TEN00228-06

Operation & Maintenance Manual

ARTICULATED
DUMP TRUCK

HM300-2

SERIAL NUMBERS 2481 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 HM300-2 Dump Truck Operation & Maintenance Manual | Publica... Order the manual at mid-west-tech.com >

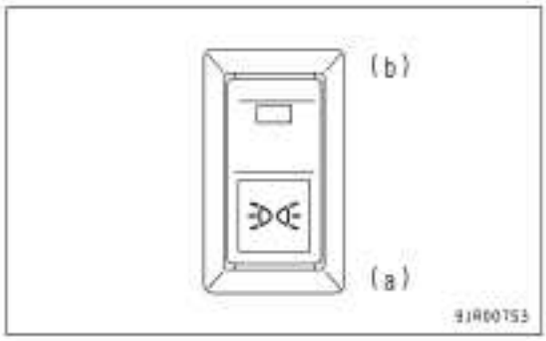
DUST INDICATOR ---- 3- 46
CIRCUIT BREAKER ---- 3- 46
FUSES ---- 3- 47
CAR RADIO ---- 3- 50
CAR STEREO ---- 3- 56
AIR CONDITIONER ---- 3- 64
OPERATION ---- 3- 69
CHECK BEFORE STARTING ENGINE ---- 3- 69
STARTING ENGINE ---- 3- 84
OPERATIONS, CHECKS AFTER STARTING ENGINE ---- 3- 86
STOPPING ENGINE ---- 3- 87
CHECKS AFTER STOPPING ENGINE ---- 3- 87
MOVING MACHINE OFF (FORWARD, REVERSE), STOPPING ---- 3- 88
SHIFTING GEAR ---- 3- 93
TRAVELING DOWNHILL ---- 3- 95
STEERING THE MACHINE ---- 3-101
OPERATION USING DIFFERENTIAL LOCK ---- 3-102
LOADING OPERATIONS ---- 3-103
DUMP OPERATIONS ---- 3-105
CAB TILT OPERATION ---- 3-107
PRECAUTIONS FOR OPERATION ---- 3-110
PARKING MACHINE ---- 3-111
CHECKS AFTER COMPLETION OF WORK ---- 3-112
LOCKING ---- 3-112
HANDLING TIRES ---- 3-113
DETERMINING AND MAINTAINING TRAVEL ROAD ---- 3-114
DETERMINING TRAVEL ROAD ---- 3-114
MAINTAINING TRAVEL ROAD ---- 3-114
TRANSPORTATION ---- 3-115
PRECAUTIONS WHEN TRANSPORTING ---- 3-115
STEPS FOR TRANSPORTATION ---- 3-115
METHOD OF SECURING MACHINE ---- 3-116
METHOD OF LIFTING MACHINE ---- 3-117
COLD WEATHER OPERATION ---- 3-121
PRECAUTIONS FOR LOW TEMPERATURE ---- 3-121
PRECAUTIONS AFTER COMPLETION OF WORK ---- 3-122
AFTER COLD WEATHER ---- 3-123
LONG-TERM STORAGE ---- 3-124
BEFORE STORAGE ---- 3-124
DURING STORAGE ---- 3-124
AFTER STORAGE ---- 3-124
PRECAUTIONS BEFORE TRAVELING AFTER LONG-TERM STORAGE ---- 3-124
TROUBLESHOOTING ---- 3-125
AFTER RUNNING OUT OF FUEL ---- 3-125
IF TRANSMISSION HAS TROUBLE ---- 3-126
METHOD OF LOWERING DUMP BODY IN EMERGENCY ---- 3-126
METHOD OF TOWING MACHINE ---- 3-127
IF BATTERY IS DISCHARGED ---- 3-131
OTHER TROUBLE ---- 3-135
MAINTENANCE ---- 4- 1

MidWestTech | Komatsu HM300-2 Dump Truck Operation & Maintenance Manual | Pu... Order the manual at mid-west-tech.com >

SIDE LAMP SWITCH
(If equipped)
This switch (12) is used to switch on the side lamp.

(a): Side lamp goes out
(b): Side lamp lights up

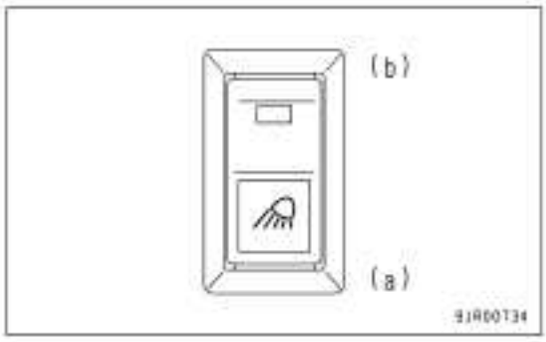
When the lamp switch is turned ON, the icon inside the switch lights up, regardless of the position of the switch.



WORKING LAMP (FRONT) SWITCH
This switch (13) is used to switch on the working lamp (front).

(a): Working lamp goes out
(b): Working lamp lights up

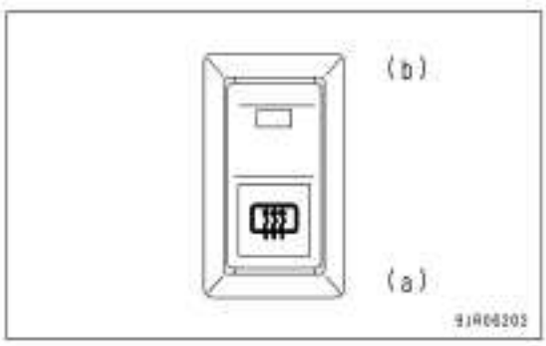
When the lamp switch is turned ON, the icon inside the switch lights up, regardless of the position of the switch.



SWITCH FOR REAR WINDOW GLASS WITH HEATED WIRE
Use this switch (14) to turn the heater for the rear glass ON/OFF.
(a): Wire heater OFF
(b): Wire heater ON

When the lamp switch is turned ON, the icon inside the switch lights up, regardless of the position of the switch.

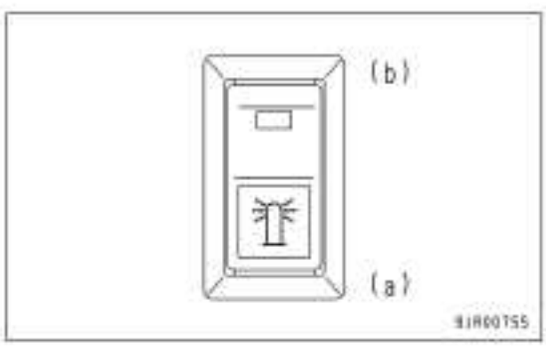
REMARK
The wire heater does not automatically turn OFF when it becomes hot, so when it is not needed, turn the switch manually to the OFF position.



YELLOW ROTATING LAMP SWITCH
(If equipped)
This switch (15) is used to switch the yellow rotating lamp on and off. When the lamp is switched on, it lights up and rotates.

(a): Yellow rotating lamp goes out
(b): Yellow rotating lamp lights up

When the lamp switch is turned ON, the icon inside the switch lights up, regardless of the position of the switch.



MidWestTech | Komatsu HM300-2 Dump Truck Operation & Maintenance Manual | Pu... Order the manual at mid-west-tech.com >

Capacity \ Reservoir		Engine oil pan	Transmission case (Incl. brake oil tank)	Hydraulic tank	Front suspension (each)	Rear suspension (each)	Front differential
Specified	Liters	44	165	171	3	2.2	14
	US gal	11.62	43.59	45.18	0.79	0.58	3.70
Refill	Liters	37	77.5	120	3	2.2	14
	US gal	9.78	20.48	31.70	0.79	0.58	3.70

Capacity \ Reservoir		Front final drive case (each)	Center differential case	Center final drive case (each)	Rear differential case	Rear final drive case (each)	Fuel tank	Cooling system
Specified	Liters	4.5	25	4.0	25	5.0	384	65
	US gal	1.19	6.61	1.06	6.61	1.32	101.45	17.17
Refill	Liters	4.0	24.5	3.5	25	4.5	–	59
	US gal	1.06	6.47	0.92	6.61	1.19	–	15.59

NOTICE

Always use diesel oil for the fuel.

To ensure good fuel consumption characteristics and exhaust gas characteristics, the engine mounted on this machine uses an electronically controlled high-pressure fuel injection device. This device requires high precision parts and lubrication, so if low viscosity fuel with low lubricating ability is used, the durability may drop markedly.

Note 1: HTHS (High-Temperature High-Shear Viscosity 150°C), specified by ASTM D4741 must be equal to or higher than 3.5 mPa-S. Komatsu EOS0W30 and EOS5W40 are the most suitable oils.

Note 2: Powertrain oil has different properties from engine oil. Be sure to use the recommended oils.

Note 3: Hyper grease (G2-T, G2-TE) has a high performance.
When it is necessary to improve the lubricating ability of the grease in order to prevent squeaking of pins and bushings, the use of G2-T or G2-TE is recommended.

Note 4: Supercoolant (AF-NAC)

1) Coolant has the important function of anticorrosion as well as antifreeze.
Even in the areas where freezing is not an issue, the use of antifreeze coolant is essential.
Komatsu machines are supplied with Komatsu Supercoolant AF-NAC. Komatsu Supercoolant AF-NAC has excellent anticorrosion, antifreeze and cooling properties and can be used continuously for 2 years or 4000 hours.
Komatsu Supercoolant AF-NAC is strongly recommended wherever available.
2) For details of the ratio when diluting super coolant with water, see "CLEAN INSIDE OF COOLING SYSTEM (PAGE 4-26)".
Supercoolant AF-NAC may be supplied in premix. In this case, always top off with premix solution. (never dilute with water)
3) To maintain the anticorrosion properties of Supercoolant AF-NAC, always keep the density of Supercoolant between 30% and 68%.

RECOMMENDED BRANDS, RECOMMENDED QUALITY FOR PRODUCTS OTHER THAN KOMATSU GENUINE OIL

When using commercially available oils other than Komatsu genuine oil, consult your Komatsu distributor.

MidWestTech | Komatsu HM300-2 Dump Truck Operation & Maintenance Manual | Pu... Order the manual at mid-west-tech.com >

EVERY 500 HOURS SERVICE

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

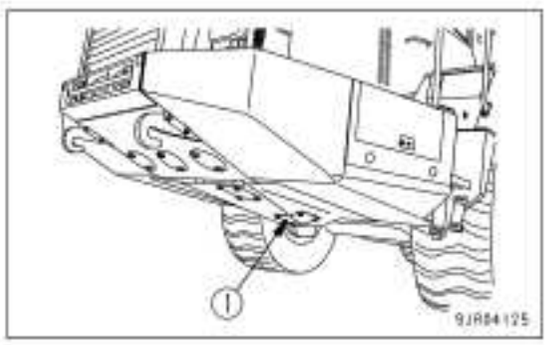
CHANGE OIL IN ENGINE OIL PAN, REPLACE ENGINE OIL FILTER CARTRIDGE

⚠ WARNING

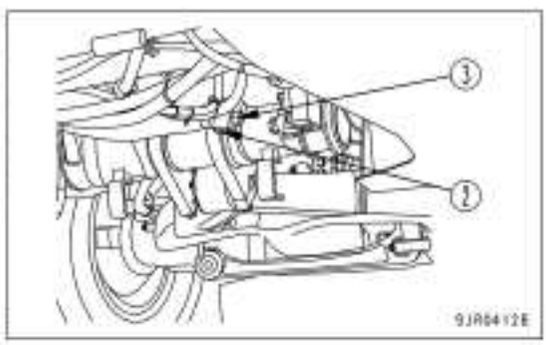
Immediately after the engine is stopped, the oil and parts are at high temperature, and this will cause burns. Wait for the temperature to go down before starting the operation.

- Refill capacity: 37 liters (9.78 US gal)
- Prepare a filter wrench and a container to catch the oil.

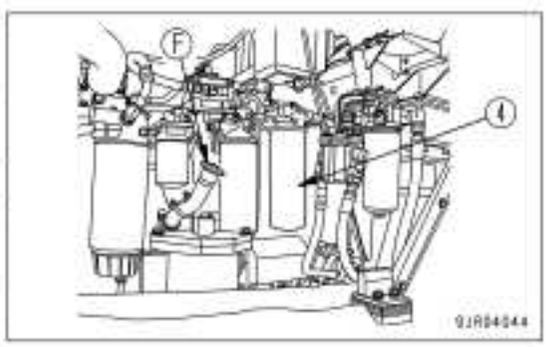
1. Remove the bolts and cover (1).
2. Set the oil container immediately under the drain valve.



3. Remove drain plug (2), then loosen drain valve (3) slowly to avoid getting oil on yourself, and drain the oil. Be careful not to loosen the drain valve too far and deform the stopper pin inside the valve.
4. Check the drained oil, and if there are excessive metal particles or foreign material, please contact your Komatsu distributor.
5. Tighten drain valve (3) and drain plug (2).
   Tighten both of drain plug (2) and drain valve (3) to 68.6 ± 9.8 Nm {7 ± 1 kgm, 50.6 ± 7.2 lbft}.



6. Using the filter wrench, turn filter cartridge (4) to the left to remove it.
   When doing this, to prevent getting oil on yourself, do not carry out this operation from immediately under the cartridge.
   In particular, if this operation is carried out immediately after stopping the engine, a large amount of oil will come out, so wait for 10 minutes before starting the operation.
7. Clean the filter head, fill the new filter cartridge with oil, coat the packing face and thread with oil (or coat thinly with grease), then install the filter cartridge.



8. Install the filter cartridge. When doing this, be careful not to damage the outside cylinder of the cartridge.
   When installing the filter cartridge, tighten until the packing face is in contact with the filter head, then tighten a further 3/4 to 1 turn.
9. Pour in the specified amount of engine oil from oil filler (F).
10. Run the engine for a short time at idle, then check the oil if it is filled up to a specified level. For details, see "CHECK OIL LEVEL IN ENGINE OIL PAN, ADD OIL (PAGE 3-73)".

MidWestTech | Komatsu HM300-2 Dump Truck Operation & Maintenance Manual | Pu... Order the manual at mid-west-tech.com >