SERVICE MANUAL

COMPACT EXCAVATOR
8026 CTS, JCB 30PLUS

EN - 9813/7850 - ISSUE 2 - 06/2017

This manual contains original instructions, verified by the manufacturer (or their authorized representative).

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Foreword

The Operator's Manual

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You and others can be killed or seriously injured if you operate or maintain the machine without first studying the Operator's Manual. You must understand and follow the instructions in the Operator's Manual. If you do not understand anything, ask your employer or JCB dealer to explain it.

Do not operate the machine without an Operator's Manual, or if there is anything on the machine you do not understand.

Treat the Operator's Manual as part of the machine. Keep it clean and in good condition. Replace the Operator's Manual immediately if it is lost, damaged or becomes unreadable.

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00 - General

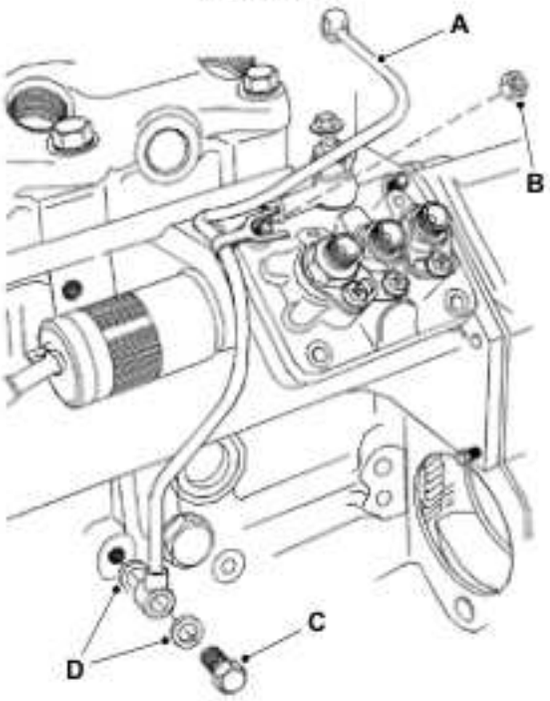
Remove and Install

(For: Perkins 400 Series)

Remove

1. Make the machine safe. Refer to (PIL 01-03).
2. Make sure that the engine is safe to work on. If the engine has been running, let it cool before you start the service work.
3. Loosen the nut that attaches the clip on the oil line to the fuel injection pump.
4. Remove the banjo bolt 1 and remove the washers1 from the crankcase.

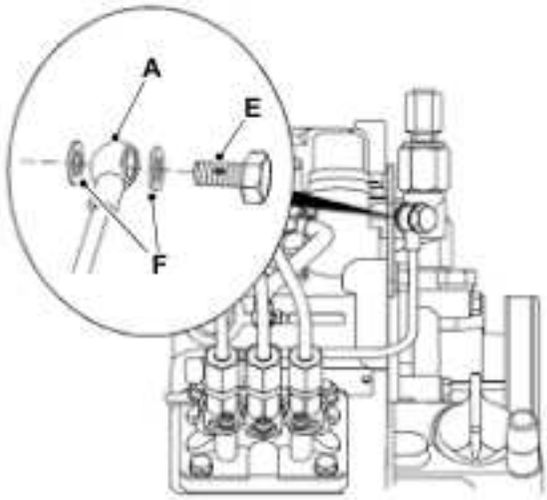
Figure 234.



A Oil line
B Nut
C Banjo bolt 1
D Washers 1

5. Remove the banjo bolt 2 and remove the washers 2 from the crankcase.

Figure 235.



A Oil line
E Banjo bolt 2
F Washers 2

6. Remove the oil line from the engine.

Install

1. Installation is the opposite of the removal procedure. Additionally do the following steps.
2. Before installation, make sure that all the components are clean and free from damage.
3. Tighten the banjo bolts and the nut to the correct torque value.

Table 88. Torque Values

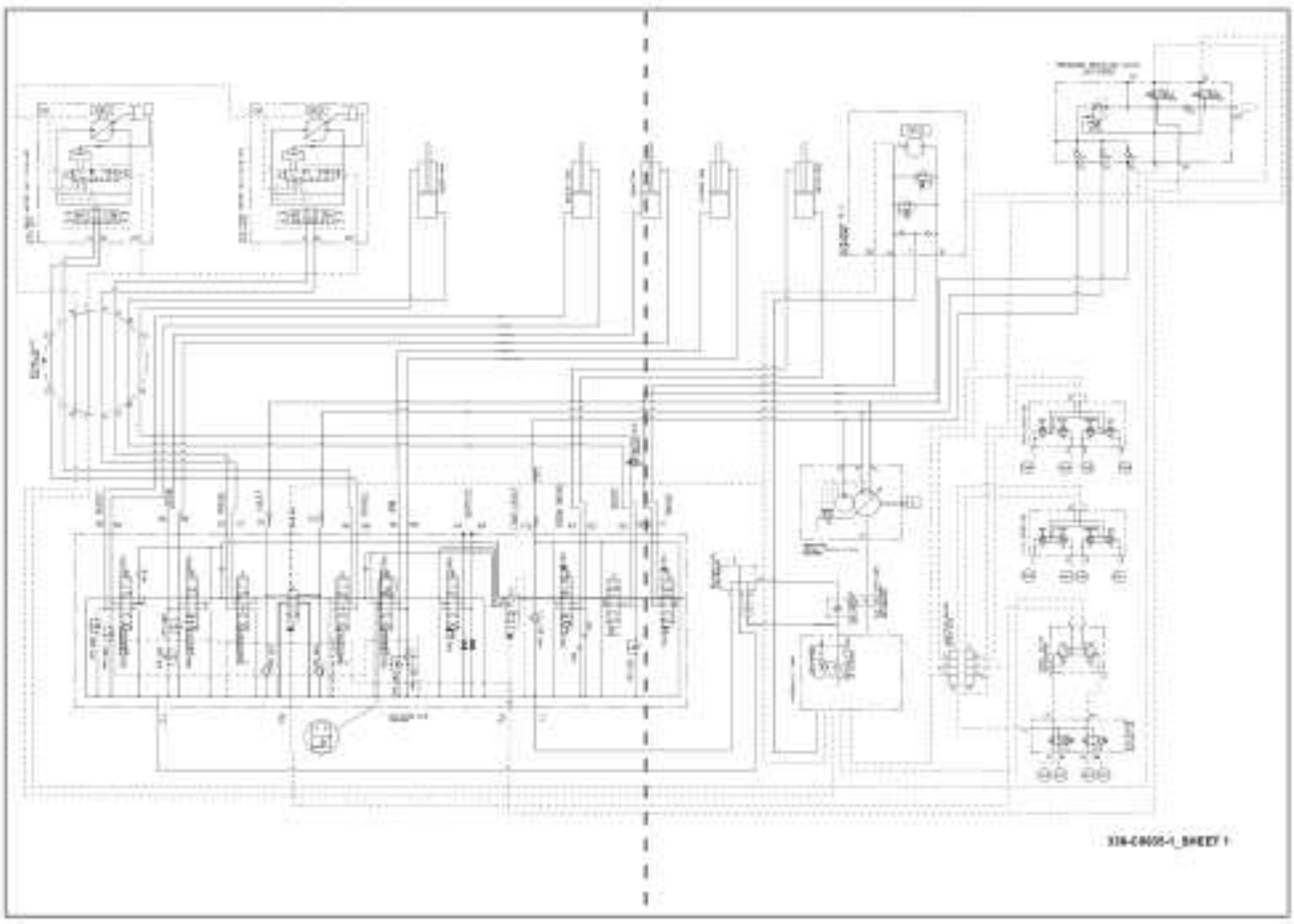
Item	Description	Nm
B	Nut	15
C	Banjo bolt 1	12
E	Banjo bolt 2	12

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Figure 392.

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14. Slowly and gradually screw in the load valve 2 to increase the load on pump 3 to the specified pressure value and make sure of the pressure value on the pressure gauge.

    Pressure: 190bar (2,753.6psi)

15. Note the flow rate and pressure values on the flow meter and pressure gauge 1.

16. Slowly and gradually screw in the load valve 1 to increase the load on the pumps 1 and 2 to the specified pressure value and make sure of the pressure value on the pressure gauge.

    Pressure: 50bar (724.6psi)

17. Note the flow rate and pressure values on the flow meter and pressure gauge 1.

18. Continue to increase the load on the pumps 1 and 2 in equal intervals up to a maximum load of specified value.

    Pressure: 50bar (724.6psi)
    Pressure: 300bar (4,347.8psi)

19. Compare the results against the data shown to determine the pump performance.

Figure 407. Theoretical Pump Performance (For: 8020CTS, 8025ZTS)

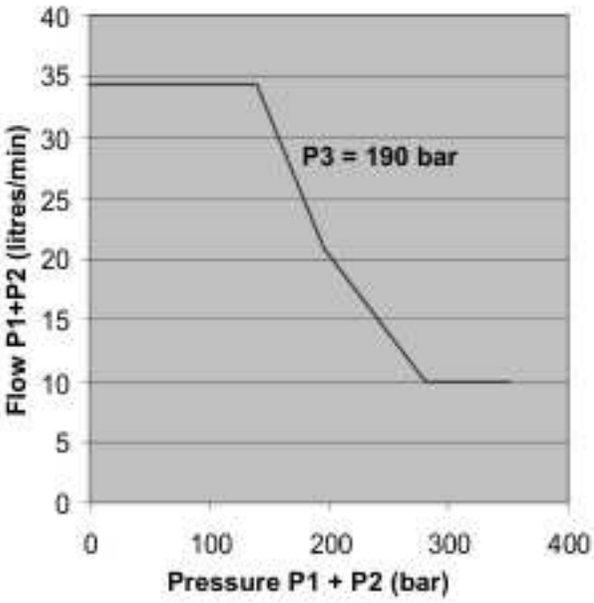


Figure 408. Theoretical Pump Performance (For: 8026CTS, 8030ZTS, JCB30 PLUS, JS30)

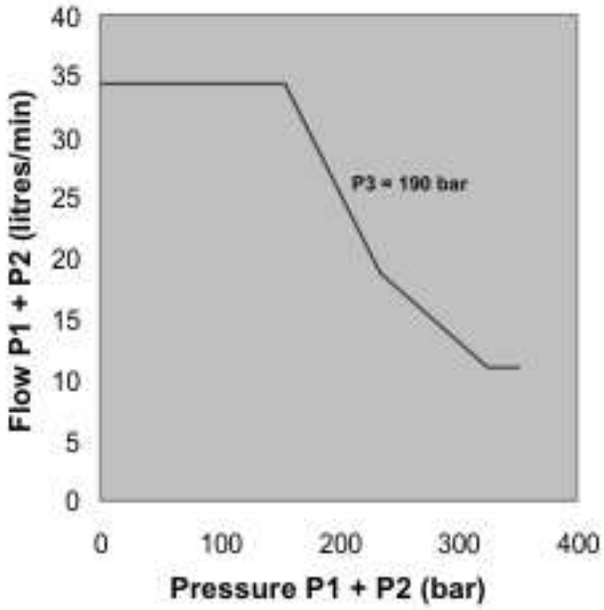
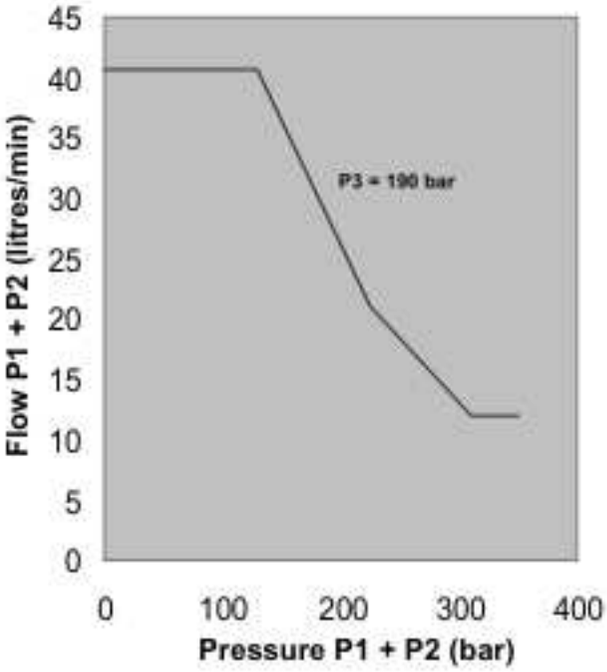
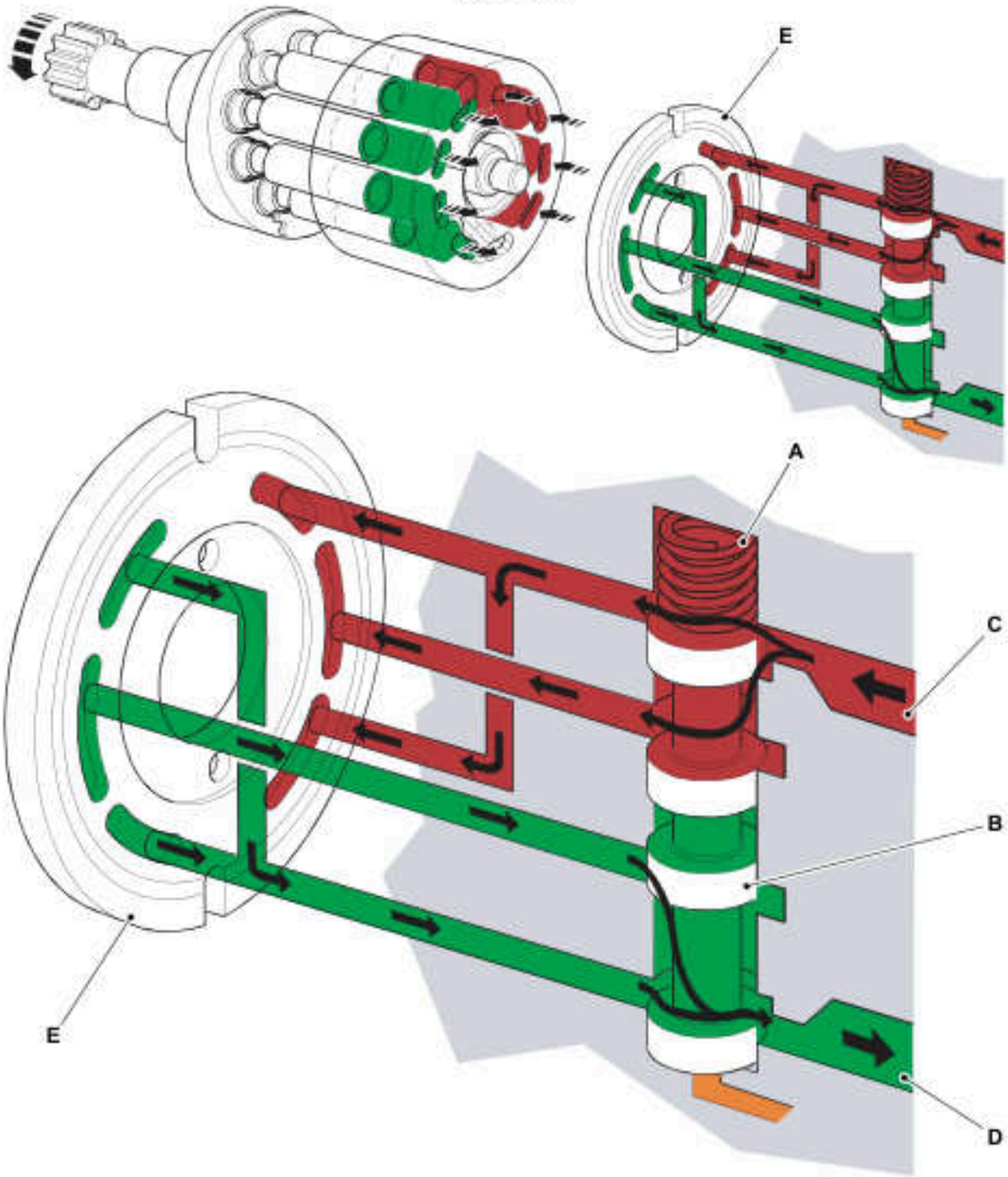


Figure 409. Theoretical Pump Performance (For: 8035ZTS)



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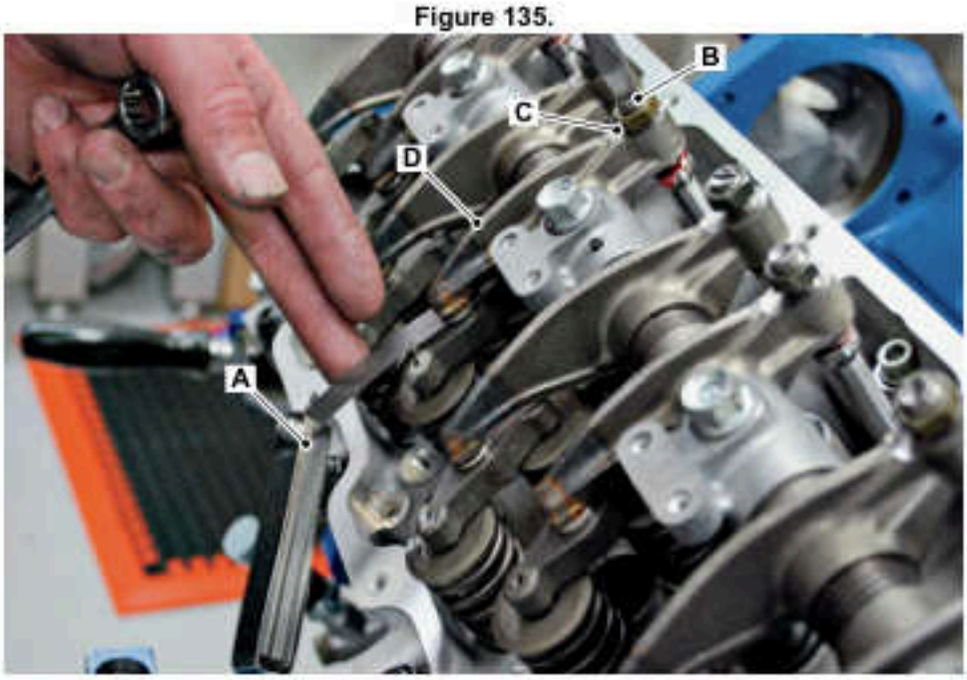
Figure 359.



A Return spring
B 2-speed selector Spool
C Service port 1
D Service port 2
E Valve plate

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Figure 135.



A Feeler gauge
B Adjusting screw
C Locknut
D Rocker arm

6.3. Hold the locknut and turn the adjustment screw.

6.4. Adjust the valve lash until the correct specification is achieved.

6.5. After each adjustment, hold the adjusting screw and tighten the locknut.

7. Rotate the crankshaft in a clockwise direction to the specified angle.

   Angle: 180°

8. When the inlet valve of the No. 2 cylinder has started to open and the exhaust valve of the No. 2 cylinder has not completely closed, make sure that the "Top" mark on the timing case aligns with "Middle dot" on the crankshaft pulley.

9. Check the valve lash of the inlet valve and the exhaust valve of the No. 3 cylinder. If necessary, do the step 6

10. Rotate the crankshaft in a clockwise direction to the specified angle.

    Angle: 180°

11. When the inlet valve of the No. 1 cylinder has started to open and the exhaust valve of the No. 1 cylinder has not completely closed, make sure that the "Top" mark on the timing case aligns with "Single dot" on the crankshaft pulley.

12. Check the valve lash of the inlet valve and the exhaust valve of the No. 4 cylinder. If necessary, do the step 6

13. Rotate the crankshaft in a clockwise direction to the specified angle.

    Angle: 180°

14. When the inlet valve of the No. 3 cylinder has started to open and the exhaust valve of the No. 3 cylinder has not completely closed, make sure that the "Top" mark on the timing case aligns with "Middle dot" on the crankshaft pulley.

15. Check the valve lash of the inlet valve and the exhaust valve of the No. 2 cylinder. If necessary, do the step 6

16. Install the timing gear front case. Refer to (PIL 15-51).

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