



TECHBUD

YANMAR

Vi082

MIDI-EXCAVATOR



Operating weight

8 200 kg

Engine gross power

41.5 kW/55.6 HP at 1 900 rpm

Digging force (arm)

40.8 kN

Digging force (bucket)

63.5 kN

THE URBAN EXCAVATOR REDEFINING PERFORMANCE





COMPACTNESS

A true concentrate of technology and innovation, the ViO82 offers the performance of a large excavator while leveraging the benefits of a compact excavator.



POWERFUL YANMAR ENGINE

The ViO82 uses the newest version of the Yanmar TNV engines. It is a Yanmar 4-cylinder engine with direct injection and common rail system. This engine is also equipped with a cooled EGR and a DPF, which allow the machine to meet EU emission regulations. Auto-deceleration and Eco-mode are available in standard.



BEST COMPONENTS

Designed in Japan with components renowned for top quality and durability, throughout a long service life.



HYDRAULIC SYSTEM

The ViO82 hydraulic system is based on the aggregated power regulation of two independent variable flow piston pumps and a multiple combination directional control valve.



EASE OF MAINTENANCE

5 hoods or openings which allow easy access for components maintenance. Fast and easy daily checks or servicing.



COMFORTABLE CABINE

Upgraded operator station: large leg room, Yanmar "Universal Design" for an enhanced comfort and productivity, new electronic instrumentation, improved ergonomics and air suspension seat in standard.



EASY OPERATION

Control levers ideally located for exceptional movement precision. The ViO82 benefits of the proportional control of the boom swing, via the roller switch located on the right-hand joystick.



HIGH PERFORMANCE

Upgrade of the powerline components (hydraulic pump, control valve): no compromise between power and compactness.

UNMATCHED COMPACTNESS



Designed to work effectively on a wide variety of jobsites, the Vi082 combines compactness, power, versatility, comfort and reliability.

ADVANTAGES OF THE Vi0 DESIGN

Neither the standard counterweight, nor the front part of the upper frame sticks out of the track width. With this being a true zero tail swing excavator the Vi082 provides the best conditions for working safely and comfortably on any working site with limited space.

- + Smooth swing even in confined spaces.
- + Operation with confidence and efficiency along the walls.
- + Improved safety for both the operator and the side workers: critical on the jobsites.
- + Rear blind spot reduced to a minimum: enhances again the safety for the workers around the machine.

STABILITY



MAXIMUM STABILITY AND EXCEPTIONAL LIFTING FORCES

Although the operating weight of the Vi082 is 8200 kg, the machine is also equipped with a large counterweight to provide the same or even higher stability than conventional machines in the same weight class, as well as remarkable lifting capacities.

Furthermore, the Vi082 is equipped with a standard boom swing. As the boom can swing up to 60 degrees on both sides, the excavator faces the work area when digging a ditch, thus improving the work efficiency and its lifting capacity.



UNIQUE UNDERCARRIAGE

The X-shaped box-section structure of the undercarriage provides excellent torsional stiffness. The frame is designed for maximum robustness. All the components of the undercarriage have been sized to increase the durability and the service life of the machine and reduce its Total Cost of Ownership.



PERFORMANCE



Based on unique experience and expertise, Yanmar technology delivers excellent performance while respecting the environment. The Vi082 combines power, flexibility and precision. Its versatility makes it the ideal partner to improve your productivity, regardless of the work site complexity you are facing (excavation, grading, demolition, backfilling...).



ELECTRONICALLY CONTROLLED YANMAR ENGINE

The Vi082 benefits from the most advanced technology developed by the leading industrial diesel engines manufacturer.

The 41,5 kW TNV engine is equipped with common rail direct injection system. The fuel injection is managed and fine-tuned by the Electronic Control Unit, ensuring cleaner combustion and optimized engine working conditions.

ELECTRICAL CONTROL SYSTEM EGR AND DPF

Yanmar's 4TNV98C-WBV1 engine is the result of our continuous efforts to achieve technological progress in fuel consumption and emissions. With the Vi082, Yanmar gives priority to the environment and to fuel savings.

The cooled EGR (Exhaust Gas Recirculation) reduces drastically the nitrogen oxides (NOx) and the DPF (Diesel Particulate Filter) and cleans up exhaust emissions (PM). Yanmar has successfully developed an exclusive regeneration system in order to prevent clogging and cleaning down-time.

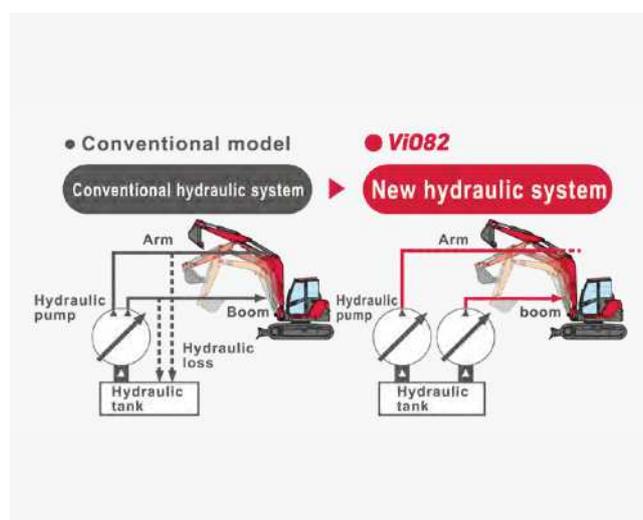
- + An ECU manages the RPM according to the torque, optimizing the engine load. This enables to save fuel while increasing the productivity of the machines.
- + An Auto-Deceleration system (in standard) further reduces fuel consumption by enabling the engine to switch back to idle if the operator doesn't touch the operating levers for 4 seconds.
- + An Eco-Mode (in standard) effectively controls the engine speed, thus allowing a very low fuel consumption. This feature is particularly useful when duty cycle requires require little power and low speed of movement, the Eco-mode saves fuel and reduces operating costs.

VIPPS21® HYDRAULIC SYSTEM (VIO PROGRESSIVE PUMP SYSTEM 2-PUMP INDEPENDENT)

The Vi082 hydraulic system, is based on the aggregated power regulation of two independent variable flow piston pumps and a multiple combination directional control valve. The 2 independent pumps, controlled individually according to the load, supply only the required quantity of hydraulic fluid for the performed operation. This system provides greater ease of use for the operator together with a reduction of loss of hydraulic pressure, even during combined operations of arm and boom. It allows smooth and simultaneous performance of all the operations.

REGULATION OF HYDRAULIC SYSTEM BASED ON ENGINE SPEED

The new electronic hydraulic pump regulator adjusts its flow rate based on engine performance. This engine power is perfectly exploited and machine performance is optimized.



Always supplies the maximum amount of fluid possible, meaning that superfluous fluid is returned to the tank.

Supplies only the needed quantity of hydraulic flow, reducing the loss of hydraulic pressure.

EASE OF USE

ADJUSTABLE PROPORTIONAL CONTROL OF THE AUXILIARY CIRCUITS

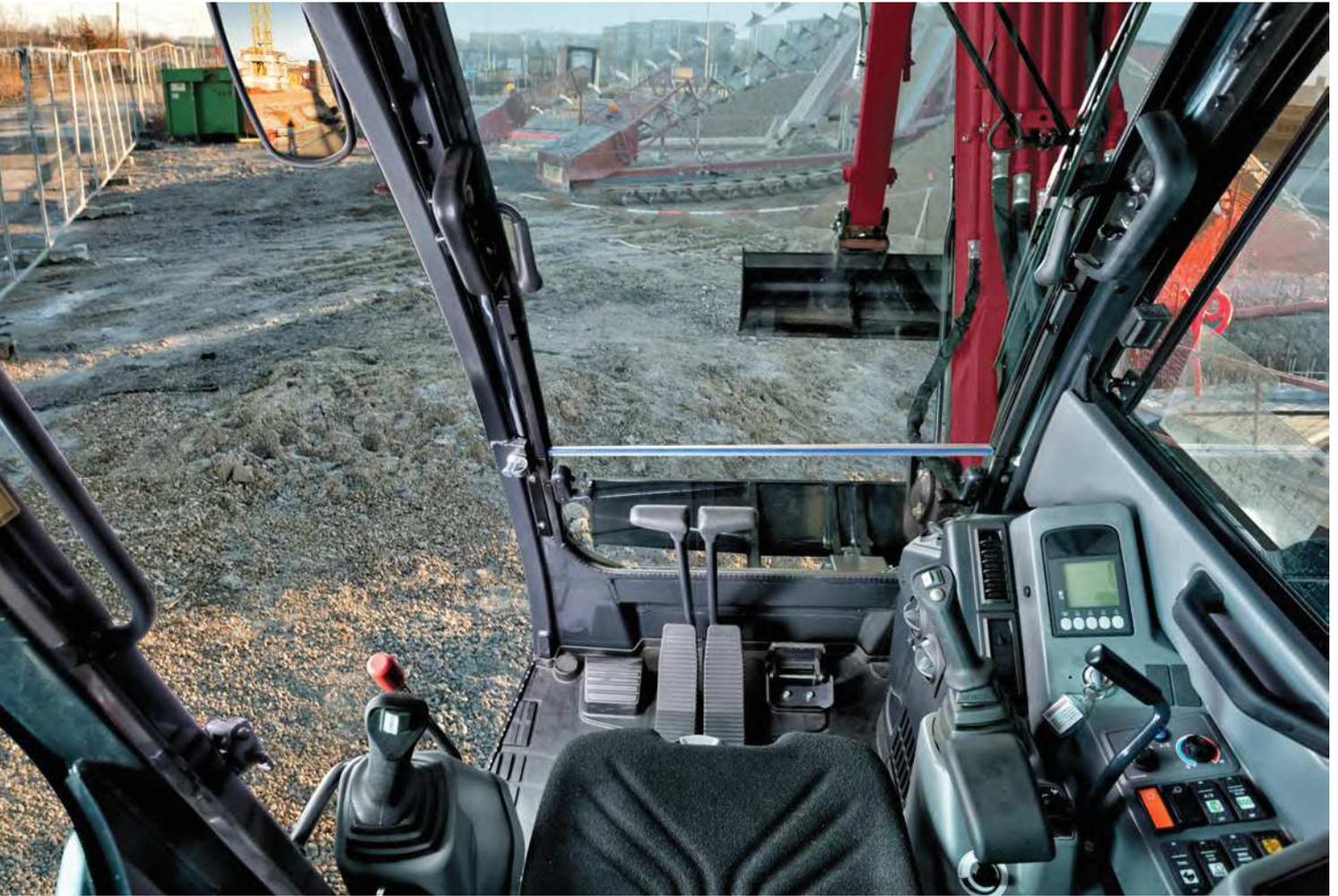
The Vi082 is equipped in standard with two auxiliary hydraulic lines with proportional control on joystick combined with fine adjustment. The proportional control adapts the hydraulic flow of oil to the use and needs of each attachment. The operator takes perfect control of attachments.



- 1 Control of the 1st auxiliary hydraulic circuit
- 2 Flow adjustment via potentiometer of the 1st auxiliary circuit
- 3 Control of the 2nd auxiliary hydraulic circuit
- 4 Flow adjustment via potentiometer of the 2nd auxiliary circuit
- 5 Engine power controlled electronically by a potentiometer
- 6 Right hand side control panel (A/C and switches)

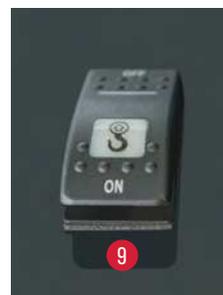


COMFORT



LARGE AND COMFORTABLE CABIN

Putting the operator at the centre of its design initiatives, Yanmar developed the « Universal Design » concept which provides comfort for enhanced productivity. In combination with increased leg room, it enables to improve the comfort and safety of the operator. Functional controls and switches are ergonomically arranged for easy reach.



CONTROL PANEL

- 1 Beacon light
- 2 Lights switch
- 3 Auto Deceleration system
- 4 Eco-Mode
- 5 Travel speed switch
- 6 Working light
- 7 Wipers
- 8 DPF
- 9 Overload warning
- 10 Quick hitch



AIR SUSPENSION SEAT

The Vi082 is equipped in standard with an air suspended seat to offer an optimal comfort for a machine of this weight class. Fully adjustable and with a headrest, it reduces body tension and fatigue.



AIR CIRCULATION

The Vi082 has an air conditioning that can work at a comfortable temperature whatever the weather. Vents are placed to ensure a homogeneous temperature within the cab and a perfect window defrosting.



The air filters are easily accessible for an improved maintenance.

STORAGE SPACES

The Vi082 offers many storage possibilities conveniently placed: cup and bottle holder, utility box, document storage... The operator has all his personal belongings within reach.





SAFETY

The structure of the Vi082 cabin has been designed to meet the ROPS certification (Roll-Over Protective Structure) as well as the FOPS (Falling Object Protective Structure) level 1. The Vi082 is equipped in standard with a FOPS2 Top Guard for an enhanced protection in harsh environment.

ALL-AROUND VISIBILITY

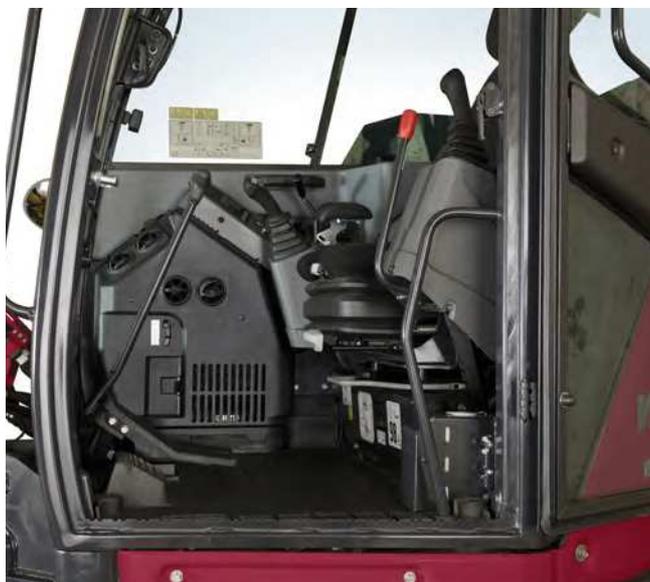
The large Vi082 cabin windows provide the operator with excellent visibility around the machine. The front windshield, divided into two parts, is fully retractable and the windows on the right side slide. The operator can easily communicate with other workers. The 360° visibility ensures optimum safety on the jobsite and makes work more efficient.

The Vi082 is equipped with five mirrors to help the operator control the work area without moving from his seat.



LED LIGHTING : EFFICIENCY AND LOW CONSUMPTION

In order to work safely, efficiently and with accuracy in the darkness, the Vi082 comes standard with 3 LED lights positioned in the inner part of the boom and at the front of the cabin. The LED technology provides a powerful light while reducing energy consumption which increases the service life of the battery. In option, a beacon light can be added to the rear of the cab.



ACCESSIBILITY

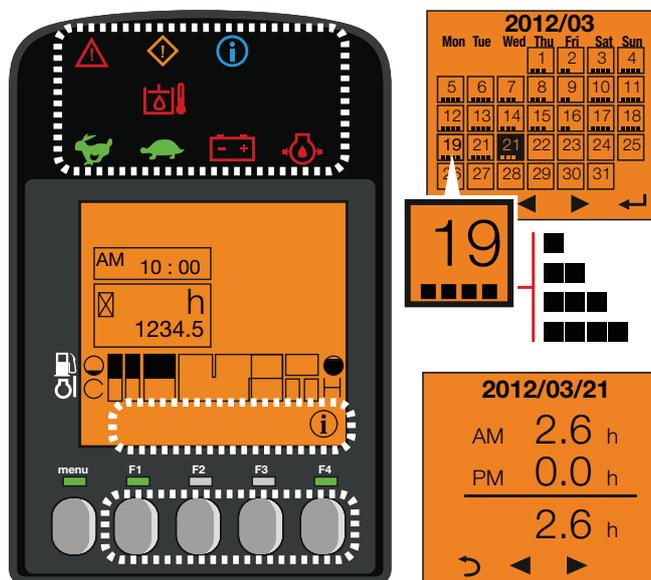
The Vi082 benefits from a large cabin door clearance. This passage makes the entrance and the exit easier and improves significantly the operator's comfort and safety.

Entrance and exit are even more facilitated by 3 handrails which are ideally designed and positioned to fit the operator's posture and grip reach. A large footstep with antislip system also contributes to a safe machine accessibility for the operator.

RELIABILITY

The Vi082 perfectly meets the reputation for quality and durability of the Yanmar machines. The excellent accessibility to components and speed of maintenance and cleaning operations allow achieving excellent levels of on-site availability. Assured of his machine's performance, the operator can calmly work.

The structure of the undercarriage, as well as the steel covers provide an optimal protection and longer service life. Furthermore, a lot of care has been brought to the hose routing on the working equipment. These measures enhance the service life and reduce downtime of the machine.



DIGITAL INTERFACE

The Vi082 is equipped with a digital interface which informs the operator in real time about the status of his machine. Perfectly integrated into the right-hand console, the 3.3" screen provides excellent visibility. The interface displays useful information to the user through LED lamps, or indication about key elements like fuel consumption, fuel gauge, coolant temperature gauge, etc... The interface assists the customer in monitoring maintenance intervals and scheduling related interventions. It also works as a diagnostic tool in case of malfunction by sending an error code and an information icon to the display.

MAINTENANCE

EASY ACCESS

Daily maintenance has to be performed smoothly. There is one easy-to-open engine bonnet and the right-hand side cover is mounted on one hinge to open easily. This gives an access to all major elements: air filter, compressor, radiator, refuelling pump, battery, fuel tank, hydraulic oil tank alternator, engine oil dipstick, water separator, coolant level, etc... A flat floor mat makes cleaning easier.

LONG SERVICE INTERVALS

The Vi082 is designed for working, and therefore its service intervals are reduced to a minimum.



EQUIPMENT

[STANDARD EQUIPMENT]

PERFORMANCE

4TNV98C-WBV1 Yanmar diesel | Direct injection | Diesel Particulate Filter | Engine Control Unit (ECU) | Eco-Mode | Auto-Deceleration System | ViPPS2i Hydraulic system (ViO Progressive System 2-Pump Independent) | Proportional 1st and 2nd auxiliary hydraulic circuit lines to boom end with potentiometer to fine tune the flow (32l/min - 120l/min) | Safety valves on blade, boom and arm cylinders | Automatic 2nd speed | Battery quick connector | External hydraulic oil gauge | SmartAssist Remote (GPS and fleet management system) | 2 front LED working lights on the cabin + 1 LED light integrated into the boom.

COMFORT

LCD interface | Adjustable and reclining seat with fabric covers, air suspension and headrest | Air conditioning | Adjustable armrests | Footrest | Wide travel pedals | Windshield with 2 fully retractable parts | Sliding double right-side window | Transparent upper front part | Foldable sun visor | Wiper | Windshield washer | Automatic ceiling lamp | Radio with USB port | 2 x 12V outlet | Storage boxes.

SAFETY AND DURABILITY

Handrails | Safety lever | Seat belt with retractor | Safety valves for lifting + overload warning | Evacuation hammer | Anchor points | 5 mirrors | Horn | FOPS2 top guard | Blade cylinder supply hose into two parts | Protection of the cylinders (boom and blade) | Hoses protected by abrasion resistant sleeves | Lockable covers | Electric refuelling pump.

MISCELLANEOUS

Fuel gauge | Toolbox | Toolkit | Grease pump.

[OPTIONAL EQUIPMENT]

EQUIPMENT AND PERFORMANCE

Steel crawlers | Pads for steel crawlers | Long arm (+350 mm) | Additional counterweight (+400 kg) | Prolongation 1st and 2nd auxiliary hydraulic circuits lines to arm end | Clamshell bucket circuit | Quick hitch line 150-165 bar | Quick couplers | Kit flat face hydraulic quick connectors | Bio oil | 1 LED beacon fixed or with magnetic base | Kit 1 rear LED light + 1 beacon fixed | Improved fuel filtration.

COMFORT AND EASE OF USE

Adjustable and reclining seat with leatherette covers, air suspension and headrest | Seat cover | Documentation box | Central greasing.

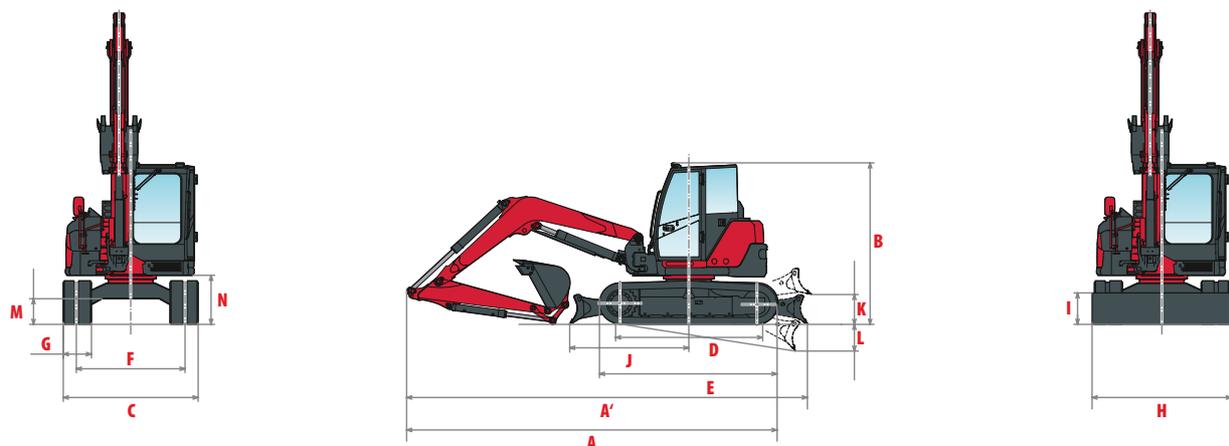
SECURITY AND DURABILITY

FOPS 2 Front guard | Anti-theft device (key/keyboard) | GPS Tracking | Travel alarm | Removable battery cut-off switch.

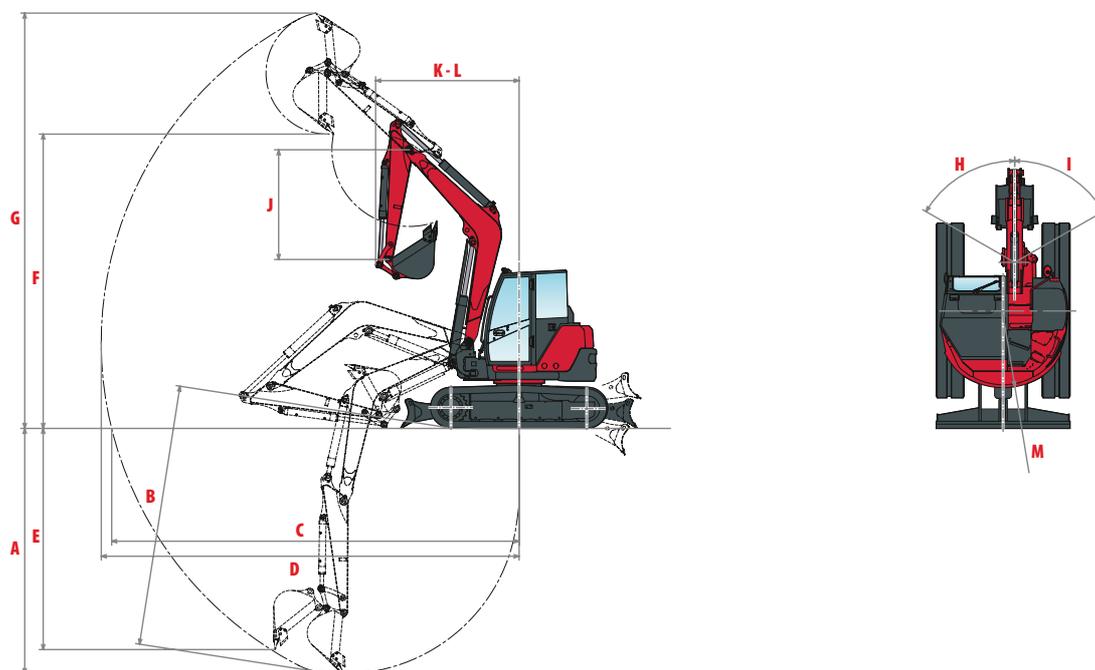
[ATTACHMENTS]

Yanmar proposes you the attachment that fit your needs and match the safety standards in force in your country: mechanical quick coupler, hydraulic quick coupler, powertilt, standard, grading or symmetric buckets, hydraulic breaker, tiltrotators...

DIMENSIONS



A Overall length	6 410/6 450* mm	H Overall blade width	2 270 mm
A' Overall length with blade at the back	6 920/6 960* mm	I Overall blade height	435 mm
B Overall height	2 785 mm	J Blade distance	1 990 mm
C Overall width	2 270 mm	K Max. lifting height above the ground	460 mm
D Length of track on ground	2 290 mm	L Max. lowering depth from the ground	480 mm
E Undercarriage length	2 890 mm	M Minimum ground clearance	390 mm
F Lane	1 870 mm	N Ground clearance under counterweight	700 mm
G Track width	450 mm		



A Max. digging depth - Blade lifted	4 150/4 500* mm	H Boom swinging base to left	57°
B Max. digging depth - Blade lowered	4 440/4 790* mm	I Boom swinging base to right	60°
C Max. digging reach on ground	6 820/7 160* mm	J Arm length	1 650/2 000* mm
D Max. digging reach	6 960/7 290* mm	K Front turning radius	2 470/2 520* mm
E Max. vertical wall	3 800/4 130* mm	L Front turning radius with boom swing	2 130/2 170* mm
F Max. unloading height	4 680/4 910* mm	M Rear turning radius	1 135 mm
G Max. cutting height	6 790/7 020* mm	M' Rear turning radius with additional counterweight	1 265 mm

*With long arm.

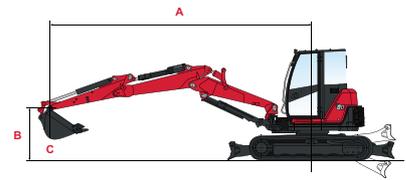
LIFTING FORCE



Tipping load, rating over front



Tipping load, rating over side 90°



Cabin, standard arm

		Blade on ground						Blade above ground													
A	(A=)	Min	3 m	4 m	5 m	Max.	Min	3 m	4 m	5 m	Max.										
B																					
5 m	4236	-	-	-	-	*1910 *1910	-	-	-	-	*1910 *1910	-	-	*1890 *1890							
4 m	5088	-	-	-	-	*1830 *1830	1270	*1820	1230	*1800	-	-	-	*1830 *1830	1280	1320	1230	1280			
3 m	5587	-	-	*2600	*2600	*2060 *2060	1260	*1850	1040	*1790	-	-	*2600	*2600	*2060	*2060	1240	1300	1040	1070	
2 m	5841	2680	*3800	2390	*3750	1650	*2500	1190	*2030	940	*1790	2660	2830	2380	2640	1640	1760	1190	1250	930	980
1 m	5886	2290	*4070	2230	*3860	1600	*2810	1170	*2160	910	*1810	2290	2470	2190	2350	1580	1650	1160	1200	900	950
0 m	5730	2670	*4180	2200	*3960	1510	*2890	1120	*2180	940	*1840	2660	2870	2200	2340	1500	1580	1130	1170	930	980
-1 m	5350	-	-	2220	*3710	1520	*2730	1130	*2030	1040	*1840	-	-	2210	2370	1510	1570	1120	1160	1030	1070
-2 m	4680	-	-	2280	*3050	1540	*2180	-	-	1250	*1770	-	-	2270	2480	1520	1640	-	-	1250	1310

Cabin, standard arm, additional counterweight

		Blade on ground						Blade above ground													
A	(A=)	Min	3 m	4 m	5 m	Max.	Min	3 m	4 m	5 m	Max.										
B																					
5 m	4236	-	-	-	-	*1910 *1910	-	-	-	-	*1910 *1910	-	-	*1890 *1890							
4 m	5088	-	-	-	-	*1830 *1830	1440	*1820	*1830	*1800	-	-	-	*1830 *1830	1440	1490	1390	1450			
3 m	5587	-	-	*2600	*2600	*2060 *2060	1400	*1850	*2060	*1790	-	-	*2600	*2600	*2060	*2060	1400	1470	1180	1220	
2 m	5841	2990	*3800	2700	*3750	1860	*2500	1350	*2030	1860	*1790	2990	3200	2700	3000	1860	2000	1350	1420	1060	1120
1 m	5886	2600	*4070	2560	*3860	1800	*2810	1320	*2160	1800	*1810	2600	2820	2520	2700	1800	1880	1320	1370	1030	1090
0 m	5730	3050	*4180	2520	*3960	1710	*2890	1290	*2180	1710	*1840	3050	3300	2520	2700	1710	1820	1290	1340	1070	1130
-1 m	5350	-	-	2530	*3710	1720	*2730	1280	*2030	1720	*1840	-	-	2530	2730	1720	1800	1280	1340	1180	1230
-2 m	4680	-	-	2590	*3050	1740	*2180	-	-	1740	*1770	-	-	2590	2830	1740	1870	-	-	1420	1500

Cabin, long arm

		Blade on ground					Blade above ground															
A	(A=)	3 m	4 m	5 m	6 m	Max.	3 m	4 m	5 m	6 m	Max.											
B																						
5 m	4705	-	-	*1710	*1710	-	-	-	-	-	1370	*1720	-	-	*1710	*1710	-	-	-	-	1370	1460
4 m	5470	-	-	*1660	*1660	1250	*1630	-	-	1060	*1630	-	-	*1660	*1660	1250	1320	-	-	1060	1130	
3 m	5930	-	-	1740	*1910	1220	*1710	-	-	910	*1630	-	-	1740	1870	1220	1300	-	-	910	970	
2 m	6170	2540	*3160	1650	*2310	1170	*1900	880	*1670	840	*1640	2540	2790	1650	1770	1170	1250	880	930	840	890	
1 m	6215	2340	*3850	1550	*2680	1130	*2070	860	*1720	810	*1660	2340	2560	1550	1670	1130	1200	860	910	810	860	
0 m	6065	2250	*3990	1480	*2840	1090	*2150	850	*1730	830	*1700	2250	2470	1480	1600	1090	1160	850	900	830	890	
-1 m	5715	2240	*3880	1460	*2770	1070	*2070	-	-	900	*1710	2240	2460	1460	1570	1070	1150	-	-	900	960	
-2 m	5102	2270	*3320	1470	*2350	1090	*1770	-	-	1060	*1680	2270	2490	1470	1590	1090	1160	-	-	1060	1130	

Cabin, long arm, additional counterweight

		Blade on ground					Blade above ground															
A	(A=)	3 m	4 m	5 m	6 m	Max.	3 m	4 m	5 m	6 m	Max.											
B																						
5 m	4705	-	-	*1710	*1710	-	-	-	-	-	1540	*1720	-	-	*1710	*1710	-	-	-	-	1540	1650
4 m	5470	-	-	*1660	*1660	1410	*1630	-	-	1200	*1630	-	-	*1660	*1660	1410	1500	-	-	1200	1280	
3 m	5930	-	-	*1910	*1910	1380	*1710	-	-	1050	*1630	-	-	*1910	*1910	1380	1470	-	-	1050	1110	
2 m	6170	2870	*3160	1860	*2310	1340	*1900	1010	*1670	960	*1640	2870	3140	1860	2000	1340	1430	1010	1070	960	1030	
1 m	6215	2660	*3850	1760	*2680	1290	*2070	990	*1720	940	*1660	2660	2920	1760	1900	1290	1380	990	1050	940	1000	
0 m	6065	2570	*3990	1700	*2840	1250	*2150	980	*1730	960	*1700	2570	2830	1700	1830	1250	1340	980	1040	960	1020	
-1 m	5715	2370	*3880	1600	*2770	1210	*2070	-	-	1040	*1710	2370	2610	1600	1720	1210	1290	-	-	1040	1110	
-2 m	5102	2590	*3320	1680	*2350	1250	*1770	-	-	1220	*1680	2590	2850	1680	1820	1250	1340	-	-	1220	1300	

[The data in this table represents the lifting capacity in accordance with ISO 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. Data marked with * are the hydraulic limits of the lifting force.]

SPECIFICATIONS

[WEIGHT +/- 2% (EN STANDARDS)]

	Transport weight*	Operating weight*	Ground pressure
Cabin version / Rubber crawlers	8 125 kg	8200 kg	0,36 Kgf/cm ²
Cabin version / Steel crawlers	8 185 kg	8260 kg	0,37 Kgf/cm ²
With additional counterweight		+ 400 kg	-
With FOPS II protection (front guard)		+ 44 kg	-

[ENGINE]

Type	4TNV98C-WBV1
Fuel	Diesel
Net Power	39,3 kW/52,7 HP at 1 900 rpm
Gross Power	41,5 kW/55,6 HP at 1 900 rpm
Displacement	3,318 l
Maximum torque	229/241 N.m
Cooling	Water-cooling
Starter	12 V - 3 kW
Battery	12 V - 115 Ah (for 20 hours)
Alternator	12 V - 80 A

[HYDRAULIC SYSTEM]

Maximum pressure	258 bars
1 piston pump with variable flow	124,6 l/min
1 piston pump with variable flow	124,6 l/min
1 gear pump for pilot line	19 l/min

PTO	Theoretical data	
	Pressure	Flow
2 ways	0 - 245 bars	44,6 - 121 l/min
1 way	0 - 245 bars	44,6 - 121 l/min

 Oil flow decreases as the pressure increases

[PERFORMANCE]

Travel speed [low / high]	2,5 / 5 km/h
Rotation speed	9,4 rpm
Digging force (arm)	40,8 kN
Digging force [bucket]	63,5 kN
Gradability	25°
Noise Level (2000/14/CE&2005/88/CE)	Lwag: 98 dBA ; Lpag: 78 dBA

[UNDERCARRIAGE]

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

[CAPACITIES]

Fuel tank	115 l
Coolant	9 l
Engine oil	10,5 l
Hydraulic circuit	116 l
Hydraulic tank	60 l

MAINTENANCE FREQUENCY

[Change engine oil and filter: **500 hours (1st) / every year**] [Change fuel filter: **500 hours**] [Change hydraulic oil filter: **1000 hours**]
 [Change hydraulic oil return filter: **500 hours**] [Change cooling fluid: **2000 hours**] [Clean particulate filter: **3000 hours**] [Change particulate filter: **9000 hours**]



YANMAR



GB_Vi082_0123

AUTORYZOWANY PARTNER:

TECHBUD

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BUILDING
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