

Loading Machine | Better efficiency in modern timber handling

**THE FASTEST
PICK & CARRY
MACHINE IN
THE 30-TONNE
CLASS FOR
EMPTYING
STOCK BOXES**

- ▶ Powerful 176 kW (236 HP) Deutz turbocharged Diesel engine meets emission standards COM III, TIER III and EPA III
- ▶ Comfort cab with air conditioning as standard
- ▶ Operating weight 31 - 32.5 t (68,343 - 71,650 lbs)
- ▶ Grab 1.75 - 3 m² (depending on type of timber)

ENGINE	176 kW 236 HP
WEIGHT	31 - 32.5 t 68,343 - 71,650 lbs
REACH	9.8 m (32.2') 10.85 m (35.6')
GRAB	1.75 - 3 m ²

LOADING MACHINE
MHL 454

Well ahead in the rear:
The original
TEREX FUCHS -
rear articulation boom

TASK FORCE

The machine can be fitted with optional equipments

Loading Machine MHL 454



IT FOR FAST HAULAGE

THE NEW PICK & CARRY MACHINE ADDS SPEED TO TIMBER HANDLING

MACHINE FEATURES

AT A GLANCE

- ▶ Excellent lifting capacities combined with long reach
- ▶ Small turning radius: only 5.5 meters (18')
- ▶ High traveling speeds of up to 25 km/h (16 mph)
- ▶ Automatic central lubrication system in the upper carriage and central lubricant fitting in the lower carriage
 - ▶ High traction performance from 176 kW (236 HP) Deutz Diesel engine with exceptionally low emission values and sound levels
 - ▶ Elevated comfort cab; excellent all-around view
 - ▶ Multifunctional display

MASTERING THE CORE BUSINESS

The new loading machine MHL 454 by TEREX FUCHS is an agile 30-tonne class workhorse for intelligent timber handling; especially designed for handling logs of various lengths. The undercarriage has the symmetry of a square. The wheelbase as well as track width are 3.3 m (10.8') each. The standard stacking blade with integrated cylinder protection is 3.3 m (10.8') wide too. The blade serves to clear the drive paths and to stack logs. A second blade may optionally be fitted. Thanks to all-wheel steering, the MHL 454's turning radius is a mere 5.5 m (18'). This helps quick and precise maneuvering in tight spots. Reach of the standard loading system is 10.85 m (35.6').



WELL AHEAD WITH REAR ARTICULATION BOOM

UNOBSTRUCTED VIEW. FIRST-RATE STABILITY. GREAT LIFTING CAPACITIES

HIGH STACKS IN TIGHT SPOTS

Heavy loads may be lifted up to a height of 4.5 m (14.8') (bottom edge of grab) even with a full grab, without hampering the operator's view. This, in combination with the machine's short tail-swing, allows for building stacks of efficient heights (8 - 9 m / 26.2' - 29.5') in tight spaces.

STABLE AND MOBILE

The MHL 454's loading system is supported behind the pivoting center of the machine. Thus, the exceptional static and dynamic stability along with the excellent maneuverability of the machine remain unhampered even when handling the bulkiest loads. The cab, at an eye level of 3.8 m (12.5'), optionally 4.2 m (13.8') / 4.6 m (15'), is elevated, providing a superb all-around view – with an optimized field-of-view to the right hand side.

BOOM FEATURES

AT A GLANCE

- ▶ Typical TEREX FUCHS design for better stability and optimized lifting capacities
- ▶ Excellent, efficient reach of 9,8 m (32.2') / 10,85 m (35.6')
- ▶ Hydraulic cushioning system of the lift cylinders
- ▶ Excellent all-around view from cab thanks to rear articulation
- ▶ Automatic central lubrication for reduced maintenance



TEREX
FUCHS

INCREASED TORQUE. HIGH SPEEDS DRIVING FORCE

**ALWAYS THE
RIGHT AMOUNT:
OPTIMUM
PERFORMANCE**

A load limit control manages hydraulic power supply; the engine thus always delivers the right amount of power that is required for economic operation. This protects the engine from overload. A powerful, automatically controlled variable hydrostatic drive serves as the travel drive. Speeds of up to 25 km/h are easy for the MHL 454.

Switching between the forward and rear travel direction is accomplished electrically. A safeguard prevents an inadvertent change of travel direction.

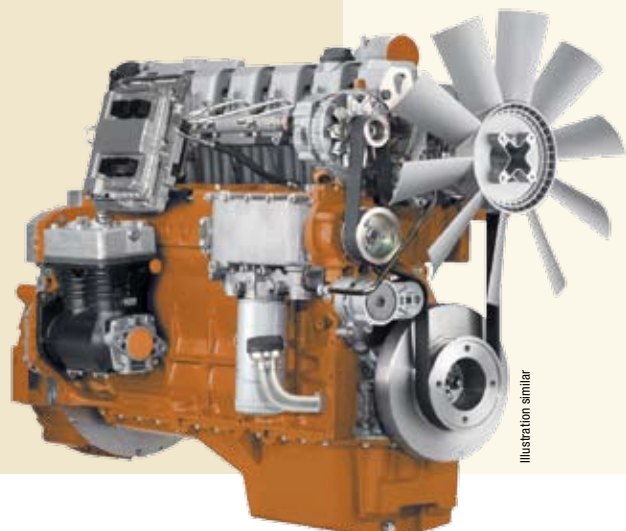
RELIABLY HUMMING DIESEL ENGINE

The MHL 454 draws its power from a Deutz 6-cylinder in-line Diesel engine. The engine is rated at 176 kW @ 1900 RPM. It deserves to be labeled environmentally sound due to its low noise and low emission levels. Emission values are clearly within modern emission standards, such as the European COM III guidelines and the US EPA III and Tier III.

ENGINE FEATURES

AT A GLANCE

- ▶ State-of-the-art 176 kW (236 HP) turbo-charged Deutz Diesel engine
- ▶ Low emission, meeting latest standards
- ▶ Low noise levels during operation
- ▶ Optimum performance utilization in every speed range





WORKING BETTER BEGINS WITH A COMFORTABLE COMFORT IN THE COCKPIT F

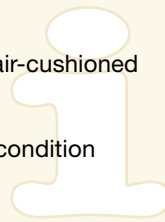
PERFECT WORKING CONDITIONS

The operator's cab is a comfortable place to work – not only because of the standard air condition. It is spacious with excellent soundproofing. Large windows provide unobstructed all-around view. In addition to the standard security glass, Lexan panes or bulletproof glass are available for the front or ceiling windows. The perfectly designed ergonomic and air-cushioned operator's seat also absorbs low-frequency vibration. Take a seat!

CAB FEATURES

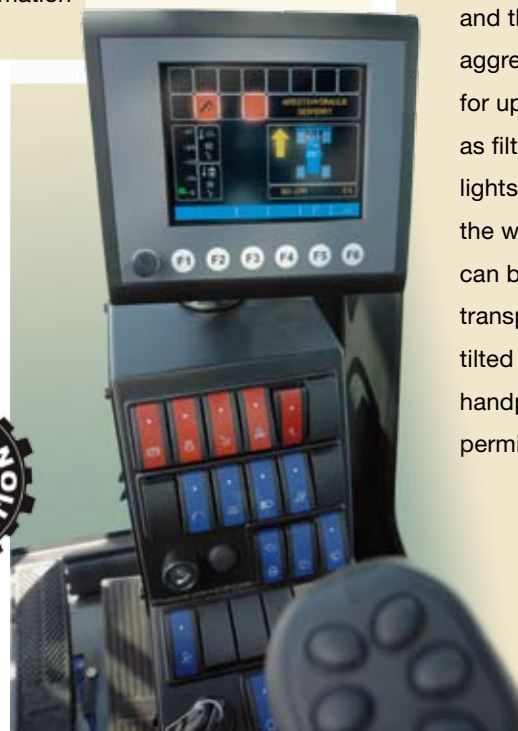
AT A GLANCE

- ▶ Proportional joystick steering as standard
- ▶ Orthopedically designed air-cushioned operator seat
- ▶ Heating and standard air condition with reheat-function
- ▶ Hydraulically tiltable cab
- ▶ Multi-functional display for operationally relevant information



EVERYTHING WITHIN VIEW. EVERYTHING UNDER CONTROL

From his seat, the operator can comfortably reach the multi-function joystick to control all the machine's functions and cycles. As an option, the proportional joystick steering may be combined with an electrical wheel-steering. A large display keeps the operator informed of work sequences and the conditions of the individual aggregates, while also showing alerts for upcoming maintenance work, such as filter changes. Four powerful Xenon lights ensure excellent illumination of the work area. Additional headlamps can be installed upon request. For the transport of the MHL 454, the cab is tilted forward by 90° by means of a handpump so as not to exceed the permitted transport height.



SEAT OR A FULL DAY'S WORK

IDEAL TEMPERATURES

Water intercooler and hydraulic oil cooler are equipped with hydraulically driven fans. An airflow reversal switch may be fitted as an option. Dust and dirt are thus efficiently blown out during operation. This extends the time intervals for manual cleaning. The proven, separate, and thermostatically controlled cooling system maintains ideal temperatures inside the machine when in operation.

THE QUIET POWER

A hydraulic shock-absorbing system cushions peak strains during lifting operations and dampens vibrations that occur while traveling. The resulting quietness of operation and the harmonic motion cycles protect all components and minimize wear and tear. The hydraulic system provides smooth, high-precision operation. The multi-stage filtering system increases the lifespan of the hydraulic components and prolongs the utilization time of the hydraulic fluid through complete fluid return and continuous pressure filtration. As an option, the machine may be equipped with an additional filtering system for grab operations (opening, closing and turning).

COOLING SYSTEM FEATURES AT A GLANCE

- ▶ Operating temperature up to 50°C ambient air temperature
- ▶ Excellent cooling performance with low noise emission
- ▶ Hydraulically powered ventilation
- ▶ Thermostatically controlled cooling fan speeds

WORKHORSE, REQUIRING LITTLE MAINTENANCE

Important components are easily accessible from the ground. Comfortable access to the upper carriage platform is provided from both sides, which makes maintenance work easy.



**THE TECHNICAL SPECIFICATIONS OF THIS MHL 454 CAN'T HELP BUT
EXPERIENCE THIS POWER AND VER**

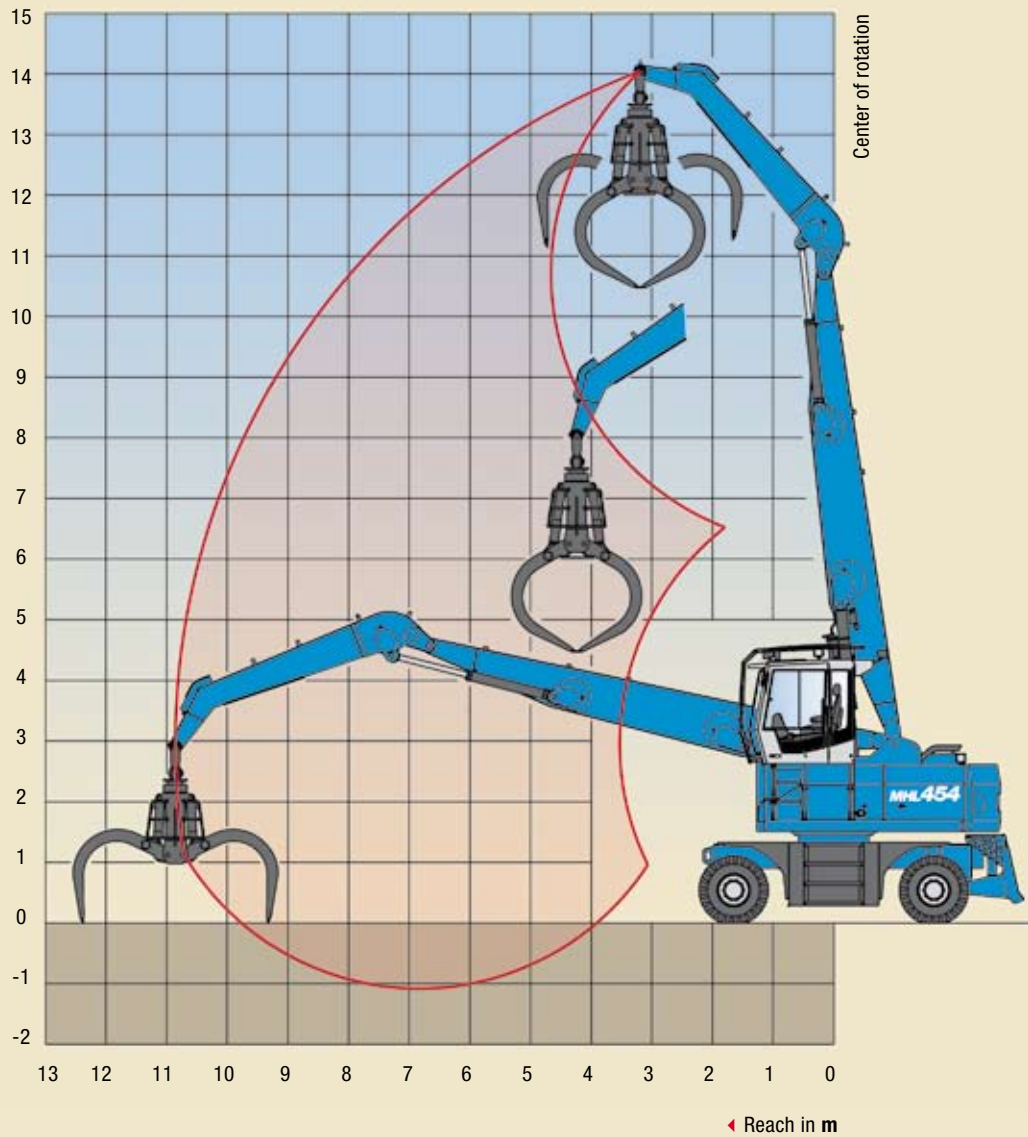


BE EXCITING
SATIVITY DAY AND NIGHT



WORKING DIAGRAM

MHL 454 REACH 10.85 m (35.6')



Work equipment:
box-type boom 7.85 m (25.8'),
dipperstick 4.5 m (14.8')

LIFTING CAPACITY

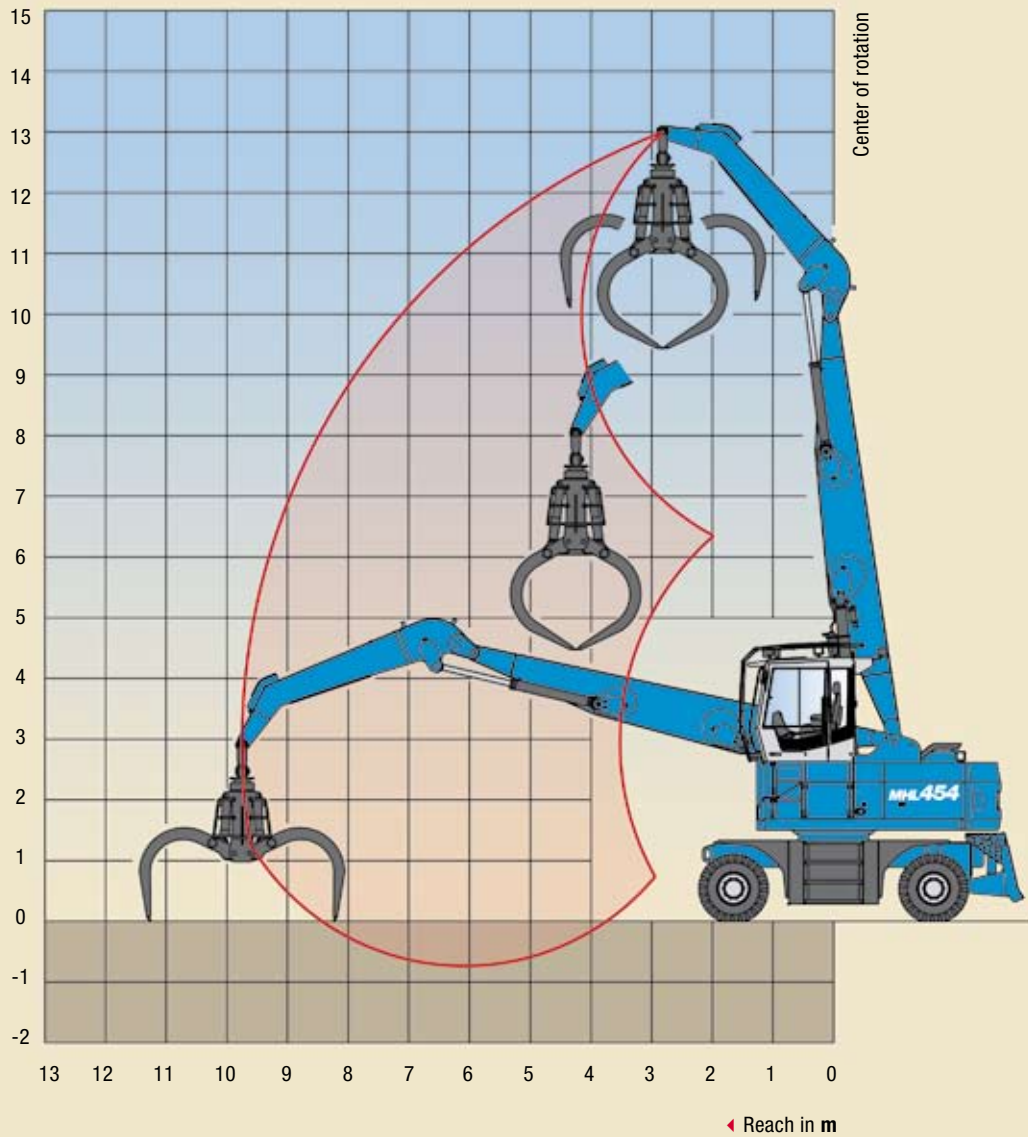
MHL 454 REACH 10.85 m (35.6')

HEIGHT m	UNDERCARRIAGE STABILIZERS	REACHES m					
		3	4.5	6	7.5	9	10.5
12	non supported		9.5* (9.5*)	9.2 (9.6*)			
10.5	non supported			9.3 (10.7*)	6.5 (8.8*)		
9	non supported		12.0* (12.0*)	9.2 (10.8*)	6.5 (8.8)	4.8 (6.6*)	
7.5	non supported	19.2* (19.2*)	13.3* (13.3*)	8.9 (11.2*)	6.4 (8.7)	4.8 (6.6)	
6	non supported		13.2 (14.5*)	8.5 (11.8*)	6.1 (8.4)	4.7 (6.4)	
4.5	non supported		12.2 (15.8*)	8.1 (11.3)	5.9 (8.2)	4.5 (6.3)	3.6 (5.0)
3	non supported		11.4 (16.6*)	7.6 (10.9)	5.6 (7.9)	4.4 (6.2)	3.5 (5.0)
1.5	non supported		10.8 (11.5*)	7.3 (10.5)	5.5 (7.7)	4.3 (6.0)	3.5 (4.9)
0	non supported		10.3* (10.3*)	7.1 (10.3)	5.3 (7.6)	4.2 (6.0)	

The values are stated in tons (t) or lbs. The pump pressure for this table is 350 bar (5,075 psi). The values amount to 75 % of the static tipping load or 87 % of the hydraulic lifting force (marked *), in accordance with ISO 10567. When the machine is standing on solid and level ground, these values apply to slewing operations through 360°. The (...) values apply to a free-standing machine, in the lengthwise direction of the undercarriage, opposite to the dozer blade. The weight of the attached load hoisting equipment (grab, load hook etc.) must be deducted from the redundant capacity values. In accordance with EC guidelines, hose-rupture safety valves on the lift cylinders and overload warning device are required for crane operations.

WORKING DIAGRAM

MHL 454 REACH 9.8 m (32.2')



Work equipment:
box-type boom 7.1 m (23.3'),
dipperstick 4.1 m (13.5')

LIFTING CAPACITY

MHL 454 REACH 9.8 m (32.2')

HEIGHT m	UNDERCARRIAGE STABILIZERS	REACHES m				
		3	4.5	6	7.5	9
10.5	non supported		11.5* (11.5*)	9.1 (11.5*)		
9	non supported		13.0* (13.0*)	9.1 (11.4*)	6.4 (8.7*)	
7.5	non supported		13.6* (13.6*)	9.0 (11.7*)	6.4 (8.7)	
6	non supported	19.1* (19.1*)	13.4 (14.8*)	8.7 (11.9)	6.2 (8.5)	4.7 (6.5)
4.5	non supported		12.6 (16.1*)	8.3 (11.6)	6.0 (8.3)	4.7 (6.4)
3	non supported		11.9 (17.0*)	7.9 (11.2)	5.9 (8.1)	4.6 (6.3)
1.5	non supported		11.4 (16.8)	7.7 (10.9)	5.7 (8.0)	4.5 (6.2)
0	non supported		11.2 (15.9*)	7.5 (10.7)	5.6 (7.9)	

The values are stated in tons (t) or lbs. The pump pressure for this table is 350 bar (5,075 psi). The values amount to 75 % of the static tipping load or 87 % of the hydraulic lifting force (marked *), in accordance with ISO 10567. When the machine is standing on solid and level ground, these values apply to slewing operations through 360°. The (...) values apply to a free-standing machine, in the lengthwise direction of the undercarriage, opposite to the dozer blade. The weight of the attached load hoisting equipment (grab, load hook etc.) must be deducted from the redundant capacity values. In accordance with EC guidelines, hose-rupture safety valves on the lift cylinders and overload warning device are required for crane operations.

TECHNICAL DATA



OPERATING WEIGHT	
	31 t - 32.5 t (68,343 lbs - 71,650 lbs)
DIESEL ENGINE	
MANUFACTURER AND MODEL	Deutz TCD 2013 L06 2V
DESIGN	6 Cylinder Inline
ENGINE CONTROL	EMR III
TYPE	4-stroke diesel engine, direct common-rail fuel-injection, turbocharger with intercooling
ENGINE OUTPUT	176 kW (236 HP)
NOMINAL SPEED	1900 min ⁻¹
DISPLACEMENT	7.2 l (436 cu in)
COOLING SYSTEM	Liquid intercooling with temperature controlled fan speed, independent fan drive
EMISSION STANDARDS	COM III and EPA Tier III
AIR FILTER DESIGN	Two-stage filter with safety valve
FUEL CAPACITY (USABLE)	570 l (150 US GAL)
ELECTRICAL SYSTEM	
OPERATING VOLTAGE	24 V
BATTERIES	2 x 12 V / 100 Ah / 760 A (in accordance with EN)
LIGHTING SET	2 XENON headlights at machine front, 2 XENON floodlights on dipperstick
OPTION	3 XENON floodlights (2 at rear of machine, 1 on right hand side), 1 XENON floodlight on cab roof (front left), 1 XENON floodlight on cab roof (left rear)
TRAVEL DRIVE	
	Infinitely variable hydrostatic drive with automatic control. High traction force; all wheel drive. Electronic single driving pedal with direction pre-selection in joystick (information on display)
TRAVEL SPEED	max. 25 km/h
TURNING RADIUS	5.5 m
SWING SYSTEM	
RING GEAR	Internally toothed ball ring gear (double row)
DRIVE	Three-stage planetary gear with integrated multi-disc brake
UPPER CARRIAGE SWING SPEED	infinitely variable from 0 - 8 min ⁻¹
PIVOT BRAKE	electrically operated
UNDERCARRIAGE	
REAR AXLE	Oscillating planetary drive rear axle with integrated drum brake and selectable oscillating axle lock
FRONT AXLE	Planetary drive axle with integrated drum brake, rigidly mounted
TIRES	Pneumatic tires, 8-fold 12.00 - 20
PROPORTIONAL ALL-WHEEL STEERING	Electronic/hydraulic with automatic position sensor/corrector, reducing wear and tear
CENTRAL LUBRICATION SYSTEM	with central lubricant fitting

BRAKE SYSTEM	
SERVICE BRAKE	Two-circuit brake system in wheel heads with drum brakes
PARKING BRAKE	Disc brake, spring-loaded
HYDRAULIC SYSTEM	
	LINDE mobile hydraulic system with load limit control and fuel conserving power demand control. Independently driven oil cooling fan, thermostatically regulated fan speed. Main circuit: filter elements integrated in the oil tank; maintenance interval: 3,000 operating hrs. Auxiliary circuits: separate pressure filtration
MAX. PUMP CAPACITY	608 l/min
MAX. OPERATING PRESSURE	350 bar (5,075 psi)
HYDRAULIC OIL TANK	595 l (157 US GAL)
OPTION	Filter system for attachments
OPERATOR CAB	
	Elastically supported; hydraulically forward tiltable 90° by means of manual pump; ergonomically designed operator seat providing good all-round view; eye-level 3.8 m (12.5'), (4.2 m (13.8') / 4.6 m (15') optional)
HEATING	Infinitely variable hot water heating with 3-speed fan, 4 adjustable defroster nozzles
OPERATOR'S SEAT	Air-cushioned comfort-seat with low-frequency suspension, safety belt and lumbar support, seat-heating optional. Seat position, seat inclination and seat cushion multi-adjustable in line with position of armrests and pilot control units, allowing fatigue-free operation. Sound pressure level at operator's working place: Lp(A) = 70 dB(A)
MONITORING	Ergonomic instrument layout, glare-free; multi function display; function monitoring; warning and storage of deviating operating conditions, e.g. filter pressure for main and auxiliary circuits w. warning indicator and shutdown of pilot controls. Shutdown of travel and work functions when exceeding maximum hydraulic fluid and/ or coolant temperature. Shutdown of travel and work functions when coolant and/ or hydraulic fluid level drops below allowable minimum level
AIR CONDITION	With reheat function
SOUND POWER LEVEL	(guaranteed) in accordance with guideline 2000/14 EG. LW (A) = 99 dB (A)
SAFETY INSTALLATIONS	
	For crane operations in accordance with EN 474-5
	Cab protection by close proximity range limiter
OFFICIAL HOMOLOGATION	
	Certification according to CE-regulations
LUMBER GRABS	
	Grab size 3.0 m ² for short logs (optional). Depending on mission requirements
FAN REVERSAL OPTION	
	Direction reversal of engine fan and oil cooler by control electronic, may be shut off. Advantage: Increased service life in dusty conditions



EQUIPMENT

ENGINE	SERIES	OPTION
Turbocharger	•	
Intercooling	•	
Direct electronic fuel injection/common rail	•	
Automatic idle	•	
Engine pre-heating		•
Interface for engine diagnosis	•	
Fan drive temperature controlled	•	
Zyklon pre-separator for air-filter		•

UNDERCARRIAGE	SERIES	OPTION
Tandem hydrostatic travel drive	•	
Stacking blade on side of oscillating axle; integrated cylinder protection	•	
All-wheel drive	•	
Electrohydraulic all-wheel steering system	•	
Rear axle oscillating lock	•	
Special paint		•
Drum brakes	•	
Toolbox, small		•
Toolbox, large		•
Access	•	
Fenders	•	

SUPERSTRUCTURE	SERIES	OPTION
Electrical refueling pump		•
Lighting protection		•
Maintenance hood, actuated by gas spring	•	
Lockable cleaning access openings on water-intercooler	•	
Separate oil cooler with temperature controlled fan drive	•	
Automatic central lubrication system	•	
Back-up alarm		•
Special paint		•
Liquid intercooling, thermostatically controlled, separately driven	•	
Quick-drain valve on Diesel tank	•	
Quick drain valve on hydraulic oil tank	•	
Quick drain valve on water cooler	•	
Quick-drain valve on engine-oil pan	•	
Reversible fan for water intercooler		•
Reversible fan for hydraulic oil cooler		•

CAB	SERIES	OPTION
Ash-tray	•	
Lift-up skylight in cabin roof	•	
Air cushioned operator's seat with low-frequency damping, headrest, safety belt and lumbar-support	•	
Air-conditioned seat w. heating		•
FOPS protective grating		•
Hinged front windshield	•	
Front-windows break-resistant (LEXAN)		•
Hydraulically operated tilting installation	•	
Cab elevation, 0.4/ 0.8 m, rigid		•
Air condition	•	
Multi functional display	•	
Multi functional joysticks	•	
Electronic steering w. wheel		•
Bulletproof glass, front and top (sky-light not liftable, fixed front windshield)		•
Fire extinguisher, dry powder		•
Preparation for radio		•
Sliding window in cab door	•	
Safety glass	•	
Engine independent heating		•
Cassette radio		•
Radio and CD Player		•
Windscreen washer system	•	
Additional tray at instrument box		•

EQUIPMENT	SERIES	OPTION
2 XENON headlamps at machine front for traveling	•	
2 XENON working floodlights on dipperstick	•	
3 XENON floodlights (2 on rear of machine, 1 right hand side)	•	•
1 XENON floodlight on cab roof (front left)		•
1 XENON floodlight on cab roof (rear left)		•
Ball valves on dipperstick	•	
Hydraulic oil preheating		•
Close proximity range limiter for dipperszstick	•	
Thermostatic monitoring of coolant and hydraulic fluid temperatures	•	
Coolant and hydraulic oil level monitoring system	•	
Pipe break protection for stick cylinder		•
Pipe break protection for lift cylinder	•	
Hydraulic cushioning system of the lift cylinders	•	
Lubrication of the grab suspension through the central lubrication system	•	
Grab connected to central lubrication system	•	
Overload warning/ shut-off installation		•
Quick-connect coupling on dipperstick		•
Special tires		•



Terex | Fuchs GmbH

Industriestraße 3

D-76669 Bad Schönborn
Germany

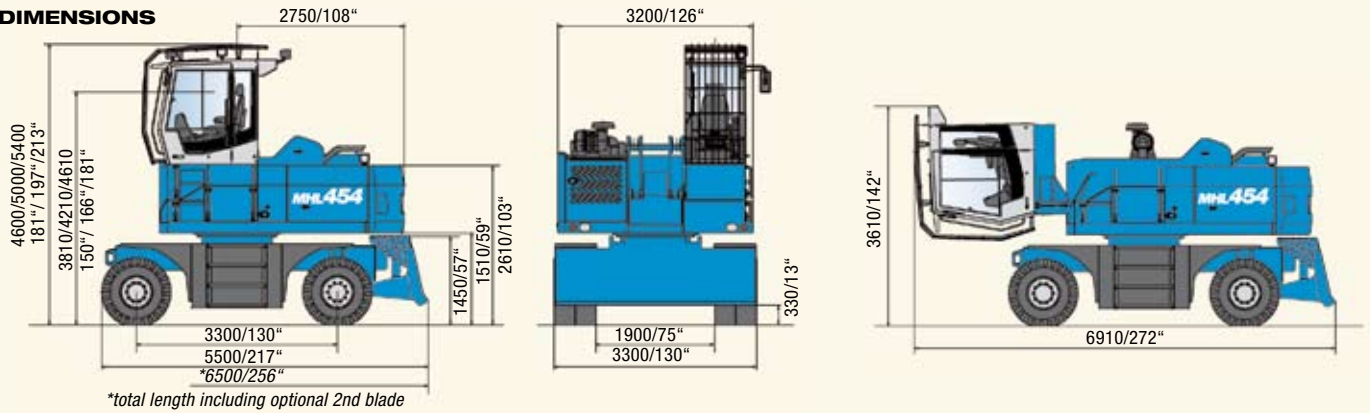
TEL ++49 (0) 72 53 / 84-0

FAX ++49 (0) 72 53 / 8 41 11

EMAIL info@terex-fuchs.de

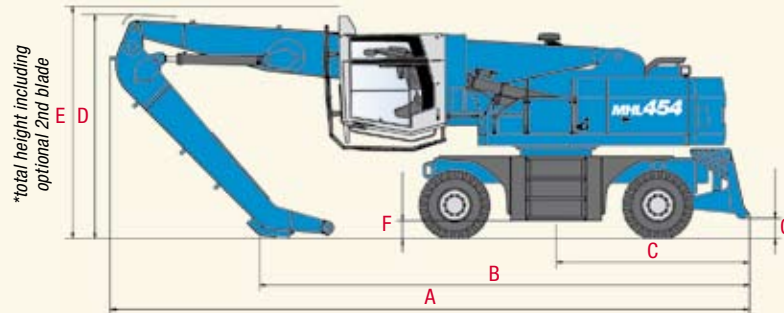
WEB www.terex-fuchs.de

DIMENSIONS



*total length including optional 2nd blade

TRANSPORT DIMENSIONS



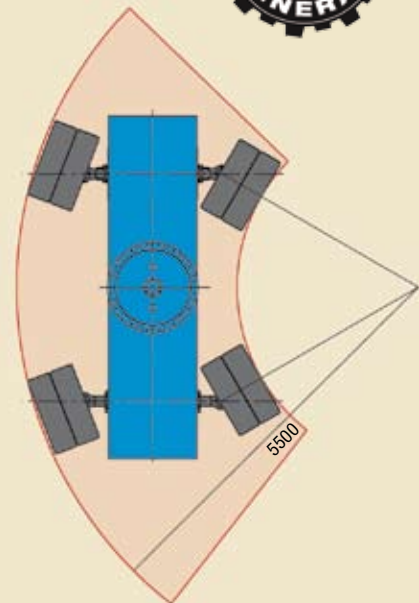
*total height including optional 2nd blade



DIMENSIONS	REACH 10.85 m (35.6')	REACH 9.8 m (32.2')
A	10,500 mm (413")	9,700 mm (382")
B	7,950 mm (312")	7,800 mm (307")
C	3,140 mm (123")	3,140 mm (123")
D	3,650 mm (144")	3,630 mm (143")
E	*3,800 mm (150")	*3,800 mm (150")
F	390 mm (15")	390 mm (15")
G	330 mm (13")	330 mm (13")

*total height including optional 2nd blade

DISTRIBUTOR



TURNING RADIUS