



YANMAR

MIDI EXCAVATOR

SV100 2PB



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



PERFORMANCE

+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
- Additional 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

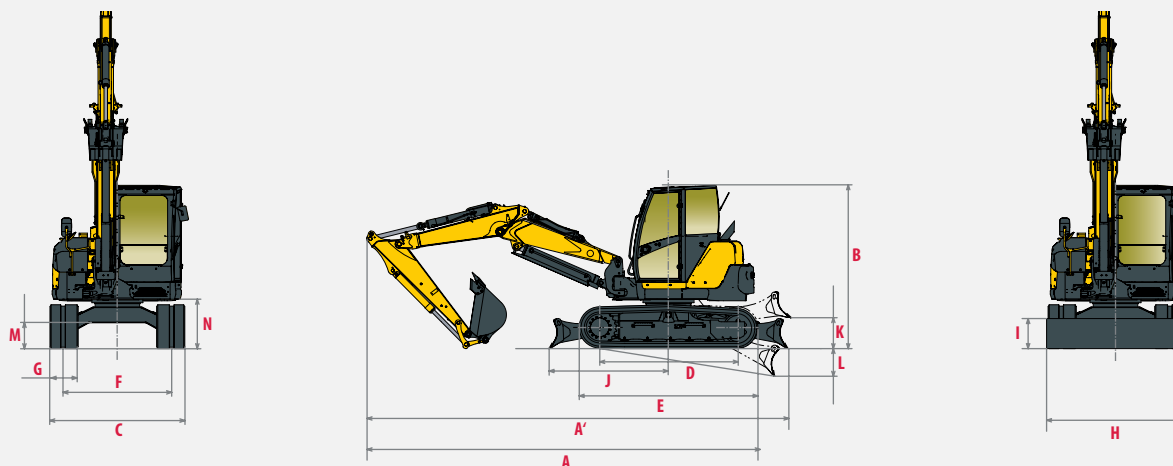
Special paint | Safety valves for lifting + overload warning | Proportional 3rd and 4th hydraulic circuits lines to arm end | Line high pressure for hydraulic quick coupler | Proportional 3rd and 4th hydraulic circuits (prolongation 3rd circuit included) + ½ circuit | Quick couplings | Anti-theft (key/keyboard)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

ACCESSORIES

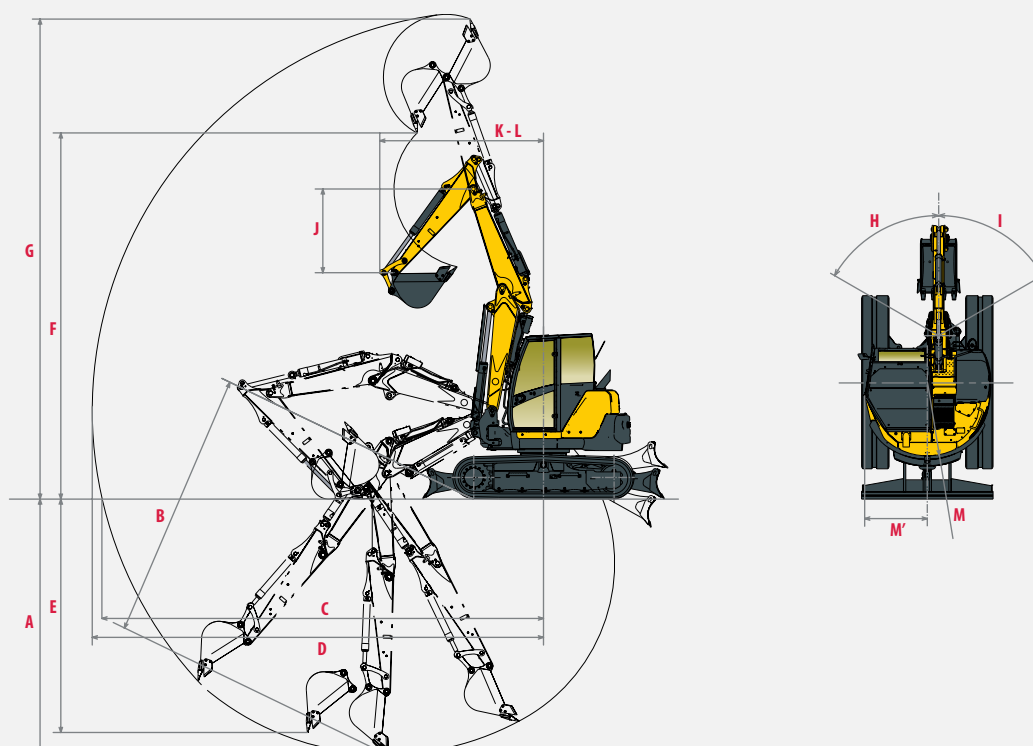
Yanmar gives you the accessories that fit your needs and match the safety standards in force in your country: mechanical quick coupler, hydraulic quick coupler, ditching bucket, swinging bucket, backhoe bucket, hydraulic hammer...



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 | | |

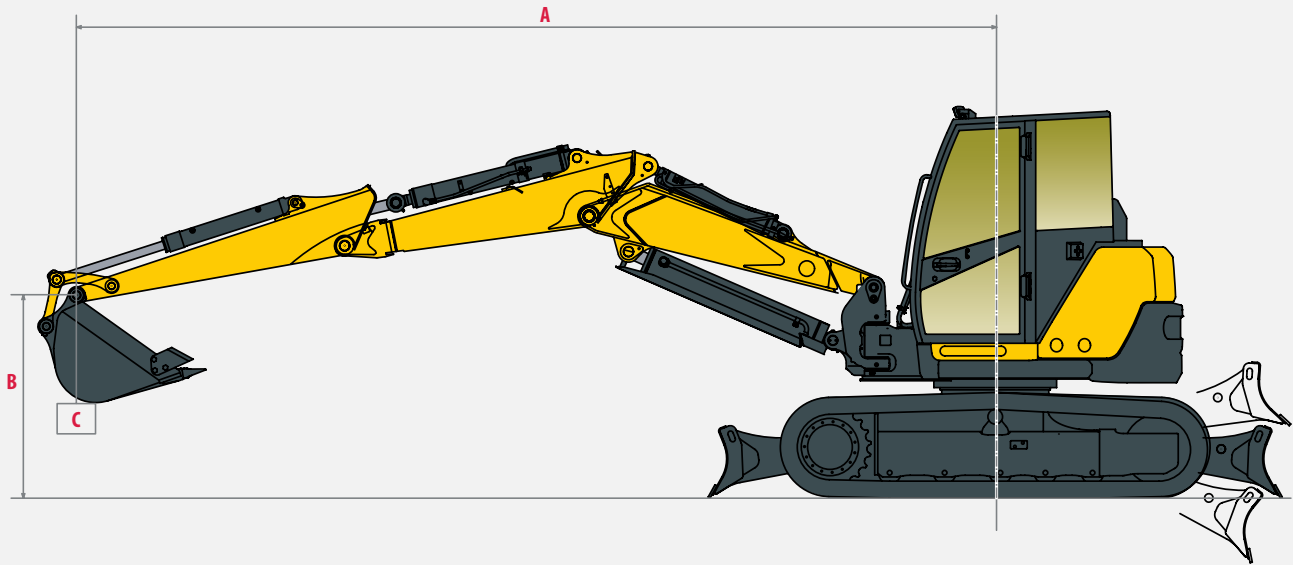


| | | | |
|---|---------|---|---------|
| A » Max. digging depth - Blade lifted | 4330 mm | H » Boom swinging base to left | 60° |
| B » Max. digging depth - Blade lowered | 4580 mm | I » Boom swinging base to right | 60° |
| C » Max. digging reach on ground | 7460 mm | J » Arm length | 1950 mm |
| D » 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 | |

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**



YANMAR



Printed in France – Materials and specifications are subject to change from the manufacturer without notice – Please contact your local Yanmar Construction Equipment Europe dealer for further information.

Yanmar Construction Equipment Europe S.A.S.

25, rue de la Tambourine
52100 SAINT DIZIER – FRANCE
contact@yanmar.fr

www.yanmarconstruction.eu