YANMAR
MINI EXCAVATOR
ViO20-3

ViO

YANMAR ViO-3 Series
True Zero Tail Swing Excavator

ViO20-3
Output: 19.2 hp (14.3 kW)
Operating weight 4910 lbs (2230 kg)

YANMAR - YOUR BEST PARTNER FOR BUILDING THE FUTURE

True Zero Tail Swing

The ViO development objective of turning within the crawler width has been successfully achieved, while maintaining the stability and work performance of a conventional style unit.
The final hurdle has been cleared - you'll love the tight turning Global ViO.
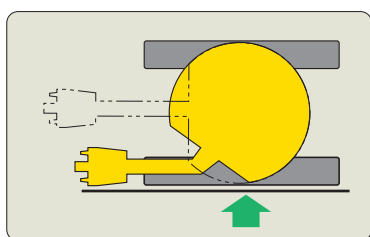

Up Against a Wall? No Problem
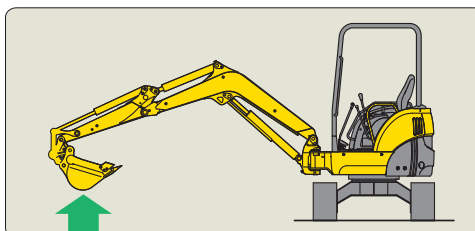
The Safety and Comfort of True Zero Tail Swing
Common Zero Tail models kept the overhang during turning to within just 10 percent of the crawler width. The Global ViO achieves the ultimate goal of no overhang at all. Since the counterweight and front corners never extend beyond the vehicle width, there is no concern even on jobs right up against a wall. It's safe, easy and smooth.

The Stability of a Conventional style Unit
The wide spacing of the distinctive Yanmar offset crawler tracks achieves a good grip on the ground and the high tensile strength steel plates keep the implement light. The outstanding balance that results is further enhanced by the newly developed large counterweight. The resulting stability is as great as that of a conventional style unit.

The First Tailor-Made Hydraulic Quick-Coupler in the Industry - - It's all so Easy and Standard Equipment!

The arm was designed from the start to accommodate our new hydraulic quick-coupler, so that job performance will be significantly enhanced.
The use of a conventional manual coupler is relatively time-consuming, and results in reduced productivity.
With the Yanmar hydraulic quick-coupler, however,attachment changes can be greatly expedited.

**Hydraulic Quick Coupler Control**

One Person Operation

Attachment changes are made easily from the operator's area.
The locking pins assure safe operation.
Many brands of pin-on attachments can still be used.
Eliminates the need to replace existing attachments.

Canopy models allow entry and exit from either side.

To enable the use of additional hydraulic attachments, PTO is piped to the end of the arm.
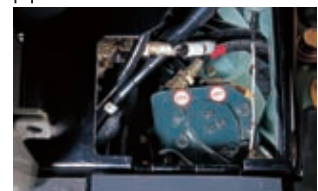
2-way pattern control lever, (ISO or OPTION).

VICTAS (ViO Crawler Technology by Advanced Stability)

VICTAS provides an expanded track gauge for more stability without increasing undercarriage width, and the short-pitch rubber crawler permits more comfortable traveling.

Integrated boom-light is protected from damage.

Large opening rear hood for easier maintenance.

Battery, fuel and hydraulic oil can be checked more conveniently.

VIPPS (ViO Progressive 3-Pump System) increases power and speed, and increased fuel economy

## Multi - function operation to increase on - the - jobs productivity.

Boom×Arm

Arm×Bucket

Boom×Swivel×Arm

P3 P2 P1 ENG

Removable side frame cover and side weight for easier maintenance.

Angled crawler frame reduces unwanted build up of foreign matter.
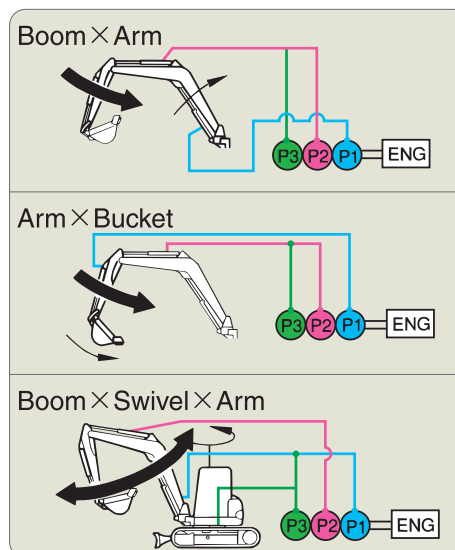
Large Comfortable Operating Space

The ViO20-3 offer lots of room for maximum comfort and productivity.

Comfortable Way to Work

The hydraulic control levers are carefully positioned to permit easy entry and exit to and from the work station.

Conventional ViO
1.0m²

Global ViO-3
1.3m²

1020
505
1145

1153
550
1295
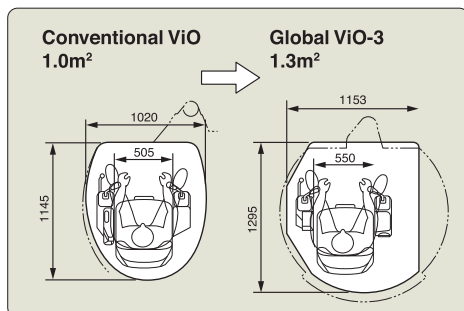
Joystick pilot controls with arm rests are convenient to use and reduce operator fatigue.

ROPS / FOPS canopy with seat belt protects against operator injury.

The hydraulic oil hose cover protects the hydraulic hoses from damage.

To prevent damage to the hydraulic hoses, they are housed in the inner boom for safety.
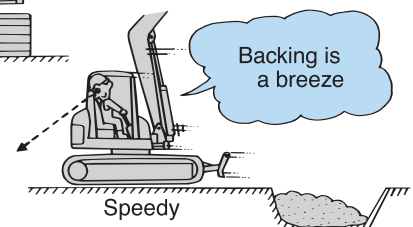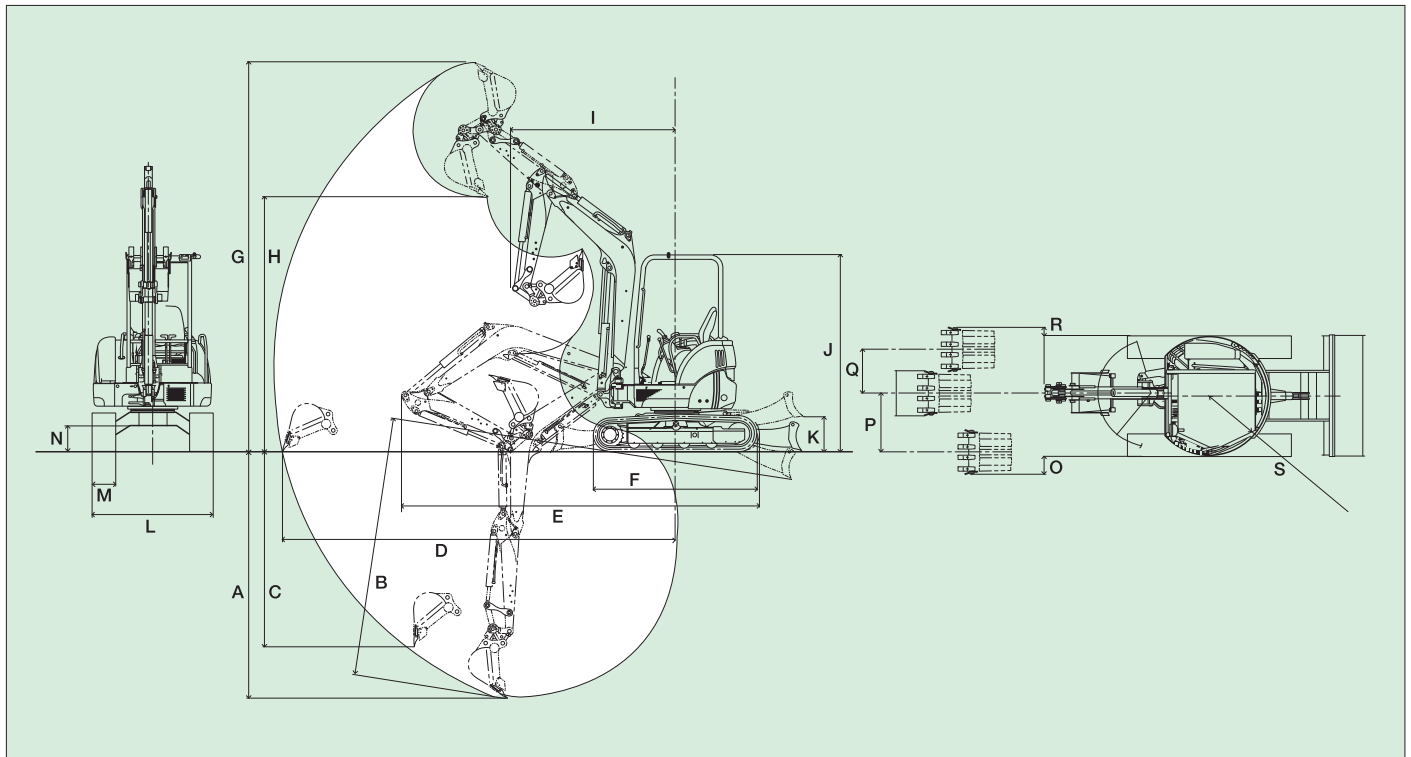

The audible traveling alarm signals people nearby when the machine is being moved.

Clean and Silent

An Environmental Engine Inside

Clean exhaust and powerful output. The people-friendly Yanmar C&S (Clean and Silent) engines are approved under the emissions and the noise regulations of the EU (Europe) and the EPA (United States).

All clear !!

Backing is a breeze

Speedy

Dimensions

	A	B	C	D	E	F	G	H	I	J
ViO20-3	8'(2440)	8'7"(2620)	6'3"(1900)	13'8"(4160)	12'10"(3915)	6'2"(1890)	13'1"(4000)	8'(2450)	6'7"(2010)	7'10"(2400)

	K	L	M	N	O	P	Q	R	S
ViO20-3	1'3"(360)	4'6"(1380)	10"(250)	11"(280)	8"(200)	2'4"(700)	1'7"(485)	4"(95)	R2'3"(690)

Specifications

Model			ViO20-3
Type			Canopy
Operating weight	Rubber track	lbs (kg)	4910 (2230)
	Steel track	lbs (kg)	4910 (2230)
Engine	Type		Water cooled, 3-cyl. diesel
	Model		YANMAR 3TNV76−PBV
	Output	hp (kW)/RPM	19.2 (14.3) / 2400
Performance	Max digging force, Bucket/Arm	lbs (kN)	3987/3057 (17.7/13.6)
	Traveling speed	MPH (km/h)	2.7 / 1.4 (4.4 / 2.2)
	Swing speed	RPM	9.5
	Boom swing angle, (L/R)	degrees	47 / 75
Ground contact pressure	Rubber track	PSI (kPa)	4.0 (27.7)
	Steel track	PSI (kPa)	4.0 (27.7)
Hydraulic system	Pump capacity	GPM	5.7+5.7+5.6+3.2
		(L/min)	(21.6 +21.6+21.12+12.24)
	Main relief set pressure	PSI (MPa)	2988 / 2422 (20.6 / 16.7)
Undercarriage	Track type		Rubber or steel
Blade dimensions	Width x height	ft-in (mm)	4'6"x11" (1380x285)
Fuel tank capacity		Gals (L)	7.5 (28.5)

Hydraulic P.T.O.

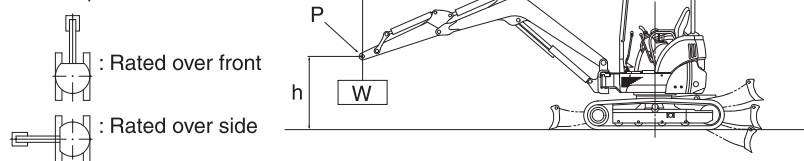| Model		ViO20-3		
Specifications / Output		PSI(kpa)	GPM (L/min)	
			2400 RPM	1200 RPM
Combined flow, double actions		2417(16672)	11.3(42.7)	5.7(21.4)

LIFTING CAPACITY

Excavator equipped with ROPS/FOPS canopy and rubber crawlers
r: Reach from swing center line : ft-in(mm)
h: Lift point height : ft-in(mm)
w: Lifting capacity : lbs(kg)
P: Load point

: Rated over front

: Rated over side

1. The rated lifting capacities that are indicated below are based on ISO 10567 and do not exceed 87% of the excavator's hydraulic lifting capacity or 75% of its static tilt load (tipping load) capacity.
2. The following operating criteria are also applicable to the calculation of these maximum loads;
   a) The "load point" is the location of the front bolt on the arm.
   b) The three indicated machine positions are :
      (i) arm over the front end (blade down),
      (ii) arm over the front end (blade up), and
      (iii) arm over the side (blade up).
   c) The operating cylinder is the boom cylinder.
3. The weight of the excavator's bucket, hook, sling and other lifting accessories have been taken into consideration when calculating these maximum loads.

ViO20-3 (with Quick Coupler)

LIFT POINT HEIGHT	r:REACH ft-in (mm)				r:REACH ft-in (mm)				r:REACH ft-in (mm)			
h:ft-in (mm)	RATED LIFT CAPACITY OVER FRONT BLADE DOWN lbs (kg)				RATED LIFT CAPACITY OVER FRONT BLADE UP lbs (kg)				RATED LIFT CAPACITY OVER SIDE BLADE UP lbs (kg)			
	MAX	8'3" (2500)	6'7" (2000)	MIN	MAX	8'3" (2500)	6'7" (2000)	MIN	MAX	8'3" (2500)	6'7" (2000)	MIN
6'7"(2000)	*1080(490)	*1180(535)			684(310)	948(430)			639(290)	970(440)		
4'11"(1500)	*1080(490)	*1334(605)	*1731(785)		650(295)	1069(485)	1444(655)		573(260)	937(425)	1345(610)	
3'3"(1000)	*1136(515)	*1599(725)	*2216(1005)		606(275)	1014(460)	1433(650)		518(235)	904(410)	1235(560)	
1'8"(500)	*1180(535)	*1753(795)	*2503(1135)		606(275)	1014(460)	1411(640)		518(235)	849(385)	1202(545)	
Ground(0)	*1180(535)	*1808(820)	*2448(1110)	2503(1135)	617(280)	970(440)	1345(610)	1742(790)	540(245)	849(385)	1180(535)	1466(655)
−1'8"(−500)	*1180(535)	*1698(770)	*2194(995)		684(310)	970(440)	1345(610)		606(275)	849(385)	1180(535)	
−3'3"(−1000)	*1180(535)	*1433(650)	*1951(885)		849(385)	981(445)	1433(650)		772(350)	871(395)	1180(535)	

Note : The maximum loads marked with an asterisk (∗) were limited by the Excavator's hydraulic lifting capacity rather than by its static tilt load (tipping load) capacity.

STANDARD EQUIPMENT

- Blade
- Boom swing function
- Rubber or Steel tracks
- Hydraulic quick coupler
- Auxiliary valve and piping (arm end)
- 2way control pattern change

- Cylinder cover (boom, arm, bucket, blade)
- ROPS/FOPS Canopy
- Joystick pilot controls
- Arm rests
- Sliding seat
- Seat belt

- Traveling levers and pedals
- Traveling alarm
- Built-in type boom light
- Exterior canopy work light
- Operation manual

(Please note that the standard equipment may vary from this list. Consult your Yanmar dealer for confirmation.)

Note : All information presented in this Brochure is subject to change without notice.

Printed in U.S.A.