tier 3*	EU Stage V / US Tier 4
Fuel tank (Diesel)	275 L	275 L	275 L
Urea Tank (AdBlue)	20 L	□	37.9 L
Electrical system			
Alternator	28 V / 100 A	28 V / 100 A	28V / 90A
Operating voltage	24 V		
Battery	2 × 12 V / 105 Ah / 750 A (according to EN)		
Lighting system	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			
Traveling speed 1st gear	max. 5 kph		
Traveling speed 2nd gear	max. 19 kph		
Turning radius (all-wheel steering)	4.5 m		
Slewing drive			
Slewing ring	Internally geared, double-row ball turning ring, greasing via automatic lubrication system		
Drive	2-stage planetary gear with integrated multi-disc brake		
Uppercarriage rotation speed	0–8 rpm		
Swivel lock	Electrically activated		

**for low-regulated markets

TECHNICAL SPECIFICATIONS

Undercarriage			
Front axle	Planetary drive axle with integrated, low-maintenance drum brake, rigidly mounted		
Rear axle	Oscillating planetary drive axle with integrated, low-maintenance drum brake and selectable oscillating lock		
Outrigger	4-point stabilizers, individually operated 2-point stabilizers and support blade, individually operated		
Tires	Forestry tires 600/50 - 22.5		
Brakes			
Service brake	Hydraulic braking system acting on all four wheel pairs		
Parking brake	Electrically operated spring-loaded drum brake at transmission, acting on both front and rear axle		
Hydraulic system			
Axial piston variable displacement pump	With load sensing, coupled with a load-independent flow distribution, allows simultaneous independent control of all work functions.		
Max. Flow rate	305 lpm		
Max. Working pressure	320 / 360 bar		
Hydraulic oil tank	272 l		
Filtration	Flow-optimized return filter, integrated in the oil tank. Filter fineness defined at a beta value β(10) = 200 guarantees 99.5% separation of dirt particles with 10 µm. Very good separation values are already achieved with particle sizes of 3 µm. Generously dimensioned for long operating times.		
Cooling system	Separated high-performance cooler with demand driven, temperature-dependent fan drive and reversible fa		
Cab			
Cab	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		
Air-conditioning system	Automatic air-conditioning. Hot water heating with variable temperature control and 8-speed fan, 8 adjustable air nozzles, 3 defroster nozzles		
Operator's seat	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..		
Monitoring	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.		
Sound level	EU Stage V / US Tier 4	EU Stage IIIA / US Tier 3*	EU Stage V / US Tier 4
	Sound power level (outdoor)	Sound power level (outdoor)	Sound power level (outdoor)
	LWA 97.7 dB(A) (measured) according to directive 2000/14/EC	LWA 99.3 dB(A) (measured) according to directive 2000/14/EC	
	LWA 99 dB(A) (guaranteed) according to directive 2000/14/EC	LWA 100 dB(A) (guaranteed) according to directive 2000/14/EC	
	Sound pressure level (inside the cabin) according to ISO 6396 standard	Sound pressure level (inside the cabin) according to ISO 6396 standard	
LpA 72 dB(A)	LpA 69 dB(A)		
Vibrations	Weighted r.m.s. value of acceleration of upper limbs is below 2.5 m/s² (98 in/s²) Weighted r.m.s. value of acceleration for seat area and feet is below 0.5 m/s² (20 in/s²)		
Certification in accordance with CE guidelines			
Voluntary DGUV type examination			

EQUIPMENT

Diesel engine	Standard	Option
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		●
Undercarriage		
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	●	
Uppercarriage		
Separated high-performance cooling system for engine, hydraulics and air-conditioning system	●	
Adjustable reversing fan	●	
Automatic central lubrication system	●	
Rear view camera	●	
Side view camera	●	
Service platform	●	
2 x rotating beacon on counterweight		●
Electric refuelling pump		●
Light protection		●
Cab		
Vertically adjustable cabin	●	
Tilttable cab up to 30°		●
Single-pane safety glass (ESG)	●	
Polycarbonate safety screens (front & roof)		●
Sliding window in cab door	●	

EQUIPMENT

Cab	Standard	Option
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 beacon		●
Other equipment		
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)		●
Paint color according to customer's request		●
Road permission		●
Fuchs Connect telematics system, including 5-year license	●	

ATTACHMENTS & LOADING EQUIPMENT

- Telescopic stick with a maximum reach of 12.8 m
- Robust loading equipment designed for heavy-duty applications in the timber industry and tree care applications
- Hydraulic preparation for various forestry attachments

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

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*

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

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

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



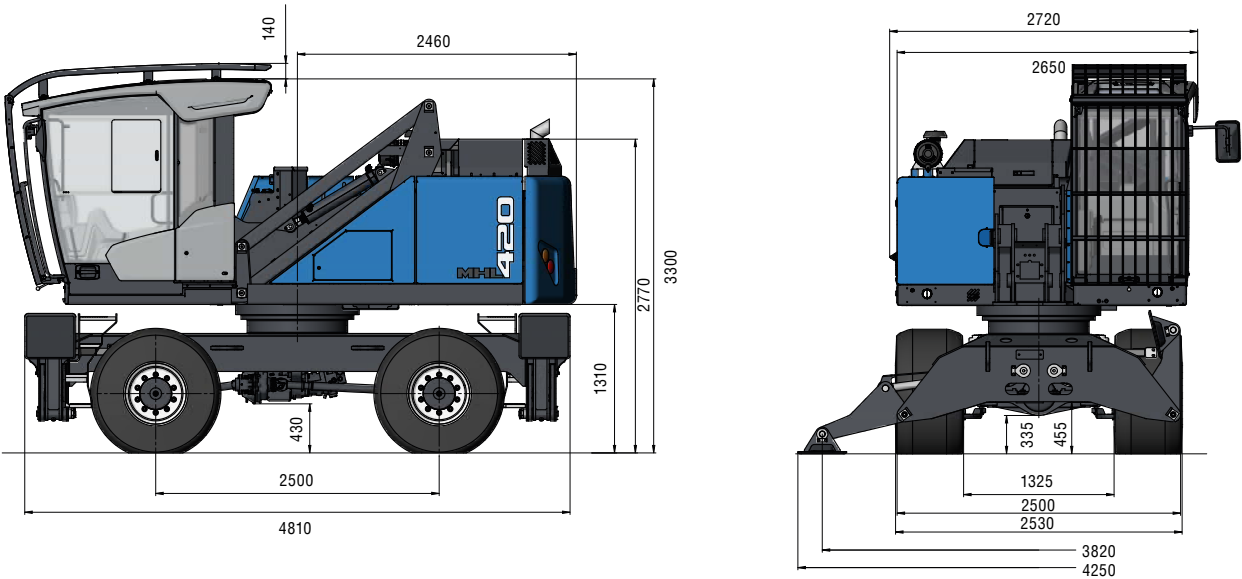


TECHNICAL DIMENSIONS

4-point stabilizers

Side view

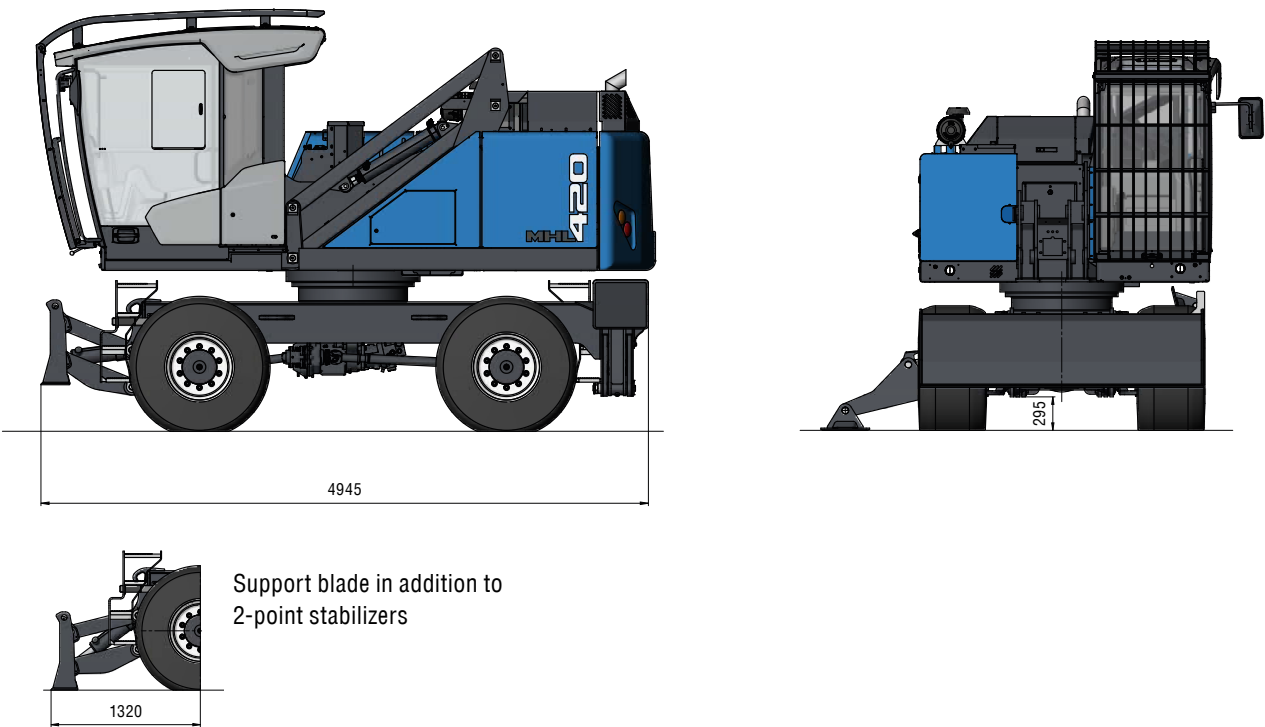
all dimensions in mm



2-point stabilizers and support plate

Side view

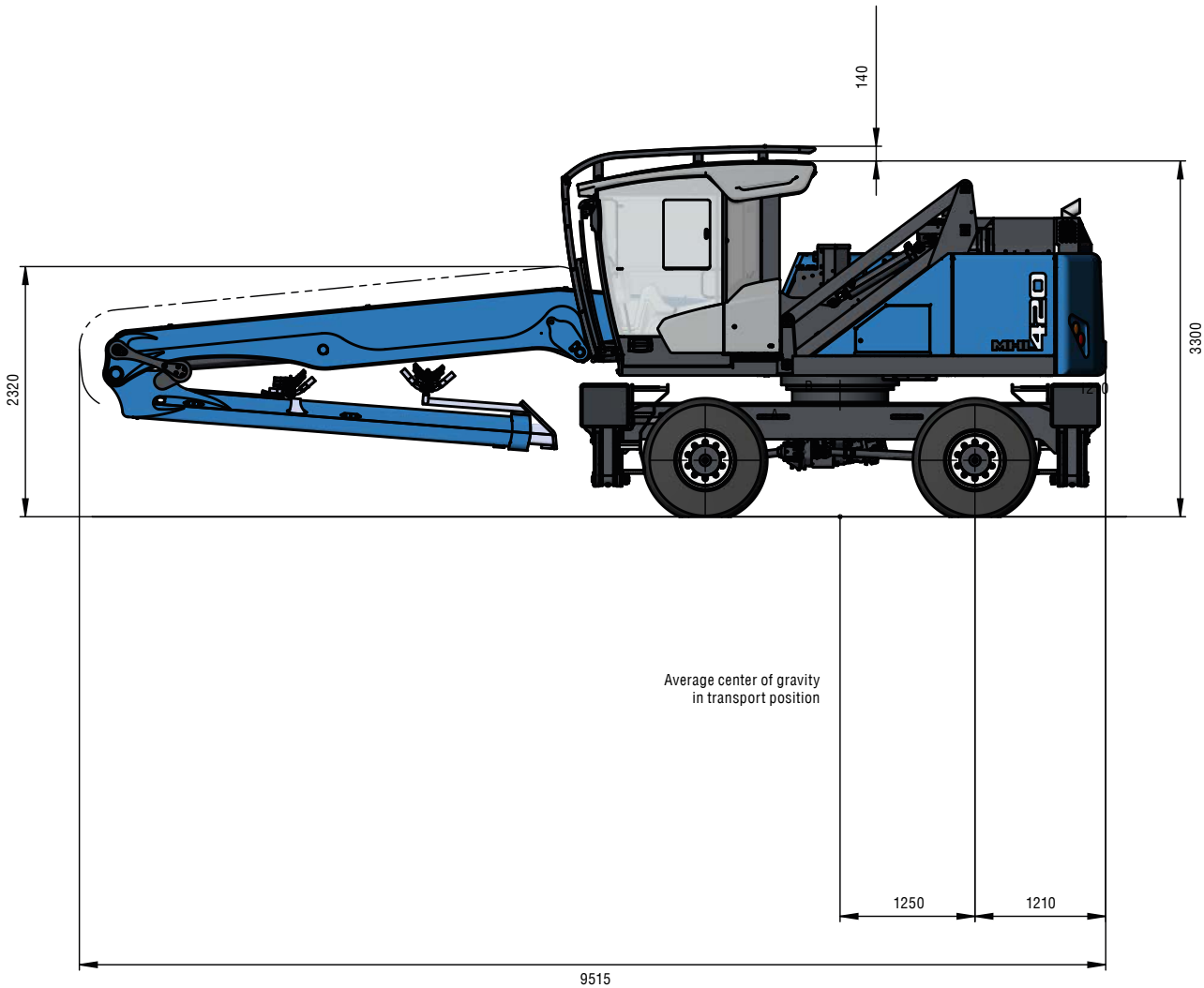
all dimensions in mm



TRANSPORT DIMENSIONS

Side view

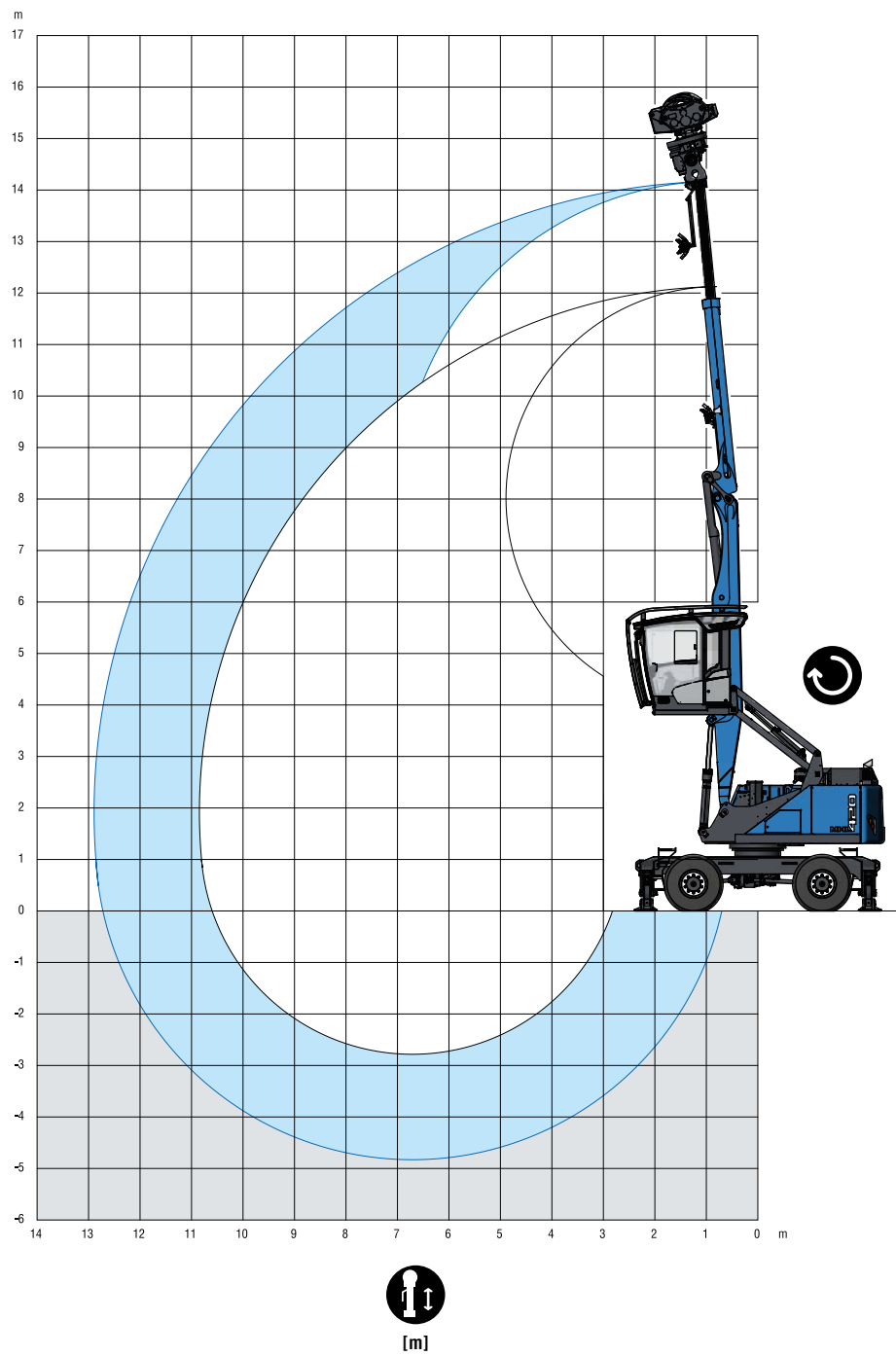
all dimensions in mm



REACH

12.8 m with telescopic stick

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



LIFTING CAPACITY

		4.5 m	6 m	7.5 m	9 m	10.5 m	12 m
13.5	⚙️	3.7°					
12	⚙️		3.4°	2.3°			
10.5	⚙️	5.3°	4.0°	3.1°	2.3°		
9	⚙️		4.8°	3.8°	2.9°	1.7°	
7.5	⚙️		5.0°	4.3°	3.1°	2.6°	
6	⚙️	4.5°	5.2°	4.3°	3.6°	2.9°	1.7°
4.5	⚙️	5.0°	5.5°	4.4°	3.5°	2.9°	2.3°
3	⚙️	8.1°	5.8°	4.4°	3.5°	2.9°	2.3°
1.5	⚙️	5.5°	5.8°	4.4°	3.6°	2.9°	2.2°
0	⚙️	8.3°	5.8°	4.4°	3.5°	2.7°	1.9°
-1.5	⚙️	5.0°	5.5°	4.1°	3.2°	2.3°	1.3°
-3	⚙️	4.9°	4.7°	3.5°	2.6°	1.7°	
-4.5	⚙️		3.3°	2.4°			
Max. reach 12.8 m							
1.5	⚙️						1.4°

Recommended attachments on request

- ⚙️ Height
- ⬆️⬆️ Reach
- 🔄 Center of rotation
- ⚙️ 4-point supported

The carrying capacity values are stated in metric tons (to). 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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