



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.



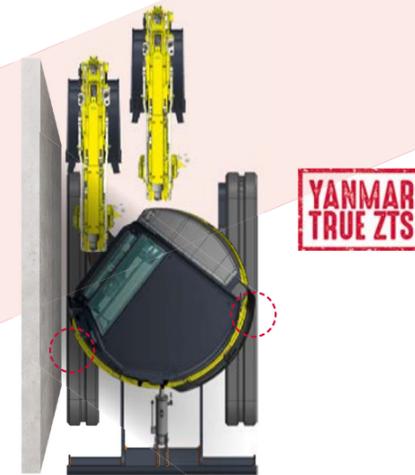
UNMATCHED COMPACTNESS

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

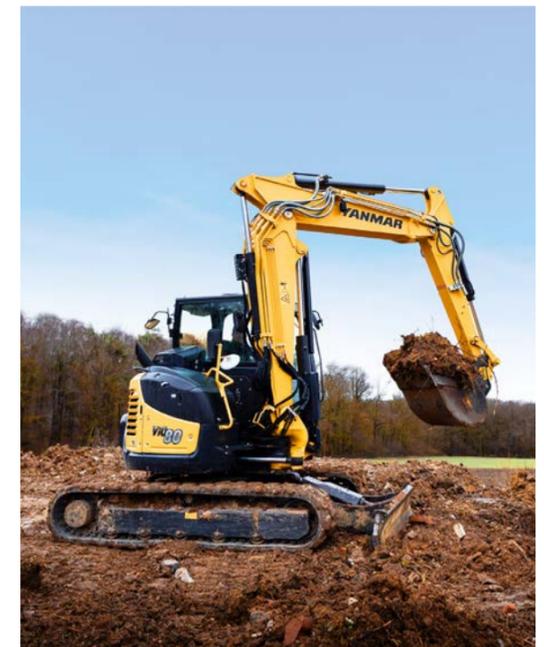
Yanmar decided to return the boom articulation cylinder. Since the Vi080-2PB operates at high working pressure, we do have outstanding break-out force. The benefit lies in the fact that raising the boom is faster. The lowering of the boom is slower due to the cylinder orientation, which is optimal to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

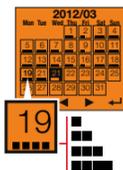
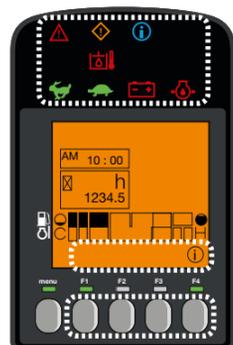
The Vi080-2PB benefits from a unique and complete protection of all its boom and arm cylinders. All cylinder tubes and rods are protected by a spring type steel plate, which reduces drastically the Total Cost of Ownership of the machine.

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 Vi080-2PB 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

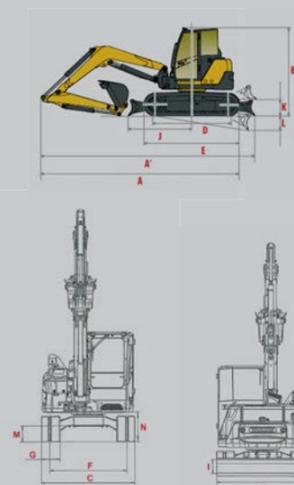


Tipping load, rating over side 90°

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	Max	6 m	5 m	4 m	Min						
B (A=)																					
6 m	3708	*2735	*2735	-	-	-	-	-	-	*2735	*2735	-	-	-	-	-	-				
5 m	4030	1420	*2120	-	-	-	-	*2280	*2280	-	-	1400	1480	-	-	-	*2280	*2280	-	-	
4 m	5656	1100	*1835	-	-	1425	*1985	*2280	*2280	-	-	1085	1140	-	-	1415	1490	*2280	*2280	-	-
3 m	6098	975	*1685	980	*1715	1340	*2035	1920	*2545	-	-	990	965	975	995	1335	1385	1915	2010	-	-
2 m	6326	875	*1515	950	*1695	1260	*2090	1725	*2740	-	-	860	925	940	1010	1255	1370	1725	1880	-	-
1 m	6365	840	*1405	910	*1635	1190	*2075	1605	*2735	-	-	850	890	910	965	1185	1260	1580	1660	-	-
0 m	6220	865	*1220	895	*1430	1145	*1945	1525	*2510	-	-	850	885	900	940	1130	1185	1515	1610	-	-
-1 m	5875	*985	*985	-	-	1120	*1620	1510	*2080	2105	*2395	*985	*985	-	-	1115	1150	1155	1590	2085	*2395
-2 m	5283	*640	*640	-	-	*965	*965	*1400	*1400	*1435	*1435	*640	*640	-	-	*965	*965	*1400	*1400	*1435	*1435

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

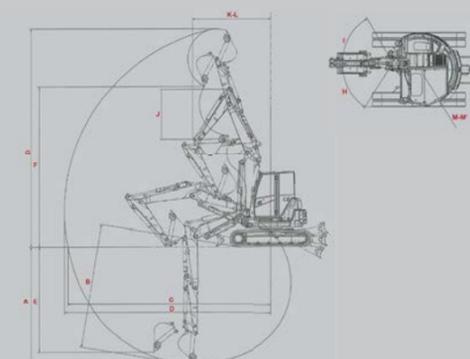
[CAPACITIES]

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



Yanmar Construction Equipment Europe
25, rue de la Tambourine, 52100 SAINT-DIZIER
France

ycee-contact@yanmar.com

www.yanmarconstruction.eu

GB_Vi080-2PB_0419

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