CEAM023303

Operation & Maintenance Manual

WA320-6

WHEEL LOADER

SERIAL NUMBERS WA320-6 A35001 and up

ENGINE 6D107E-1

KOMATSU®

March 2016

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Brake Pedals

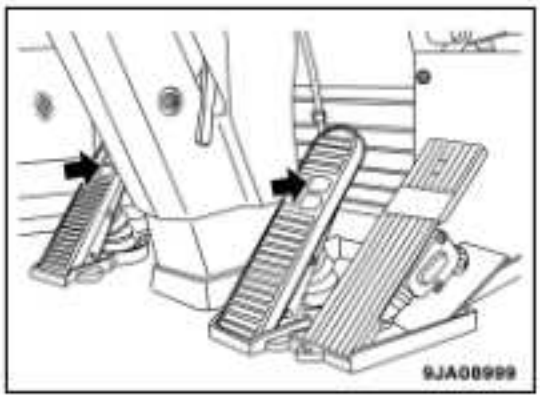
⚠ WARNING

- **When traveling downhill, always use the right brake pedal. Use the braking force of the engine together with the brake.**
- **Do not use the brake pedal repeatedly more than necessary. If the brake is used too frequently, the brake will overheat.**
  If this happens, the brakes will not work and may lead to a serious accident.
- **Do not put your foot on the brake pedal unless necessary.**

The brake pedals (5) operate the brakes.

Use the brake pedal for normal braking operations.

The left and right pedals are interconnected and work together.



Inching Function

When the brake pedal is depressed slightly, the HST inching function is actuated. It becomes possible to reduce speed or stop the machine without reducing the engine speed.

Use the inching function when raising the lift arm and approaching the dump truck.

Remark

When using the brake and accelerator together to reduce the machine travel speed or to stop the machine, use the left brake pedal.

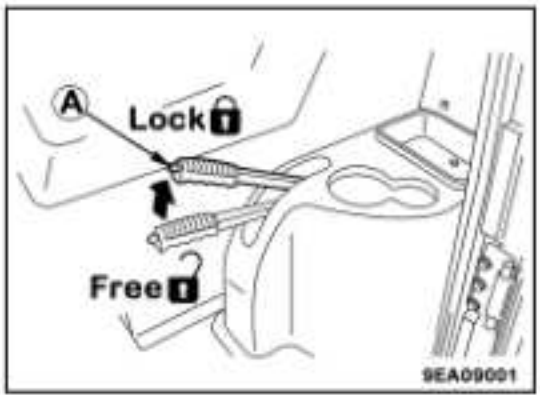
Parking Brake Lever

⚠ WARNING

- **Always apply the parking brake when leaving the machine or when parking it.**
- **Never use the parking brake lever to slow the machine when traveling, except in an emergency. The parking brake may be damaged and this may lead to a serious accident. Apply the parking brake only after the machine has stopped.**

★ If the parking brake has been used as an emergency brake when traveling at high speed (near the maximum speed), contact your Komatsu distributor to have the parking brake checked for any abnormality.

The parking brake lever (6) operates the parking brake.



Pull the lever up to the LOCK position to actuate the parking brake. At the same time, the parking brake pilot lamp illuminates.

To release the brake, pull the lever, then press button (A) at the tip of the lever and return the lever to the FREE position. At the same time, the parking brake pilot lamp goes out.

If the directional lever is placed at the FORWARD or REVERSE position with the parking brake still applied, the central warning lamp will illuminate and the buzzer will sound.

Before operating the directional lever, check that the parking brake lever is at the FREE position.

When the parking brake is applied, the machine will not move even if the directional lever is operated.

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When the ambient temperature drops, the battery capacity will drop also. If the battery charge ratio is low, the battery electrolyte may freeze.

- Maintain the battery charge as close as possible to 100%.
- Insulate the battery against cold temperature so that the machine can be started easily the next morning.

Remark

Measure the specific gravity and calculate the rate of charge 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 drops drastically in low temperatures, cover the battery or remove it from the machine; keep it 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. Diluted electrolyte in the battery may freeze during the night.

Precautions After Completion of Work

Mud and water on the undercarriage can freeze overnight and make machine movement difficult the following morning.

Observe the following precautions.

- Remove all mud and water from the machine body. In particular, wipe the hydraulic cylinder rods clean to prevent damage to the seals caused if mud, dirt, and/or water on the rod surface gets inside the seal.
- Park the machine on hard, dry ground. If this is impossible, park the machine on wooden boards. The boards help protect the tires from freezing to the ground so the machine can 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.

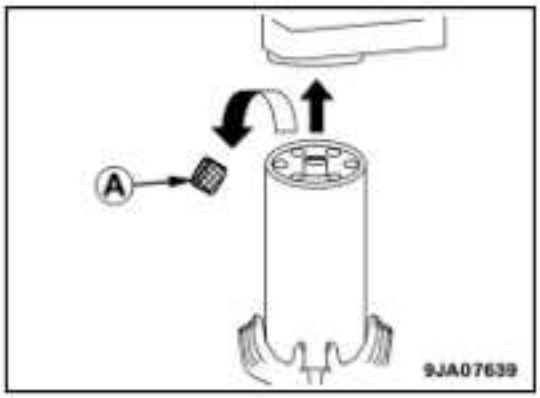
When Cold Weather Ends

When the season changes and the weather becomes warmer, do the following procedure.

- Replace all oil and fuel with fuel and oil of the specified viscosity.
- For details, see "RECOMMENDED FUEL, COOLANT, AND LUBRICANTS" on page 3-11.

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8. Remove filter cartridge cap (A) and throw it away.



9. Install the filter to the filter holder. Tighten the filter cartridge until the packing surface contacts the seal surface of the filter holder, and then tighten it 3/4 of a turn.

   ★ If the filter cartridge is tightened too much, the packing will be damaged; this will result in leakage of fuel. If the filter cartridge is too loose, fuel will leak from the packing. Always tighten the filter cartridge the correct amount.

   ★ When tightening with a filter wrench, be very careful not to dent or damage the filter.

10. Bleed air from the fuel line. See "Bleeding Air from Fuel Line" on page 3-74.

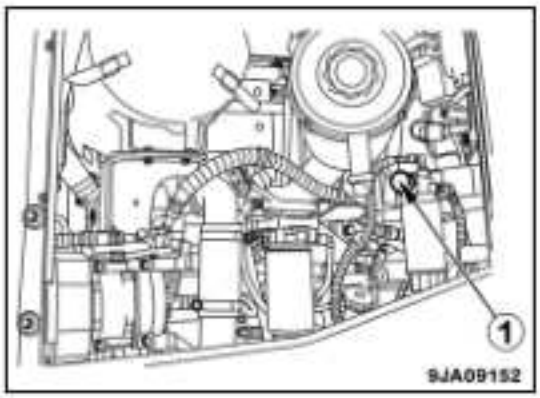
11. After bleeding the air, start the engine and check that there is no leakage of fuel from the filter seal surface.

    • If there is leakage of fuel, check that the filter cartridge is tightened properly.

    • If the fuel still leaks, repeat Step 4 to remove the filter cartridge, then check the packing surface for damage or embedded dirt.

    • If any problem is found, replace the cartridge with a new part, then repeat Steps 6 - 10 to install and test the new cartridge.

12. Push in and tighten knob (1).



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