



YANMAR

MIDI-EXCAVATOR

Vi080-2PB



| | |
|------------------------|----------------------------|
| Operating weight | 8810 kg |
| Engine | 39,3 / 41,5 kW at 1900 rpm |
| Digging force (arm) | 40,8 kN |
| Digging force (bucket) | 63,5 kN |

Unmatched compactness for unlimited access



COMPACTNESS

A true concentrate of technology and innovation, the Vi080-2PB offers the performance of a large excavator while leveraging the benefits of a compact excavator.



ROBUST AND RELIABLE YANMAR ENGINE

Well proven Yanmar 4TNV engines: 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.



ViPPS HYDRAULIC SYSTEM

The Vi080-2PB is equipped with a ViPPS hydraulic system which cumulates the flow of separate pumps in order to obtain the optimal combination in terms of speed, power, smoothness and balance. This hydraulic system configuration allows smooth and simultaneous operation of working movements, even while traveling.



ARTICULATED BOOM CONCEPT

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 manoeuvrability and ability to place a load with precision.

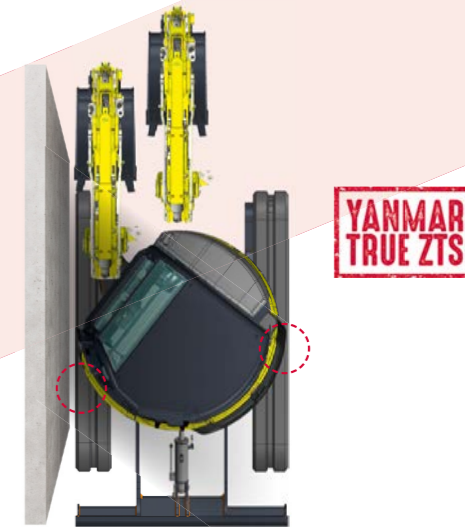
UNMATCHED COMPACTNESS

DESIGNED TO WORK EFFECTIVELY ON A WIDE VARIETY OF JOBSITES, THE Vi080-2PB COMBINES COMPACTNESS, POWER, VERSATILITY, COMFORT AND RELIABILITY.

ADVANTAGES OF THE ViO DESIGN

Neither the standard counterweight, nor the front part of the upper frame sticks out of the track width. With its front part designed not to hang over, the Vi080-2PB is a true zero tail swing excavator offering below advantages:

- + 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.



ARTICULATED BOOM CYLINDER

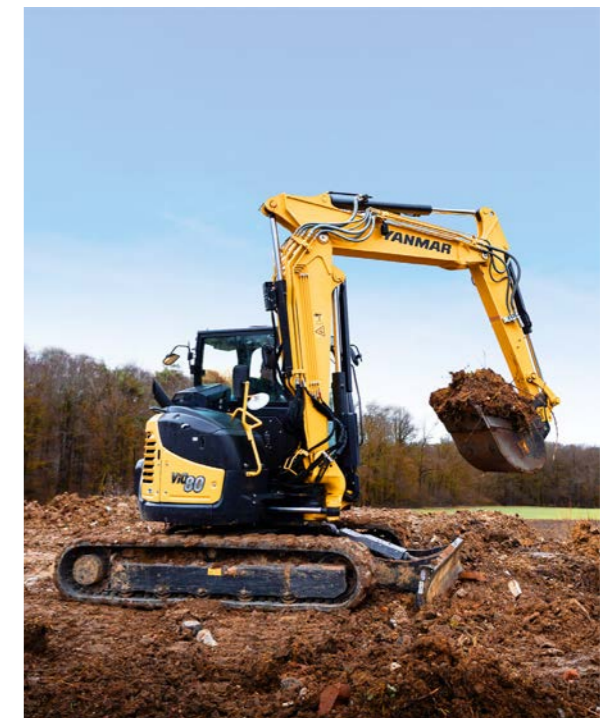
Yanmar decided to return the boom articulation cylinder. Since the Vi080-2PB operates at high working pressure, we do have outstanding break-out force. The benefit lies in the fact that raising the boom is faster. The lowering of the boom is slower due to the cylinder orientation, which is optimal to improve the positioning of loads.

NO COMPROMISE ON PERFORMANCE

The Vi080-2PB offers exceptional performance: its digging depth of 4420 mm* and digging forces of 63,5 kN (bucket) and 40,8 kN (short arm) allow it to work quickly and efficiently even under the most severe conditions.

STABILITY

The Vi080-2PB is equipped with the VICTAS® system whose strength lies in the increase of the support surface and increase in tracking through the use of asymmetric crawlers. This system, patented by Yanmar, reduces track degradation, makes displacements quieter and reduces vibration. Associated with the use of a large counterweight and excellent weight distribution, it provides the same or even higher stability than conventional machines in the same weight class, as well as remarkable lifting capacities.



COMFORT



SPACIOUS 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.



Flat and spacious leg room



ALL-AROUND VISIBILITY

The Vi080-2PB design provides an ergonomic environment, excellent visibility and exceptional safety. The shape of the cabin provides the operator with an optimal 360° visibility in order to improve the safety on the jobsite and to optimize work efficiency. The Vi080-2PB is equipped with five mirrors to help the operator control the work area without moving from his seat.



COMFORTABLE SEAT

The Vi080-2PB 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.



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PERFORMANCE

Based on unique experience and expertise, Yanmar technology delivers excellent performance while respecting the environment. The Vi080-2PB 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...).

NEW GENERATION ELECTRONICALLY CONTROLLED YANMAR ENGINE

The Vi080-2PB benefits from the most advanced technology developed by the leading industrial diesel engines manufacturer. The 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-WBV engine is the result of our continuous efforts to achieve technological progress in fuel consumption and emissions. With the Vi080-2PB, 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.



SAFETY

The structure of the Vi080-2PB cabin has been designed to meet the ROPS (Roll-Over Protective Structure) certification as well as the FOPS (Falling Object Protective Structure) level 1.



THE BEST BOOM, ARM AND BUCKET CYLINDER PROTECTION ON THE MARKET

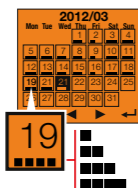
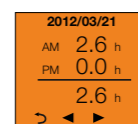
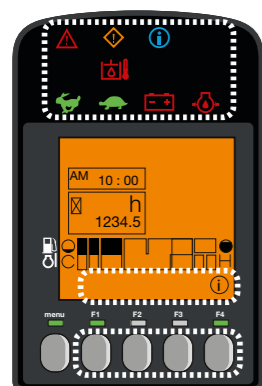
The Vi080-2PB benefits from a unique and complete protection of all its boom and arm cylinders. All cylinder tubes and rods are protected by a spring type steel plate, which reduces drastically the Total Cost of Ownership of the machine.

LED LIGHTING: EFFICIENCY AND LOW CONSUMPTION

In order to work safely, efficiently and with accuracy in the darkness, the Vi080-2PB is equipped in standard with 3 LED lights positioned in the inner part of the boom and at the front of the cabin.



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DIGITAL INTERFACE

The ViO80-2PB 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 provides the customer with useful information through LED lamps, or indications about important 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 on the display.

MAINTENANCE

EASY ACCESS

Daily maintenance has to be performed easily. 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, radiator, battery, fuel tank, hydraulic oil tank, engine oil dipstick, water separator, coolant level, etc... A flat floor mat makes cleaning easier.



LIFTING FORCE



Tipping load, rating over front

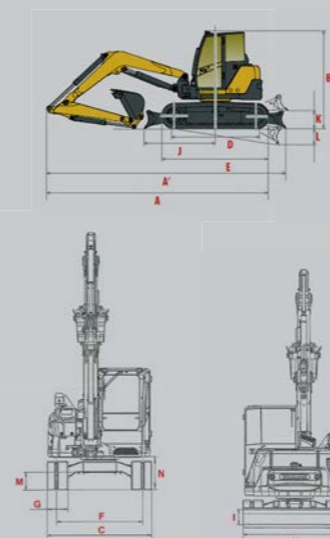


Tipping load, rating over side 90°

| Cabin, rubber tracks, with additional counterweight | | | | | | | | | | | | | | | | | | |
|---|------------|-------|-------|-----|-------|------|-------|-------|-------|----------|-------|------|------|-----|------|-------|-------|-------|
| A | Blade down | | | | | | | | | Blade up | | | | | | | | |
| | Max | 6 m | | 5 m | | 4 m | | Min | | Max | 6 m | | 5 m | | 4 m | | Min | |
| B (A=) | | | | | | | | | | | | | | | | | | |
| 6 m | 3708 | *2735 | *2735 | - | - | - | - | - | - | *2735 | *2735 | - | - | - | - | - | - | - |
| 5 m | 4030 | 1420 | *2120 | - | - | - | - | - | - | 1400 | 1480 | - | - | - | - | *2280 | *2280 | - |
| 4 m | 5656 | 1100 | *1835 | - | - | 1425 | *1985 | *2280 | *2280 | - | - | 1085 | 1140 | - | - | 1415 | 1490 | *2280 |
| 3 m | 6098 | 975 | *1685 | 980 | *1715 | 1340 | *2035 | 1920 | *2545 | - | - | 990 | 965 | 975 | 995 | 1335 | 1385 | 1915 |
| 2 m | 6326 | 875 | *1515 | 950 | *1695 | 1260 | *2090 | 1725 | *2740 | - | - | 860 | 925 | 940 | 1010 | 1255 | 1370 | 1725 |
| 1 m | 6365 | 840 | *1405 | 910 | *1635 | 1190 | *2075 | 1605 | *2735 | - | - | 850 | 890 | 910 | 965 | 1185 | 1260 | 1580 |
| 0 m | 6220 | 865 | *1220 | 895 | *1430 | 1145 | *1945 | 1525 | *2510 | - | - | 850 | 885 | 900 | 940 | 1130 | 1185 | 1515 |
| -1 m | 5875 | *985 | *985 | - | - | 1120 | *1620 | 1510 | *2080 | 2105 | *2395 | *985 | *985 | - | - | 1115 | 1150 | 1155 |
| -2 m | 5283 | *640 | *640 | - | - | *965 | *965 | *1400 | *1400 | *1435 | *1435 | *640 | *640 | - | - | *965 | *965 | *1400 |

DIMENSIONS

| | | |
|----|---------------------------------------|---------|
| A | Overall length | 5290 mm |
| A' | Overall length with blade at the back | 7280 mm |
| B | Overall height | 2680 mm |
| C | Overall width | 2270 mm |
| D | Length of track on ground | 2290 mm |
| E | Undercarriage length | 2890 mm |
| F | Lane | 1870 mm |
| G | Track width | 450 mm |
| H | Overall blade width | 2270 mm |
| I | Overall blade height | 450 mm |
| J | Blade distance | 1990 mm |
| K | Max. blade height above the ground | 460 mm |
| L | Max. lowering blade depth | 480 mm |
| M | Minimum ground clearance | 390 mm |
| N | Ground clearance under counterweight | 700 mm |



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TECHNICAL SPECIFICATIONS

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

| | Transport weight* | Operating weight* | Ground pressure (kPa [Kg/cm ²]) |
|-----------------|-------------------|-------------------|---|
| Rubber crawlers | 8735 kg | 8810 kg | 0,39 |
| Steel crawlers | 8795 kg | 8870 kg | 0,39 |

*With additional counterweight of 400 kg

[ENGINE]

| | |
|------------------|------------------|
| Type | 4TNV98C-WBV |
| Fuel | Diesel |
| Net power (kW) | 39,3 at 1900 rpm |
| Gross power (kW) | 41,5 at 1900 rpm |
| Displacement (L) | 3,318 l |
| Maximum torque | 229 - 241 N.m |
| Cooling | Water |
| Starter (V-kW) | 12 - 3 |
| Battery (V-Ah) | 12 - 115 |
| Alternator (V-A) | 12 - 80 |

[HYDRAULIC SYSTEM]

| | |
|-----------------------------------|----------------|
| Maximum pressure | 258 bars |
| 1 plunger pump with variable flow | 2 x 70,3 l/min |
| 1 plunger pump with variable flow | 53,2 l/min |
| 1 gear pump for pilot line | 19 l/min |

[PERFORMANCE]

| | |
|---------------------------------------|--|
| Travel speed | 2,5 - 4,5 km/h (rubber tracks) / 2,3 - 4,1 km/h (steel tracks) |
| Rotation speed | 9 rpm |
| Digging force (arm) | 40,8 kN |
| Digging force (bucket) | 63,5 kN |
| Gradability | 25° |
| Noise level (2000/14/CE & 2005/88/CE) | 98 / 73 dBA |

[UNDERCARRIAGE]

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

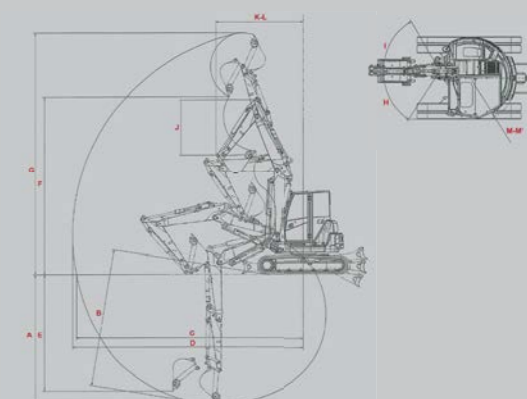
[CAPACITIES]

| | |
|-----------------------|------|
| Fuel tank (L) | 115 |
| Coolant (L) | 9 |
| Engine oil (L) | 11,2 |
| Hydraulic circuit (L) | 118 |
| Hydraulic tank (L) | 60 |

MAINTENANCE FREQUENCY

[Change engine oil and filter: 500 hours] [Change fuel filter: 500 hours] [Clean particulate filter: 1000 hours] [Change particle filter: 9 000 hours] [Change cooling fluid: 2 000 hours]

| | | |
|----|---|---------|
| A | Max. digging depth - Blade lifted | 4160 mm |
| B | Max. digging depth - Blade lowered | 4420 mm |
| C | Max. digging reach on ground | 7310 mm |
| D | Max. digging reach | 7440 mm |
| E | Max. vertical wall | 3770 mm |
| F | Max. dumping height | 5710 mm |
| G | Max. cutting height | 7750 mm |
| H | Boom swinging base to left | 57° |
| I | Boom swinging base to right | 60° |
| J | Arm length | 1650 mm |
| K | Minimum front swing radius | 2860 mm |
| L | Minimum front swing radius with boom swing | 2480 mm |
| M | Rear boom swing | - |
| M' | Rear boom swing with additional counterweight | 1265 mm |



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YANMAR



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