



**YANMAR**

# Vi012-2A

MINI EXCAVATOR



**Operating weight**

1 245 kg

**Engine**

3TNV70-WBVB

**Tear-out force**

5,8 kN

**Breakout force**

13,9 kN

# SIMPLY THE BEST



## COMPACTNESS

Here's the shape for simple and efficient work in confined spaces. With its extendable undercarriage and its total width of 1 meter, the ViO12-2A is a tenacious worker for narrow spots such as housing foundations, indoor renovation, pipe laying and landscaping.



## SECOND TRAVEL SPEED

The second travel speed switch is available as standard which allows the machine to travel up to 4 km/h. This switch is located close to the travel levers, in the translation handles area.



## ERGONOMY

The use of joysticks on both sides of the seat enables to improve the position of the operator, therefore enhancing his comfort while working.



## STABILITY

The ViO12-2A has an operating weight of 1245 kg and the longest undercarriage of its class with 1440 mm. This results in a real improvement of the operator's comfort. He benefits from a smoother drive and increases his productivity.



## YANMAR ENGINE

The YANMAR TNV engine has been designed to combine high power and cleaner emissions. With a power of 9,2 kW, it meets the European Commission (EC) emission



## PERFORMANCE

The attention paid to the quality of the power line ensures excellent performance while the optimal combination of the ViO12-2A excavation strengths and work cycles assures exceptional productivity.



# COMPACTNESS

## THE VIO12-2A IS A TRUE ZERO TAIL SWING EXCAVATOR:

- + Extended undercarriage: the front part of the upper frame doesn't exceed the width of the crawlers.
- + Retracted undercarriage: the rear of the machine only exceeds 85 mm.
- + Minimum front swing radius with boom swing: 1080 mm.
- + Rear swing radius: only 650 mm.
- + Width of the retracted undercarriage reduced to 830 mm.

## ADVANTAGES FOR THE USER:

- + Easy access in narrow areas and possibility to work along a wall.
- + Machine perfectly adapted for restoration of houses.
- + The ViO concept allows the operator to work without paying attention to the rear of the machine: safety and productivity.

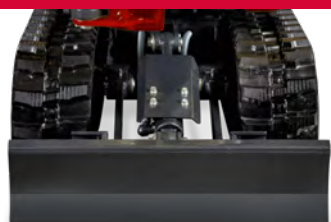


## EXTENDABLE UNDERCARRIAGE OF UNIQUE CONCEPTION

- + Reduced clearance between the sliding parts: no soil build-up during the extension of undercarriage.
- + High reliability over a long-term period.
- + The ViO12-2A 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 undercarriage: **830 mm**



Extended undercarriage: **1 000 mm**





# DESIGN

## JOYSTICKS

### IMPROVED ERGONOMICS

The Vi012-2A is equipped with joysticks on both sides of the seat:

- + Improvement of the operator position.
- + Comfort enhanced.
- + Better control over the machine movements.
- + Productivity and precision increased.

### SIMPLICITY AND ROBUSTNESS

Yanmar decided to use the same tried and tested joysticks as for its heavier mini-excavators. This well-conceived system offers the following features:

- + Less risk of damages and downtime.
- + Longer service life.



# STABILITY

The Vi012-2A has an operating weight of 1245 kg and the longest undercarriage of its class with 1440 mm.

The machine is more stable with heavy loads or attachments. This is very important for key applications for this type of mini-excavator, such as demolition.



# MAINTENANCE

### EASY ACCESS

A large engine bonnet allows quick access for main components and the left side protection in steel, easily removable allows access to filter.

### BEST COMPONENTS

All Vi012-2A components are designed in order to make it reliable, durable and capable of performing demanding work.

# PERFORMANCE

## ENGINE

The Vi012-2A is equipped with a Yanmar diesel engine 3TNV70 which delivers a power of 9.2 kW and has a torque of 52 Nm. This enables to improve highly the performance of the machine.

## HYDRAULICS

Unlike industry standards for this category of machines, Yanmar is using variable axial pump which adapt the flow and the pressure to the load, allowing smoother operation and improving the comfort of the operator. The pump flow of 2x11 l/min and its high working pressure (210 bar) also enable to improve the productivity of the machine and its speed in working motion.



# KINEMATICS

## CUSTOMER BENEFITS



BETTER PERFORMANCE

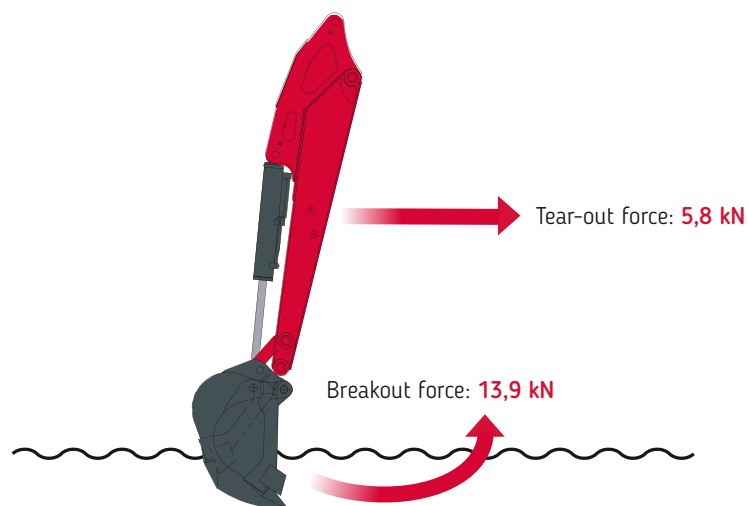


IMPROVED CYCLE-TIMES



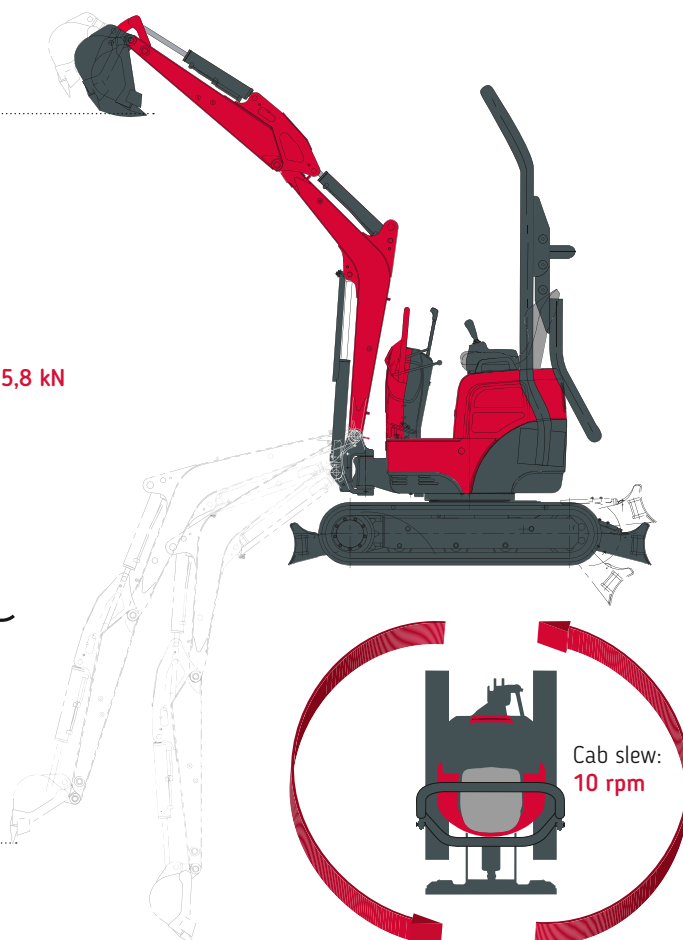
INCREASED PRODUCTIVITY

Dumping height: **2370 mm**



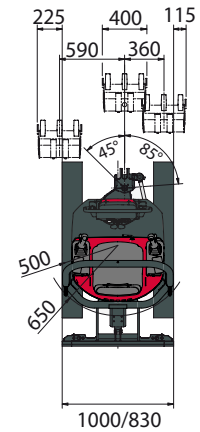
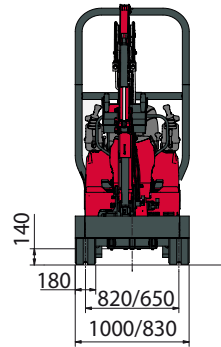
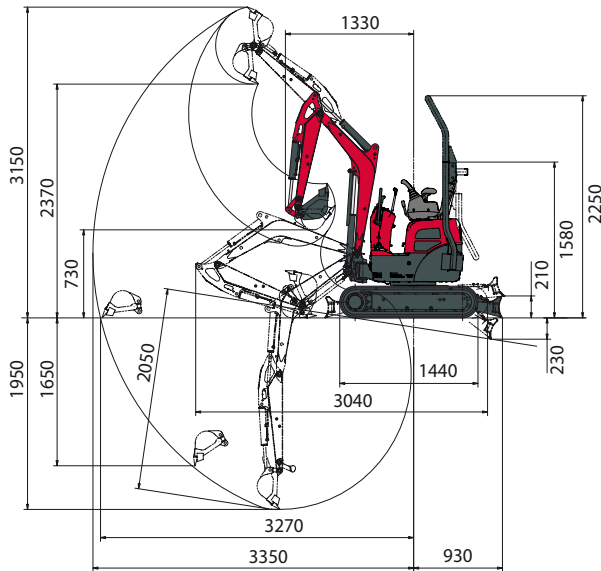
Vertical digging depth: **1650 mm**

Digging depth: **1950 mm**



# DIMENSIONS

<b>A</b> Overall length	3 040 mm	<b>H</b> Overall blade width	1 000/830* mm
<b>B</b> Overall height	1 580/2 250mm**	<b>I</b> Overall blade height	210 mm
<b>C</b> Overall width	1 000/830* mm	<b>J</b> Blade distance	940 mm
<b>D</b> Length of track on ground	1 120 mm	<b>K</b> Max. blade height above the ground	210 mm
<b>E</b> Undercarriage length	1 440 mm	<b>L</b> Max. lowering blade depth	230 mm
<b>F</b> Lane	820/650 mm	<b>M</b> Minimum ground clearance	140 mm
<b>G</b> Track width	180 mm	<b>M'</b> Ground clearance under upper frame	370 mm



<b>N</b> Max. digging depth - Blade lifted	1 950 mm	<b>U</b> Boom swinging base to left	45°
<b>O</b> Max. digging depth - Blade lowered	2 050 mm	<b>V</b> Boom swinging base to right	85°
<b>P</b> Max. digging reach on ground	3 270 mm	<b>W</b> Arm length	980 mm
<b>Q</b> Max. digging reach	3 350 mm	<b>X</b> Minimum front swing radius	1 330 mm
<b>R</b> Max vertical wall	1 650 mm	<b>Y</b> Minimum front swing radius with boom swing	1 080 mm
<b>S</b> Max. dumping height	2 370 mm	<b>Z</b> Rear turning radius	650/780 mm*
<b>T</b> Max. cutting height	3 150 mm		

\*Undercarriage extended - retracted. Subject to any technical modifications. Dimensions given in mm with standard Yanmar bucket. \*\* ROPS bar folded / ROPS bar unfolded.

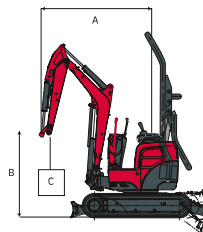
# LIFTING FORCE



Tipping load, rating over front



Tipping load, rating over side 90°



**N** : Retracted undercarriage  
**W** : Extended undercarriage

A	Blade on ground											Blade above ground													
	Max.		2,5 m		2 m		1,5 m		Max.		2,5 m		2 m		1,5 m										
B	(A=)	W	N	W	N	W	N	W	N	W	N	W	N	W	N	W	N								
2,0 m	(2,55)	*185	115	*185	*185	120	*190	*185	145	*185	-	-	-	*185	110	*185	*185	120	*190	*185	145	*185	-	-	-
1,5 m	(2,8)	125	95	230	155	120	*205	*205	165	*205	-	-	-	125	90	160	155	115	*205	205	160	*205	-	-	-
1,0 m	(2,85)	115	90	*230	145	115	*240	200	160	*270	*380	255	*370	115	85	145	145	110	180	200	155	*265	380	245	*365
0,5 m	(2,9)	110	85	*245	145	100	*270	195	150	*345	305	210	*550	110	80	130	145	100	170	195	145	230	305	200	355
0 m	(2,8)	115	85	*260	140	100	*305	185	140	*385	275	205	*600	115	80	140	135	100	175	185	140	230	270	200	335
-0,5 m	(2,7)	125	90	*280	145	105	*305	180	135	395	260	210	615	125	90	155	140	100	165	175	130	215	260	200	330

[ The data contained in these tables represent the lifting capacity in accordance with ISO standard 10567. They correspond to 75% of the maximum static tipping load or 87% of the hydraulic lifting power. Datas marked \* are the hydraulic limits of the lifting power. ]

# TECHNICAL SPECIFICATIONS

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

	Weight	Ground pressure
Operating weight (rubber crawlers)	1 245 kg	0,28 kg/cm <sup>2</sup>
Transport weight (rubber crawlers)	1 170 kg	0,26 kg/cm <sup>2</sup>

## [ ENGINE ]

Type	3TNV70-WBVB
Regulation	Stage V
Fuel	Diesel
Net power	9.2 kW (at 2 000 rpm)
Gross power	9.3 kW (at 2 000 rpm)
Displacement	0.854 liter
Maximum torque	48.4 - 52 N.m (at 1 600 rpm)
Cooling	Water-cooling
Starter	12V - 1.1 kW
Battery	12V - 36 Ah
Alternator	14V - 8.5 A

## [ HYDRAULIC SYSTEM ]

Maximum pressure	210 bar
1 double piston pump with variable flow	2 x 11 l/min
1 gear pump	6 l/min

PTO	Measured data at max engine speed	
	Pressure	Flow
1 way	0-190 bar	24.5 - 9.3 l/min

 Oil flow decreases as the pressure increase.

## [ PERFORMANCE ]

Travel speed	2.1 - 4 km/h
Rotation speed	10 rpm
Tear-out force	5.8 kN
Breakout force	13.9 kN
Maximum static traction force [1st speed]	9.2 kN
Gradeability (climbing ability)	25°
Noise level (2000/14/CE & 2005/88/CE)	Lwa = 89 dBA ; Lpag = 73 dBA

## [ UNDERCARRIAGE ]

Number of top rollers	1
Number of bottom rollers	3

## [ CAPACITIES ]

Fuel tank	12 liters
Coolant	2.5 liters
Engine oil	2.8 liters
Hydraulic circuit (including hydraulic tank)	14.3 liters
Hydraulic tank	7.4 liters

## MAINTENANCE FREQUENCY

[ Change engine oil and filter: 50 h (1st) / 500 h (2nd) ] [ Change fuel filter: 250 h ] [ Change hydraulic oil filter: 50 h (1st) / 500 h (2nd) ]  
 [ Change hydraulic oil: 1000h ] [ Change hydraulic oil return filter: 500 h ] [ Change cooling fluid: 2000 h ]



**YANMAR**



Yanmar Compact Equipment EMEA

GB\_VI012-2A\_0522



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