



YANMAR

SV100-7

MIDI-EXCAVATOR



Operating weight

9 705 kg

Engine

4TNV98CT-VBV2

Net output

51.0 kW/69.3 HP at 2 100 min⁻¹

Digging force (short arm/long arm)

45.9/42.2 kN

Digging force (bucket)

68.4 kN

MAXIMUM PERFORMANCE WITH SMALLEST DIMENSIONS





COMPACTNESS

Designed for outstanding performance in the toughest conditions, the SV100-7 combines the compact dimensions of a midi excavator with the power of a much larger machine. With merely 2,320 mm width, this 9.7 ton excavator offers excellent stability and outstanding performance – the perfect partner for countless demanding applications.



LATEST GENERATION TIER V ENGINE

Powered by the field-proven Yanmar four-cylinder turbo diesel engine, the SV100-7 is fuel-efficient, environment-friendly and fully compliant with the EU Stage V emissions legislation (with cooled EGR and DPF system on board as standard). Direct injection and common rail technology help to maximise engine performance.



ADVANCED HYDRAULICS

The SV100-7 is equipped with Yanmar's proven ViPPS2i hydraulic system, which distributes the flow of the hydraulic pumps to achieve an optimum combination of speed, power and balance. This means further improved smooth work cycles, even while driving.



SIMPLE OPERATION

Intuitive and ergonomically arranged levers, switches and pedals allow operators to manoeuvre precisely and manage the machine in a unique way. The intuitive 7" colour display makes adjusting machine settings and keeping track of machine data a walk in the park.



SAFETY FIRST

As with all Yanmar models, safety was the top priority in the making of the SV100-7. The ROPS, TOPS and FOPS Level I certifications for the cab roof and cab stand testament to this. Other standard safety features include the disengageable driving alarm, properly visible orange seat belt and LED work lights, as well as the standard reverse and side view camera. Optional extras such as an amber LED rotating beacon, seatbelt sensor with green LED light and 270° camera system help to protect the driver and the surroundings.



SPACIOUS AND COMFORTABLE CAB

A key feature that characterises the SV100-7's maximum operator comfort and site productivity is the widest cab in its class, with large glass surfaces, excellent all-round visibility and many other features to ensure a comfortable working environment.



MINIMISED OPERATING COSTS

A perfect blend of productivity and compactness, the SV100-7 impresses with low fuel consumption, a long service life and ease of maintenance. All these contribute to extremely favourable overall operating costs. For improved operational efficiency and cost effectiveness, the SV100-7 is equipped with the standard features such as idle shutdown and automatic engine shutdown.

COMPACT YET POWERFUL



A perfect combination of next-generation technology and unique design innovation, the SV100-7 delivers the performance of a much larger excavator with the space-saving benefits of a compact machine. The SV100-7 is an outstanding combination of performance, versatility, comfort and reliability, designed with the operator in mind.

OUTSTANDING STABILITY

The SV100-7 is equipped with Yanmar's patented VICTAS® system. With its optimised tread and asymmetrical tracks, this machine is a leader when it comes to stability. This innovative system, unique on the market, reduces track deformation, minimises vibrations and ensures quieter tracking.

In addition to the VICTAS® technology, a large counterweight and excellent weight distribution, as well as a low centre of gravity, ensure much greater stability than conventional machines in the same weight class – not to mention the incredibly impressive lifting capabilities.

OUTSTANDING PERFORMANCE

Yanmar's specialist expertise in compact equipment design and development means that the SV100-7 can deliver its impressive performance with minimal environmental impact. A combination of power, flexibility and precision, this powerful model offers the versatility you need to maximise productivity on the job site. A host of standard features such as the floating position for the blade or the pressure limiter for the hammer circuit, as well as other optional functions (3rd additional hydraulic circuit, power tilt pipework, etc.) offer maximum flexibility. And all possible regardless the terrain, conditions or use – earthmoving, gardening and landscaping, demolition or road construction.

MAXI FUNCTIONS, MIDI FORMAT

With its breakout force of 68.4 kN (bucket) and 45.9 kN (dipper arm), the SV100-7 exceeds the expectations of a 10-tonne short-tail excavator time and time again. Featuring a digging depth of 4,570 mm (3,890 mm against a vertical wall) and outstanding traction power, this top-of-the-range model makes for the perfect choice when it comes to heavy-duty work – including pipe-laying, excavation or clearing large areas.

EFFICIENT VIPPS2I-HYDRAULIC SYSTEM

The SV100-7 achieves maximum productivity and efficiency with the ViPPS2i® hydraulic system developed by Yanmar. This progressive dual-circuit load-sensing system has already proven its worth in many other Yanmar models and all areas of application. The variable flow axial piston pump, a gear pump and the central main control valve distribute the hydraulic oil in such a way that smooth and coordinated movements are always possible. This means more operating comfort, greater safety and more efficiency. These advantages enable combined, simultaneous movements of several consumers to be carried out more evenly and quickly. Together with the economical, reliable and powerful Yanmar 4-cylinder diesel engine, this creates an unrivalled squad that is up for any task.



ADAPTABLE, ACCURATE AND VERSATILE



The SV100-7 is equipped with two auxiliary hydraulic circuits as standard and can be optionally upgraded with a third auxiliary hydraulic circuit. The proportional control (via the joystick) enables the flow rate to be continuously adjusted. The option of setting and saving the oil flow for up to 5 attachments on the display allows the operator to easily adapt the machine to the respective application and requirements of each attachment. This ensures maximum flexibility and rapid adaptability to the prevailing conditions.

5 storage slots for different attachments, incl. picture of choice

Setting and saving of the oil flow for up to 3 auxiliary hydraulic circuits



SETTING STANDARDS



State-of-the-art technologies and the combination of impressive performance and optimum precision help to ensure that all expectations are exceeded time and time again. Its adaptability, versatility and user-orientation make it the ideal companion on construction sites.

LATEST GENERATION ENGINE

The SV100-7 is equipped with the Stage V compliant 4TNV98CT engine, designed to minimise environmental impact, for which Yanmar is world-renowned. With a displacement of 3,318 cm³, the four-cylinder engine delivers 283 Nm of torque at 1,365 rpm and a maximum power output of 51 kW. This has resulted in a powerful vehicle with low carbon dioxide emissions that fulfils emission regulations with cooled exhaust gas recirculation (EGR) and a diesel particulate filter (DPF) as standard equipment, i.e., reduced nitrous oxide (NOX) and particulate matter (PM) emissions. An exclusive regeneration system prevents blockages as well as downtime due to unnecessary cleaning work.

The ECU manages the speed according to demand, which contributes to optimised engine load – and that means reduced fuel consumption and increased productivity. When performing low-force, low-speed work cycles, Yanmar's Eco-Mode technology regulates engine speed, reducing operating costs. The automatic idle technology switches the engine to idle if the control levers are not touched for more than four seconds. The automatic engine shutdown switches off the diesel engine after a period of inactivity that can be set by the operator. This reduces fuel consumption and engine wear. For the toughest tasks and fastest working speeds, the PWR mode can be selected at the touch of a button.

ROBUST AND RELIABLE



The new award-winning design exudes reliability, compactness and progressiveness, emphasising how robust, hard-wearing and reliable the SV100-7 is. It is designed for the most demanding jobs - even in the toughest conditions and on the most challenging terrain.

The design of the undercarriage and the heavy steel covers effectively protect the chassis against day-to-day damage, which in turn prevents unnecessary downtime. Its moulded side plates stop the accumulation of soil and reduce wear on the inside of the tracks.

The blade cylinders and boom cylinders are also protected with steel plates. Their cathaphoresis treatment prevents corrosion of the paint.

The hoses are protected by abrasion-resistant covers as standard, and their routing on top of the boom provides additional protection against damage.



LARGE, BRIGHT, COMFORTABLE THE NEW CAB

The SV100-7 cab has been designed to accommodate the driver's requirements. The ergonomic design of this workspace is comfortable and clearly structured, ensuring greater productivity during the long days on the construction site. The outstanding all-round visibility and clever design guarantee fatigue-free working and maximum safety.

SPACIOUS CAB

With its impressive legroom, wide entrance and generous glass surface, the cab of the SV100-7 not only has the appearance of being spacious and comfortable - it truly is so. It is perfect for long working days in the machine, but also ideal for frequent entry and exit. The SV100-7 makes the driver's job easier regardless of the job at hand - every day.

AIR SUSPENSION SEAT

The wide seat, equipped with air suspension and headrest as

standard, is fully adjustable. This allows operators to find the right working position while minimising shocks and vibrations.

AUTOMATIC AIR CONDITIONING

The SV100-7's automatic air conditioning system ensures pleasant working temperatures in all weathers. Numerous air vents, which are optimally distributed throughout the cab, ensure even temperatures from head to toe. The defroster function turns a steamed-up windscreen into a clear one in no time at all.

MODERN AND COMFORTABLE CAB

The widest (and most spacious) cab in its class is a key feature of the SV100-7's maximised operator comfort and site productivity. With large glass surfaces, excellent all-round visibility, clearly arranged controls and a comfortable, air-suspended seat, the operator can still get out and relax after a long day's work.

The standard automatic air conditioning system with many optimally arranged air outlets essentially serves to ensure a comfortable and cosy climatic experience inside the cab.

- + Generous glass surfaces
- + Fully opening windscreen
- + Smooth-running windscreen kinematics
- + USB and 12 V socket
- + MP3-capable radio with USB connection (option)
- + Storage space and bottle holder
- + Air conditioning filter
- + Automatic ceiling light





EXCELLENT EASE OF USE

BETTER CONTROL, MORE OVERVIEW

The SV100-7 is equipped with a high-resolution 7-inch colour display as standard, on which the current machine status and, if required, the camera images are shown in real time.

The easy-to-read display is the machine's control centre. It is perfectly integrated into the right-hand console and can be optimally read even in bright sunlight and at night, allowing the operator to make all machine settings (such as the flow rate for hydraulic attachments). The most important data (such as fuel level, engine oil/coolant temperatures) are displayed on the screen at all times. Information on service intervals and other machine operating data is available in the menu. The operator is also immediately warned of faults, e.g., low battery charge level, abnormal oil pressure or a clogged air filter.

- + 7" colour display
- + Simple and clear menu navigation
- + Jog dial for simple menu operation
- + Clear keypad for standard functions
- + Optimum view – also to the right
- + Ergonomic foot pedals
- + Rear and side camera as standard

OUTSTANDING ERGONOMICS

Ideally positioned joysticks, adjustable armrests and clearly arranged switches make operating the machine easy and fatigue-free. Frequently required functions can be operated quickly and easily via the optimally arranged keypad.

The large and easy-to-operate pedals and levers ensure that the operator's posture is always relaxed and healthy, even when moving the machine. The 2-speed automatic transmission, which automatically keeps the machine in 1st gear when travelling uphill, further increases driving comfort.



SAFETY ON THE CONSTRUCTION SITE

Yanmar is committed to the utmost safety of the operator as well as everyone else working with or on the machine. This is why the SV100-7 is equipped with countless functions that contribute to maximising its safety.

SUPERB ALL ROUND VISION

Large glass surfaces all round, side and rear cameras and an optional surround-view camera system provide the operator with an excellent 360° view – for safe and efficient work.

The low-profile bonnet also gives the driver an optimum view to the right. This gives a direct view of the work area even when the boom is swivelled to the right – a real safety bonus!

Excellent visibility not only guarantees safety on the construction site, it also reduces the risk of accidental damage – especially in tight areas or on busy construction sites.

FULL VIEW

With three standard LED work lights (inside the boom and on the front of the cab), you are guaranteed to have effective working conditions even at night. The LED technology ensures minimum energy consumption and a longer service life. Visibility can be even further improved with an additional, optional LED headlight at the rear of the cab.



COMPLETE PROTECTION

The cab has been designed to maximise operator comfort and safety. The stable and ROPS-compliant cab offers unique rollover protection. It also complies with the FOPS I standard, i.e., protective structure against falling objects. The SV100-7 can be additionally equipped with FOPS II protection (optional extra).

OPTIMUM VISIBILITY AND SAFETY DURING LOADING WORK

Thanks to the large window in the roof, the operator has the best possible view of the attachment during loading or demolition work.

- + Safety lever for accessing the cockpit
- + Orange seat belt with retractor
- + Optional seat contact switch with green rotating beacon
- + Many well-positioned handles, also in the cab
- + Lifting points for transport
- + Evacuation hammer
- + Stable and non-slip steps

SIMPLE AND EFFECTIVE MAINTENANCE

EASY TO CLEAN

We have paid equal attention to the simplicity of daily maintenance and the longevity of the parts, which leads to minimised maintenance work and extended service life of the individual components. The radiator area and the battery are easily accessible from the ground through a large flap and are easy to clean.

EASY ACCESS

The rear and side covers with their large openings allow easy access for daily maintenance. The most important engine components (as well as hydraulic and air filters) are easily accessible. The top cover on the right-hand side provides access to the fuel tank, refuelling pump and hydraulic fluid refill points. Opening the entire right-hand side provides direct access to the main control valve, battery, water separator and radiator, as well as the air filter.



LIFTING CAPACITY



Tipping load, rating over front



Tipping load, rating over side 90°

A : Overhang from rotational axis (m)

B : Height of hooking point (m)

Short arm, standard counterweight

A	Blade down					Blade up														
	Max.	6 m	5 m	4 m	3 m	Max.	6 m	5 m	4 m	3 m										
B																				
5 m	1900	1920			1780	1800	1900	1880			1760	1780								
4 m	1340	1870	1810	1840	1870	1870	1340	1530	1810	1840	1840	1870								
3 m	1160	1880	1560	1970	2190	2220	2710	2720	1170	1380	1540	1950	2190	2210	2710	2650				
2 m	1080	1880	1120	1900	1480	2210	2070	2640	3140	3810	1090	1270	1130	1310	1480	1700	2080	2620	3110	3830
1 m	1070	1960	1110	2010	1420	2390	1930	3150	2810	4440	1070	1250	1110	1270	1430	1650	1950	2340	2800	3450
0 m	1100	1990			1380	2530	1870	3280	2720	4610	1100	1270			1390	1620	1880	2240	2690	3330
-1 m	1220	2000			1360	2360	1850	3160	2740	4330	1210	1410			1370	1600	1850	2190	2700	3320
-2 m	1490	1990					1880	2740	2640	3720	1480	1710					1870	2240	2660	3760

Long arm, standard counterweight

A	Blade down					Blade up										
	Max.	6 m	5 m	4 m	3 m	Max.	6 m	5 m	4 m	3 m						
B																
5 m	1720	1710					1720	1700								
4 m	1250	1670					1220	1390								
3 m	1070	1720	1190	1730	1780	1790	1070	1230	1150	1330	1780	1780				
2 m	1000	1750	1150	1810	1520	1810	2420	2480	990	1150	1120	1300	1490	1720	2420	2450
1 m	980	1800	1100	1930	1420	2290	1980	2960	970	1130	1080	1260	1410	1660	1940	2290
0 m	1000	1840	1060	1970	1360	2430	1850	3210	990	1160	1060	1240	1360	1600	1830	2190
-1 m	1080	1880			1340	2420	1780	3210	1070	1260			1320	1570	1770	2150
-2 m	1270	1890			1340	2120	1780	2890	1260	1490			1340	1590	1770	2140

Short arm, additional counterweight

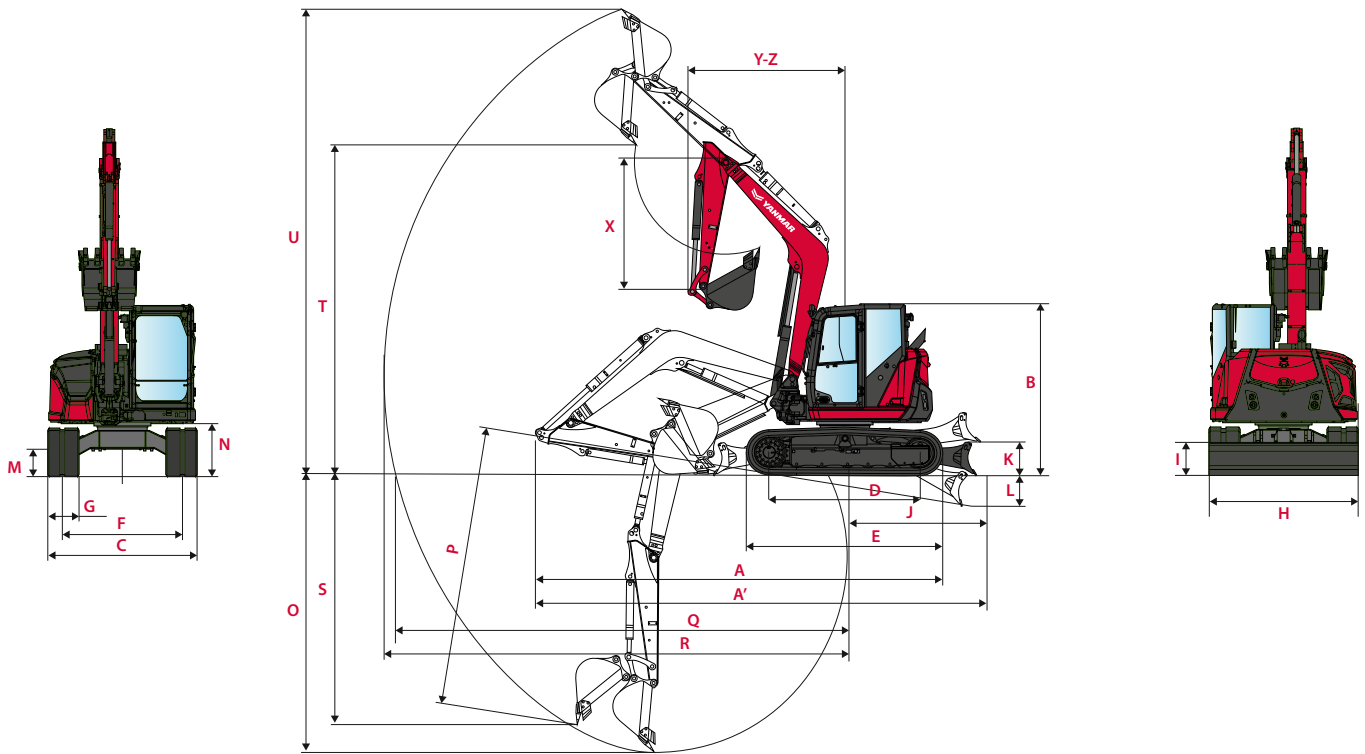
A	Blade down					Blade up														
	Max.	6 m	5 m	4 m	3 m	Max.	6 m	5 m	4 m	3 m										
B																				
5 m	1900	1920			1780	1800	1900	1880			1760	1780								
4 m	1430	1870	1810	1840	1870	1870	1420	1610	1810	1840	1840	1870								
3 m	1240	1880	1650	1970	2190	2220	2710	2720	1240	1460	1630	1950	2190	2210	2710	2650				
2 m	1160	1880	1200	1900	1570	2210	2190	2640	3260	3810	1170	1350	1200	1390	1570	1800	2200	2620	3220	3830
1 m	1150	1960	1190	2010	1510	2390	2050	3150	2930	4440	1150	1320	1190	1350	1520	1740	2070	2460	2910	3570
0 m	1180	1990			1480	2530	1990	3280	2840	4610	1170	1350			1480	1710	1990	2360	2800	3440
-1 m	1300	2000			1450	2360	1960	3160	2850	4330	1290	1500			1470	1700	1970	2310	2820	3430
-2 m	1580	1990					2000	2740	2760	3720	1580	1800					1980	2350	2780	3760

Long arm, additional counterweight

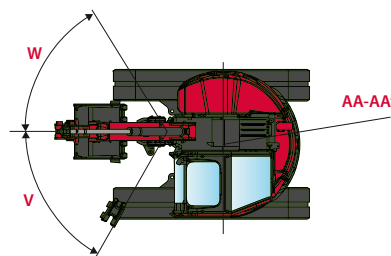
A	Blade down					Blade up										
	Max.	6 m	5 m	4 m	3 m	Max.	6 m	5 m	4 m	3 m						
B																
5 m	1720	1710					1720	1700								
4 m	1330	1670					1290	1470								
3 m	1150	1720	1270	1730	1780	1790	1140	1300	1230	1410	1780	1780				
2 m	1070	1750	1230	1810	1610	1810	2420	2480	1060	1230	1190	1380	1580	1810	2420	2450
1 m	1050	1800	1170	1930	1510	2290	2090	2960	1040	1200	1160	1340	1500	1750	2050	2410
0 m	1080	1840	1140	1970	1460	2430	1970	3210	1060	1230	1140	1310	1450	1690	1950	2310
-1 m	1160	1880			1430	2420	1900	3210	1150	1340			1410	1660	1890	2260
-2 m	1360	1890			1430	2120	1900	2890	1350	1580			1430	1680	1890	2260

The data in this table represents the lifting capacity in accordance with IOS 10567. They do not include the weight of the bucket and correspond to 75% of the maximum static tipping load of the 87% of the hydraulic lifting capacity.

DIMENSIONS



A Overall length	6 360/*6 430 mm	H Overall blade width	2 320 mm
A' Overall length with blade at the back	6 870/*6 930 mm	I Overall blade height	520 mm
B Overall height	2 670 mm	J Blade distance	2 040 mm
C Overall width	2 320 mm	K Max. lifting height above the ground	525 mm
D Length of track on ground	2 350 mm	L Max. lowering depth from the ground	480 mm
E Undercarriage length	3 060 mm	M Min. ground clearance	435 mm
F Lane	1 870 mm	N Min. ground clearance under counterweight	795 mm
G Track width	485 mm		



O Max. digging depth - Blade lifted	4 290/*4 680 mm	V Boom swinging base to left	60°
P Max. digging depth - Blade lowered	4 570/*4 910 mm	W Boom swinging base to right	60°
Q Max. digging reach on ground	7 010/*7 350 mm	X Arm length	1 950/*2 300 mm
R Max. digging reach	7 190/*7 520 mm	Y Front turning radius	2 450/*2 510 mm
S Max. vertical wall	3 870/*4 210 mm	A Front turning radius with boom swing	1 740/*1 770 mm
T Max. unloading height	5 140/*5 380 mm	AA Rear turning radius	1 365 mm
U Max. cutting height	7 260/*7 490 mm	AA' Rear turning radius with additional counterweight	1 465 mm

*Long arm.

SPECIFICATIONS

[WEIGHT +/- 2% (EU-STANDARD)]

	Transport weight	Operating weight	Ground pressure
With rubber tracks	9 630 kg	9 705 kg	0.386 kg/cm ²
With steel tracks (+ 110 kg)	9 740 kg	9 815 kg	0.396 kg/cm ²
With additional counterweight (+ 400 kg)	10 030 kg	10 105 kg	0.402 kg/cm ²


[ENGINE]

Type	4TNV98CT-VBV2
Regulation	EC NRMM STAGE V
Fuel	Diesel
Net power	51.0 kW/69.3 HP at 2 100 min ⁻¹
Gross power	53.7 kW/72.3 HP at 2 100 min ⁻¹
Displacement	3.318 l
Maximum torque	283-308 N·m
Cooling	Water-cooling
Starter	12V - 3kW
Battery	12V - 100Ah (for 20 hours)
Alternator	12V - 80A

[HYDRAULIC SYSTEM]

Maximum pressure	275 bars
1 piston pump with variable flow	137.8 l/min
1 piston pump with variable flow	137.8 l/min
1 gear pump for pilot line	21 l/min

[AUXILIARY LINES]

AUX	Theoretical data at 1800 rpm		 Oil flow decreases as the pressure increase.
	Pressure	Oil flow	
1	0 - 245 bars	71 - 100 l/min	
2	0 - 245 bars	50 - 70 l/min	
3	0 - 245 bars	50 - 60 l/min	

[PERFORMANCE]

Travel speed with rubber crawler (low/high)	2.1/4.3 km/h
Travel speed with steel crawler (low/high)	2.0/4.0 km/h
Rotation speed	9.0 min ⁻¹
Digging force (short arm/long arm)	45.9/42.2 kN
Digging force (bucket)	68.4 kN
Traction force	75.5 kN
Gradability	25°
Noise level (2000/14/CE & 2005/88/CE)	LpA:99 dBA ; LpA:71 dBA

[UNDERCARRIAGE]

Number of top rollers	1
Number of bottom rollers	5
Track tensioning system	Grease cylinder

[CAPACITIES]

Fuel tank	115 l
Coolant	13.3 l
Engine oil	11.2 l
Hydraulic circuit (including hydraulic tank)	118 l
Hydraulic tank	60 l

[MAINTENANCE FREQUENCY]

[Change engine oil and filter: **500 hours**] [Change fuel filter: **500 hours**] [Change hydraulic oil filter: **500 hours**] [Change hydraulic oil: **1 000 hours**] [Change cooling fluid: **2 000 hours**] [Clean particulate filter: **3 000 hours**] [Change particle filter: **9 000 hours**]

EQUIPMENT

[STANDARD EQUIPMENT]

PERFORMANCE

EU Stage V diesel engine – Diesel particulate filter (DPF) | Direct injection | Common rail system | EGR Electrical control system | Engine control unit (ECU) | Water separator | Power and Eco modes | Automatic idling and automatic engine shutdown | ViPPS2i hydraulic system (progressive 2-stage pump system) | 2 additional hydraulic circuits with proportional control – Flow rate adjustable on the display | 5 storage slots for attachments | Electronic control of the hydraulic pumps | 2-speed automatic transmission | External hydraulic oil indicator | Floating position for the blade.

OPERATING COMFORT

7" colour display | Cab mounted on viscoelastic silent blocks | Automatic air conditioning | Adjustable reclining seat with fabric covers, air suspension and headrest | Adjustable wrist rest | Footrests | Wide drive pedals | Windscreen with 2 fully extendible sections | Transparent upper front compartment | Sun visor | Windscreen wiper | Windscreen washer system | Automatic ceiling light | USB and 12 V socket | Storage compartments | Compartment for mobile phone | Cup holder.

SAFETY AND DURABILITY

Handrails | Safety lever | Safety belt with retractor | Evacuation hammer | Lashing points | Rear and side camera | Horn | Drive alarm that can be switched off | 1 LED headlight integrated in the boom | 2 LED headlights on the front of the cab | Asymmetrical VICTAS chains | Two-piece blade cylinder supply hose | Safety valves for lifting operations and overload warning.

MISCELLANEOUS INFORMATION

Electric refuelling pump with automatic switch-off | Fuel gauge | Blade cylinder and boom cylinder protection | Hose protection with abrasion-resistant cover | Cathaphoresis-treated steel parts | Lockable covers | Toolbox | Tool kit | Grease gun.

[OPTIONAL EQUIPMENT]

PERFORMANCE

Additional counterweight | Long dipper arm | Safety valve for bucket cylinder | proportional 3rd hydraulic auxiliary circuit | Pipework for Powertilt | Grapple circuit | Leak oil line | High-pressure line for hydraulic quick coupler system | Quick coupler | Steel tracks | Screw-on rubber plates for steel tracks | Bio-oil filling.

OPERATING COMFORT

Premium seat cover | Vinyl seat | MP3-radio with USB ports.

SAFETY AND DURABILITY

Automatic central lubrication system | SmartAssist Remote | 270° camera system | Driving alarm – Cry of lynx (can be switched off or not) | 1 LED rear headlight and amber rotating beacon | Battery cut-off switch | Anti-theft device with password and/or coded key.

MISCELLANEOUS INFORMATION

Customized paint finish.

[ATTACHMENTS]

To maximise the versatility of your midi excavator, we offer a range of factory-fitted attachments. The Yanmar range includes selected mechanical and hydraulic quick couplers, Powertilt, backhoe buckets, ditch cleaning buckets, ripper teeth and crushers.



YANMAR



Yanmar Compact Equipment EMEA

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