

Briefing



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EXCAVATOR QUICK HITCH SYSTEMS

Following several recent accidents (one fatal) when an excavator buckets have been unintentionally released, it may be necessary for operating companies to review the safety of excavator quick hitch systems.

General issues

- a. Many systems in use are designed with a secondary manually applied safety locking bar / pin which prevent the claw from unhooking and releasing the bucket/attachment. However it is not unusual for the bars / pins not to be inserted after the bucket has been changed. Several serious accidents with these systems have occurred.
- b. Fully automatic systems, i.e. normally fully hydraulically operated and those without manually positioned locking bars, may have also been subject to a number of unintentional releases. Users have also expressed concerns that 'warning systems' do not always recognise that the claw is not fully closed.
- c. Current CPCS training generally does not cover the various types of hitch systems, and only the system on the machine at the time is covered, and operators seem to have variable familiarisation training in the use of specific hitch systems.
- d. Maintenance of hitch systems can potentially be an area of misunderstanding and potential neglect, and is not always undertaken to manufactures recommendations.
- e. In selected Volvo excavators, the Volvo hitch systems in situ may be designed to operate at lower hydraulic pressure than alternate hitch systems. Therefore if a non-Volvo hitch is to be used this operation must be checked.

Clearly there are elements here where manufacturers and training providers can make a contribution.

However, it may be necessary in the short term to consider implementing the following:

1. Where possible and with manufacturers approval adapt the locking bars / pins on semi automatic systems such that locking bars / pins cannot be removed / separated from the hitch. This will help ensure they are visible and always replaced when a bucket is changed.
2. Secondary safety pins / bars to be painted a colour that stands out from the main hitch body. This will help those in the area / drivers be alert to whether a bar / pin is in place.
3. Check and ensure that all excavator operators have a relevant CPCS card and have had familiarisation training in the specific hitch system on their machine. These training sessions should be recorded in their CPCS log book.
4. Ensure operators carryout daily checks of the machine and hitch to a specific check list including that all secondary locking pins / bars are in place. This check is to be recorded and kept in the cab. More extensive weekly checks also to be undertaken.
5. Hitch systems should each have a unique number and be treated as a separate item of plant, be inspected and maintained as manufactures recommendations and all maintenance recorded.
6. Hitches should be treated as lifting accessories and receive a thorough examination every 6 months. Currently this appears only to happen when they are provided with a specific lifting eye (the argument being that they lift the bucket and its contents). This should at least ensure they are serviced every 6 months.

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