SEAM018500

Operation & Maintenance Manual

KOMATSU®

WA700-3

WHEEL LOADER

SERIAL NUMBERS **WA700-3 - 50001** and up

November 1998

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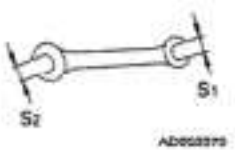
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21. STANDARD TIGHTENING TORQUES FOR BOLTS AND NUTS

21.1 INTRODUCTION OF NECESSARY TOOLS

The following tools are provided with the machine.

No.	Name of tool	Part No.	Remarks
1	Wrench set	09000-30006	Applicable width across flats (S_1-S_2) 8mm – 10mm, 12mm – 14mm 13mm – 17mm 19mm – 22mm 24mm – 27mm 30mm – 32mm 
2	Socket wrench set	09020-10284	
3	Screwdriver	09033-00190	Crosshead/flat head interchangeable type
4	Wrench	09014-10200	
5	Pliers	09036-00150	
6	Wrench	09001-03600	36 jaw
7	Filter wrench	09019-08035	For filter cartridge
8	Bar	424-98-11130	Extension bar
9	Gauge	09289-10000	
10	Thickness gauge	09054-00000	
11	Grease pump	07952-80003	For greasing work
12	Nozzle	07951-31400	Hose nozzle for grease pump
13	Grease cartridge	07950-90403	(Lithium base grease: 400 g)
14	Nipple	424-98-11110	For hydraulic oil drain
15	Hose	424-98-11120	
16	Hammer	09039-00150	
17	Plate	09963-03000	Warning tag

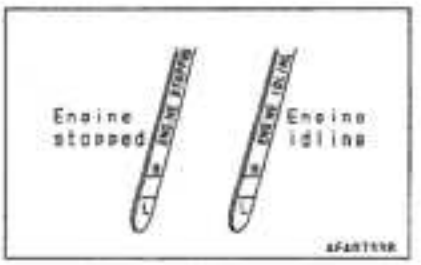
If any of the above tools are broken, please order them from your Komatsu distributor.

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8. Clean the filter holder, fill the new filter cartridge with engine oil, then coat the seal and thread of the filter cartridge with engine oil (or coat thinly with grease) and install.

9. When installing, bring the seal surface into contact with the filter holder, then tighten a further 3/4 – 1 turns.

10. After replacing the filter cartridge, add engine oil through oil filler Ⓕ until the oil level is between the H and L marks on dipstick Ⓖ.



For details of the oil to use, see "20. USE OF FUEL, COOLANT AND LUBRICANTS ACCORDING TO AMBIENT TEMPERATURE".

11. Run the engine at idling for a short time, then stop the engine, and check that the oil level is between the H and L marks on the dipstick. For details, see "24.3 CHECK BEFORE STARTING".

Even if the machine has not been operated for 250 hours, the oil and filter cartridge must be replaced when the machine has been operated for 6 months.

In the same way, even if the machine has not been operated for 6 months, the oil and filter cartridge must be replaced when the machine has been operated for 250 hours.

Use API category CD class oil. If CC class oil must be used, change the oil and replace the oil filter at half the usual interval (125 hours).

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31.1 METHOD OF OPERATING AUTO-GREASING SYSTEM

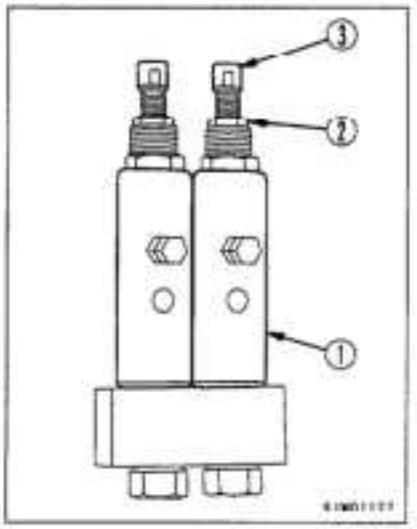


1. If the starting switch of the vehicle is turned ON, this system automatically starts the operation.

2. Auto-greasing switch ①

   If the auto-greasing switch ① is pressed, the grease pump is operated, regardless of the time count. The grease pump operates only while the auto-greasing switch is pressed and held. The grease pump stops immediately when the auto-greasing switch is released. This switch is mainly used to check the operation of the grease pump or supply additional grease.

31.2 PRECAUTIONS WHEN HANDLING AUTO-GREASING SYSTEM



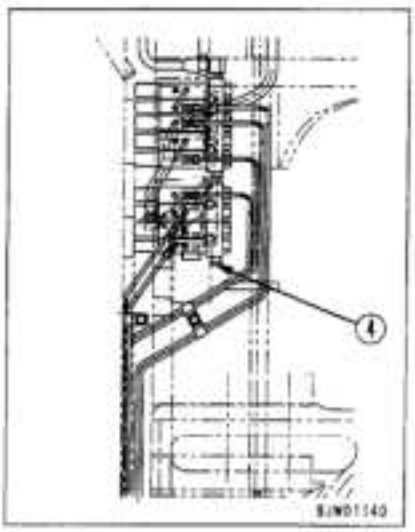
1. Adjustment of discharge from injector ①

   Set the all injectors to the maximum discharge.
   Loosen lock nut ② and turn adjustment screw ③ counterclockwise.

2. Method of bleeding air from main line

   Loosen the plug installed to each injector to bleed air from the main piping. This work shall be carry out by two persons. Start bleeding at the injector nearest the grease pump, then bleed at the other injectors in order (Rear frame → Front frame → Boom → Bell crank).

   1) One person removes plug ④ from one injector, then stays there.



This plug ④ is installed to the manifold end of each end injector. If air must be bled from the main piping, remove this plug.

   2) The other person presses the auto-greasing switch to start the grease pump.

   3) Discharge the grease containing air (milky white in many cases) from the injector. If normal grease comes out, stop the grease pump.

   4) Tighten plug ④ of the injector to prevent the grease from leaking.

      It is impossible to see if the air has been bled by simply checking the pressure gauge. Even if air is mixed in the grease, the auto-grease system operates since the discharge pressure of the grease pump is high. To see if the greasing system is working normally, check that the grease pump is balanced and stopped in the specified (operating) time (60 seconds).

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