SERVICE MANUAL

COMPACT EXCAVATOR
45Z-1, 48Z-1, 51R-1

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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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Technical Data

Weights

Table 4.

Component	Weight		
	45Z-1	48Z-1	51C-1
Dipper	75.8 kg	75.8 kg	119.4 kg
Kingpost Standard	73.9 kg	73.9 kg	73.9 kg
Kingpost Heavy Duty	73.9 kg	73.9 kg	73.9 kg
Boom	148.7 kg	148.7 kg	148.7 kg
Dozer Blade Standard	157.6 kg	157.6 kg	157.6 kg
Dozer Blade Wide	219 kg	219 kg	219 kg
Dozer Blade 4 Way	341.8 kg	341.8 kg	341.8 kg
Counterweight	236 kg	236 kg	548 kg

The above weights are approximates for individual fabricated components. When considering weight for lift purposes, an allowance must be made for the additional parts which complete each assembly.

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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.

Use the schematics together with the correct electrical harness drawings to reference the connector pin details.

This section may contain more than one set of electrical schematics for different machine variants.

Understanding Electrical Schematics

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 identifies the information contained on the diagrams. It also shows how to follow wires from one diagram sheet to another.

The harness inter-connector codes and device harness connector codes are the same as used on the applicable harness drawings.

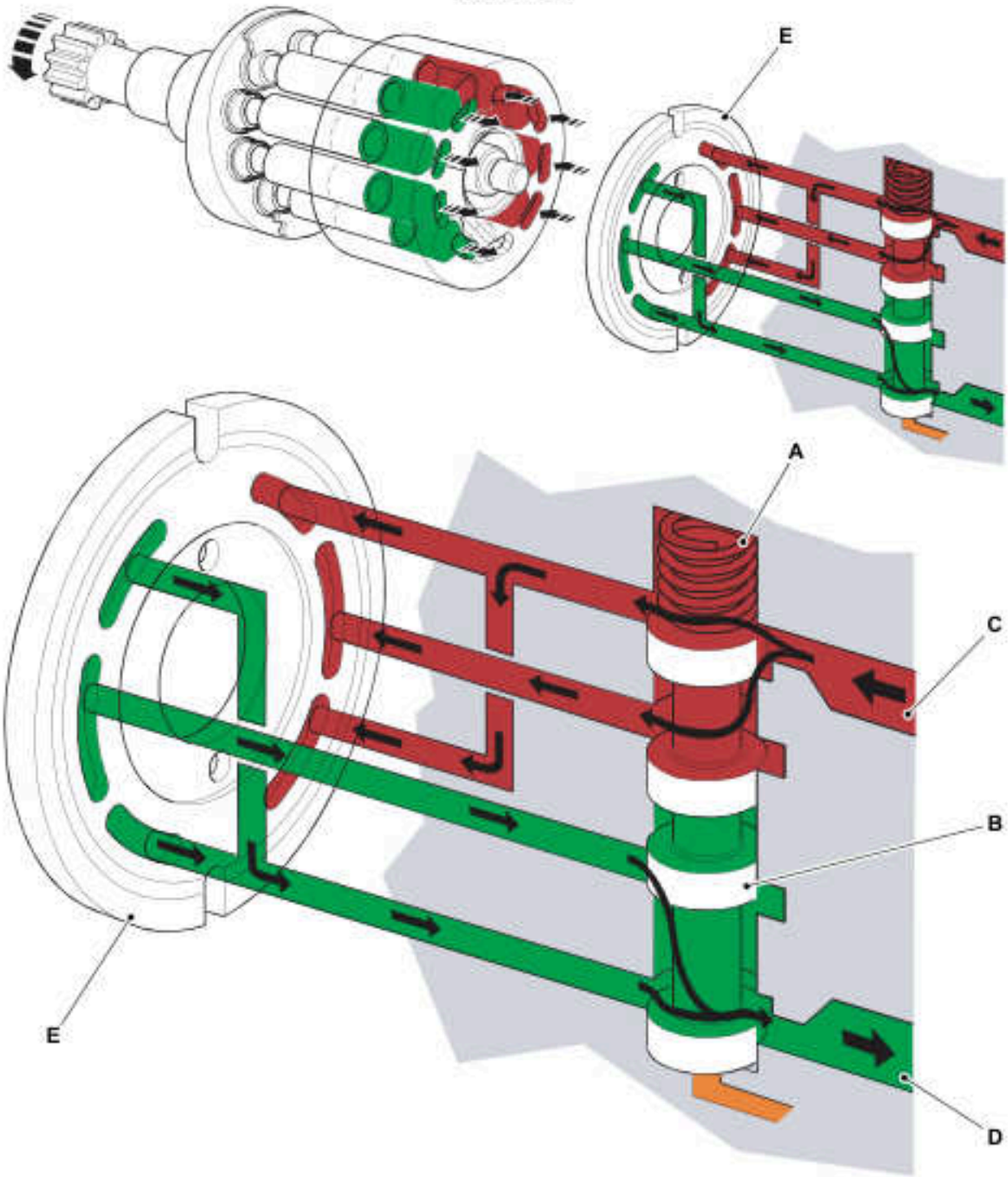
Splices are not normally accessible. Splices are inside the harness sheath and not visible on the outside. Wires are welded together at a splice, there are no individual connector components.

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Fault code	Description	Severity
U1911-17	Relay 2 Failure - Voltage Detected When Relay Off	Service
U1912-16	Relay 3 Failure - No Voltage Detected When Relay On	Service
U1912-17	Relay 3 Failure - Voltage Detected When Relay Off	Service
U1913-84	Supply Voltage Above Below Normal Operating Range (6.0V for 1s)	Service
U1913-85	Supply Voltage Above Normal Operating Range (32V)	Service
U1914-96	Immobiliser Lockout (5 Incorrect Access Attempts)	Operator
U1915-09	Transponder System - Antenna Fault	Service
U1915-56	Transponder System - Invalid Key Detected	Operator
U1915-96	Transponder System - No Transponder Key Detected In Key	Operator
U1916-56	Keypad System - Invalid Keypad Code Entered	Operator
U1916-85	Key / Keypad Code Memory Full	Service
U1917-04	Engine - Error State	Trivial
U1917-09	Engine - ECU Lockout (Anti Scan)	Operator
U1917-2F	Engine - Communications Fault	Trivial
U1917-87	Engine - No Communication	Operator
U1917-96	Engine - Disarm Failure	Trivial
U1918-96	Immobiliser Internal Fault (Memory Checksum Failure)	Trivial

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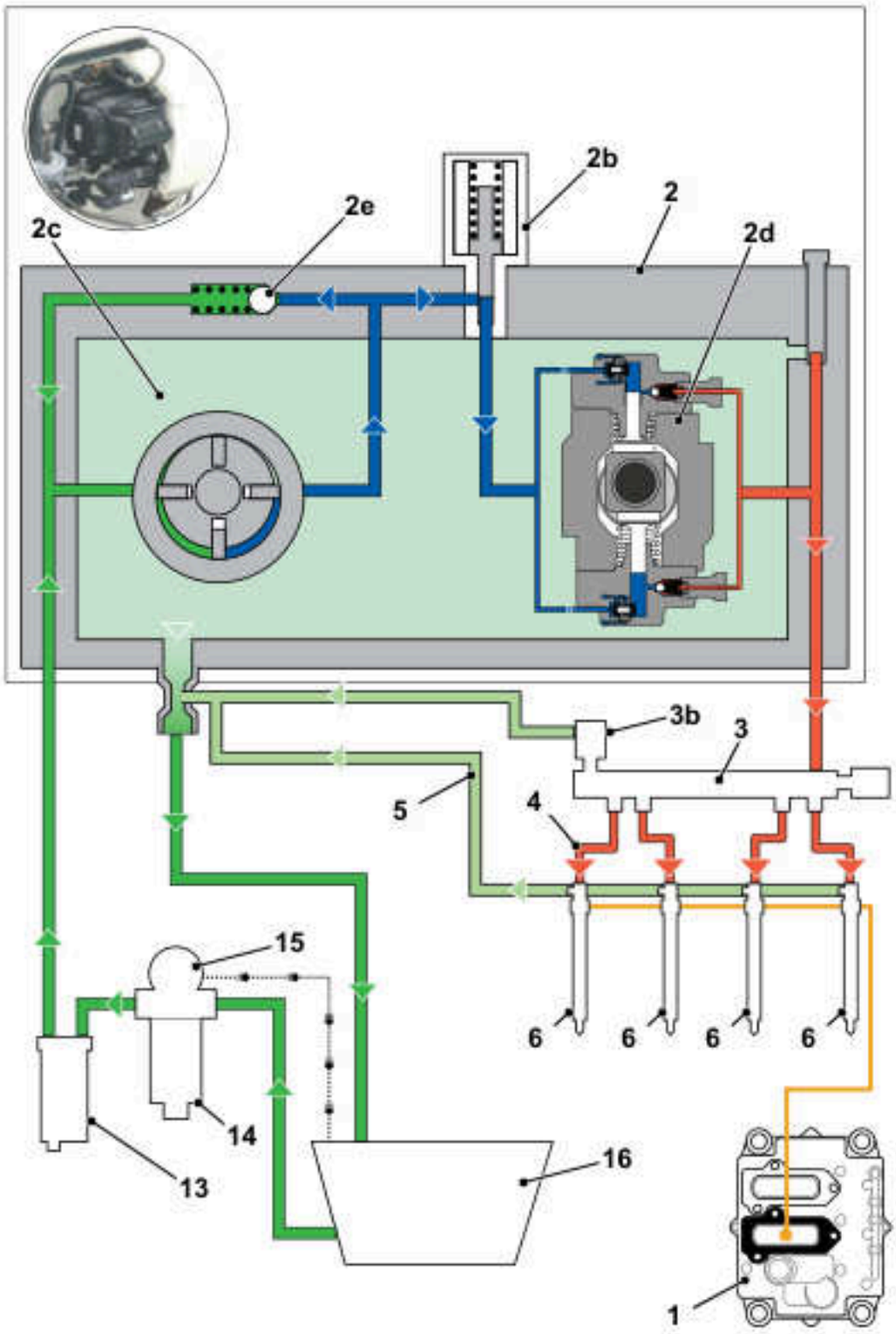
Figure 624.



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

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Figure 387.



1 ECM
2b IMV
2 Fuel high pressure pump
2c Fuel high pressure pump (transfer section)

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