



**YANMAR**

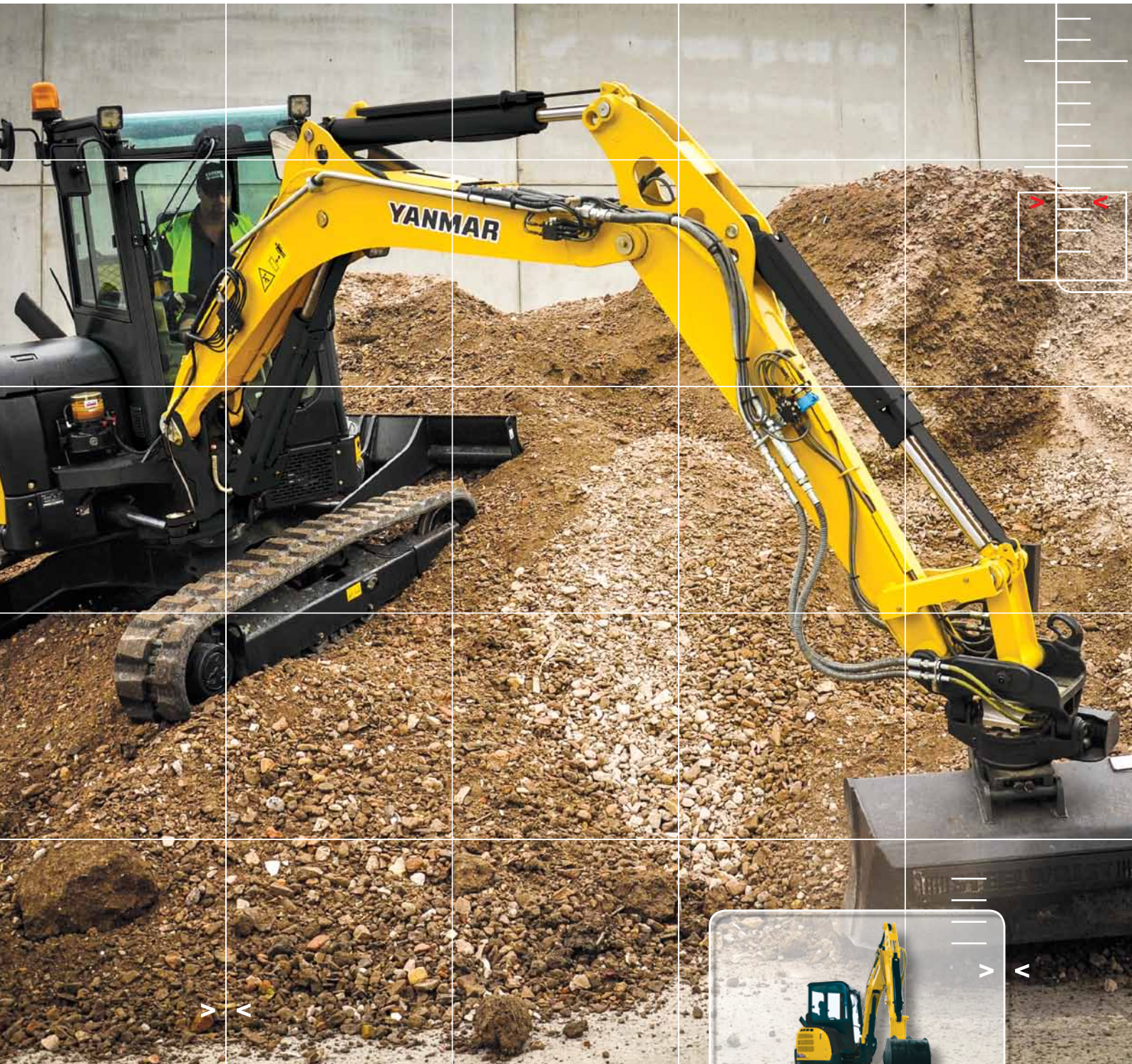
MINI-EXCAVATOR

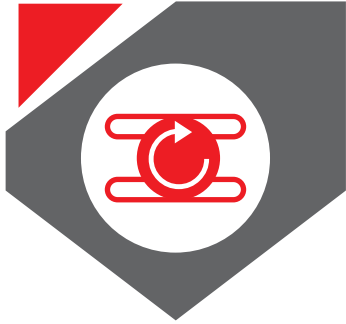
**A&Y** Equipment Ltd

01789 414525 | sales@aandygroup.com | www.aandygroup.com

**ViO50U**

4700/4770 kg





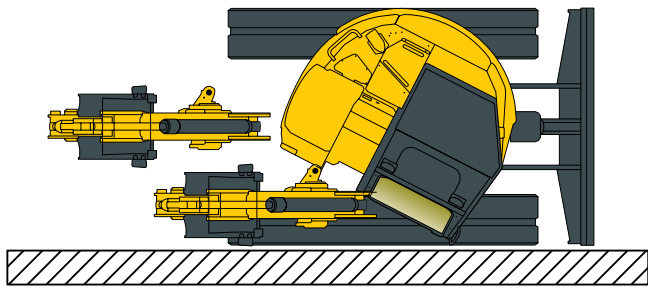
## > COMPACTNESS

### ViO50U

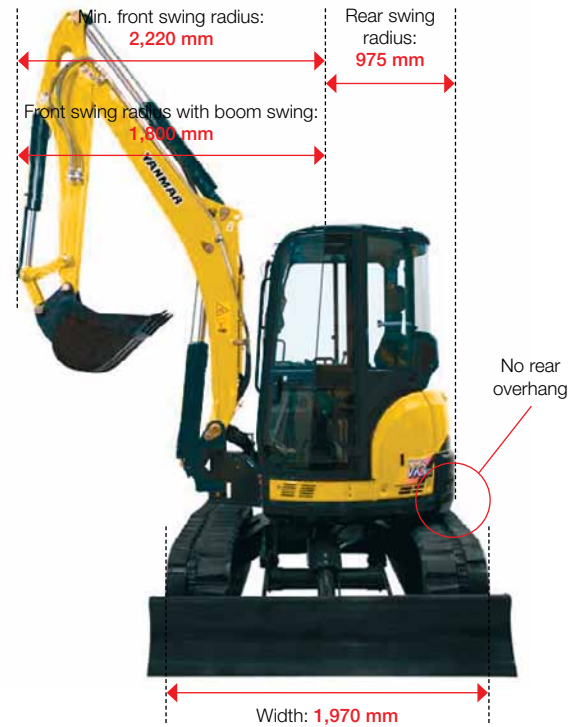
The ViO50U is a true Zero Tail Swing machine: neither the counterweight nor the front part of the upper frame exceed the width of the crawlers.

#### Design principles:

- > No rear overhang.
- > Front swing radius with boom swing: 1,800 mm.
- > Rear swing radius: 975 mm.
- > Overall width of the machine reduced to 1,970 mm.
- > The curve of the boom has been redesigned to facilitate loading and unloading of trucks.

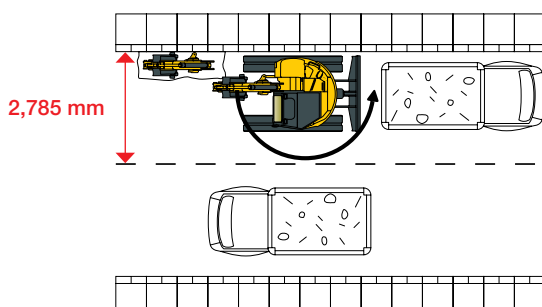


- > Side ditch digging up to the wall with nothing sticking out beyond the track.



#### Advantages for the user:

- > Possibility to work in narrow areas, where a conventional machine is not able to work.
- > Possibility to work along a wall.
- > No dead angle in the upper structure: maximum all-around visibility.
- > Safety and productivity for the operator.
- > Operations are perfectly adapted to urban areas: the machine does not obstruct all lanes of traffic.



- > For increased productivity the blade has been put forward by 20 cm. This allows better control of the job and better levelling. The blade lever, formerly cable operated, is hydraulic.

# > HIGH PERFORMANCE

## ViO50U



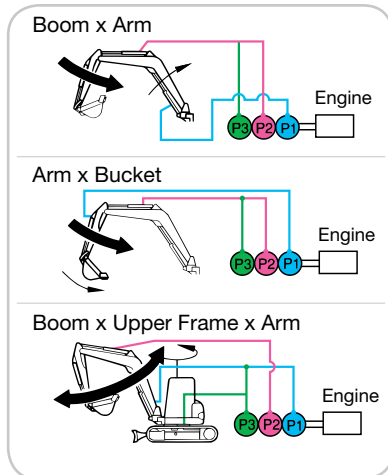
Combining long experience and unrivalled expertise, YANMAR's technology ensures environmental performance and high efficiency.

### « VIPPS® » hydraulic circuit (ViO Progressive 3 Pumps System)



Hydraulic circuit fitted with a variable-flow dual piston pump, a gear pump and a multiple combination directional control valve:

- > Increased working speed due to the cumulative pump capacities.
- > Smooth, simultaneous operation of all functions, even when travelling.



**Hydraulic PTO plumbing, supplied as standard equipment, for working with a variety of attachments.**

- > Extension of the 3<sup>rd</sup> circuit with 2 additional valves for the use of clamshell buckets or other attachments.



- > The 3<sup>rd</sup> circuit of the hydraulic system is proportional in standard: easy use of accessories.



- > Extension of the 3<sup>rd</sup> circuit.

### A high-power, eco-friendly engine meeting the European Commission emissions regulations



The YANMAR TNV direct injection diesel engine was built for clean emissions and powerful output. With its improved fuel injection system, it meets the emissions regulations of the European Commission (EC) and the US Environmental Protection Agency (EPA). Its quiet operation makes it both people- and planet-friendly.

- > Perfect combination of the Yanmar engine and the hydraulic system for reduced fuel consumption.

### Exceptional stability and lifting strength



The combination of a wide counterweight, asymmetric crawlers (system patented by Yanmar VICTAS®), and excellent weight distribution provide the ViO50U with an impressive level of stability and exceptional lifting capacities.

The VICTAS® system consists in increasing the bearing surface by increasing the track path and using asymmetric crawlers:

- > Increased lateral stability and lifting capacity.
- > Reduced track wear.
- > Quiet, vibration-free movement.





## > COMFORT

### ViO50U

Operation is so easy it's a joy. All-round comfort and convenience.

#### Large space for unrestricted operation

> Even if it is a Zero Tail Swing machine, the ViO50U is fitted with a very large cabin for this weight class, which provides easy, unrestricted operating space.

#### Suspension seat in standard

> The seat of the ViO50U can be adjusted according to the operator's weight. This improves his comfort and his work position and reduces shocks and vibrations.



#### Safe and ergonomic pilot system

> Perfect position of joysticks, armrests and travel levers...

#### Joysticks + comfortable arm rests

> Non-tiring wrist control levers are easy to grasp. Comfortable arm rests make delicate control and long hours of operation easier.

**Other equipment:** foldable footrests for ample legroom, travelling pedals, 12 V power socket, cup holder, document box, standard electric refuelling pump....



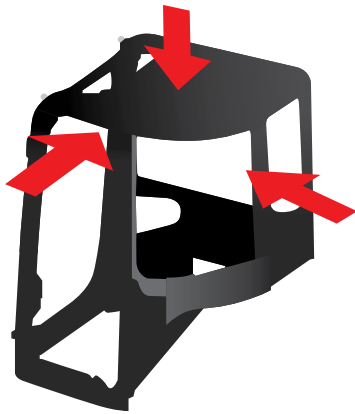
# > SECURITY & RELIABILITY

## ViO50U



### ISO-conforming cabin with sharply enhanced rigidity for safety and confidence

The cabin's use of a high-strength, high-rigidity ROPS enhances protects operator space in the event of a rollover. It also conforms to the FOPS 1 standard for structures protecting the operator from falling objects. This sturdy cabin lets you work in comfort and confidence.



#### ROPS

Roll Over Protective Structure  
ISO 3471

#### FOPS 1

Falling Object Protective Structure  
ISO 10262-2 / Level 1

> In raised position, the lock lever includes engine neutral start mechanism to prevent danger of accidental operation.



> Standard back mirror lets operator check for safety behind the machine and keeps others safe.



> A work lamp built into the lower part of the boom, where it is protected from breaking, comes as standard. With wide angle front visibility secure, you can work with confidence at evening.



**Other enhancing equipment:** fixing points on track frame and blade to facilitate transportation, evacuation hammer, large hand grips...

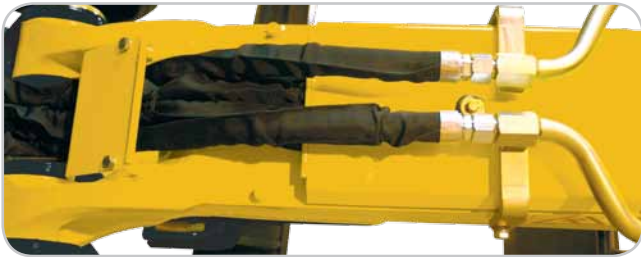




## > MAINTENANCE

### Vi050U

Simple maintenance structure for fast and easy access wherever it's needed.

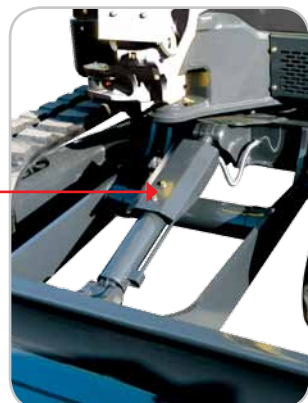


> Careful routing and protection of the hydraulic pipes on the boom and on the right side of the machine under the step. You can remove the step to access the sockets and change the equipment pipes.

> Easy access to all maintenance points: engine components, filters, pressure plugs, hydraulic pumps...



> Cylinders completely protected (rod and cylinder) by highly elastic steel plates to resist any possible shocks.



> Layout of the counterweight designed to protect the side panels against any possible shocks. Additional moulded parts at the left and right outer corners of the upper frame, improving shock resistance.



# TECHNICAL SPECIFICATIONS

## ViO50U

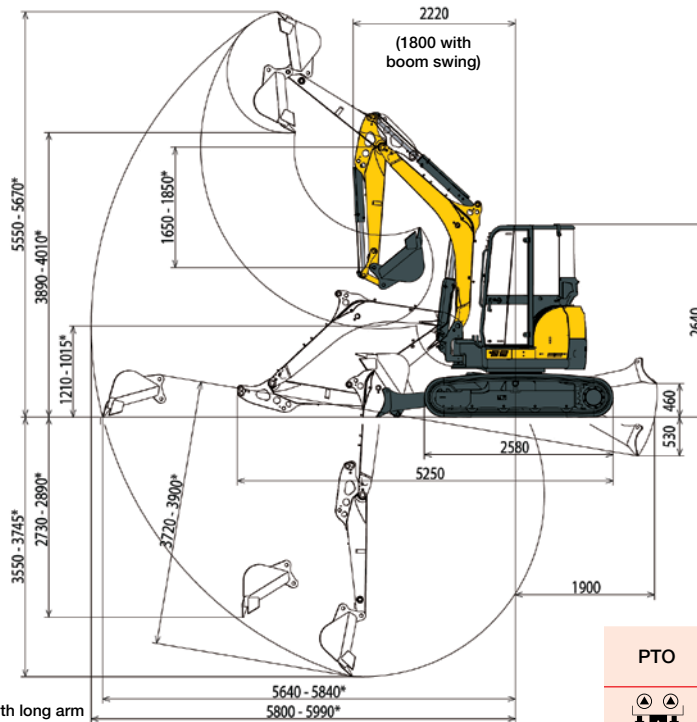
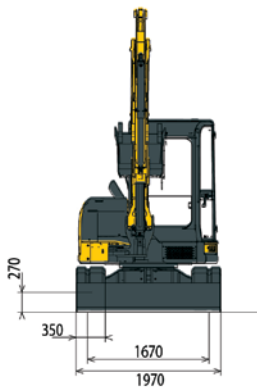


### Operating weight +-2% (EC Norms):

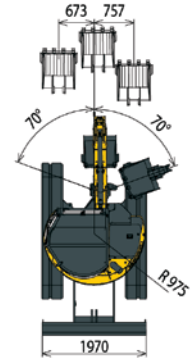
> 4,700/4,770 kg (rubber crawlers/  
steel crawlers)

### Transport weight +-2% (EC Norms):

> 4,625/4,695 kg (rubber crawlers/  
steel crawlers)



\* With long arm



Subject to any technical modifications. Dimensions given in mm with standard Yanmar bucket.

PTO	Theoretical data at 2,400 rpm	
	Pressure	Oil flow
	0 ~ 220 bar	81 ~ 54 l/mn
	0 ~ 220 bar	81 ~ 54 l/mn



> The oil flow reduces as the pressure increases.

		ViO50U
4-cylinder Yanmar engine	Type	4TNV88-BXBVA
	Rated output	29.5 kw / 40.1 HP / 2,400 rpm
	Displacement	2,189 cm <sup>3</sup>
	Max. torque	141 N.m. / 1,200 rpm
Hydraulic circuit	System capacity	64 l
	Max. pressure	220 bar
	2 variable displacement piston pumps	2 x 40.3 l/mn
	1 gear pump	1 x 40.3 l/mn
Performances	Travelling speed	2.3 / 4.6 km/h
	Swing speed	10 rpm
	Digging force (arm)	2250 kgf
	Digging force (bucket)	3800 kgf
	Grade ability	30°
Undercarriage	Ground pressure	0.295 / 0.268 kg/cm <sup>2</sup>
	Shoe width	350 mm
	Ground clearance	270 mm
	Blade (width x height)	1,970 x 400 mm
Miscellaneous	Fuel tank	67 l
	Cooling system	6.7 l
	Transport dimensions (L x w x h)	5,250 x 1,970 x 2,640 mm
	Noise level (2000/14/CE & 2005/88/CE)	82 dBA (LpA) 96 dBA (LwA)

### Machine with cabin, rubber crawlers, without bucket.

A: Overhang from rotational axis (m).

B: Height of hooking point (m).

C: Safe working load (kg).



Tipping load, rating over front



Tipping load, rating over side 90°

### Blade on ground

A	Maxi	4.0	3.0	2.5				
B								
4.0	700	*855	-	-	-	-	-	
3.0	535	*900	685	*850	-	-	-	
2.0	455	*935	650	*995	*1170	*1215	-	
1.0	430	*970	625	*1180	1000	*1655	1295	*2135
0	440	*1050	590	*1310	920	*1910	1190	*2450
-1.0	520	*1085	590	*1275	910	*1875	1205	*2310
-2.0	805	*1075	-	-	950	*1385	1225	*1650

### Blade above ground

A	Maxi	4.0	3.0	2.5				
B								
4.0	700	*815	-	-	-	-	-	
3.0	530	575	685	*795	-	-	-	
2.0	445	490	650	695	*1160	*1135	-	
1.0	425	455	620	685	995	1075	1285	1445
0	445	475	590	635	925	1030	1175	1300
-1.0	520	550	590	640	920	980	1190	1325
-2.0	790	805	-	-	920	1000	1175	1325

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.



**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.

**A&Y** Equipment Ltd

01789 414525 | sales@aandygroup.com | www.aandygroup.com