TEN00047-10

Operation & Maintenance Manual

ARTICULATED
DUMP TRUCK

HM350-1

SERIAL NUMBERS 1126 and up

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.

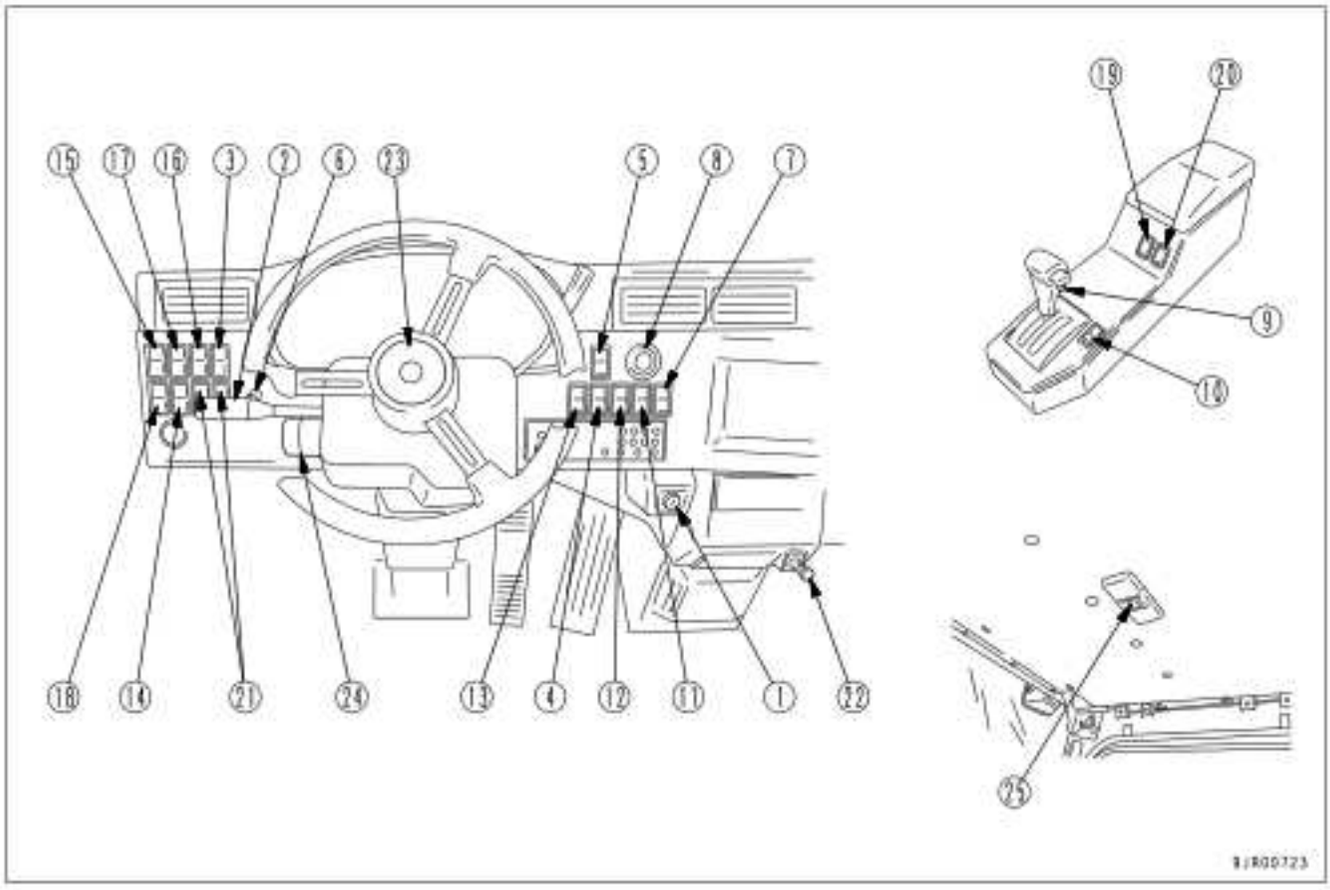
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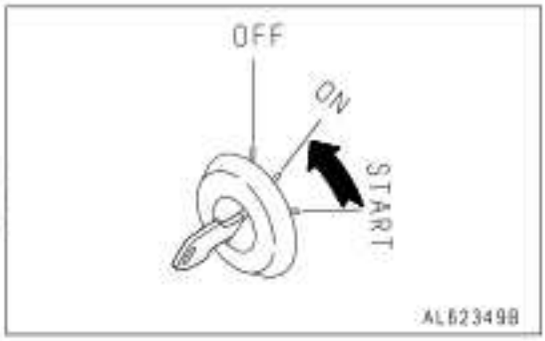
SWITCHES



(1) Starting switch
(2) Lamp switch
Turn signal lever
Dimmer switch
(3) Machine monitor bulb check switch
(4) Exhaust brake switch (if equipped)
(5) Hazard lamp switch
(6) Night lighting dimmer switch
(7) Power mode selector switch
(8) Emergency steering switch
(9) Shift hold switch
(10) Parking brake switch
(11) AISS LOW switch
(12) Inter-axle differential lock switch
(13) Left and right differential lock switch
(14) Fog lamp switch (if equipped)
(15) Side lamp switch (if equipped)
(16) Working lamp (front) switch
(17) Working lamp (rear) switch (if equipped)
(18) Yellow rotating lamp switch (if equipped)
(19) Power window switch (right)
(20) Power window switch (left)
(21) Machine monitor mode selector switch 1, 2
(22) Cigarette lighter
(23) Horn button
(24) Wiper, window washer switch
(25) Room lamp switch

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5. When the engine starts, release the key in starting switch (1). The key will return automatically to the ON position.



REMARK
If the engine does not start, turn the key in starting switch (1) to the OFF position, then turn it back to the ON position. The pre-heating will automatically start again according to the engine water temperature.

6. Immediately after starting the engine, run at idling continuously for 15 seconds. Do not operate the accelerator pedal during this time.
   Guideline for idling time
   - Cold temperature: 15 seconds or more
   - When first starting engine after changing engine oil and replacing engine oil filter: 20 seconds

REMARK
- Immediately after the engine is started, the turbo protect function is actuated. Even if the accelerator pedal is depressed, the engine speed will not rise above 1,000 rpm.

Engine water temperature	Turbo protect time
above 10°C (50°F)	0 sec
-10°C to 10°C (14°F to 50°F)	0 to 5 sec
below -10°C (14°F)	5 sec

- The turbocharger rotates at extremely high speed. Immediately after the engine is started, the pressure of the lubricating oil has not risen sufficiently, so if the engine speed is suddenly raised, it may lead to damage or seizure of the turbocharger bearing. The turbo protect function acts to prevent this problem. It uses electronic control to prevent the engine speed from rising above a certain speed for the first few seconds after the engine started.
- To improve the ease of starting in cold weather, the low idling speed becomes slightly higher for the time given below and the engine sound is different. In addition, it functions to make the acceleration gradual during this time.

Engine water temperature	Injection characteristics change time
above 20°C (68°F)	0 sec
0°C to 20°C (32°F to 68°F)	0 to 6 sec
-20°C to 0°C (-4°F to 32°F)	6 to 12 sec
-30°C to -20°C (-22°F to -4°F)	12 to 15 sec

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EVERY 1000 HOURS SERVICE

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

REPLACE FUEL FILTER CARTRIDGE

⚠ WARNING

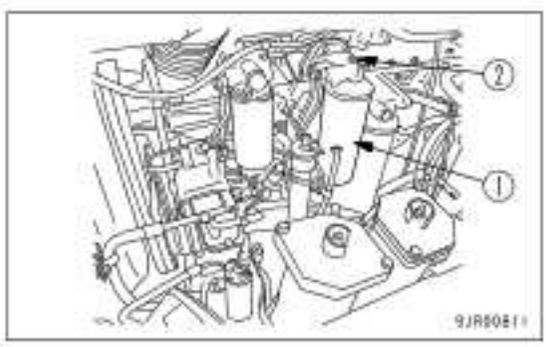
- **Immediately after the engine is stopped, all parts are at high temperature, so do not replace the filter immediately. Wait for the engine to cool down before starting the operation.**
- **The inside of fuel piping system of the engine is under high-pressure when the engine is running. When replacing the filter, wait for at least 30 seconds after the engine stops to let the internal pressure go down before replacing the filter.**
- **Do not bring any fire or spark close.**
- **Be careful when opening the air bleed plug at the fuel filter head and the air bleeder of the supply pump. The system is still under pressure and fuel may spurt out.**

NOTICE

- **Genuine Komatsu fuel filter cartridges use a special filter that has highly efficient filtering ability. When replacing the filter cartridge, always use a genuine Komatsu part.**
- **The common rail fuel injection system used on this machine consists of more precise parts than the conventional injection pump and nozzle.**
  If any part other than a genuine Komatsu filter cartridge is used, dust or dirt may get in and cause problems with the injection system. Always avoid using substitute parts.
- **When performing inspection or maintenance of the fuel system, pay more attention than normal to the entry of dirt. If dirt is stuck to any part, use fuel to wash it off completely.**

- Prepare a filter wrench

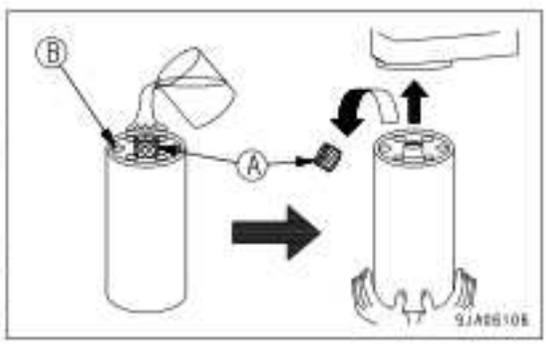
1. Set the container to catch the fuel under the filter cartridge.
2. By using a filter wrench, turn filter cartridge (1) counterclockwise on remove it.
3. Clean the filter holder.



NOTICE

When filling the filter cartridge with fuel, perform the filling operation with cap (A) fitted.
Cap (A) acts to prevent the entry of dirt or dust into the filter cartridge.

4. Fill the filter cartridge with clean fuel through the 8 small holes (B) in the new filter cartridge.
5. Coat the packing surface of the filter cartridge with oil.
6. Remove filter cartridge cap (A) and install to the filter holder.
7. When installing, tighten until the packing surface contacts the seal surface of the filter holder, then tighten it up 1/2 to 3/4 of a turn.
   If the filter cartridge is tightened too far, the packing will be damaged and this will lead to leakage of fuel. If the filter cartridge is too loose, fuel will also leak from the packing, so always tighten to the correct amount.
8. After replacing filter cartridge (1), loosen air bleed plug (2).



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