

GAP Tool Box Talk: Quick Hitches



Purpose

- To provide information and guidance on the safe use of quick hitches
- To increase the awareness of operators who use mechanical plant fitted with quick hitches
- To highlight precautions that can be taken to prevent accidents on sites



Background

- In the past 5-10 years quick hitch injuries have become increasingly common
- Around 13% of accidents involving excavators are attributed to the bucket detaching from the quick hitch and injuring a ground worker
- Quick hitches are fitted to many large excavators and many more mini excavators
- Quick hitches need to be maintained, just like any other lifting accessory
- Should quick hitches be replaced, it is important that the vehicle controls are compatible with the new hitch or better, are replaced at the same time

Issues

Although incidents do occur with automatic quick hitches, statistics show that the majority of incidents occur when using manual quick hitch systems where a manual safety pin should be inserted and the operator has failed to do so.

This may occur when:

- The bucket is changed frequently leading to complacency
- Working in poor conditions (heavy rain, mud) and the operator is reluctant to leave the vehicle cab
- The operator may not have been properly trained in the safe use of quick hitches and is unaware of the need to insert the safety pin
- A pin may be unavailable, lost or misplaced
- The hitch may have two holes for the safety pin (to allow for different bucket sizes)

Management

Management of quick hitches is generally poor. Some examples of which include:

- Safety pin on manual hitches not always fitted due to management being unaware of, or not enforcing, the issue
- Supervisors are uncertain of whether a pin is required or not, or how to check if the pin is in the correct position
- Precautions must be taken when a quick hitch is in operation, for example supervisors should ensure that ground workers are not working close to, or under, a quick hitch bucket (i.e. within an excavation)
- If being used for lifting, the weight of the quick hitch should be deducted from the safe working load of the excavator

Management

- Some questions to ask:
 - Is the risk of detachment covered by the risk assessment?
 - Does the daily/weekly inspection and maintenance of the excavator include quick hitches?
- A management system should be in place to ensure that safety pins are being used appropriately
- The operator should be aware of what type of quick hitch is being used (are instructions available in the vehicle cab?)

What the law requires

- When a quick hitch is supplied from new, a certificate of conformity should be available and the quick hitch should be thoroughly examined before it is first put into service (LOLER Reg 9)
- The quick hitch is clearly marked to indicate its safe working load (LOLER Reg 9)
- The safe working load of the quick hitch matches the maximum safe working load of the excavator
- Once in service the quick hitch must be thoroughly examined at intervals of either 6 months or 12 months for permanent attachment
- Users have all the necessary information made available to them

Manual quick hitch user guide

Fitting Instructions

- Attach quick hitch to the machine using original bucket pins supplied with it
- Fit pins supplied with quick hitch into bucket
- Remove safety pin and lower hitch onto bucket front pin
- Fit level bar supplied into latch. Open latch and lower rear jaw onto pin until latch locks onto pin
- Remove level bar, fit and lock safety pin
- Release the attachment, rotate the bucket out slightly, remove the safety pin and then lever the hook open using the bar, the bucket will be released
- As the bucket is released be aware that it may fall off and roll back towards the operator

DO'S

- Use the safety pin at all times (without the safety pin the bucket is not securely connected and constitutes a safety hazard)
- Check bolts and tighten, if necessary, on a monthly basis
- Lubricate attachment weekly
- Ensure the hitch is securely attached to the machine, utilising the machine bucket pins and the bolts and nuts supplied

DON'TS

- Do not place hands in the locking area of the hitch
- Do not allow anyone to operate under or around the machine whilst in use
- Only use for lifting up to safe weight limit of the machine
- Don't use buckets other than manufacturer's specifications

Not recommended

- The continuous use of hydraulic hammers with any manual quick hitch is not recommend.

IN LINE WITH HEALTH & SAFETY LEGISLATION NEVER USE A QUICK HITCH UNLESS THE SAFETY PIN HAS BEEN FITTED