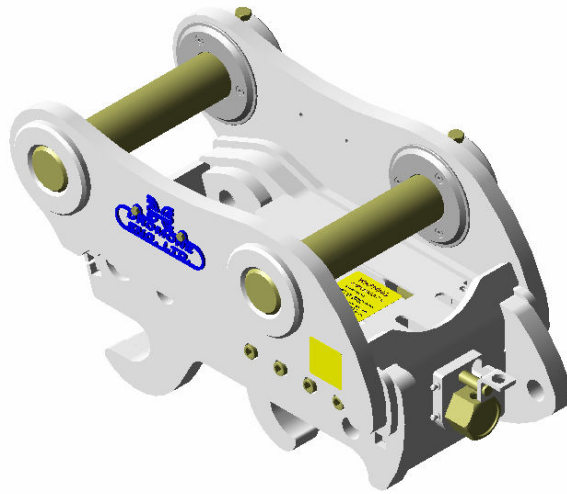


## DROMONE ENGINEERING LTD.

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Manually Operated with  
Adjuster Locking Mechanism  
and Safety Pin



EXCAVATOR QUICK HITCH -SLIDE TYPE VERSION



OWNERS MANUAL

ISO 9001:2000

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## **Introduction.**

Thank you for purchasing the Dromone 'SLIDE TYPE QUICK HITCH'. This hitch has been designed and manufactured with ease of use and operator safety in mind.

This product has undergone extensive testing and benchmarking against similar competitor products and we believe the Dromone 'SLIDE TYPE QUICK HITCH' product, to be the best available in today's market place.

The 'SLIDE TYPE QUICK HITCH' is characterised by the manner in which the adjustable latching hooks travel in a straight line towards the back jaw of the hitch.

This is a manually operated hitch, which is fitted with an adjuster bolt for the purpose of tightening the movable hook around the back bucket pin.

This hitch comes fitted with a special locking mechanism to prevent the adjuster bolt working loose.

This hitch is also fitted with a safety pin to prevent the hooks opening even in the event of a failure in the large bolt or block

This 'SLIDE TYPE Quick Hitch' product, when used correctly and with proper OEM (Original Equipment Manufacturer) excavator buckets and attachments will provide a safe and reliable means of quick attachment and changeover of various implements, thus allowing the user to get maximum productivity from the machine.

To guarantee satisfactory and safe operation of the equipment, we insist that only experienced and qualified personnel install and operate the product.

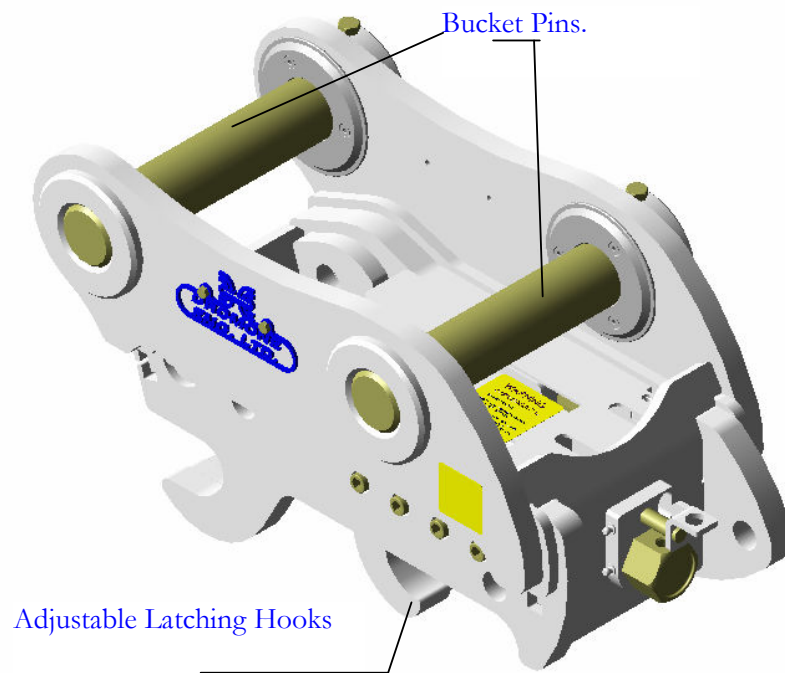
Dromone Engineering LTD, will accept no responsibility or liability for equipment installed or operated unless it is full accordance with the information provided in this manual.

# **Important Safety Notes.**

## **Please Read Carefully.**

1. As a new owner / operator of a Dromone 'SLIDE TYPE Quick Hitch' it is very important that you take time to acquaint yourself with the main features of the hitch and the requirements for its safe installation, operation and maintenance. Therefore, we recommend that you study the contents of this booklet very carefully and be fully familiar with its contents before commencing work.
2. Great care must be taken when working on or with the 'SLIDE TYPE Quick Hitch'. Never attempt to work on, or carry out maintenance to this product without first ensuring that it has been made safe, and that the machine to which it is attached is switched off.
3. While the 'SLIDE TYPE Quick Hitch' is designed and proven to work with most available buckets and other attachments, it is recommended that for prolonged use with a rock hammer, the 'SLIDE TYPE Quick Hitch' should be detached and the rock hammer connected directly to the machine.
4. Regardless of the bucket or attachment being used with the 'SLIDE TYPE Quick Hitch' they must be used in strict accordance with their individual manufacturers guide lines and instructions.
5. In order to ensure that you get the most from your 'SLIDE TYPE Quick Hitch' product we have set out in this booklet some recommended service and maintenance checks. These should be carried out on a regular basis and any damaged parts should be replaced immediately.
6. Never attempt to modify either the Dromone 'SLIDE TYPE Quick Hitch' or the machinery onto which it is intended to be attached without first receiving approval from Dromone Engineering personnel. Unauthorised modification of the 'SLIDE TYPE Quick Hitch' or the host machine can seriously impair the performance of the equipment and could cause serious injury to personnel involved in working with or in close proximity to the machinery.
7. All persons involved in the installation, maintenance and operation of the Dromone 'SLIDE TYPE Quick Hitch' must ensure that they take full responsibility for their own personal safety by wearing suitable protective clothing, safety shoes and eye glasses where appropriate.
8. If you should have any difficulty with your Dromone 'SLIDE TYPE Quick Hitch' which is not addressed in this manual, then you should contact Dromone Engineering immediately, at the numbers provided on the back page of this manual.

# Installation Instructions



## Installation of the Dromone 'Type A - Sliding Quick Hitch'.

To guarantee satisfactory and safe operation of the equipment, it is strongly recommended that the 'SLIDE TYPE Quick Hitch' be installed and fitted by trained personnel only.

Installation of the 'SLIDE TYPE Quick Hitch' must be in accordance with the instructions provided in this manual, any deviation from the instructions given here needs to be authorised by Dromone Engineering personnel.

Any difficulty with interpretation of the installation instructions in this manual should be resolved between the fitter and Dromone Engineering, before proceeding any further - **IF IN DOUBT ASK.**

### Procedure:

1. Carry out a visual inspection of the 'SLIDE TYPE Quick Hitch' and its accessories. Check the packaging for any damage, which might have occurred in transit. Check that all items have been

delivered. If you encounter anything, which appears to be damaged, missing or incorrect, then contact Dromone Engineering before you proceed any further.

2. If you have NOT done so already, **READ THIS MANUAL** in full before proceeding. Failure to read and understand the full contents of this manual may result in improper Installation, Operation or Maintenance of the of the 'SLIDE TYPE Quick Hitch' which in turn could lead to serious injury or death of equipment operators.

**IMPORTANT. NOTE:**

DO NOT PROCEED WITH  
THE INSTALLATION,  
OPERATION OR  
MAINTENANCE OF THE  
DROMONE 'SLIDE TYPE  
QUICK HITCH' UNTIL YOU  
HAVE READ AND  
UNDERSTAND THE  
PRODUCT MANUAL IN  
FULL.

TO DO SO COULD LEAD  
TO SERIOUS INJURY OR  
DEATH OF THE  
PERSONNEL INVOLVED.

3. The installation of the 'SLIDE TYPE Quick Hitch' is a job for at least two people, one of which should be a suitably qualified fitter.

4. Tools required for the installation of the 'Quick Hitch'.

- a). Lifting gear (suitably sized hoist, chains and straps) to manoeuvre the hitch from its packaging to the site prepared for installing it on the host machine.

- b). Fitter's toolkit.

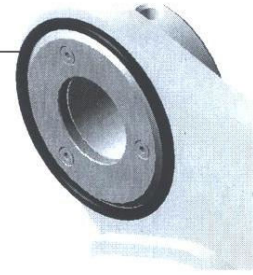
5. Before commencing with the installation of the 'SLIDE TYPE Quick Hitch' you must remove the existing attachment (bucket etc) from the machine to which the 'SLIDE TYPE Quick Hitch' will be fitted. Also, remove the OEM pins holding the bucket to the machine and set them aside for later use. These will be used to attach the 'SLIDE TYPE Quick Hitch' to the machine at step 9. You must also ensure that the joint area of the machine arm and the bucket are thoroughly cleaned.

6. Remove the bucket pins, which have been installed in the 'SLIDE TYPE Quick Hitch' prior to delivery. These pins are for use on the bucket or implement to which the 'SLIDE TYPE Quick hitch' will be attached. They can be installed in the bucket or implement later.

7. Remove the 'O' ring seals from the existing attachment. Check them to ensure they are in good condition (replace if necessary), clean them and temporarily place them over the 'SLIDE TYPE Quick Hitch' bushings as illustrated.

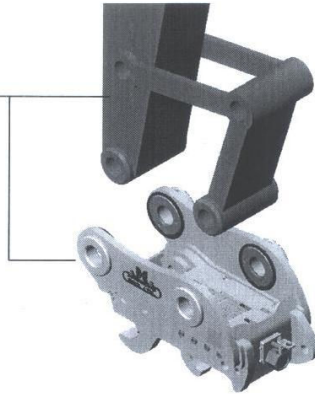
(Refer to fig 1).

Fig 1. 'O' ring in temporary position over bushing.



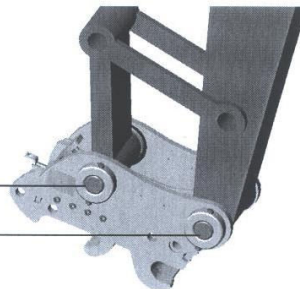
8. Place the 'SLIDE TYPE Quick Hitch' on the ground with the fixed pin positions facing upwards. Move the machine arm over the 'SLIDE TYPE Quick Hitch' and lower it into position, aligning the holes in the machine arm and links with those of the 'Quick Hitch'. (Refer to fig 2).

Fig 2a. Illustrates how to line up the pin positions of the dipper arm and the Slide Type Quick Hitch.



Install the OEM pins previously removed at stage 5. Grease the pins and bushings and secure the pins in place with the bolts and lock nuts removed earlier.

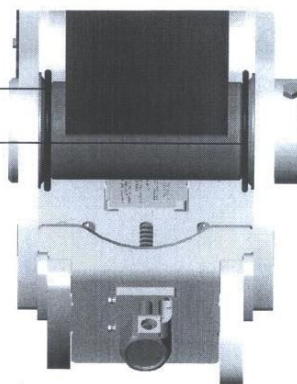
Fig 2b. OEM pins installed, greased and secured with nuts and bolts.



Move the 'O' rings referenced earlier in point 7 to positions between the machine bushings and the 'SLIDE TYPE Quick Hitch' bushings. Check that they are fitting correctly.

(Refer to fig 3).

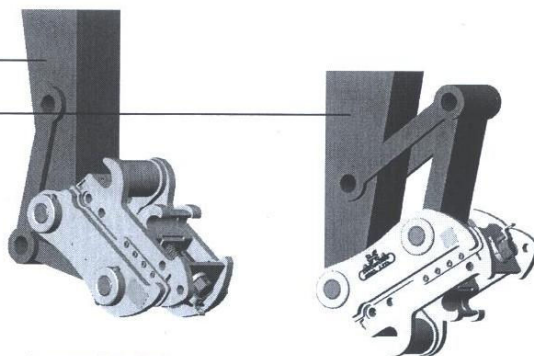
Fig 3. Move 'O' rings into position on front and back pins.



9. **Safety check.** Check that the 'SLIDE TYPE Quick Hitch' is fitting correctly by manoeuvring it with the machine and at the same time watching for any interference or resistance to movement that may exist. If there is any sign of problems with the smooth functioning of the 'Quick Hitch' DO NOT attempt to carry out any modifications to it, or the host machine. Instead contact Dromone Engineering who will advise as necessary.

(Refer to fig 4).

Fig 4. Manoeuvre the SLIDE TYPE Quick Hitch to check for interferences.



Crowned Fully In

Crowned Fully Out



# Operating Instructions.

## Bucket / Attachment 'Pick up'.

Before attaching to a bucket or any other attachment it is important to check for the following.

- a. The attachment is fitted with the correct pins at the correct centre distances and that they are secured properly in place.
- b. Ensure that the 'SLIDE TYPE Quick Hitch' has been left safe after previous use / operation.
- c. Ensure that the area within the maximum machine swing radius is clear of all personnel and obstacles.

## Procedure:

1. With the 'SLIDE TYPE Quick Hitch' set to a comfortable working height. Remove safety pin and place in parking bracket as provided. (Fig 1) Using a suitable tool, disable the mechanical stop, which prevents the adjuster bolt from turning. This is done by pulling the adjuster mechanism towards you a sufficient distance to clear the head of the adjuster bolt. When this is done rotate the mechanism through 90 degrees anti-clockwise and park it as shown in figure 1b.

(Refer to fig 1).

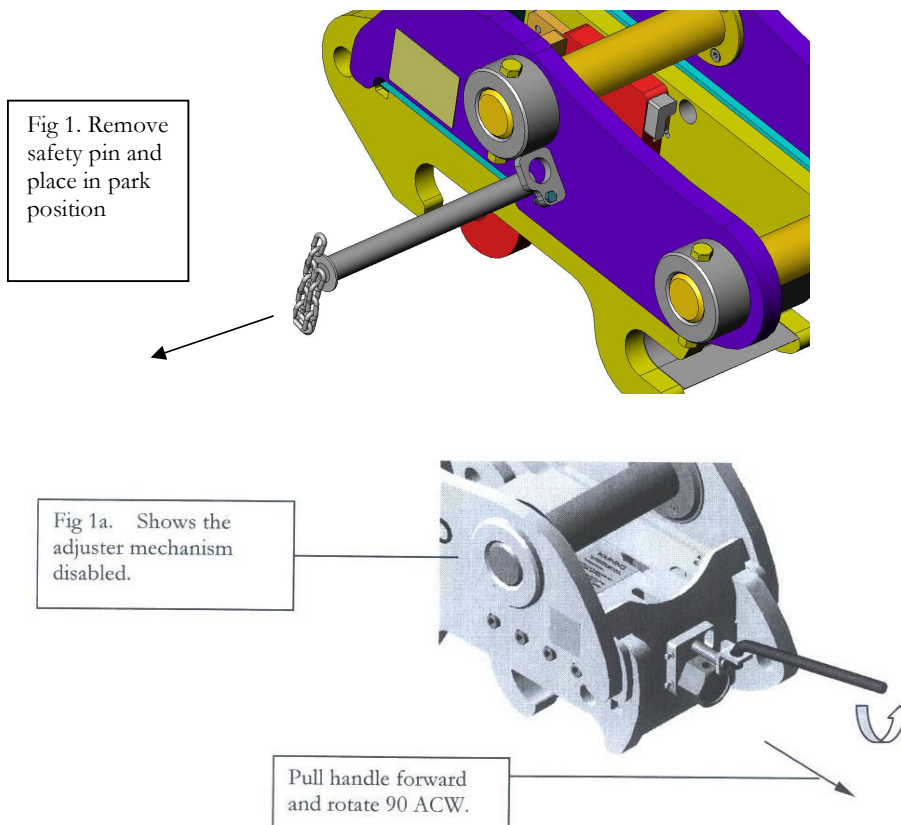
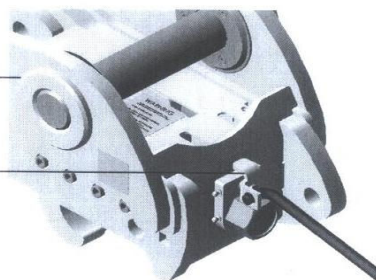


Fig 1b. Shows the adjuster mechanism disabled and parked to allow adjustment.

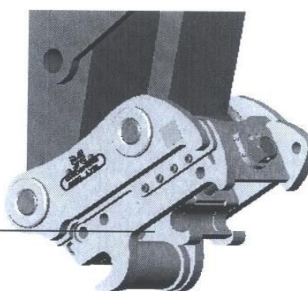
Parked position



2. Using a suitably sized socket rotate the adjuster bolt anti-clockwise to move the adjustable hooks to their fully open position.

(Refer to fig 2).

Fig 2. Shows the adjustable hooks in the fully open position.



3. From the operators seat in the machine cab manoeuvre the 'SLIDE TYPE Quick Hitch' to line it up with the bucket or implement to be picked up.

(Refer to fig 3).

Fig 3a. Line up the jaws of the Quick Hitch with the pins of the bucket to be picked up.

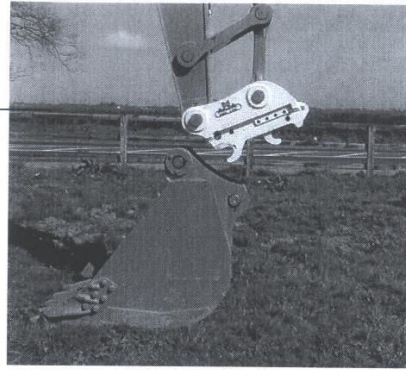


Fig 3b. Line up the front fixed jaws of the Quick Hitch with the pins of the bucket to be picked up.

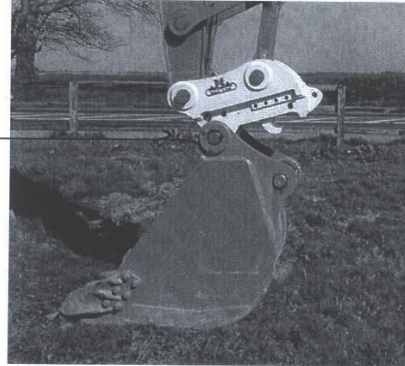
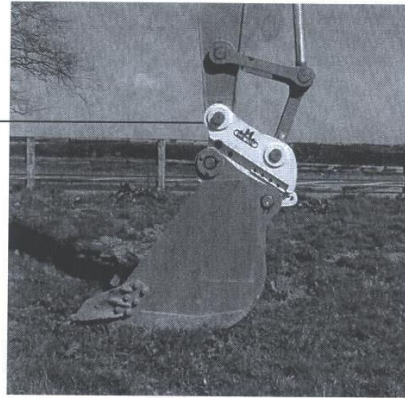


Fig 3c. Manoeuvre the Quick Hitch to cradle the front and back pins of the bucket in the Quick Hitch jaws.



4. Lock the movable hook securely onto the back pin of the bucket or implement to be picked up. This is done by rotating the adjuster bolt in a clockwise direction. Tighten the bolt fully and ensure that one of the flat sides of the bolt is positioned horizontal to the ground.

The locking mechanism can now be engaged by pulling it forward a sufficient distance to clear the head of the adjuster bolt. When this is done rotate the mechanism through 90 degrees clockwise and release it to park it as shown in figure 4. Remove safety pin from parking bracket and insert into safety pin hole. Ensure lynch pin is replaced for secure fitment.

Fig 1. Remove safety pin and place in safety pin hole

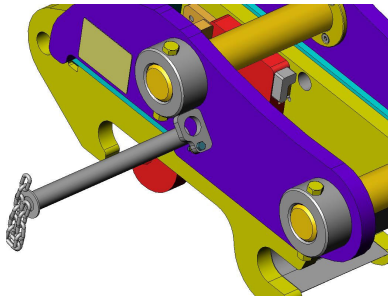
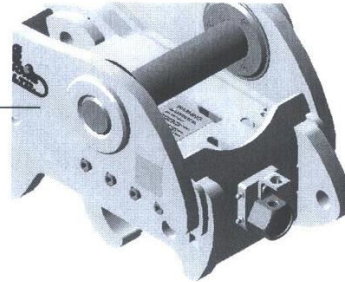


Fig 4. Shows the adjuster bolt locked tight and the locking mechanism engaged.



5. As a precaution a final check should be carried out to ensure the 'SLIDE TYPE Quick Hitch' has been properly connected to the bucket or implement. This is done by rotating the bucket or implement fully outwards. If all is OK at this stage the 'SLIDE TYPE Quick Hitch' is ready for use.

(Refer to fig 5).

Fig 5. Rotate the bucket fully out to check it has been coupled correctly



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## Bucket / Attachment 'Release'.

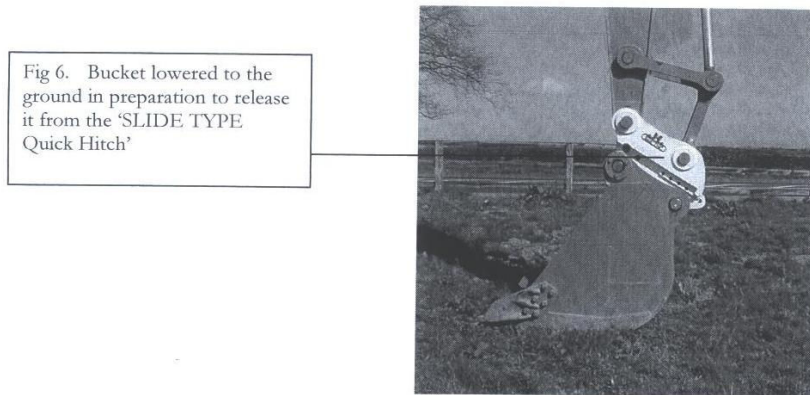
Before attempting the release of a bucket or any other attachment it is important to check for the following.

- a. Ensure that the area within the maximum machine swing radius is clear of all personnel and obstacles.

## Procedure:

1. Lower the 'Quick Hitch' and attachment to the ground and place them in a steady and safe working position.

(Refer to fig 6)



2. To release the bucket or attachment. Remove safety pin and place in safety pin parking bracket hole. Disable the adjuster bolt locking mechanism and park it as described in point 1 previous.

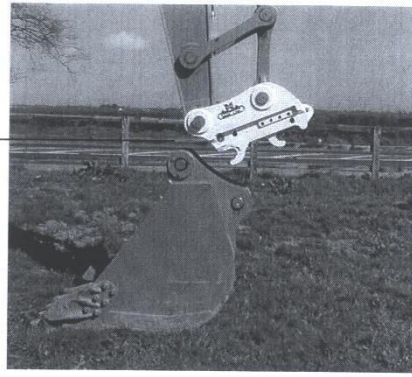
Using a suitably sized socket rotate the adjuster bolt anti-clockwise to move the adjustable hooks to their fully open position.

(Refer to fig 1a & 1b previous)

Manoeuvre the 'Quick Hitch' rearwards, away from the machine and this will disengage the 'SLIDE TYPE Quick Hitch' from the bucket or other attachment.

(Refer to fig 7).

Fig 7. Disconnecting the  
bucket from the 'SLIDE TYPE  
Quick Hitch'



# Maintenance & Service Checks.

## Maintenance Checks.

The following checks should be carried out on a regular basis.

1. Check that the hitch components are not damaged or showing signs of wear.
2. Check the latching hooks for damage or undue wear.
3. Check the attachment pins for damage or undue wear.
4. Check for any sign of damage to the adjuster bolt or its retaining mechanism.
5. Check that all nuts and bolts used to secure pins are locked tight.

## Service Instructions.

The following service instructions should be carried out on a regular basis.

1. Grease hitch at regular intervals **(daily or every 8 hours of operation)**. All pins and bushings should be greased. Grease nipples are provided at cylinder bushings and at latching hooks to facilitate access for this purpose.
2. Tighten all nuts and bolts used to secure pins.
3. Clean hitch of all dirt and debris. The hitch cover plate can be removed to access around the cylinder area. Ensure all labels are clean and legible.
4. Any damaged or badly worn parts should be replaced immediately.



# Parts List.

## Ordering Spare Parts.

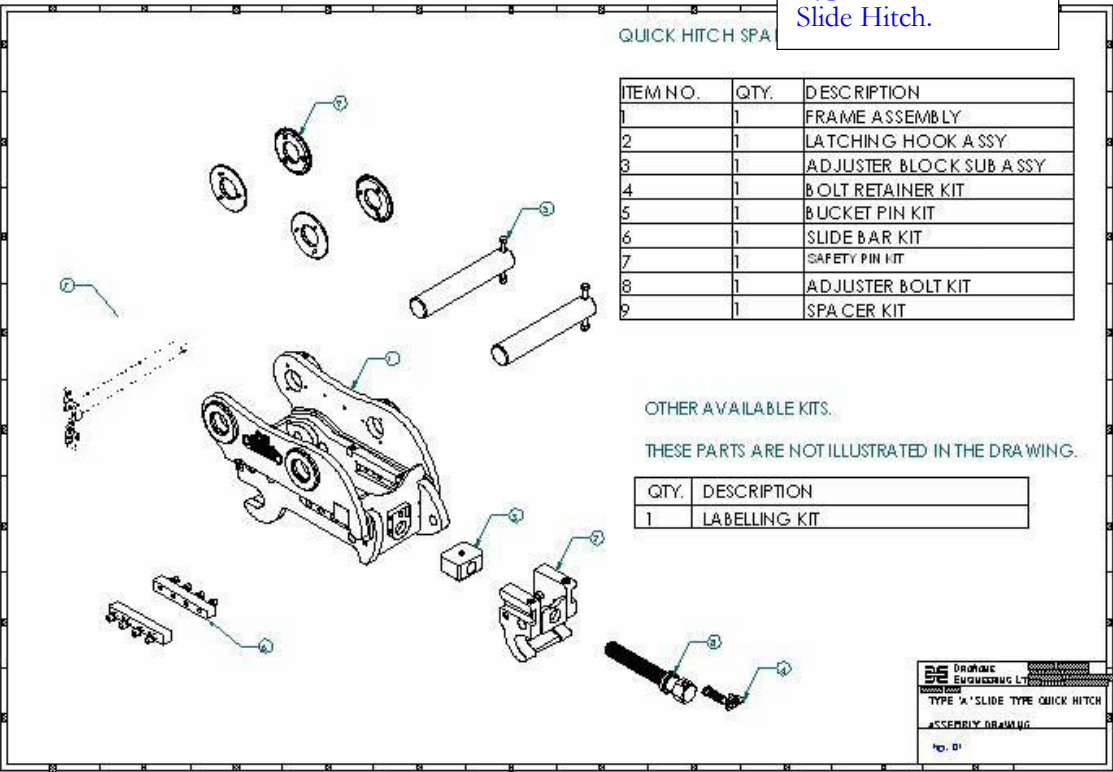
All Dromone Engineering 'SLIDE TYPE Quick Hitches' are labelled with a unique serial number.

The serial number label is located on the cover plate / side plate of the hitch. Before ordering spare or replacement parts, you will need to note down the serial number of your hitch.

At the time of ordering spare or replacement parts, you will be required to provide the serial number and a description of the part(s) required. The parts description can be found by reference to the illustration drawing attached in this manual.

(For type 'A' SLIDE Quick Hitches refer to fig D1).

Fig D1.  
Spares listing for  
Type 'A'  
Slide Hitch.





# Customer Acceptance.

Once you have taken delivery of this product you should complete the details required on this page and return it immediately.

This acceptance form can be returned either direct to, Dromone Engineering LTD at the address shown on back page of this manual, or alternatively return it to your Dromone Engineering distributor.

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(Please complete the following details in full, block capitals only).

**Customer Name:** \_\_\_\_\_

**Customers Address:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Hitch Serial Number.** \_\_\_\_\_

**Date of Delivery:** \_\_\_\_\_

## Customer Declaration:

I confirm that the person(s) responsible for the fitting, operation and maintenance of the 'Quick Hitch' detailed above, have read and are fully acquainted with the manufacturers recommendations and operator's responsibilities as described in this manual.

**Name:** \_\_\_\_\_

**Position:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

Distributor Stamp Here.

# Product Register.



ISO 9001:2000

## Certificate Of Compliance.

This product has been fully checked and tested, and found to be in accordance with Dromone Engineering LTD, specifications for quality of finish, methods of assembly, functionality and fitness for purpose.

The above checks have been carried out on the product bearing the following serial number.

**Serial Number:** \_\_\_\_\_

This product has been designed to attach and function with the following machine type.

**Model:** \_\_\_\_\_

**Signed.**

\_\_\_\_\_

Dromone Representative.

\_\_\_\_\_

Date.