TEN00456-07

Operation & Maintenance Manual

WHEEL LOADER **WA320-6**

SERIAL NUMBERS 70587 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.

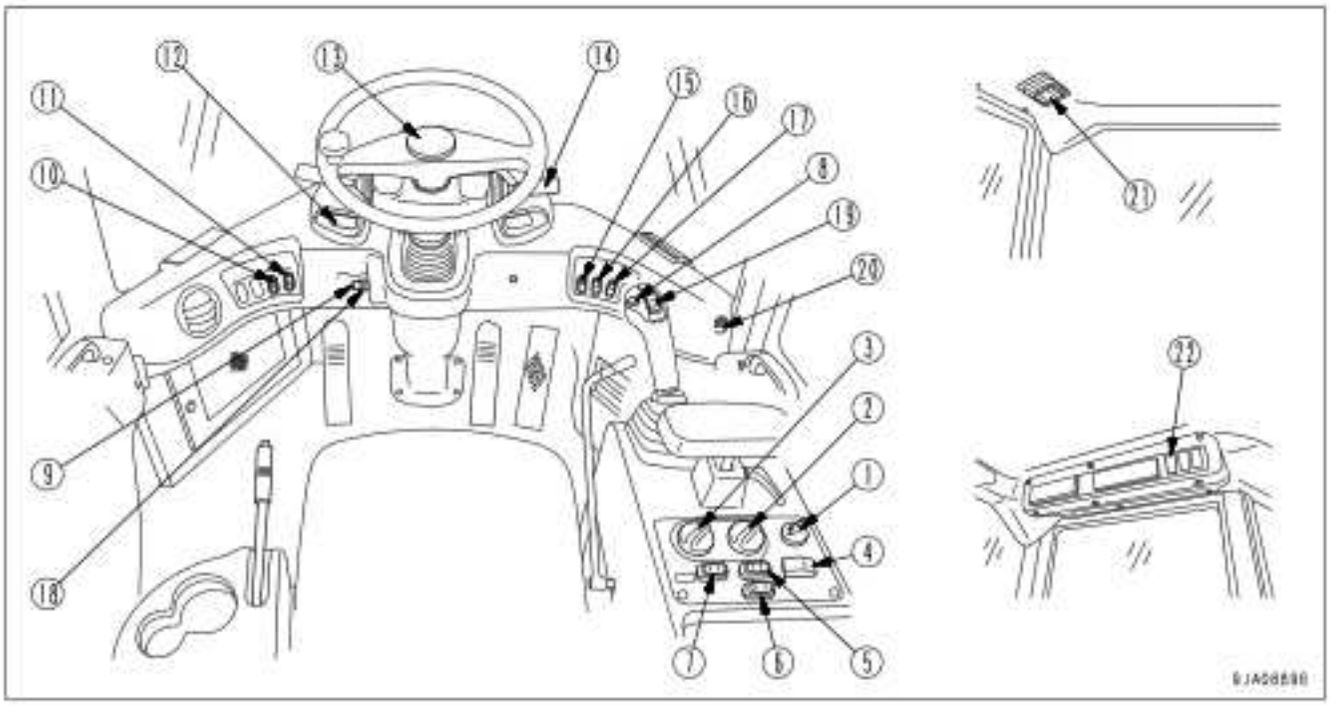
KOMATSU®

MidWestTech | Komatsu WA320-6 Wheel Loader Operation & Maintenance Manual | Publi... Order the manual at mid-west-tech.com >

GREASE PUMP ---- 3- 64
OPENING, CLOSING CAB DOORS, WINDOWS ---- 3- 65
FUSE ---- 3- 69
SLOW BLOW FUSE ---- 3- 71
POWER OUTLET ---- 3- 72
STORAGE BOX ---- 3- 72
AM/FM RADIO-CASSETTE STEREO ---- 3- 73
AIR CONDITIONER ---- 3- 81
HANDLING CAB WIPER ---- 3- 88
OPERATION ---- 3- 89
CHECK BEFORE STARTING ENGINE, ADJUST ---- 3- 89
STARTING ENGINE ---- 3-107
CHECKS AFTER STARTING ENGINE ---- 3-111
OPERATIONS AND CHECKS AFTER STARTING ENGINE ---- 3-112
STOPPING ENGINE ---- 3-115
MOVING THE MACHINE (DIRECTIONAL, SPEED), STOPPING THE MACHINE ---- 3-116
TURNING ---- 3-122
OPERATION OF WORK EQUIPMENT ---- 3-124
WORK POSSIBLE USING WHEEL LOADER ---- 3-126
PRECAUTIONS FOR OPERATION ---- 3-131
ADJUSTING WORK EQUIPMENT POSTURE ---- 3-133
PARKING MACHINE ---- 3-135
CHECKS AFTER COMPLETION OF OPERATION ---- 3-137
LOCKING ---- 3-137
HANDLING THE TIRES ---- 3-138
TRANSPORTATION ---- 3-140
TRANSPORTATION PROCEDURE ---- 3-140
LOADING, UNLOADING WORK WITH TRAILERS ---- 3-140
LIFTING MACHINE ---- 3-144
COLD WEATHER OPERATION ---- 3-146
PRECAUTIONS FOR LOW TEMPERATURE ---- 3-146
PRECAUTIONS AFTER COMPLETION OF WORK ---- 3-147
AFTER COLD WEATHER ---- 3-147
LONG-TERM STORAGE ---- 3-148
BEFORE STORAGE ---- 3-148
DURING STORAGE ---- 3-148
AFTER STORAGE ---- 3-148
TROUBLESHOOTING ---- 3-149
WHEN MACHINE RUNS OUT OF FUEL ---- 3-149
METHOD OF TOWING MACHINE ---- 3-149
IF BATTERY IS DISCHARGED ---- 3-151
OTHER TROUBLE ---- 3-154
MAINTENANCE ---- 4- 1
GUIDES TO MAINTENANCE ---- 4- 2
OUTLINES OF SERVICE ---- 4- 4
HANDLING OIL, FUEL, COOLANT, AND PERFORMING OIL CLINIC ---- 4- 4
OUTLINE OF ELECTRIC SYSTEM ---- 4- 7
WEAR PARTS ---- 4- 8
WEAR PARTS LIST ---- 4- 8
RECOMMENDED FUEL, COOLANT, AND LUBRICANT ---- 4- 9

MidWestTech | Komatsu WA320-6 Wheel Loader Operation & Maintenance Manual |... Order the manual at mid-west-tech.com >

SWITCHES



(1) Starting switch
(2) Speed range selector switch
(3) Variable shift control switch
(4) Quick coupler attachment switch (if equipped)
(5) Cooling fan auto reverse rotation switch
(6) Directional selector switch actuation switch
(7) Traction control switch
(8) Max. traction switch
(9) Front wiper switch
(10) Machine monitor mode selector switch 1
(11) Machine monitor mode selector switch 2
(12) E.C.S.S. switch (if equipped) (*)
(13) Horn button
(14) Lamp switch
(14) Turn signal lever
(14) Dimmer switch
(15) Front working lamp switch
(16) Rear working lamp switch
(17) Hazard lamp switch
(18) Rear wiper switch
(19) Directional selector switch
(20) Cigarette lighter
(21) Room lamp switch
(22) Rear heated wire glass switch

(*)E.C.S.S.: Electronic Controlled Suspension System

MidWestTech | Komatsu WA320-6 Wheel Loader Operation & Maintenance Manual |... Order the manual at mid-west-tech.com >

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)".

MidWestTech | Komatsu WA320-6 Wheel Loader Operation & Maintenance Manual |... Order the manual at mid-west-tech.com >

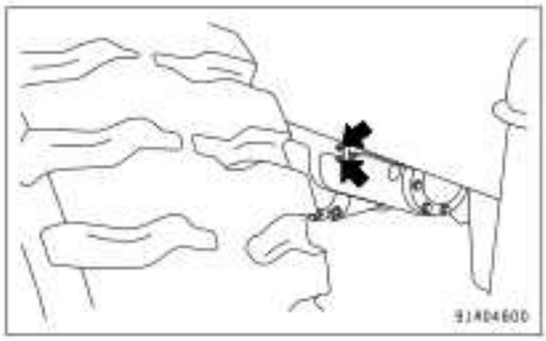
EVERY 100 HOURS SERVICE

Maintenance for every 50 hours service should be carried out at the same time.

LUBRICATE REAR AXLE PIVOT PIN

(2 places)

1. By 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.



MidWestTech | Komatsu WA320-6 Wheel Loader Operation & Maintenance Manual |... Order the manual at mid-west-tech.com >