



**YANMAR**

MINI-EXCAVATOR

# Vi017



Operating weight (canopy)	1765 kg
Engine	3TNV70-XBV
Digging force (arm)	8,53 kN
Digging force (bucket)	15,2 kN

# Compact design, high performance



## COMPACTNESS

The zero tail swing ViO17 is the perfect choice for working in tight conditions. The machine upper frame can slew within its track width, enabling to concentrate on the work to perform without worrying about damage. Easy to transport, the ViO17 is intended for a wide range of applications such as urban renewal, grading or landscaping.



## EXTENDING UNDERCARRIAGE

The ViO17 is fitted in standard with a variable undercarriage which can be easily extended or retracted by operating a simple lever. When fully retracted the machine can access the most restricted areas. Once extended, it benefits from excellent stability.



## YANMAR ENGINE

The YANMAR TNV engine has been designed to combine high power and cleaner emissions. With its sophisticated injection system, it meets the European Commission (EC) emission standards. Its quiet operation makes this engine friendly to people and the environment.



## ViPPS HYDRAULIC SYSTEM

The ViO17 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







## EASE OF USE

All control levers are ideally located for exceptional movement precision. All commands can be operated through joystick or foot pedal.



## COMFORT

The ViO17 working environment has been studied to improve the operator driving position and to facilitate his work, particularly on the long and challenging work sites.



## SERVICEABILITY

Daily checks and service points are easily accessible, facilitating the maintenance of the machine. The ViO17 has highly resistant steel panels and benefit from Yanmar's full cylinder protection to reduce downtime and total cost of ownership.



## BEST COMPONENTS

Developed with renowned components for top quality. Design and performance of the components made for long service life.



## UNMATCHED COMPACTNESS

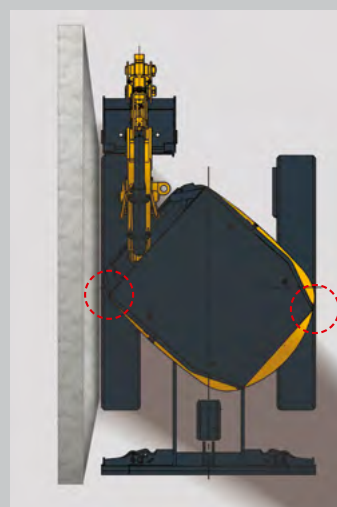
The Vi017 is a zero tail mini excavator which works in the tightest spots. It provides a power and an exceptional productivity which, associated to an excellent stability, allow you to work with confidence in all circumstances.



## ADVANTAGES OF THE VIO DESIGN

Neither the counterweight, nor the front part of the upper frame project beyond the track width. With its front part designed not to extend over, the Vi017 has a very small turning radius.

- + 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.



## EASY TRANSPORTATION

Transportation of the machine is safe and secure, thanks to its light weight and practical design. The large tie-down points on the blade can easily be accessed. The Vi017 can be safely transported on a small trailer with up to three buckets and a hydraulic breaker, while maintaining a total transport weight of less than 2t.



# EXTENDING UNDERCARRIAGE

## UNIQUE CONCEPTION

- + Reduced clearance between the sliding parts: no soil build-up during the extension of undercarriage.
- + High reliability over a long-term period.
- + The ViO17 is extremely stable due to the use of an extended undercarriage and good weight distribution

## SIMPLE FOLDING EXTENDABLE BLADE

The hinged blade extensions are permanently fixed on the blade. No tools are necessary to change quickly the position. No risk to lose the blade extensions.



Retracted: Easy access to tight areas



Extended: Increased stability for improved digging and loading performances

## COMFORT

### SPACIOUS AND ERGONOMIC WORKING STATION

- + Perfect position of joysticks, armrests and travel levers with pedals.
- + Separate pedals for using the auxiliary power take-off line and boom offset.
- + Comfortable, multi-adjustable suspension seat.
- + Access possible from both sides.
- + Integrated working lamp.



# PERFORMANCE

## POWERFUL YANMAR ENGINE

Yanmar's 3TNV70 engine platform benefits from a long lasting robustness and reliability reputation. The ViO17 is equipped with a Yanmar diesel engine 3TNV70-XBV which delivers a power of 10.1 kW and has a torque of 52 Nm. This enables to improve highly the performance of the machine.

## VIPPS HYDRAULIC CIRCUIT (VIO PROGRESSIVE 3-PUMP SYSTEM)

The ViO17 uses a ViPPS hydraulic system. This configuration uses 1 double, variable displacement, piston pump and 2 gear pumps. The 3 main pumps totalize a maximum flow of 48,4 l/min, available for main machine operating movements. The flows of these pumps are cumulated in the Main Control Valves, according to the ViPPS system, to obtain the optimal combination in terms of speed, power, smoothness and balance. The ViPPS system allows smooth and simultaneous performance of all operations, even while traveling, in order to have the ultimate working tool.



## SAFE AND EASY TO USE

Because one is more effective in a safe and secure environment, the safety of the operator and the people working around the machine is one of our priorities. The ViO17 is fitted with a ROPS/FOPS/TOPS canopy, a wide and easy access on both sides of the machine.

The operator environment is designed for an intuitive and easy use of the machine: simple layout of the commands, wide travel pedals...



# MAINTENANCE AND RELIABILITY

The Vi017 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 onsite availability.



## THE BEST BOOM AND ARM PROTECTION ON THE MARKET

The Vi017 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.



## DESIGNED TO LAST

- + Structure of the chassis and durable steel covers provide foolproof resistance.
- + Large counterweight protects against possible shocks and friction against the walls.
- + Hoses protection with abrasion-resistant sleeves. Routing on the top of the boom and on the right side of the machine to avoid risk of torsion and limiting machine down time.
- + Form stringers prevents accumulation of soil and reduces internal track wear.



## SERVICEABILITY

The rear and side covers, the panel under the seat and the removable floor provide direct access to the service points to reduce the maintenance time and cost. The blade cylinder flexible is made of two parts for quick replacement in case of perforation.



# EQUIPMENT



## [ STANDARD EQUIPMENT ]

### PERFORMANCE

3TNV70-XBV Yanmar diesel | Meets EN-standards | Indirect injection | Water separator | VIPPS Hydraulic system (ViO Progressive 3 Pump System) | 3<sup>rd</sup> hydraulic circuit line to arm end (30,8 l/min) | Hydraulic oil gauge | Halogen work light under the boom

### COMFORT

Adjustable suspension seat with vinyl cover | Adjustable wrist support | Travel pedals | 2 x 12V outlets | Storage boxes | Cup holder

### SAFETY AND DURABILITY

Handrails | Safety lever | Safety belt | Hammer for evacuation | Horn | Extendable undercarriage | 4 anchor points (2 on the undercarriage, 2 on the blade) | Blade cylinder supply hose into two parts | Complete protection of the cylinders (arm, boom, blade) | Blade cylinder protection | Hoses protected by abrasion-resistant and projection-resistant sleeves

### MISCELLANEOUS

Fuel gauge | Locking covers | Tool kit | Grease pump

## [ OPTIONAL EQUIPMENT ]

### EQUIPMENT AND PERFORMANCE

Special paint | Quick couplings | Bio oil | 1 LED flashing rotary fixed on canopy | Beacon light with magnetic base

### COMFORT AND EASE OF USE

Document box

### SECURITY AND DURABILITY

Safety valves for lifting | Travel alarm

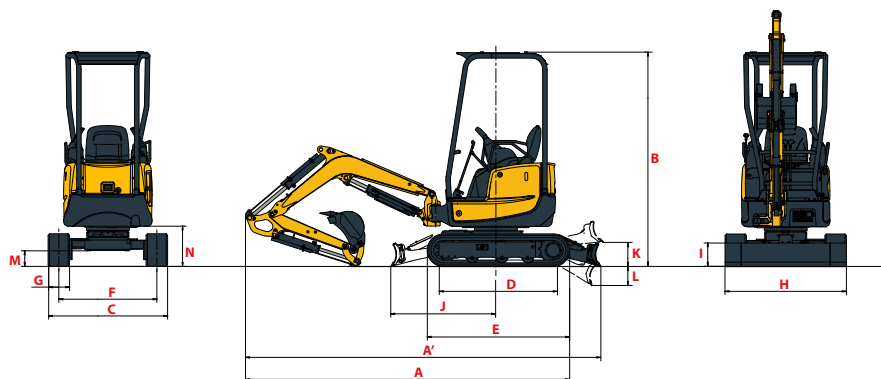
## [ ACCESSORIES ]

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...

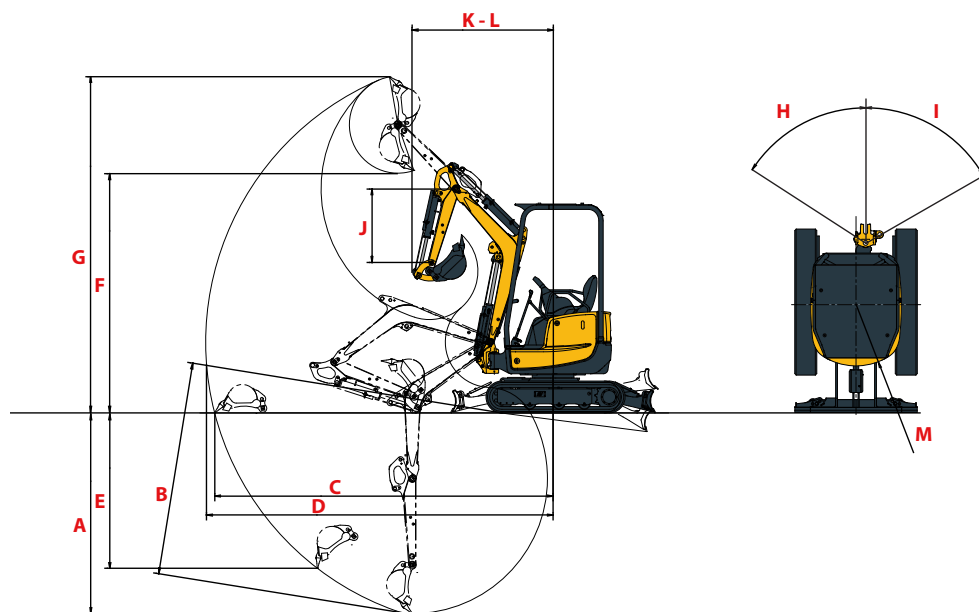




# DIMENSIONS



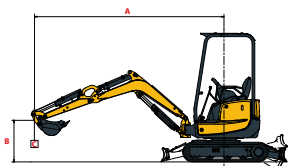
<b>A</b> Overall length	3450 mm	<b>H</b> Overall blade width	950 - 1280 mm*
<b>A'</b> Overall length with blade at the back	3815 mm	<b>I</b> Overall blade height	255 mm
<b>B</b> Overall height	2370 mm	<b>J</b> Blade distance	1120 mm
<b>C</b> Overall width	950 - 1280 mm*	<b>K</b> Max. blade height above the ground	265 mm
<b>D</b> Length of track on ground	1175 mm	<b>L</b> Max. lowering blade depth	205 mm
<b>E</b> Undercarriage length	1525 mm	<b>M</b> Minimum ground clearance	175 mm
<b>F</b> Lane	720 - 1050 mm*	<b>N</b> Ground clearance under counterweight	370 mm
<b>G</b> Track width	230 mm		



<b>A</b> Max. digging depth - Blade lifted	2200 mm	<b>H</b> Boom swing base to left	45°
<b>B</b> Max. digging depth - Blade lowered	2310 mm	<b>I</b> Boom swing base to right	75°
<b>C</b> Max. digging reach on ground	3710 mm	<b>J</b> Arm length	950 mm
<b>D</b> Max. digging reach	3810 mm	<b>K</b> Minimum front swing radius	1535 mm
<b>E</b> Max. vertical wall	1850 mm	<b>L</b> Minimum front swing radius with boom swing	1320 mm
<b>F</b> Max. dumping height	2630 mm	<b>M</b> Rear turning radius	640 mm
<b>G</b> Max. cutting height	3690 mm		

\* Retracted - Extended Undercarriage

# LIFTING FORCE



Tipping load, rating over front



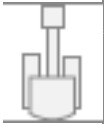
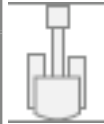



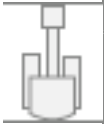

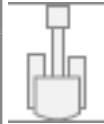
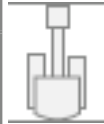



Tipping load, rating over side 90°

A: Overhang from rotational axis (m)

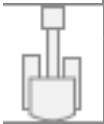
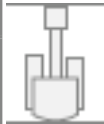



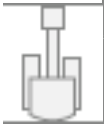

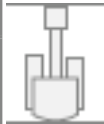
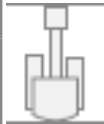



B: Height of hooking point (m)

N: Retracted undercarriage  
W: Extended undercarriage

## Blade on ground

A	Max.			2,5 m			2,0 m			
B	W	N		W	N		W	N		
										
2,5	*330	180	*330							
2,0	235	135	*335	*315	200	*305				
1,5	210	122	*345	*365	195	*365	*360	300	*420	
1,0	195	110	*360	295	175	*445	435	255	*590	
0,5	195	110	*370	295	170	*520	415	235	*735	C
0	200	110	*380	280	160	*550	390	220	*760	
-0,5	220	130	*405	280	160	*540	395	235	*730	
-1,0	260	150	*420				265	230	*675	
-1,5	*390	240	*390							

## Blade above ground

A	Max.			2,5 m			2,0 m			
B	W	N		W	N		W	N		
										
2,5	285	170	275							
2,0	230	135	220	*315	195	*315				
1,5	205	120	195	*365	190	*365	*420	295	*420	
1,0	190	110	180	290	170	290	425	245	405	
0,5	190	105	175	285	165	285	410	230	385	C
0	195	110	180	275	160	275	380	210	355	
-0,5	220	120	205	270	155	270	380	230	350	
-1,0	260	145	240				395	225	370	
-1,5	*390	235	*390							

[ The data contained in these tables represent the lifting capacity in accordance with ISO standard 10567. They don't include the weight of the bucket and correspond to 75% of the maximum static tipping load or 87% of the hydraulic lifting power. Data marked \* are the hydraulic limits of the lifting power. ]



# SPECIFICATIONS

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

	Transport weight	Operating weight	Ground pressure (kPa [Kg/cm <sup>2</sup> ])
Rubber crawlers / Canopy	1690 kg	1765 kg	0,29

## [ ENGINE ]

Type	3TNV70-XBV
Fuel	Diesel
Net Power (kW)	10,1 at 2200 rpm
Gross Power (kW)	10,3 at 2200 rpm
Displacement	0,854 littler
Maximum torque (at 1600 rpm)	47,8 - 52 N.m
Cooling	Water
Starter (V-kW)	12 V - 1.4 kW
Battery (V-Ah)	12 V - 45 Ah
Alternator (V-A)	12 V - 20 A

## [ HYDRAULIC SYSTEM ]

Maximum pressure	210 bars
1 double piston pump with variable flow	2 x 17,6 l/min <sup>-1</sup>
1 piston pump with variable flow	13,2 l/min <sup>-1</sup>
1 gear pump for pilot line	11,2 l/min <sup>-1</sup>

PTO	Theoretical data at 1 900 rpm	
	Pressure (bar)	Flow (l.min <sup>-1</sup> )
<b>2 ways</b>	0 - 210 bars	31,1 - 0 l/min <sup>-1</sup>
<b>1 way</b>	0 - 210 bars	31,1 - 0 l/min <sup>-1</sup>



Oil flow decreases as the pressure increases

## [ PERFORMANCE ]

Travel speed (low / high)	2,1 - 4,3 km/h
Rotation speed	9,5 rpm
Digging force (arm)	8,5 kN
Digging force (bucket)	15,2 kN
Gradability	30°
Noise Level (2000/14/CE&2005/88/CE)	93 dBA / 81 dBA

## [ UNDERCARRIAGE ]

Number of top rollers	0
Number of bottom rollers	3
Track tensioning system	Grease adjuster

## [ CAPACITIES ]

Fuel tank	20 l
Coolant	3,1 l
Engine oil	2,8 l
Hydraulic circuit	26 l
Hydraulic tank	16,5 l

## MAINTENANCE FREQUENCY

[ Change engine oil and filter: **500 hours** ] [ Change fuel filter: **500 hours** ] [ Change hydraulic oil: **1 000 hours** ] [ Change cooling fluid: **2 000 hours** ]



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