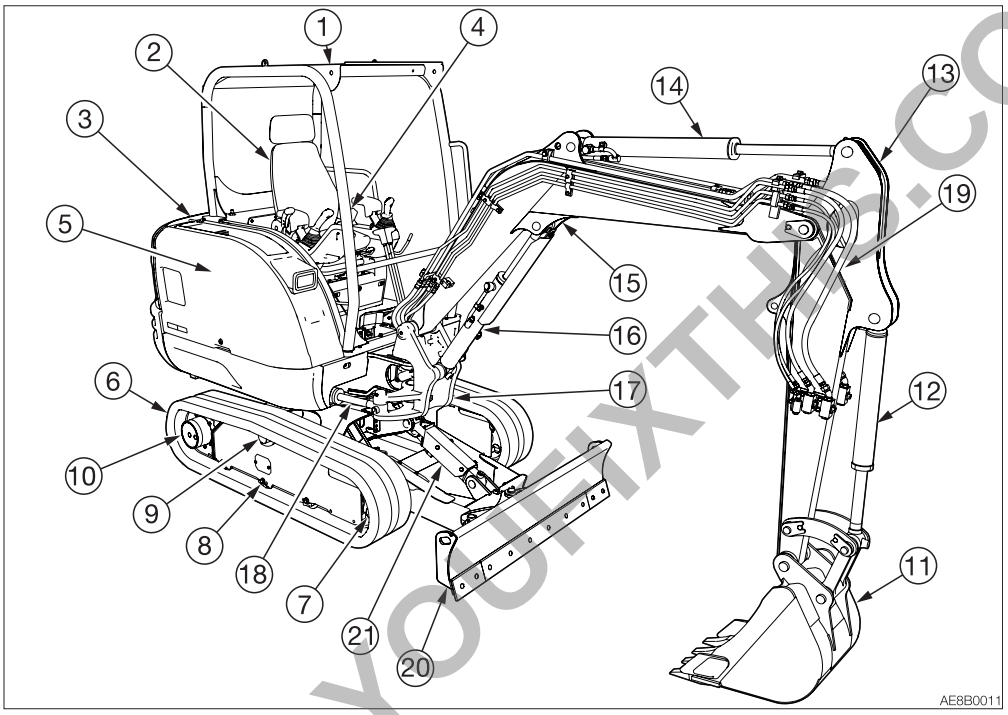
NAMES OF COMPONENTS (CANOPY)



Upperstructure
1. Canopy
2. Seat
3. Engine hood
4. Fuel tank
5. Hydraulic oil tank

Undercarriage
6. Crawler belt
7. Idler
8. Track roller
9. Carrier roller
10. Travel motor

Working equipment
11. Bucket
12. Bucket cylinder
13. Arm
14. Arm cylinder
15. Boom
16. Boom cylinder
17. Boom bracket
18. Swing cylinder
19. Auxiliary hydraulic lines
20. Dozer blade
21. Blade cylinder

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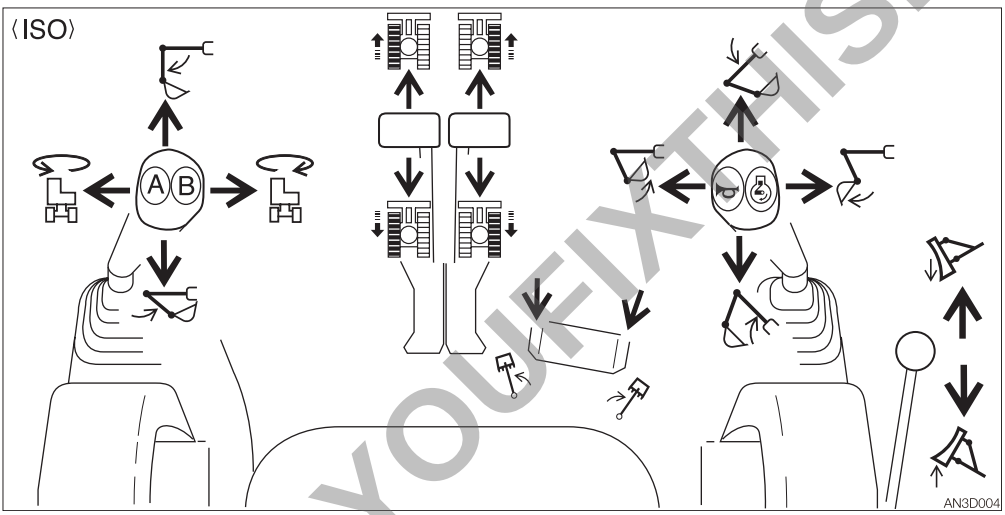
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OPERATING THE MACHINE

LEVER PATTERN (ISO PATTERN)

⚠ WARNING

- Before starting operation, carefully check which lever pattern you are going to use.
- It is described using the ISO pattern in this manual.



	Left crawler forward		Right crawler forward
	Left crawler reverse		Right crawler reverse
	Arm out		Boom lower
	Arm in		Boom raise
	Upperstructure slew left		Bucket load
	Upperstructure slew right		Bucket dump
	Boom swing left		Dozer blade lower
	Boom swing right		Dozer blade raise

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*: If the percentage of the traveling time within the total operating time is high, replace the gear oil earlier than the specified time.

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VEHICLE ERROR CODE LIST

When the multi-information display is set to the data mode, the number that is corresponding to the error, if applicable, appears in the error code field. Up to four types of error codes are displayed (the leftmost code is the most recent error). If this occurs, consult your sales or service dealer.

Error code	Error details
9	Impossible to sense ACC key
19	Parameter version mismatching
402	CAN 0 communication error
502	CAN communication error (engine ECU)
602	CAN communication error (cluster gauge)
612	CAN communication error (OX024)
1703	Main power supply voltage error (too high)
1704	Main power supply voltage error (too low)
1713	OX024 power supply voltage error (too high)
1714	OX024 power supply voltage error (too low)
2503	Sensor voltage error (too high) MMC
2504	Sensor voltage error (too low) MMC
3300	Alternator charge faulty
3401	Engine oil pressure error
3500	Overheat
3600	Air cleaner clogged
5303	Accelerator sensor error (too high)
5304	Accelerator sensor error (too low)
5505	Fuel gauge resistance value error (cable break)
5603	Lift alarm sensor error (too high)
5604	Lift alarm sensor error (too low)
6503	AUX1 slide switch voltage value error (too high)
6504	AUX1 slide switch voltage value error (too low)
6509	AUX1 slide switch neutral error

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BASIC SPECIFICATIONS

Type				Canopy	Cab
MASS					
Operating mass	kg (lb)	Rubber crawlers		2885 (6360)	2950 (6505)
PERFORMANCE					
Bucket capacity (Standard bucket)	m^3 (cu. ft.)	Heaped		0.068 (2.4)	
		Struck		0.051 (1.8)	
Slew speed	min^{-1} (rpm)			10.3 (10.3)	
Travel speed	km/h (mph)	Rubber crawlers	1st	2.9 (1.8)	
			2nd	5.2 (3.23)	
Gradeability	(degrees)			30	
Ground pressure	kPa (psi)	Rubber crawlers		30.1 (4.63)	31.6 (4.58)
Noise level	dB (A)	Sound power level		L_{WA} 93	
		Sound pressure level		L_{pA} 78	
ENGINE					
Manufacturer and model				Yanmar 3TNV88F-EPTB1	Yanmar 3TNV88F-EPTB
Rated output	Net (ISO 14396)	kW/min^{-1} (hp/rpm)		18.2/2400 (24.4/2400)	
	Net (ISO 9249/ SAEJ1349)	kW/min^{-1} (hp/rpm)		17.6/2400 (23.6/2400)	
Displacement		ml (cu.in.)		1642 (100.2)	
Starter		V-kW		12-1.7	
Alternator		V-kW		12-0.66	
Battery (IEC 60095-1)		V-A·h		12-64	

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DAILY INSPECTION (EVERY 10 HOURS)

Perform the following inspections every day before starting the engine for the first time.

⚠ WARNING

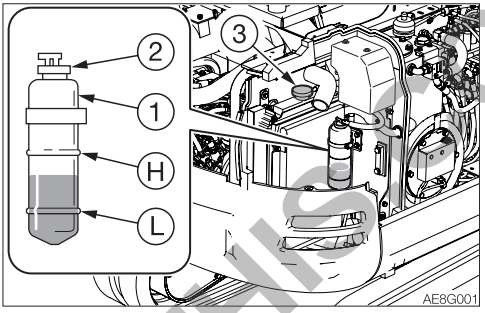
- **Before operating, perform the daily inspections and make repairs immediately where necessary.**
- **Be sure to secure the engine hood or cover before working the inside. Do not keep the hood or cover open on a windy day or if the machine is parked on a slope.**

INSPECTING AND REPLENISHING THE COOLANT

⚠ WARNING

- **Do not remove the radiator cap or the drain plug when the cooling water is hot. Stop the engine and wait until the engine and the radiator cool before slowly loosening the radiator cap and the drain plug to remove them.**
- **Always wear the protective goggle and gloves when handling coolant (antifreeze). If any coolant (antifreeze) comes in contact with eyes or skin, wash it off with clean water. Otherwise, it could result in injures.**

Inspection



1. Open the engine hood.
2. Inspect the cooling water level in the reserve tank (1).
   The level should be between the upper limit (H) and the lower limit (L).
   If it is below the lower limit (L), replenish.

Replenishing

1. Remove the cap (2) of the reserve tank (1).
2. Add cooling water up to the upper limit (H) of the reserve tank (1).
   If the reserve tank (1) is found empty at the inspection, check for water leakage and then the water level in the radiator (3). Add water to the radiator (3) as required, and then to the reserve tank (1).
3. Install the cap (2).

Note: Use only clean water (soft water), such as tap water, to replenish the coolant loss due to evaporation. If the coolant loss is due to leakage, replenish the mixture of antifreeze and clean water (soft water) prepared using the same mixing ratio used for the current coolant.

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AFTER THE INITIAL 50 HOURS (ONLY FOR NEW MACHINES)

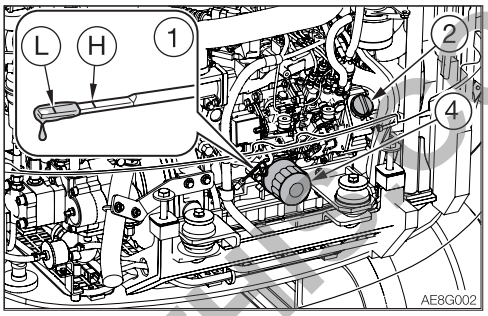
REPLACING THE ENGINE OIL AND THE OIL FILTER

⚠ WARNING

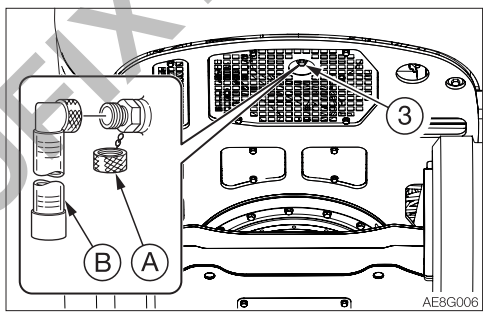
Stop the engine and allow the machine to cool down before performing maintenance.

- The engine, muffler, radiator, hydraulic lines, sliding parts and many other parts of the machine are hot immediately after the engine is stopped. Touching these parts will cause burns.
- The engine oil is also hot.
  Be careful not to touch the hydraulic oil when loosening the cap or plug.
  Working on the machine under these conditions could result in burns or injuries.

Engine oil



1. Open the engine hood and remove the oil filler cap (2).



2. Place a pan for catching the waste oil under the drain plug (3).
3. Remove the drain plug (3) and drain the oil.
   <Equipped with drain valve>
   a. Remove the cap (A), install connector (B) and drain the oil. (The oil comes out when the screw is tightened.)
   b. Remove the connector (B) and install the cap (A).
4. Tighten the drain plug (3).

IMPORTANT: Check the waste oil for metal powder. If it contains large amounts of metal powder, consult your sales or service dealer.

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GENERAL PRECAUTIONS

It is your responsibility to observe all pertinent laws and regulations and to follow the manufacture's instructions on machine operation, inspection and maintenance.

Virtually all accidents occur as the result of a failure to observe basic safety rules and precautions.
Most accidents can be prevented by identifying the potentially hazardous situations beforehand.
Read and understand all safety messages which describe how to prevent accidents.
Do not operate the machine until you are sure that you have gained a proper understanding of its operation, inspection and maintenance.

Observe all safety rules

- Operation, inspection and maintenance of this machine must be performed only by a trained and qualified person.
- All rules, regulations, precautions and safety procedures must be understood and followed when performing operation, inspection and maintenance of this machine.
- Do not perform any operation, inspection and maintenance of this machine when under the adverse influence of alcohol, drugs, medication, fatigue, or insufficient sleep.

When a problem is found on the machine

If any problem (noise, vibration, smell, disorder of instrument, smoke, oil leak, wrong indication of alarm or unusual indication in the instrument cluster, etc.) is detected during the operation or inspection and maintenance of the machine, immediately inform your sales or service dealer and take proper actions. Do not operate the machine until the trouble is cleared.

Operating temperature range

To maintain the performance of machine and to prevent it from early wear, observe the following operating conditions.

- Do not operate the machine if the ambient temperature is higher than +45°C (+113°F) or lower than –15°C (+5°F).
  - If operated at an ambient temperature of higher than +45°C (+113°F), the engine may overheat and cause the engine oil to degrade. Also, the hydraulic oil may become very hot, causing damage to the hydraulic equipment.
  - If operated at an ambient temperature of lower than –15°C (+5°F), the parts made of rubber such as gaskets may get hardened to cause an early wear or damage to the machine.
  - If the machine is to be used outside the ambient temperature range described above, consult your sales or a service dealer.

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INTRODUCTION

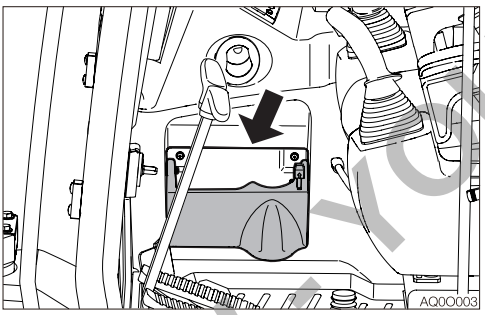
FOREWORD

This manual describes operation, inspection and maintenance of the machine, as well as safety instructions to be heeded during these operations.
If you have any questions about the machine, please contact a Takeuchi sales or service outlet.

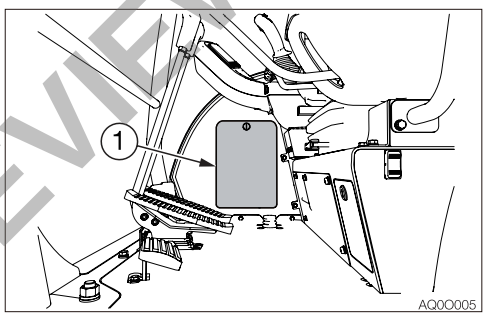
MANUAL STORAGE COMPARTMENT

A compartment for storing this manual is provided at the position shown on the diagram below.

Cabine



Canopy

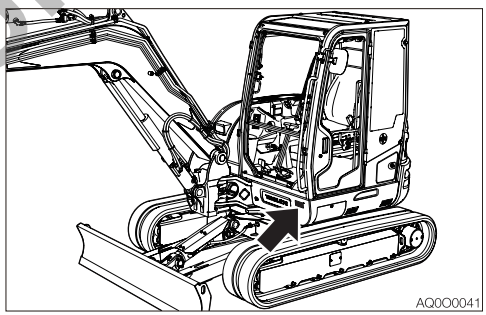


1. Insert the ignition key and turn it counterclockwise to open the cover (1).
2. After using the manual, place it in the plastic pouch and store it back in the manual storage compartment.

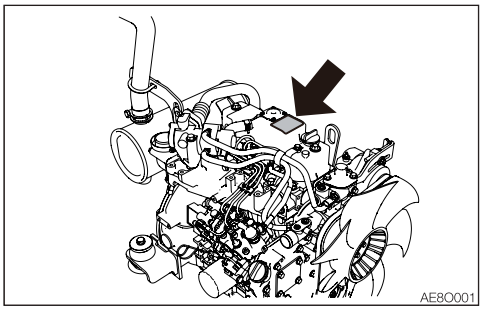
SERIAL NUMBERS

IMPORTANT: Do not remove the machine name plate with the serial number. Check the serial numbers of the machine and engine and write them down in the spaces below.

Machine number:



Engine number:



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IN	5 page	OUT
OFF/ON	Option AUX4	OFF/ON
OFF/ON	Deceleration button	OFF/ON
OFF/ON	AUX2/4 SW	OFF/ON
OFF/ON	PWR mode SW	OFF/ON
OFF/ON	Highland mode SW	OFF/ON

IN	6 page	OUT
OFF/ON	Engine discriminate (Yanmar)	OFF/ON
OFF/ON	Automatic deceleration SW	OFF/ON

IN	7 page	OUT
OFF/ON	AUX1 flow rate select SW	OFF/ON
OFF/ON	Option 2 piece boom	OFF/ON
OFF/ON	Selector button (2 piece boom)	OFF/ON

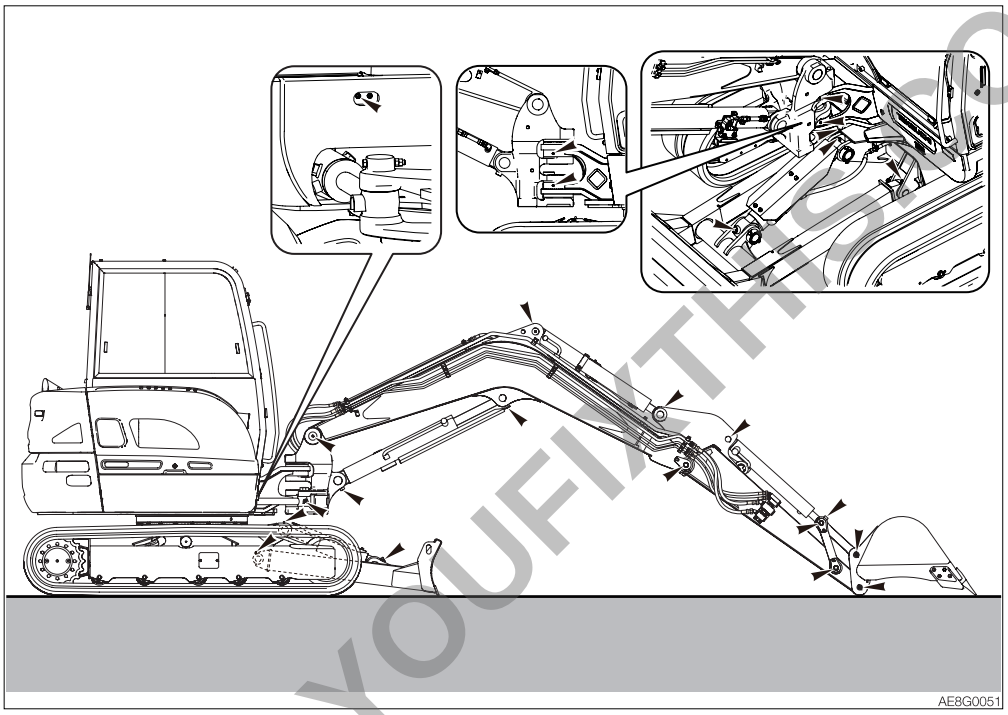
IN	8 page	OUT
OFF/ON	AUX3 pressure SW	OFF/ON
OFF/ON	Pressure SW(auto decel)	OFF/ON
OFF/ON	Air cleaner filter clogging	OFF/ON

IN	9 page	OUT
OFF/ON	Water separator warning SW	OFF/ON
OFF/ON	Glow	OFF/ON
OFF/ON	AC compressor	OFF/ON
OFF/ON	BAT charge	OFF/ON

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LUBRICATING THE WORKING EQUIPMENT



1. Keep the machine configuration as shown in the diagram above, lower the working equipment to the ground, and then stop the engine.
2. Use the grease gun to lubricate the grease fittings.
3. Wipe off the excess grease.

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