

TH3

Technical Specification



Technical Specifications

Operating weight without attachment

TH3	20,9 - 21,9 t (46,076 - 48,281 lbs)	
Diesel engine		
	EU Stage V / US Tier 4	EU Stage IIIA / US Tier 3**
Manufacturer and model	Deutz TCD 3.6 L04	Deutz TCD 3.6 L04
Design	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
Engine rating	95 kW (127 hp)	95 kW (127 hp)
Rated speed	1850 rpm	1850 rpm
Displacement	3.6 L (220 cui)	3.6 L (220 cui)
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
Emission standard	EU Stage V / US Tier 4 / China 4	EU Stage IIIA / US Tier 3
Fuel tank (Diesel)	275 L (73 gal)	275 L (73 gal)
Urea Tank (AdBlue)	20 L (5.3 gal)	—
Electrical system		
Alternator	28 V / 100 A	28 V / 100 A
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 (3.1 mph)	
Traveling speed 2nd gear	max. 19 kph (11.8 mph)	
Turning radius (all-wheel steering)	4.5 m (14' 9")	
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	



Technical Specifications

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
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Air-conditioning system	Automatic air-conditioning. Hot water heating with variable temperature control and 8-speed fan, 8 adjustable air nozzles, 3 defroster nozzles
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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..
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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.
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	EU Stage V / US Tier 4	EU Stage IIIA / US Tier 3*
Sound level	Sound power level (outdoor) LWA 97.7 dB(A) (measured) according to directive 2000/14/EC LWA 99 dB(A) (guaranteed) according to directive 2000/14/EC Sound pressure level (inside the cabin) according to ISO 6396 standard LpA 72 dB(A)	Sound power level (outdoor) LWA 99.3 dB(A) (measured) 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 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)
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Certification in accordance with CE guidelines

Voluntary DGUV type examination

Undercarriage

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

Service brake	Hydraulic braking system acting on all four wheel pairs
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Parking brake	Electrically operated spring-loaded drum brake at transmission, acting on both front and rear axle
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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.
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Max. Flow rate	305 lpm (81 gpm)
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Max. Working pressure	320 / 360 bar (4641 / 5221 psi)
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Hydraulic oil tank	272 l (72 gal)
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Filtration	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 μm . Very good separation values are already achieved with particle sizes of 3 μm . Generously dimensioned for long operating times.
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Cooling system	Separated high-performance cooler with demand driven, temperature-dependent fan drive and reversible fa
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TH3

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

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

UNDERCARRIAGE

- 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





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	●	

Undercarriage	Standard	Option
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		●
Cab		
Vertically adjustable cabin	●	
Tilttable cab up to 30°		●
Single-pane safety glass (ESG)	●	
Polycarbonate safety screens (front & roof)		●
Sliding window in cab door	●	

All specifications subject to change without notice.



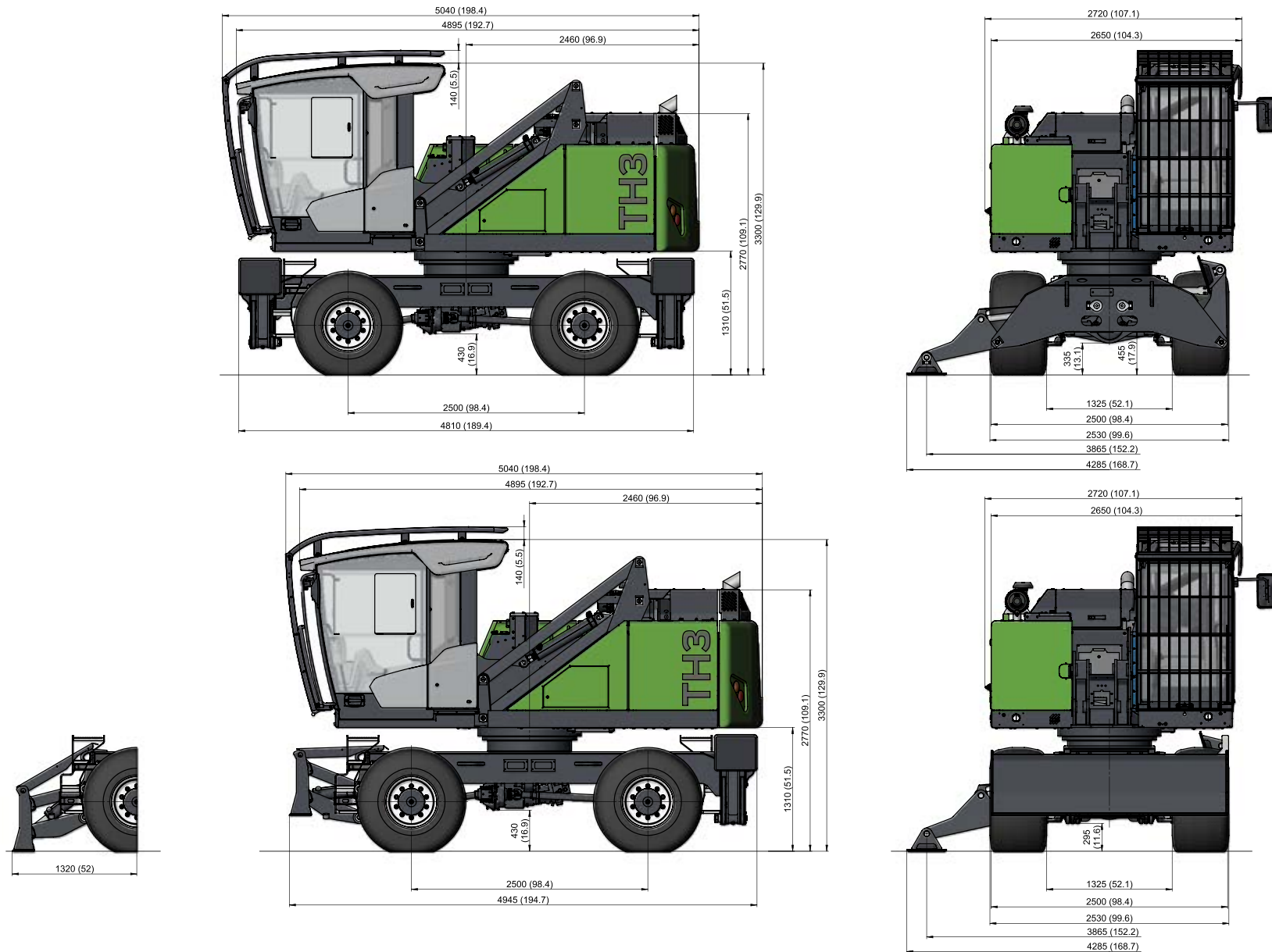
Equipment

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 beacons		●

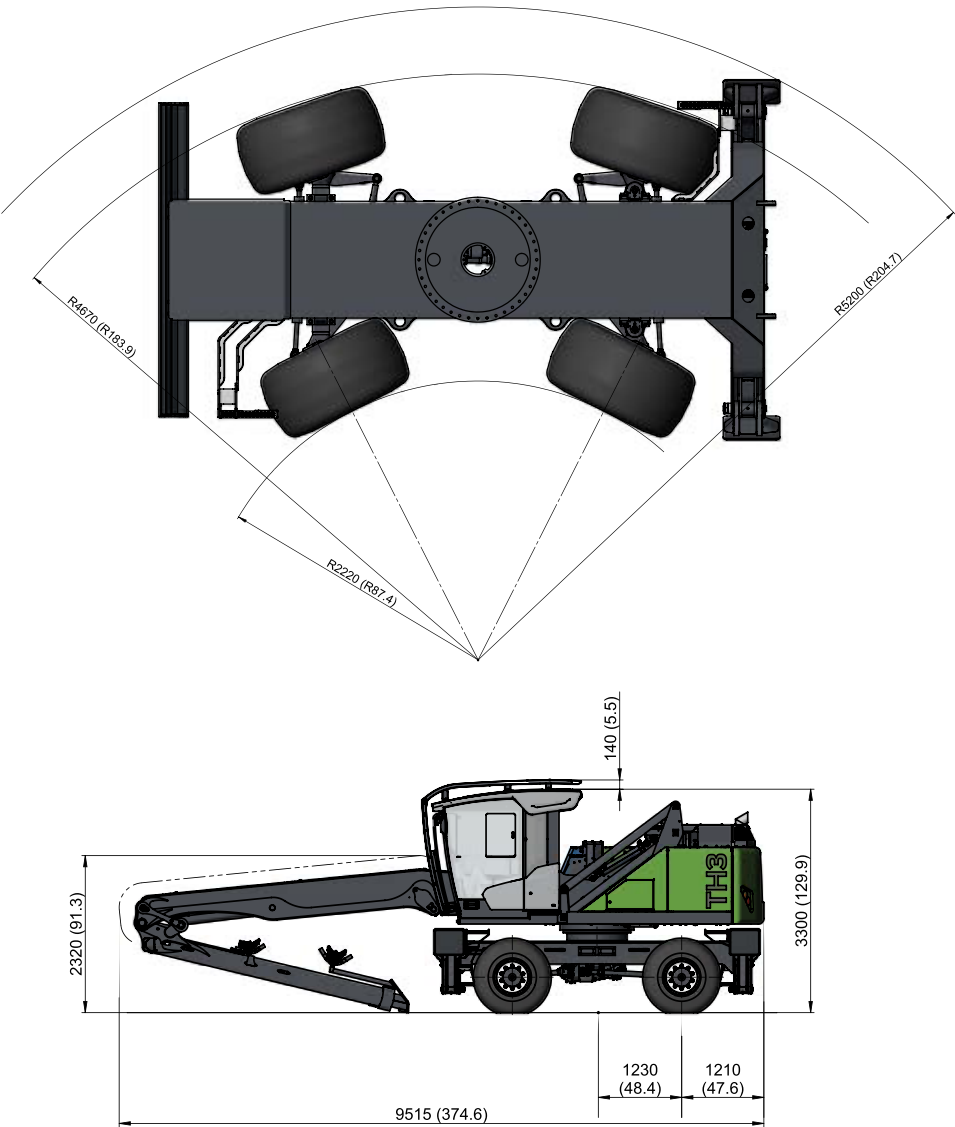
Other equipment	Standard	Option
Close proximity range limiter for dipperstick	●	
Coolant and hydraulic oil level monitoring system	●	
Filter system for attachments		●
Pressure switch 250 bar/320 bar (3626/4641 psi) for attachments	●	
Rupture valves for lifting cylinders		●
Active cyclone prefilter		●
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	●	

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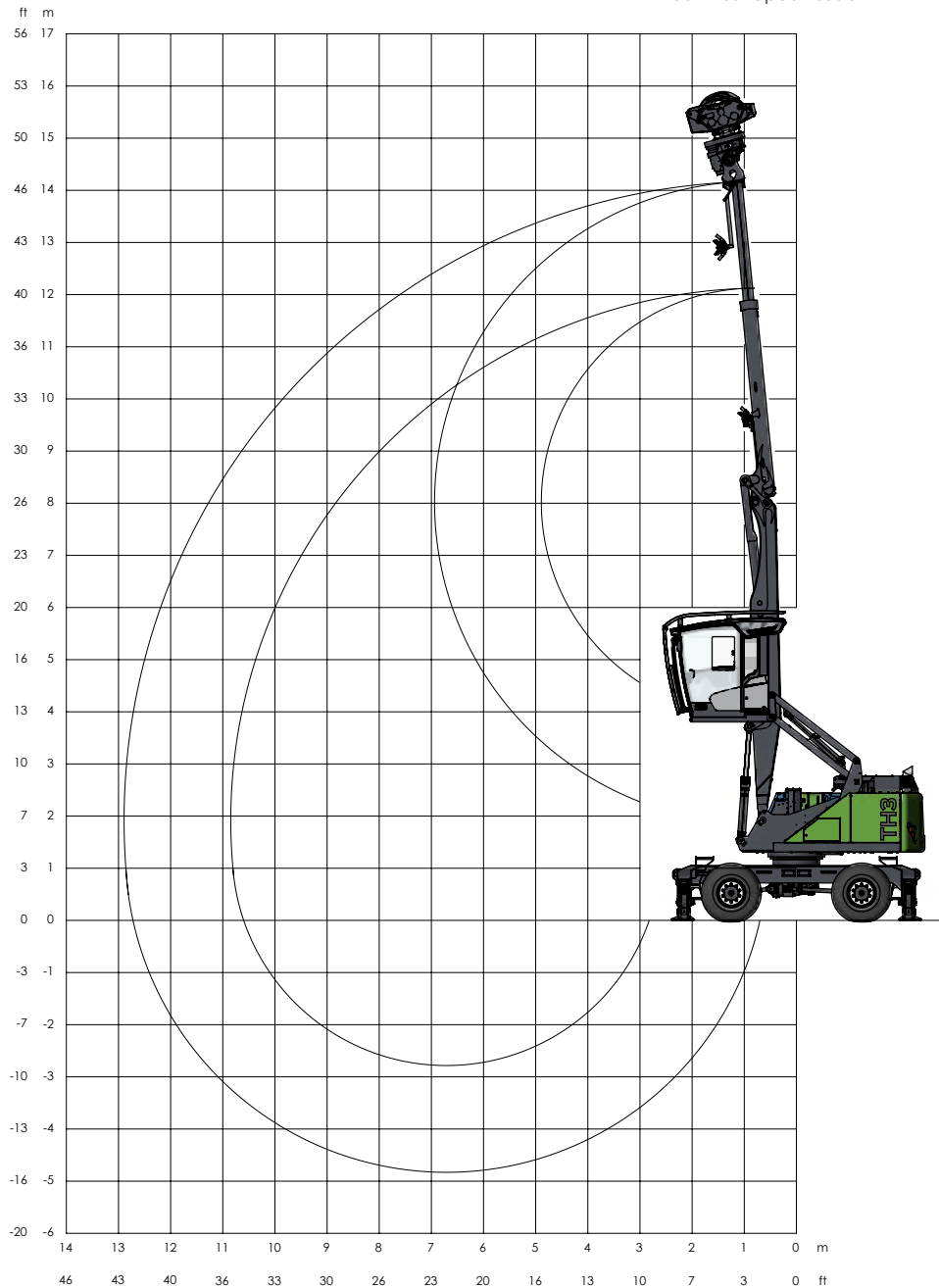
Technical Drawings



Technical Drawings



Technical Specification



Lifting Capacity

Loading equipment: boom 6.1 m (20'), telescopic stick 4.2/6.2 m (14'/20')

height m/ft	Undercarriage Outrigger	Reach in metres/feet					
		4.5 m (15')	6 m (20')	7.5 m (25')	9 m (30')	10.5 m (35')	12 m (40')
13.5 (45')		5,9° 5,9°					
12 (40')			3,3° 3,3°	3,7° 3,7°			
10.5 (35')				2,8° 2,8°	2,9° 2,9°		
9 (30')				2,8° 2,8°	2,6° 2,6°	2,6° 2,6°	
7.5 (25')				2,9° 2,9°	2,7° 2,7°	2,5° 2,5°	
6 (20')				3,2° 3,2°	2,9° 2,9°	2,6° 2,6°	2,3° 2,3°
4.5 (15')			3,6° 3,6°	3,6° 3,6°	3,3° 3,3°	2,8° 2,8°	2,4° 2,3°
3 (10')		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 (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 (-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 (-10')		5,8° 5,8°	5,3° 5,3°	4,0° 4,0°	3,0° 3,0°	2,0° 2,0°	
-4.5 (-15')			3,8° 3,8°	2,9° 2,9°			
max. reach 12.8 m (42')							
1.5 (40')							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.



Attachments



Vosch Tree Handler System

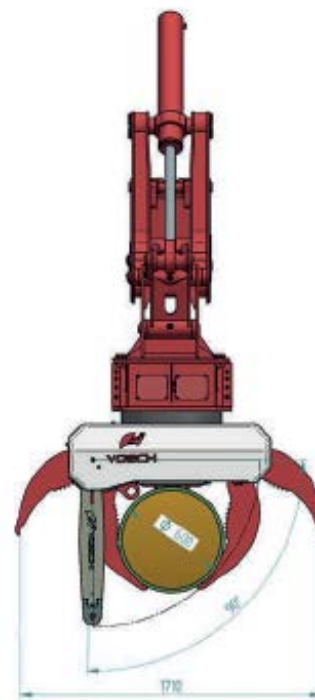
The system consists of the VOSCH dynamic tilt unit and the VOSCH grapple saw unit.

A professional and highly durable saw system with a $\frac{3}{4}$ " pitch harvester saw chain, designed for the TH3.

The Vosch Tree Handler system allows you to work safe, quick and be versatile, switching between other VOSCH attachments like the stump grinder, forestry mulcher or many more.

SAW UNIT

33" $\frac{3}{4}$ " saw unit



BKS 1610

Weight(kg)	1.575
Pressure max tilt (bar)	250
Pressure max o/c (bar)	350
Pressure max rotate (bar)	235
Oil flow open close (L/min)	60
Oil flow rotate (L/min)	60
Oil flow saw (L/min)	160
Max grapple open (mm)	1.710
Max cutting diameter (mm)	60
Saw motor displ. (cm ³ /rev)	30
Saw bar (inch/cm)	33"/84
Saw chain pitch	$\frac{3}{4}$ "
Closing force (kN)	52
Rotation force (kN)	45
Tilt force (kN)	82kN
Tilt angle (°)	165
Tines (pcs)	4
Rotation	Endless



Notes



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