

# TW75



Operating weight	7,200 - 8,000 kg
Engine Yanmar	Yanmar 4TNV98CT with DPF
Engine power	53.7 kW (73 HP)
Travel speed	0-36 km/h
Digging force (arm / bucket)	30 kN / 38 kN
Dig depth	3,500 - 3,800 mm
Maximum reach	6,990 - 7,280 mm



# Performance, precision and productivity for urban jobsites



## EXCEPTIONAL PERFORMANCE

Designed with productivity in mind, the TW75 sets the standards in power and performance. Thanks to its compact dimensions, unique design and innovative hydraulic system, the excavator is perfect for lifting and carrying heavy loads in situations where space comes at a premium - such as urban jobsites, highway construction projects and landscaping tasks.



## STATE-OF-THE-ART ENGINE

Powered by the latest Yanmar's 4TNV98CT 4-cylinder turbocharged diesel engine with cooled EGR and DPF as standard, the TW75-5 is fuel efficient, environmentally friendly and fully-compliant with EU Stage V emissions legislation. Direct injection and common rail technology maximize engine performance, while auto-deceleration (available as an option) provides further control for the operator.





## UNIQUE 'SMART CONTROL'

The TW75 is fitted with Yanmar's Smart Control operating system as standard, which enables the operator to match excavator power with precise jobsite application. This flexibility maximizes productivity, optimizes cycle times and guarantees outstanding performance.



## ERGONOMIC DESIGN

Thanks to the adoption of intuitive operator technologies, such as multi-functional joysticks, fingertip operation and Smart Control, the TW75 is easy and enjoyable to operate – the perfect combination for a highly productive workday.



## COMFORTABLE CAB

Spacious, comfortable and quiet, the TW75 cab has been designed with the operator firmly in mind. Ergonomic control arrangement, class-leading visibility and clear display screens provide the perfect environment for safe and efficient operation.



## MANAGEABLE MAINTENANCE

Clever design, large service doors and easy access to the engine bay means that daily maintenance checks can be delivered simply and safely from ground-level.



## RELIABLE POWERLINE

Thanks to reliable, heavy-duty components, operators no longer have to choose between power and compactness. Difficult tasks can be completed easily – even in the tightest of spaces!



## VERSATILE AND FLEXIBLE

The TW75 can be tailored with a wide variety of options and attachments to ensure perfect suitability for exacting applications. From construction and landscaping, to pipelaying and highway maintenance, there's a setup for almost every task.



# POWER, PERFORMANCE AND PRODUCTIVITY

The TW75 is the perfect combination of power and precision, adopting next-generation technology to maximize performance and minimize environmental impact. Versatile, flexible and designed with the operator in mind, it promises to deliver over and above all expectations – regardless of application.

## NEXT GENERATION ENGINE

The result of significant progress in low-carbon vehicle operation, Yanmar's 4TNV98CT engine meets the latest Stage V European emissions regulations. From cooled exhaust gas recirculation (EGR) technology, to the addition of a diesel particulate filter (DPF), NOX and PM figures are consequently minimized. To further improve efficiencies, Schaeff has developed and employed an exclusive regeneration system to prevent clogging and cleaning downtime.

## FUEL EFFICIENT, LOW EMISSIONS

- + The ECU manages RPM according to torque demand, which optimizes the engine load. This reduces fuel consumption and improves productivity.
- + When duty cycles require little power or movement, Yanmar's Eco Mode technology takes control of the engine speed to reduce operating costs.
- + Optional auto-deceleration technology (available as an optional extra) switches the engine to idle if the operating levers are left untouched for more than four seconds. This reduces fuel consumption and limits engine wear.

## MAXIMUM POWER

With a displacement of 3,319cm<sup>3</sup>, the TW75 delivers 53.7 kW / 295.5Nm torque @ 1,365rpm. This not only guarantees exceptional lifting and carrying performance, but also allows the excavator to reach travel speeds of up to 36km/h.





## INNOVATIVE HYDRAULIC SYSTEM

Thanks to a LUDV hydraulic system with four independent circuits, multiple attachments can be operated individually. For example, the driver can simultaneously operate a tilt rotator with a hydraulic quick-hitch system, alongside a hydraulically-driven tool (such as a sorting grab, asphalt cutter or cutting unit).

## OUTSTANDING PERFORMANCE

Designed to deliver exceptional results, the TW75 boasts a digging depth of 3,500mm (TPA boom), digging force of 38,000N (at bucket edge), max reach of 6,990mm (TPA boom) and max dumping height of 5,050mm (TPA boom). These class-leading capabilities help operators to carry-out a wide range of tasks, including excavating, pipelaying and groundworks.



## CLASS-LEADING STABILITY

Thanks to its unique axle design (with 14° pendulum angle), minimum tail swing, laterally installed engine and low center of gravity, operators are guaranteed class-leading stability (especially for craning work) – even with the boom fully extended.

### CYLINDERS

- + All cylinders have end position dampening to minimize vibration.



# COMPACTNESS



## TWO BOOM OPTIONS FOR A REDUCED SWING RADIUS

### TWO-PIECE ARTICULATED BOOM

The TW75 is fitted with a two-piece articulated boom as standard, which offers excellent maneuverability and impressive articulation. Operators can even bring the bucket back against the chassis or blade – ideal for avoiding obstacles. An optional longer dipperstick (1,950mm) further extends excavation radius.

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# SPEED AND MOBILITY

With a top speed of 36km/h, variable drive system, low fuel consumption and comfortable cab, travel from one site to another is effortless. This alleviates the requirement for costly logistics solutions and maximizes operator uptime.

- + Hydrostatic travel drive, which is independent of the working hydraulics, can function as an additional braking system when travelling between jobsites
- + A top speed of 36km/h allows fast and effective roading
- + Automatic drive function, alongside an additional accelerator pedal for delicate machine movements, provides total flexibility for the operator



# ALL-TERRAIN ABILITY

Thanks to innovative design and a class-leading ground clearance (420mm), the TW75 is suitable for every terrain.

## THREE STEERING MODES

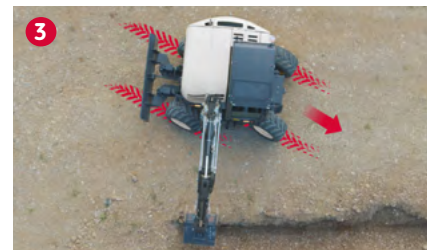
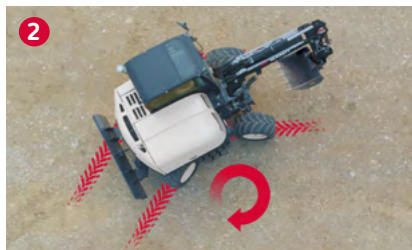
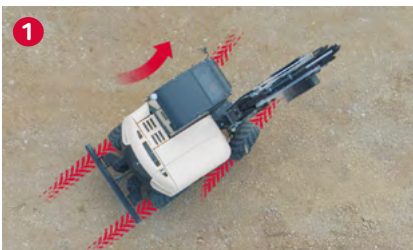
The TW75 can be fitted with Yanmar's all-wheel steering system as an optional extra. Through the in-cab Smart Control panel, operators can select:

1. Front-wheel steering (perfect for roading)
2. All-wheel steering (providing a small turning circle for tight job sites)

3. Crab steering (for parallel movement)

## A WIDE CHOICE OF TYRES

Depending on application, the TW75 can be equipped with a selection of different tires to suit the needs of the operator - single (which reduces the width of the machine to 1,985mm), low-pressure, twin or wide.





# COMFORT



## SPACIOUS CAB

Spacious and comfortable, the TW75 cab has been designed with the operator firmly in mind. The seat console is fully-adjustable, moves independently and provides the perfect working environment.

## ERGONOMIC DESIGN

Providing the operator with comprehensive system information at a glance, the central data display is clear,

easy to navigate and has been designed to reflect the tiled layout of a smart phone. The 7" anti-reflective screen is well-designed, perfectly positioned and is also used as a monitor for the TW75's reversing camera.

## LARGE KEYPAD

The keypad incorporates an extra-wide pressure surface to make operation easy – even when wearing gloves!

# EASE OF USE

## SMART CONTROL OPERATING SYSTEM

As with all models in Schaeff's wheeled excavator range, the TW75 benefits from next-generation Smart Control operating technology. The proprietary system allows fast and intuitive machine control, alongside improved monitoring capabilities. Key features include:

- + Large, clear display for live data monitoring
- + Intuitive and ergonomic controls
- + Full control of the first, second and third hydraulic circuits
- + Customizable settings to suit driver requirements

## FINGERTIP CONTROL

Precise fingertip control capability allows the operator to monitor oil flow (from zero to full). A thumbwheel on the joystick provides a quick and simple way to switch between hydraulic functions.

## CUSTOMISABLE CONTROLS

The TW75 is fitted with ISO controls as standard, but SAE controls can be specified as an optional extra. The pattern changeover can be easily 8 selected and activated via the LCD display screen.





# SAFETY-CRITICAL FEATURES

## REAR VIEW CAMERA

The TW75 is equipped with a state-of-the-art rear-view camera as standard, which can be configured to suit precise operator preferences. This improves visibility from the cab, thus maximizing on-site safety by preventing the risk of collisions.



## AUTOMATIC REFUELLING PUMP

Available as an added extra, operators can specify an all-new automatic refueling pump, which is equipped with a level sensor that stops the pump when the fuel tank is full. This enables refueling at the touch of a button – quick, safe and simple.



# MANAGEABLE MAINTENANCE

Service requirements have been considered throughout the TW75's design. As such, a service bar containing the central electrics has been integrated into the main service compartment. This makes accessing relays and fuses simple and achievable from ground-level.

The service door can be opened without tools and integrates an extending ladder (protected by rubber buffers). There are no main hydraulic components located under the cab, which means tilting is not required.

Thanks to Yanmar's SmartAssist-Direct diagnosis tool, maintenance information and requirements are automatically transmitted to the engineer. This minimizes diagnosis requirements and provides comprehensive insight into parts replacement requirements, operation history, troubleshooting and fault diagnostics.



## SMARTASSIST REMOTE

SmartAssist Remote is Yanmar's next-generation fleet management system. Harnessing the latest telematics technology, equipment location and status is reported in real time. This provides total control and allows fleet managers to manage their assets remotely (via a PC or smartphone).



# TAILORED TO YOU

The TW75 comes with a number of features as standard, while also having the possibility to be configured to meet the specialist requirements of various customers; such as landscapers, civil contractors, utility professionals and municipal authorities. From the color scheme to the choice of boom, blade or tires, as well as the buckets and hydraulic attachments, the TW75 can be perfectly tailored to match the needs of your business.

## BOOM OPTIONS

A range of boom options are available to suit precise operator applications:

- + Two-piece articulated boom (with 1,650mm dipperstick) – perfect for digging work and the precise movement of heavy loads
- + Two-piece articulated boom (with 1,950mm dipperstick) – providing an even greater reach and excellent working range
- + Circular boom (with 1,600mm dipperstick) – perfect for urban jobsites where space comes at a premium

## STEERING MODES

The TW75 has three steering modes to suit a wide range of applications, which can be changed easily thanks to the integration of Smart Control:

- + Front-wheel steering for fast roading
- + All-wheel steering for tight turning circles
- + Crab steering for parallel travel

## STABILITY

To maximize stability, particularly during heavy excavation work or when travelling on rough terrain, the TW75 can be equipped with a wide range of optional extras:

- + Front dozer blade
- + Support plate
- + Stabilizers
- + Narrow plate / single tires (1,990mm)

## LEVELLING

The optional float function of the dozer blade makes ground levelling, filling and debris removal simple.

## TYRE OPTIONS

- + Single tire 500/45-20 Alliance
- + Single tire 500/45-20 Mitas
- + 340/80 R18 BIBLOAD-HS Michelin
- + 275/70 R22.5 Bandenmarkt Profil Excavator

## ATTACHMENTS

To maximise productivity, Yanmar offers a wide range of attachments for construction, pipe laying, civil engineering, landscaping and agricultural applications. Thanks to its unique hydraulic system and auxiliary circuits, operating and changing attachments can be actioned at the touch of a button.

### KEY ATTACHMENTS INCLUDE:

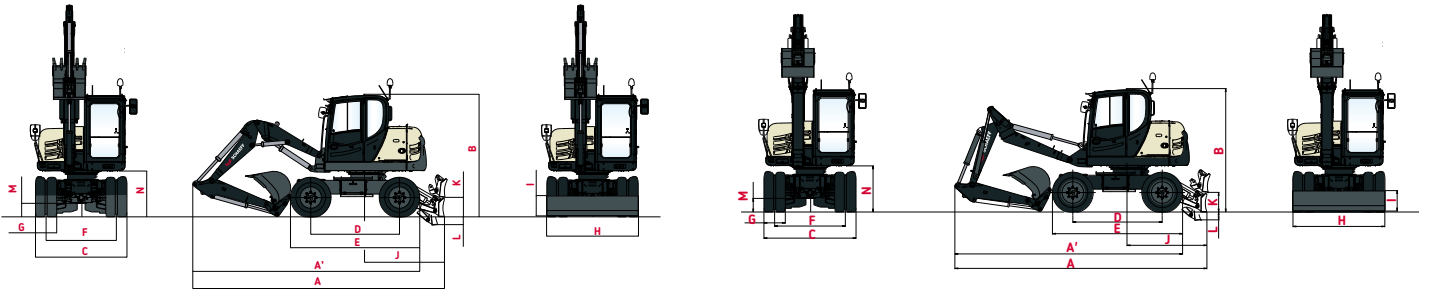
- + Mechanical quick-hitch system
- + Hydraulic quick-hitch system
- + Powertilt

- + Tiltrotators
- + Light-material bucket
- + Standard bucket
- + Ditch-cleaning bucket
- + Swing bucket
- + Breakers
- + Pallet forks

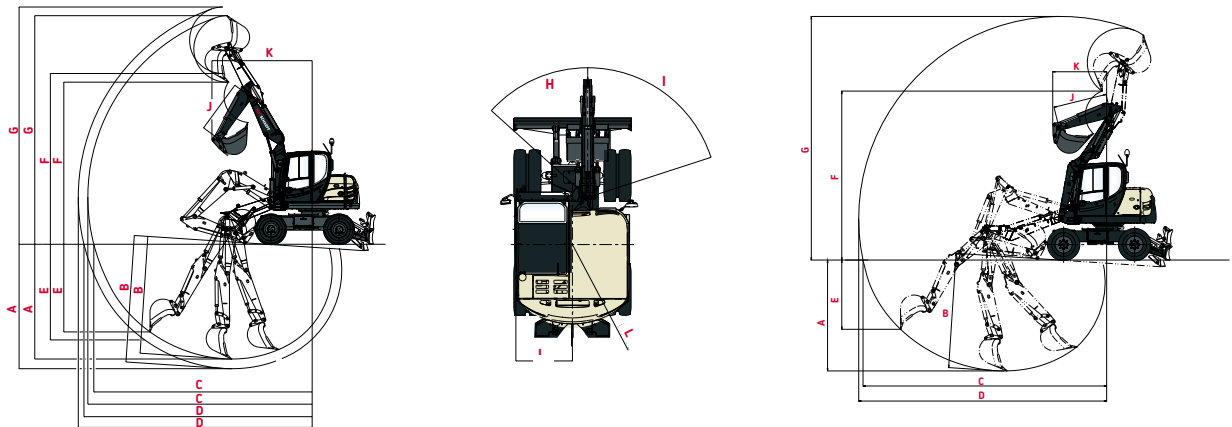




# DIMENSIONS



	TPA Boom	Circular Boom		TPA Boom	Circular Boom		
A	Overall length	5 930 mm	6 490 mm	H	Overall blade width	2 200mm	2 200 mm
A'	Overall length with blade at the back	5 290 mm	5 835 mm	I	Overall blade height	453 mm	453 mm
B	Overall height	2 935 mm	2 935 mm	J	Blade distance	1 967 mm	1 967 mm
C	Overall width	2 190 mm	2 190 mm	K	Max. blade height above the ground	530 mm	530 mm
D	Wheel base	2 125 mm	2 125 mm	L	Max. blade depth	210 mm	210 mm
E	Undercarriage length	3 095 mm	3 095 mm	M	Minimum ground clearance	420 mm	420 mm
F	Lane	1 682 mm	1 682 mm	N	Ground clearance under counterweight	1 108 mm	1 108 mm
G	Tire width	508 mm	508 mm				



	TPA Boom	Circular Boom		TPA Boom	Circular Boom		
A	Max. digging depth - Blade lifted	3 500 / 3 880* mm	3 245 mm	G	Max. cutting height	7 100 / 7 360* mm	7 190 mm
B	Max. digging depth - Blade lowered	3 650 / 3 960* mm	4 040 mm	H	Boom swinging base to left	48°	48°
C	Max. digging reach on ground	6 800 / 7 100* mm	7 180 mm	I	Boom swinging base to right	72°	72°
D	Max. digging reach	6 990 / 7 300* mm	7 315 mm	J	Arm length	1 650 / 1 950* mm	1 600 mm
E	Max vertical wall	2 620 mm	2 015 mm	K	Front turning radius	3 220 mm	1 654 mm
F	Max. dumping height	5 030 / 5 290* mm	5 155 mm	L	Rear turning radius	1 480 mm	1 480 mm

\* Dipperstick 1 950 mm

Fig. 1 :  
Excavation within the entire width of the machine

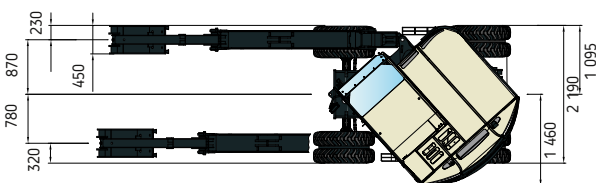
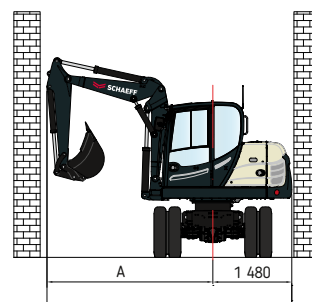


Fig. 2 :  
Working envelope





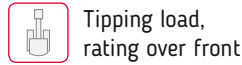
# LIFTING FORCE



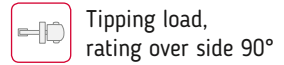
Blade down



Blade up

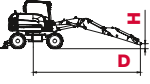


Tipping load,  
rating over front



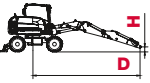
Tipping load,  
rating over side 90°

**Articulated boom with dipperstick 1650 mm**



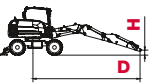
		D										
		3 m		4 m		5 m		6 m		7 m		
H	3,0 m		-	-	1,40	1,33	0,87	1,07	0,95	0,87	-	-
			-	-	1,40	1,36	0,86	1,07	0,68	0,80	-	-
	1,5 m		1,58	2,34	1,26	1,47	0,99	1,06	0,92	0,65	-	-
			1,4	2,17	1,25	1,41	0,98	1,01	0,63	0,62	-	-
	0,0 m		2,41	1,91	1,53	1,26	1,00	0,90	0,88	0,81	-	-
			1,69	1,76	1,14	1,18	0,82	0,86	0,76	0,78	-	-
	- 1,0 m		2,67	1,95	1,72	1,31	1,07	1,11	-	-	-	-
			1,72	1,78	1,16	1,20	0,83	0,99	-	-	-	-

**Articulated boom with dipperstick 1950 m, additional counterweight**



		D										
		3 m		4 m		5 m		6 m		6,3 m		
H	3,0 m		-	-	1,00	0,87	0,70	0,70	0,88	0,86	-	-
			-	-	0,98	0,85	0,70	0,70	0,87	0,86	-	-
	1,5 m		2,26	2,17	0,90	0,87	0,87	0,86	0,88	0,89	0,83	0,84
			2,26	2,15	0,88	0,87	0,87	0,86	0,88	0,86	0,83	0,79
	0,0 m		2,37	2,27	1,50	1,40	1,17	1,12	0,87	0,87	-	-
			2,31	2,17	1,47	1,40	1,16	1,12	0,87	0,85	-	-
	- 1,0 m		2,64	2,41	1,72	1,60	1,21	1,19	-	-	-	-
			2,52	2,25	1,68	1,52	1,20	1,11	-	-	-	-

**Cicular boom with additional counterweight**



		D										
		3 m		4 m		5 m		6 m		7 m		
H	3,0 m		3	2,46	1,78	1,35	1,27	0,97	0,73	0,59	-	-
			1,91	2,42	1,26	1,32	0,88	0,93	0,57	0,59	-	-
	1,5 m		2,14	1,61	1,87	1,24	1,33	0,92	0,89	0,64	-	-
			2,05	1,58	1,44	1,22	0,83	0,87	0,57	0,62	-	-
	0,0 m		3,05	1,76	1,89	1,19	1,74	0,83	0,78	0,70	-	-
			1,6	1,67	1,07	1,16	0,75	0,81	0,62	0,69	-	-
	- 1,0 m		2,7	1,74	1,63	1,16	1,24	0,96	-	-	-	-
			1,58	1,69	1,03	1,10	0,86	0,91	-	-	-	-

All values specified in tons (t) were determined in compliance with ISO 10567 and include a stability factor of 1,33 or 87% of the hydraulic lifting capacity. All values were determined with quick-mount hitch but without bucket. In case of mounted-on work attachments, the deadweights of the work attachments must be deducted from the permissible payloads.



# SPÉCIFICATIONS

## WEIGHT

Operating weight (TPA boom, circular boom) acc. to ISO 6016	7 200 kg
Total length, travel position (TPA boom)	5070 mm
Total height, travel position (TPA boom)	3730 mm
Transport dimensions (TPA boom L x H)	5930 x 2935 mm
Ground clearance below cardan shaft	420 mm
Turning radius (front-axle steering / 4-wheel steering)	6430/ 3880 mm
Uppercarriage tailswing	1 480 mm
Uppercarriage frontswing	2 750 mm
Working envelope 180° (TPA boom 1650mm)	4 230 mm
Working envelope 360° (TPA boom 1650mm)	5 500 mm

## ENGINE

Manufacturer, model	Yanmar 4TNV98CT
Type	4-cylinder Turbo diesel engine with Diesel Particulate Filter - EU Stage V
Combustion	4-stroke cycle, Common Rail injection
Displacement	3 319 cm <sup>3</sup>
Net power	53,7 kW (73 HP)
Torque	295,5 Nm at 1 365 rpm
Cooling system	Water

## HYDRAULIC SYSTEM

Travel hydraulics: closed circuit, independent from working hydraulics.	
Pump capacity, max.	84 l/min
Working pressure, max.	440 bar
Working hydraulics: Axial-piston variable displacement pump with load sensing, coupled with a load independent flow sharing (LUDV).	
Simultaneous, independent control of all movements. Sensitive maneuvers irrespective of loads.	
Max. pump capacity.	132 l/min
Working pressure, max.	250 bar
The thermostatically controlled oil circuit ensures that the oil temperature is promptly reached and avoids overheating.	
Return filter installed in oil tank allows for eco-friendly replacement of filter elements.	
Gear pump for steering and brake.	
Pump capacity, max.	33 l/min
Working pressure, max.	175 bar
Control circuit for work attachments, proportionally operated.	
Pump capacity, adjustable.	0 - 90 l/min
Working pressure, max.	250 bar
Two servo-assisted joystick controls (ISO) for excavator operations.	

## TRANSMISSION

Hydrostatic drive with 2-stage planetary gear and axial piston fixed displacement motor, also acts as wear-resistant brake. In addition, spring-loaded multi-disc brake acting as parking brake		
4 speed ranges (high-speed version optional):	"Low"	0-5 / 0-11 km/h
	"High"	0-16 / 0-36 km/h



# EQUIPMENT

## [ STANDARD EQUIPMENT ]

### CABINE

Spacious, sound-insulated full-vision steel cab (ROPS certified).
Sliding window in cab door.
Safety glass windows, thermo windows tinted in green.
Skylight thermo window, bronze tinted.
Panoramic rear window.
Front window supported by pneumatic springs, lockable for ventilation and slidable under cab roof.
Windscreen washer system.
Storage compartment.
Preparation for radio installation.
Cab heating with front window defroster by coolant heat exchanger with stepless fan. Fresh air and recirculating air filters.
Left- and right-hand outside rear-view mirror.
Operator's seat MSG 85 (comfort version), hydraulic damping, extra-high backrest, tilt-adjustable armrests, longitudinal-horizontal suspension, mechanical lumbar support.
Lap belt.
Instrument panel on the right-hand side of the operator's seat with visual & acoustic warning device, hour-meter and safety module.
Working floodlights Halogen H-3.

### AXLES

Front : Oscillating planetary drive axle. Oscillating angle	14°
Rear: Rigid planetary drive axle.	

### STEERING

Fully hydraulically controlled front axle with integrated steering cylinder.	
Max. steering angle	35°

### SWING SYSTEM

Hydrostatic drive with 2-stage planetary gear and axial piston fixed displacement motor, also acts as wear-resistant brake.	
In addition, spring-loaded multi-disc brake acting as parking brake	
Swing speed	0-10 rpm

### KNICKMATIK®

Lateral parallel adjustment of boom arrangement at full dig depth.	
Angle of articulation / lateral adjustment left	48° / 780 mm
Angle of articulation / lateral adjustment right	72° / 880 mm

### ELECTRICAL SYSTEM

Nominal voltage	12V
Battery	12V / 105 Ah
Generator	14V / 95 Ah
Starter	12V / 2,6 kW

### FLUID CAPACITIES

Fuel tank	150 l
Hydraulic system (incl. Tank 60 l)	180 l

### BRAKES

Service brake: Hydraulic pump accumulator two-circuit brake, acting on oil-immersed multi-disc brakes of front and rear axle.
Excavator brake: Acting on front and rear axle due to lockable service brake.
Auxiliary brake: Hydrostatic travel drive in closed circuit acting as non-wearing auxiliary brake.
Parking brake: Hydraulic spring-loaded brake, electrically actuated.

### TIRES

Standard 8.25-20, 12 PR twin tires.
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### MAINTENANCE FREQUENCY

Change engine oil and filter:	500h or minimum once a year.
Change fuel filter:	1 000h or minimum once a year.
Change hydraulic oil:	check at 100 + 500 h; every 1 000h or minimum every 2 years.
Change hydraulic oil filter:	first after 100h, then follow the instructions at display.
Change cooling fluid:	if needed or minimum every 2 years.

# EQUIPMENT

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## [ OPTIONAL EQUIPMENT ]

### EQUIPMENTS & PERFORMANCE

Travel drive, standard steering 25 kph | Travel drive, all-wheel steering 20 kph | Travel drive, all-wheel steering 25 kph | Travel drive, fast 30 kph | Travel drive, all-wheel steering 36 kph | Front dozer blade, 2200 mm, with installation and actuation | Steering change-over in case of blade operation | Rear support blade, 1990 mm | Rear support blade, 2200 mm | Float position front dozer blade | Rear outrigger plates, rubber-coated, oscillating | Cover for support cylinders | 2 piece boom, long arm (+ 300 mm) | Additional counterweight (+110 kg) | Proportionnal 4th circuit, control on left joystick | Proportional 4th hydraulic circuit line + Powertilt line, control on left joystick | Hydraulic installation for quick-attach system | Auto idle | Circular boom | Biodegradable hydraulic oil | Provision of hydraulic oil, oil approval by Yanmar required | LED Lighting package | Boom-mounted LED working light | LED rotating beacon, attachable, yellow.

### OPERATOR COMFORT & EASE OF USE

Sliding window on right-hand side | A/B control pattern switch | Air-conditioning | Engine-independent diesel heater with fresh air circulation and timer | Premium seat | Outside rear-view mirror, heatable | Electric refuelling pump with automatic switch off | Coolbox | Central greasing.

### PROTECTION - SAFETY - DURABILITY

Supplementary set hose-rupture/load-retaining valves for TPA boom, bucket cylinder | Guard for skylight window | Guard for front window | Fire extinguisher, ABC powder, 2 kg, mounted in the cab | Anti-theft device, coded | Electronic anti-theft device | Travel alarm | Automatic engine shutdown.

### SPECIAL TIRES

Single tire 500/45-20 Alliance | Single tire 500/45-20 Mitas | 340/80 R18 BIBLOAD-HS Michelin (Only available with additional counterweight) | 275/70 R22.5 Bandenmarkt Profil Excavator.

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## [ ATTACHMENTS ]

Standard bucket | Grading bucket | Ditch-cleaning bucket | Swing bucket | Swivelling Bucket | Mechanical quick-hitch | Hydraulic quickhitch | Powertilt | Bucket pins | Lifting ring | Hydraulic breaker | Forks | Tiltrotator.





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