TEN00450-04

Operation & Maintenance Manual

WHEEL LOADER **WA250-6**

SERIAL NUMBERS 75865 and up

ecot3

WARNING

Unsafe use of this machine may cause serious injury or death. Operators and maintenance personnel must read this manual before operating or maintaining this machine. This manual should be kept near the machine for reference and periodically reviewed by all personnel who will come into contact with it.

NOTICE

Komatsu has Operation & Maintenance Manuals written in some other languages. If a foreign language manual is necessary, contact your local distributor for availability.

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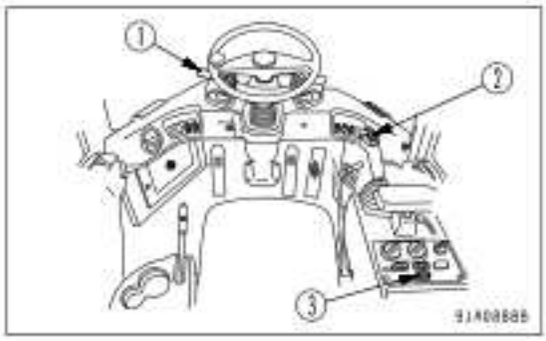
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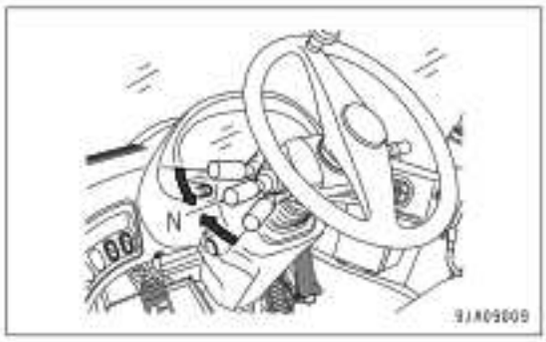
USING SWITCH TO CHANGE BETWEEN FORWARD AND REVERSE

WARNING

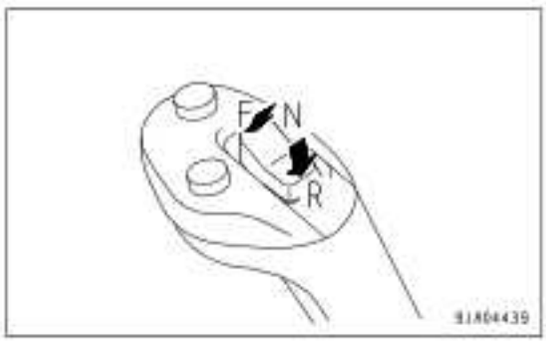
When the directional selector switch actuation switch (3) is at the ON position, if the directional lever (1) is operated to FORWARD or REVERSE, the machine will travel in forward or reverse according to the operation of the directional lever, regardless of the position of the directional selector switch (2).
Priority is given to the operation of the directional lever, so be careful when operating.



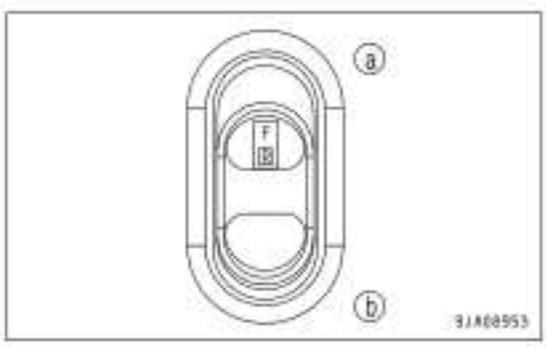
1. Place the directional lever (1) at the N position.



2. Place the directional selector switch (2) at the N position.



3. Place the directional selector switch actuation switch (3) at the ON position (a).



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BATTERY

⚠ WARNING

- **The battery generates flammable gas. Do not bring open flame near the battery.**
- **Battery electrolyte is dangerous. If it gets in your eyes or on your skin, wash it off with a large amount of water and consult a doctor.**
- **Battery electrolyte dissolves paint. If it gets on the bodywork, wash it off immediately with water.**
- **If the battery electrolyte is frozen, do not charge the battery or start the engine with a different power source. There is danger that the battery may explode.**
- **Battery electrolyte is toxic. Do not let it flow into drainage ditches or spray it on to the ground surface.**

When the ambient temperature drops, the capacity of the battery will also drop. If the battery charge ratio is low, the battery electrolyte may freeze. Maintain the battery charge as close as possible to 100%. Insulate it against cold temperature to ensure the machine can be started easily the next morning.

REMARK
Measure the specific gravity and calculate the charging rate from the following conversion table.

Charging Rate (%) \ Electrolyte Temperature	20°C (68°F)	0°C (32°F)	-10°C (14°F)	-20°C (-4°F)
100	1.28	1.29	1.30	1.31
90	1.26	1.27	1.28	1.29
80	1.24	1.25	1.26	1.27
75	1.23	1.24	1.25	1.26

- As the battery capacity drastically drops in low temperatures, cover or remove the battery from the machine, store the battery in a warm place, and install it again the next morning.
- If the electrolyte level is low, add distilled water in the morning before beginning work. Do not add water after the day's work to prevent diluted electrolyte in the battery from freezing during the night.

PRECAUTIONS AFTER COMPLETION OF WORK

To prevent mud, water, or the undercarriage from freezing and making it impossible for the machine to move on the following morning, observe the following precautions.

- Remove all the mud and water from the machine. In particular, wipe the hydraulic cylinder rods clean to prevent damage to the seal caused by mud, dirt, or drops of water on the rod from getting inside the seal.
- Park the machine on hard, dry ground.
  If this is impossible, park the machine on boards.
  The boards prevent the tracks from freezing to the ground, and allow the machine to be moved the next morning.
- Open the drain valve and drain any water collected in the fuel system to prevent it from freezing.
- Fill the fuel tank to capacity. This minimizes moisture condensation in the tank when the temperature drops.

AFTER COLD WEATHER

When the season changes and the weather becomes warmer, do as follows.

- Replace all fuel and oil with fuel and oil of the specified viscosity. For details, see "RECOMMENDED FUEL, COOLANT, AND LUBRICANT (PAGE 4-9)".

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EVERY 2000 HOURS SERVICE

Maintenance for every 50, 100, 250, 500 and 1000 hours service should be carried out at the same time.

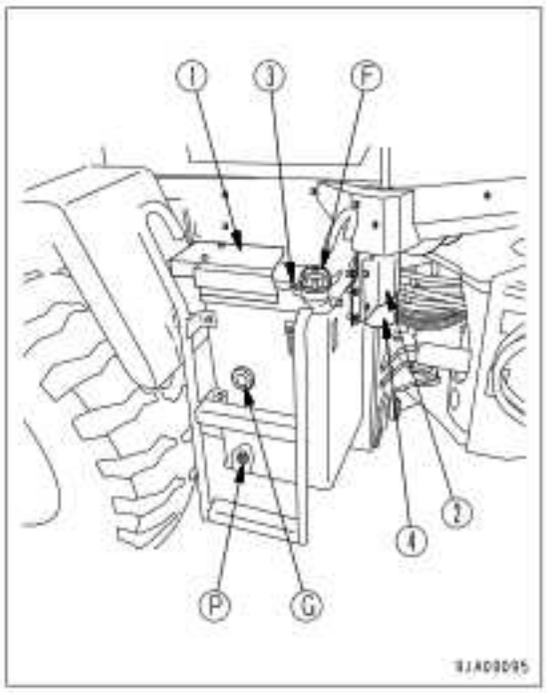
CHANGE OIL IN HYDRAULIC TANK, REPLACE HYDRAULIC FILTER ELEMENT

⚠ WARNING

- **Immediately after the engine is stopped, its parts and oil are still very hot, and may cause burn injury. Accordingly, wait until they have cooled down before starting the work.**
- **When removing the oil filler cap, turn it slowly to release the internal pressure, then remove it.**

- Refill capacity: 67 liters (17.70 US gal)

1. Lower the bucket horizontally to the ground and apply the parking brake, then stop the engine.
2. Remove covers (1) and (2).
3. Keep grip (3) pulled, then turn the cap of oil filler (F) counterclockwise and remove it.
4. Set a container to catch the oil under drain plug (P).
5. Loosen drain plug (P), drain the oil, then tighten drain plug (P) again.
6. By using a filter wrench, turn cartridge (4) to the left to remove it.
7. Clean the filter holder, fill the new filter cartridge with oil, then coat the seal and thread of the filter cartridge with oil (or coat thinly with grease) and install.
   When installing the seal, tighten it until its surface comes into contact with the filter holder, then tighten it 1/3 turn more.
8. Refill the specified quantity of oil through oil filler (F).
9. Check that the hydraulic oil is at the specified level. For details, see "CHECK OIL LEVEL IN HYDRAULIC TANK, ADD OIL (PAGE 4-48)".



10. Run the engine at low idle, and extend and retract the steering, bucket, and lift arm cylinders 4 to 5 times. Be careful not to operate the cylinder to the end of its stroke (stop approximately 100 mm (3.9 in) before the end of stroke).

NOTICE

If the engine is run at high speed immediately after startup or a cylinder is pushed up to its stroke end, air taken inside the cylinder may cause damage to the piston packing.

11. Operate the steering, bucket, and lift arm cylinders to the end of their stroke 3 to 4 times, then stop the engine and loosen filler cap to bleed the air from the hydraulic tank.
12. Check that the hydraulic oil level and add oil to the specified level. For details, see "CHECK OIL LEVEL IN HYDRAULIC TANK, ADD OIL (PAGE 4-48)".
13. Next, raise the engine speed and follow the procedure in Step 11 to bleed the air. Repeat this process until no more air comes out.
14. After completing the air bleed operation, install cover (1) and (2).

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