SERVICE MANUAL

55Z-1, 57C-1

EN - 9813/6450 - ISSUE 1 - 03/2016

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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Remove and Install

The removal and installation procedure for one piston and connecting rod assembly is exactly the same. Refer to Piston- Remove and Install (PIL 15-36).

Disassemble and Assemble

The disassemble and assemble procedure for one piston and connecting rod assembly is exactly the same. Refer to Piston- Disassemble and Assemble (PIL 15-36).

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Preparation

Before starting work in temperatures below -5°C (23.0°F)- the hydraulic fluid must be warmed. Before testing hydraulic pressures, the hydraulic oil must be warmed to 50°C (121.9°F).

Warm Up the Hydraulic Oil

1. Start the engine.
2. Enable the hydraulics.
3. The Engine RPM (Revolutions Per Minute) is limited to 'ECO' mode allowing 1800 RPM maximum by use of the throttle control.
4. The Idle speed is raised dependent on the coolant temperature.
5. Hydraulic functionality is limited to high flow auxiliary, to allow safe warm up of the hydraulic system.
6. The Warm-up procedure is selected by pressing the auto warm button located on the switch panel and holding it for the specified time until both red lights illuminates on the switch.

   Duration: 3s
7. The high flow auxiliary function shall now be latched until the machine is at the correct working hydraulic temperature.

   Temperature: -5°C (23.0°F)
8. It is possible to raise the controls isolation lever and exit the machine (leaving the auxiliary latched to automatically warm the hydraulic system).
9. The Warm-up procedure automatically finishes once the correct working hydraulic temperature is attained.

   9.1. If the hydraulic system needs to have pressures tested the hydraulic oil must be at operating temperature. Follow the additional steps:
10. Operate the Auxiliary 1 until the hydraulic oil is at the specified temperature.

    Temperature: 50°C (121.9°F)

Figure 603. Hydraulic Oil Temperature



10.1. The hydraulic oil temperature can be seen on the instrument panel.

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Introduction

A schematic wiring diagram is a simplified pictorial representation of the machines electrical circuit. It shows the components of the circuit as simplified electrical symbols, and the power and signal connections between the devices. The wiring diagram is used to troubleshoot problems and to make sure that all the connections have been made and that everything is present.

Detailed schematics for individual systems are given in the relevant PIL section. Use the schematics together with the correct electrical harness drawings to reference the connector pin details.

Understanding Electrical Schematics

This section contains sets of electrical schematics for different machine variants.

Use the applicable schematic set to trace wires and connections between electrical devices. In most cases it will be necessary to trace wires across more than one schematic sheet.

The example shows how to follow a typical set of wires from a power supply (+ ve) through to the path to earth (- ve).

Figure 741.

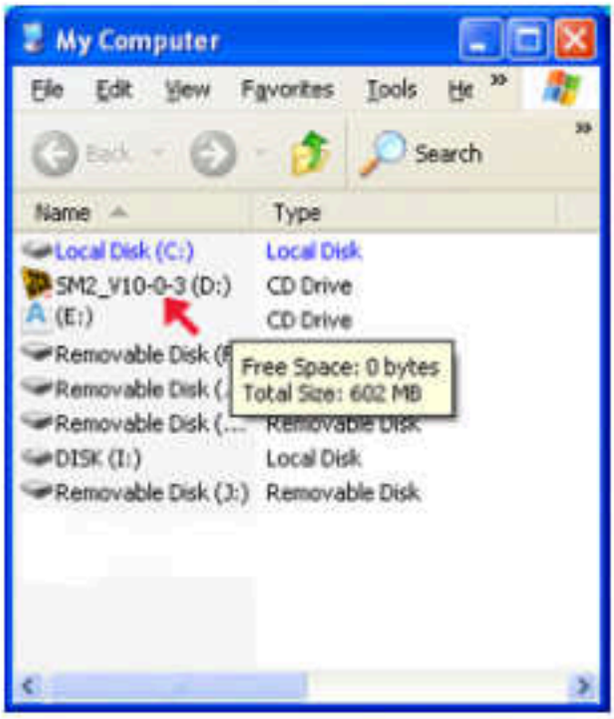


Table 206. Example- Horn Energised

Item[1]	Description	State	Pins[2]	Wire No	Sheet	Explanation
CP27	Fuse box B	+ ve supply	6	118	14	Power supply from 7.5 A fuse
CP18	Relay	closed	1-2		7	Completes circuit to horn
CP06 / MF01	Harness interconnection		30	871	7	
MF40A / RL15A	Harness interconnection		16		7	
MF33	Horn	energised	1-2		7	
SRL2	Splice[3]			600EL	7	
MF40A / RL15A	Harness interconnection		8	600ET	7	

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Figure 902.



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 903.

Figure 903.



6. A new window "Select Setup Language" will appear on the screen. Refer to Figure 904.
   6.1. Use the drop down option to select the suitable language.
   6.2. Click the "OK" option to confirm selected language.

Figure 904.



7. A warning message window will appear on the screen. Refer to Figure 905.
   7.1. Click the "OK" option.

Figure 905.



8. A new window "JCB Servicemaster Installation Wizard" will appear on the screen. Refer to Figure 906.
   8.1. Click the "Next" option to proceed.

Figure 906.

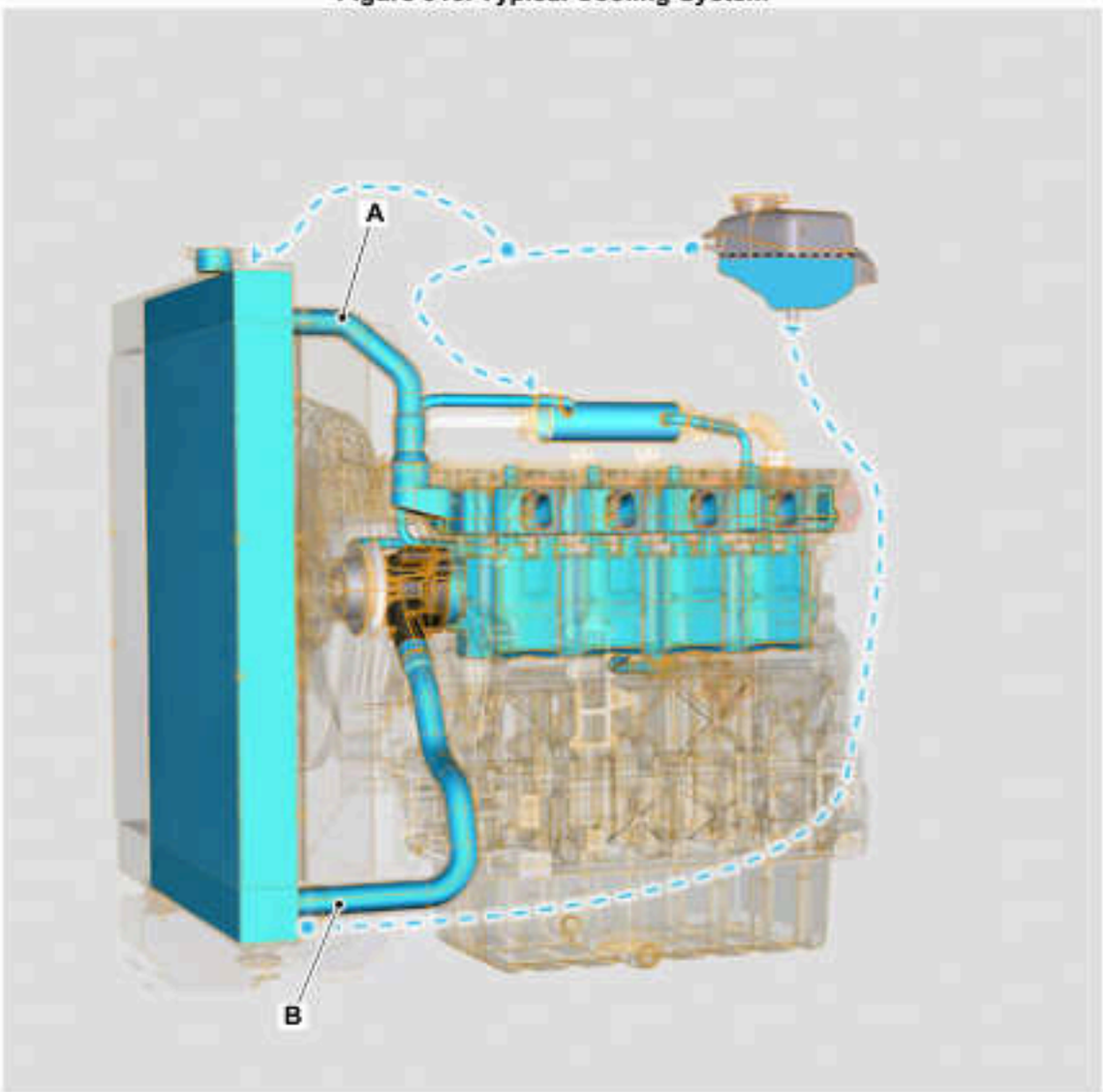


9. Put "User Name" and "Organization" details into the "Customer Registration" screen. Refer to Figure 907.
   9.1. Click the "Next" option when you inserted details.

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Component Identification

Figure 518. Typical Cooling System



A Coolant outlet hose

B Coolant inlet hose

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