



Section A

Attachments

[Section 1 - General Information](#)

[Section 2 - Care and Safety](#)

[Section 3 - Maintenance](#)

[Section A - Attachments](#)

[Section B - Body and Framework](#)

[Section C - Electrics](#)

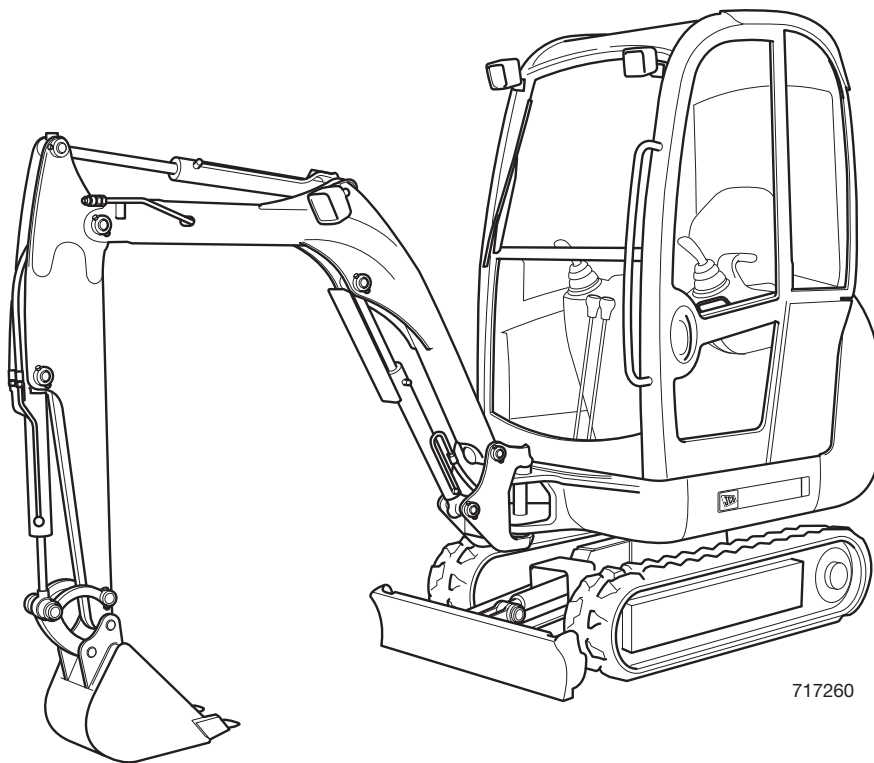
[Section D - Body and Framework](#)

[Section E - Hydraulics](#)

[Section F - Gearboxes](#)

[Section J - Track and Running Gear](#)

[Section K - Engine](#)



717260

Publication No.
9803/9410-3



Sample manual. Download All pages at.

<https://www.arepairmanual.com/downloads/jcb-8025z8030z8035z-mini-excavator-service-repair-manual/>

World Class
Customer Support



Section A - Attachments

Contents	Page No.
Attachments	
Introduction	A-1
Attachments for your Machine	A-2
Introduction	A-2
Installing the Quickhitch	A-3
Removing the Quickhitch	A-3
Maintenance	A-3
Installing Excavator Quickhitch Attachments	A-4
Removing Excavator Quickhitch Attachments	A-5
Buckets	A-7
Bucket Selection	A-7
Removing a Bucket - Non Quickhitch Models	A-8
Installing a Bucket - Non Quickhitch Models	A-9
Removing a Bucket from a Quickhitch	A-9
Installing a Bucket on a Quickhitch	A-11
Replacing Bucket Teeth	A-12
Quickhitch Rockbreaker	A-13
Removing a Quickhitch Rockbreaker	A-13
Installing a Quickhitch Rockbreaker	A-15
Operation	A-15
Quick Release Couplings	A-16
Connecting and Disconnecting	A-16



Section A - Attachments

Contents

Page No.

Attachments

Introduction

T4-002

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, "CE" and any other legislative compliance may be affected by the use of non JCB approved attachments.

2-4-1-13_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 installation and removal of attachments.

Some attachments are supplied complete with instructions on safety, installing and 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 centre 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

Attachments for your Machine

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

A list of approved available attachments are available from JCB Attachments. These attachments will help increase the productivity of your machine.

Remember, do not operate attachments until you have read and fully understand the attachment operating instructions.

WARNING

Hydraulic Pressure

Hydraulic fluid at system pressure can injure you. Before connecting or removing any hydraulic hose, residual hydraulic pressure trapped in the service hose line must be vented. Make sure the hose service line has been vented before connecting or removing hoses. Make sure the engine cannot be started while the hoses are open.

INT-3-1-11_2

WARNING

Fluid Under Pressure

Fine jets of fluid at high pressure can penetrate the skin. Keep face and hands well clear of fluid under pressure and wear protective glasses. Hold a piece of cardboard close to suspected leaks and then inspect the cardboard for signs of fluid. If fluid penetrates your skin, get medical help immediately.

INT-3-1-10_2

WARNING

Always disconnect the battery before starting any work on or near to the electrical system. This prevents injury and damage.

MD-1-7-1

CAUTION

Before carrying out arc welding on the machine, disconnect the battery and alternator to protect the circuits and components.

The battery must still be disconnected even if a battery isolator is fitted.

The machine is equipped with electronic control units (E.C.U.s) and a radio receiver. Disconnect them before welding. Failure to disconnect these components could result in irreparable damage.

Make sure that the welding earth return path is kept as short as possible. This prevents high currents being induced in the machine chassis or wiring harnesses.

5-5-1-10

CAUTION

Hydraulic cleanliness is absolutely essential when working on hydrostatic drive systems. Orifices in the pump and motor can be blocked by even the smallest particle - eg. a thread from a cloth. You must maintain the highest level of cleanliness when working on any part of the system.

5-3-4-7

Introduction

The Excavator Quickhitch, which is fitted to the dipper, permits rapid removal and installation of the bucket (and other attachments). It is mechanically operated and does not require any hydraulic connections.

Read the following pages for instructions on how to correctly install and remove the Quickhitch assembly and its attachments.

CAUTION

When the Quick-Hitch is installed and its attachment fitted, there is a danger of the attachment hitting the underside of the boom. Operate the boom and dipper carefully when the Quick-Hitch and its attachment are fitted.

2-4-4-2

Note: To eliminate premature wear, failure and breakage, the Quickhitch should only be used in conjunction with a rockbreaker for short periods. If the machine is to be used for rock breaking over a long period of time, it is preferable that the rockbreaker is mounted directly onto the machine. When using a rockbreaker it must always be curled towards the machine (as a typical digging operation). Never use the rockbreaker as a lever as this will result in excessive load on the locking mechanism.

CAUTION

When the Quickhitch is fitted to the machine, allowance must be made for the weight of the Quickhitch on the rated operating load. The mass of the Quickhitch is stamped on the data plate

8-4-5-7

Installing the Quickhitch

Note: This operation is easier done by two people - one to operate the controls and one to line up the pivots.

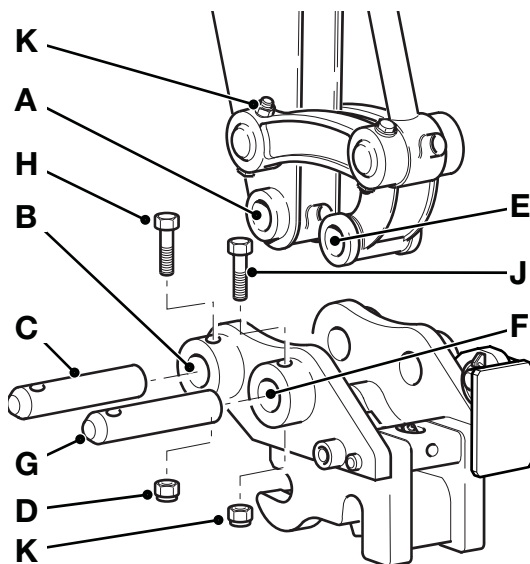


Fig 1.

- 1 Before fitting the Quickhitch, ensure that the tipping lever locking bolt assembly is installed with the nut at position **K**.
- 2 Set the Quickhitch on firm level ground. Use safe and correct lifting equipment to move the Quickhitch.

- 3 Position the machine so that the dipper arm and Quickhitch are correctly aligned as shown for connection.

- 4 Engage the dipper:

Operate the controls to line up hole **A** in the dipper with holes **B** in the Quickhitch. Insert pivot pin **C** and secure with fasteners **H** and **D**.

- 5 Engage the Tipping Link:

Operate the controls to line up hole **E** in the tipping link with hole **F** in the Quickhitch. Insert pivot pin **G** and secure with fasteners **J** and **K**.

Removing the Quickhitch

Removal of the Quickhitch is a reversal of the installation procedure. Pay particular attention to safety notices.

Maintenance

Inspect daily for broken or missing parts. Remove any debris from the latch hook locking mechanism. If cleaned by high pressure water, always re-grease the latch hook pivot pin. Always grease the latch hook pin every week.

Installing Excavator Quickhitch Attachments

Various attachments can be used with the Quickhitch. Dedicated attachments have integral pivot pins although most attachments are compatible if the pivot pins are fitted in the normal way as shown. The following procedure shows a bucket being installed/removed.

- 1 Set the attachment on firm level ground. Use safe and correct lifting equipment to move the attachment.
- 2 Position the machine so that the Quickhitch and attachment are correctly aligned for connection as shown.
- 3 Engage the attachment:

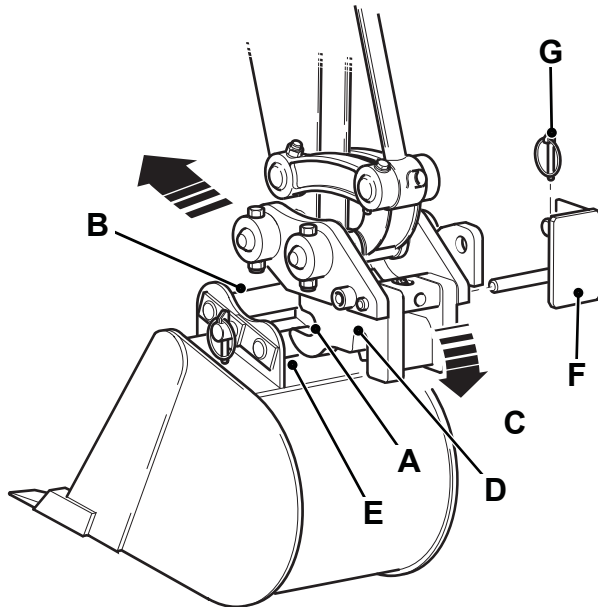


Fig 2.

- a Use the excavator controls to engage jaw **A** of the Quickhitch with the pivot pin **B** of the attachment.
- b Use the excavator controls to roll the Quickhitch in the direction of arrow **C** until the latch hook **D** has fully engaged the pivot pin **E** on the attachment. Due to the light weight of some attachments it may be necessary to apply a load on the bucket teeth to achieve Quickhitch connection. Alternatively use the tommy bar to lever the latch

off, allowing the attachment pivot pin **E** to locate in jaw **D** of the Quickhitch.

CAUTION

Make sure that the latch hook has fully engaged.

2-4-4-3

- c Fit the latch hook locking pin **F** and secure with lynch pin **G**.

WARNING

Always fit the Quickhitch latch hook locking pin. Failure to fit the pin will result in possible failure of the latching mechanism. Such a failure would result in the sudden release of an attachment from the machine; you or others could be killed or seriously injured.

3-4-1-9

CAUTION

When the Quick-Hitch is installed and its attachment fitted, there is a danger of the attachment hitting the underside of the boom. Operate the boom and dipper carefully when the Quick-Hitch and its attachment are fitted.

2-4-4-2

- 4 Connect the hydraulic hoses (if applicable)

If the attachment is hydraulically operated, connect the hydraulic hoses as follows:

- a Stop the engine.
- b Operate the auxiliary control to release any hydraulic pressure trapped in the system.
- c Fit the attachment hoses to the machine quick release couplings.

- 5 Start the engine and operate the attachment for a few minutes to allow pressure to build up.

- 6 Stop the engine and check for hydraulic leaks.

WARNING

Fluid Under Pressure

Fine jets of fluid at high pressure can penetrate the skin. Keep face and hands well clear of fluid under pressure and wear protective glasses. Hold a piece of cardboard close to suspected leaks and then inspect the cardboard for signs of fluid. If fluid penetrates your skin, get medical help immediately.

INT-3-1-10_2

Removing Excavator Quickhitch Attachments

- 1 Park the machine on firm level ground.
- 2 Position the attachment so that it is approximately 150 mm (6 in) above the ground.
- 3 If the attachment is hydraulically operated, disconnect the hydraulic hoses as follows:
 - a Stop the engine.
 - b Operate the auxiliary attachment control to release any hydraulic pressure trapped in the system.

WARNING

Fluid Under Pressure

Fine jets of fluid at high pressure can penetrate the skin. Keep face and hands well clear of fluid under pressure and wear protective glasses. Hold a piece of cardboard close to suspected leaks and then inspect the cardboard for signs of fluid. If fluid penetrates your skin, get medical help immediately.

INT-3-1-10_2

- c Disconnect the hydraulic hoses at the quick release couplings.
- 4 Disengage the Attachment:

WARNING

The attachment will roll forward when released. Stand clear and to one side when releasing the attachment.

2-4-4-1

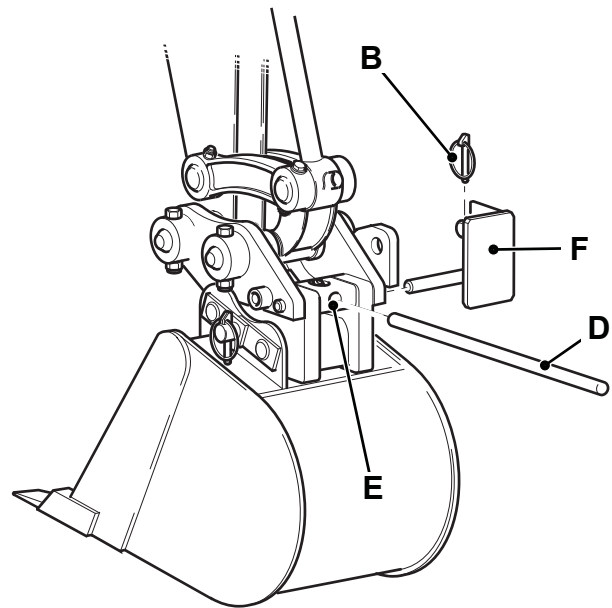


Fig 3.

- a Remove lynch pin B and locking pin C.
- b Insert the tommy bar D (provided) into the hole E of the latch hook.

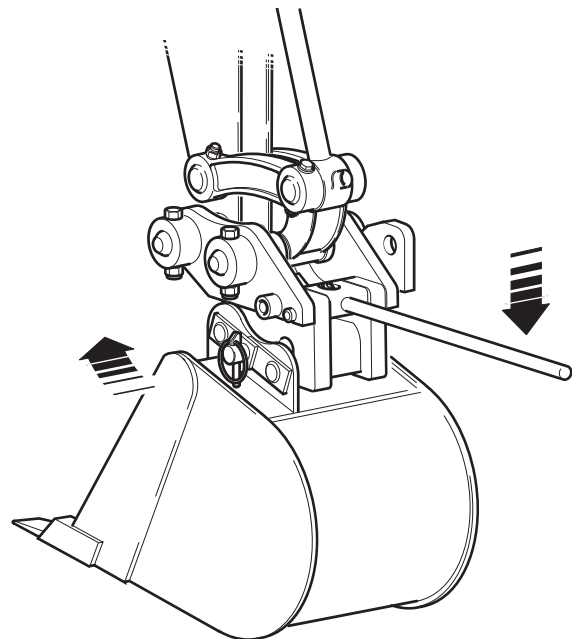


Fig 4.

- c Apply a downward pressure on the bar to release the attachments' rear pivot pin from the latch hook, as shown. Remove the tommy bar from the Quickhitch.

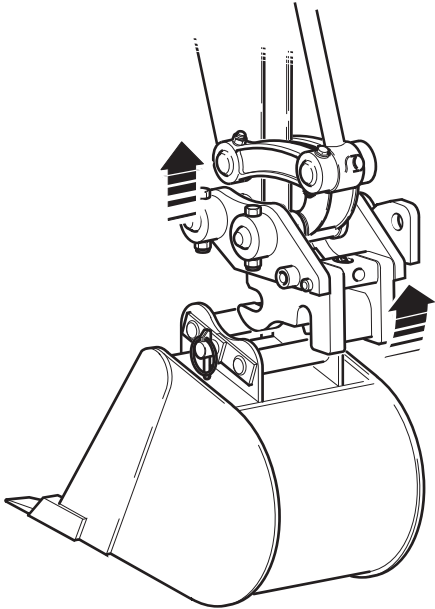


Fig 5.

- d Rest the attachment on the ground.
- e Slowly roll the Quickhitch back and simultaneously raise the dipper arm to release the attachments' front pivot pin, as shown.

Buckets

Bucket Selection

 **WARNING**

The bucket selected should be the correct width to suit the hole/trench to be excavated. However, if the hole width demands the larger bucket, consideration should be given to the density/weight of the material to be moved affecting the stability of the machine especially if working on a slope. If there is danger of the machine's stability being compromised, then select a smaller bucket or reposition the machine.

Use the 300 mm (12 in) wide bucket for narrow excavations or for maximum penetration when digging in hard, rocky or clay soils.

Larger buckets are ideally suited to bulk shifting light or loose materials.

0130

Removing a Bucket - Non Quickhitch Models

P11-4002

1 Position the Boom

Slew the boom so that it is straight in front of the machine. Rest the bucket on level ground, with the dipper approximately vertical and the bucket flat to the ground. Block the bucket to prevent its movement.

3 Withdraw the Dipper

Using the controls, carefully lift the dipper clear of the bucket.

WARNING

Stand clear and to one side of the bucket while you remove the pivot pins. With the pins removed, the bucket could roll over.

2-2-6-6

2 Detach the Bucket

Remove the lynch pin **A** and the pivot pins **B**.

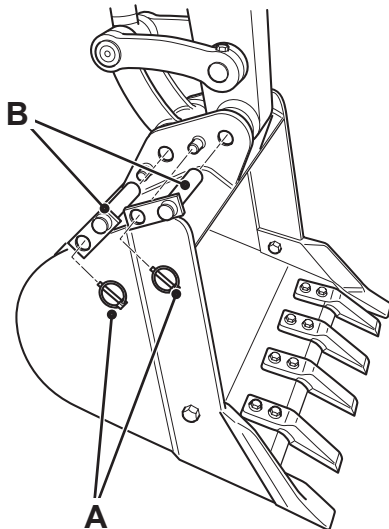


Fig 6.

WARNING

If two people are doing this job make sure that the person working the controls is a competent operator. If the wrong control lever is moved, or if the controls are moved violently, the other person could be killed or injured.

B-2-1-8

Installing a Bucket - Non Quickhitch Models

See **Bucket Selection**.

Note: This job is easier done by two people - one to operate the controls and one to line up the pivots.

1 Position the Bucket

Set the bucket flat on level ground, using a suitable lifting device.

WARNING

Do not use your fingers through the holes to align the links.

8-2-9-32

2 Engage the Dipper

If necessary move the machine to align the pivot pin holes. Carefully align the holes in the dipper and bucket link with the bucket. Fit the pivot pins **B** and lynch pin **A**. [⇒ Fig 6. \(□A-8\)](#)

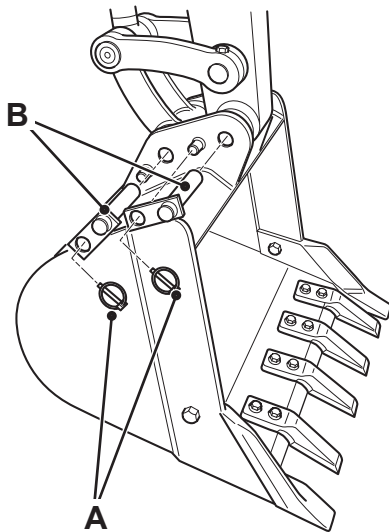


Fig 7.

Removing a Bucket from a Quickhitch

P11-4003

Note: Deposit Quickhitch attachments on firm level ground whenever possible. This will make later refitting easy and safe.

1 Park the machine on firm level ground.

Position the bucket so that it is approximately 150mm (6 in.) above the ground.

WARNING

The attachment will roll forward when released. Stand clear and to one side when releasing the attachment.

2-4-4-1

2 Remove lynch pin **A**, and locking pin **B**.

3 Insert the tommy bar **C** into the hole **D** of the latch hook.

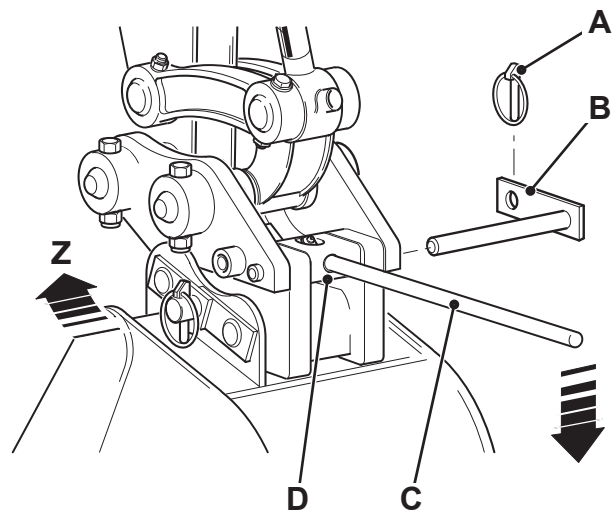


Fig 8.

4 Apply a downward pressure on the bar to release the buckets' rear pivot pin from the latch hook, [⇒ Fig 8. \(□A-9\)](#) at **Z**. Remove the tommy bar from the Quickhitch.

5 Rest the bucket on the ground.

6 Slowly roll the Quickhitch back and simultaneously raise the dipper arm to release the buckets' front pivot pin, [⇒ Fig 9. \(□A-10\)](#) at **Y**.

Note: Quickhitch procedure applies to most attachments. See your attachments instructions for specific procedures.

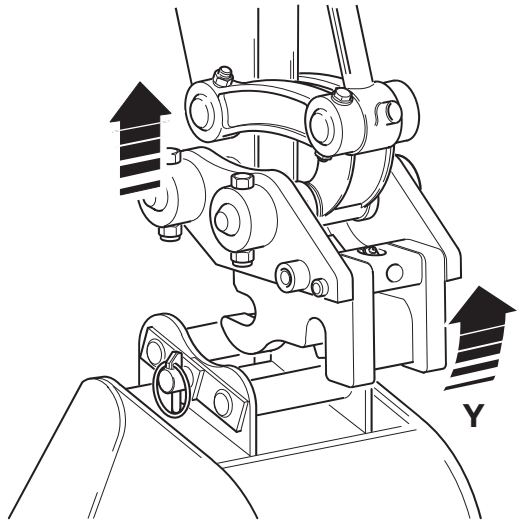


Fig 9.

Installing a Bucket on a Quickhitch

See **Bucket Selection**.

1 Position the Bucket

Set the bucket on firm level ground. Use safe and correct lifting equipment to move the bucket.

2 Position the machine

- a Position the machine so that the Quickhitch and bucket are correctly aligned for connection as shown.
- b Use the excavator controls to engage jaw **A** of the Quickhitch with the pivot pin **B** of the bucket.

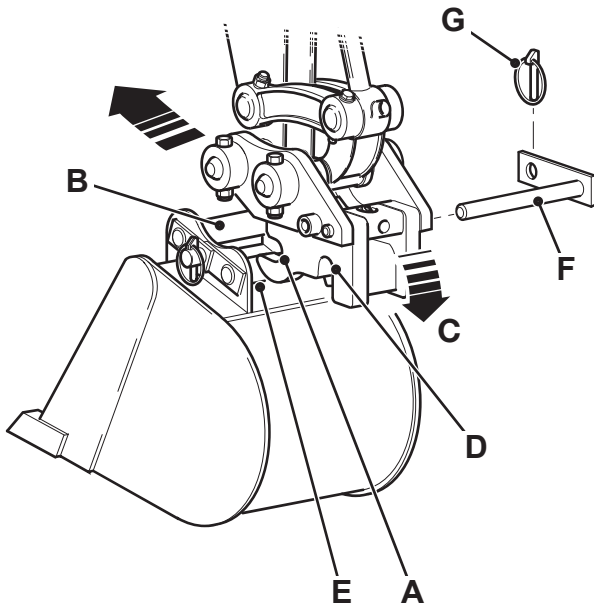


Fig 10.

- c Use the excavator controls to roll the Quickhitch in the direction of arrow **C** until the latch hook **D** has fully engaged the pivot pin **E** on the bucket. Due to the light weight of some bucket it may be necessary to apply a load on the bucket teeth to achieve Quickhitch connection.

Alternatively, use the tommy bar to lever the latch off, allowing the attachment pivot pin **E**, to locate in jaw **D** of the Quickhitch.

CAUTION

Make sure that the latch hook has fully engaged.

2-4-4-3

- d Fit the latch hook locking pin **F** and secure with lynch pin **G**.

WARNING

Always fit the Quickhitch latch hook locking pin. Failure to fit the pin will result in possible failure of the latching mechanism. Such a failure would result in the sudden release of an attachment from the machine; you or others could be killed or seriously injured.

3-4-1-9

CAUTION

When the Quick-Hitch is installed and its attachment fitted, there is a danger of the attachment hitting the underside of the boom. Operate the boom and dipper carefully when the Quick-Hitch and its attachment are fitted.

2-4-4-2

Replacing Bucket Teeth

P11-4001

1 Position the Bucket

Make sure that the bucket is resting flat on the ground

2 Switch off the Engine

Remove the starter key.

3 Remove a Tooth

Remove the nut and bolt **B** and the tooth **A**.

4 Install a Tooth

Position the tooth **A** and fit the bolts **B**.

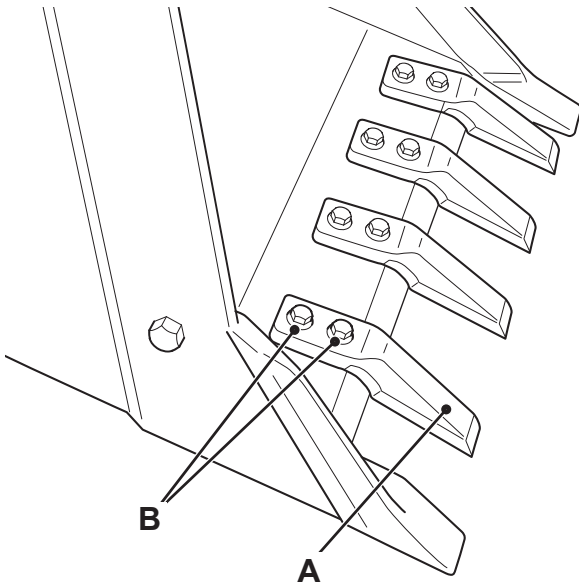


Fig 11.

Quickhitch Rockbreaker

Removing a Quickhitch Rockbreaker

CAUTION

When the Quick-Hitch is installed and its attachment fitted, there is a danger of the attachment hitting the underside of the boom. Operate the boom and dipper carefully when the Quick-Hitch and its attachment are fitted.

2-4-4-2

Note: Deposit Quickhitch attachments on firm level ground whenever possible. This will make later refitting easy and safe.

- 1 Park the machine on firm level ground.

CAUTION

The rockbreaker must be positioned correctly before attempting to release it from the Quickhitch. If incorrectly positioned, the rockbreaker could swing or fall suddenly from the machine when releasing the Quickhitch latch hook.

8-2-9-36

- 2 Position the rockbreaker just clear of the ground and at an angle such that the rockbreaker does not detach from the front pivot pin when the Quickhitch is unlatched. Typically shown at V. [⇒ Fig 12. \(A-14\)](#)

WARNING

Fluid Under Pressure

Fine jets of fluid at high pressure can penetrate the skin. Keep face and hands well clear of fluid under pressure and wear protective glasses. Hold a piece of cardboard close to suspected leaks and then inspect the cardboard for signs of fluid. If fluid penetrates your skin, get medical help immediately.

INT-3-1-10_2

- 3 Stop the Engine.
- 4 Turn the starter key to the 'I' position.
- 5 Operate the auxiliary attachment control pedal, this will release any hydraulic pressure trapped in the system.

- 6 Disconnect the hydraulic hoses.

WARNING

The attachment will roll forward when released. Stand clear and to one side when releasing the attachment.

2-4-4-1

- 7 Remove lynch pin H, and locking pin F.
- 8 Insert the tommy bar J into the hole K of the latch hook.
- 9 Apply a downward pressure on the bar to release the rockbreakers' rear pivot pin from the latch hook, allowing the attachment to swing forward as shown at Z. Remove the tommy bar from the Quickhitch.
- 10 Refit the locking pin F and lynch pin H. Failure to refit the pin will result in the rockbreaker re-latching as it is lowered to the ground. Make sure that the hydraulic hoses do not become trapped under the attachment.
- 11 Start the engine and carefully lower the attachment to the ground as shown at Y.

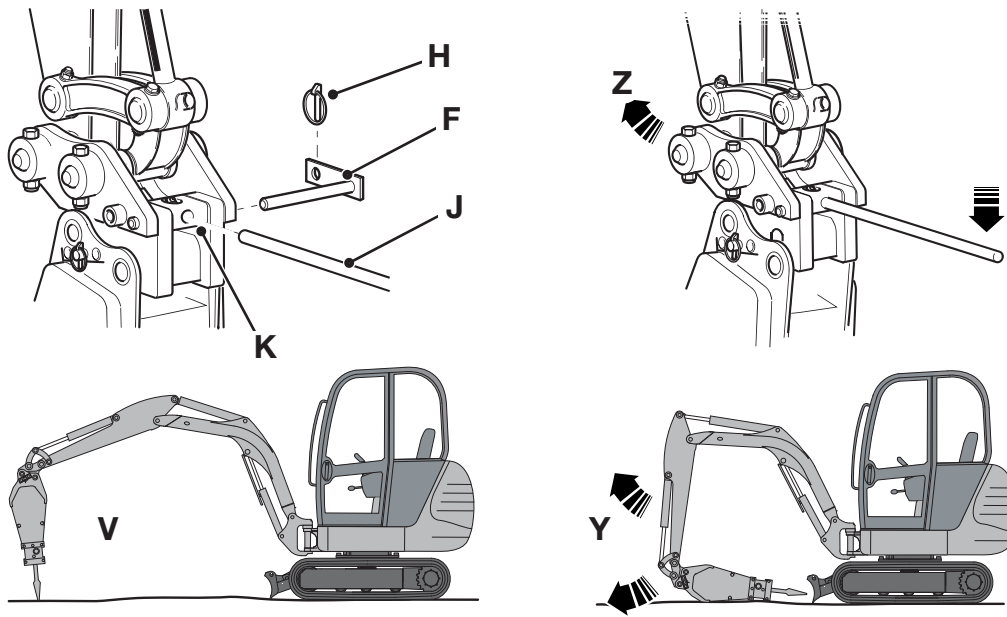


Fig 12.

Installing a Quickhitch Rockbreaker

CAUTION

When the Quick-Hitch is installed and its attachment fitted, there is a danger of the attachment hitting the underside of the boom. Operate the boom and dipper carefully when the Quick-Hitch and its attachment are fitted.

2-4-4-2

1 Position the Rockbreaker.

Set the bucket on firm level ground. Use safe and correct lifting equipment to move bucket

- e Position the machine
- f Use the excavator controls to engage the jaw of the Quickhitch with the pivot pin of the rockbreaker.
- g Use the excavator controls to roll the Quickhitch in until the latch hook has fully engaged the pivot pin on the rockbreaker. It may be necessary to apply a load on the bucket teeth to achieve Quickhitch connection.

Alternatively, use the tommy bar to lever the latch off, allowing the attachment pivot pin to locate in jaw of the Quickhitch.

CAUTION

Make sure that the latch hook has fully engaged.

2-4-4-3

- h Fit the latch hook locking pin and secure with lynch pin.

WARNING

Always fit the Quickhitch latch hook locking pin. Failure to fit the pin will result in possible failure of the latching mechanism. Such a failure would result in the sudden release of an attachment from the machine; you or others could be killed or seriously injured.

3-4-1-9

Operation

CAUTION

When the Quick-Hitch is installed and its attachment fitted, there is a danger of the attachment hitting the underside of the boom. Operate the boom and dipper carefully when the Quick-Hitch and its attachment are fitted.

2-4-4-2

The attachment is operated by a floor mounted pedal.

Make sure that the swing/auxiliary switch is selected to 'auxiliary'.

Depressing the pedal at **A** will operate single acting attachments.

Depressing the pedal at **B** will operate double acting attachments.

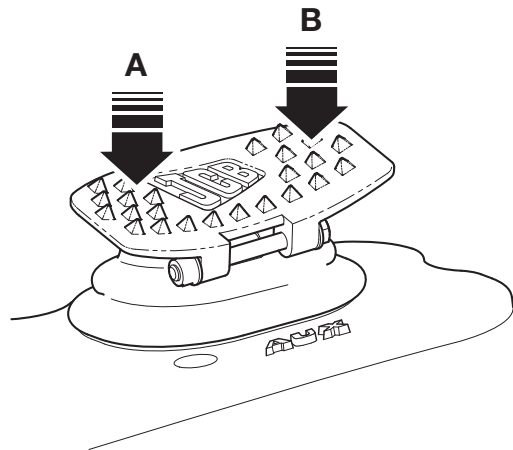


Fig 13.

Quick Release Couplings

T4-001

Connecting and Disconnecting

Flat face quick release couplings allow the operator to remove and install attachments swiftly and efficiently. Generally, your machine pipework will have female couplings **A** fitted, and the optional attachment hoses will have male couplings **B** fitted. → [Fig 14.](#) ([□A-17](#)).

The quick release couplings should be trouble free and relatively easy to connect and disconnect, provided they are kept clean and used correctly. The recommendations listed below should always apply when using flat face quick release couplings.

Finally, please read the correct fitting and releasing procedures before installing or removing any optional attachment fitted with quick release couplings.

Quick Release Couplings - Do's and Don'ts

- Do wipe the two faces of the coupling and make sure they are clean before connecting.
- Do make sure the outside sleeve (female coupling) is pulled back when disconnecting.
- Do connect and disconnect a new coupling two or three times to 'work' the PTFE seals - sometimes a new coupling will stick if the seals have not been 'worked'.
- Do use a spanner on the hexagon flats of the coupling when fitting adaptors.
- Do use a rubber or hide hammer to disconnect a coupling if it sticks - sticking may occur if there is dirt present in the coupling.
- Don't attempt to re-connect a damaged half coupling - this will destroy the seals and necessitate replacing both half couplings.
- Don't leave the coupling where it may be run over by a machine or otherwise crushed - this will distort the coupling sleeve and prevent correct connection and disconnection.
- Don't clamp on the smooth diameter of the coupling when fitting adaptors - always use the hexagon.
- Don't try to turn the sleeve (female coupling) when the coupling has been disconnected - the locking ball will

wedge underneath the sleeve and destroy the coupling.

- Don't damage the faces of the couplings - this can prevent connection and disconnection, or damage seals and cause leakage.
- Don't try to dismantle the couplings - they are non serviceable parts. If a coupling is damaged it should be replaced with a new one.

WARNING

Hydraulic fluid at pressure can injure you. Make the machine safe before connecting or disconnecting quick release couplings; stop the engine and then operate the attachment control a few times to vent residual hydraulic pressure in the attachment hoses.

2-4-1-11

WARNING

The external surfaces of the couplings must be clean before connecting or disconnecting. Ingress of dirt will cause fluid leaks and difficulty in connecting or disconnecting. You could be killed or seriously injured by faulty Quick Release Couplings.

2-4-1-15

Before connecting or removing any hydraulic hose, residual hydraulic pressure trapped in the service hose line must be vented. Make sure the hose service line has been vented before connecting or removing hoses.

Connecting Quick Release Couplings

- 1 Remove any residual hydraulic pressure trapped in the service line hose.
- 2 Wipe the two faces of the male and female couplings and make sure they are clean.
- 3 Make sure that ball **14-C** in the female coupling is located in one of its slots.
- 4 Fit the male coupling into the female coupling; To ensure that the coupling is not accidentally released, rotate sleeve **14-E** half a turn and make sure that the locking ball **14-C** does not align with the slot **14-D**.

Disconnecting Quick Release Couplings

- 1 Remove any residual hydraulic pressure trapped in the service line hose.
- 2 Align the slot **14-D** with ball **14-C**.
- 3 Pull back sleeve **14-E** to release the coupling.

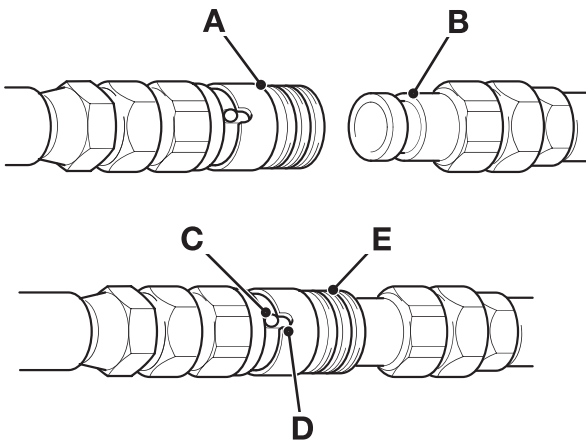


Fig 14.



Page left intentionally blank