SERVICE MANUAL

EXCAVATOR

JS115, JS130, JS145, JS160, JS180, JS190

EN - 9813/7200 - ISSUE 1 - 04/2016

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

Consumables

Description	Part No.	Size
Special MPL-EP Grease	4003/1501	0.4kg
	4003/1506	12.5kg
	4003/1510	50kg

Remove

1. Remove the bucket or attachment as applicable.
2. If installed, remove the quickhitch.
3. Make the machine safe with the excavator arm lowered. Refer to (PIL 01-03).
4. Discharge the hydraulic pressure. Refer to (PIL 30-00).
5. Remove the locknuts and bolt from the pivot at the rod end of the dipper ram.
6. Disconnect the dipper ram eye end from the dipper pivot. Refer to (PIL 30-15).
   6.1. Put a piece of timber to support the dipper ram cylinder.
   6.2. Retract the dipper ram.
7. If installed, disconnect the quickhitch electrical harness at the position switches on the dipper.
   7.1. Tie the harness clear of the dipper.
8. Remove the bucket ram to boom hydraulic hoses.
   8.1. Cap the open ports and hoses to prevent contamination.
9. If installed, remove the auxiliary circuit hoses from the dipper to the boom.
   9.1. Cap the open ports and hoses to prevent contamination.
10. Attach suitable lifting equipment to the dipper at the dipper ram pivot pin hole and support the dipper. Refer to Figure 22.
11. Remove the locknuts and bolt from the dipper pivot pin.
12. Remove the dipper pivot pin.
    12.1. If necessary adjust the lifting equipment to remove the load on the pivot pin.
13. Use the lifting equipment to lower the dipper clear of the boom.
14. Reverse the machine clear of the dipper and lower the boom onto a suitable support.
    14.1. Do not operate the bucket or auxiliary services.
15. Using the lifting equipment position the dipper on suitable and safe supports.

After removal do the following.

- Clean the bushes in the boom.
- Examine the bushes and dipper pivot pin for wear or damage. Replace if necessary.
- Examine the dust seals for defects. Replace if necessary. Fit the seals the correct way round. Refer to Figure 22.

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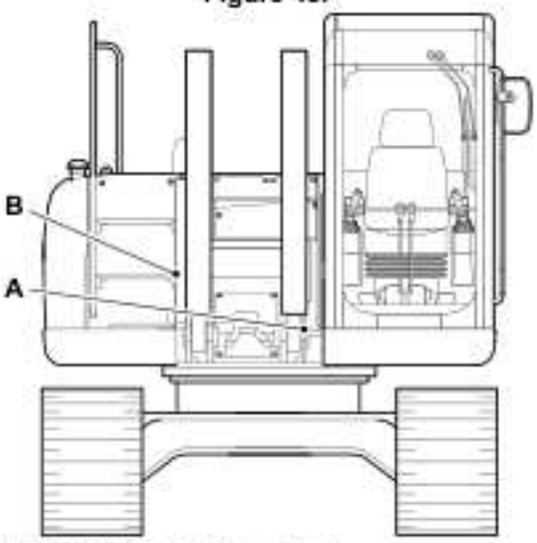
03 - Machine

Introduction

Your machine has an identification plate. The PIN (Product Identification Number), weight, engine power, year of manufacture and serial number of the machine are shown on the identification plate.

The machine serial number is also inscribed at the baseplate of the rear frame.

Figure 43.



A Identification plate (location)
B Serial number (inscribed)

The machine model and build specification are indicated by the PIN. The PIN has 17 digits and must be read from left to right.

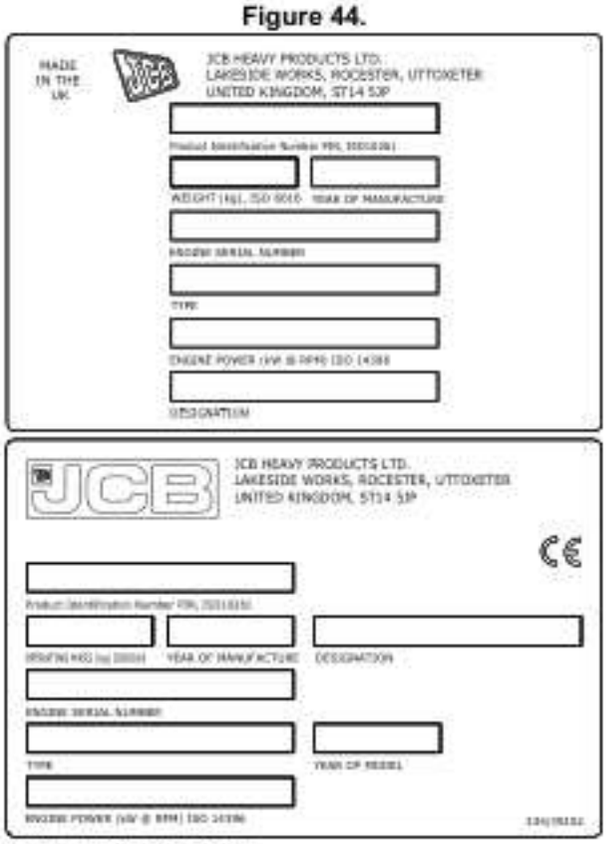
Table 8. Typical PIN

JCB	8085	L	01536000

Table 9. Explanation of the PIN

Digit	Description
1 to 3	World manufacturer identification. For example, JCB = UK Build.
4 to 8	Machine type and model. For example, 8025 = 8025.
9	Random check letter. The check letter is used to verify the authenticity of a machine's PIN.
10 to 17	Machine serial number.

Figure 44.

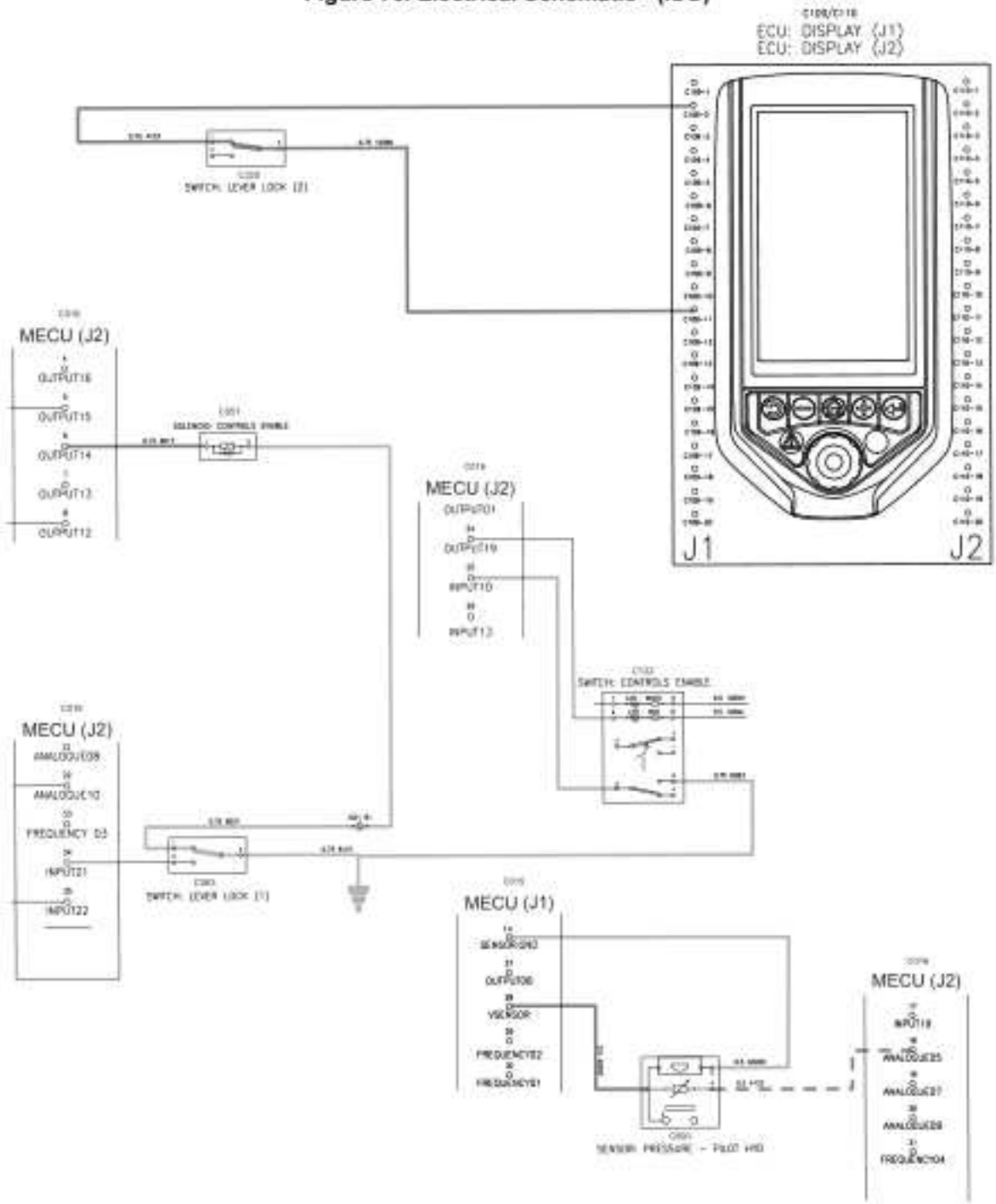


A Identification plate

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Diagram

Figure 76. Electrical Schematic - (ISO)

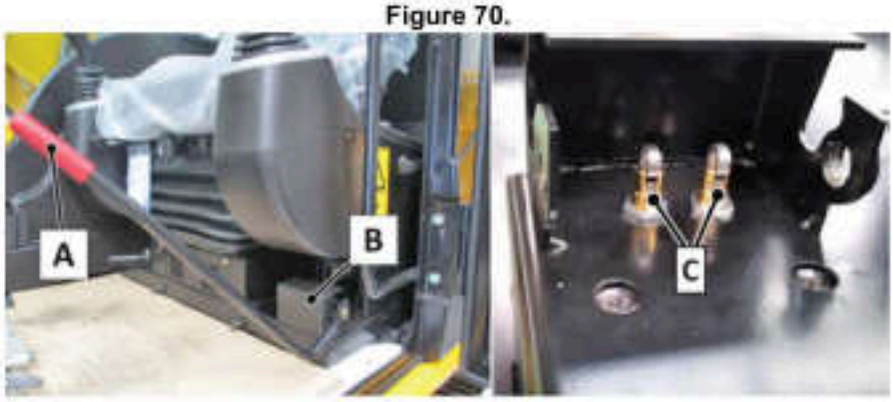


C015	MECU (Machine Electronic Control Unit) J1	**C016**	MECU J2
C051	Controls enable solenoid	**C063**	Lever lock switch 1
C090	Pressure sensor (pilot)	**C109**	DECU (Display Electronic Control Unit)
C110	DECU	**C122**	Lever lock console switch

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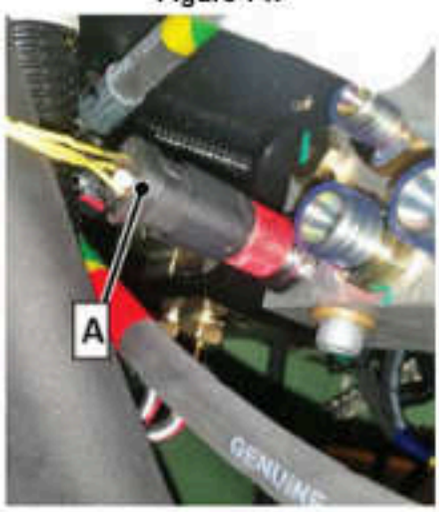
Component Identification

Figure 70.



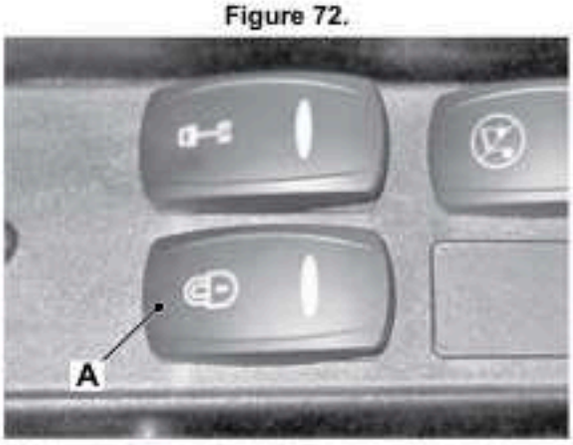
A Lever lock lever
B Cover
C Lever lock switches

Figure 71.



A Pilot pressure sensor

Figure 72.



A Lever lock console switch

Figure 73. Lever lock switch harness connectors (C063, C225)

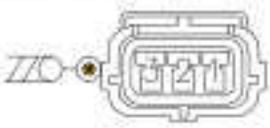


Figure 74. Pressure sensor harness connector (C090)



Figure 75. Lever lock console switch harness connector (C122)



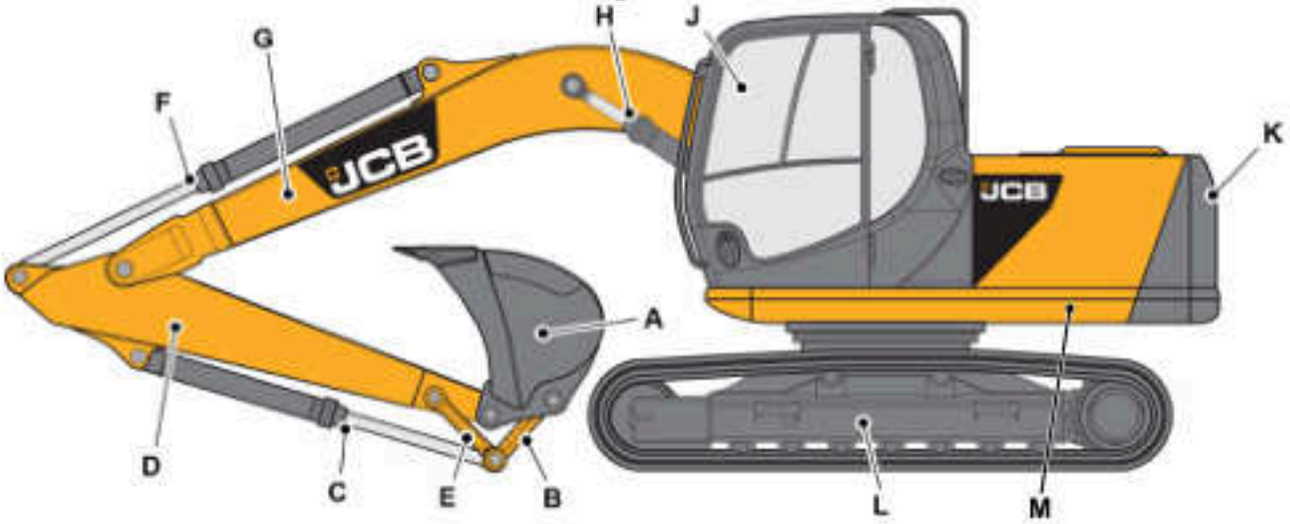
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12 - Main Component Locations

Introduction

Main Assemblies

Figure 3.



A Bucket (attachment)
B Tipping link
C Bucket ram
D Dipper
E Tipping lever
F Dipper ram
G Boom
H Boom ram
J Operator station
K Counterweight
L Undercarriage
M Revolving chassis

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