YANMAR

MINI-EXCAVATOR

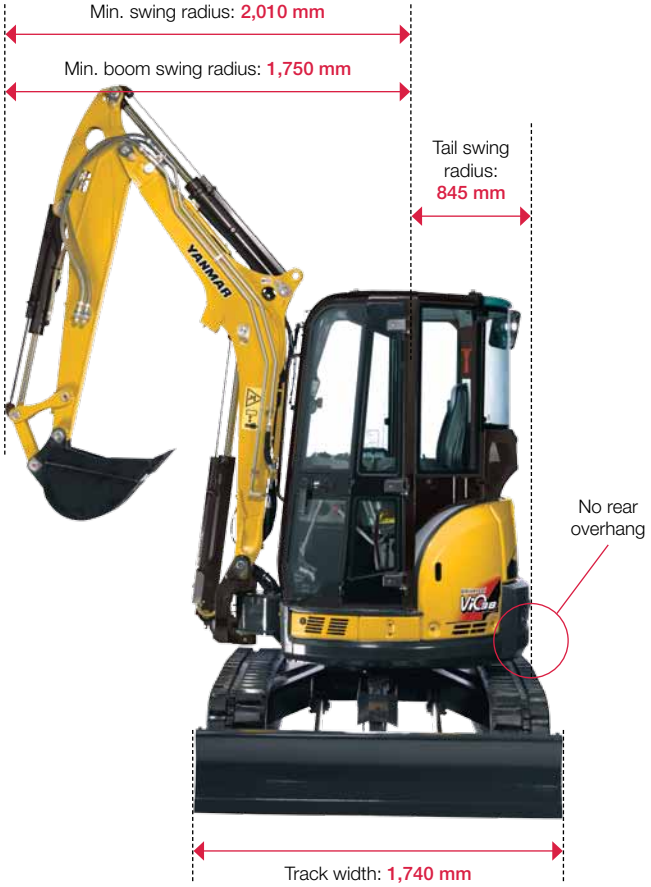
ViO38U

3750/3965 kg

> COMPACTNESS

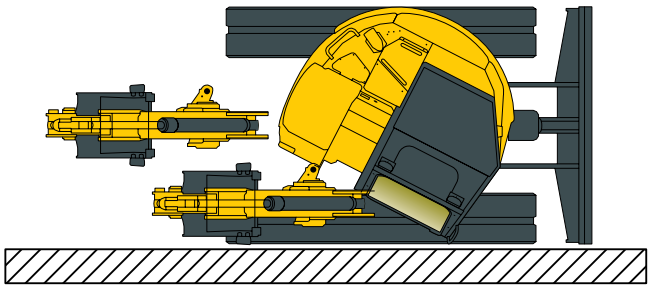
ViO38U

The ViO38U is a true Zero Tail Swing machine: neither the counterweight nor the front part of the upper frame exceed the width of the crawlers.

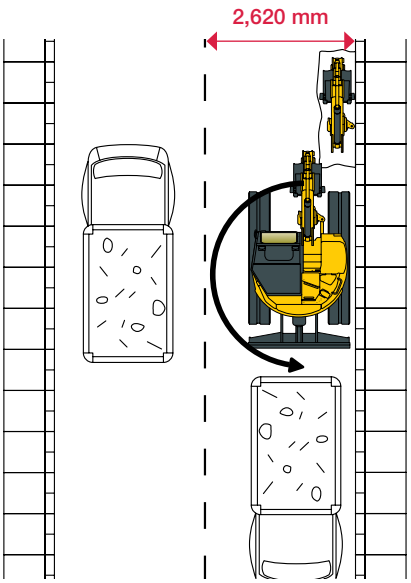


Design principles:

> No counterweight overhang the rear.
> Front swing radius with boom swing: 1,750 mm.
> Rear swing radius: 845 mm.
> Overall width of the machine reduced to 1,740 mm.
> Equipped in standard with a long arm: 1,650 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.

> HIGH PERFORMANCE

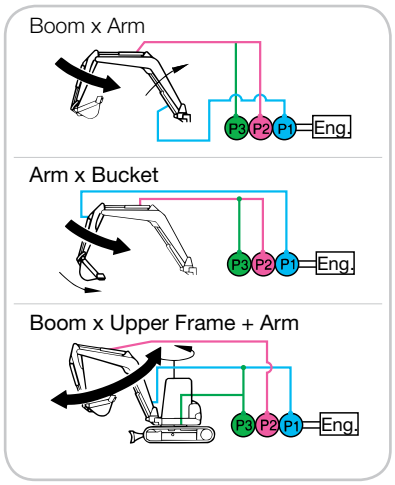
ViO38U

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.
> The 3rd circuit of the hydraulic system is proportional in standard.



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

> Extension of the 3rd circuit with 2 additional valves for the use of clamshell buckets or other accessories.

> 2 additional valves

> Extension of the 3rd circuit

A high-power, eco-friendly engine meeting Stage IIIA 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 Stage IIIA /Interim Tier 4 emissions regulations of the European Commission (EC) and the US Environmental Protection Agency (EPA). Its quiet operation makes it both people- and planet-friendly.

Exceptional stability and lifting strength

The combination of a wide counterweight, asymmetric crawlers (system patented by Yanmar VICTAS®), and excellent weight distribution provide the ViO38U 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 ground damage and track wear.
> Quiet, vibration-free movement.

> COMFORT

ViO38U

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

Large space for unrestricted operation

> Even a zero tail swing, the largest cabin in this machine class, provides easy, unrestricted operating space. Large, suspension seat reduces operator stress and fatigue.

The powerful air conditioner provides the same comfort as an air conditioned passenger car

> The 5 distribution units are located to ensure not only the driver's heating but also a perfect defrosting of the side and front windows.

Wrist control levers + comfortable arm rests

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

Proportional control modulation switch PTO operation vastly enhances attachment operability.

Other equipment

Foldable footrests for ample legroom

Large travelling pedals

External power socket

Cup holder

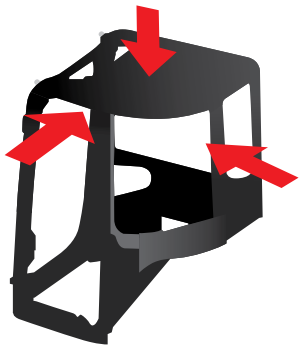
Document box

> SECURITY & RELIABILITY

ViO38U

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.



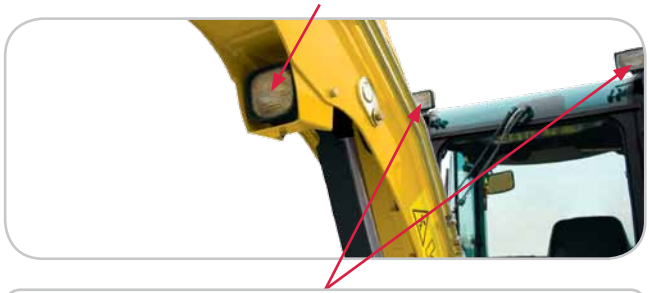
ROPS
Roll Over Protective Structure
ISO 3471

FOPS 1
Falling Object Protective Structure
ISO10262-2 / 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, come as standard. With wide angle front visibility secure, you can work with confidence at evening.



2 additional front lights are available in option.

Other enhancing equipment

Fixing points on track frame and blade to facilitate transportation

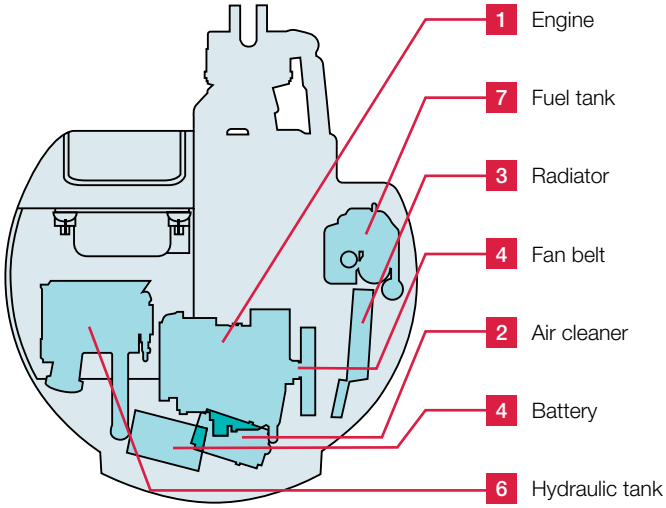
Evacuation hammer

Large hand grips

> MAINTENANCE

ViO38U

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



> Troublesome maintenance is now a thing of the past. Take satisfaction in quicker checks and the advanced durability they produce.

Daily checks

Just open the rear engine cover to check the battery and engine oil, clean the air cleaner and replenish cooling system.

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

Underside protector

The side cover has thicker plate for higher resilience. It protects against possible shocks and frictions against walls.

Checking and cleaning the radiator

The right-hand cover opened by loosening just two bolts. Open the maintenance cover on top right hand side to clean quickly and easily behind the radiator.

Hood

Open the hood on the top right cover for easy maintenance and fuel supply.

Cylinder guard for preventing damages

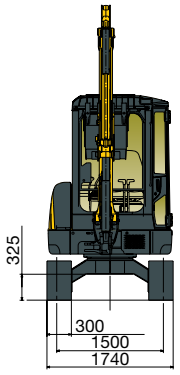
Bucket, arm, boom and blade cylinders completely protected (rod and cylinder) by highly elastic steel plates to resist any possible shocks.

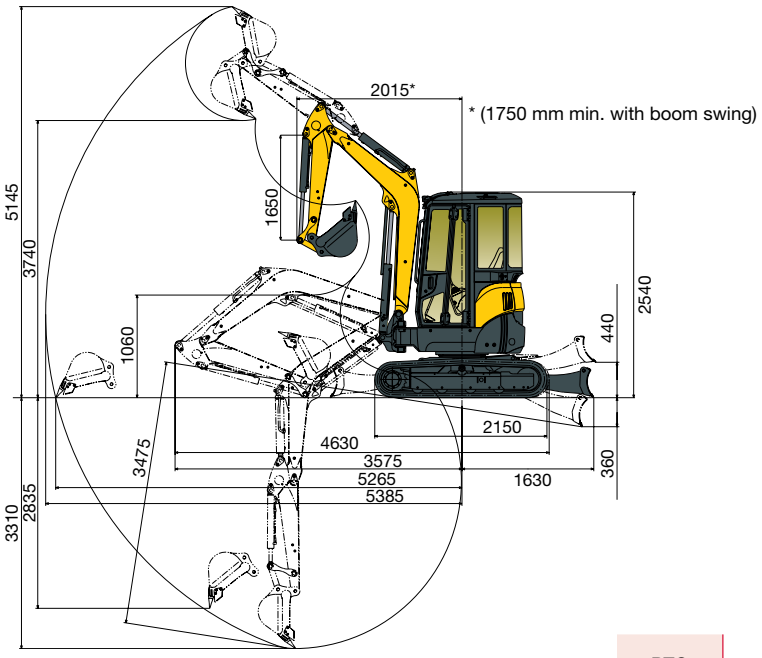
> TECHNICAL SPECIFICATIONS

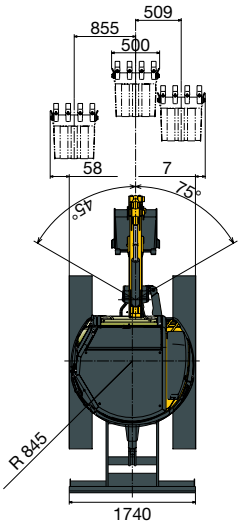
ViO38U

Operating weight +-2% (EC Norms):
> 3750/3885 kg (rubber crawlers with canopy/cabin)
> 3830/3965 kg (steel crawlers with canopy/cabin)

Transport weight +-2% (EC Norms):
> 3675/3810 kg (rubber crawlers with canopy/cabin)
> 3755/3890 kg (steel crawlers with canopy/cabin)







		ViO38U
3-cylinder Yanmar engine	Type	3TNV88 BQBVA
	Rated output (DIN 6270B)	20.7 kw / 28.1 HP / 2300 rpm
	Displacement	1642 cm³
	Max. Torque	107.4 N.m. / 1200 rpm
Hydraulic circuit	System capacity	60 l
	Max. pressure	225 bar
	2 variable displacement piston pumps	2 x 38.6 l/mn
	1 gear pump	27.3 l/mn
	1 gear pump	11.3 l/mn
Performances	Travelling speed	2.7 / 4.6 km/h
	Swing speed	10 rpm
	Digging force (arm)	1820 kgf
	Digging force (bucket)	3300 kgf
	Grade ability	30°
Undercarriage	Ground pressure	0.350 / 0.370 kg/cm²
	Shoe width	300 mm
	Ground clearance	325 mm
	Blade (width x height)	1740 x 320 mm
Miscellaneous	Fuel tank	39 l
	Cooling system	3.5 l
	Transport dimensions (L x w x h)	4630 x 1740 x 2540 mm
	Noise level (2000/14/EC & 2005/88/EC)	82 dBA (LpA) 95 dBA (LwA)

Optional equipment

> 4th hydraulic circuit (on-off)
> Safety device for loading + Overloading warning device
> Anti-theft device (with keyboard / with key)
> Quick coupler
> 2 additional LED working lights on cabin
> 1 LED beacon light
> Air conditioning
> Comfort fabric seat (only for cabin)
> Radio
> Special paint
> Standard, ditch cleaning and swivelling buckets
> Hydraulic hammers

The data contained in these tables represent the lifting capacity in accordance with ISO standard 10567. They do not 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.

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

PTO	Theoretical data at 2500 rpm	
	Pressure	Oil flow
	0 ~ 210 bar	68.5 ~ 38.5 l/mn
	0 ~ 210 bar	68.5 ~ 38.5 l/mn

> The oil flow reduces as the pressure increases.

Machine with cabin, rubber crawlers, without bucket.

A: Overhang from rational 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		2.0		
B											
4.0	-	-	-	-	-	-	-	-	-	-	C
3.0	*540	-	*635	*635	-	-	-	-	-	-	
2.0	500	*690	*670	*670	*765	*765	*835	*720	-	-	
1.0	430	*730	535	*790	840	*1050	1095	*1310	1545	*1555	
0	450	655	505	*835	740	*1190	955	*1535	1300	*2040	
-1.0	515	690	-	-	675	*1195	940	*1475	1240	*1845	
-2.0	690	-	-	-	*800	*800	*1150	*1150	*1385	*1385	
-2.5	-	-	-	-	-	-	-	-	-	-	

Blade above ground

A	Maxi		4.0		3.0		2.5		2.0		
B											
4.0	-	-	-	-	-	-	-	-	-	-	C
3.0	*535	-	*635	*635	-	-	-	-	-	-	
2.0	500	430	*670	535	*765	*765	*835	*720	-	-	
1.0	430	405	535	485	835	775	1084	1000	1530	1360	
0	445	405	495	455	720	670	930	870	1240	1155	
-1.0	505	480	-	-	650	645	895	825	1195	1080	
-2.0	655	-	-	-	670	625	920	810	1135	1140	
-2.5	-	-	-	-	-	-	-	-	-	-	

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