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The maintenance section shows the correct procedures for the regular routine service operations only. Major servicing operations should only be carried out by suitably qualified service engineers using the appropriate service tools where necessary.

**Introduction**

About this handbook ..... 1
Units of measurements ..... 1
Left side, right side ..... 2
Using the machine ..... 2
Machine and serial numbers ..... 2
Service contracts ..... 2
Safety - yours and other peoples ..... 3
General safety check list ..... 4 - 5
Operating safety check list ..... 6 - 11
Safety decals ..... 12 - 13
The JCB 'Z' Mini Excavator ..... 14 - 15
General description ..... 15
Identifying your machine ..... 16
TOPS AND FOGS (optional) ..... 17



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ii CONTENTS ii

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Safety decals ..... 12 - 13
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Identifying your machine ..... 16
TOPS AND FOGS (optional) ..... 17

8850-2

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**WARNING**

**Study this Handbook Before Starting the Machine**

You must understand and follow the instructions in this handbook. Abide by all relevant laws and regulations. If you are unsure about anything, ask your JCB dealer or employer. **Do not guess**, or you or others could be killed or seriously injured.

INT-1-1-1

In this handbook and on the machine there are safety notices. Each notice starts with a signal word. The signal word meanings are given below.

**DANGER**

**Denotes an extreme hazard exists. If proper precautions are not taken it is highly likely that you (or others) could be killed or permanently injured.**

INT-1-2-1

**WARNING**

**Denotes a hazard exists. If proper precautions are not taken it is highly likely that you (or others) could be killed or injured.**

INT-1-2-2

**CAUTION**

**Denotes a reminder of safety practices. May also direct your attention to unsafe practices which could result in personal injury or damage to the machine.**

INT-1-2-3



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i SAFETY NOTICES i

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## INTRODUCTION

This chapter is arranged to guide you step-by-step through the task of learning how to use the machine. Read it through from beginning to end. By the end of the chapter you should have a good understanding of the machine and how to operate it.

Pay particular attention to all safety messages. They are there to warn you of possible hazards. Do not just read them-think about what they mean. Understand the hazards and how to avoid them.

If there is anything you do not understand, ask your JCB dealer, he will be pleased to advise you.

When you have learned where the driving controls are and what they do, practise using them. Practise driving the machine in a safe, open space clear of other people.

Get to know the "feel" of the machine and its driving controls.

Move on to the attachment controls only when you can drive the machine confidently and safely.

Take great care when practising with the attachment controls. Practise in an open space, keep people clear. Do not jerk the controls: operate them slowly until you understand the effect they have on the machine.

Finally, do not rush the job of learning. Take your time and take it safely.

Remember **BE CAREFUL**
**BE ALERT**
**BE SAFE**



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25 OPERATION 25

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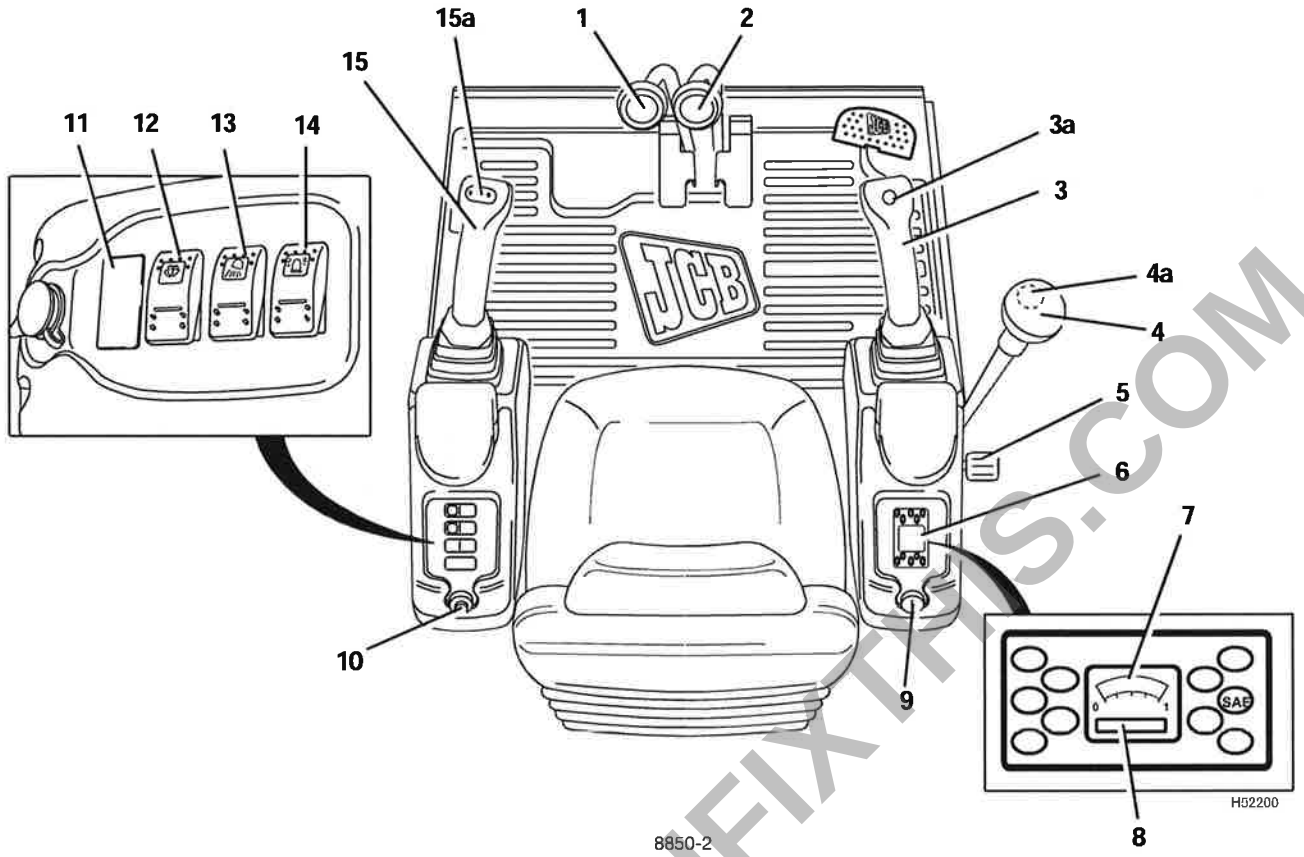
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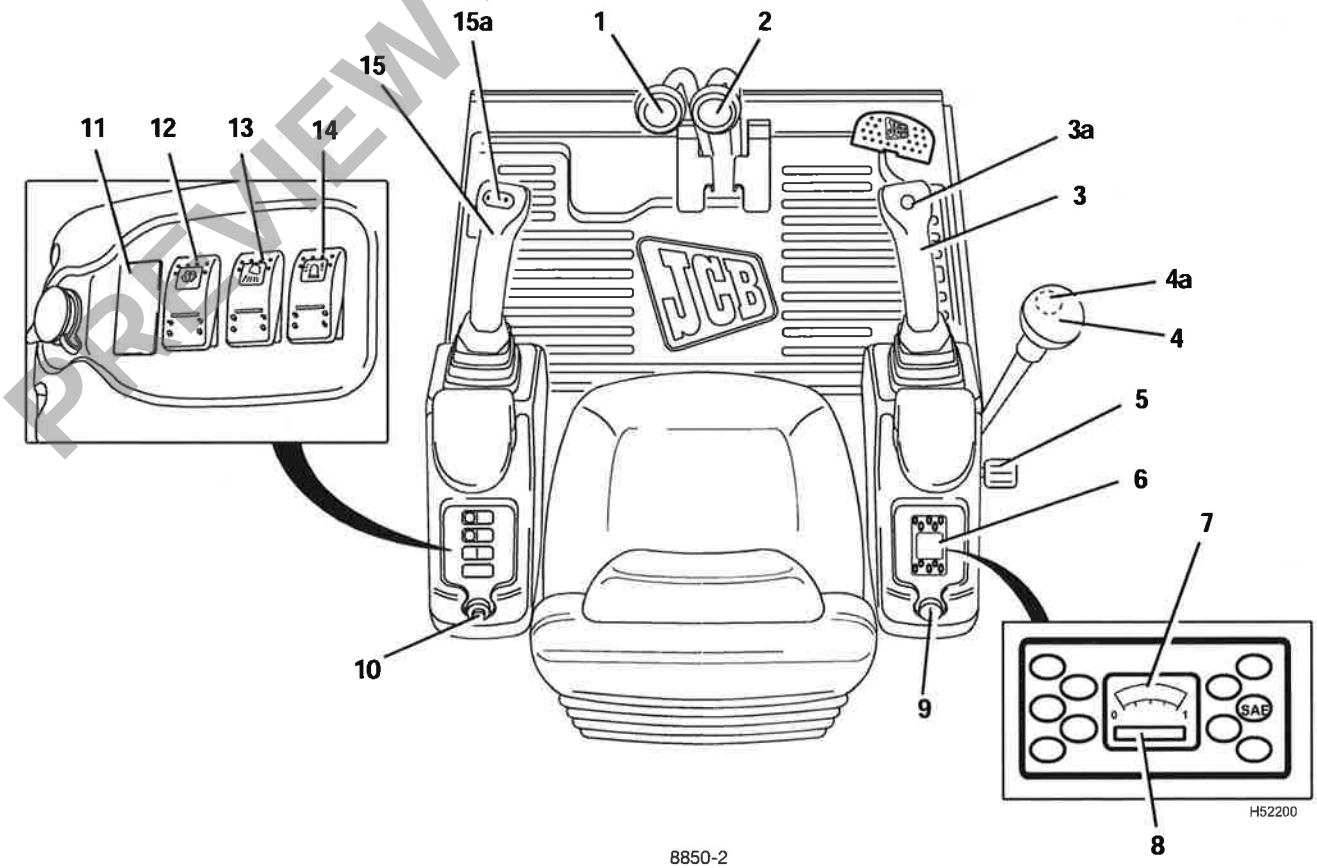
## ENGINE AND TRACK CONTROLS, SWITCHES AND INSTRUMENTS




8850-2

38 OPERATION 38

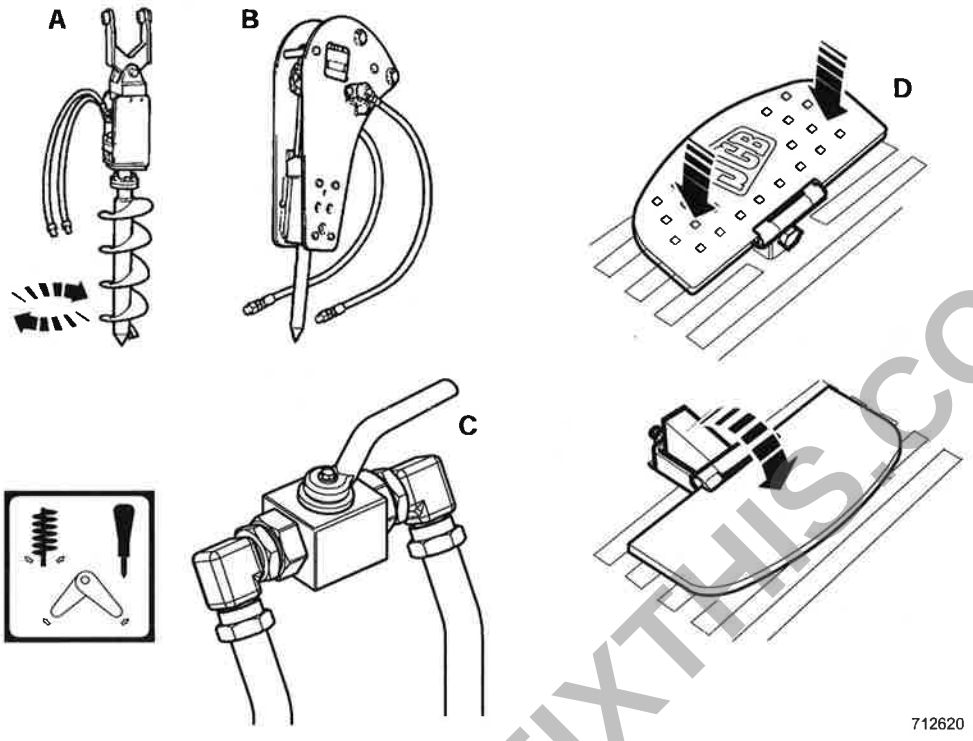
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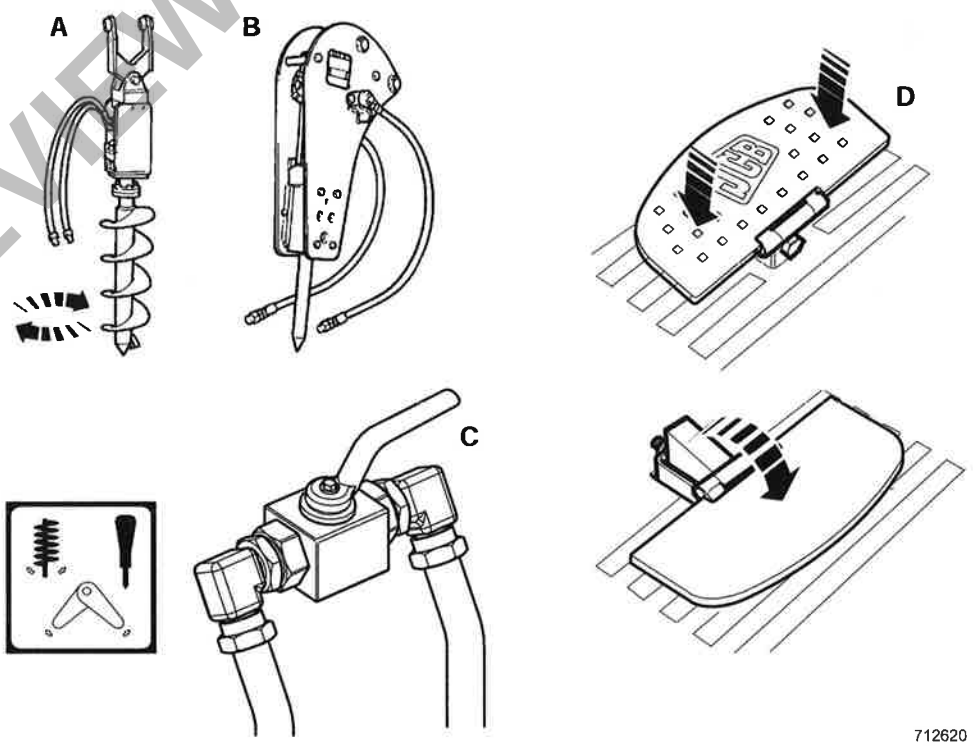
## USING THE ATTACHMENTS AND SITE SAFETY - continued




8850-2

98 OPERATION 98

USING THE ATTACHMENTS AND SITE SAFETY - continued






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## TRANSPORTING THE MACHINE

Before loading the machine on to its trailer (see *Transporting the Machine*), remove all loose dirt that may otherwise come off and obstruct the highway and damage other vehicles.

***Note:*** *Before transporting the machine make sure you will be obeying the local rules and laws regarding machine transportation of all the areas that the machine will be carried through.*

Make sure that the transporting vehicle is suitable. See section D for the dimensions and weight of your machine. There is a travel height label fitted to the cab.

Try to make sure that the truck driver knows the clearance height before he drives away. See section D for machine height figures.

***Note:*** *The transport position height does not include the truck/trailer height, add the two figures together for the clearance height.*

**CAUTION**

**Make sure that the two speed tracking selector is set to low speed before loading or unloading the machine.**



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108 OPERATION 108

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8850-2

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## CHECKING THE MACHINE - continued

### Checking the Seat Belt Condition and Security

**WARNING**

**When a seat belt is fitted to your machine replace it with a new one if it is damaged, if the fabric is worn or if the machine has been in an accident. Fit a new seat belt every three years.**

1 Inspect the seat belt for signs of fraying or stretching.

2 Check that the stitching is not loose or damaged.

3 Check that the recoil assembly and clip are undamaged and work correctly.

4 Check that the seat belt mounting bolts are secure, undamaged, and correctly fitted.

### Checking the Cab/Canopy Frame

**WARNING**

**Modified and wrongly repaired cab frames are dangerous. Do not modify the cab fame. Do not attempt to repair the cab frame. If the cab frame has been in an accident, do not use the machine until the structure has been inspected and repaired. This must be done by a qualified person. For assistance, contact your JCB dealer. Failure to take these precautions could result in death or injury to the operator.**

1 Check the cab/canopy frame for damage.

2 Check that all the mounting bolts are installed and undamaged.

3 Check that the bolts are tight.



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135 MAINTENANCE 135

CHECKING THE MACHINE - continued

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## OPERATING SAFETY CHECK LIST - continued

**⚠ WARNING**

**Work Sites**
Work sites can be hazardous. It is the operators responsibility to inspect the site before working on it. Look for potholes, weak ground, hidden rocks etc. Check for utilities such as electric cables (overhead and underground), gas and water pipes etc. Mark the positions of the underground cables and pipes. Make sure that you have enough clearance beneath overhead cables and structure. If necessary, contact the local authorities before commencing work.
HOP15

**⚠ WARNING**

**Visibility**
Accidents can be caused by working in poor visibility. Keep windows clean and use your lights to improve visibility. Do not operate the machine if you cannot see properly.
HOP14

**⚠ WARNING**

**Lifting**
Do not lift objects with the excavator or the boom.
HOP24

**⚠ WARNING**

**Alcohol and Drugs**
It is extremely dangerous to operate machinery when under the influence of alcohol or drugs. Do not consume alcoholic drinks or take drugs before or whilst operating the machine or attachments. Be aware of medicines which can cause drowsiness.
INT-1-3-9

**⚠ WARNING**

**Feeling Unwell**
Do not attempt to operate the machine if you are feeling unwell. By doing so you could be a danger to yourself and those you work with.
8-1-2-4

**⚠ WARNING**

**Machine Condition**
A defective machine can injure you or others. Do not operate a machine which is defective or has missing parts. Make sure that maintenance procedures are completed before using the machine.
HOP8



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8 INTRODUCTION 8

OPERATING SAFETY CHECK LIST - continued

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## GREASING (every 1000 hours)

### Slew Ring Gear Teeth

**WARNING**

**JCB Slew Pinion Grease is harmful as it contains bitumen compounds 2811. Excessive contact may lead to dermatitis or skin cancer. Always use a barrier cream or wear gloves; wash contaminated skin thoroughly with soap and water. In the event of eye contact, immediately wash with plenty of water and seek medical advice.**

**WARNING**

**Soft Ground**

**A machine may sink into soft ground. Never work under a machine on soft ground.**

**WARNING**

**Jacking**

**A machine can roll off jacks and crush you. Do not work under a machine supported only by jacks.**

1 Raise the machine and support the undercarriage.

2 Stop the engine and remove the starter key.

3 Remove bolts **A** and plate **B** in the underside of the undercarriage.

4 Apply the grease to the pinion using the applicator (see *Fluids, Lubricants and Capacities).*

5 Start the engine and rotate the mainframe fully twice.

6 Stop the engine and remove the key.

7 Repeat step **4** as necessary.

8 Refit the plate **B** using bolts **A.**

9 Lower the machine to the ground.



141 MAINTENANCE 141

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8850-2

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## BEFORE ENTERING THE CAB - continued

### Machine Walk Round Inspection

1 **Check for cleanliness:**

**a** Clean the windows and light lenses.

**b** Remove dirt and debris, especially from around the linkages, rams, pivot points and radiator.

**c** Make sure the cab and handrails are clean and dry.

**d** Clean all safety decals. Replace any that are missing or cannot be read.

2 **Check for damage:**

**a** Inspect the machine generally for damaged and missing parts.

**b** Make sure that the bucket teeth are secure and in good condition

**c** Make sure that all the pivot pins are secured correctly in place

**d** Inspect the windows for cracks and damage

**e** Check for oil, fuel and coolant leakages beneath the machine.

**WARNING**

**You could be killed or injured with damaged tracks. Do not use the machine with damaged or excessively worn tracks.**

HOP27

3 **Check the Tracks (Rubber)**

Check for cut rubber and penetration by sharp objects. Do not use a machine with damaged tracks.

4 **Check the engine cover/panels and fuel filler cap**

**a** Make sure the engine cover / panels are fitted and securely locked.

**b** Make sure the fuel filler cap is tightly closed (we also recommend that you lock it).



27 OPERATION 27

BEFORE ENTERING THE CAB - continued

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