

## ④ Pre-Operation Inspections

### Daily Maintenance of Agricultural Machinery Diesel Engine Tractor



# Engine Oil Inspection

Before starting any work or turning on the engine, always check the engine oil level. Place the tractor on a flat surface and check the oil level with the oil gauge. If the level is not within the MIN-MAX marks on the oil gauge, remove the cap and add new oil until it reaches the MAX mark.



Left: Check the oil level using the oil gauge.

Center: Add oil using an oil canister, ensuring it is between the MIN and MAX levels.

Right: Refill if the oil level is insufficient.

# Checking Fuel Tank Level and Inspecting for Fuel Leaks

In general, machines should be refueled after the work is done.  
Avoid leaving water vapor in the fuel tank to prevent water from mixing into the engine.



## Fuel Tank Level Check Procedure

Left: Confirm the fuel level using the fuel gauge on the tractor panel.

Center: Ensure the fuel tank is full before starting work. Refuel if it is not full.

Right: Before starting the tractor, check underneath for any signs of water, oil, or fuel leaks. Only start the tractor after confirming there are no leaks.

# Cooling System Inspection

## Radiator Water Level Check

Left: For tractors with a radiator sub-tank, check the water level in the sub-tank.

Center: For older models without a sub-tank, remove the radiator cap carefully. Be cautious of high-pressure steam and hot water.

Right: If the water level is insufficient, add long-life coolant (LLC)





# Electrical System Inspection

Always check the brake lamps and turn signals before starting work.

Replace defective parts as necessary.

If a warning light appears on the panel, report it to the person in charge.



## Electrical System Check

Left: Check the panel for any machine malfunctions.

Center: Verify the turn signals and brake lamps turn on and off.

Right: Confirm the turn signals are illuminated from the front.

# Driving Inspection - Test Driving

Check for looseness in the steering wheel, braking effectiveness, uneven braking, and clutch slippage before moving from the garage to public roads. Report any malfunctions to the person in charge.



Left:      Steering wheel  
Center:   Clutch  
Right:    Brake

# Tire Air Pressure and Bolt/Nut Tightness on Rim and Hub

- Left: Visually check the air pressure of both left and right tires.  
Center: Visually inspect for any loose or missing bolts and nuts on the rim and hub.  
Right: Tighten bolts and nuts as needed.





# Periodic Inspection (Monthly) Diesel Engine Tractor



# Fuel Hose Connection Leakage And Engine Oil Leaks

- Left: Inspect for fuel and oil leaks on the floor beneath the tractor.
- Center: Check for fuel leaks around the fuel filter and fuel hose.
- Right: Inspect for oil leaks at connection points. Tighten connections where possible. If there is fuel or oil leakage, report it to the person in charge.



# Cleaning Dust and Dirt from the Air Cleaner

Left: Remove the air cleaner cover and take out the element.

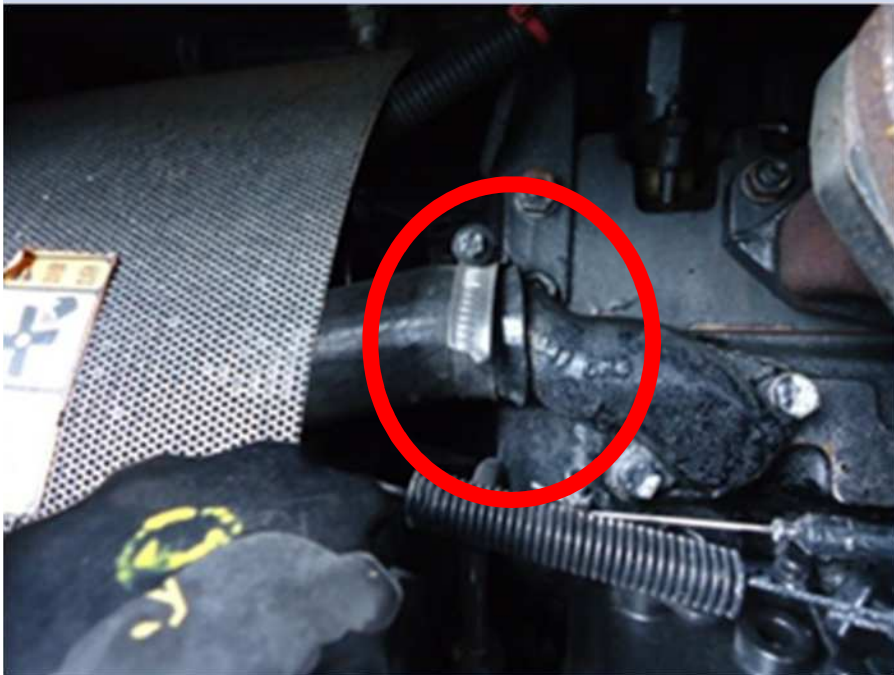
Center: Tap lightly to check the condition of any dust.

Right: If there is excessive dust, clean it using an air gun.



# Inspecting for Water Leaks Around the Radiator

Photo: Check for water leaks at the joints of the radiator hose. If tightening does not stop the leak, report it to the person in charge.



# Checking Fan Belt Looseness and Battery

If the tractor has trouble starting:

Left: Check for fan belt looseness and battery deterioration.

Center: For maintenance-free batteries, check the center for replacement indication.

Right: For regular batteries, charge using a charger, measure the voltage, and assess. If the problem persists, it may be due to an alternator failure. Report to the person in charge if there is no improvement.





# Checking Tire Air Pressure and Tightening Bolts/Nuts on the Rim and Hub

Left: Check the tire air pressure.

Center: Install a maintenance tire gauge and compressor.

Right: Tighten the bolts and nuts on the rim and hub.



# Greasing (Grease Injection)

Left: Grease gun

Center: There are many grease nipples for injecting grease. Refer to the instruction manual and perform greasing.

Right: Moving parts have grease nipples. Ensure you grease all of them without missing any.



# Greasing and Oil Inspection of Attachment and Checking for Pin Disengagement

Before starting work, always check for oil leaks and grease the attachment.

Left: Inspect for oil leaks around the rotary chain case.

Center: Grease the universal joint.

Right: Ensure there are no disengagements of pins securing the tractor and attachment at the hitch/joint.





## 4-Stroke Gasoline Engine Inspections (Monthly)

(Power Sprayers, Cultivators, Rice Transplanters)



# Checking Fuel and Oil

Machines Using 4-Stroke Engines: Power Sprayers, Cultivators, Rice Transplanters

Left: Check for oil and fuel leaks on the floor and the machine.

Center: Even if there are no leaks, engine oil may decrease. Use the dipstick to check. (Refill if low to prevent engine seizure.)

Right: Check for dirt in the fuel strainer. When not used for long periods, empty the fuel from the carburetor. Close the fuel valve, let the fuel run out of the carburetor, and wait for the engine to stop.





## 4-Stroke Gasoline Engine Inspections (Monthly)

(Brush Cutters, Backpack Sprayers, Backpack Spreaders, Chainsaws)

# Checking Fuel, Grease, and Safety Devices

Machines Using 2-Stroke Engines:

Brush Cutters, Chainsaws, Backpack Sprayers, Backpack Spreaders

Left: Check for fuel leaks and verify fuel using the priming pump.

Center: Check the attachment of the cutting blade and grease the bevel equipment.

Right: Inspect for warning marks.



# Starting a 2-Stroke Engine

Machines Using 2-Stroke Engines:

Brush Cutters, Chainsaws, Backpack Sprayers, Backpack Spreaders

Ensure the fuel used is mixed gasoline.  
(Oil:Gasoline = 1:50 or 1:25)

Left: Use the priming pump to send fuel to the carburetor.

Center: Close the choke.

Right: 1) Pull the starter. 2) The engine ignites briefly.  
3) Open the choke. 4) Pull the starter again to fully start the engine.

