

INCIDENT TYPE:

EXCAVATORS USED IN LIFTING OPERATIONS



What happened

A mini excavator picked up a load over the front of its tracks which was within its Safe Working Load (SWL) in that position. The operator slewed the machine around so that the boom was side ways to the tracks. This position had a reduced SWL of just less than the load, which caused the machine to tip over slowly. Fortunately, the operation had an exclusion area around the excavator that meant that nobody else was at risk, the driver was not harmed and there was no damage to the excavator.

The plant operator was qualified and held a CPCS card. The activity (construction of a pre-cast manhole) had been planned and a risk assessment and method statement completed and communicated to those carrying out the operation.

The lifting operation was in conjunction with the activity that the excavator was engaged in and the weight of the manhole ring was less than 1 tonne.

What has this incident highlighted

- CPCS qualified excavator operations are not trained specifically in lifting or lifting practices. They are trained in general machine operation and digging techniques only.
- Some excavators do not have the SWL marked on the boom or dipper arm.
- Excavators below 10 tonnes tend **not to** come fitted with Automatic Safe Working Load Indicators.
- Manufacturers' data on the machines lifting capabilities (i.e. SWL v Boom extension) are usually kept / displayed in the cab, but they may not be user friendly, charts/tables are sometimes difficult to interpret.



Preventing a re-occurrence

1. Raise awareness to the risks associated with incidental lifting by non-crane plant.
2. Request via the Supply Chain that plant hirers clearly mark the SWL on their machines.
3. Ensure any method statement, with lifting activities by plant other than cranes, covers the same issues as if a crane was involved.
4. Set out clearly in a lifting plan, the planned lifts, the SWL of the excavator or other non-crane lifting appliance, and the weights of materials to be lifted.
5. Check the machine lifting has a SWL marked on it and / or a SWL chart.
6. Check the operator is trained in using that type of machine for lifting.
7. Ensure that plant operators are aware of the lowest SWL of their machine in all positions and (where this has not been clearly marked on the machine) communicate the SWL to other relevant personnel (e.g. slingers / signallers).
8. Ensure an exclusion zone is in place prior to starting work.

Solutions Action

As a result of this incident, Solutions and partners have developed a Targeted Inspection Checklist for more information please see:

[006 - HS&E Target Inspections – \(Excavators used as Cranes\)](#)

Intranet Location: Health & Safety / Targeted Inspection Checksheets
Citadon CW Location: Reference Information / Documents / Health and Safety / - Targeted Topics