



YANMAR

MIDI EXCAVATOR

SV100 2PB



Engine	4TNV98CT-VBV
Net power	70,3 HP
Operating weight	10360 kg
Digging force (bucket)	68,5 kN




+45%



Articulated Boom Concept

Yanmar introduces its first model with an articulated boom: the SV100 2-Piece Boom. This type of configuration originates from heavy wheeled excavators and improves drastically the performance in lifting, moving and placing loads. The improvement results from the added articulation in the boom. This improves the maneuverability and ability to place a load with precision. Furthermore, it improves also the load chart from the machine by as much as 45% in some areas of the load chart.

The additional weight due to the articulated boom

configuration has been limited to 845 kg. These all benefits to the outstanding lifting ability of the SV100 2-Piece Boom.

Articulated Boom Cylinder

Yanmar decided to return the boom articulation cylinder. Since the SV100 2PB operates at high working pressure, we do have outstanding break-out force. The benefit lies in the fact that raising the boom is faster. The lowering of the boom is slower due to the cylinder orientation, which is optimal to improve the positioning of loads.



**OPTIMAL
MOVEMENT OF
THE BOOM**



YANMAR DESIGN

Yanmar Product Development has focused on a unique solution. We decided to use a single top mounted articulation cylinder. This configuration offers the following significant features:

- Total protection of the cylinder rod against damages.
- Dead weight divided by 50%, which improves the stability of the SV100 2PB.
- Greasing points, daily maintenance and Total Cost of Ownership also reduced by 50%.
- Possibility to use a very sleek structure for the boom. This results in the best possible visibility available in the market place with this configuration.

Operation articulated Boom

Yanmar decided to put the control for the articulation on the left joystick with a proportional control. This choice contributes to increase the operator comfort and the safety through a very precise control.





EQUIPMENT

STANDARD EQUIPMENT

Engine

- 4TNV98CT-VBV Yanmar diesel
- Meets Phase IIIB and Tier 4 standards
- Direct Injection
- Common Rail System
- EGR Electrical Control System
- Engine Control Unit (ECU)
- Particle filter with automatic regeneration (without additives)
- Water Separator
- Eco Mode
- Auto-Idle System (auto deceleration)
- Throttle using potentiometer

+

Hydraulic system

- VIPPS Hydraulic system (ViO progressive 3 pump system)
- 2 auxiliary circuits with adjustable proportional control by potentiometer
- Electronic regulation of hydraulic pumps
- Automatic 2nd speed
- Filter on steering hydraulic circuit
- External hydraulic oil gauge

+

Cabin

- LCD Interface
- Air conditioning
- Adjustable and reclining seat with fabric covers, air suspension and headrest

- Adjustable wrist support
- Foot rests
- Wide travel pedals
- Windshield with 2 fully retractable parts
- Sliding double right side window
- Transparent upper front part
- Visor
- Wipers
- Windshield washer
- Automatic ceiling lamp
- Radio with USB port
- 2 x 12V outlets
- Storage Boxes
- Secure document storage
- Cup Holder

+

Undercarriage

- Asymmetric VICTAS tracks
- 4 anchor points
- Blade cylinder supply hose into two parts

+

Safety

- Handrails
- Safety lever
- Seat belt with retractor
- Evacuation hammer
- Anchor points
- 5 mirrors
- Horn
- Travel beep

Lighting

- 1 LED light integrated into the boom
- 2 LED lamps on the front of the cab

+

Miscellaneous

- 2 Piece Boom
- Additionnal counterweight
- Electric refuelling pump with automatic stop
- Fuel gauge
- Double axis position of the arm cylinder
- Protection of the blade and boom cylinders
- Hoses protected by abrasion-resistant sleeves
- Cataphoresis treated steel parts
- Locking Covers
- Toolbox
- Toolkit
- Grease pump

OPTIONAL EQUIPMENT

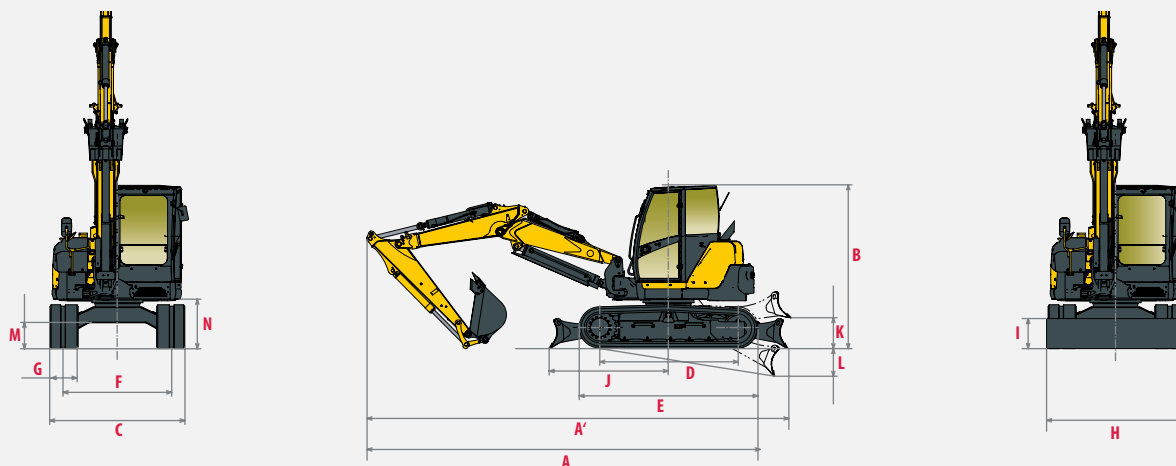
Special paint | Safety valves for lifting + overload warning | Proportional 3rd and 4th hydraulic circuits lines to arm end | Line high pressure for hydraulic quick coupler | Proportional 3rd and 4th hydraulic circuits (prolongation 3rd circuit included) + ½ circuit | Quick couplings | Anti-theft (key/keypad) | GPS Tracking | Centralised greasing | Skai seat | LED rear light + flashing light | FOPSII protection grid

ACCESSORIES

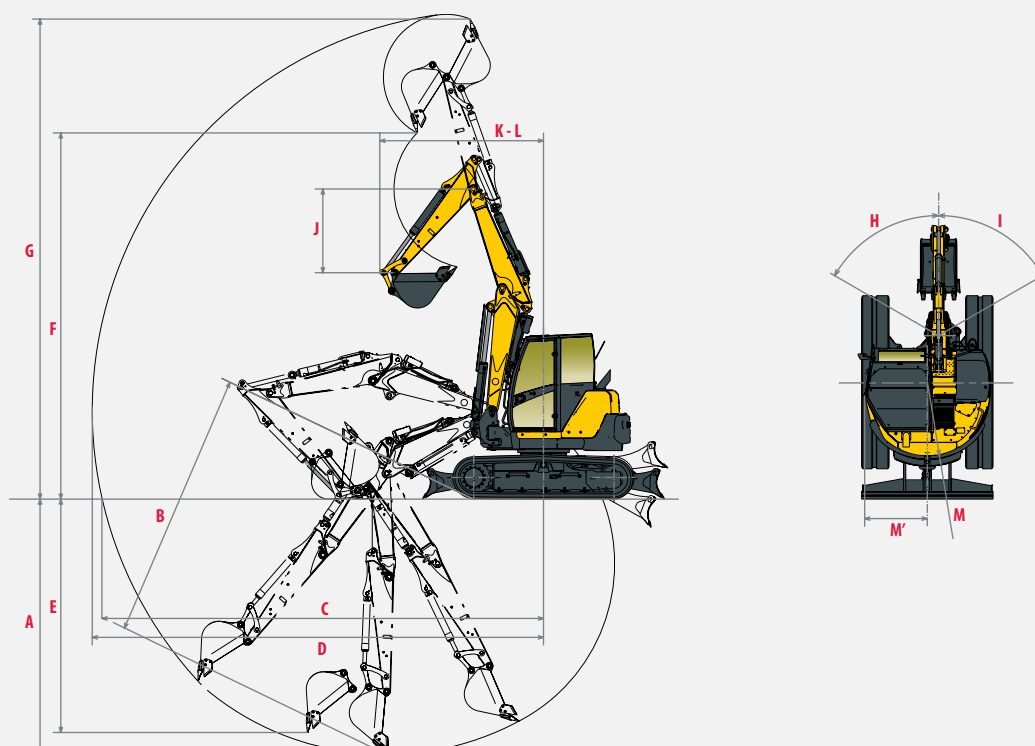
Yanmar gives you the accessories that fit your needs and match the safety standards in force in your country: mechanical quick coupler, hydraulic quick coupler, ditching bucket, swinging bucket, backhoe bucket, hydraulic hammer...



DIMENSIONS



A» Overall length	6730 mm	H» Overall blade width	2320 mm
A'» Overall length with blade at the back	7230 mm	I» Overall blade height	520 mm
B» Overall height	2840 mm	J» Blade distance	2040 mm
C» Overall width	2320 mm	K» Max. lifting height above the ground	520 mm
D» Length of track on ground	2370 mm	L» Max. lowering depth from the ground	460 mm
E» Undercarriage length	3070 mm	M» Minimum ground clearance	450 mm
F» Lane	1870 mm	N» Ground clearance under counterweight	820 mm
G» Track width	485 mm		

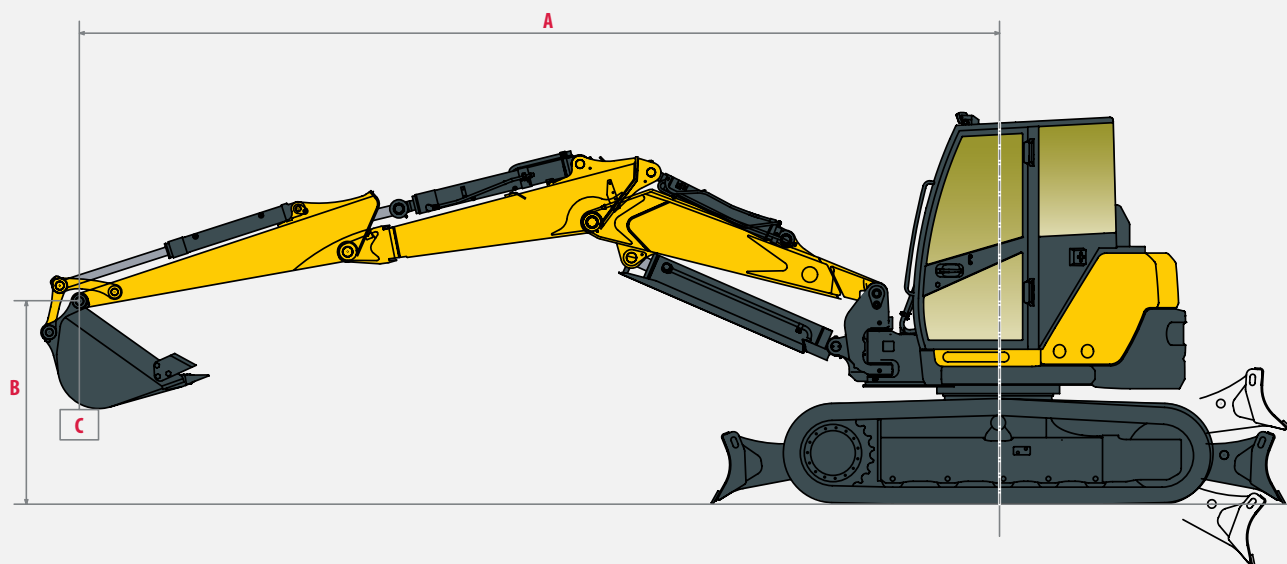


A» Max. digging depth - Blade lifted	4330 mm	H» Boom swinging base to left	60°
B» Max. digging depth - Blade lowered	4580 mm	I» Boom swinging base to right	60°
C» Max. digging reach on ground	7460 mm	J» Arm length	1950 mm
D» Max. digging reach	7640 mm	K» Front boom swing	2780 mm
E» Max vertical wall	3960 mm	L» Front turning radius with boom swing	2640 mm
F» Max. unloading height	6210 mm	M» Rear swing radius	1330 mm
G» Max. cutting height	8220 mm	M'» Rear boom swing with additional counterweight	1470 mm

■ Subject to technical modifications. Dimensions in mm with specific Yanmar bucket.






















LIFTING FORCE



Tipping load, rating over front



Tipping load, rating over side 90°

Additional counterweight, standard arm																							
Blade on ground												Blade above ground											
A	Max			6 m		5 m		4 m		3 m		Max			6 m		5 m		4 m		3 m		
B	(A=)											(A=)											
6 m	4330	*2290	2730	-	-	-	-	*2740	2740	-	-	4330	*2255	2730	-	-	-	-	*2740	2740	-	-	
5 m	5350	*1595	2260	-	-	*1800	2275	-	-	-	-	5350	1565	1855	-	-	*1800	2275	-	-	-	-	
4 m	5980	*1290	2035	-	-	*1760	*2290	*2625	2625	-	-	5980	1285	1515	-	-	1770	*1920	*2625	2625	-	-	
3 m	6360	*1170	1900	*1305	2020	*1730	2350	*2480	2915	-	-	6360	1145	1350	1295	1500	*1700	2350	*2400	2915	-	-	
2 m	6550	*1095	1780	*1240	2065	*1620	2530	*2190	3250	-	-	6550	1090	1290	1235	1490	1610	1970	2180	2670	-	-	C
1 m	6550	*1070	1655	*1210	1985	*1555	2550	*2050	3315	-	-	6550	1060	1265	1210	1425	1550	1845	2025	2470	-	-	
0 m	6380	*1125	1515	*1200	1860	*1490	2410	*1975	3150	-	-	6380	1100	1340	1195	1400	1490	1795	1980	2420	-	-	
-1 m	*6010	*1260	*1260	*1285	1285	*1515	2120	*2010	*2775	*3305	3305	*6010	*1260	*1260	*1285	1285	1495	1790	*1980	2775	*2850	3305	
-2 m	*5390	*845	845	-	-	*1390	*1390	*1960	*1960	*2250	2250	*5390	*845	845	-	-	*1390	*1390	*1960	*1960	*2250	2250	

C

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 or 87% of the hydraulic lifting capacity. Data marked with * are the hydraulic limits of the lifting force.



SPECIFICATIONS



WEIGHT +/- 2% (CE STANDARDS)

	Weight	Ground pressure
Operating weight (rubber tracks)	10360 kg	0.41 kg/cm ²
Transport weight (rubber tracks)	10285 kg	0.40 kg/cm ²
With steel tracks	+ 50 kg	0.42 kg/cm ²
With FOPS II protection	+ 100 kg	0.41 kg/cm ²



ENGINE

Type	4TNV98CT-VBV
Fuel	Diesel
Net Power	51.7 kW / 70.3 HP / 2100 rpm
Gross Power	53.7 kW / 73 HP / 2100 rpm
Displacement	3318 cm ³
Maximum torque	283 N.m. / 1365 rpm
Cooling	Liquid
Starter	3 kW
Battery	12 V – 92 Ah
Alternator	12 V – 80 A



HYDRAULIC SYSTEM

Maximum pressure	275 bar
1 piston pump with variable flow	2 x 77.7 l/min
1 gear pump	57.5 l/min
1 gear pump for pilot line	20 l/min

PTO	Theoretical data at 2100 rpm	
	Pressure	Oil flow
	0 ~ 245 bar	130 ~ 60 l/min
	0 ~ 245 bar	130 ~ 60 l/min



Oil flow decreases as the pressure increases



PERFORMANCE

Travel speed	2.5 / 4.4 km/h (2.2 / 4.0 km/h with steel tracks)
Swing speed	9.1 rpm
Digging force (arm)	45.8 kN (4670 kgf)
Digging force (bucket)	68.5 kN (6980 kgf)
Traction force	91.6 kN
Grade ability	30°
Noise level (2000/14/CE & 2005/88/CE)	97 dB(A) / 72 dB(A) (LwA)



UNDERCARRIAGE

Number of top rollers	1
Number of bottom rollers	5
Track tensioning system	Using grease pump



CAPACITIES

Fuel tank	115 l
Coolant	10.6 l
Engine oil	11.2 l
Hydraulic circuit	121 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 cooling fluid: **1,000 hours** | Clean particulate filter: **3,000 hours** | Change particle filter: **9,000 hours**



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