



Tool Box Talk

Excavators (Quick Hitches and Lifting) - March 2006

Introduction

Excavators are mainly used for digging and loading operations but also inevitably are utilised for lifting in connection with its excavation work

At some stage, the majority of Barhale people are going to be working with, or near, excavators. You may not be directly involved as a plant operator, however, you may still be at risk. This has been demonstrated by some previous safety incidents using excavators, mainly involving excavators in lifting operations or incidents with quick hitch mechanisms

Roles and Responsibilities

Competent Operator

Competence is about knowledge, skill and experience.

A competent operator will ensure they are familiar with the type of machine they are using, which includes

- layout of the controls (including warning signals)
- vision restrictions
- lifting capacities/duty charts/dig depths
- daily checks and maintenance
- operation of any ancillary equipment, including the SLI's and quick hitch mechanisms

The excavator operator should ensure he is familiar with the type of machine by reading the manual, this is especially important with regard to the section on lifting. The excavator operator should be fully briefed on the work being undertaken, including the contents of the lift plan should any lifting be carried out. If there is any doubt about the work being proposed this should be brought to the attention of the supervisor.

Supervisors

Whilst it is the responsibility of the operator to ensure the machine is in a safe and serviceable condition, there are responsibilities on Site Agents, Engineers, Foremen and Gangers to ensure that the operatives on their site are safe.

It is the duty of the supervisor to ensure that all Safe Systems of Work are being followed, including ensuring excavator drivers are fitting quick hitch pins correctly, lifting within the capabilities of their excavator and carrying out daily checks.

The supervisor should also ensure that all lifting equipment required under the lifting plan is certified for use, regularly checked and correctly stored when not in use.

Any near misses should be reported to the supervisor as soon as possible so that the cause can be ascertained and control measures taken to ensure that there is no reoccurrence of the incident

Appointed persons, Crane Supervisors and Slinger / Signallers

These are safety critical positions within any lifting operation, and the persons holding them should be suitably trained to the appropriate standard and aware of their role in the lift.

Once the lifting plan has been developed and briefed those in the above positions have a duty to ensure the plan is being followed and if any problems arise during the lift that the operation is stopped in a safe manner and the task re-assessed by the appropriate person.

Excavators used during Lifting Operations

Excavators are commonly used for lifting items of plant (including trench support systems), pipes and in some activities; man-riders have been attached.

Before an excavator is used for lifting, it is important that the site management team have conducted the necessary assessments. Thought should be given to:

- The weight of the load
- Pick up/drop off location
- The suitability of the excavator
- The lifting accessories to be used
- Competency of the excavator operator , slingers / signallers and supervisors

As most lifting with excavator is directly related to the activity of excavation i.e. lifting pipes or placing and removing trench support systems special consideration needs to be made for this type of lifting i.e. ground conditions around the excavation and the **friction/suction** applied to the trench support systems when they are being removed, which will increase the loading on the excavator and chains considerably.

All lifting accessories should be removed when not in use for lifting. By removing an accessory, you prevent any potential damage, and also, you are more likely to identify any faults with the equipment.

Quick hitch mechanisms

Quick hitches have made life for the excavator driver much easier, no more banging on pins, but with the ease of changing implements have come some problems, mainly to do with the number of different types of quick hitches on the market, so care must be taken to ensure that **(a) as an operator you know how to use the quick hitch safely and (b) that when the attachment is changed all safety devices are correctly engaged.**

The company has had a number of incidents with quick hitches that had been incorrectly operated and has thus introduced an induction declaration for excavator drivers and a quick hitch change form. These are important controls to ensure that the operator is conversant with the use of the particular type of quick hitch on his excavator and that the correct safety procedures are followed when changing the attachment to the quick hitch.



Documentation

Documentation is method of demonstrating compliance with the legislation and managing of our risks. Not all operators are keen on paperwork, but this needs to be seen to be as important as knowing how to operate a machine. In most accident investigations, there is a direct link in the failure to complete the paperwork. Operators who don't complete the paperwork generally don't check the machine adequately. Likewise, it is also known that some operators complete the paperwork but not the checks. This will also be evident during accident investigations, as faults occur over a period of time, and not just on the day of the accident.

Excavator Operators Declaration Form

Before using any Excavator you must become familiar, by reading the manual, with its safe use and with any additional non standard items like: Safe Load Indicators or quick hitches.

The Excavator Operators Declaration form states that the operator is aware of the safe use of the excavator including when it is being used for lifting.

Don't sign the form if you have not been made familiar with the excavator you are using. If the manual is not there, request one from the equipment supplier.

Inspections

Completing the Inspections and Maintenance of any work equipment is important and should be seen as part of the days work and not an 'add on'. On a daily basis, you should still inspect your machine and if you find a fault, enter it into the register and inform the Site Agent. The machine may still be safe to operate, but the fault has now been identified and can be monitored and repaired in good time. These inspections should be recorded weekly on the appropriate form.

Safe Systems of Work

Safe Systems of Work (SSoW) in the form of Risk Assessments , Lifting Plans and Method Statements have been developed to ensure the task can be completed safely and will have been assessed by clients and in some cases regulators like the Environment Agency (SEPA in Scotland). Once you have been briefed on the SSoW you must ensure that you comply with it to ensure your safety and that of others. If you do not think it is the best way to complete the task, then stop, (in a safe manner) and inform your supervisor of your concerns and / or suggestions this way the task can be reassessed and possibly a new SSoW developed.

Summary

Make sure the equipment you use is safe
Make sure you become familiar with all you equipment (including non-standard items)
Remove all accessories and stow correctly when not in use
Carry out you inspections and record them – report all faults, incident and near misses
Comply with safe Systems of Work – report any problems or suggestions

Report Near Misses