

Members' Corner

A presentation on the Safe Use of Quick-Hitch devices on Excavators.

Bob Cole, Morgan EST

Bob Cole introduced this topic by saying that his company had experienced five accidents with quick hitches in the past 12 months, fortunately with no injuries.



Safety pin

Latch in closed position

Their experience was similar, however, to the pattern of 4 deaths in the same period, reported to the HSE, and his company had taken urgent action to prevent a re-occurrence.

The Quick Hitch is a latching device that is a convenient means of connecting attachments,

like buckets, to the dipper arm of an excavator. In order to maximise the productivity of the machine, a driver may operate this device as many as 30 times each day and the accidents occur when the device safety pin is inadvertently left out afterwards.

As some attachments may weigh up to ½ tonne, it is a high risk operation and HSE have recently reached an agreement that no more of these semi-automatic attachments will be supplied in the UK. However there are still many more already in use and it will be a continuing problem for some time to come.

There are several reasons for these accidents: -

- Poor operator training on the Hitch
- Inadequate supervision
- Poor Banksman training
- Workers entering into a machine's area of operation whilst it is moving



Hydraulically operated pivot pin retaining mechanisms (in orange)- the hydraulic hose connections can be seen at the top of the picture.

The problem may be partially overcome by an improved version of the device called a "Fully Automatic Quick Hitch", illustrated here. These are controlled

from the cab and eliminate the need for the driver to dismount and it is often necessary to fully crowd or scroll the attachment to fully engage the safety device. However, on all types of Quick Hitch, it is still necessary to check correct engagement by taking the attachment through a full operational rotation at full speed. This is humourously referred to as a “Shake, Rattle and Roll” test that must be carried out in isolation to any other traffic or worker movements. A full visual examination to check engagement must be made after this test.

Scott Poppleton of Taylor Wimpey plc commented that his company had recently completed a similarly rigorous review of QH procedures, followed by intensive training of employees and contractors to ensure strict compliance on site. Although most contractors responded well to training and changes of procedure on site, he was very concerned that Utilities and their contractors did not take up the invitation for training and showed a lower standard of compliance.

Bob agreed that this was an unsatisfactory situation and said that the difficult task of bringing these organisations into compliance must continue in order to educate them.