



**YANMAR**

MINI-EXCAVATOR

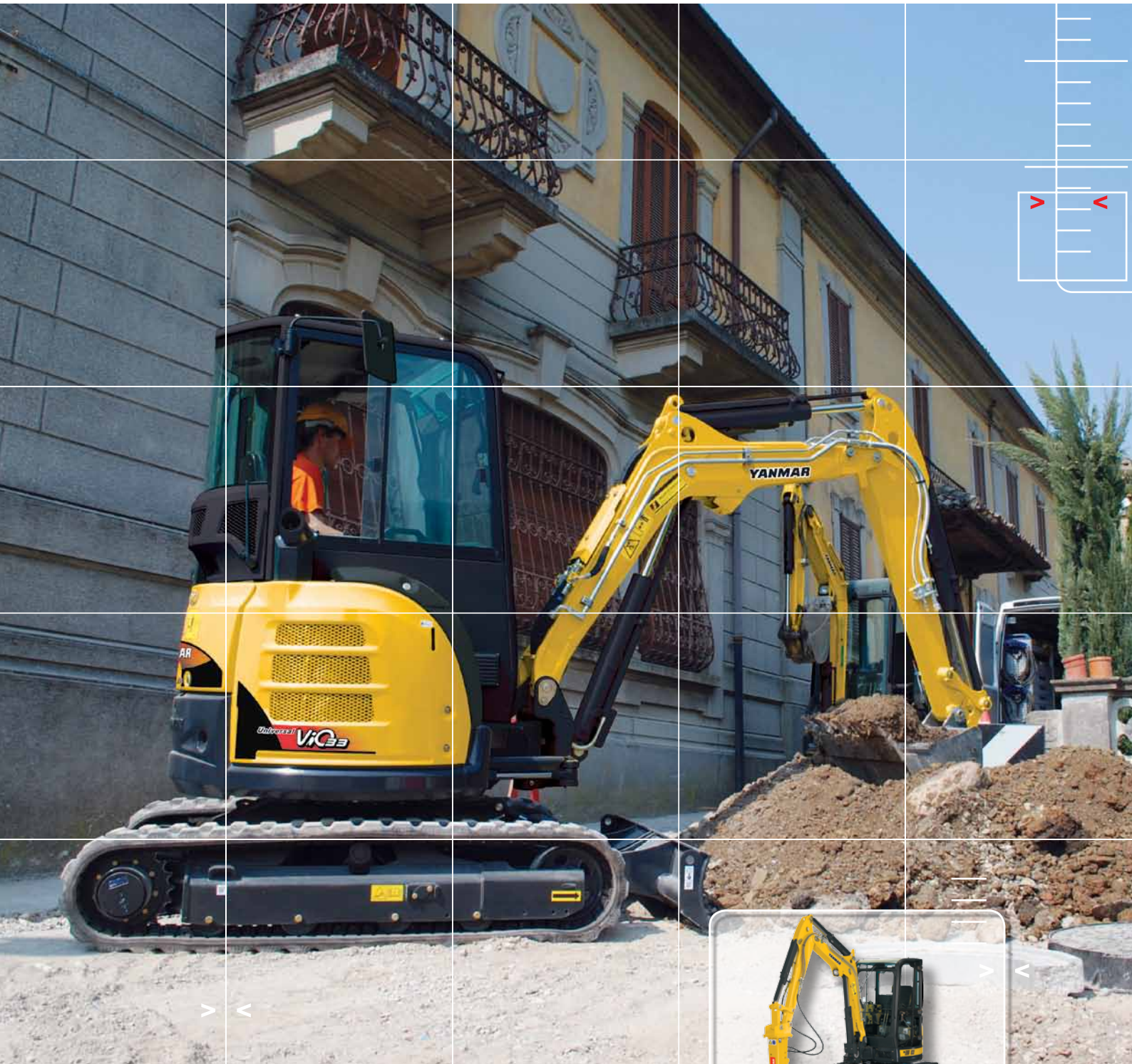


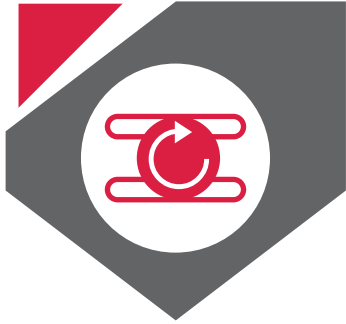
**Equipment Ltd**

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**ViO33U**

3365/3580 kg





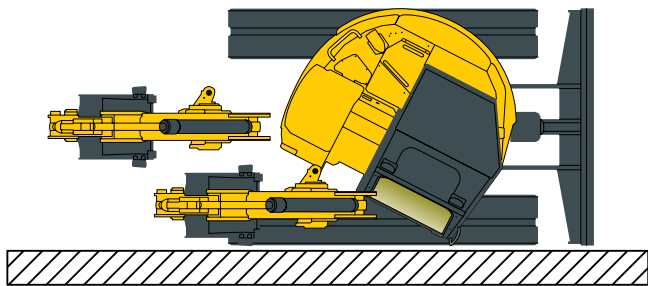
## > COMPACTNESS

### ViO33U

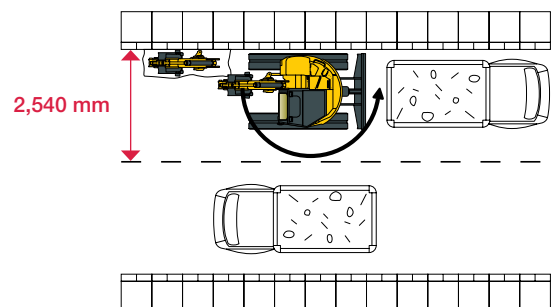
The ViO33U is a true Zero Tail Swing machine: the front part of the upper frame doesn't exceed the width of the crawlers.

#### Design principles:

- > Front swing radius with boom swing: 1,750 mm.
- > Rear swing radius: 792 mm.
- > Overall width of the machine reduced to 1,550 mm.
- > Equipped in standard with a long arm: 1,470 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

## ViO33U



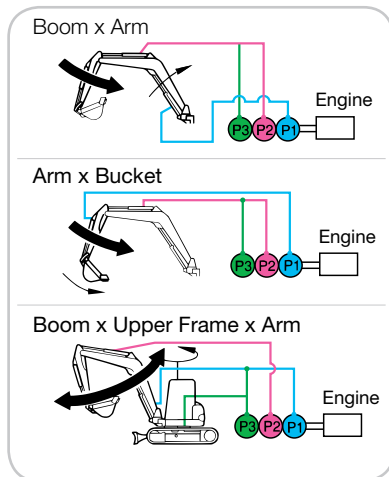
Combining long experience and unrivalled expertise, YANMAR's technology ensures environmental performance and high efficiency.

### « 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.



> 2 additional valves.



> Extension of the 3<sup>rd</sup> 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 ViO33U 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.



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





## > COMFORT

### Vi033U

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 largest cabin in this weight class, provides easy, unrestricted operating space.
- > The distribution units are located to ensure not only the driver's heating but also a perfect defrosting of the side and front windows.
- > Large, suspension seat reduces operator stress and fatigue.



#### 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...



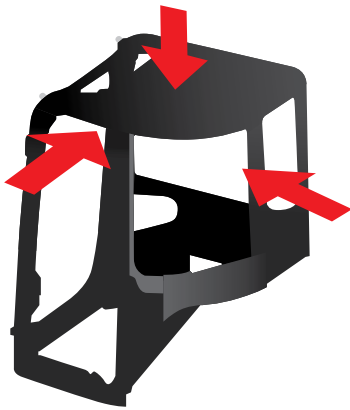
# > SECURITY & RELIABILITY

## Vi033U



### 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

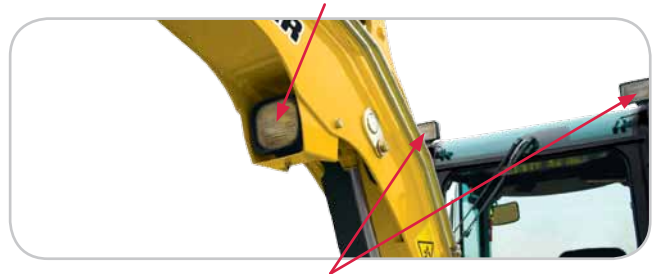
> In raised position, the lock lever includes engine neutral start mechanism to prevent danger of accidental operation.



> 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.



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...

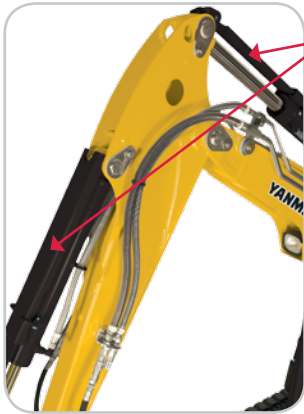




## > MAINTENANCE

### Vi033U

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



#### 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.



- > 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.

#### Daily checks

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

#### Checking and cleaning the radiator

> 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.





# TECHNICAL SPECIFICATIONS

## Vi033U

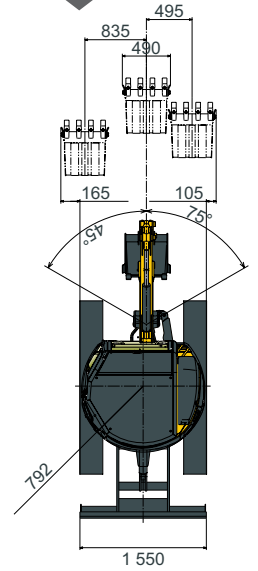
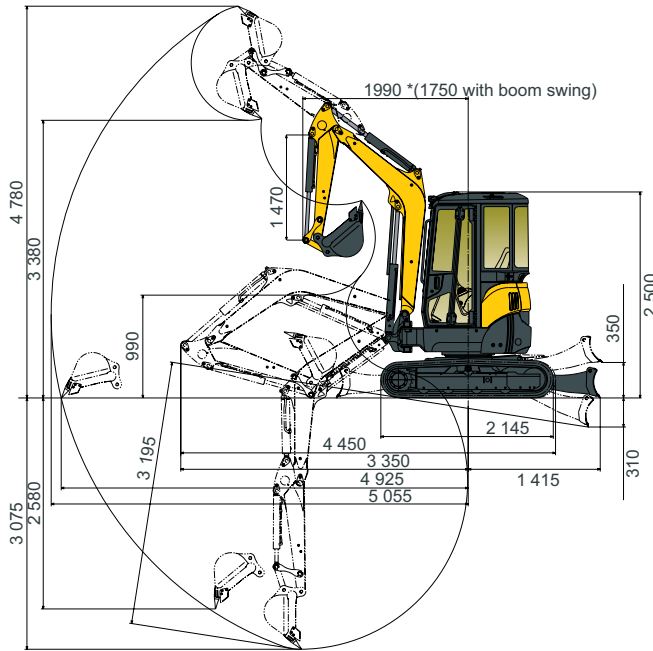
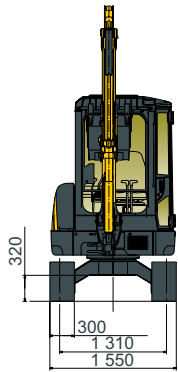


### Operating weight +-2% (EC Norms):

- > 3,365/3,445 kg (rubber crawlers / steel crawlers with canopy)
- > 3,500/3,580 kg (rubber crawlers / steel crawlers with cabin)

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

- > 3,290/3,370 kg (rubber crawlers / steel crawlers with canopy)
- > 3,425/3,505 kg (rubber crawlers / steel crawlers with cabin)



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

|                                 |                                       | Vi033U                           |
|---------------------------------|---------------------------------------|----------------------------------|
| <b>3-cylinder Yanmar engine</b> | Type                                  | 3TNV82-ANBV2A                    |
|                                 | Rated output                          | 18.3 kw / 24.9 HP / 2,500 rpm    |
|                                 | Displacement                          | 1,330 cm <sup>3</sup>            |
|                                 | Max. torque                           | 86.1 N.m. / 1,500 rpm            |
| <b>Hydraulic circuit</b>        | System capacity                       | 60 l                             |
|                                 | Max. pressure                         | 210 bar                          |
|                                 | 2 variable displacement piston pumps  | 2 x 37.5 l/mn                    |
|                                 | 1 gear pump                           | 21.5 l/mn                        |
|                                 | 1 gear pump                           | 12.4 l/mn                        |
| <b>Performances</b>             | Travelling speed                      | 2.7 / 4.5 km/h                   |
|                                 | Swing speed                           | 10 rpm                           |
|                                 | Digging force (arm)                   | 1670 kgf                         |
|                                 | Digging force (bucket)                | 3100 kgf                         |
|                                 | Grade ability                         | 30°                              |
| <b>Undercarriage</b>            | Ground pressure                       | 0.300 / 0.310 kg/cm <sup>2</sup> |
|                                 | Shoe width                            | 300 mm                           |
|                                 | Ground clearance                      | 320 mm                           |
|                                 | Blade (width x height)                | 1,550 x 320 mm                   |
| <b>Miscellaneous</b>            | Fuel tank                             | 39 l                             |
|                                 | Cooling system                        | 3.9 l                            |
|                                 | Transport dimensions (L x w x h)      | 4,450 x 1,550 x 2,500 mm         |
|                                 | Noise level (2000/14/EC & 2005/88/EC) | 81 dBA (LpA)<br>93 dBA (LwA)     |

> The oil flow reduces as the pressure increases.

| PTO | Theoretical data at 2,500 rpm |                |
|-----|-------------------------------|----------------|
|     | Pressure                      | Oil flow       |
|     | 0 ~ 200 bar                   | 59 ~ 34.5 l/mn |
|     | 0 ~ 200 bar                   | 59 ~ 34.5 l/mn |

### 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 | 3.5  | 3.0 | 2.5  | 2.0  |       |
|------|------|------|-----|------|------|-------|
| B    |      |      |     |      |      |       |
| 3.0  | -    | -    | 420 | *600 | *530 | *530  |
| 2.5  | 350  | *620 | 430 | *590 | *550 | *550  |
| 2.0  | 320  | *630 | 435 | *620 | *620 | *620  |
| 1.0  | 290  | *670 | 380 | *730 | 510  | *820  |
| 0    | 290  | *720 | 350 | *800 | 450  | *1000 |
| -1.0 | -    | -    | 340 | *780 | 460  | *1020 |
| -1.5 | -    | -    | -   | -    | 450  | *830  |
| -2.0 | -    | -    | -   | -    | -    | 550   |
|      |      |      |     |      |      | 640   |
|      |      |      |     |      |      | 585   |
|      |      |      |     |      |      | *1250 |
|      |      |      |     |      |      | 790   |
|      |      |      |     |      |      | *1400 |
|      |      |      |     |      |      | *1830 |
|      |      |      |     |      |      | 870   |
|      |      |      |     |      |      | *1700 |
|      |      |      |     |      |      | *1550 |
|      |      |      |     |      |      | 790   |
|      |      |      |     |      |      | *1250 |

### Blade above ground

| A    | Maxi | 3.5 | 3.0 | 2.5 | 2.0  |      |
|------|------|-----|-----|-----|------|------|
| B    |      |     |     |     |      |      |
| 3.0  | -    | -   | 410 | 465 | *530 | 440  |
| 2.5  | 345  | 410 | 420 | 430 | *560 | 465  |
| 2.0  | 320  | 320 | 430 | 420 | *610 | 510  |
| 1.0  | 280  | 330 | 375 | 410 | 500  | 510  |
| 0    | 290  | 315 | 350 | 350 | 450  | 500  |
| -1.0 | -    | -   | 330 | 330 | 560  | 470  |
| -1.5 | -    | -   | -   | -   | 430  | 430  |
| -2.0 | -    | -   | -   | -   | -    | -    |
|      |      |     |     |     |      | 640  |
|      |      |     |     |     |      | 710  |
|      |      |     |     |     |      | 585  |
|      |      |     |     |     |      | 580  |
|      |      |     |     |     |      | 790  |
|      |      |     |     |     |      | 930  |
|      |      |     |     |     |      | 1010 |
|      |      |     |     |     |      | 870  |
|      |      |     |     |     |      | 900  |
|      |      |     |     |     |      | 680  |
|      |      |     |     |     |      | 870  |

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.



**YANMAR**



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