



**YANMAR**

TRUE ZERO TAIL SWING MINI EXCAVATOR

# ***Vi023-6*** Variable undercarriage

[Gross] 14.6kW<19.6hp>



\* The machine in the picture is equipped with optional parts.

# Improved stability and safety with a new variable undercarriage

The highly functional and compact body provides smooth operation





# Details of ViO23-6

## Features

Spring steel cylinder rod guards to prevent damage to the hydraulic cylinder

►Page 5

Hydraulic quick coupler makes adding attachments quick and easy

►Page 9

Easy one touch open right bonnet

►Page 8

Variable undercarriage for stable operation

►Page 4

Working light (LED) covers a wider area

►Page 6

ROPS/FOPS four pillar canopy to protect the operator

►Page 5

Easy-to-fasten retractable seatbelt to protect the operator

►Page 6



Pattern change valve can easily switch operation pattern

►Page 9

Equipped with an eco-friendly and silent diesel engine

►Page 6

True Zero Tail Swing can turn without worrying about the rear end

►Page 4

Increased weight (option)

►Page 4



\* Merchandise and features may differ depending on the region.

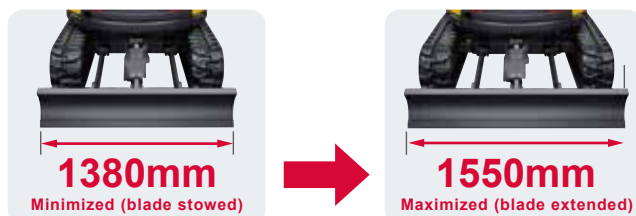
\* The images shown here are for promotional purposes. \* The image may differ from the actual model on sale.

\* The machine in the picture is equipped with optional parts. \* Ground the bucket when leaving the operator's seat.

# Highly efficient work & environment performance for safe work

## ● Sliding variable undercarriage

Contract to enter narrow locations.  
Expand for increased work stability.



## ● Simple folding variable blade

The hinged blade extensions are permanently fixed on the blade. No tools are necessary to quickly change the position, and there are no risks of losing the lock pin.



## ● Durable steel hood

## Available greater safe working even sideways by extending the width

### ● Change in the lifting capacity

- \* Values measured at 50 cm above ground (blade on ground)
- \* Four-pillar Canopy/Rubber crawler+P.T.O (standard overseas specification)
- \* Without quick coupler and bucket



### ● Increased weight (option)



Stowed(mm)      Extended

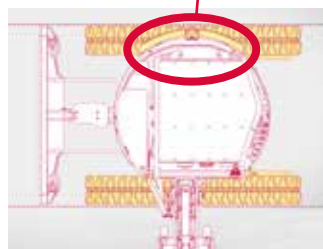
**1380 / 15**

## ● True Zero Tail Swing

Works efficiently and can be operated without worrying about the tail swing.  
The excavator body stays within the machine width.  
This helps reduce the operator's efforts and work time.



### Increased weight (option)



Maximum 1550mm

When the width is extended to its maximum, the excavator body stays within the machine width even when rotating with increased weight attached.

### ● ROPS/FOPS Four-pillar canopy

Easier & more comfortable operation.  
Meets international protection standards to ensure safer work.  
ROPS: Roll-Over Protective Structure  
FOPS: Falling Object Protective Structures.

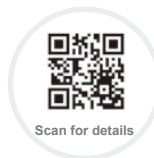
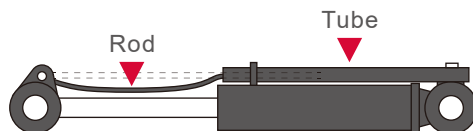
### ● Hydraulic hoses are installed in the boom to prevent from being damaged



\* The picture is an image showing the boom in cross section.

### ● Spring steel cylinder rod guards

The cylinder rod is protected by the spring steel structure. Scratches caused by debris or collision are greatly reduced thanks to the spring steel's ability to absorb impact. Additionally, the high-tension steel cylinder tube is highly durable and unlikely to bend, giving the operator a sense of safety. Regardless of whether the cylinder expands or contracts, it will always be protected.



## Powerful output with low exhaust gas emissions

### ● Carrier roller

Carrier roller reduces crawler noise.



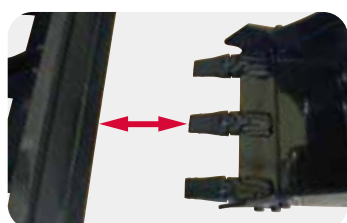
### ● Track roller

Four track rollers are equipped.



### ● Extension of the blade arm

The Blade arm is extended compared with the previous model. It makes easier to collect objects by using blade and bucket.



### ● YANMAR TNV diesel engine

A quiet engine allows you to work efficiently without disturbing other people or the environment.



Engine model  
**3TNV76-PBV1**  
Engine output (gross)

**14.6kW**

\* Engine photo is for illustrative purposes only.

- \* Merchandise and features may differ depending on the region.
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- \* The machine in the picture is equipped with optional parts.
- \* Ground the bucket when leaving the operator's seat.

(mm)  
**50**



# Maneuvering in tight space, and easy and multi functioned operation

## ● External engine shut-off switch

In an emergency, this switch immediately stops the engine with one-touch.



## ● Wrist control lever

## ● A flat floor

## ● Reclining seat

Comes equipped with a operator's manual cases at the back of the seat.



## ● Retractable seatbelt

The retractable seatbelt is easy to use.



## ● Track gauge change control lever

# Light (LED) reaching wide, covers the large working area

## ● LED light with 2-level control system

Level 1: Boom light only  
Level 2: Lights up all



## Canopy light

## Boom light



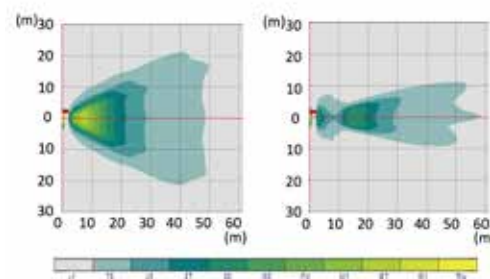
## ● LED lights are designed considering light distribution for operating in dark worksite. Comparison of LED light and Halogen light distribution [compared to our company's products]



LED



Halogen lamp

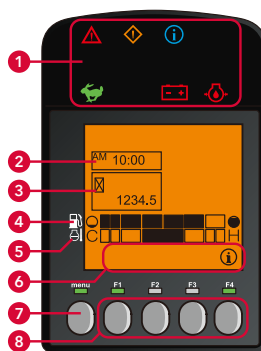


\*This picture describes with lux unit. Lux is unit of illuminance.

# Easy operation with the user in mind

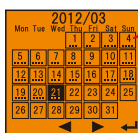
- The large LCD display includes an LED backlight, that makes it enable for the operator to easily check information in the low light conditions.

Easy to find out essential information related to operational status and errors, by an easy to read monitor, LED indicator lamps and buzzer.

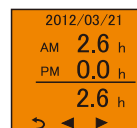
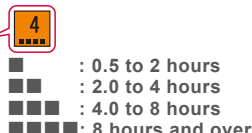


- 1 LED lamp blinks when displaying warning and information.
  - 2 Clock
  - 3 Hour meter
  - 4 Fuel gauge
  - 5 Water temperature meter
  - 6 F1-F4 key guidance
  - 7 Switch to select menus/main menu
  - 8 F1-F4 perform the operation displayed in guidance
- Warning lamp
  - Caution lamp
  - Information lamp
  - High speed travel lamp
  - Battery charge lamp
  - Engine oil pressure lamp

## LCD monitor sample screen



1 months operation time is displayed\*  
\*Displays up to 3 months



Daily operation hours separated by AM/PM\*



### ● Blade lever

### ● Eco mode switch

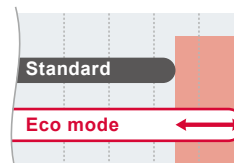
Reduces fuel consumption by reducing the maximum engine speed by approximately 10%.



### ● Fuel efficiency

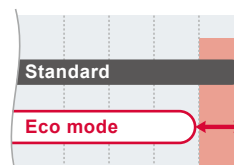
An excellent hydraulic system combined with the Eco mode makes the machine more fuel efficient.

#### Fuel efficiency per 1L



**30%**  
improvement

#### Fuel consumption



**20%**  
improvement

### ● External power outlet (12V)

Can also be used to charge cell phone.



### ● Utility box



### ● Auto deceleration switch

If the operation lever stays in neutral for more than 4 seconds, the engine speed will automatically change to low idle. The engine speed will automatically revert to the original speed once the operation lever is moved.



\* Merchandise and features may differ depending on the region.

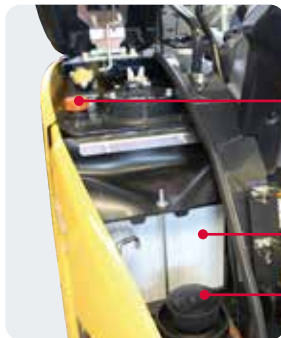
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\* The machine in the picture is equipped with optional parts.

# Simple maintenance, one touch action to open

## ● Open the upper right side with one touch

Easy access to the fuel tank, hydraulic fluid tank, and the battery.



Hydraulic fluid tank

Battery

Fuel tank



## ● Open around the operator's seat

The front cover of the seat mount opens wide for accessibility to the engine and electronic components. The side cover opens without tools to allow access to the hydraulic system.



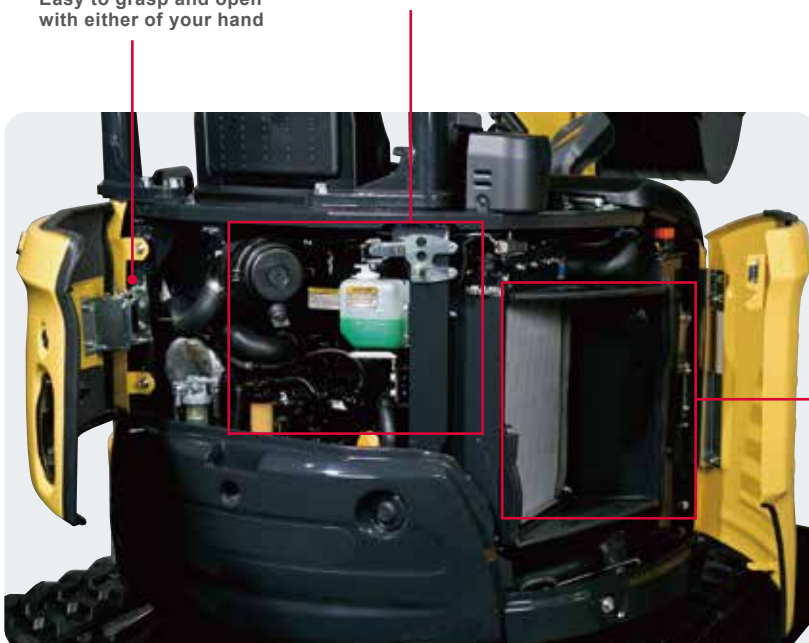
## ● Hood handle



Easy to grasp and open with either of your hand

## ● Open rear hood, right hood

The hoods are simple to open and close making it easy to access to the engine. The radiator is a discharge cooling type with less dust clogging which contributes to a longer machine life.



Air cleaner

Engine



Radiator

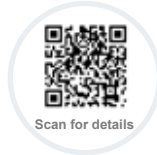
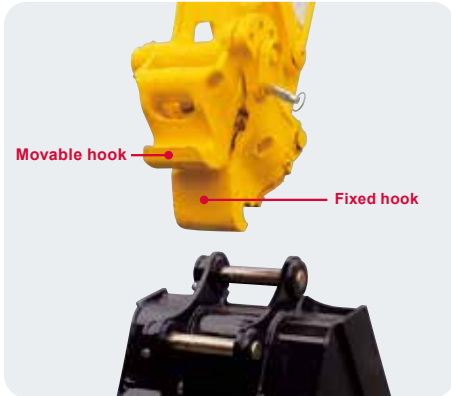




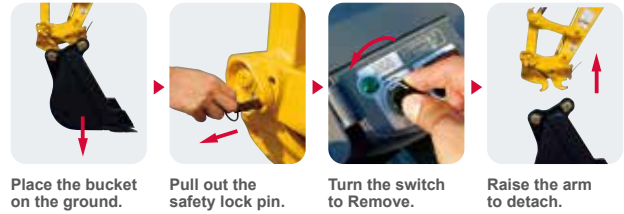
# A wide variety of functions for various types of sites and work

\* Merchandise and features may differ depending on the region.

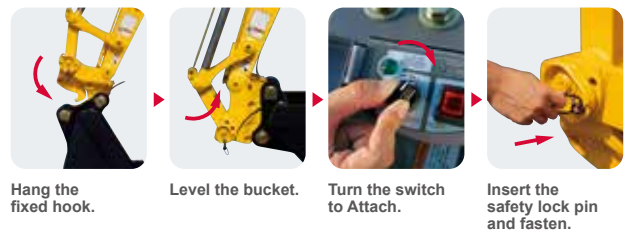
## ● Hydraulic quick coupler makes changing attachments quick and easy



## ● Unattach bucket



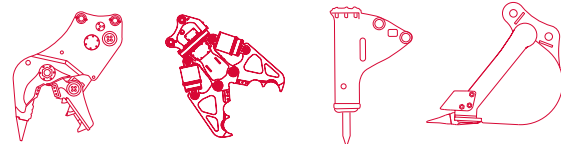
## ● Attach bucket



## ● Pattern change valve (2way/4way)



## ● Supports various types of attachments



\* Some attachments are not compatible.

**SMARTASSIST**  
Remote

Providing services that keep you on track.

# SMARTASSIST Remote

\* Separate application required (free)



## ● Efficient use of machinery thanks to remote monitoring

Our construction equipment is equipped with GPS and communication terminals, allowing you to manage location information via the communication system. The system also lets Yanmar remotely monitor your machine, allowing us to keep on top of maintenance intervals, quickly identify machine trouble, and provide appropriate services and support at all times.



## ● Providing peace of mind, supporting your business



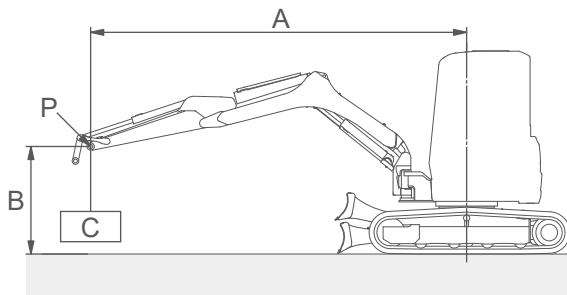
\* The contents displayed on the screen may differ.

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\* The machine in the picture is equipped with optional parts. \* Ground the bucket when leaving the operator's seat.

## Lifting Capacity



With:

Canopy Type

Rubber Crawler


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



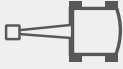

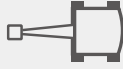

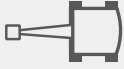

: Rating over front

: Rating over side or 180 degrees

Width: 1380mm (Minimized)

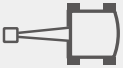

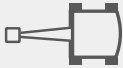



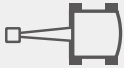

Blade on ground

Unit : kg <lbs.>

A [m<in.>]	Max.		2.5 <98.4>		2.0 <78.7>		Min.	
B [m<in.>]								
2.0 <78.7>	290 <639>	510 <*1124>	-	-	-	-	-	-
1.5 <59.1>	270 <595>	510 <*1124>	440 <970>	620 <*1366>	-	-	-	-
1.0 <39.4>	260 <573>	530 <*1168>	410 <903>	730 <*1609>	560 <1234>	1000 <*2204>	570 <1256>	1060 <*2336>
0.5 <19.7>	260 <573>	530 <*1168>	410 <903>	810 <*1785>	540 <1190>	1100 <*2425>	570 <1256>	1200 <*2645>
0 <0.0>	270 <595>	540 <*1190>	380 <837>	820 <*1807>	510 <1124>	1090 <*2403>	660 <1455>	-
-0.5 <-19.7>	300 <661>	550 <*1212>	390 <859>	770 <*1697>	520 <1146>	1040 <*2292>	-	-
-1.0 <-39.4>	360 <793>	520 <*1146>	390 <859>	630 <*1388>	530 <1168>	850 <*1873>	-	-

Blade above ground

Unit : kg <lbs.>

A [m<in.>]	Max.		2.5 <98.425>		2.0 <78.74>		Min.	
B [m<in.>]								
2.0 <78.7>	290 <639>	350 <771>	-	-	-	-	-	-
1.5 <59.1>	270 <595>	320 <705>	440 <970>	620 <*1366>	-	-	-	-
1.0 <39.4>	250 <551>	300 <661>	410 <903>	500 <1102>	550 <1212>	680 <1499>	570 <1256>	710 <1565>
0.5 <19.7>	260 <573>	320 <705>	410 <903>	490 <1080>	540 <1190>	670 <1477>	570 <1256>	730 <1609>
0 <0.0>	260 <573>	320 <705>	380 <837>	460 <1014>	500 <1102>	640 <1410>	650 <1433>	860 <1895>
-0.5 <-19.7>	290 <639>	350 <771>	380 <837>	470 <1036>	510 <1124>	640 <1410>	-	-
-1.0 <-39.4>	350 <771>	420 <925>	390 <859>	470 <1036>	520 <1146>	660 <1455>	-	-

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.

# The Unsung Heroes Who Build Our Towns And Cities

You build the infrastructure and the foundations in our towns and cities.

Transforming the places where we stand today, into dreams of tomorrow.

You are the unsung hero.

The YANMAR mission is to provide machines and services that allow you to reach your full potential.

Built tough and with comfort in mind,

YANMAR construction equipment will help you get the job done with ease, regardless of the worksite.

When we make machines, we are dedicated to enabling you to perform at your best all of the time.

One example of this is our innovative True Zero Tail Swing Excavators that set the standard for safety and reliability, enabling operators to perform at their best in tight quarters.

YANMAR also manufactured the first compact diesel engines,

and today we continue to make diesel engines ranging from 4 to 4,800 kW.

Equipped with advanced engines and hydraulic systems, our construction equipment delivers better fuel economy, increased productivity and enhanced operability.

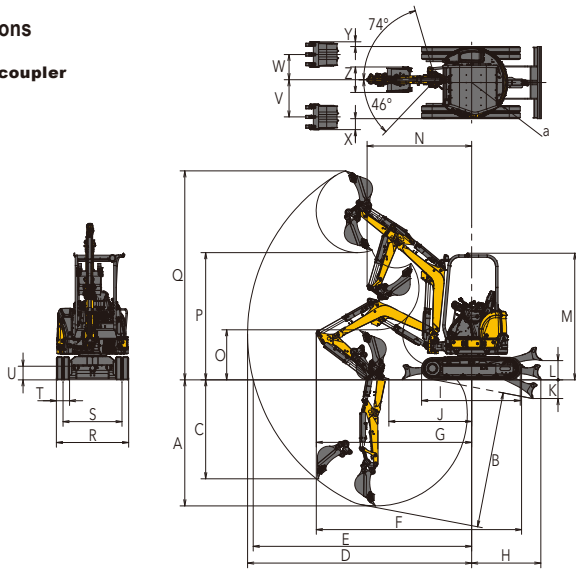
**YANMAR is the driving force behind the unsung hero.**

## **BEST PERFORMANCE BY YOUR SIDE**

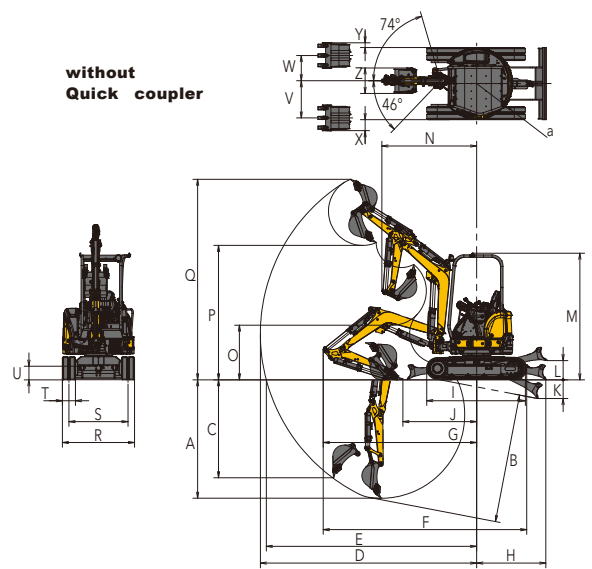


## ● Dimensions

### Quick coupler



### without Quick coupler



Unit : mm <ft-in>

		A	B	C	D	E	F	G	H	I	J	K	L	M	N(Swing)	O	P	Q	R	S	T	U	V	W	X	Y	Z	a
Canopy spec	Quick coupler	2410 <7'11">	2600 <8'6">	1890 <6'2">	4290 <14'1">	4180 <13'9">	3930 <12'11">	2970 <9'9">	1320 <4'4">	1890 <6'2">	1580 <5'2">	335 <1'1">	355 <1'2">	2420 <7'11">	2000 <6'7"> /1550 <5'1"> (1700) <5'7">	955 <3'2">	2430 <8'0">	4000 <13'1">	1380 <4'6"> /1300 <4'3"> (1150) <3'9">	1130 <3'8"> /1000 <3'3"> (900) <3'0">	250 <0'10">	150 <0'6">	710 <2'4">	480 <1'7">	210 <0'8">	90 <0'4">	490 <1'7">	690 <2'3">
	without Quick coupler	2270 <7'5">	2450 <8'0">	1870 <6'2">	4140 <13'7">	4020 <13'2">	3890 <12'9">	2930 <9'7">	1320 <4'4">	1890 <6'2">	1410 <4'8">	335 <1'1">	355 <1'2">	2420 <7'11">	1820 <6'0"> (1530) <5'0">	1050 <3'5">	2570 <8'5">	3840 <12'7">	1380 <4'6"> /1300 <4'3"> (1150) <3'9">	1130 <3'8"> /1000 <3'3"> (900) <3'0">	250 <0'10">	150 <0'6">	710 <2'4">	480 <1'7">	210 <0'8">	90 <0'4">	490 <1'7">	690 <2'3">

## Specification

Model		ViO23-6	
Spec		Canopy	
Type		Quick coupler	without Quick coupler
Operating weight	Rubber track	kg<lbs>	2335 <5149>
	Steel track	kg<lbs>	2395 <5281>
Engine	Type	Vertical 3 cylinder, water-cooled diesel	
	Model	YANMAR 3TNV76-PB1	
	Rated Output	kW<hp>/rpm	
Performance	Bucket capacity, standard(ISO heaped)	cu.m<cu.ft>	
	Bucket width, standard(ISO heaped)	mm<in>	
	Max Digging Force, Bucket/Arm	kN<lbf>	
	Traveling Speed, Rubber track	km/h<MPH>	
	High/Low	km/h<MPH>	
	Swing Speed	rpm	
	Boom Swing Angle, (L/R)	degrees	
Ground contact pressure	Rubber track	kPa<PSI>	28.3 <4.10>
	Steel track	kPa<PSI>	29.2 <4.23>
Hydraulic system	Pump capacity	L/min<GPM>	21.6 <5.7> ×2 [Variable displacement pump] 10.8 <2.9> ×1, 20.4 <5.4> ×1 [Gear pump]
	Main relief set pressure	MPa<PSI>	20.6 <2987> ×2, 16.7 <2421> ×1, 2.9 <420> ×1
Blade dimensions	Width(stowed/extended) × height	mm<ft-in>	1380 <4'6"> /1550 <5'1"> ×285 <1'1">
	Stroke,Raise/Lower from G.L.	mm<ft-in>	355 <1'2"> /335 <1'1">
Fuel tank capacity	L<Gals>	27.5 <7.26>	

\*Machine spec may differ depending on the region.

## Hydraulic P.T.O.

Model		ViO23-6		
Specification	Output	MPa <PSI>	L / min <GPM>	
			2400RPM	1200RPM
Combined flow, double actions		20.6 <2987>	42 <11.1>	21 <5.5>

## YANMAR CONSTRUCTION EQUIPMENT CO., LTD.

Promotion Group  
Sales Planning Dept.  
Marketing & Sales Dept.  
1717-1, Oaza Kumano, Chikugo, Fukuoka 833-0055, Japan  
TEL. +81-942-70-8992  
FAX +81-942-53-6855  
yanmar.com

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