CEAM012203

Operation & Maintenance Manual

WA320-5L

WHEEL LOADER

SERIAL NUMBERS WA320-5L A32001 and up

ENGINE 6D102E-2

April 2016

KOMATSU®

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OPERATION

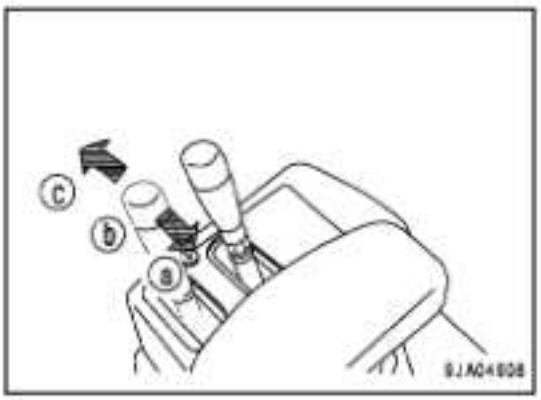
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BUCKET CONTROL LEVER

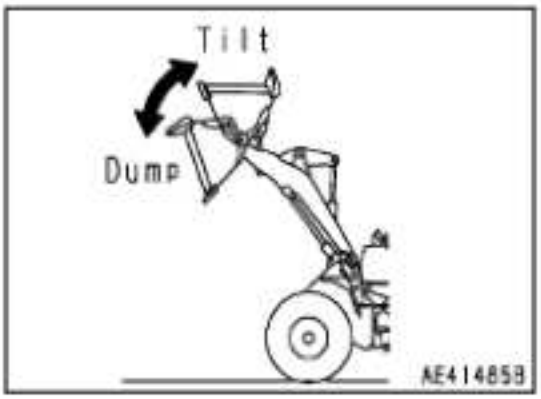


Lever (4) operates the bucket.

Position (a): **TILT BACK**
When the bucket control lever is pulled back, the bucket tilts back until the control lever is released.

Position (b): **HOLD**
When tilting back or dumping the bucket by releasing the control lever, the bucket is kept in the desired position.

Position (c): **DUMP**
When the control lever is pushed forward, the bucket dumps the load.



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BATTERY

⚠ WARNING

- **The battery generates flammable gas. Do not bring fire or sparks 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 to 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 battery capacity also will drop. If the battery charge ratio is low, the battery electrolyte may freeze. Maintain the battery charge as close as possible to 100%, and insulate it 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(%)	Specific Gravity			
	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 markedly 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 the water after the day's work so as to prevent fluid in the battery from freezing in 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 immediately after finishing work for the day.

- 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.
- Park the machine on hard, dry ground. If this is impossible, park the machine on wooden boards. The boards help protect the tires from being frozen in soil and the machine can start next morning.
- Open the drain valve and drain any water collected in the fuel system to prevent it from freezing.

AFTER COLD WEATHER

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

- Replace the fuel and oil for all parts with oil of the viscosity specified.
- For details, see "PROPER SELECTION OF FUEL, COOLANT AND LUBRICANTS" on page 3-8.
- If permanent antifreeze cannot be used, and an ethyl glycol base antifreeze (winter, one season type) is used instead, or if no antifreeze is used, drain the cooling system completely, then clean out the inside of the cooling system thoroughly, and fill with fresh soft water.

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EVERY 4000 HOURS SERVICE

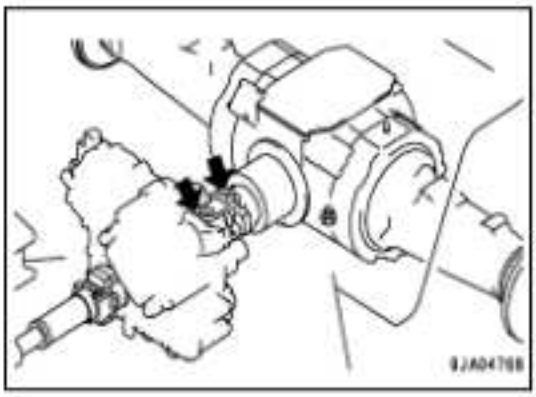
Maintenance for every 50, 100, 250, 500, 1000, and 2000 hours service should be carried out at the same time.

LUBRICATING

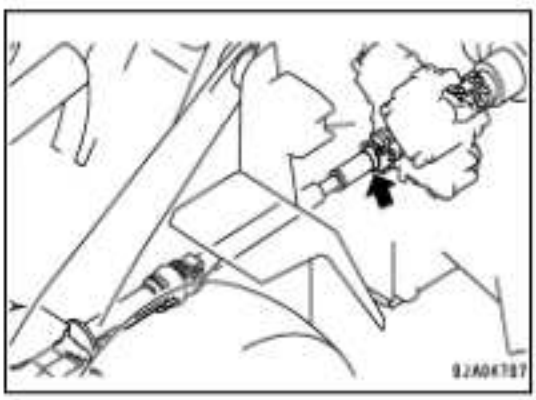
1. Using a grease pump, pump in grease through the grease fittings marked by the arrows.
2. After greasing, wipe off any old grease that was pushed out.

A. Front drive shaft (2 places)

B. Rear drive shaft (2 places)



C. Drive shaft spline (1 place)



CHECK WATER PUMP

Check that there is no play in the pulley, no grease leakage, no water leakage, and no clogging of the drain hole. If any abnormality is found, contact your Komatsu distributor for disassembly and repair or replacement.

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