AMMANN-YANMAR SAS

25, rue de la Tambourine - F-52100 SAINT DIZIER

sales@ammann-yanmar.fr

www.ammann-yanmar.com

G8VI020_0106

AMMANN
YANMAR

ViC20

Mini-excavator

YANMAR

Vi020

Operating weight : 2320/2215 kg

Arm digging force : 1200 kgf

Bucket digging force : 1900 kgf

Yanmar, inven to
of the ZTS m in

Mini-excavator

YANMAR

en tor and leader
m ini-excavators

ViO20

AMMANN YANMAR

Zero Tail Swing

Yanmar, inven to

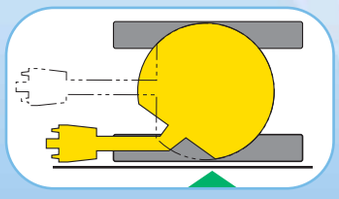
of the ZTS m in

Design principles

- The ViO20 is a real Zero Tail Swing machine : neither the counterweight nor the front part of the upper frame exceed the width of the crawlers.
- Compact dimensions :
  - front swing radius with boom swing : 1550 mm ;
  - rear swing radius : 690 mm ;
  - width of the machine reduced to 1380 mm.

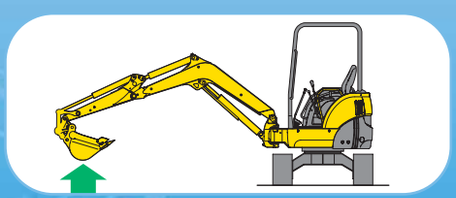
Advantages for the user

- 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 superb all-round visibility.
- Safety and productivity for the operator.
- Easier transport thanks to reduced width.



Excellent weight distribution

- The use of a large counterweight, asymmetric crawlers (VICTAS® system) and high tensile equipment allows :
  - equalled stability, even higher than that of a conventional machine of the same weight ;
  - increased lifting capacity.



Mini-excavator

YANMAR

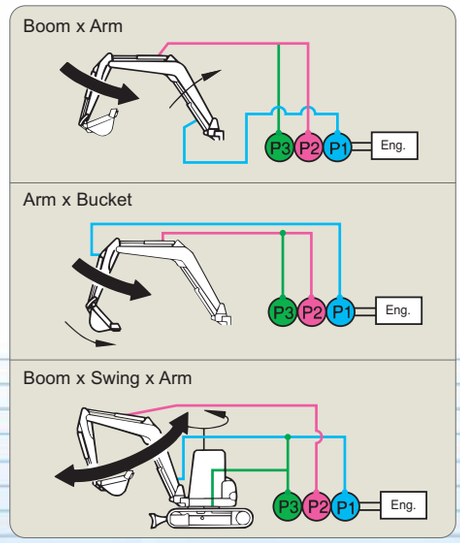
en tor and leader

m ini-excavators

High performance

Hydraulic circuit “VIPPS®” (ViO Progressive 3 Pumps System)

- Hydraulic circuit using a variable flow double-piston pump, a gear pump and a multiple combination control valve.
- Oil flow from all pumps on demand for a higher work speed.
- Powerful and simultaneous operations, even during travel.



Working equipment

- Dual or single-action auxiliary circuit to add various accessories (swivelling ditch cleaning buckets…).
- Integrated working lamp.
- Clean routing of flexible hoses in and on the boom.
- Cylinder protection on boom.

AMMANN YANMAR

n tor and leader
n ini-excavators

Comfort and safe

Spacious and ergonomic pilot system

- Perfect position of joysticks, armrests and travel levers.
- Luxurious adjustable operators seat with headrest (forward and aft adjustment, backrest inclination adjustment, and weight adjustment).
- Canopy and cabin fully compliant with safety norms : ROPS (Roll Over Protective Structure), FOPS 1 (Falling Object Protective Structure) and TOPS (Tip-Over Protective Structure).
- Large safety lever on access to operating position : locks working movements and travel (in raised position).

Cabin version

- Windscreen in 2 parts, stored overhead. Sliding side windows.
- Wide access to the operating position.
- Defroster, heater, ventilation, inside lighting, windscreen washer.

Reliability and acc

A new-generation Yanmar “TNV” (Totally New Value) engine

- Improvement and modernisation of TNE series, which is already well-known for its “clean and quiet” profile :
  - reduced emissions for an even cleaner engine ;
  - noise reduction for an even quieter engine ;
  - improved starting (warms up faster).
- The new TNV series exceeds the most stringent emissions standards.

AMMANN YANMAR

safety

Asymmetric crawlers (patented VICTAS® System)

- Increased foot print without the increase of machine width.
- Higher sideward stability and higher lift capacity.
- Noise and vibration free travel.
- Less ground damage.

Higher productivity for the operator

- Separate pedals for 3rd circuit and boom swing + forward and backward travelling possible with feet : possibility to combine various working movements and travelling.
- Single-action auxiliary circuit with pedal to add accessories (for example : hydraulic rock breaker, auger…).
- Second speed.
- Dual-action auxiliary circuit with the right joystick allowing a higher precision (for example : swivelling ditch cleaning bucket).

Action possible with the joystick

Single-action auxiliary circuit with pedal

Second speed

accessibility

Easy access to maintenance points

- Large rear bonnet allowing access to all engine components and hydraulic pumps.
- Daily check points gathered under the front bonnet (top up oil, water, diesel).
- Quick access to test points of all hydraulic circuits from the pilot system.

TECHNICAL SPEC

Engine

Yanmar Diesel 3 cylinders	3TNV76-PBV
Rated Output (DIN 6270B)	14.3 kw/19.4 HP/2400 rpm
Displacement	1115 cm^3
Max. torque	68.6 N.m./1800 rpm

Hydraulic circuit

System capacity	35 l
Max. pressure	210 bar
Variable flow dual piston pump	2 x 21.6 l/mn
1 gear pump	1 x 21.12 l/mn

Performances

Travelling speed	4.4/2.2 km/h	Grade ability	30°
Swing speed	9.5 rpm	Shoe width	250 mm
Digging force (arm/bucket)	1200/1900 kgf	Ground clearance	280 mm
Boom swing (L/R)	47°/75°	Blade (width x height)	1380 x 280 mm
Ground pressure*	0.4/0.38 kg/cm^2		

*Cabin/Canopy

Miscellaneous

Fuel tank	28.5 l
Cooling system	2.9 l
Transport dimensions (L x w x h)	3895 x 1380 x 2458 mm
Noise Level LwA (2000/14/EC & 2005/88/EC)	93/93 dBA*

*Cabin/Canopy

Optional equipment

Special paint	Safety device for loading
Bio Oil	Anti-theft device

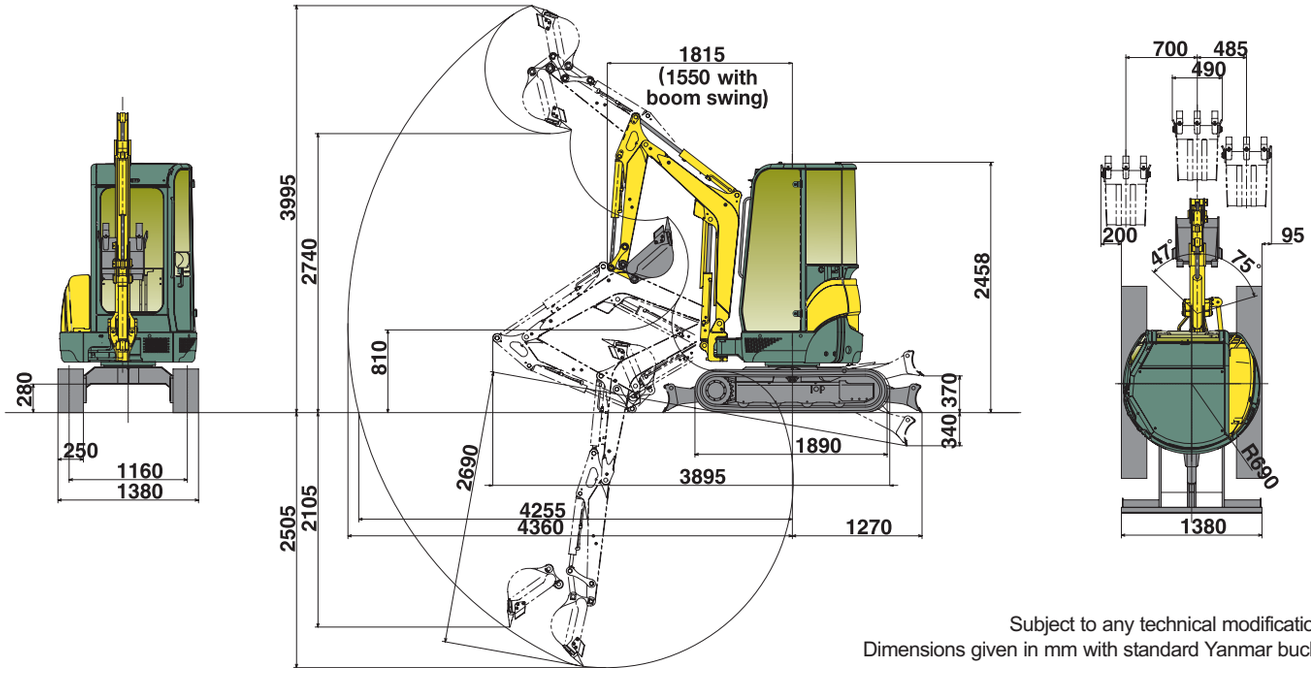
PTO	Theoretical data	
	Pressure	2400 rpm
	0 ~ 170 bar	42.7 ~ 28.1 l/mn
	0 ~ 170 bar	42.7 ~ 28.1 l/mn

- The output reduces as the pressure increases.

IFICATIONS

Operating weight +-2% :

2320/2215 kg (cabin/canopy)



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

Blade on ground

A	Maxi		3.0 m		2.5 m		2.0 m		
B									
3.4	*390	*390	-	-	-	-	-	-	C
2.5	290	*405	-	-	*335	*335	-	-	
2.0	245	*405	320	*400	*390	*390	-	-	
1.5	215	*425	305	*530	*495	*495	-	-	
1.0	200	*425	270	*510	420	*615	605	*790	
0	210	*460	290	*600	390	*770	515	*1095	
- 1.0	275	*475	-	-	375	*700	515	*980	
- 1.5	360	*500	-	-	-	-	540	*735	

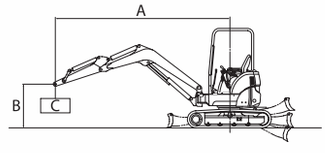
Blade above ground

A	Maxi		3.0 m		2.5 m		2.0 m		
B									
3.4	*390	*390	-	-	-	-	-	-	C
2.5	290	320	-	-	*335	*335	-	-	
2.0	245	275	320	*400	*390	*390	-	-	
1.5	215	245	305	335	*495	*495	-	-	
1.0	200	240	270	350	420	470	605	*790	
0	210	245	290	335	390	440	515	605	
- 1.0	275	305	-	-	375	435	515	620	
- 1.5	360	440	-	-	-	-	540	615	

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.
Data marked * are the hydraulic limits of the lifting power.

Machine with canopy, rubber crawlers, bucket of 52 kg (490 mm).

A : Overhang from rotational axis (m).
B : Height of hooking point (m).
C : Safe working load (kg).
(+ 4% with cab).



Tipping load, rating over front

Tipping load, rating over side 90°