Service Manual

VMT380, VMT430

Section 1 - General Information

Section 2 - Care and Safety

Section 3 - Maintenance

Section C - Electrics

Section E - Hydraulics

Section H - Steering

Section K - Engine

Section L - Vibration



Publication No.

9813/1550-1



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Issued by JCB Technical Publications, JCB Aftermarket Training, Woodseat, Rocester, Staffordshire, ST14 5BW, England. Tel +44 1889 591100 Fax +44 1889 591403

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symptoms may be made worse when the machine operates on steep gradients.

Note: *If you increase the engine speed or load while there is air in the fuel system, then subsequent damage to the engine can occur.*

If the fuel supply contains air, you must stop the engine, fill the fuel tank then bleed the fuel system to remove the air. Refer to ***Routine Maintenance, Fuel System***.

Important: *You must bleed the fuel system after a fuel filter change.*

Filling the Tank

Important: *Before you add the fuel to the machine, refer to* ***Fluids, Lubricants and Capacities, Fuels****. If you use the incorrect type of fuel or fuel which is contaminated, then damage to the fuel injection system can occur.*

At the end of every working day, fill the tank with the correct type of fuel. This will prevent overnight condensation from developing in the fuel. The fuel tank is situated on the right hand side of the operator platform.

1 Make the machine safe. ⇨ *Prepare the Machine for Maintenance (80)*.

2 Gain access to the fuel cap **A**. ⇨ *Operator Stand Right Hand Access Panel (87)*

We recommend that you lock the fuel cap to prevent theft and tampering. ⇨ *Fig 19. (101)*.

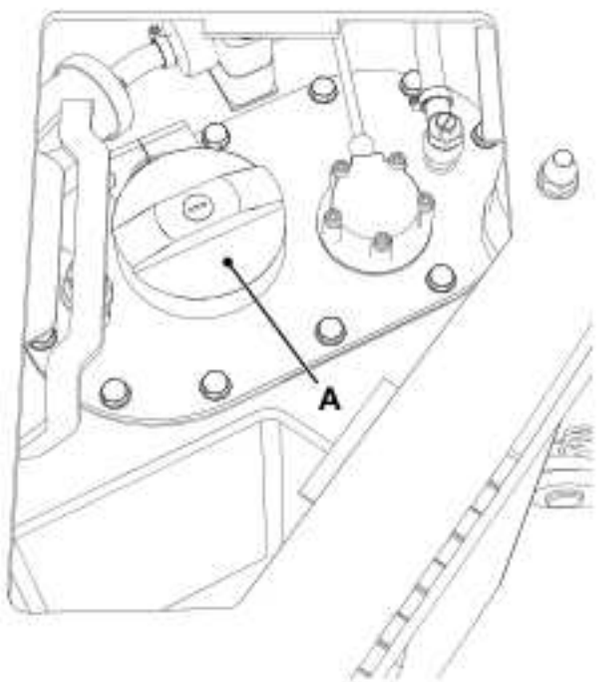


Fig 19.

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Steer Pump

Specifications

Operating Viscosity	12 to 60cSt; maximum 1600 at cold start
Fluid Temperature	80°C Maximum; 90°C Maximum Peak; -20°C minimum at cold start
Inlet Pressure	7-2 Bar Absolute (maximum vaccum 0.3 Bar; maximum inlet pressure 1 Bar)

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Vibration Circuit (Rear Vibration)

Note: *Refer to the hydraulic circuit diagram ⇨ Vibration Circuit - Rear Only (E-31).*

When rear only vibration operation is selected the following occurs: -

Solenoid valve Y3 only is energised.

This means that one half of the path of least resistance is open and pressure is equal on both sides of the M4 motor only, thus it does no run.

Oil now flows from the pump P2 to M3 (port A) and exits M3 at (port B). The return flow from M3 is directed to VB1 (port C) and then back to tank.

Y3 solenoid must be energised to close the remaining half of the path of least resistance thus creating a pressure differential accross the M3 motor . This means that the rear vibration motor only is now turning.

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Fig 18.

13 Apply grease on inner side of the seal **16**. ⇨ *Fig 19. (L-15)*.

Note: *During production, a white grease is used. The nearest JCB equivalent grease is JCB Special Slide lubricant.*

Note: *Do not use JCB Special HP (blue) grease.*

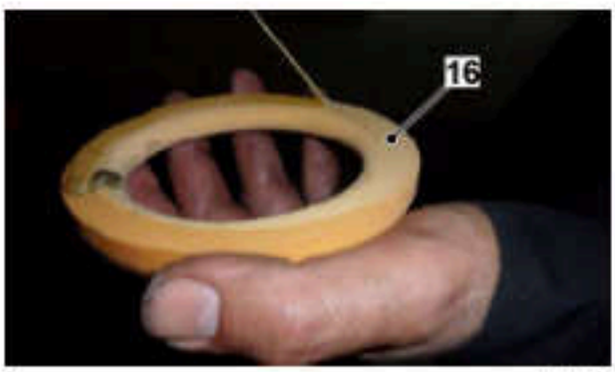


Fig 19.

14 Install the seal **16** onto the bearing housing, make sure that the chamfer faces up. ⇨ *Fig 20. (L-15)*

Note: *Grease the top of the seal.*

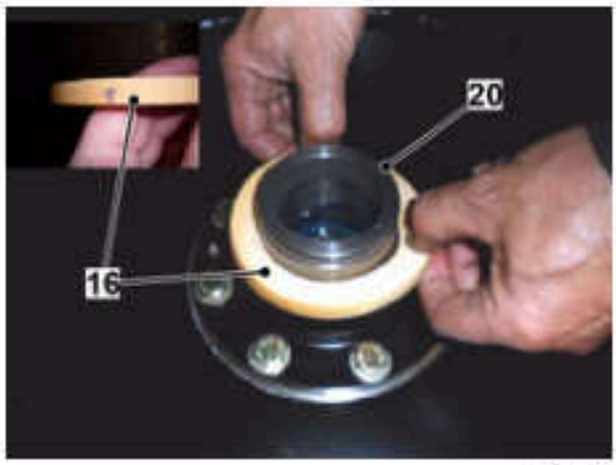


Fig 20.

Vibrator Drive Plate Preparation

1 Apply Loctite 275 to the vibrator motor plate **21** retaining bolts.

2 Apply Loctite to the buffers **22** below the plate **21**. ⇨ *Fig 21. (L-15)*.

3 Install the washer and bolts and torque to 210 Nm.



Fig 21.

4 Locate the vibrator end plate assembly onto the previously assembled drum end cap. ⇨ *Fig 22. (L-16)*.

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Removal

⚠ WARNING

Raised Machine

NEVER position yourself or any part of your body under a raised machine which is not properly supported. If the machine moves unexpectedly you could become trapped and suffer serious injury or be killed.

INT-3-3-7_1

⚠ WARNING

Lifting Equipment

You can be injured if you use faulty lifting equipment. Make sure that lifting equipment is in good condition. Make sure that lifting tackle complies with all local regulations and is suitable for the job. Make sure that lifting equipment is strong enough for the job.

INT-1-3-7

1 Park the machine correctly on firm level ground. Chock the rollers.

2 Switch of the engine. Isolate the battery and remove the ignition key to so that the machine can not start.

⚠ WARNING

Hydraulic Pressure

Hydraulic fluid at system pressure can injure you. Before connecting or removing any hydraulic hose, residual hydraulic pressure trapped in the service hose line must be vented. Make sure the hose service line has been vented before connecting or removing hoses. Make sure the engine cannot be started while the hoses are open.

INT-3-1-11_2

3 Vent the hydraulic system. ***See Section E, Hydraulics***.

⚠ WARNING

Jacking

A machine can roll off jacks and crush you. Do not work under a machine supported only by jacks.

8-3-5-7

4 Support the machine's rear frame with jack stands.

5 Support the machine's front frame with jack stands.

6 Using the correct equipment, support the articulation joint to allow it to be removed.



Fig 2.

Note: *There should be sufficient slack in the hydraulic pipework and electrical harness* ***2-A*** *to allow the articulation joint to be removed with care. Make sure that undue strain is not put on the pipework and harness during this procedure.*

7 Remove the steering ram front pin **1-19** and pin lock **1-21**. Manoeuvre the steering ram **1-18** out of the way.

8 Remove the bolts **1-23** securing the pivot **1-1** to the front section of the machine.

9 Remove the bolts **1-17** securing the joint to the rear section of the machine.

10 Manoeuvre the joint clear of the machine.

For dismantling, ***See Section H, Articulation Joint, Disassembly, Inspection and Reassembly***

Replacement

Replacement is the opposite of the removal procedure. ⇨ ***Removal (H-3)***.

During replacement, carry out the following:

Renew all fasteners with the correct type. Make sure that correct length bolts are used in the correct place.

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