SERVICE MANUAL

JCB T2/3 Elec Engine 6 Cyl

EN - 9806/5600 - ISSUE 4 - 06/2016

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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Table 23. Lubricating Oil - Contaminated

Cause	Remedy
Coolant in the lubricating oil, internal engine component leaks.	Check oil cooler O-rings. If necessary change the oil cooler.
Lubricating oil sludge excessive.	Change oil and filter. Review oil and filter change period. If operating in arduous applications, change more frequently. Make sure the correct lubricating oil is being used.
Fuel in the lubricating oil, engine operating too cold.	Review the operation for excessive idling resulting in the engine running below normal temperature.
ECM or electrical sensor fault.	Check the electronic fault codes. Check the electrical connections at the ECM and sensors.
One or more fuel injectors worn or malfunctioning.	Check the electronic fault codes. Check the electrical connections at the injectors.

Table 24. Lubricating Oil - Pressure Low

Cause	Remedy
Oil level incorrect.	Check oil level.
Incorrect lubricating oil (specification of viscosity).	Make sure the correct lubricating oil is being used. Check for reduced viscosity from dilution with fuel. Fuel dilution in lubricating oil can originate from a defective high pressure fuel pump driveshaft seal. Review oil and filter change period. If operating in arduous applications, change more frequently.
Pressure switch or gauge fault.	Verify the pressure switch is functioning correctly.
Lubricating oil filter blocked.	Change lubricating oil filter. Review oil and filter change period. If operating in arduous applications, change more frequently.
Lubricating oil filter drain down valve not fitted.	Change lubricating oil filter.
Suction pump pressure relief valve stuck open.	Check/replace seal.
Oil pump pressure relief valve stuck open.	Replace oil pump assembly.
Lubricating oil pump worn.	Replace oil pump assembly.

Table 25. Lubricating Oil - Pressure High

Cause	Remedy
Incorrect lubricating oil (specification of viscosity).	Make sure the correct lubricating oil is being used.
Pressure switch or gauge fault.	Verify the pressure switch is functioning correctly.
Engine running too cold.	Check and if necessary replace the engine thermostat.
Oil pump pressure relief valve stuck closed.	Replace oil pump assembly.

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12.2. Dirty slip rings or worn brushes.

12.3. Defective regulator.

12.4. Defective rectifier.

12.5. Open or short circuited field (rotor) windings.

12.6. Open or short circuited power (stator) windings.

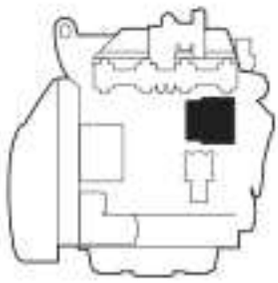
13. To check for a fault, disconnect the capacitor and repeat the charging test. Renew the capacitor if necessary.

14. To check for faults with the slip rings, bushes or regulator, remove the regulator and brush box assembly. Check the condition of the brushes and, if necessary, clean the slip rings using extra-fine glass paper. The regulator may only be renewed.

15. Faults with the rectifier, rotor and stator may be checked only by removing and dismantling the alternator for further testing.

Remove and Install

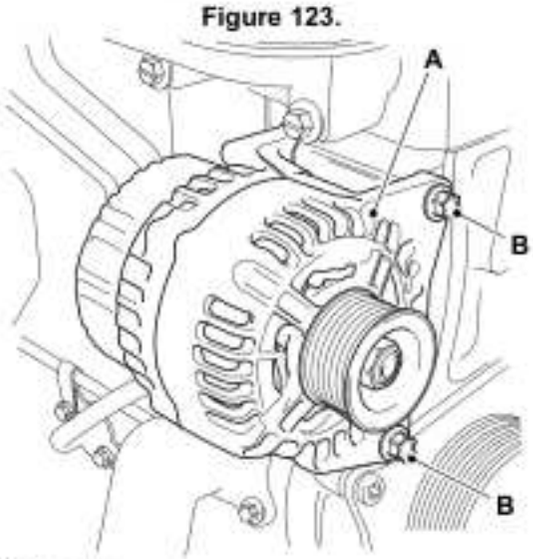
Figure 122. Alternator location



Remove

1. Disconnect the negative (-) lead followed by the positive (+) lead from the battery terminals.
2. Remove the alternator (accessory) drive belt.
3. Disconnect the electrical leads from the alternator terminals. Label the leads to make sure that they are installed in the correct positions on assembly.
4. Undo the alternator securing bolts and lift the alternator away from the cylinder block mounting.

Figure 123.



A Alternator
B Securing bolts

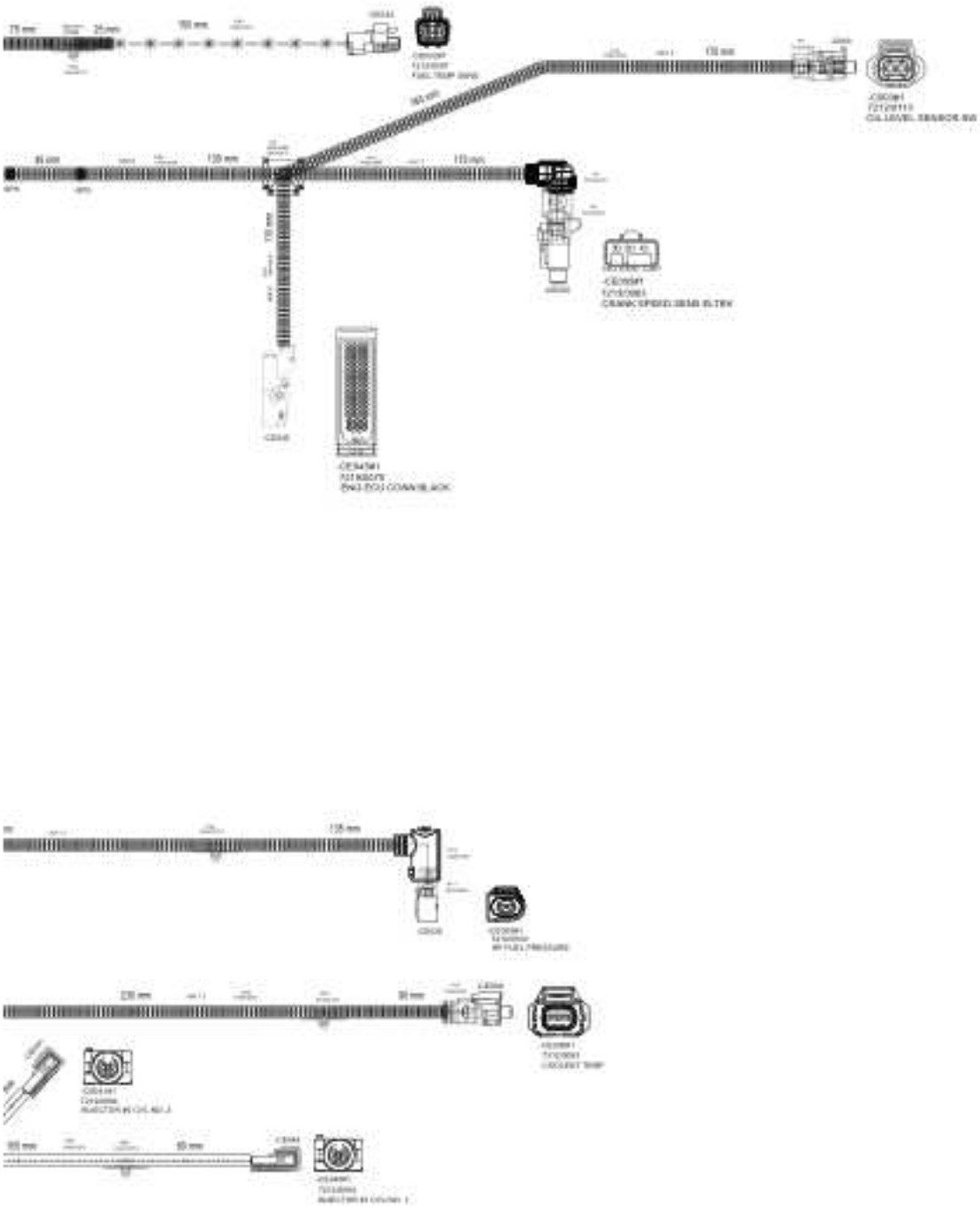
Inspect

1. Check the brushes for wear. Renew the brushes if the length is less than

   Length/Dimension/Distance: 8mm

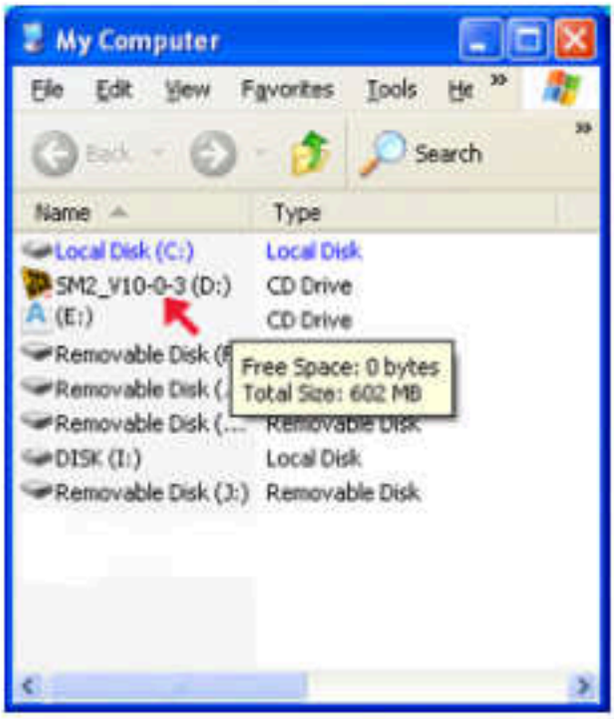
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Figure 255. (Part 2 of 2)



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Figure 309.



4. Select and open the "Setup.exe" application.
5. A new window "JCB Servicemaster Setup" will appear on the screen.
   5.1. Click the "Install V10.0.3" option to start the setup application. Refer to Figure 310.

Figure 310.



6. A new window "Select Setup Language" will appear on the screen. Refer to Figure 311.
   6.1. Use the drop down option to select the suitable language.
   6.2. Click the "OK" option to confirm selected language.

Figure 311.



7. A warning message window will appear on the screen. Refer to Figure 312.
   7.1. Click the "OK" option.

Figure 312.



8. A new window "JCB Servicemaster Installation Wizard" will appear on the screen. Refer to Figure 313.
   8.1. Click the "Next" option to proceed.

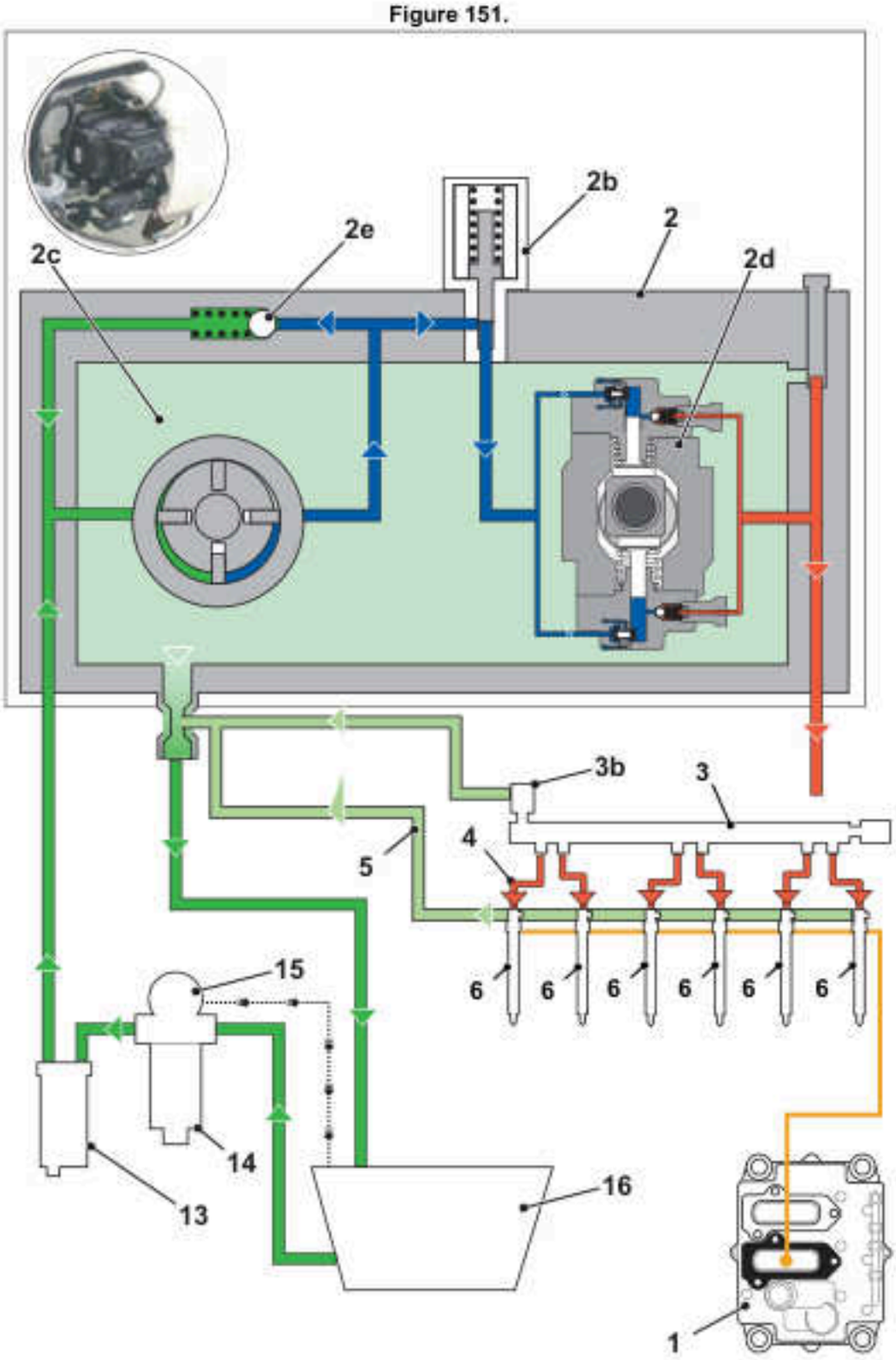
Figure 313.



9. Put "User Name" and "Organization" details into the "Customer Registration" screen. Refer to Figure 314.
   9.1. Click the "Next" option when you inserted details.

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Figure 151.



1	ECM	**2**	Fuel high pressure pump
2b	IMV	**2c**	Fuel high pressure pump (transfer section)
2d	Fuel high pressure pump (high pressure section)	**2e**	Pressure regulating valve (transfer section)

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