YANMAR

TRUE ZERO TAIL SWING MINI EXCAVATOR

ViO20-6 / ViO23-6

[Gross] 15.0kW <20.1HP>


YANMAR
Vio23

ViO20-6
ViO23-6

Power, flexibility and stability in a compact package

BUILDING WITH YOU

The specifications and attachments may differ depending on the sales area / sales period.

Features of ViO20-6 / ViO23-6

Spring Steel Cylinder Guards YANMAR ORIGINAL

To prevent cylinder rods from damage.

Page 10

Hydraulic Quick Coupler YANMAR ORIGINAL

No tools required to change the attachments.
(Optional)

Page 13

LED Working Lights

Provide brighter light.

Page 10

Undercarriage Options

ViO20-6: Fixed undercarriage
ViO23-6: Sliding Variable Undercarriage

Page 7

Low-Noise Carrier Rollers

Makes low noise while traveling.
Noise friendly to surroundings.

Page 10

ROPS*1 & FOPS*2 4-Pole Canopy

The protective structure that meets ISO standards, minimizes the damage in case of an accident.

Page 12

Boom-Inside Hoses

The hoses are designed to pass through the boom structure for protection.

Page 10

SMARTASSIST Remote

Advanced fleet management system.

Page 13

YANMAR Engine YANMAR ORIGINAL

Powerful, reliable and efficient.

Page 8, 9

Auto Deceleration & Eco Mode

Efficient automatic engine deceleration. Eco mode reduces fuel consumption by 20%.

Page 9

True Zero Tail Swing

Ensures safer operation on the tight job sites.

Page 6

Watch the video

*1 Roll-Over Protective Structure (ROPS): A structure to protect the operator wearing a seat belt, in case the machine rolls over.
*2 Falling Objective Structure (FOPS): A structure to protect the operator from falling objects.

Machine width *ViO20-6* 1380mm / *ViO23-6* 1380mm - 1550mm

True Zero Tail Swing

YANMAR pioneered the concept of a true zero tail swing excavator. The upper frame doesn't extend beyond the track width, enabling operator to tackle jobs safely in tighter spaces.

Operating Weight

ViO20-6 **2125kg**

ViO23-6 **2295kg**

*Canopy and rubber track type

Pick the right excavator for your job

ViO23-6 **Undercarriage**

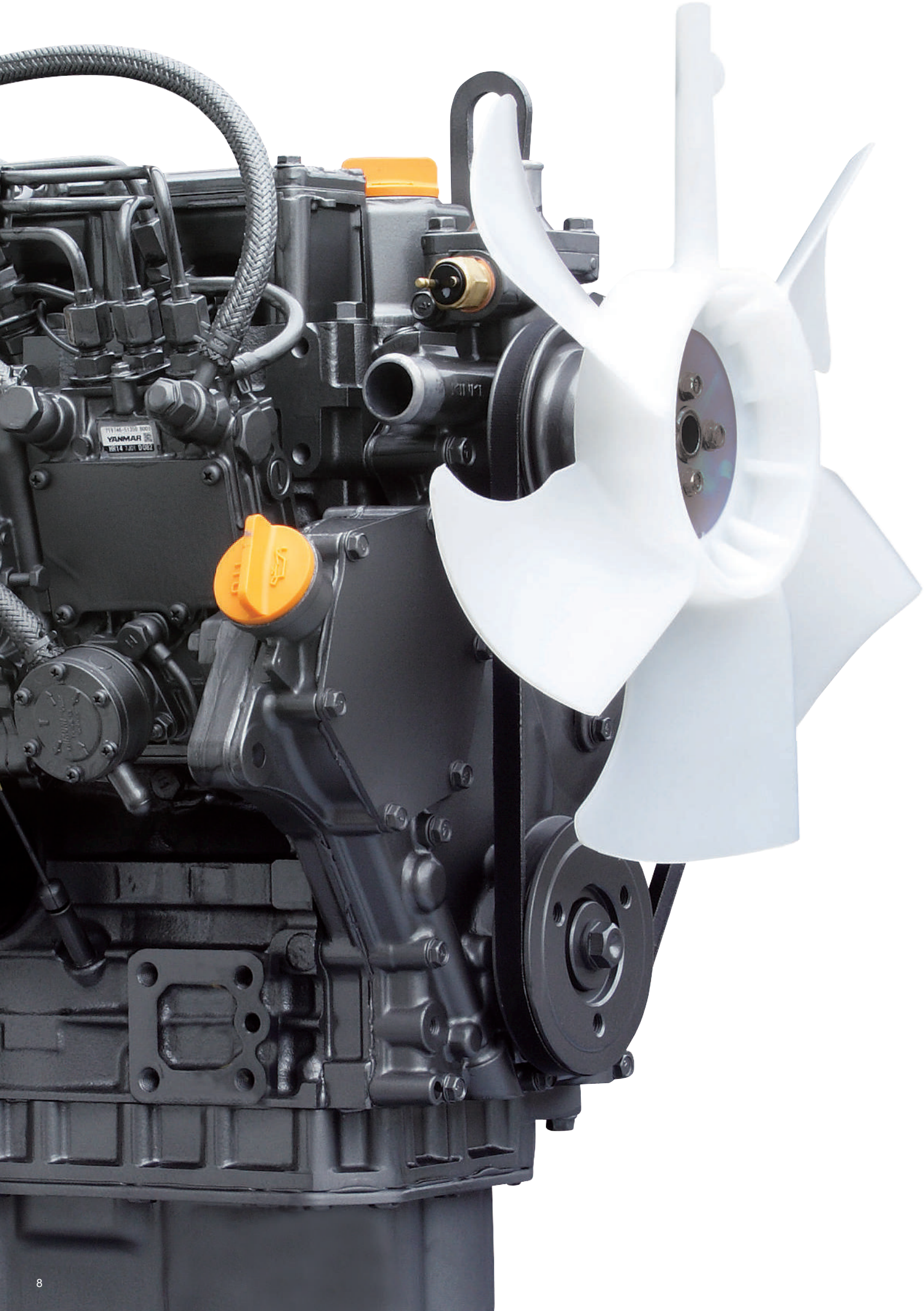
ViO20-6 **Undercarriage**

Sliding Variable Undercarriage & Foldable Blade

The undercarriage retracts to 1380mm to enter narrow job sites and extends to 1550mm for stability while working. The width of the blade can be adjusted to width of the excavator thanks to foldable blade.

Fixed Undercarriage

Fixed robust undercarriage provides excellent stability and long lasting lifetime.


YANMAR

Reliable YANMAR engine designed to deliver powerful output and fuel efficiency

YANMAR Engine

Equipped with legendary YANMAR TNV engine. It guarantees high quality, power and efficiency thanks to advanced technologies.

Model **3TNV76-PBV1** Output (Gross) **15.0kW**

Auto Deceleration

Automatically lowers the engine speed to idle when the machine stops for more than 4 seconds. Reverts to the original speed, once the operation lever is moved.

Eco Mode

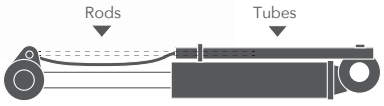
Lower fuel consumption by reducing the engine speed to 88% from maximum speed.

Proven durability

Watch the video

Spring Steel Cylinder Guards

All cylinders are protected with unique spring steel structured guards to reduce machine downtime .



Boom-Inside Hoses

The hoses are designed to pass through the boom structure for protection.

The picture illustrates the inside boom structure.

LED Working Lights

Provide brighter light for work safely and with accuracy in dark spaces.


Boom light


Headlight


Cabin light

Low-Noise Carrier Rollers

Makes low noise while traveling. Noise friendly to surroundings.

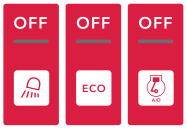
Comfortable operator space

1
Large LCD Monitor with LED Backlight

Easy-to-read display showing operating status and maintenance information.

2
Dial Accelerator

Fingertip control dial easy to change the engine speed.

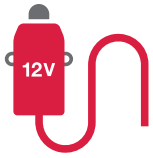


3
Ergonomically Designed Controls

Ergonomically arranged operating controls and switches are within the reach of one hand.

4
Reclining and Sliding Seat

Adjustable to fit the operator's body and posture.



5
External Power Outlet (12V)

The 12V power socket can be used for charging your cell phone and other devices.

6
P.T.O. Switch and Flow Adjustment

Hydraulic P.T.O. lines can be controlled with the tip of your fingers. Ensures precise operation of attachments.

Easy maintenance and enhanced safety

1
Engine, Radiator and Air Cleaner

The engine and right-hand side bonnets have wide openings. This allows you to have an easy access engine, radiator and air cleaner.

2
Battery, Hydraulic Oil and Fuel Tanks

Lockable right upper hand bonnet provides easy access and security.

3
ROPS and FOPS 4-Pole Canopy

The protective structure that meets ISO standards minimizes the damage in case of an accident.

4
Grease Pump Holder

A secure location for grease pump holder.

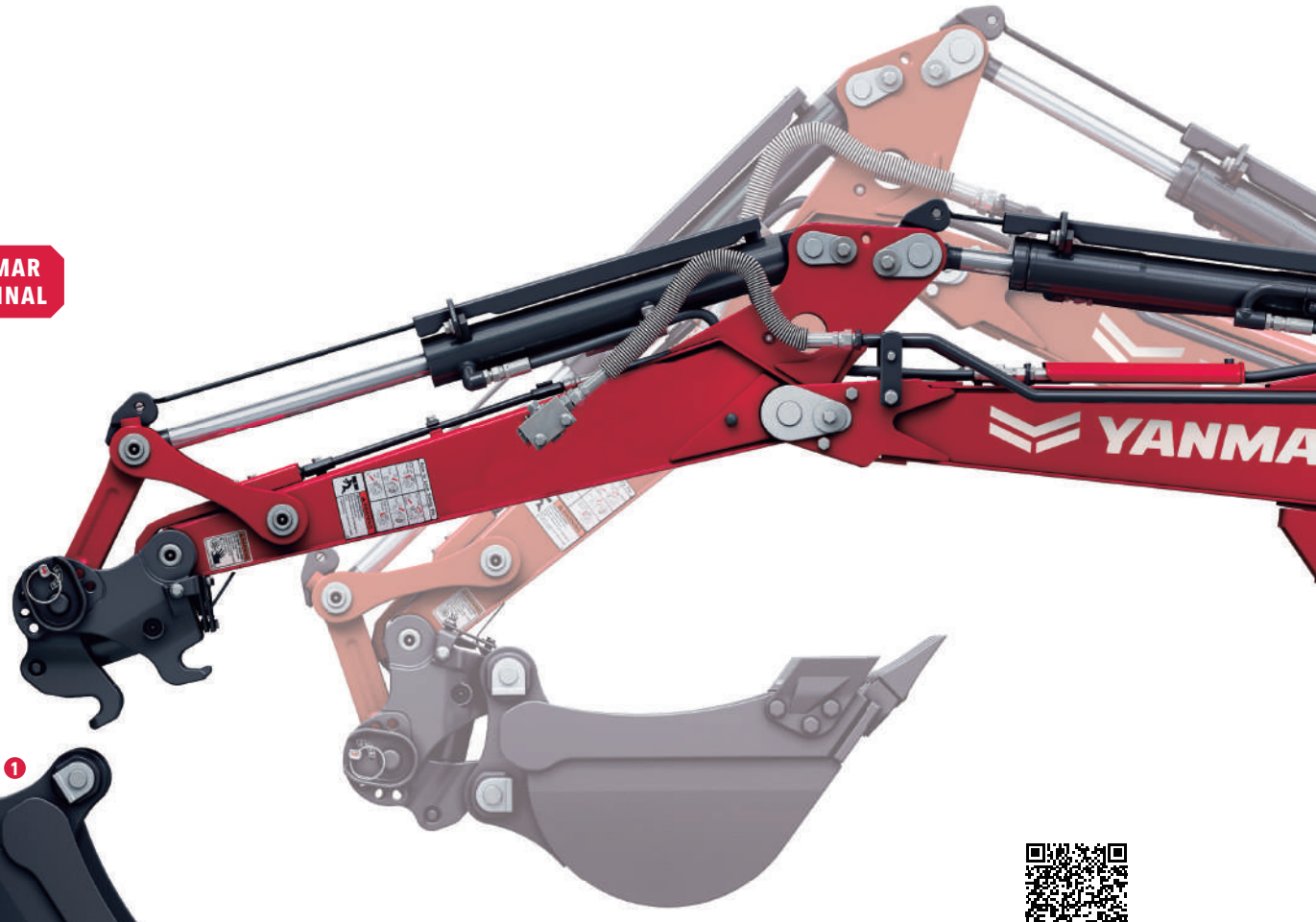
5
Engine, Hydraulics and Electric Components

Seat mount and floor covers are easily removed to access components.

Emergency Engine Stop Switch

In case of emergency, the engine can be shut down easily with emergency switch.

YANMAR ORIGINAL

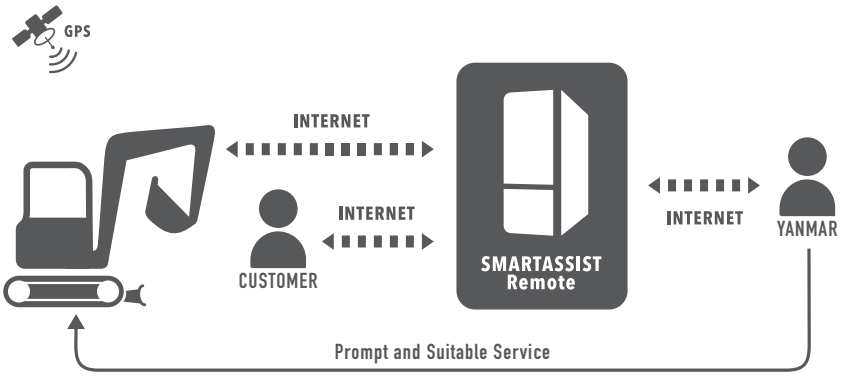


Watch the video

1 YANMAR Hydraulic Quick Coupler (Optional)

Quick coupler makes it easier and quicker than ever to change buckets and other attachments. It saves time, so operator can focus job in hand.
Some buckets and attachments may not be applicable.

SMARTASSIST Remote



Watch the video

Our service to avoid machine downtime

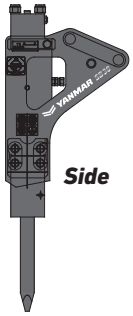
SMARTASSIST Remote is a telematic system that provides sophisticated management for construction equipment equipped with a GPS transmission terminal. This system monitors construction equipment remotely and ascertains maintenance intervals and troubles in a timely manner via the Internet, which allows YANMAR to constantly provide the customers with suitable services and support.

Attachments

YANMAR Hydraulic Breaker

A wide range of hydraulic breakers are available for demolition applications.
Each model delivers reliability, productivity and durability.
Refer to breaker's catalog for more information.

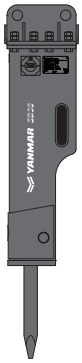
Product Lineup



Side

Pin Mounted

Cap Mounted



Box Housing
(Silenced)

YANMAR's recommended parts

ecoY
GUARANTEED QUALITY & DURABILITY

Watch the video

ecoY **Bucket Tooth-Adapter**

ecoY **Carrier Roller**

ecoY **Idler**

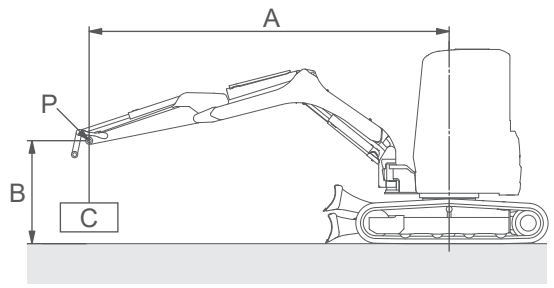
ecoY **Sprocket**

ecoY **Rubber Track**

ecoY **Rubber Pad**

ecoY **Track Roller**

ViO20-6 / ViO23-6 Lifting Capacity



With: Canopy and rubber track
Without: Quick coupler and bucket

A: Reach from swing center line [m (in.)]
B: Load point height [m (in.)]
C: Lifting load [kg (lbs.)]
P: Load point
: Rating over front
: Rating over side or 180 degrees

ViO20-6

Loads shown in table include weight of standard bucket [55kg (122lbs.)] and quick coupler [40kg (89lbs.)].

Blade on ground

Unit: kg (lbs.)

A [m (in.)]	Max.		2.5 (98.4)		2.0 (78.7)		Min.	
B [m (in.)]								
2.0 (78.7)	*510 (1124)	270 (595)	–	–	–	–	–	–
1.5 (59.1)	*510 (1124)	240 (529)	*620 (1366)	390 (859)	–	–	–	–
1.0 (39.4)	*530 (1168)	230 (507)	*730 (1609)	380 (837)	*1000 (2204)	520 (1146)	*1060 (2336)	550 (1212)
0.5 (19.7)	*530 (1168)	230 (507)	*810 (1785)	370 (815)	*1100 (2425)	490 (1080)	*1200 (2645)	520 (1146)
0 (0)	*540 (1190)	240 (529)	*820 (1807)	360 (793)	*1090 (2403)	480 (1058)	–	670 (1477)
-0.5 (-19.7)	*550 (1212)	260 (573)	*770 (1697)	350 (771)	*1040 (2292)	480 (1058)	–	–
-1.0 (-39.4)	*520 (1146)	310 (683)	*630 (1388)	350 (771)	*850 (1873)	460 (1014)	–	–

Blade above ground

Unit: kg (lbs.)

A [m (in.)]	Max.		2.5 (98.4)		2.0 (78.7)		Min.	
B [m (in.)]								
2.0 (78.7)	310 (683)	260 (573)	–	–	–	–	–	–
1.5 (59.1)	280 (617)	240 (529)	450 (992)	390 (859)	–	–	–	–
1.0 (39.4)	270 (595)	230 (507)	450 (992)	380 (837)	610 (1344)	510 (1124)	640 (1410)	540 (1190)
0.5 (19.7)	270 (595)	230 (507)	430 (947)	360 (793)	590 (1300)	490 (1080)	640 (1410)	520 (1146)
0 (0)	280 (617)	240 (529)	420 (925)	350 (771)	580 (1278)	480 (1058)	860 (1895)	670 (1477)
-0.5 (-19.7)	310 (683)	260 (573)	420 (925)	350 (771)	580 (1278)	470 (1036)	–	–
-1.0 (-39.4)	360 (793)	300 (661)	410 (903)	340 (749)	570 (1256)	460 (1014)	–	–

ViO23-6

Blade on ground [Track width : 1380mm (retracted)]

Unit: kg (lbs.)

A [m (in.)]	Max.		2.5 (98.4)		2.0 (78.7)		Min.	
B [m (in.)]								
2.0 (78.7)	*510 (1124)	290 (639)	–	–	–	–	–	–
1.5 (59.1)	*510 (1124)	270 (595)	*620 (1366)	440 (970)	–	–	–	–
1.0 (39.4)	*530 (1168)	260 (573)	*730 (1609)	410 (903)	*1000 (2204)	560 (1234)	*1060 (2336)	570 (1256)
0.5 (19.7)	*530 (1168)	260 (573)	*810 (1785)	410 (903)	*1100 (2425)	540 (1190)	*1200 (2645)	570 (1256)
0 (0)	*540 (1190)	270 (595)	*820 (1807)	380 (837)	*1090 (2403)	510 (1124)	–	660 (1455)
-0.5 (-19.7)	*550 (1212)	300 (661)	*770 (1697)	390 (859)	*1040 (2292)	520 (1146)	–	–
-1.0 (-39.4)	*520 (1146)	360 (793)	*630 (1388)	390 (859)	*850 (1873)	530 (1168)	–	–

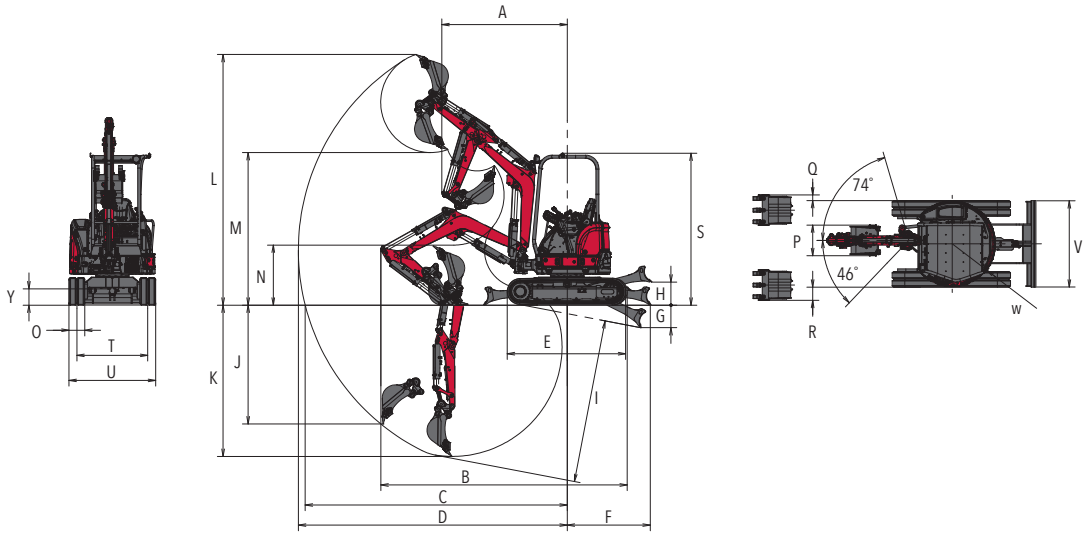
Blade above ground [Track width : 1380mm (retracted)]

Unit: kg (lbs.)

A [m (in.)]	Max.		2.5 (98.4)		2.0 (78.7)		Min.	
B [m (in.)]								
2.0 (78.7)	350 (771)	290 (639)	–	–	–	–	–	–
1.5 (59.1)	320 (705)	270 (595)	*620 (1366)	440 (970)	–	–	–	–
1.0 (39.4)	300 (661)	250 (551)	500 (1102)	410 (903)	680 (1499)	550 (1212)	710 (1565)	570 (1256)
0.5 (19.7)	320 (705)	260 (573)	490 (1080)	410 (903)	670 (1477)	540 (1190)	730 (1609)	570 (1256)
0 (0)	320 (705)	260 (573)	460 (1014)	380 (837)	640 (1410)	500 (1102)	860 (1895)	650 (1433)
-0.5 (-19.7)	350 (771)	290 (639)	470 (1036)	380 (837)	640 (1410)	510 (1124)	–	–
-1.0 (-39.4)	420 (925)	350 (771)	470 (1036)	390 (859)	660 (1455)	520 (1146)	–	–

Note:
The lifting load with the asterisk (*) mark is limited by hydraulic lifting capacity rather than tipping. The lifting capacity shown in the above list is based on the ISO Standard No. 10567 and represents either 87% of hydraulic lifting capacity or 75% of tipping load, which is smaller.

● Dimensions



Rubber track specification

Unit: mm (in.)

		A <at boom swing>	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	Y
ViO20-6 Canopy	With quick coupler	2000 (78.7) <1700 (66.9)>	3930 (154.7)	4180 (164.6)	4290 (168.9)	1890 (74.4)	1320 (52.0)	360 (14.2)	365 (14.4)	2610 (102.8)	1890 (74.4)	2410 (94.9)	4000 (157.5)	2430 (95.7)	955 (37.6)	250 (9.8)	490 (19.3)	90 (3.5)	210 (8.3)	2420 (95.3)	1130 (44.5)	1380 (54.3)	1380 (54.3)	690 (27.2)	260 (10.2)
	Without quick coupler	1820 (71.7) <1530 (60.2)>	3890 (153.1)	4020 (158.3)	4140 (163.0)					2460 (96.9)	1870 (73.6)	2270 (89.4)	3840 (151.2)	2570 (101.2)	1050 (41.3)										
ViO23-6 Canopy	With quick coupler	2000 (78.7) <1700 (66.9)>	3930 (154.7)	4180 (164.6)	4290 (168.9)			335 (13.2)	355 (14.0)	2600 (102.4)	1890 (74.4)	2410 (94.9)	4000 (157.5)	2430 (95.7)	955 (37.6)			5-90 (0.2-3.5)	125-210 (4.9-8.3)		1130-1300 (44.5-51.2)	1380-1550 (54.3-61.0)	1380 / 1550 (54.3 / 61.0)		
	Without quick coupler	1820 (71.7) <1530 (60.2)>	3890 (153.1)	4020 (158.3)	4140 (163.0)					2450 (96.5)	1870 (73.6)	2270 (89.4)	3840 (151.2)	2570 (101.2)	1050 (41.3)										

●Specifications

MODEL				ViO20-6		ViO23-6	
TYPE				Canopy		Canopy	
				With quick coupler	Without quick coupler	With quick coupler	Without quick coupler
WEIGHT	Operating weight	Rubber track	kg (lbs.)	2165 (4773)	2125 (4685)	2335 (5148)	2295 (5060)
		Steel track	kg (lbs.)	2225 (4905)	2185 (4817)	2395 (5280)	2355 (5192)
ENGINE	Type			Vertical 3-cylinder water-cooled diesel engine			
	Model			3TNV76-PBV1			
	Rated output, gross		kW (HP) / rpm	15.0 (20.1) / 2400			
BUCKET	Capacity, standard		cu.m (cu.ft)	0.06 (2.12)			
	Width, standard		mm (in.)	490 (19.3)			
PERFORMANCE	Max. digging force	Bucket	kN (lbs.)	16.3 (3682)	17.5 (3934)	16.3 (3682)	17.5 (3934)
		Arm	kN (lbs.)	12.7 (2844)	13.1 (2954)	12.7 (2844)	13.1 (2954)
	Max. digging depth <at the blade down>		mm (in.)	2410 (94.9) <2610 (102.8)>	2270 (89.4) <2460 (96.9)>	2410 (94.9) <2600 (102.4)>	2270 (89.4) <2450 (96.5)>
	Max. vertical wall digging depth		mm (in.)	1890 (74.4)	1870 (73.6)	1890 (74.4)	1870 (73.6)
	Max. cutting height		mm (in.)	4000 (157.5)	3840 (151.2)	4000 (157.5)	3840 (151.2)
	Max. dumping height		mm (in.)	2430 (95.7)	2570 (101.2)	2430 (95.7)	2570 (101.2)
	Max. digging radius of the ground		mm (in.)	4180 (164.6)	4020 (158.3)	4180 (164.6)	4020 (158.3)
	Front min. swing radius <at swinging the boom>		mm (in.)	2000 (78.7) <1700 (66.9)>	1820 (71.7) <1530 (60.2)>	2000 (78.7) <1700 (66.9)>	1820 (71.7) <1530 (60.2)>
	Boom swing angle: left / right		degrees	46 / 74			
SPEED	Travel speed: high / low	Rubber track	km/h (mph)	4.2 (2.6) / 2.2 (1.4)			
		Steel track	km/h (mph)				
	Swing speed		rpm	10			
GROUND PRESSURE	With standard track	Rubber track	kPa (PSI)	26.3 (3.81)	25.8 (3.74)	28.3 (4.10)	27.8 (4.03)
		Steel track	kPa (PSI)	27.2 (3.94)	26.7 (3.87)	29.2 (4.24)	28.8 (4.18)
TANK CAPACITY	Fuel tank		L (gal)	27.5 (7.3)			
	Hydraulic oil tank		L (gal)	25.1 (6.6)			
HYDRAULIC SYSTEM	Pump displacement		L/min (gpm)	21.6 (5.70)×2 <Variable displacement pump> 20.4 (5.39)×1 <Gear pump>, 10.8 (2.85)×1 <Gear pump>			
	Relief set pressure		MPa (PSI)	20.6 (2988)×2, 16.7 (2422)×1, 2.9 (421)×1			
	Max. P.T.O. output		L/min (gpm)	42 (11.1)			

All data are subject to change without notice. Note that the standard equipment may vary. Consult your YANMAR dealer for confirmation.

YANMAR COMPACT EQUIPMENT

yanmar.com

Printed in Japan
031D0-G01290 2208