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Safety Notices

Important Information

T1-015

The Operator Manual

⚠ WARNING

Study the Operator Manual before starting the machine. You must understand and follow the instructions in the Operator Manual. You must observe all relevant laws and regulations. If you are unsure about anything, ask your JCB dealer or employer. Do not guess, you or others could be killed or seriously injured.

INT-1-1-1_2

Do not operate the machine without an Operator Manual.

Treat the Operator Manual as part of the machine. Keep it clean and in good condition. Replace the Operator Manual immediately if it is lost, damaged or becomes unreadable.

Safety Warnings



This safety alert system identifies important safety messages in this manual. When you see this symbol, be alert, your safety is involved, carefuly read the message that follows, and inform other operators.

In this publication 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 probable that the operator (or others) could be killed or seriously injured.

INT-1-2-1

⚠ WARNING

Denotes a hazard exists. If proper precautions are not taken, the operator (or others) could be killed or seriously injured.

INT-1-2-2

⚠ CAUTION

Denotes a reminder of safety practices. Failure to follow these safety practices could result in injury to the operator (or others) and possible damage to the machine.

INT-1-2-3

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Identifying Your Machine

Machine Identification Plate

Your machine has an identification plate mounted as shown. ⇒ *Fig 5. (18)*. The serial numbers of the machine and its major units are stamped on the plate.

Notice: *The machine model and build specification is indicated by the VIN (earlier machines) or PIN (later machines). A detailed description of the VIN/PIN numbering system is included later in this section.*

The serial number of each major unit is also stamped on the unit itself. If a major unit is replaced by a new one, the serial number on the identification plate will be wrong. Either stamp the new number of the unit on the identification plate, or simply stamp out the old number. This will prevent the wrong unit number being quoted when replacement parts are ordered.

The machine and engine serial numbers can help identify exactly the type of equipment you have.

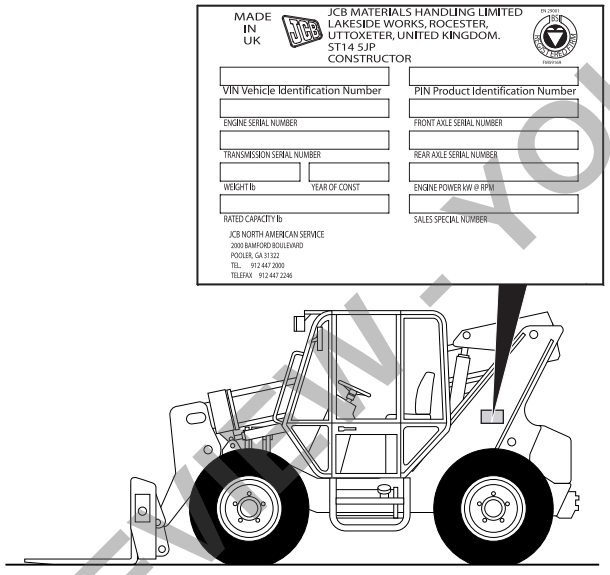
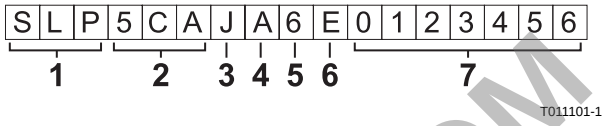


Fig 5.

Typical Vehicle Identification Number (VIN)



1 World Manufacturer Identification (3 Digits)

2 Machine Model (3 Digits)

5CA = 506C 5CB = 508C 5CC = 506CHL

3 Engine Type (1 Digit)

JCB Dieselmax:
J = SA Build K = SB Build L = SC Build

4 Gearbox Model (1 Digit)

A = 3 Speed B = 5 Speed C = 4 Speed

5 Year of Manufacture (1 Digit)

5 = 2005 6 = 2006 7 = 2007

6 Manufacturer Location (1 Digit)

E = England

7 Machine Serial Number (7 Digits)

Each machine has a unique serial number.

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Operation

Introduction

T2-006U

The aim of this part of the manual is to guide the operator step-by-step through the task of learning how to operate the machine efficiently and safely. Read the OPERATION section through from beginning to end.

Before starting the machine, sit in the drivers seat and familiarize yourself with the layout of the cab. Use your manual to identify each control lever, switch, gauge, button and pedal. Do not guess. If there is anything you do not understand, ask your JCB distributor.

The operator must always be aware of events happening outside the cab as well as inside the cab. Safety must always be the most important feature when operating the machine.

When you have familiarized yourself with the operating controls, gauges and switches, practise using them. Drive the machine in an open space, clear of people. Get to know the 'feel' of the machine and its driving controls.

Finally, do not rush the job of learning, make sure you fully understand everything in the OPERATION section. Take your time and work efficiently and safely.

Remember

- **BE CAREFUL**
- **BE ALERT**
- **BE SAFE**

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Opening and Closing the Upper Door Section

With the door closed, release the upper section by pulling lever **B** to the rear. Using handle **C**, swing the door fully open until it latches onto the catch **D**.

To close the upper door section, pull lever **E** up and swing the door closed using handle **C**. Ensure the upper door latches onto the lower door.

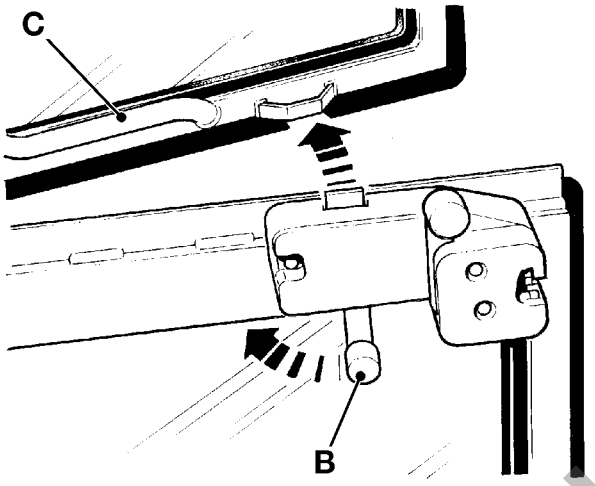


Fig 14.

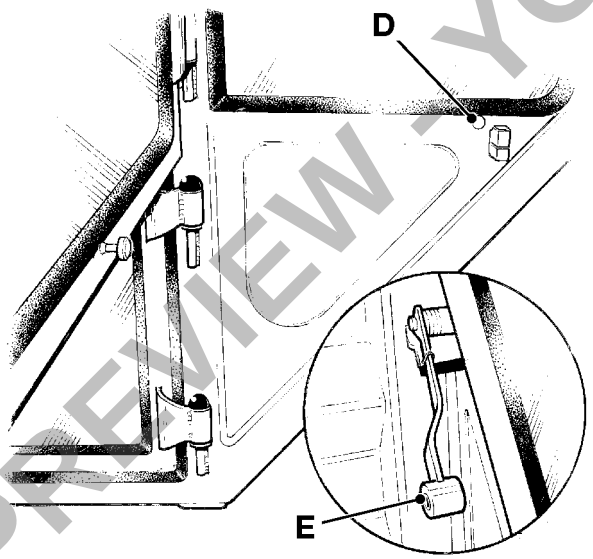


Fig 15.

Opening and Closing the Windshield

⚠ CAUTION

Before operating or closing the windshield, stop the machine, engage the park brake and switch off the engine.

5-2-1-2U

To open the windshield, loosen screws **A**, lift plates **A1**, then push the windshield out to the required position. Tighten screws **A**.

To close the windshield, loosen screws **A**, push plates **A1** downwards to lock the windshield closed, then tighten screws **A**.

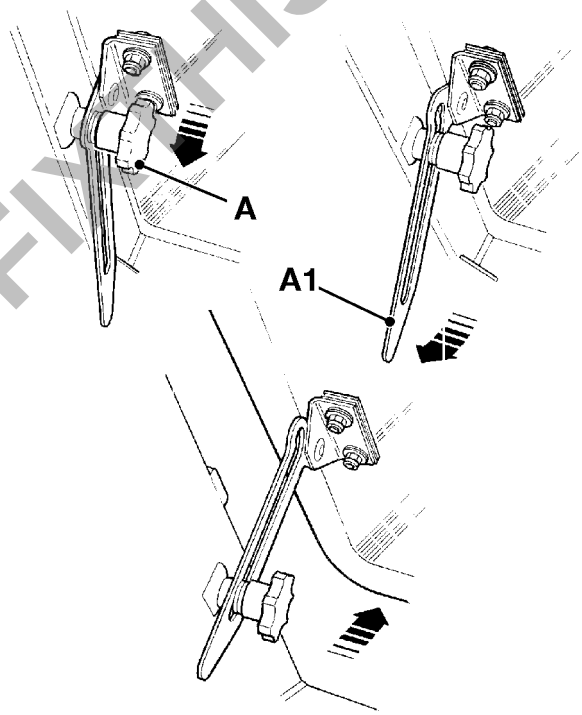


Fig 16.

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Transmission

Checking the Transmission Oil Level

1 Make sure the park brake is engaged and the transmission set to neutral. Lower the attachments to the ground, switch OFF the engine and remove the starter key.

2 Open the engine cover. ⇨ ***Engine Hood and Cover (111)***.

3 Start and run the engine slowly for a period not exceeding five minutes. This allows the oil to fill filter, pump, torque converter, oil cooler and hoses.

4 Switch OFF the engine and remove the starter key, wait one minute.

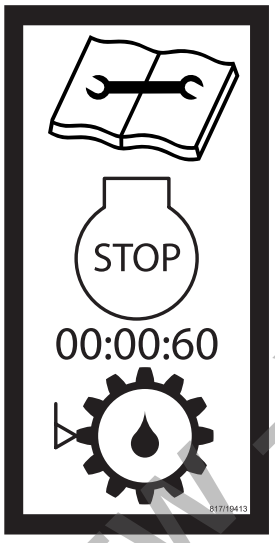


Fig 125.

5 Check that the oil level is between the end of the dipstick and maximum mark on the dipstick **A**.

6 Add oil as necessary. Fill through the dipstick tube to maximum dipstick level. Use only the recommended oil.

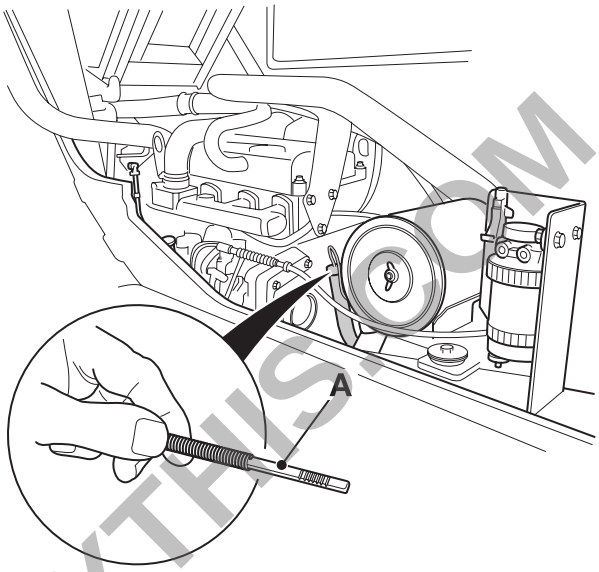


Fig 126.

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Unloading

⚠ CAUTION

Load and unload on firm, level ground. Always be alert for possible hazards. Take special care when turning or reversing.

5-2-4-7

⚠ WARNING

Make sure you know the weight of the load before lifting or placing it.

Do not exceed the Safe Working Load of your machine. Do not angle or extend the boom outside the limits shown on the Load Charts in the cab. See Using the Load Charts and Boom Indicators (in OPERATION Section).

5-2-4-8_1

1 Approach the unload area on center, with all wheels straight. Stop the machine, leaving enough room to maneuver the boom. Make sure you will not exceed the loading limits shown on the Load Chart.

2 Engage the park brake. Put the transmission in neutral.

3 Position the load just above its required position. If stacking box pallets, ensure that the stack is straight and square. For extra stability, stagger the top row.

4 Lower the load into position. Make sure the load is level.

5 Carefully withdraw the forks. Depending on the height of the load, you may have to raise or lower the boom as the forks come out.

6 When the forks are clear of the load, fully retract the boom. Lower the boom into the travel position.

Uneven Loads

P5-2008U

Important: *Use extra caution when operating the boom and carriage with an uneven load.*

1 Find the load's Center of Gravity. On packaged loads it may be marked on the box.

2 Position the machine so that the load's center of gravity is halfway between the forks. ⇨ *Fig 58. (69)*.

3 Pick/Place the load, this will depend on what kind of load it is. If it is palleted, follow the procedure for palleted loads. If it is not palleted, it may be necessary to secure the load to the forks using suitable chains. Stop the engine before allowing anyone to approach the forks.

Notice: *If you cannot find out the load's center of gravity, do the following: Make trial lifts at different positions until you are sure the load is stable on the forks. Do not raise the load more than a few centimetres when you make the trial lifts.*

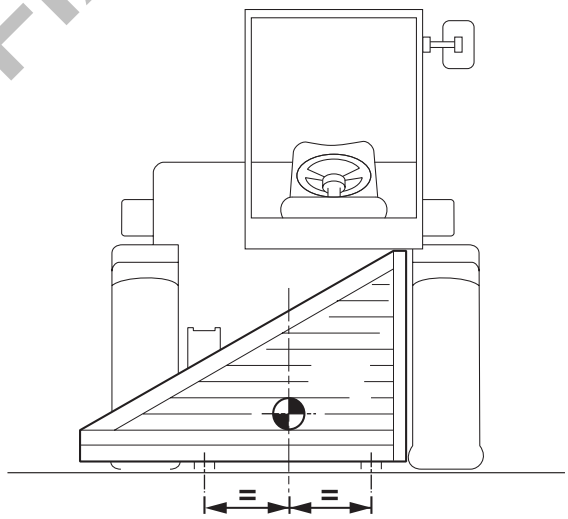


Fig 58.

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Cleaning the Machine

⚠ WARNING

To avoid burning, wear protective gloves when handling hot components. To protect your eyes, wear goggles when using a wire brush to clean components.

HYD-1-3

⚠ WARNING

Airborne particles of light combustible material such as straw, grass, wood shavings, etc. must not be allowed to accumulate within the engine compartment or in the propshaft guards (when fitted). Inspect these areas frequently and clean at the beginning of each work shift or more often if required. Before opening the engine cover, ensure that the top is clear of debris.

5-3-1-12_3

Pay particular attention to the following areas:

1 Radiator and radiator Grill

If the radiator tubes/fins get clogged the radiator will be less efficient.

Brush off all debris from the cooler tubes and fins. Make sure the loosened material is brushed out of the cooler enclosure.

Open the radiator grill. ⇒ ***Radiator Grill (111)***. Clean both sides of grill **A** and radiator **B**.

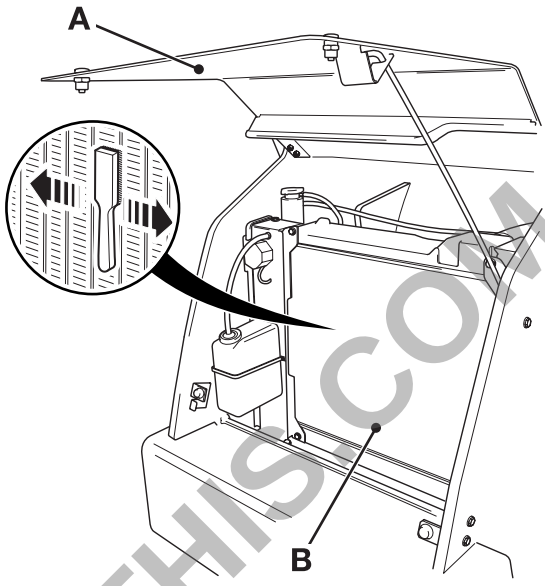


Fig 81.

2 Engine

Do not allow mud to build up on the engine and transmission. Pay particular attention to the exhaust area, remove all combustible material.

The engine or certain components could be damaged by high pressure washing systems, special precautions must be taken if the engine is to be washed using a high pressure system.

Important: *Do not place the jet nozzle closer than 600mm (24 in) to any part of the engine.*

Do not attempt to clean any part of the engine while it is running. Stop the engine and allow it to cool for at least one hour.

a Disconnect the battery.

b Do not aim the jet wash directly at the fuel injector seals **F**. ⇒ ***Fig 82. (104)***.

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ROPS/FOPS Structure

Checking the ROPS/FOPS Structure

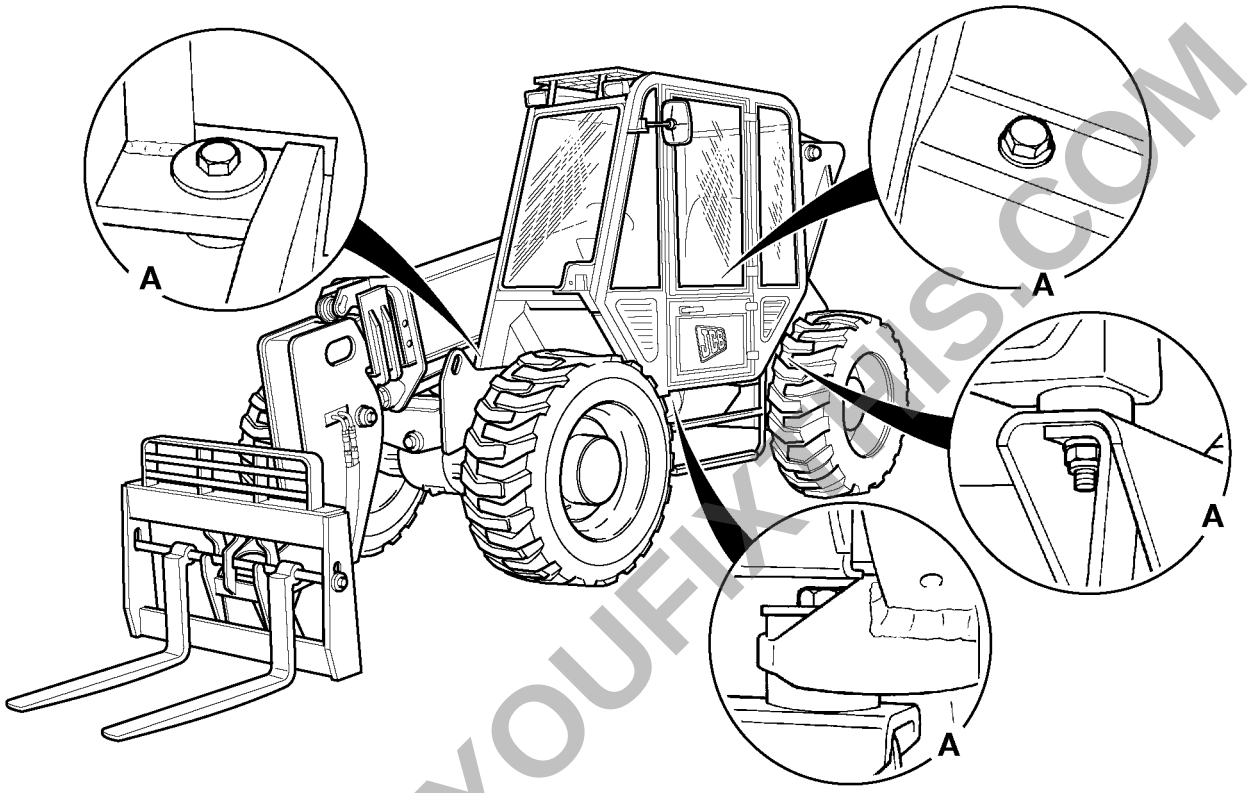


Fig 86.

⚠ WARNING

You could be killed or seriously injured if you operate a machine with a damaged or missing ROPS/FOPS. If the Roll Over Protection Structure (ROPS)/Falling Objects Protection Structure (FOPS) has been in an accident, do not use the machine until the structure has been renewed. Modifications and repairs that are not approved by the manufacturer may be dangerous and will invalidate the ROPS/FOPS certification.

INT-2-1-9_6

For assistance, contact your JCB distributor. Failure to take these precautions could result in death or injury to the operator.

Check the structure for damage. Check that the mounting bolts **A** are installed and undamaged. Check the bolt torques. ⇨ *Table 2. Torque Settings (108)*. Tighten them to the correct torque if necessary.

Table 2. Torque Settings

Item	Nm	lbf ft
A	244	180

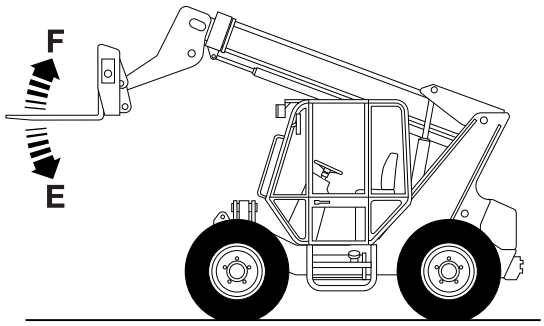
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Tilt Carriage Forward/Back

E Forward

F Back



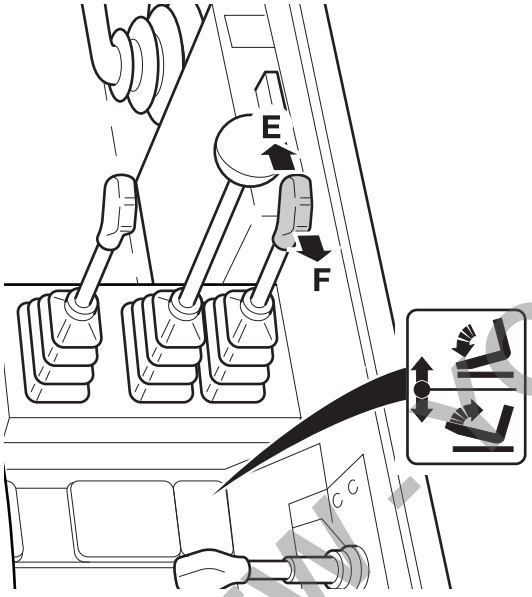


Fig 38.

Auxiliary Controls

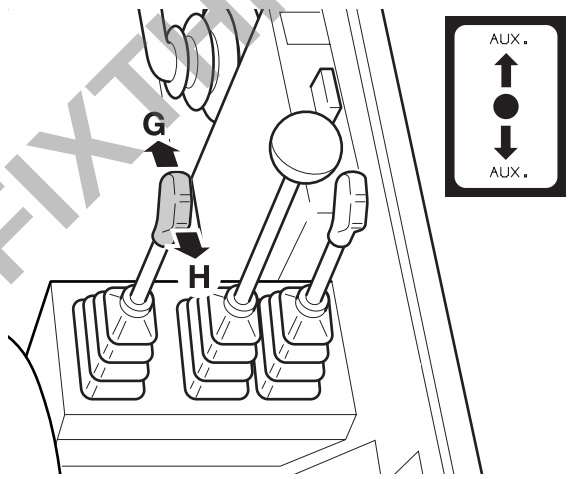
Notice: *To fit an attachment, see* ***Connecting/ Disconnecting Attachments (OPTIONAL ATTACHMENTS section).***

⚠ WARNING

Before operating the Auxiliary control system make sure that you are aware of all WARNINGS and CAUTIONS that apply to the attachment you are using. Also make sure you have fitted the attachment correctly. (See OPTIONAL ATTACHMENT section).

5-2-2-6

Push the lever to the front **G** or Rear **H** depending on the attachment fitted and the function required.



S200180-2

Fig 39.

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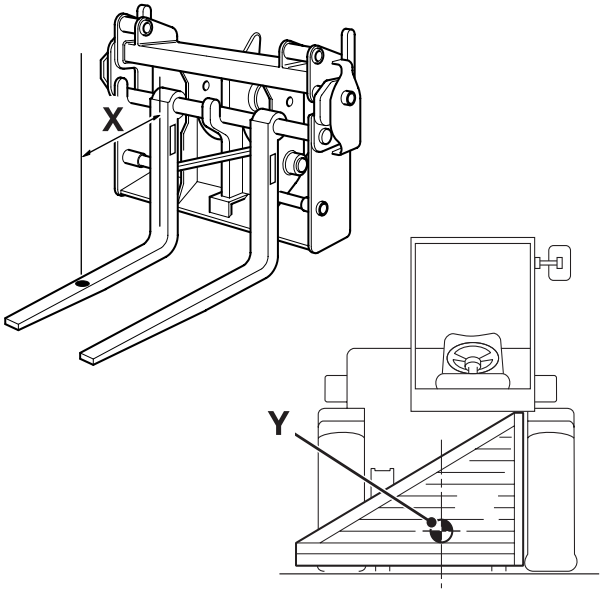


Fig 46.

3 When you know the weight of the load, look on the Load Chart and find the coloured segment with the next highest weight.

For example, on the example Load Chart shown, if your load weight is 3969 lb (1800 kg), find the 4410 lb (2000 kg) segment. This is the Maximum Load Segment for your load.

The left-hand edge **B** and the upper edge **C** of this segment show the machine stability limits for your load. You must not angle or extend the boom beyond these limits.

4 After inserting the forks beneath the load, and before lifting the load, check the readings on the boom angle and extension indicators. Find the same readings on the Load Chart.

You will see on the chart that lines run from the boom angle and extension scales, through the coloured area of the chart. Find where the lines for your readings cross. If they cross inside your Maximum Load Segment or to the right of it (see Step 3) the load is within safe limits.

If the lines cross above or on the left of the segment, do not try to pick up the load. Withdraw the forks, retract the boom and try again. If, even with the boom fully retracted, the boom angle and extension readings still cross outside your Maximum Load Segment do not try to lift the load.

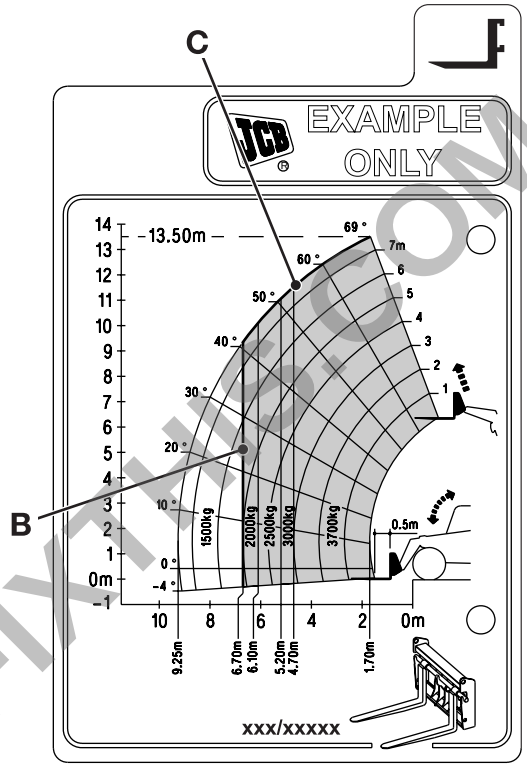


Fig 47. Example Only

5 When the load is on the forks, retract the boom before raising or lowering it. This will reduce the risk of getting the machine unstable. While moving the boom, watch the boom angle and extension indicators. Keep inside the limits for your load.

Note that when the load is high up (say on a scaffolding) you will have to get it clear before fully retracting the boom.

6 Before placing a load, use the Load Chart to find how close you should get the machine to the unload point. You must be able to place the load without crossing the left-hand or upper boundaries of your Maximum Load Segment.

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Optional Attachments

Introduction

T4-002U_2

⚠ WARNING

Use only the JCB approved attachments that are specified for your machine. Operating with non-specified attachments can overload the machine, causing possible damage and machine instability which could result in injury to yourself or others.

The use of non-approved attachments could invalidate your warranty.

2-4-5-2_1

A wide range of optional attachments is available to increase the versatility of your machine. Only JCB approved attachments are recommended for use with your machine. Consult your JCB Distributor for the full list of approved attachments available.

JCB attachments are designed and manufactured specifically to suit the machine's hydraulic system, mounting arrangements and safe load requirements. Attachments which are not designed for use with this machine may cause damage and create safety hazards for which JCB cannot be held responsible. In addition the machine's warranty, and any other legislative compliance may be affected by the use of non JCB approved attachments.

2-4-1-13U_2

⚠ CAUTION

If you have an attachment which is not covered in the Operator Manual do not install it, use it or remove it until you have obtained, read and understood the pertinent information. Install attachments only on the machines for which they were designed.

5-5-1-1_2

This part of the manual includes general information on attachment operation and instructions for instalation and removal of attachments.

Some attachments are supplied complete with instructions on safety, instaling, removing, operation and maintenance. Read and fully understand the information before fitting, using and servicing the attachment. If there is anything you do not understand, ask your JCB Distributor.

Before using any attachment, read again ***Working With The Machine*** in the Operation section and consider how the attachment is going to affect operational safety. With the attachment fitted, there may be changes in the machine's center of gravity or overall dimensions. This could have an effect on, for example, machine stability, the gradients on which it is safe to operate or the safe distance from power lines.

Practice using attachments off the job before working with them for the first time.

If your machine needs the hydraulic system adapting to facilitate the use of auxiliary attachments, you must consult your distributor. Only suitably qualified personnel must re-route hydraulic hoses.

All optional attachments will have limits on their operation. i.e. lifting capacity, speeds, hydraulic flow rates, etc. Always check in the literature supplied with the attachment or in the SPECIFICATION section of this manual. Some specification limits may also be displayed on the attachments Data/Rating Plate.

⚠ CAUTION

Some attachments may contact parts of the machine when in the fully folded position. Take extra care to avoid damage to the machine.

3-4-1-4

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