1000M

Compact Excavator

OPERATOR'S MANUAL

PART #50940498

Revision B - 07/18

(English)

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Mustang 1000M Compact Excavator Operator Manual

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Machine: Compact Excavator

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Main contents

- Introduction
- Safety Information
- Product Overview
- Operation License
- Ordering Replacement Parts and Service Calls
- Quick Guide
- Safety
- Operation
- Maintenance
- Specifications and Dimensional Diagrams
- Optional Parts and Attachments
- Appendix Table

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Sample pages follow. Full manual: machinecatalogic.com

3.4 Emission system warranty

YANMAR CO., LTD. Emission Control System Warranty - USA Only

Your warranty rights and obligations

• California

The California Air Resources Board (CARB), the United State Environmental Protection Agency (EPA) and YANMAR CO., LTD. hereafter referred to as YANMAR, are pleased to explain the **emission control system warranty** on your 2017, 2018, or 2019 model year industrial compression-ignition engine.

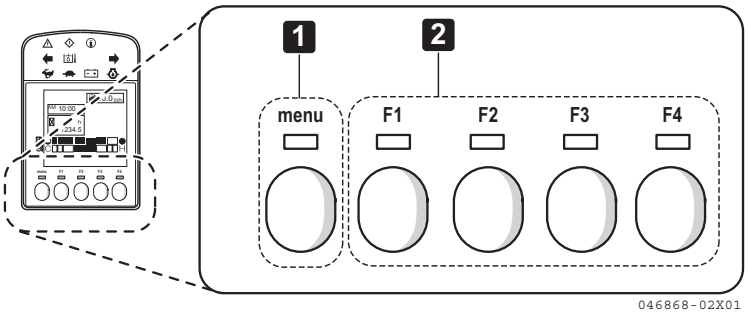
California-certified, new off-road compression-ignition engines must be designed, built and equipped to meet the State's stringent anti-smog standards. In the remaining forty nine (49) states, new non-road compression-ignition engines must be designed, built and equipped to meet the United States EPA emissions standards. YANMAR must warrant the emission control system on your engine for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your engine.

Your emission control system may include parts such as the fuel injection system, the air induction system, the electronic control system, EGR (Exhaust Gas Recirculation) system and the diesel particulate filter system. Also included may be hoses, belts, connectors and other emission-related assemblies.

Where a warrantable condition exists, YANMAR will repair your off-road compression-ignition engine at no charge to you including diagnosis, parts and labor.

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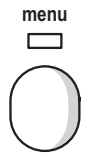
Function switches



The function switches in the bottom part of the LCD monitor comprise 5 switches (a menu switch and F1 - F4 switches) and their functions change depending on the status of the machine or the screen currently displayed.
The switches can be used when the LED lamps located just above the individual switches are illuminated green.

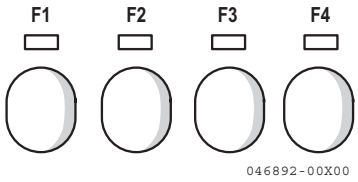
1 Menu switch

Pressing this switch brings up the main menu on the screen.
For details of the menu screen, refer to the description of “Main menu” on page 94.



2 F1 - F4 switches

The functions of the individual switches change depending on the screen currently displayed.
For switch operations on each screen, refer to “LCD Monitor Operation Method” on page 88.

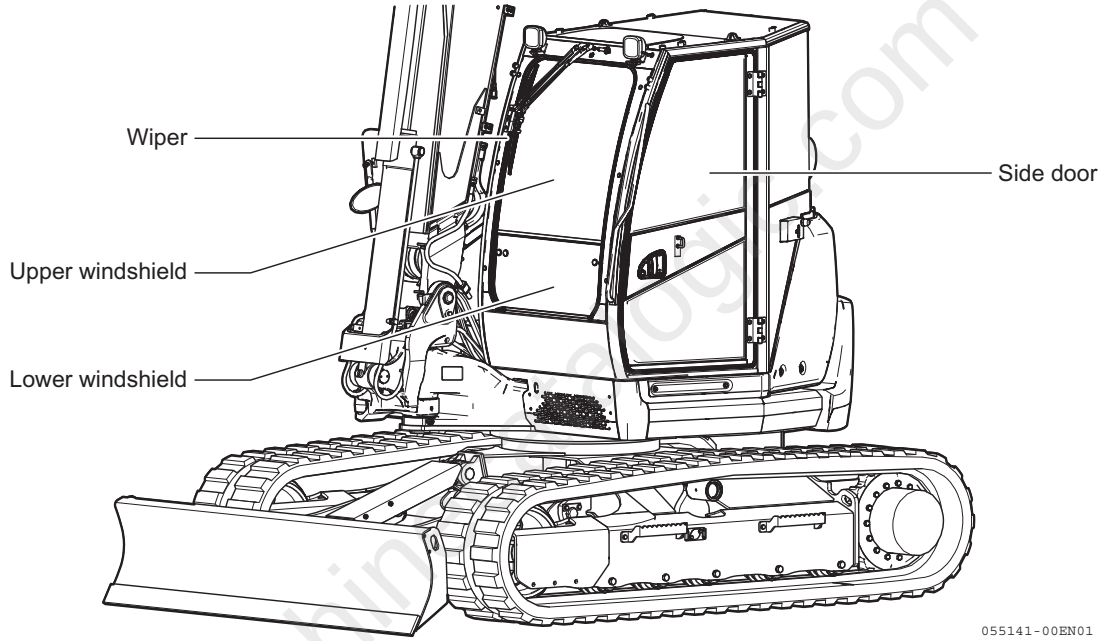


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2.9 Windshield

⚠ WARNING

When the side door or upper windshield is open, make sure that it is securely locked in place. If it is not securely locked, it may close unexpectedly due to the impact or vibrations generated while the machine is operating and the operator may get his/her hands caught in or hit his/her head on the door or windshield, resulting in hand or head injuries. In addition, do not stick the head or hands out of the open side door or upper windshield.



⚠ WARNING

- **After opening or closing the lower windshield, always make sure that it is securely locked with the window lock levers. If it is not securely locked, it may come down unexpectedly.**
- **Always open or close the upper windshield by holding the right and left knobs firmly with the corresponding hands while sitting in the operator's seat. Especially, holding parts other than the knobs with the hands may cause injury to the hands, for example, from being caught in the windshield.**
- **Before opening or closing the upper windshield with the lower windshield stored on it, always make sure that the lower windshield is securely locked in place.**

Notes:

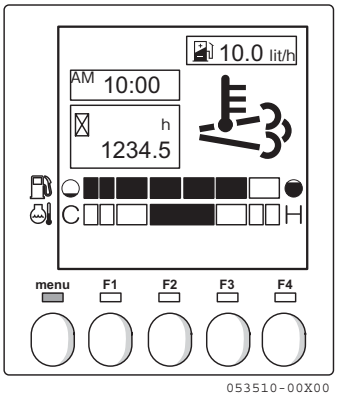
- *White smoke may be emitted from the exhaust pipe when the engine is cold or accelerating. This is due to the emission of water vapor accumulated in the DPF and the white smoke will disappear once the exhaust gas temperature has risen.*
- *Exhaust gas is cleaned by the catalyst provided in the DPF and this produces an exhaust odor different from that of conventional diesel engines.*

Outline of DPF regeneration control

Electrical components such as a DPF differential pressure sensor, temperature sensor and intake throttle are mounted on the DPF. To prevent the excessive accumulation of harmful substances, the ECU uses these electrical components to automatically assist DPF regeneration.

Automatic regeneration

- Self-regeneration
  During high-speed, high-load operation, harmful substances are continuously burned and removed.
- Assisted regeneration
  When the accumulation of harmful substances in the DPF reaches a certain level, the engine ECU increases the exhaust gas temperature and automatically controls DPF regeneration.
- Reset regeneration
  The exhaust gas temperature is automatically increased by assisted regeneration approximately every 100 hours of operating time and fuel is burned directly in the DPF. This results in burning and removal of harmful substances.
  During reset regeneration, the exhaust gas temperature rises to high levels. During reset regeneration, an exhaust gas temperature icon is displayed on the LCD monitor to give warning of high exhaust gas temperatures. Care must be taken to ensure that there are no flammable objects nearby during reset regeneration.



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7. Maintenance Table

Daily and periodic inspection are important to keep the machine in its best condition. The following is a summary of inspection and servicing requirements by inspection interval. Periodic inspection intervals vary depending on the use, loads, fuels and lube oils used and handling conditions, and are hard to establish definitively. The following should be treated only as a general standard. When the time for an inspection approaches, study the relevant pages in the Operation & Maintenance Manual. Keep a record of daily operation and the results of maintenance work.

7.1 Table of service time intervals

Check and service points	Page
At first 50 hours (only once after the new machine has started to be used)	
Replacing the engine oil and the engine oil filter element	267
At first 100 hours (only once after the new machine has started to be used)	
Replacing the lube oil for the travel reduction gearbox	267
At first 250 hours (only once after the new machine has started to be used)	
Replacing the hydraulic oil return filter element	267
Cleaning the suction filter element in the hydraulic oil tank	267
Non-periodic servicing	
Checking the rubber crawlers (for rubber crawler types)	268
Checking and adjusting the rubber crawler tension	270
Replacing the rubber crawler	273
Replacing the bucket teeth	276
Cleaning the inside of the cooling system	279
Maintenance, inspection and servicing of air conditioner	282
Checking before start-up	
Checking and replenishing the cooling water	141
Checking and draining the pre-filter	142
Checking and replenishing the engine oil	143
Checking and replenishing the fuel in the fuel tank	144
Checking and replenishing the hydraulic oil tank	145
Checking and adjusting the fan belt tension	147
Checking and replenishing the battery electrolyte	149
Greasing	150
Checking the electrical equipment	151

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1. Specifications and Dimensional Diagrams

Specifications (Standard arm type)

Items \ Type			1000M
			Cabin

• Weight (in compliance with SAE standards)

Operating mass	Rubber crawler	lbs. (kg)	21550 (9775)
	Steel crawler	lbs. (kg)	21660 (9825)
Machine mass (without implement)	Rubber crawler	lbs. (kg)	15983 (7250)
	Steel crawler	lbs. (kg)	16094 (7300)

• Working range and performance

Bucket capacity, standard		cu.ft (cu.m)	10.59 (0.3)
Bucket width, standard		in. (mm)	31.50 (800)
Maximum digging depth <at down the blade>		in. (mm)	178 (4530) <189 (4810)>
Maximum vertical wall digging depth		in. (mm)	158 (4010)
Maximum cutting height		in. (mm)	304 (7730)
Maximum dumping height		in. (mm)	202 (5120)
Maximum digging radius of the ground		in. (mm)	291 (7400)
Front minimum swing radius <at swinging the boom>		in. (mm)	110 (2790) <94 (2390)>
Boom swing angle : left / right		degrees	60 / 60
Maximum digging force (bucket)		lbs. (kN)	12207 (54.3)
Travel speed : high / low	Rubber crawler	MPH (km/h)	2.7 (4.4)/ 1.6 (2.5)
	Steel crawler	MPH (km/h)	2.5 (4.0) / 1.4 (2.2)
Swing speed		rpm	9.1
Average ground pressure, standard crawler	Rubber crawler	PSI (kPa)	5.5 (37.9)
	Steel crawler	PSI (kPa)	5.6 (38.8)
Hydraulic pump displacement		GPM (L / min)	20.5 (77.7)×2 <Variable displacement pump>, 15.2 (57.5)×1, 5.3 (20)×1 <Gear pump>
System relief set pressure		PSI (MPa)	3988×2, 3481×1, 421×1 (27.5×2, 24.0×1, 2.9×1)

• Engine

Type	-	Vertical four cylinder water-cooled direct injection diesel engine
Model	-	4TNV98CT-VBV
Rated output	HP (kW) / rpm	72.0 (53.7) / 2100
Displacement	cu.in. (cu.cm)	202.48 (3318)
Compression pressure	PSI (MPa)	455 to 484 (3.14 to 3.34)
Fan belt (V-belt) size	-	A48
Generator capacity	V / A	12 / 80

• Battery type and capacity…….130E41R-MF, 12V, 92Ah (5 hours rate capacity)

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Full Version Available

Mustang 1000M Compact Excavator Operator Manual

Mustang 1000M compact excavator operator manual, Pub. 50940498 Rev. B. Controls, maintenance table, torque, error codes. Instant PDF download.

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