

PRODUCT
SPECIFICATION

 **TEREX**®

 **ECOTEC**

TWH 220

WASTE HANDLER



95 kW (Diesel, EU Stage V / US EPA Tier 4)
95 kW (Diesel, EU Stage IIIA / US Tier 3)
75 kW (Electric)



19.3 - 21.0t



max. 10.4 m

www.terex.com/ecotec



Technical Data

Operating weight without attachments

TWH 220	19.3–21.0 t
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Diesel engine

	EU Stage V / US Tier 4	EU Stage IIIA / US Tier 3*
Manufacturer / model	Deutz TCD 3.6 L04	Deutz TCD 3.6 L04
Design	4-cylinder in-line engine	4-cylinder in-line engine
Functionality	4-cycle diesel, common rail direct injection, turbocharged with intercooler, controlled exhaust gas recirculation, diesel particulate filter with continuous regeneration and SCR catalytic converter	4-cycle diesel, common rail direct injection, turbocharged with intercooler
Engine power	95 kW	95 kW
Rated speed	2,000 rpm	2,000 rpm
Displacement	3.6 l	3.6 l
Cooling system	Water and charge air cooling with temperature controlled fan speed	Water and charge air cooling with temperature controlled fan speed
Exhaust emission standard	EU Stage V / US Tier 4	EU Stage IIIA / US Tier 3*
Fuel tank	305 l Diesel	305 l Diesel
DEF / Urea tank	20 l AdBlue	-

Electric motor

Power	75 kW
Total connected load	100 kW
Motor start	Via soft start
Optional cable reel	Up to 50 metres (other lengths on request)

Electrical system

Alternator	28 V / 100 A
Operating voltage	24 V
Battery	2 × 12 V / 110 Ah / 750 A (according to EN)
Lighting system	2 × LED headlamps, turn indicators and tail lights

Travel drive

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

Travel speed 1st gear	max. 5 kph
Travel speed 2nd gear	max. 20 kph
Gradeability	max. 55 %
Turning radius	7.0 m

Slewing drive

Slewing ring	Internally geared, double-row ball turning ring
Drive	2-stage planetary gear with integrated multi-disc brake
Uppercarriage swing speed	0–8 rpm variable
Slewing lock	Electrically activated

Undercarriage

Front axle	Planetary drive axle with integrated drumbrake, rigidly mounted
Rear axle	Oscillating planetary drive rear axle with integrated drum brake and selectable oscillating lock
Outriggers	4-point stabilisers 2-point stabilisers with support blade
Tyres	10.00-20 solid rubber with intermediate rings

Brakes

Service brake	Hydraulic single-circuit braking system acting on all four wheel pairs (drum brakes)
Parking brake	Electrically operated spring-loaded drum brake at transmission, acting on both front and rear axle

Hydraulic system

Max. pump capacity	290 lpm
Max. operating pressure	320 / 360 bar
Hydraulic oil tank	275 l

Operator's 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. Vertically adjustable cabin: viewing height of 5.3 m	
Air conditioning	Automatic air-conditioning. Infinitely variable heating with 8-speed fan, 10 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. Automatic monitoring and storage of deviating operating states (e.g. all hydraulic oil filters, hydraulic oil temperature, coolant and charge air temperature, diesel particulate filter loading, steering), visual and audible warning. Diagnostic option for the individual sensors via the multifunction display. Rear view and side view camera on the right with separate monitor.	
Noise level	EU Stage V / US Tier 4	EU Stage IIIA / US Tier 3*
	Sound power level (ambience) L_{WA} 97.7 dB(A) (metered) acc. to directive 2000/14/EG L_{WA} 99 dB(A) (guaranteed) acc. to directive 2000/14/EG Sound pressure level (inside the cabin) acc. to standard ISO 6396 L_{pA} 72 dB(A)	Sound power level (ambience) L_{WA} 99.3 dB(A) (metered) acc. to directive 2000/14/EG L_{WA} 100 dB(A) (guaranteed) acc. to directive 2000/14/EG Sound pressure level (inside the cabin) acc. to standard ISO 6396 L_{pA} 69 dB(A)
Vibrations	Weighted r.m.s. value of acceleration of upper limbs under 2.5 m/s ² (98 in/s ²) Weighted effective value of acceleration for the seat and feet under 0.5 m/s ² (20 in/s ²)	

Certified in accordance with CE regulations

Specification subject to change without notice.

* for low-regulated markets

Engine	Standard	Option
Intercooler and coolant radiator	●	
Direct electronic fuel injection / common rail	●	
Advanced automatic idle incl. engine shut-off function	●	
Engine diagnostics interface	●	
Temperature-dependent fan drive	●	
Undercarriage		
All-wheel drive	●	
Drum brake	●	
Rear axle oscillating lock	●	
4-point stabilisers	●	
2-point stabilisers with support blade		●
Dozer blade in addition to 4-point stabilisers		●
Stabiliser cylinders with integrated two-way check valves	●	
Piston rod protection on stabiliser cylinders	●	
Tool box	●	
Solid rubber tyres with intermediate rings	●	
Uppercarriage		
Separate cooling system for engine and hydraulic oil cooler	●	
Cooling system with temperature-dependent fan drive	●	
Fan drive reversing function	●	
Automatic central lubrication system	●	
Rear view camera	●	
Side view camera	●	

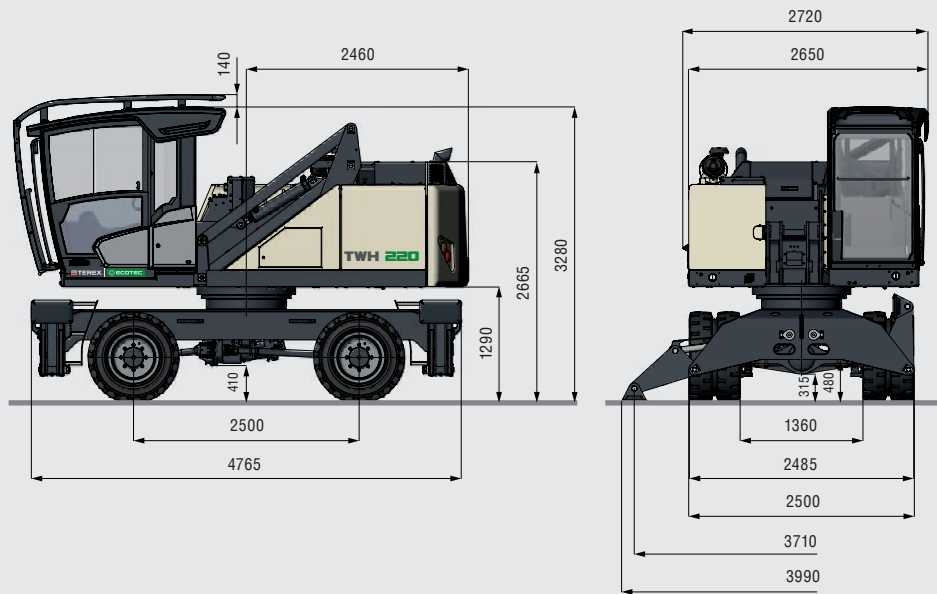
Cab	Standard	Option
Vertically adjustable cabin (max. viewing height of 5.3 m)	●	
Single-pane safety glass (ESG)	●	
Roof guard grille (FOPS)		●
Cabin front and top guard		●
Sliding window in cab door	●	
Windshield washer system	●	
Roof washer system		●
Air-cushioned operator seat with headrest, seatbelt, and lumbar support	●	
Joystick steering	●	
Automatic air conditioning system	●	
Multi-function display	●	
Document clip	●	
Digital radio (DAB+, USB, Bluetooth and hands-free system)	●	
12V socket		●
Fire extinguisher, dry powder with holder		●
Travel alarm with rotating beacon		●
Other equipment		
Close proximity range limiter for dipper stick	●	
Coolant and hydraulic oil level monitoring system	●	
Filter system for attachments		●
Rupture valves for lifting cylinders		●
Rupture valves for stick cylinders		●
Overload and working area control		●
Overload warning device		●
Quick coupling on dipper stick	●	
Dipper stick impact protection		●
Active cyclone prefilter (TOP AIR)		●
Lubrication of the grab suspension by central lubrication system	●	
Light packages LED		●
LED front headlights	●	
LED working lights cabin roof front	●	
Boom cylinder damping system (piston accumulator)		●
Fuchs Connect telematics system, incl. 5 years contract	●	

Further optional equipment available on request!
Specification subject to change without notice.

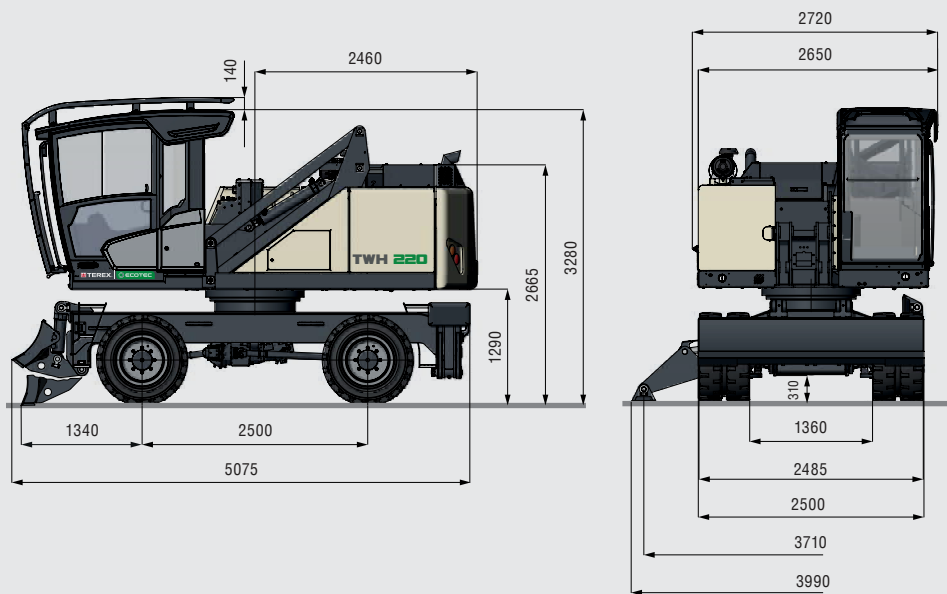
Dimensions

(all dimensions in mm)

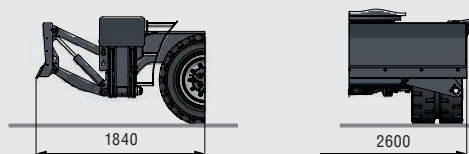
Undercarriage equipped with
4-point stabilisers



Undercarriage equipped with
2-point stabilisers and support blade



Dozer blade
in addition to 4-point stabilisers

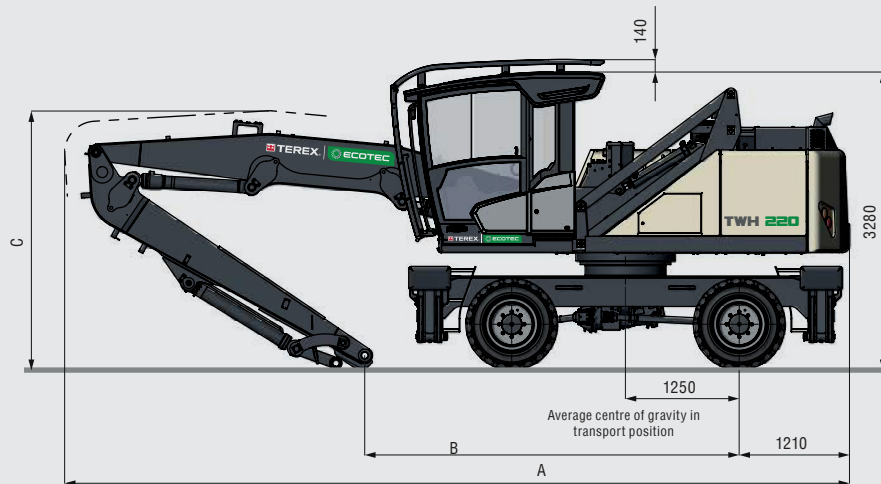


Transport Dimensions

(all dimensions in mm)

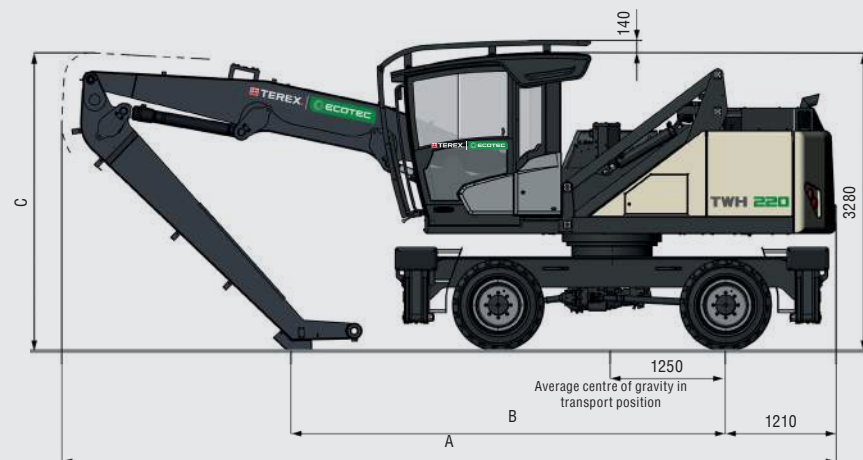
TWH 220

8.2 and 9.2m reach
with multi-purpose stick



	8.2m	9.2m
A	7545 mm	8625 mm
B	3480 mm	4140 mm
C	3150 mm	2850 mm

9.5m and 10.4m reach
with dipper stick



	9.5m	10.4m
A	8510 mm	8070 mm
B	4745 mm	4035 mm
C	3275 mm	4825 mm

Working Ranges and Load Capacities

9.5 m reach with dipperstick

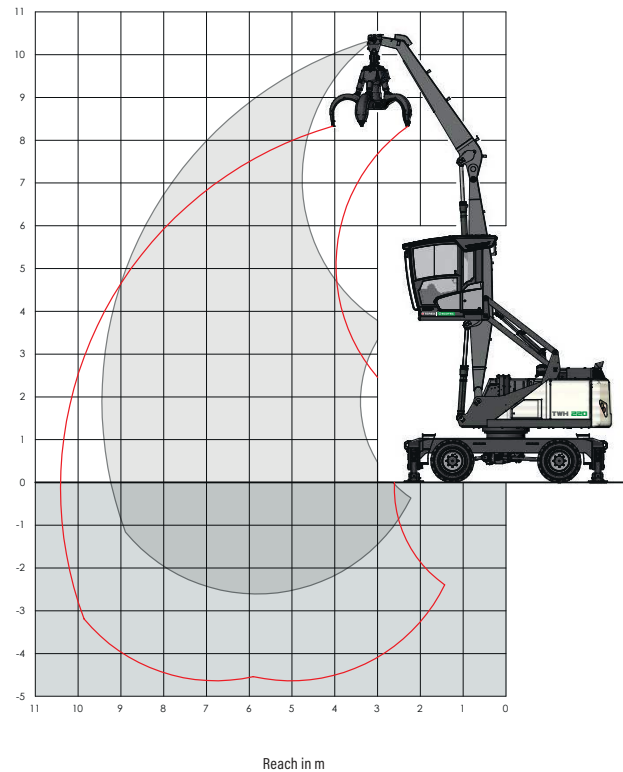
Loading equipment

Boom: 5.2 m

Dipperstick: 4.0 m

Cactus grab: 0.6 m³

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 values for "not supported" only apply via the steering axle or the locked oscillating axle. 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 device 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.



Height [m]	Undercarriage stabilisation	Reach [m]			
		4.5	6	7.5	9
9	not supported	(6.5°)			
	4-point supported	6.5° (6.5°)			
	2-point supported with blade	6.5° (6.5°)			
7.5	not supported		(4.6°)		
	4-point supported		5.7° (5.7°)		
	2-point supported with blade		5.7° (5.7°)		
6	not supported		(4.5°)	(3.2°)	
	4-point supported		5.7° (5.7°)	4.9° (4.9°)	
	2-point supported with blade		5.7° (5.7°)	4.0° (4.9°)	
4.5	not supported	(6.9°)	(4.4°)	(3.2°)	(2.4°)
	4-point supported	7.5° (7.5°)	6.0° (6.0°)	4.9° (4.9°)	3.8° (4.0°)
	2-point supported with blade	7.5° (7.5°)	5.6° (6.0°)	4.0° (4.9°)	3.0° (4.0°)
3	not supported	(6.5°)	(4.3°)	(3.1°)	(2.3°)
	4-point supported	8.5° (8.5°)	6.3° (6.3°)	5.0° (5.0°)	3.8° (3.9°)
	2-point supported with blade	8.4° (8.5°)	5.4° (6.3°)	3.9° (5.0°)	2.9° (3.9°)
1.5	not supported	(6.1°)	(4.1°)	(3.0°)	(2.3°)
	4-point supported	9.2° (9.2°)	6.5° (6.5°)	4.9° (4.9°)	3.7° (3.7°)
	2-point supported with blade	8.0° (9.2°)	5.2° (6.5°)	3.8° (4.9°)	2.9° (3.7°)
0	not supported	(5.9°)	(3.9°)	(2.9°)	(2.3°)
	4-point supported	8.6° (8.6°)	6.2° (6.2°)	4.5° (4.5°)	3.1° (3.1°)
	2-point supported with blade	7.7° (8.6°)	5.0° (6.2°)	3.7° (4.5°)	2.9° (3.1°)
-1.5	not supported	(5.8°)	(3.9°)	(2.9°)	
	4-point supported	6.8° (6.8°)	5.1° (5.1°)	3.6° (3.6°)	
	2-point supported with blade	6.8° (6.8°)	5.0° (5.1°)	3.6° (3.6°)	
		Max. reach 9.5 m			
1.9	not supported				(2.2°)
	4-point supported				3.4° (3.4°)
	2-point supported with blade				2.7° (3.4°)

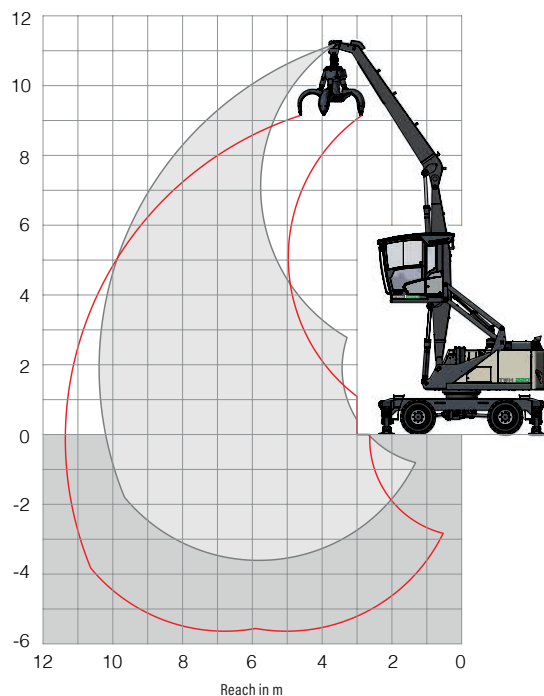
10.4 m reach with dipper stick

Loading equipment

Boom: 5.2 m

Dipper stick: 5.0 m

Cactus grab: 0.4 m³



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 values for "not supported" only apply via the steering axle or the locked oscillating axle. 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 device 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.

Height [m]	Undercarriage stabilisation	Reach [m]			
		4.5	6	7.5	9
10.5	not supported	(5.2°)			
	4-point supported	5.2° (5.2°)			
	2-point supported with blade	5.2° (5.2°)			
9	not supported		(4.7°)		
	4-point supported		4.9° (4.9°)		
	2-point supported with blade		4.9° (4.9°)		
7.5	not supported		(4.7°)	(3.3°)	
	4-point supported		5.0° (5.0°)	4.5° (4.5°)	
	2-point supported with blade		5.0° (5.0°)	4.1° (4.5°)	
6	not supported		(4.7°)	(3.3°)	(2.4°)
	4-point supported		5.1° (5.1°)	4.5° (4.5°)	3.9° (3.9°)
	2-point supported with blade		5.1° (5.1°)	4.1° (4.5°)	3.1° (3.9°)
4.5	not supported		(4.6°)	(3.2°)	(2.4°)
	4-point supported		5.4° (5.4°)	4.6° (4.6°)	3.9° (4.0°)
	2-point supported with blade		5.4° (5.4°)	4.0° (4.6°)	3.0° (4.0°)
3	not supported	(6.8°)	(4.4°)	(3.1°)	(2.4°)
	4-point supported	7.6° (7.6°)	5.9° (5.9°)	4.8° (4.8°)	3.8° (4.0°)
	2-point supported with blade	7.6° (7.6°)	5.5° (5.9°)	3.9° (4.8°)	3.0° (4.0°)
1.5	not supported	(6.3°)	(4.2°)	(3.0°)	(2.3°)
	4-point supported	8.7° (8.7°)	6.3° (6.3°)	4.9° (4.9°)	3.7° (3.9°)
	2-point supported with blade	8.2° (8.7°)	5.3° (6.3°)	3.8° (4.9°)	2.9° (3.9°)
0	not supported	(5.9°)	(4.0)	(2.9°)	(2.2°)
	4-point supported	9.0° (9.0°)	6.4° (6.4°)	4.8° (4.8°)	3.6° (3.6°)
	2-point supported with blade	7.8° (9.0°)	5.1° (6.4°)	3.7° (4.8°)	2.8° (3.6°)
-1.5	not supported	(5.7°)	(3.8°)	(2.8°)	(2.2°)
	4-point supported	8.1° (8.1°)	5.8° (5.8°)	4.3° (4.3°)	3.0° (3.0°)
	2-point supported with blade	7.6° (8.1°)	4.9° (5.8°)	3.6° (4.3°)	2.8° (3.0°)
-3	not supported	(5.7°)	(3.8°)	(2.8°)	
	4-point supported	6.0° (6.0°)	4.4° (4.4°)	3.1° (3.1°)	
	2-point supported with blade	6.0° (6.0°)	4.4° (4.4°)	3.1° (3.1°)	
Max. reach 10.4 m					
1.9	not supported				(1.9°)
	4-point supported				3.0° (3.0°)
	2-point supported with blade				2.4° (3.0°)

Working Ranges and Load Capacities

8.2 m reach with multi-purpose stick

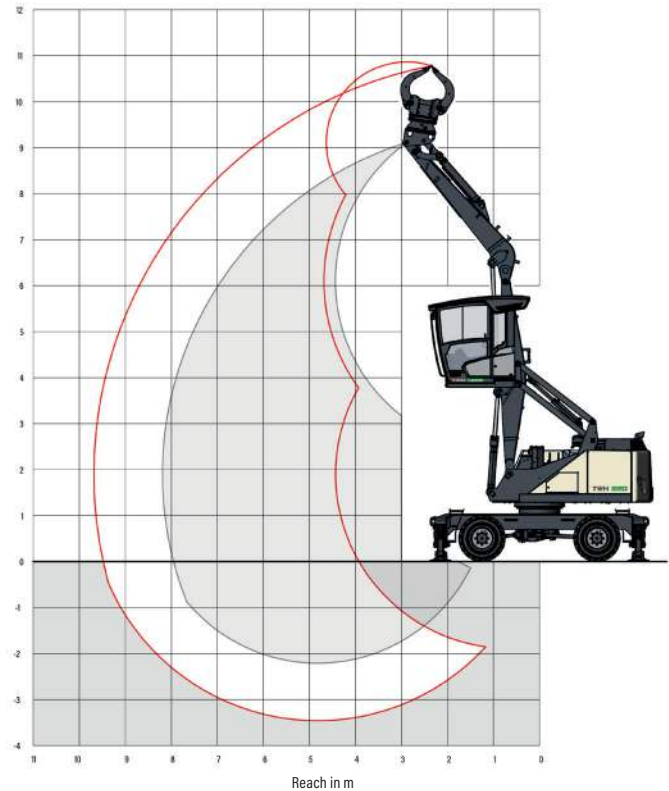
Loading equipment

Boom: 4.2 m

Multi-purpose stick: 3.7 m

Sorting grab

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 values for "not supported" only apply via the steering axle or the locked oscillating axle. The weights of the attached load hoisting equipment (grab, load hook, etc.) must be deducted from the lift capacity values. The working load of the lifting device 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.



Height [m]	Undercarriage stabilisation	Reach [m]			
		3	4.5	6	7.5
7.5	not supported		(6.8°)		
	4-point supported		6.8° (6.8°)		
	2-point supported with blade		6.8° (6.8°)		
6	not supported		(6.8°)	(4.3°)	
	4-point supported		6.8° (6.8°)	5.9° (5.9°)	
	2-point supported with blade		6.8° (6.8°)	5.5° (5.9°)	
4.5	not supported		(6.8°)	(4.3°)	(3.0°)
	4-point supported		7.2° (7.2°)	6.0° (6.0°)	4.8° (4.8°)
	2-point supported with blade		7.2° (7.2°)	5.4° (6.0°)	3.8° (4.8°)
3	not supported	(9.4°)	(6.5°)	(4.2°)	(2.9°)
	4-point supported	9.4° (9.4°)	8.2° (8.2°)	6.3° (6.3°)	4.8° (4.9°)
	2-point supported with blade	9.4° (9.4°)	8.2° (8.2°)	5.3° (6.3°)	3.7° (4.9°)
1.5	not supported	(10.5°)	(6.2°)	(4.0°)	(2.9°)
	4-point supported	10.5° (10.5°)	9.1° (9.1°)	6.4° (6.4°)	4.7° (4.7°)
	2-point supported with blade	10.5° (10.5°)	8.1° (9.1°)	5.1° (6.4°)	3.7° (4.7°)
0	not supported	(7.4°)	(5.9°)	(3.9°)	(2.8°)
	4-point supported	7.4° (7.4°)	8.8° (8.8°)	6.0° (6.0°)	4.0° (4.0°)
	2-point supported with blade	7.4° (7.4°)	7.8° (8.8°)	5.0° (6.0°)	3.6° (4.0°)
-1.5	not supported	(8.0°)	(5.8°)	(3.8°)	
	4-point supported	8.0° (8.0°)	6.9° (6.9°)	4.5° (4.5°)	
	2-point supported with blade	8.0° (8.0°)	6.9° (6.9°)	4.5° (4.5°)	
1.9	not supported				Max. reach 8.1 m (2.5°)
	4-point supported				4.0° (4.0°)
	2-point supported with blade				3.2° (4.0°)

9.2 m reach with multi-purpose stick

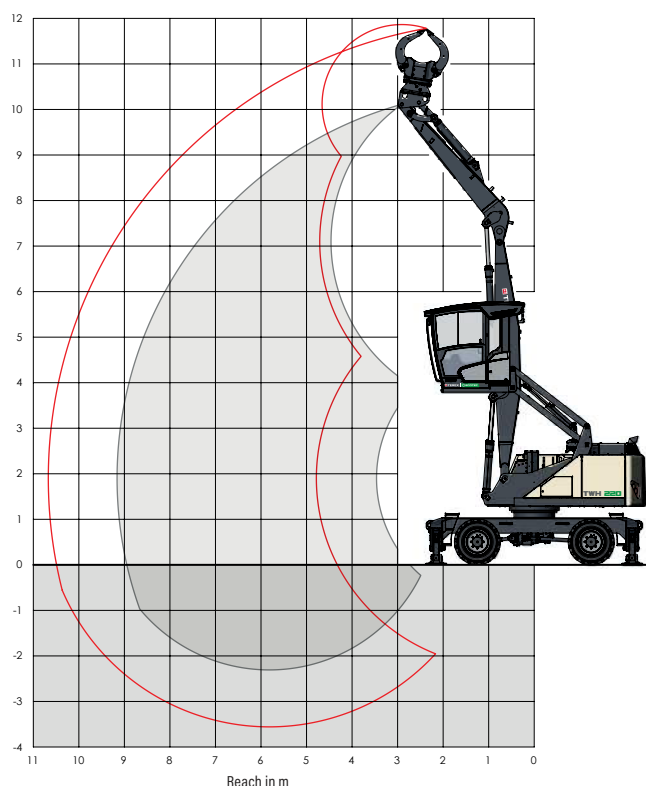
Loading equipment

Boom: 5.2 m

Multi-purpose stick: 3.7 m

Sorting grab

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 values for "not supported" only apply via the steering axle or the locked oscillating axle. 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 device 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.



Height [m]	Undercarriage stabilisation	Reach [m]			
		4.5	6	7.5	9
9	not supported	(6.5°)			
	4-point supported	6.5° (6.5°)			
	2-point supported with blade	6.5° (6.5°)			
7.5	not supported	(6.8°)	(4.3°)		
	4-point supported	6.8° (6.8°)	5.6° (5.6°)		
	2-point supported with blade	6.8° (6.8°)	5.5° (5.6°)		
6	not supported	(6.9°)	(4.3°)	(3.0°)	
	4-point supported	6.9° (6.9°)	5.6° (5.6°)	4.7° (4.7°)	
	2-point supported with blade	6.9° (6.9°)	5.5° (5.6°)	3.8° (4.7°)	
4.5	not supported	(6.6°)	(4.2°)	(2.9°)	
	4-point supported	7.5° (7.5°)	5.8° (5.8°)	4.7° (4.7°)	
	2-point supported with blade	7.5° (7.5°)	5.3° (5.8°)	3.7° (4.7°)	
3	not supported	(6.2°)	(4.0°)	(2.8°)	(2.1°)
	4-point supported	8.4° (8.4°)	6.1° (6.1°)	4.7° (4.7°)	3.6° (3.6°)
	2-point supported with blade	8.1° (8.4°)	5.1° (6.1°)	3.6° (4.7°)	2.7° (3.6°)
1.5	not supported	(5.8°)	(3.8°)	(2.7°)	(2.1°)
	4-point supported	8.8° (8.8°)	6.2° (6.2°)	4.6° (4.6°)	3.2° (3.2°)
	2-point supported with blade	7.7° (8.8°)	4.9° (6.2°)	3.5° (4.6°)	2.7° (3.2°)
0	not supported	(5.6°)	(3.7°)	(2.7°)	
	4-point supported	8.0° (8.0°)	5.7° (5.7°)	4.1° (4.1°)	
	2-point supported with blade	7.4° (8.0°)	4.8° (5.7°)	3.5° (4.1°)	
-1.5	not supported	(5.5°)	(3.6°)	(2.6°)	
	4-point supported	6.0° (6.0°)	4.4° (4.4°)	3.0° (3.0°)	
	2-point supported with blade	6.0° (6.0°)	4.4° (4.4°)	3.0° (3.0°)	
		Max. reach 9.2 m			
1.9	not supported			(2.0°)	
	4-point supported			3.2° (3.2°)	
	2-point supported with blade			2.6° (3.2°)	

Customer Support

We work with our customers to understand their equipment needs to select the product most suited to their business requirements. Terex Ecotec customer support incorporates a range of services including parts, technical support, warranty and financial services.



The Right Part at the Right Time

Terex Ecotec has a full inventory of genuine Terex parts through our global support locations and dealer network. We are committed to getting the right parts delivered at the right time. Using genuine Terex parts ensures optimum performance and reliability.



Warranty Delivering on our promise so you can keep yours

Terex Ecotec warrants its new equipment to be free of defects in material or manufacture for a specified period from the date the equipment is first used.



Expert technical support

Terex Ecotec provide highly qualified service personnel to ensure that we have the ability to provide technical support when our customers need it. This support is provided in conjunction with our dealer network. We ensure our customers are supported throughout the lifecycle of their machine.



Terex Financial Services Financing that works for you

Terex Ecotec are able to offer finance solutions to our customers. Our team of finance professionals know the importance of working closely with customers to understand their unique business challenges as well as their financial goals and requirements. Obtaining financing is often a time-consuming task, so we work hard to provide a reliable, flexible and responsive service.



**Delivering On Our Promises,
So You Can Keep Yours.**





CAMPSIE

20 Keans Hill Road
Campsie Industrial Estate
BT47 3YT, Northern Ireland

Tel.: +44 (0) 28 7122 3110

DUNGANNON

32 Farlough Road
Dungannon, Co. Tyrone
BT71 4DT, Northern Ireland

Tel: +44 (0) 28 87 718 500

Dealer Stamp:

NEWTON

22 Whittier Street
Newton, New Hampshire
USA, 03858

Tel: +1 (603) 382 0556

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