OPERATION MANUAL

WHEEL LOADER

V7 / V7–HW

YANMAR

Fill in the following information before starting the machine	
Model	
Machine serial number	
Serial number of the engine	
Year of manufacture	
Start-up date	
Your YANMAR dealer Address Telephone	

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Original manual

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From serial number: XXXXXXXXXX

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C Periodic maintenance programme

Chapter covered in this part:

1 MAINTENANCE PRECAUTIONS

⚠ CAUTION

No maintenance operations described in this guide are to be performed with the engine running; please refer to the Maintenance Manuel for any other operation.

1.1 Maintenance precautions

- Perform the maintenance operations as per the periodic intervals specified.
- Read the machine's time counter every day to determine whether maintenance operations are required.
- When using the machine in difficult conditions (dusty environment, corrosion...) shorten the maintenance intervals.

1.1.1 Stop the engine

1. Park the machine on flat, firm ground.
2. Stop the engine by turning the key from ON position to OFF position.

   Note

   Perform the machine's parking operations.

   2.4 Parking precautions, page 86

1.1.2 Removing the residual pressure

Before performing any maintenance operation, remove residual pressure in the hydraulic circuit.

1. Perform the machine's parking operations.

2.4 Parking precautions, page 86

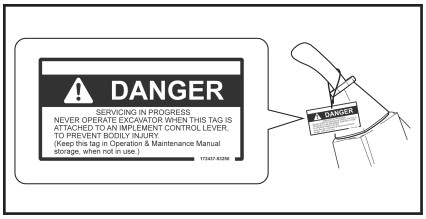
2. Turn the key to the OFF position to stop the machine's engine, then turn it to the ON position.

⚠ WARNING

The engine must not be restarted.

3. Move the control lever several times in all functions.
   - Lower and raise the lifting arm.
   - Tilt the attachment forward and backward.
4. Remove the key from the ignition.

1.1.3 Place a warning label



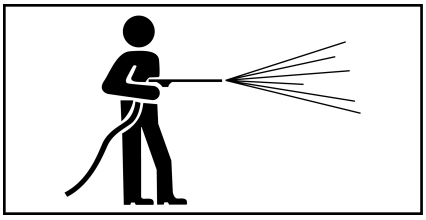
⚠ WARNING
Do not operate the control lever during servicing. Maintenance personnel may be seriously injured.

Place a "MAINTENANCE IN PROGRESS" label on the machine and on the joysticks.

1.1.4 Establish a safety perimeter

- Anyone who is not part of the maintenance team must be kept away from the working area.
- Pay attention to the safety of people nearby, notably during milling or welding operations or when a hammer is used.
- When the machine is checked or adjusted by two people, one of them must commission the machine according to the signals given by the other person.

1.1.5 Keep the machine clean

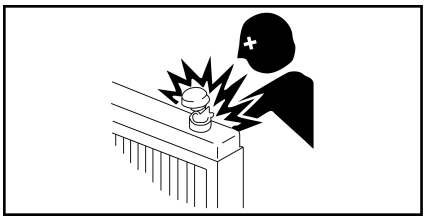


- Cleaning the machine will enable you to detect any leaks and defective parts quickly.
- In particular, clean the filler caps and vent holes for the various fluids in the machine to prevent dust from entering them.

- Spots of oil or grease or dispersed part fragments are dangerous and may cause slipping.
- Any water that gets into the electrical system may cause it to malfunction, leading to defective operation of the machine. This also risks causing short circuits that may cause a fire or electric shock.
- Do not spray any vapour directly onto the electrical components.
- Do not use harsh chemicals to clean the machine, as these affect the visual and technical characteristics of the machine components. Use car cleaning products, for example.
- Do not spill any water onto the dashboard.
- Do not spray water directly at high pressure onto the radiator or the oil radiator.
- During the first two months after commissioning or after touching up the paintwork, do not clean the machine with a steam or high-pressure jet so that the paintwork can harden.
- When using a pressure washer, wear a helmet with a full face shield and protective clothing.
- Place the machine to be cleaned on a cleaning surface equipped with an oil separator.
- Clean from the ground up.
- If a steam jet is used, the jet must not exceed 90°C (194°F) and 60bar (870psi).
- Keep a minimum distance of 1m (3ft).
- Do not clean the insulation, the exhaust outlets and the air filter outlets with a direct stream of water, steam or high pressure water.
- When cleaning the engine, do not expose sensitive parts (alternator, sensors, etc.) and cover the electrical components and tubes.
- Only clean the engine when it is cold.
- To clean the engine with a cold cleaner, spray the engine with the cleaner and allow about 10 minutes for it to work, then rinse the engine.
- Run the engine to evaporate the residual water.
- Clean the washing station.
- The operator is responsible for the design of the cleaning area and must ensure that the wastewater is disposed of in accordance with environmental regulations.

1.2 Precautions during maintenance

1.2.1 Oil and grease



- Always use oils and greases recommended by YANMAR.

2 Recommended greases and fluids, page 131

- Use clean oils and greases. Avoid any contamination by dust.

⚠ WARNING

Oil, grease or other fluids may be sprayed when certain parts are maintained.

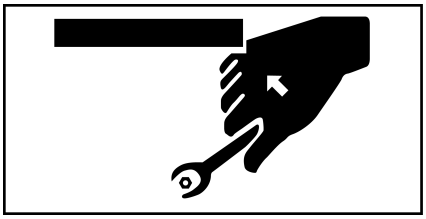
For maintenance in complete safety, respect to the letter the procedures described in the following chapters.

If oil or grease comes into contact with the skin or eyes, seek medical attention immediately.

⚠ IMPORTANT

Do not mix different types of oils. If you need to top up the oil with an oil of a different brand or type from the oil left in the tank, remove the remaining oil completely.

1.2.2 Tools



- Use tools that are adapted to the planned task.
- The use of damaged , worn or inappropriate tools is very dangerous and there is a risk that the machine will be damaged.

1.2.3 Parts

- Use YANMAR original parts as recommended in the parts catalogue.
- Clean parts with a non-combustible and non-aggressive detergent.
- If you need to remove a seal or a hydraulic component, refer to the maintenance manual.

1.2.4 Dismantling the accessory

• If the scheduled task requires the dismantling of the accessory, remove it carefully by following the instructions described in this manual.

8.2 Dismantling the accessory, page 104

• Reinstall it carefully and follow the instructions described in this manual.

8.1 Mounting the accessory, page 102

1.2.5 Working under the machine

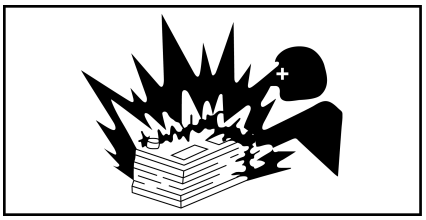
• Before you carry out any maintenance or repairs under the machine, place the accessory on the ground or in its lowest position.

⚠ DANGER
Park the machine on flat, firm ground.

If the machine is not stable, do not carry out any maintenance under the machine.

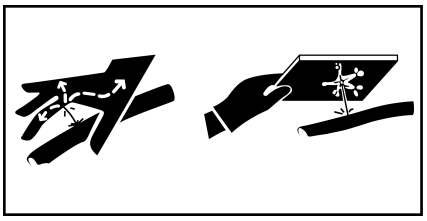
Do not work under the machine if it is only held up by its hydraulic system.

1.2.6 Battery



• Disconnect the negative terminal of the battery or use the circuit breaker to disconnect the electric current when working on the electrical circuit (repair, soldering, brazing).

1.2.7 Hoses



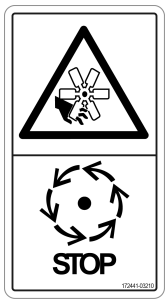
• Do not fold the hoses. Do not strike them against any hard objects.

• Damaged or incorrectly bent hoses, pipes and ducts explode easily under high pressure ; never reuse them.

• Fuel and oil leaks may cause a fire.

• A pressurized hot oil jet from a minor leak may cause severe injury. Wear protective goggles and gloves when searching for leaks. Use a piece of cardboard or plywood to detect sprays of hot oil.

1.2.8 Radiator ventilator



⚠ WARNING
Never touch the moving radiator ventilator or the ventilator belt with an object as this may cause serious physical injuries.

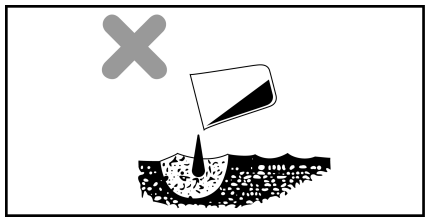
1.2.9 Soldering

⚠ WARNING
A bursting tire may cause injuries. Do not carry out welding operations near a tyre. If it is impossible to do otherwise, cover the tyre.

If you need to solder, respect the following points :

- Disconnect the battery cabling (negative terminal then positive terminal).
- Disconnect the control units from the machine.
- Disconnect the operator display station before performing a welding operation.
- Ground the machine no more than 1 metre (3ft) away from the part to be welded.
- Connect the machine's ground to the element to be welded.
- Never connect the ground to an element of the hydraulic circuit.
- Make sure there are no seals or bearings between the soldered part and the earthed part.
- Do not earth near the axes of the equipment or the hydraulic cylinder.

1.2.10 Waste processing



- When powering off the machine or its components, disassemble all the parts and separate the different materials to send them to the appropriate treatment centres.
- Do not dispose of the various fluids contained in the machine by pouring them down the drain.
- Drain them into a suitable container and never directly onto the ground.
- When you get rid of toxic waste such as fuel, oil, cooling water, solvents, filters and used batteries, respect the regulations that apply to this subject.

2 RECOMMENDED GREASES AND FLUIDS

⚠ IMPORTANT

Grease and fluids must be stored in a location complying with currently enforced regulations and recommendations of the manufacturers of these products.

This machine's engine is fitted with a high accuracy injection system ensuring it complies with regulations on emissions.

For the fuel, avoid using galvanised steel containers, but rather containers in plastic or stainless steel. Dissolved zinc or lead in the fuel can alter engine performance.

2.1 Cooling fluid

Temperatures °C (°F)								Quantity prescribed L (gal)	
-40 (-40)	-20 (-4)	0 (32)	20 (68)	40 (104)	60 (140)	80 (176)	100 (212)		
Long-life cooling fluid **YANMAR POWER COOLANT B-36**								7,1 (1,87)	Radiator
								0,5 (0,13)	Expansion flask

To top up:

3.2 Checking and topping up the level of cooling fluid, page 89

2.2 Axle and gear oil

Do not mix different types of oils. If you need to top up the oil with an oil of a different brand or type from the oil left in the tank, remove the remaining oil completely.

Use an oil of the following grade or better:API-GL 5

Select the viscosity of the oil depending on the room temperature in which the machine will be used.

Temperatures °C (°F)							Quantity prescribed L (gal)	
-20 (-4)	–10 (14)	0 (32)	10 (50)	20 (68)	30 (86)	40 (104)		
75W90LS							4,6 (1,22)	Front axle
80W90LS							5,4 (1,43) / 5,5 (1,45)[3]	Rear axle

3. "S" version

2.3 Engine oil

Do not mix different types of oils. If mixing, the lubricating properties of the oil may be altered. If you need to top up the oil with an oil of a different brand or type from the oil left in the tank, remove the remaining oil completely.

Only use the specified oils. Using other oils may affect the warranty and damage the engine and reduce its life cycle.

Ensure that the oil, the oil cans and the oil filling accessories are not contaminated by impurities or by water.

It is not recommended to use additives.

The engine oil must be changed when the total base number (TBN) becomes less than 2 mgKOH/g. (Test method JIS K-2501-5.2-2 (HCI) or ASTM D4739 (HCI))

Use oil which has the same or superior quality than the following classifications:

- API category CJ-4, CK-4
- ACEA category E6
- JASO category DH-2

Select the viscosity of the oil depending on the room temperature in which the machine will be used.

Temperatures °C (°F)							Quantity prescribed L (gal)
-20 (-4)	–10 (14)	0 (32)	10 (50)	20 (68)	30 (86)	40 (104)	
10W30							6,5 (1,72)
15W40							

To top up:

3.3 Checking and topping up the engine oil level, page 90

2.4 Fuel

The fuel used must comply with one of the following standards depending on the geographic zone in which the machine is used:

- No. 2-D, No. 1-D, ASTM D975-94 (United States)
- EN590:96 (European Union)
- ISO 8217 DMX (International)
- BS 2869-A1, BS2869-A2 (United Kingdom)
- JIS K2204 Grade No.2 (Japan)
- KSM-2610 (South Korea)
- GB252 (China)

Additional specifications to respect:

- The cetane number must be 45 or above.
- The quantity of sulphur must not exceed 0.5% in volume. It is preferable to not exceed 0.05%.
- Never mix kerosene, used engine oil or fuel oil with the fuel.
- Water and deposits must not exceed 0.05% in volume.
- Keep the tank clean as well as equipment used to handle fuel.
- Poor quality fuel may reduce engine performance and damage it.
- It is not recommended to use additives. Some additives may reduce the engine's performance.
- The quantity of ash must not exceed 0.01% in volume.
- The quantity of residual carbon must not exceed 0.35% in volume. It is preferable to not exceed 0.1%.
- The quantity of aromatic compounds must not exceed 35% in volume. It is preferable to not exceed 30%.
- The quantity of polycyclic aromatic hydrocarbons must not exceed 10% in volume.
- The quantity of Na, Mg, Si and Al metals must not exceed 1ppm in mass. (Test method JPI-5S-44-95)
- Lubricity: The WS1.4 wear rate measured during the HFRR test must not exceed 460µm.

Select a fuel depending on the room temperature in which the machine will be used.

Temperatures °C (°F)							Quantity prescribed L (gal)
-20 (-4)	–10 (14)	0 (32)	10 (50)	20 (68)	30 (86)	40 (104)	
No. 1-D / No. 2-D							65 (17,17)

To top up:

3.4 Checking and topping up the fuel level, page 91

Biodiesel

In some countries, non-mineral fuels such as rape methyl ester or soybean methyl ester, known by the name of fatty acid methyl ester, are added to mineral fuels.

Biodiesel may be used if it contains a maximum of 7% in volume of fatty acid methyl ester for 93% in volume of mineral fuel (type B7 fuel).

These type B7 fuels must comply with the following standards depending on your location:

- ASTM D-6751 (United States)
- EN14214 (European Union)

Only buy biodiesel from an approved fuel distributor.

Precautions concerning biodiesel:

- The methanol contains in fatty acid methyl esters may lead to corrosion of aluminium or zinc parts.
- The water contained in the fatty acid methyl esters may block the fuel filters and lead to the growth of bacteria.

2.5 Hydraulic oil

Do not mix different types of oils. If you need to top up the oil with an oil of a different brand or type from the oil left in the tank, remove the remaining oil completely.

The following viscosities must be observed (in accordance with the ASTM D445 standard):

- Minimum 8 mm²/s (cSt) at 100°C (212°F).
- About 1500 mm²/s (cSt) at -10°C (14°F).

Select the viscosity of the oil depending on the room temperature in which the machine will be used.

Temperatures °C (°F)							Quantity prescribed L (gal)	
-20 (-4)	-10 (14)	0 (32)	10 (50)	20 (68)	30 (86)	40 (104)		
	VG46						60 (15,85)	in the tank
		VG68					20 (5,28)	the rest

To top up:

3.5 Checking and topping up the hydraulic oil level, page 92

2.6 Brake oil

⚠ WARNING

Mixing different brake fluids can impair the performance of the braking system and cause accidents.

Do not mix different types of oils.If you need to top up the oil with an oil of a different brand or type from the oil left in the tank, remove the remaining oil completely.

Select the viscosity of the oil depending on the room temperature in which the machine will be used.

Temperatures °C (°F)							Quantity prescribed L (gal)
-20 (-4)	–10 (14)	0 (32)	10 (50)	20 (68)	30 (86)	40 (104)	
ATF Dexron II D							0,5 (0,13) in the tank

To top up:

3.6 Checking and topping up the brake fluid level, page 93

3 PERIODIC INSPECTIONS AND UPKEEPS

◇Check/Adjust/Supply □Cleaning ■Oil and grease ●Replacement ♦Oil sample + = and / = or

Check and Service items			Daily	Every 50h	Every 100h	Every 250h	Every 500h *	Every 1000h *	Every 2000h **
General	Missing or broken parts		◇						
	Tightening of nuts and bolts		◇						
	Engine condition, exhaust and inlet hoses		◇						
	Machine overall		□						
	Operation manual			◇(1)			◇	◇	◇
Greasing	Greasing points		■						
Engine	Diesel filter			●(1)		●	●	●	●
	Oil		◇	♦(1)			♦+●	♦+●	♦+●
	Oil filter			●(1)			●	●	●
	Cooling fluid and leakage		◇						●
	Radiator fins		◇+□						
	Belt			◇	◇	◇	◇	◇	●
	Fuel hose, coolant hose								◇/●
	Performance of engine control and engine speed			◇(1)			◇	◇	◇
	Governor lever and accelerator device			◇(1)			◇	◇	◇
	Air filter	External air cleaner element	□(3)			●(3)	●	●	●
		Safety cartridge element (if equipped)					●	●	●
	Intake and exhaust valves								◇
	Injectors and injection pressure								□+◇
	Crankcase breather system								◇
	Engine silent-bloc and bracket			◇	◇	◇	◇	◇	◇
	Decanter/separator	Drain	◇						
		Pre fuel filter					●	●	●
Exhaust	EGR valve							□+◇	□+◇
	Diesel Particulate Filter							□+◇	□+◇
Travel	Axle and gear oil			●(1)	◇(2)	◇/●(2)	●	●	●
	Tires, tire pressure		□+◇						
	Fastening of wheel nuts			◇(1)			◇	◇	◇
	Fastening of axles and propeller shaft			◇(1)			◇	◇	◇
	Function of hydraulic axle locking and bleed plunger cylinder			◇(1)			◇	◇	◇
	Brakes and brake disk play			◇(1)			◇	◇	◇
	Brake oil		◇	◇(1)			◇	◇	●
	Performance of travel			◇(1)			◇	◇	◇
Hydraulic	Oil		◇	♦(1)			♦/●(4)	♦+●	♦+●
	Aspiration filter			●(1)		●(4)	●	●	●
	Ventilation filter							●	●
	Hydraulic oil return filter			●(1)		●(4)	●	●	●
	Other filter					●(4)	●	●	●
	Pump pressure			◇(1)			◇	◇	◇
	Steering system, bushing and bolts of articulation			◇(1)			◇	◇	◇
	Low pressure			◇(1)			◇	◇	◇
	Front-end slewing device			◇(1)			◇	◇	◇
	Lifting frame			◇(1)			◇	◇	◇
	Bucket			◇(1)			◇	◇	◇
	Options			◇(1)			◇	◇	◇
Electric	Time counter		◇	◇	◇	◇	◇	◇	◇
	LCD monitor		◇	◇	◇	◇	◇	◇	◇
	Wire breakage, short circuits, loosened terminals		◇	◇	◇	◇	◇	◇	◇
	Battery			◇(1)			◇	◇	◇
Cabin	Cab filters					●(3)	●	●	●
	Air conditioning						◇	◇	◇
Final	Sign inspection card and return to YANMAR			◇(1)		◇(2)(3)(4)	◇	◇	◇

* or annualy first time occurs

** or two years

(1) 1st inspection at 50-80h

(2) If machine does more than 30km (20mi) / 2 hours drive per day.

(3) If machine is used at dusty worksites.

(4) If an animated hydraulic tool is used more than 30% of the machine operating time.

♦ Collect oil sample and keep analysis report.

It is important to entrust the machine to a deal at the intervals indicated so that the dealer can carry out the maintenance operations necessary for the machine to operate correctly.

You should also contact your dealer in the following cases :

- part missing, broken or loose
- horn defective
- time counter defective
- electric circuit defective
- battery defective
- light(s) defective

In general, contact your dealer as soon as you think something is wrong.

4 MAINTENANCE BY THE OPERATOR

⚠ IMPORTANT

Before any upkeep or maintenance, follow the precautions described in this manual.

4.1 Daily maintenance

4.1.1 Checking the machine before use

Before each use of the machine, visually check the following :

- No missing, broken or loose parts
- Greasing

4.1.3 Greasing points, page 140

- Engine in good condition
- Decanter/separator

4.1.4 Cleaning the separator/decanter, page 141

- Engine oil

3.3 Checking and topping up the engine oil level, page 90

- Cooling fluid

3.2 Checking and topping up the level of cooling fluid, page 89

- Radiator vents

4.1.2 Checking and cleaning the radiator fins, page 139

- Air filter

4.4.7 Air filter cleaning, page 146

- Hydraulic oil

3.5 Checking and topping up the hydraulic oil level, page 92

- Brake fluids

3.6 Checking and topping up the brake fluid level, page 93

- Tire pressure

4.1.5 Checking tire pressure, page 142

- Checking the hydraulic hoses
  - Visually check that there are no oil leaks from the hydraulic hose connectors.

- Visual inspection of the fuel hoses
  - Visually check that the fuel does not leak from the fuel hose connectors.
  - Also check that the hoses are not damaged.
- Checking the seat
  - Check that the safety belt is present and in good condition.
- Also check that the time counter, the headlights, the alarm and the lights are working correctly.
- Checking the commands
  - Operate the commands.
  - Release the levers, they should return to neutral position themselves.
  - If they do not, contact your dealer.

⚠ IMPORTANT

If an element is not working or you think it is defective, shut down the machine's engine immediately and contact your dealer.

4.1.2 Checking and cleaning the radiator fins

⚠ WARNING

After the machine has stopped, the engine components are hot and may cause burns. Check or clean the radiator fins only after the engine has cooled down.

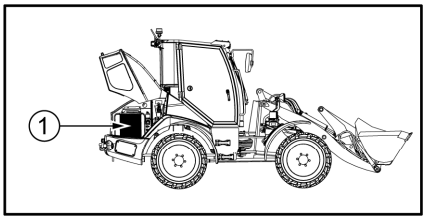
Before using compressed air, make sure there are no people nearby and wear safety glasses and appropriate clothing.

Do not use compressed air above 0.7 MPa (102psi).

⚠ IMPORTANT

Keep a sufficient distance from the radiator when using compressed air to avoid damaging it. A damaged radiator may leak and the machine may overheat.

Dirty fins may cause overheating.

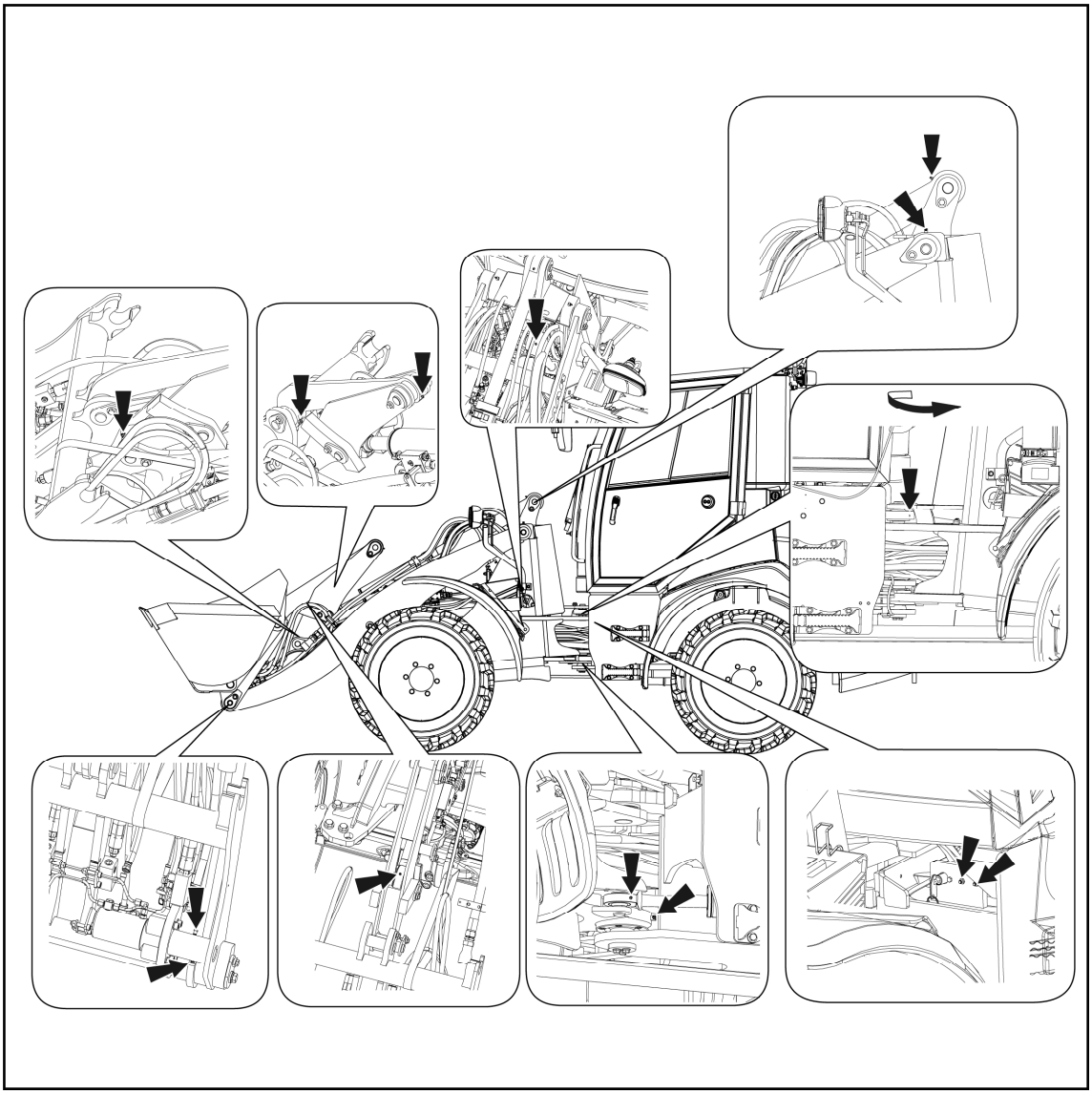


1 = Radiator

1. Open the bonnet with the ignition key.
2. Use compressed air to remove dust from the radiator fins.
3. Close the engine bonnet.

4.1.3 Greasing points

- Grease the machine swivel pins daily using the nipples, and also before using the machine or after use in the rain, on soft ground or in muddy water.
- Proceed as follows :
  1. Lower the equipment to the ground.
  2. Stop the engine.
  3. Clean the greasing connectors indicated by the arrows on the figures.
  4. Grease them with a grease pump.
  5. Wipe off the excess grease with a cloth or equivalent.



4.1.4 Cleaning the separator/decanter

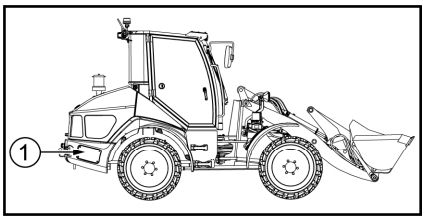
⚠ WARNING

Keep all sparks, flames or cigarettes away.

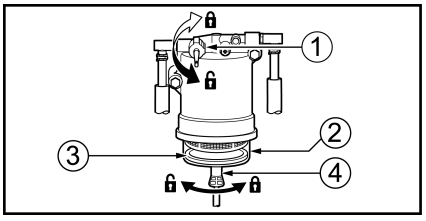
At operating temperature, the engine components are red hot and may cause burns.

Disconnect the battery mass and clean the separator when the engine has cooled down enough.

A diesel leak or spray onto a red hot element may cause a fire.



1 = Protection grill



1 = Fuel inlet tap

2 = Bowl

3 = Ring

4 = Drain valve

1. Remove the protective grid.
2. Fit a drain hose to the drain cock and place it in a container to collect the used fuel.
3. Close the fuel inlet tap.
4. Loosen the drain valve to drain the separator. Let the liquid drain until pure fuel comes out.
5. Tighten the separator drain valve.
6. Remove the drain hose.
7. Open the fuel inlet tap.
8. Replace the protective grid.

4.1.5 Checking tire pressure

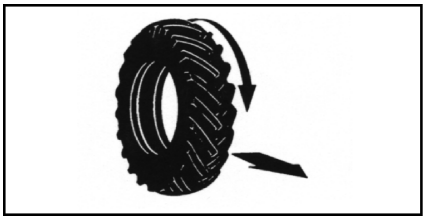
⚠ WARNING

A bursting tire may cause injuries.

⚠ IMPORTANT

Protect the tyres from direct sunlight.

- When checking tire pressure or inflating the tires, do not stay opposite the tire, always stand next to the tread.
- Keep any third party away when checking tire pressure.
- Once the wheel is removed, use an inflating cage.
- When changing the tires, fit the tread in the direction indicated.



Tires	Tire pressure (bar (psi))	
	Front	Rear
D 12,5–18	2,5 (36)	1,75 (25)
340/80 R18	2,8 (41)	1,9 (28)
365/70 R18	3,2 (46)	2,2 (32)
400/70 R18	2,3 (33)	1,6 (23)
405/70 R18	2,6 (38)	2,0 (29)
500/45 R20	1,9 (28)	1,2 (17)

4.1.6 Checks after using the machine

After each use, several checks must be carried out according to how the machine is used ; refer to chapter :

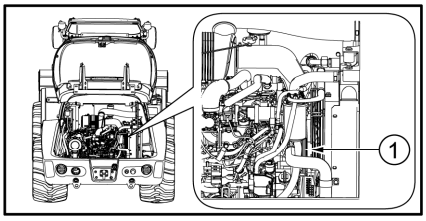
5 Checks after use, page 95

4.2 Maintenance every 50 hours

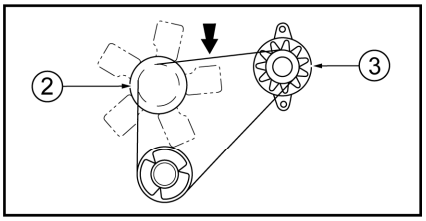
4.2.1 Checking alternator belt tension

⚠ WARNING

After the machine has stopped, the engine components are hot and may cause burns. Check the tension of the belt once the engine parts have completely cooled.



1 = Alternator belt



2 = Fan pulley

3 = Alternator pulley

1. Open the bonnet with the ignition key.
2. Check the belt tension by pressing the section of the belt between the fan pulley and the alternator pulley with your finger.

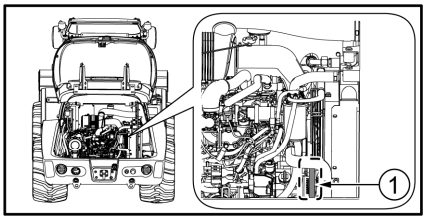
   Compressive force : approximately 10 kgf (22 lbf)

   Correct range of travel: 7-10 mm (0,28-0,39in)
3. Check that the pulleys, the V-groove, and the fan belt are not damaged, and check that the fan belt is not touching the lower part of the V-groove.
4. If the belt or pulleys are damaged or the belt is loose, contact your dealer.
5. Close the engine bonnet.

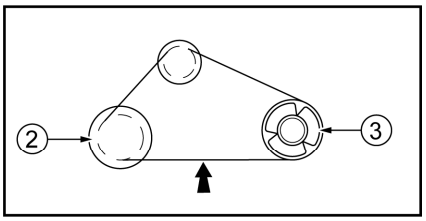
4.2.2 Checking the compressor belt tension

⚠ WARNING

After the machine has stopped, the engine components are hot and may cause burns.



1 = Belt



2 = Compressor

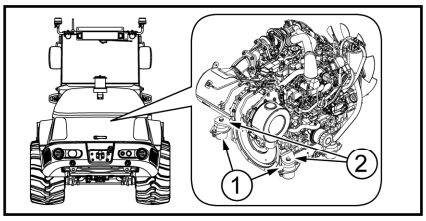
3 = Drive pulley

1. Open the bonnet with the ignition key.
2. Check the belt tension by pressing the section of the belt between the intermediate pulley and the compressor pulley with your finger.

   Compressive force : approximately 5kgf (11 lbf)

   Correct range of travel: 8-9 mm (0,31-0,35 in)
3. Check that the pulleys, the V-groove, and the compressor belt are not damaged, and check that the compressor belt is not touching the lower part of the V-groove.
4. If the belt or pulleys are damaged or the belt is loose, contact your dealer.
5. Close the engine bonnet.

4.2.3 Engine silent-bloc and bracket



1 = Silent-bloc

2 = Bracket

• Check the condition of the silent blocks and their supports.

4.3 Maintenance every 500 hours

4.3.1 Tightening the wheel bolts

Check the tightening of the wheel bolts (tightening torque 350Nm (3098 in.lb)).

Note

Check the wheel nuts torque daily during the first 50 hours of service.

When mounting the wheels, tighten the nuts gradually in a cross pattern and repeat until the correct torque is reached.

4.4 Non periodic maintenance

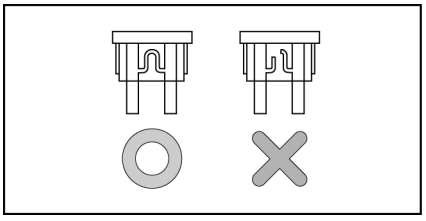
4.4.1 Fuse replacement

⚠ IMPORTANT

An unsuitable fuse or a fuse holder with a short circuit may cause overheating and damage the electrical circuit or the electrical components.

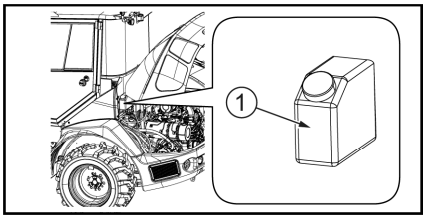
1. Set the starter key to OFF position.
2. Remove the lid from the fusebox.
3. Identify the burnt out fuse.
4. Replace it with an equivalent fuse.

Fuse strip



• If a fuse burns out immediately after it is replaced, this means there is a problem in the electric circuit.

4.4.2 Top up the windscreen washer fluid



1 = Windscreen washer tank

⚠ IMPORTANT
Do not let any impurities into the tank.

1. Open the bonnet with the ignition key.
2. Open the windscreen washer tank.
3. Top up the windscreen washer fluid.

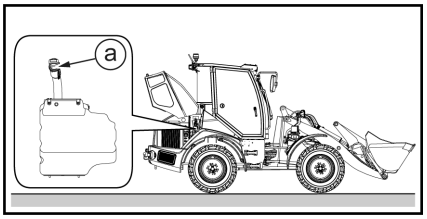
4.4.3 Replacing the windscreen wiper

• Replace the windscreen wiper when it no longer cleans the windscreen correctly. Follow the procedure indicated by the windscreen wiper manufacturer.

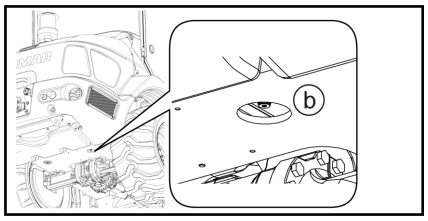
4.4.4 Accessory state check

• When working on an accessory, please contact your dealer or refer to the manufacturer user manual supplied with the accessory.

4.4.5 Purging the fuel tank



a = Cap



b = Drain plug

1. Place a container to collect the fuel residue.
2. Remove the tank filling cap.
3. Remove the tank bleed plug.
4. Bleed completely the fuel as well as the water and dirt deposit at the bottom of the tank.
5. Reinstall the drain plug.

Maximum torque = 22 Nm

6. Top up the fuel tank.

3.4 Checking and topping up the fuel level, page 91

7. Close the tank cap.

4.4.6 Maintenance of the particle filter

To service the DPF, contact your YANMAR dealer.

- Particle filter, cleaning around every 3000h and replacement every 9000h.

⚠ IMPORTANT
When the control panel displays the DPF regeneration icon, stop work and carry out manual DPF regeneration as soon as possible.

- Catalytic converter, replace every 9000h.

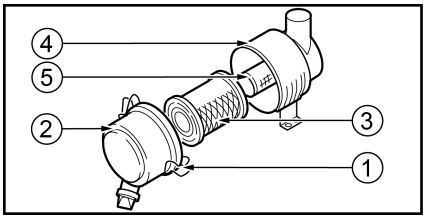
4.4.7 Air filter cleaning

⚠ WARNING

Do not clean or change the air filter if the engine is not stopped. Wait until the engine has cooled down.

Compressed air is used to clean the air filter. Wear protective goggles to prevent eye injury.

When cleaning, the compressed air pressure must be below 0.5 MPa (73psi).



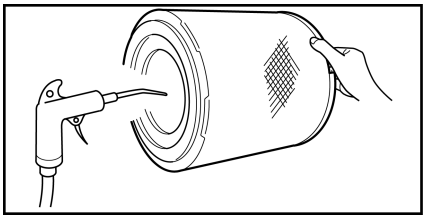
1 = Fastener

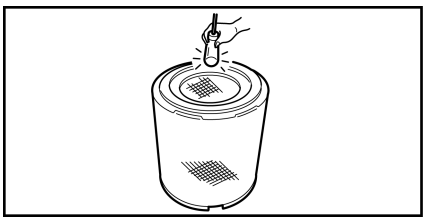
2 = Air filter cover

3 = Filter

4 = Air filter body

5 = Inner filter





1. Open the bonnet with the ignition key.
2. Release the fasteners to remove the air filter lid.
3. Clean the air filter cover.
4. Remove the filter.

⚠ IMPORTANT
The air filter of this machine is made of two filters. Do not remove the inner filter.

5. Clean inside the air filter body.
6. Remove dirt by blowing dry compressed air inside the filter, along the folds.
7. Then blow dry compressed air outside the filter.
8. Blow dry compressed air again inside the filter to finish cleaning.
9. After cleaning, check filter integrity using a lamp. Change the filter if you notice holes or worn zones.

⚠ IMPORTANT
Do not hit the filter against other objects when you clean it, as this would damage it.

Do not reuse the filter if damaged.

Store spare filters in clean paper and in a dry location.

10. Reposition the clean filter.
11. Close the filter with its cover while turning it in the direction shown by an arrow on the cover.
12. Close the cover.

5 MAINTENANCE BY THE DEALER

5.1 After the first 50 hours of service

- Checks carried out by the dealer :

– User manual available and in good condition

– Engine	Alternator belt : Tension check
	Performance of engine control and engine speed
	Governor lever and accelerator device
	Engine silent-bloc and bracket
– Travel	Performance of travel
	Fastening of wheel nuts
	Fastening of axles and propeller shaft
	Brake oil

– Command lever: Play of control lever

– Hydraulic	Pump pressure
	Steering system
– Equipment	Lifting arm
	Accessories
	Quick attachment
	Options
– Electrical equipment	Time counter
	Wire breakage, short circuits, loosened terminals
	Operator display station
	Battery

- Servicing carried out by the dealer :

– Diesel filter: Replacing the element
– Engine oil : Oil sample
– Oil filter : Replacing the element
– Axle and gear oil : Oil replacement
– Hydraulic oil : Oil sample
– Hydraulic oil return filter : Replacing the element

- Sign inspection card and return to YANMAR

YANMAR

Scan to access the documentation.

Yanmar Compact Germany GmbH

http://www.yanmar.com

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