TECHNICAL DATA

MATERIAL HANDLER | F-SERIES

MHL390

300 kW

76.2–87.0 t

up to **24.5** m

FUCHS
A TEREX BRAND

RAISE YOUR DEMANDS. AND YOUR CABIN.

Making light work of heavy duty.

Coal, grain, logs, scrap, big bags …
material handling in port application is versatile.
Versatility is at the core of the MHL390 F.
Whether it is a diesel or electric motor, a tracked or mobile undercarriage or a pylon, the MHL390 F can be modified to meet your specific requirements.
Even the standard equipment of our MHL390 F delivers a compelling package for industrial material handling. With the powerful and fuel efficient 300 kW diesel engine, 22 m reach (max. 24.5 m), two slew drives and the unique Fuchs service platform, we have prepared the MHL390 F for the most challenging business.
Your business.

Cab Riser “Port”: Designed for Excellent Visibility

Ability to elevate from ground level up to an **eye-level of 8.7 metres** (optional) and is fitted with large panoramic windows providing excellent visibility.

CHOOSE PROGRESS.

Choose Fuchs – for efficient material handling.

Loading Equipment
- Special kinematics for material handling
- Improved design
- Excellent durabilty

Hose Rupture Safety Valves with Regeneration Function
- Standard safety feature for boom and stick cylinder
- Improved efficiency
- Responsive boom and stick response

Hydraulic Installation
- Metal pipes for outstanding durabilty
- Side piping for extra protection
- Large diameter for extra oilflow

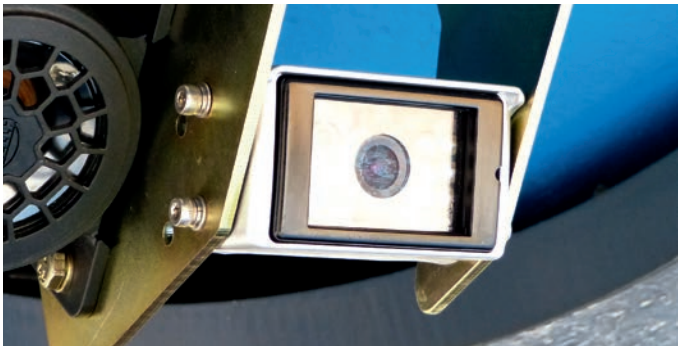
Double Pivot Bearings
- Optimized application of force
- Excellent durability


AC Condenser
• Seperated from the cooling system
• Dust protected
• Individual fans for power on demand
Modular Cab Riser System
• Achieve the viewing height you need (max. 8,690 mm)
• Perfect view in barges, hoppers, etc.
New Power Plant
• 300 kW
• A leader in fuel economy
Fuchs Service Platform
• Provides safe and comfortable access to engine, air filter, etc.
• Easy access for daily check-ups and maintenance
High Performance Cooling System
• Direct airflow with induvidual fans
• Optimum working temperature
• Improved efficiency and longevity
Cab Access System
• Large platform making easy and comfortable access
Huge Stabilizer Pads
• Less ground pressure
• Improved stability

EQUIPMENT AND OPTIONS.

The latest technology, tailor made for you

Joystick Steering*
- Improved visibility
- Increased legroom and comfort

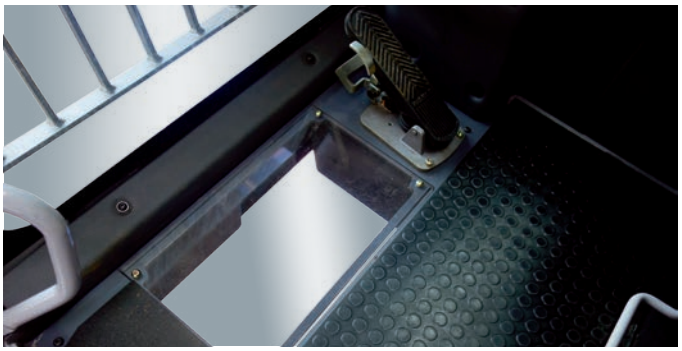


Rear and Side View Cameras
- Nightvision as an extra safety feature
- 360° surround view system on demand

Cab Riser “Port”*
- Easy access at ground level
- Superior overview

Float Switch*
- Lifts the boom automatically if too much pressure is applied
- Protects sensitive surfaces like the floor of barges

Tracked Undercarriage*
- Even more stability
- Less ground pressure
- Flat shoes or triple grousers



Cab Floor Viewing Panel*
- Improved visibility
- Perfect for (un)loading barges, feeding of hoppers, etc.

* special equipment on demand

THE NEW FUCHS CABIN.

Handling of rough materials made easy and comfortable.

The design motif of the Fox Cab is the mammal from which it takes its name. The silhouette of the fox's head is reflected subtly in the stylistic idioms. This design produces an unmistakable branding effect. The aim is not only brand recognition, but also to make a connection with the machine operator: repeating, familiar elements elevate the emotional bond to the product. The Fox Cab has been specially designed for loading machines and did not have to be subjected to any compromises as a result. This provides the user with great benefits in terms of ergonomics.

NEW CABIN
FUNCTIONALITY RE-DEFINED

Skylight
- Shape and size provide best-possible visibility in terms of usage conditions of a handling machine
- Allows as little sunlight as possible into the cab

Multi-function Touch Monitor
- Central operating terminal for all functions
- Large, easily legible display
- Ergonomically positioned at ideal height and distance

Downward-facing Windshield
- Improved visibility for use as a handling machine
- Additional shading from solar radiation
- Shielding effect also provides excellent visibility in the rain

Spacious Refrigeration Compartment
- In characteristic fox-head shape
- Provides space for drinks, snacks, and medicines

Perfect Space Utilization
- Spacious storage options and deep stowage compartments
- Thoughtful smartphone holder with charger
- Simple cleaning due to avoidance of brackets and tight corners

Unique Sliding Door
- Highly convenient access through above average-sized entry hatch.

TECHNICAL DATA

SERVICE WEIGHT WITHOUT ATTACHMENT

MHL390 F	76.2–87.0 t
RHL390 F	86.2–97.0 t

DIESEL ENGINE

	Stage IV / EPA Tier 4 final	COM III / EPA Tier III
Manufacturer and model	Deutz TCD 12.0 V6 4V	Deutz TCD 2015 V06 4V
Design	6-cylinder-V-engine	6-cylinder V-engine
Engine control	EMR III / EMR IV	EMR III
Type	4-stroke-diesel, common-rail-direct injection, turbo charger, inter-cooler, automatic exhaust aftertreatment-system with double SCR cat	4-stroke diesel, direct injection, unit pump system, turbo-charger with intercooling
Engine output	300 kW	273 kW
Nominal speed	1,800 min^{-1}	1,800 min^{-1}
Displacement	12.0 l	12.0 litres
Cooling system	Combi-cooler (coolant / charge air) with fan speed control and reversing fan as an option	Combi-cooler (coolant / charge air) with fan speed control and re-versing fan as an option
Emission standard	Stage IV / Tier 4 Final	COM III / EPA Tier III
Air filter design	Two stage filter with safety cartridge and pre-separator with discharge valve	Two-stage filter with safety valve
Fuel tank	822 l Diesel	822 l Diesel
DEF tank	85 l AdBlue	—

ELECTRICAL SYSTEM

Operating Voltage	24 V
Battery	2 × 12 V / 170 Ah / 950 A
Lights	1 × H3 spotlight on upper carriage 1 × H3 spotlight on cabin floor turn signals and rear side marker lamps
Alternator	28 V / 100 A
Option	30 kW direct current generator with insulation control, direct driven via v-belt

TRANSMISSION

Hydrostatic drive through infinitely variable axial piston motor and directly mounted travel brake valves, flanged to a transfer box, all-wheel drive

Travel speed	0–8 km/h
Gradeability	max. 11 %
Turning radius	9.9 m

SLEWING GEAR

Swing gear	Internally toothed ball ring gear (double row)
Drive	Two two-stage planetary gears with integrated multi-disc brake, closed circuit
Swing speed	0–6 min^{-1} infinitely variable
Swing lock	Electrically operated
Max. pivot torque	164 kNm

UNDERCARRIAGE

Front axle	Planetary drive axle with integrated drum brake, rigidly mounted, max. steering angle: 30°
Rear axle	Oscillating planetary drive rear axle with integrated drum brake and selectable oscillating axle lock
Stabilizers	4-point stabilizers
Tires	Solid rubber, elastic, 8-fold, with intermediate rings

BRAKE SYSTEM

Service brake	Hydraulic single-circuit braking system acting on all wheels
Parking brake	Electrically operated disc brake on rear axle, acting on both front and rear axles via transfer gear

HYDRAULIC SYSTEM

REXROTH mobile hydraulic system with load limit control and fuel-saving power-demand control, closed swing circuit. Separate oil cooler, temperature-controlled fan speed. Hose rupture valves with regeneration on the boom and stick cylinders. Hydraulic oil filter: filter elements integrated into oil tank; maintenance interval: 3,000 operating hours.

Cooling system	Separated cooler with fan speed control system; optional reversing function
Max. pump capacity	640 l/min + 200 l/min in the swing circuit
Max. operating pressure	320 / 360 bar
Hydraulic oil tank	690 l
Available hydraulic oils	Hydraulic oil Xtreme Temp Hydraulik oil Renolin B15 VG46 Hydraulic oil Panolin HLP Synth. 46 bio-degradeable

OPERATOR'S CAB

Cab	Infinetely variable hydraulically height adjustable with a max. eye level of 6.4 m (as option: independently horizontally adjustable by up to 2.2 m or cab riser "Port" with a max. eye level of 8.7 m and access from ground level) Sound and heat insulated panoramic windows for optimum all-round view, windshield with pull-down sunblind, visibility panel in cab roof, sliding window in cab door, sliding door.
Air-conditioning	Automatic air-conditioning. Infinitely variable heating with 8-speed fan, 10 adjustable air nozzles, 3 defroster nozzles (hot water system).
Operator's seat	Air-cushioned comfort-seat with integrated headrest, safety belt and lumbar support, seat heating with integrated A/C function optional. Comfortable operation with multi-purpose adjustment options for seat position, seat inclination, seat cushion placement in relation to armrests and pilot control units.
Monitoring	Ergonomic layout; glare-free instrumentation. Multi-function touch display, automatic monitoring and recording of abnormal operating conditions (including all hydraulic oil filters, hydraulic oil temperature (cold / hot) coolant temperature and charge air temperature), visual and audible warning indication with shutdown of pilot controls/ engine power reduction. Diagnosis of individual sensors available via the multi-function display. Rear view camera and side view camera.
Air conditioning	Automatic AC and air conditioned stowage compartment
Acoustic power level	Acoustic power level (outside) L_{WA} 106 dB(A) (guaranteed) according to guideline 2000/14/EG L_{WA} 107 dB(A) (valid) according to guideline 2000/14/EG Acoustic power level (inside the cabin) according to guideline ISO 6396 L_{PA} 73 dB(A)

OFFICIAL HOMOLOGATION

Certification according to EG machinery directive 2006/42/EG

EQUIPMENT

ENGINE

	Standard	Option
Turbo Charger	●	
Intercooler	●	
Direct electronic fuel injection	●	
Advanced automatic idle incl. engine shut-off function	●	
Engine pre-heating		●
Engine diagnostic interface	●	
Temperature-controlled fan drive	●	

UNDERCARRIAGE

4-point stabilizers	●	
4-point stabilizers, individually controllable		●
Stabilizer cylinders with integrated two-way check valves	●	
All-wheel drive	●	
Piston rod protection on stabilizer cylinders	●	
Rear axle oscillating lock	●	
Drum brakes	●	
Tool box	●	

UPPERCARRIAGE

Electric diesel refuelling pump		●
Lighting protection		●
Maintenance hood with mechanical locking device	●	
Lockable cleaning access openings on radiators	●	
Separate cooling systems for engine and hydraulic oil cooler	●	
Automatic central lubrication system	●	
Reversing alarm		●
Special paint		●
Quick drain valve on Diesel tank	●	
Quick drain valve on hydraulic oil tank	●	
Quick drain valve on radiator	●	
Quick drain valve on engine-oil pan	●	
Reversing fan for coolant and hydraulic oil		●

CAB

Skylight in cab roof	●	
Air cushioned operator's seat with head-rest, safety belt and lumbar-support	●	
FOPS protective guard		●
Front / roof protective guard		●
Reinforced glass (windscreen and roof panel)		●
Cab system vertically adjustable	●	
Cab system horizontally and vertically adjustable		●
Cab system "Port"		●

CAB

	Standard	Option
Automatic air conditioning system	●	
Joystick steering	●	
Steering column, height and tilt adjustable (instead of joystick steering)		●
Multi-function touch display	●	
Fire extinguisher, dry powder		●
Radio USB & Bluetooth		●
Rotating beacon with travel alarm		●
Sliding window in cab door	●	
Safety glass	●	
Seat heating with integrated A/C function		●
Engine-independent heating		●
Windshield washer system	●	
Roof washer system		●
12 V socket	●	

EQUIPMENT

Spotlights attached to cab floor	●	
Spotlights mounted to superstructure	●	
Working light stick (1×)	●	
Load limit control	●	
Hydraulic oil preheating		●
Close proximity range limiter for dipper stick	●	
Coolant and hydraulic oil level monitoring system	●	
Hose rupture safety valves for boom cylinders	●	
Hose rupture safety valves for stick cylinders	●	
Lubrication of the grab suspension by central lubrication system	●	
LED light packages		●
LED front headlights	●	
Quick-connect coupling on dipper stick	●	
Filter system for attachments		●
Rear view camera	●	
Side view camera	●	
360° bird view camera system		●
Overload warning system basic		●
Overload warning and reach limitation system		●
Float switch for barge unloading		●

Further optional equipment available on request!


FUCHS

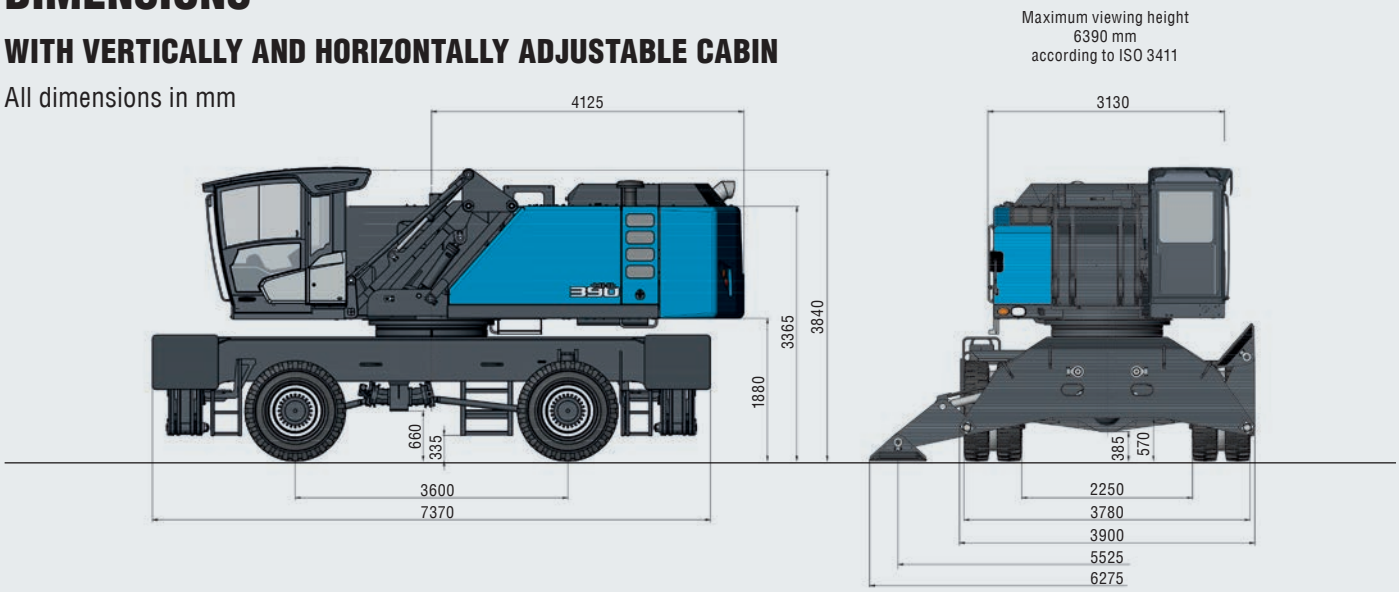
MHL390

FUCHS
A TEREX BRAND

DIMENSIONS

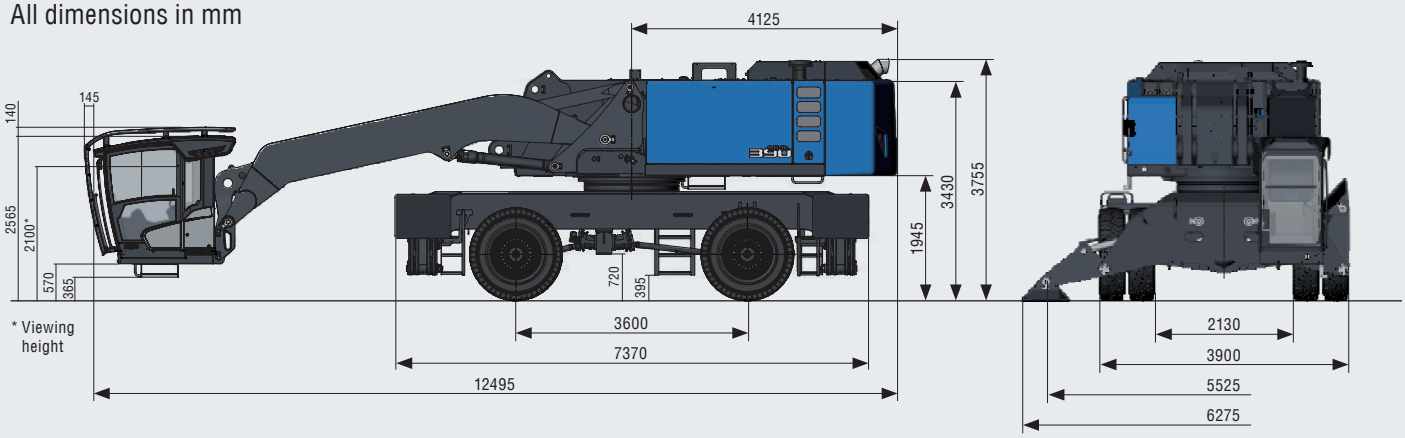
WITH VERTICALLY AND HORIZONTALLY ADJUSTABLE CABIN

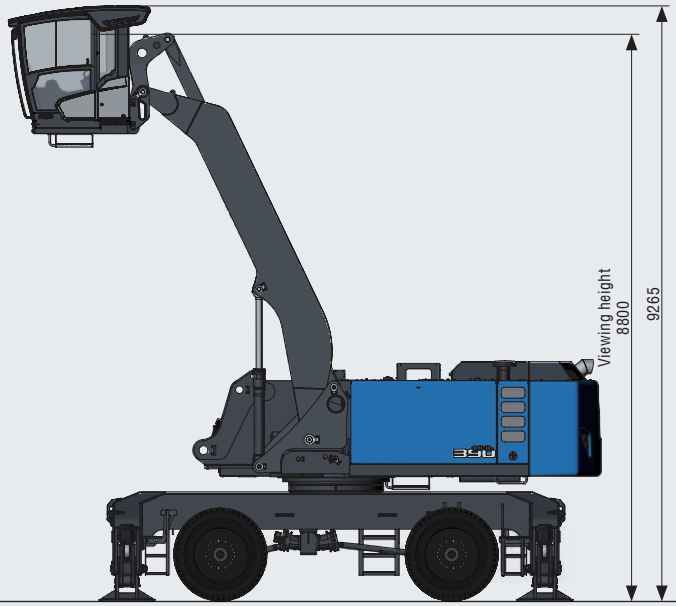
All dimensions in mm



WITH PORT CAB RISER

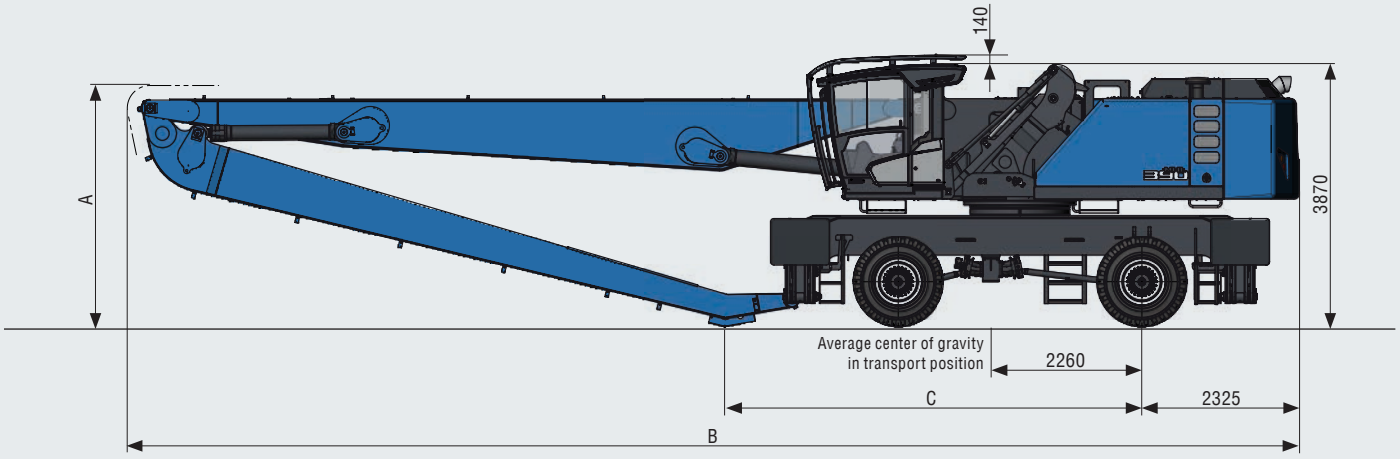
All dimensions in mm





TRANSPORT DIMENSIONS

All dimensions in mm

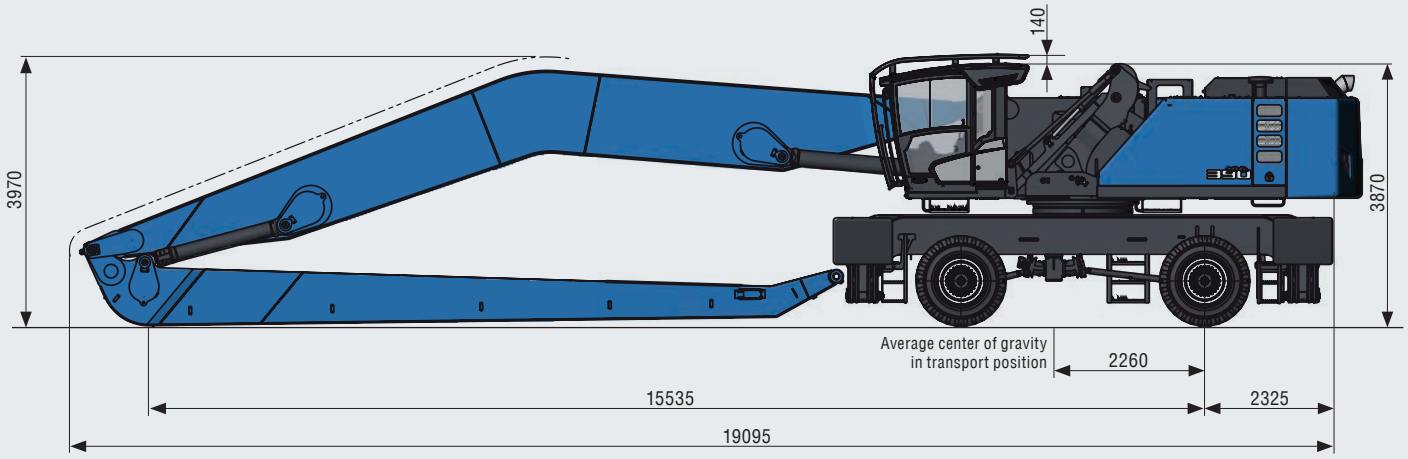


Dimensions	Reach 22 m	Reach 24 m
A	3560 mm	3480 mm
B	17315 mm	18665 mm
C	6165 mm	6350 mm

WORK EQUIPMENT BANANA BOOM

All dimensions in mm

Reach 24.5 m



WORKING RANGE

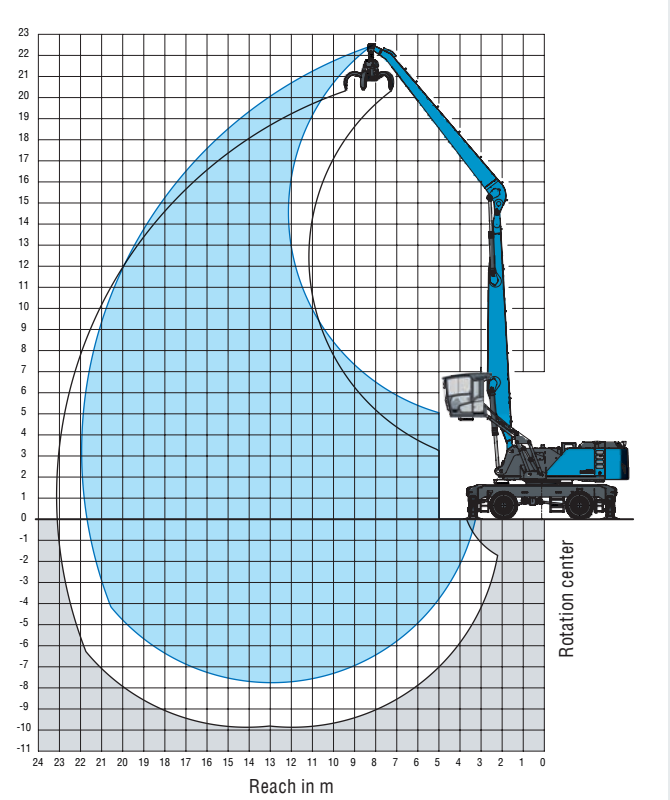
REACH 22 M WITH DIPPER STICK

Loading equipment	Boom 11.35 m
	Dipper stick 9.9 m
	Multi-tine grapple

RECOMMENDED ATTACHMENTS

Lift hooks	20 t
Multi-tine grapple 0.8 m³	Open or half-closed shells
Multi-tine grapple 1.0 m³	Open or half-closed shells
Multi-tine grapple 1.2 m³	Open or half-closed shells
Multi-tine grapple 1.4 m³	Open or half-closed shells
Clamshell grab 1.4 m³	Loose goods density up to 2,000 kg/m³
Clamshell grab 1.6 m³	Loose goods density up to 1,700 kg/m³
Clamshell grab 2.0 m³	Loose goods density up to 1,200 kg/m³
Clamshell grab > 2.0 m³ on demand	

The lift capacity values are stated in metric tons (t). The pump pressure is 360 bar. In accordance with ISO 10567 the lift capacity values represents 75% of the static tipping loads or 87% of the hydraulic lifting force (marked °). On solid and level ground the values apply to a swing range of 360°. The (…) values apply in the longitudinal direction of the undercarriage. The weights of the attached load hoisting equipment (grab, load hock, etc.) must be deducted from the lift capacity values. The working load of the lifting devise must be observed. In accordance with the EN 474-5 for object handling application hose rupture valves on the boom and stick cylinders, an overload warning device and the lift capacity table in the cab are required. For object handling application the machine has to be supported on a level ground.



LIFTING CAPACITY

Height [m]	Undercarriage outrigger	Reach [m] 6	7.5	9	10.5	12	13.5	15	16.5	18	19.5	21
21	4-point supported				7.9° (7.9°)							
19.5	4-point supported					8.2° (8.2°)	6.1° (6.1°)					
18	4-point supported					9.5° (9.5°)	8.2° (8.2°)	6.2° (6.2°)				
16.5	4-point supported					9.6° (9.6°)	8.9° (8.9°)	7.9° (7.9°)	5.8° (5.8°)			
15	4-point supported						8.8° (8.8°)	8.2° (8.2°)	7.5° (7.5°)	4.9° (4.9°)		
13.5	4-point supported					9.5° (9.5°)	8.8° (8.8°)	8.2° (8.2°)	7.7° (7.7°)	6.7° (6.7°)		
12	4-point supported					9.6° (9.6°)	8.9° (8.9°)	8.2° (8.2°)	7.7° (7.7°)	7.2° (7.2°)	5.3° (5.3°)	
10.5	4-point supported					9.8° (9.8°)	9.0° (9.0°)	8.3° (8.3°)	7.7° (7.7°)	7.2° (7.2°)	6.7° (6.7°)	
9	4-point supported				11.3° (11.3°)	10.2° (10.2°)	9.2° (9.2°)	8.5° (8.5°)	7.8° (7.8°)	7.3° (7.3°)	6.7° (6.7°)	4.4° (4.4°)
7.5	4-point supported			13.5° (13.5°)	11.9° (11.9°)	10.6° (10.6°)	9.5° (9.5°)	8.7° (8.7°)	8.0° (8.0°)	7.3° (7.3°)	6.8° (6.8°)	5.5° (5.5°)
6	4-point supported		17.5° (17.5°)	14.6° (14.6°)	12.5° (12.5°)	11.0° (11.0°)	9.8° (9.8°)	8.9° (8.9°)	8.1° (8.1°)	7.4° (7.4°)	6.8° (6.8°)	6.2° (6.2°)
4.5	4-point supported	25.6° (25.6°)	19.4° (19.4°)	15.7° (15.7°)	13.2° (13.2°)	11.5° (11.5°)	10.1° (10.1°)	9.1° (9.1°)	8.2° (8.2°)	7.4° (7.4°)	6.8° (6.8°)	6.1° (6.1°)
3	4-point supported	23.0° (23.0°)	21.0° (21.0°)	16.7° (16.7°)	13.8 (13.8°)	11.9° (11.9°)	10.4° (10.4°)	9.2° (9.2°)	8.3° (8.3°)	7.5° (7.5°)	6.7° (6.7°)	6.0° (6.0°)
1.5	4-point supported	9.7° (9.7°)	22.0° (22.0°)	17.3° (17.3°)	14.3° (14.3°)	12.1° (12.1°)	10.5° (10.5°)	9.3° (9.3°)	8.3° (8.3°)	7.4° (7.4°)	6.6° (6.6°)	5.8° (5.8°)
0	4-point supported	7.9° (7.9°)	15.0° (15.0°)	17.5° (17.5°)	14.4° (14.4°)	12.2° (12.2°)	10.6° (10.6°)	9.3° (9.3°)	8.2° (8.2°)	7.3° (7.3°)	6.5° (6.5°)	5.6° (5.6°)
–1.5	4-point supported	7.9° (7.9°)	12.7° (12.7°)	17.3° (17.3°)	14.3° (14.3°)	12.1° (12.1°)	10.5° (10.5°)	9.2° (9.2°)	8.1° (8.1°)	7.1° (7.1°)	6.2° (6.2°)	5.2° (5.2°)
–3	4-point supported	8.4° (8.4°)	12.1° (12.1°)	16.6° (16.6°)	13.9° (13.9°)	11.8° (11.8°)	10.2° (10.2°)	8.9° (8.9°)	7.8° (7.8°)	6.7° (6.7°)	5.8° (5.8°)	
–4.5	4-point supported	9.0° (9.0°)	12.3° (12.3°)	15.5° (15.5°)	13.1° (13.1°)	11.2° (11.2°)	9.6° (9.6°)	8.4° (8.4°)	7.2° (7.2°)	6.2° (6.2°)	5.1° (5.1°)	
–6	4-point supported		12.7° (12.7°)	13.9° (13.9°)	11.9° (11.9°)	10.2° (10.2°)	8.8° (8.8°)	7.6° (7.6°)	6.5° (6.5°)	5.4° (5.4°)		
–7.5	4-point supported					8.9° (8.9°)	7.7° (7.7°)					
												Max. reach 21.8 m
3.3	4-point supported											4.6° (4.6°)

WORKING RANGE

REACH 24 M WITH DIPPER STICK

Loading equipment	Boom 12.7 m Dipper stick 11.0 m Multi-tine grapple

RECOMMENDED ATTACHMENTS

Lift hooks	20 t
Multi-tine grapple 0.8 m³	Open or half-closed shells
Multi-tine grapple 1.0 m³	Open or half-closed shells
Multi-tine grapple 1.2 m³	Open or half-closed shells
Multi-tine grapple 1.4 m³	Open or half-closed shells
Clamshell grab 1.4 m³	Loose goods density up to 2,000 kg/m³
Clamshell grab 1.6 m³	Loose goods density up to 1,700 kg/m³
Clamshell grab 2.0 m³	Loose goods density up to 1,200 kg/m³
Clamshell grab > 2.0 m³ on demand	

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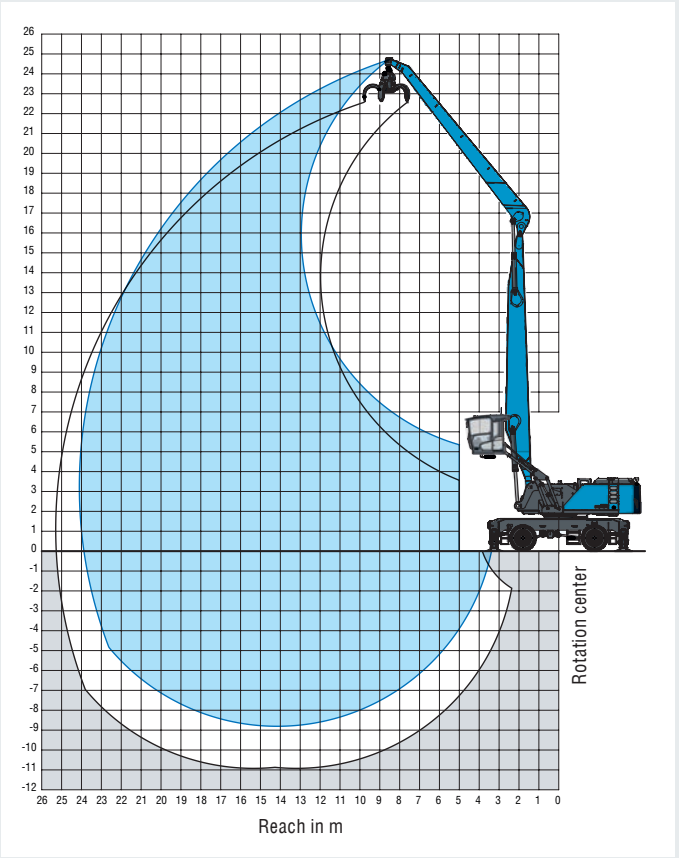


LIFTING CAPACITY

Height [m]	Undercarriage outrigger	Reach [m] 6	7.5	9	10.5	12	13.5	15	16.5	18	19.5	21	22.5	24
22.5	4-point supported					7.1° (7.1°)								
21	4-point supported					8.3° (8.3°)	7.2° (7.2°)	5.7° (5.7°)						
19.5	4-point supported						8.3° (8.3°)	7.2° (7.2°)	5.6° (5.6°)					
18	4-point supported						9.0° (9.0°)	8.1° (8.1°)	7.0° (7.0°)	5.3° (5.3°)				
16.5	4-point supported						9.0° (9.0°)	8.3° (8.3°)	7.7° (7.7°)	6.6° (6.6°)	4.7° (4.7°)			
15	4-point supported						9.0° (9.0°)	8.3° (8.3°)	7.7° (7.7°)	7.1° (7.1°)	6.1° (6.1°)			
13.5	4-point supported						9.1° (9.1°)	8.3° (8.3°)	7.7° (7.7°)	7.1° (7.1°)	6.6° (6.6°)	5.1° (5.1°)		
12	4-point supported						9.2° (9.2°)	8.4° (8.4°)	7.7° (7.7°)	7.1° (7.1°)	6.6° (6.6°)	6.1° (6.1°)		
10.5	4-point supported					10.4° (10.4°)	9.4° (9.4°)	8.5° (8.5°)	7.8° (7.8°)	7.2° (7.2°)	6.6° (6.6°)	6.1° (6.1°)	4.7° (4.7°)	
9	4-point supported				12.1° (12.1°)	10.7° (10.7°)	9.6° (9.6°)	8.7° (8.7°)	7.9° (7.9°)	7.2° (7.2°)	6.7° (6.7°)	6.2° (6.2°)	5.6° (5.6°)	
7.5	4-point supported			14.7° (14.7°)	12.6° (12.6°)	11.0° (11.0°)	9.8° (9.8°)	8.8° (8.8°)	8.0° (8.0°)	7.3° (7.3°)	6.7° (6.7°)	6.2° (6.2°)	5.6° (5.6°)	
6	4-point supported		18.7° (18.7°)	15.6° (15.6°)	13.2° (13.2°)	11.4° (11.4°)	10.1° (10.1°)	9.0° (9.0°)	8.1° (8.1°)	7.4° (7.4°)	6.7° (6.7°)	6.1° (6.1°)	5.6° (5.6°)	
4.5	4-point supported	27.6° (27.6°)	20.6° (20.6°)	16.5° (16.5°)	13.8° (13.8°)	11.8° (11.8°)	10.3° (10.3°)	9.2° (9.2°)	8.2° (8.2°)	7.4° (7.4°)	6.7° (6.7°)	6.1° (6.1°)	5.5° (5.5°)	4.2° (4.2°)
3	4-point supported	12.6° (12.6°)	21.8° (21.8°)	17.2° (17.2°)	14.2° (14.2°)	12.1° (12.1°)	10.5° (10.5°)	9.3° (9.3°)	8.3° (8.3°)	7.4° (7.4°)	6.7° (6.7°)	6.1° (6.1°)	5.5° (5.5°)	4.4° (4.4°)
1.5	4-point supported	6.5° (6.5°)	14.9° (14.9°)	17.6° (17.6°)	14.5° (14.5°)	12.3° (12.3°)	10.6° (10.6°)	9.3° (9.3°)	8.3° (8.3°)	7.4° (7.4°)	6.7° (6.7°)	6.0° (6.0°)	5.3° (5.3°)	4.3° (4.3°)
0	4-point supported	5.6° (5.6°)	10.3° (10.3°)	17.6° (17.6°)	14.5° (14.5°)	12.3° (12.3°)	10.6° (10.6°)	9.3° (9.3°)	8.2° (8.2°)	7.3° (7.3°)	6.5° (6.5°)	5.8° (5.8°)	5.1° (5.1°)	
–1.5	4-point supported	5.7° (5.7°)	9.0° (9.0°)	15.2° (15.2°)	14.3° (14.3°)	12.1° (12.1°)	10.5° (10.5°)	9.2° (9.2°)	8.1° (8.1°)	7.2° (7.2°)	6.4° (6.4°)	5.6° (5.6°)	4.8° (4.8°)	
–3	4-point supported	6.2° (6.2°)	8.9° (8.9°)	13.5° (13.5°)	13.8° (13.8°)	11.8° (11.8°)	10.2° (10.2°)	8.9° (8.9°)	7.8° (7.8°)	6.9° (6.9°)	6.1° (6.1°)	5.3° (5.3°)	4.4° (4.4°)	
–4.5	4-point supported	6.8° (6.8°)	9.1° (9.1°)	12.9° (12.9°)	13.0° (13.0°)	11.2° (11.2°)	9.7° (9.7°)	8.5° (8.5°)	7.4° (7.4°)	6.5° (6.5°)	5.7° (5.7°)	4.8° (4.8°)	3.8° (3.8°)	
–6	4-point supported		9.5° (9.5°)	12.9° (12.9°)	11.9° (11.9°)	10.3° (10.3°)	9.0° (9.0°)	7.9° (7.9°)	6.9° (6.9°)	6.0° (6.0°)	5.1° (5.1°)	4.2° (4.2°)		
–7.5	4-point supported				10.5° (10.5°)	9.2° (9.2°)	8.1° (8.1°)	7.0° (7.0°)	6.1° (6.1°)	5.2° (5.2°)				
														Max. reach 24.1 m
3.3	4-point supported													4.0° (4.0°)

WORKING RANGE

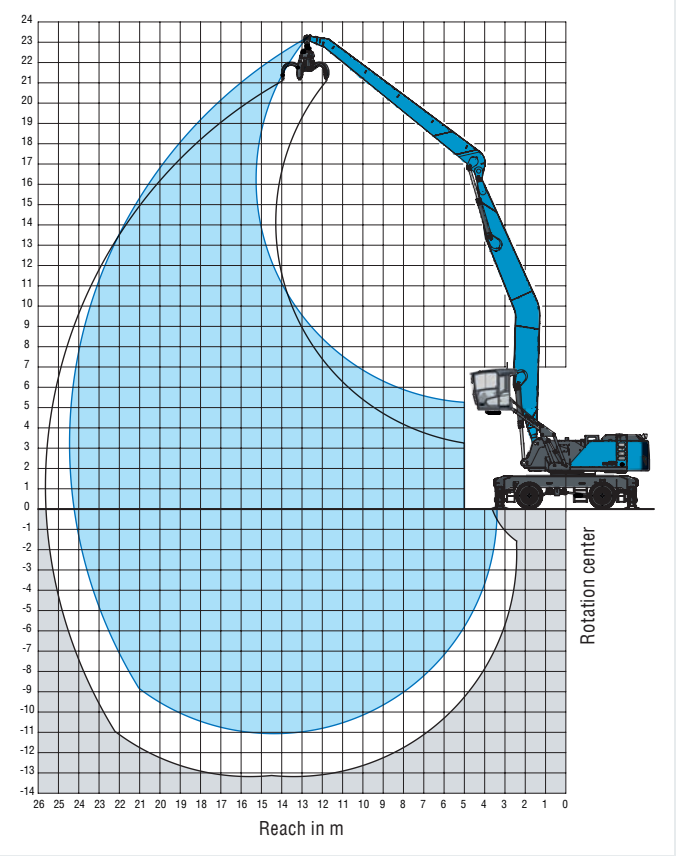
REACH 24.5 M BANANA BOOM

Loading equipment	Boom 13.3 m
	Dipper stick 11.0 m
	Multi-tine grapple

RECOMMENDED ATTACHMENTS

Lift hooks	20 t
Multi-tine grapple 0.8 m³	Open or half-closed shells
Multi-tine grapple 1.0 m³	Open or half-closed shells
Multi-tine grapple 1.2 m³	Open or half-closed shells
Multi-tine grapple 1.4 m³	Open or half-closed shells
Clamshell grab 1.4 m³	Loose goods density up to 2,000 kg/m³
Clamshell grab 1.6 m³	Loose goods density up to 1,700 kg/m³
Clamshell grab 2.0 m³	Loose goods density up to 1,200 kg/m³
Clamshell grab > 2.0 m³ on demand	

The lift capacity values are stated in metric tons (t). The pump pressure is 360 bar. In accordance with ISO 10567 the lift capacity values represents 75% of the static tipping loads or 87% of the hydraulic lifting force (marked °). On solid and level ground the values apply to a swing range of 360°. The (…) values apply in the longitudinal direction of the undercarriage. The weights of the attached load hoisting equipment (grab, load hock, etc.) must be deducted from the lift capacity values. The working load of the lifting devise must be observed. In accordance with the EN 474-5 for object handling application hose rupture valves on the boom and stick cylinders, an overload warning device and the lift capacity table in the cab are required. For object handling application the machine has to be supported on a level ground.



LIFTING CAPACITY

Height [m]	Undercarriage outrigger	Reach [m] 6	7.5	9	10.5	12	13.5	15	16.5	18	19.5	21	22.5	24
22.5	4-point supported						5.4° (5.4°)							
21	4-point supported							5.7° (5.7°)						
19.5	4-point supported							7.0° (7.0°)	5.6° (5.6°)					
18	4-point supported								6.5° (6.5°)	5.4° (5.4°)				
16.5	4-point supported								6.4° (6.4°)	6.0° (6.0°)	4.9° (4.9°)			
15	4-point supported								6.4° (6.4°)	6.0° (6.0°)	5.6° (5.6°)	4.1° (4.1°)		
13.5	4-point supported							7.0° (7.0°)	6.4° (6.4°)	6.0° (6.0°)	5.6° (5.6°)	5.3° (5.3°)		
12	4-point supported							7.1° (7.1°)	6.5° (6.5°)	6.0° (6.0°)	5.6° (5.6°)	5.3° (5.3°)	4.0° (4.0°)	
10.5	4-point supported							7.2° (7.2°)	6.6° (6.6°)	6.1° (6.1°)	5.7° (5.7°)	5.3° (5.3°)	4.9° (4.9°)	
9	4-point supported						8.1° (8.1°)	7.3° (7.3°)	6.7° (6.7°)	6.2° (6.2°)	5.7° (5.7°)	5.3° (5.3°)	4.9° (4.9°)	
7.5	4-point supported					9.4° (9.4°)	8.4° (8.4°)	7.5° (7.5°)	6.8° (6.8°)	6.3° (6.3°)	5.8° (5.8°)	5.3° (5.3°)	4.9° (4.9°)	3.7° (3.7°)
6	4-point supported			13.5° (13.5°)	11.3° (11.3°)	9.8° (9.8°)	8.6° (8.6°)	7.7° (7.7°)	7.0° (7.0°)	6.3° (6.3°)	5.8° (5.8°)	5.4° (5.4°)	4.9° (4.9°)	4.3° (4.3°)
4.5	4-point supported	24.5° (24.5°)	18.1° (18.1°)	14.3° (14.3°)	11.9° (11.9°)	10.2° (10.2°)	8.9° (8.9°)	7.9° (7.9°)	7.1° (7.1°)	6.4° (6.4°)	5.9° (5.9°)	5.4° (5.4°)	5.0° (5.0°)	4.5° (4.5°)
3	4-point supported	8.6° (8.6°)	19.2° (19.2°)	15.1° (15.1°)	12.4° (12.4°)	10.5° (10.5°)	9.1° (9.1°)	8.1° (8.1°)	7.2° (7.2°)	6.5° (6.5°)	5.9° (5.9°)	5.4° (5.4°)	4.9° (4.9°)	4.5° (4.5°)
1.5	4-point supported	5.7° (5.7°)	11.6° (11.6°)	15.6° (15.6°)	12.7° (12.7°)	10.8° (10.8°)	9.3° (9.3°)	8.2° (8.2°)	7.3° (7.3°)	6.6° (6.6°)	5.9° (5.9°)	5.4° (5.4°)	4.9° (4.9°)	4.4° (4.4°)
0	4-point supported	5.3° (5.3°)	9.0° (9.0°)	15.8° (15.8°)	12.9° (12.9°)	10.9° (10.9°)	9.4° (9.4°)	8.2° (8.2°)	7.3° (7.3°)	6.6° (6.6°)	5.9° (5.9°)	5.4° (5.4°)	4.8° (4.8°)	4.3° (4.3°)
1.5	4-point supported	5.5° (5.5°)	8.2° (8.2°)	12.9° (12.9°)	12.9° (12.9°)	10.9° (10.9°)	9.4° (9.4°)	8.3° (8.3°)	7.3° (7.3°)	6.5° (6.5°)	5.9° (5.9°)	5.3° (5.3°)	4.7° (4.7°)	
−3	4-point supported	6.0° (6.0°)	8.2° (8.2°)	11.8° (11.8°)	12.7° (12.7°)	10.8° (10.8°)	9.3° (9.3°)	8.2° (8.2°)	7.2° (7.2°)	6.4° (6.4°)	5.8° (5.8°)	5.1° (5.1°)	4.5° (4.5°)	
−4.5	4-point supported	6.6° (6.6°)	8.4° (8.4°)	11.5° (11.5°)	12.4° (12.4°)	10.5° (10.5°)	9.1° (9.1°)	8.0° (8.0°)	7.1° (7.1°)	6.3° (6.3°)	5.6° (5.6°)	4.9° (4.9°)	4.2° (4.2°)	
−6	4-point supported	7.1° (7.1°)	8.8° (8.8°)	11.5° (11.5°)	11.8° (11.8°)	10.1° (10.1°)	8.8° (8.8°)	7.7° (7.7°)	6.8° (6.8°)	6.0° (6.0°)	5.3° (5.3°)	4.6° (4.6°)		
−7.5	4-point supported		9.3° (9.3°)	11.8° (11.8°)	10.9° (10.9°)	9.5° (9.5°)	8.3° (8.3°)	7.2° (7.2°)	6.4° (6.4°)	5.6° (5.6°)	4.8° (4.8°)	4.1° (4.1°)		
−9	4-point supported			11.3° (11.3°)	9.9° (9.9°)	8.6° (8.6°)	7.5° (7.5°)	6.6° (6.6°)	5.8° (5.8°)	5.0° (5.0°)	4.2° (4.2°)			
−10.5	4-point supported					7.5° (7.5°)	6.6° (6.6°)	5.8° (5.8°)	5.0° (5.0°)					
														Max. reach 24.4 m
3.3	4-point supported													3.8° (3.8°)

MODULAR SYSTEM

Attachments

Multi-tine grapple

Timber grapple

Furthermore:

Magnetic plate

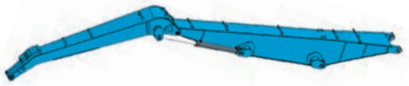
Load hook

Clamshell grab

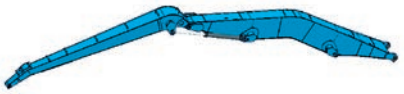
Traverse

Work equipment

Work equipment straight



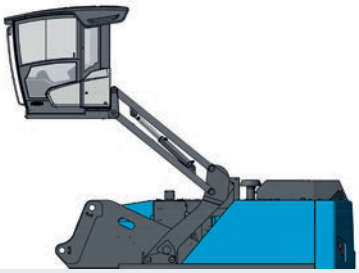
Work equipment banana boom



Uppercarriage MHL390

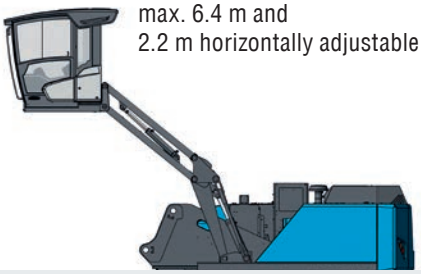
Cab system vertically adjustable

Viewing height: max. 6.4 m



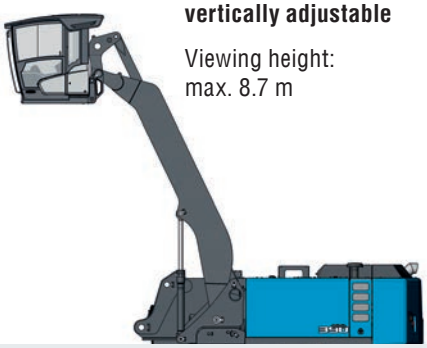
Cab system vertically and horizontally adjustable

Viewing height:
max. 6.4 m and
2.2 m horizontally adjustable



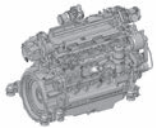
Port cab riser vertically adjustable

Viewing height:
max. 8.7 m



Engine

Diesel engine



Electric motor

Options

Cable reel

Cable drum

Power Pack

Undercarriage

Pylon

up to
max. 0.8 m

Pylon

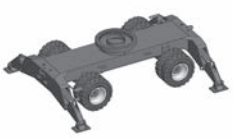
up to
max. 1.4 m

Pylon

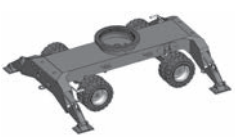
up to
max. 0.8 m

Pylon

up to
max. 3.7 m



Mobile:
Standard-undercarriage



Mobile special:
Extended undercarriage

Crawler:
Standard-undercarriage

Crawler:
XL-undercarriage

MHL390 F: SELECT YOUR OPTIONS.

BASIC UNIT	Standard
Mobile basic unit MHL390 F	●
Cabin standard	●
Joystick steering	●
Automatic engine switch off function	●
Loading equipment 22 m reach	●
Standard colour	●
Solid rubber tyres 14.00-24	●
Undercarriage with 4-point outriggers	●
Air Conditioner	●
Air-cushioned comfort seat	●
Rear view camera and side view camera	●
Hose rupture safety valves for lifting and stick cylinders	●

ENGINE	Add option
Diesel engine	☐
Electric engine	☐
Engine pre-heating	☐
UNDERCARRIAGE	
Standard mobile	☐
Crawler	☐
Crawler or gantry	☐
Pylon ____ m	☐
4-point stabilizers, individually controllable	☐
LOADING EQUIPMENTS	
Loading equipment 24 m reach	☐
Loading equipment 24.5 m reach, cranked boom	☐
LIGHTS	
Light packages LED (for boom stick or cabin)	☐
Lamp protection	☐
CABIN	
Auxiliary heating with timer and temperature preselection	☐
Cabin with bullet-proof glass front and above	☐
FOPS-top guard for the cab's roof	☐

CABIN	Add option
Hydraulically adjustabe cabin (horizontal and vertical)	☐
Hydraulically adjustable cabin "Port" (max. viewing height 8.7 m)	☐
Front / roof protective guard	☐
Powder fire extinguisher with holder inside the cab	☐
Joystick steering / driving cab floor with glass window	☐
Roof washer system	☐
Pedal for swing break lock	☐
Voltage converter 12 V (incl. 2.5 meters cable)	☐
Radio USB & Bluetooth	☐
Air-conditioned seat with heating	☐
Joystick steering and driving, cab floor with glass window	☐
Special joystick function (detailed plan for joystick functions necessary)	☐
Mechanically switchable joystick functions	☐
ASSISTANCE SYSTEMS	
Overload and work area control (incl. reach / height limitation, overload warning device)	☐
Overload warning device basic (without angle sensors)	☐
Rotating beacon and travel alarm	☐
FURTHER OPTIONS	
Reversible fan for hydraulic oil cooler and water- / intercooler	☐
Filtration system for attachements	☐
Float switch for barge unloading	☐
Electric diesel refuelling pump	☐
Generator 30 kW	☐
Bio-hydraulic oil PANOLIN HLP SYNTH 46 (first filling)	☐
Hydraulic-oil RENOLIN for temperatures far below freezing point	☐
Fuchs Telematics System (2 years duration, renewable on demand)	☐
Prolongation Telematics for one additional year	☐
Active cyclone dust seperator for air filter	☐
Machine preheating system (diesel fuel driven)	☐
Central greasing system for undercarriage · manually	☐
Central greasing system for undercarriage · automatic	☐
Increased corrosion protection (cabin, covers, steel construction)	☐

NOTES

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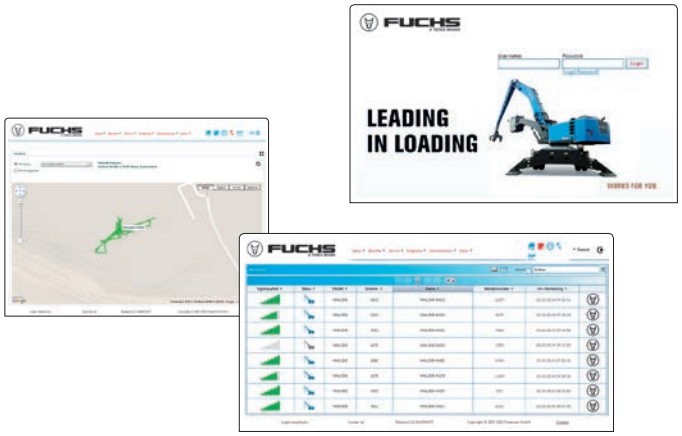

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