

The following notes are a summary of the guidance provided in CPA publication 'Guidance on Lifting Operations in Construction when using Excavators'

1. Always remember that excavators are not specifically designed for lifting operations.
2. During earth moving operatives are kept away from the moving parts of the excavator. When lifting, a Slinger will need to be in close proximity to the arm of the excavator. This presents a significant increase in risk of crushing or striking the slinger.
3. The excavator driver should always use the safety lever whenever the slinger is in the danger area.
4. Good communication between slinger and operator are essential.
5. Travelling with suspended loads is particularly hazardous as these may also swing uncontrollably.
6. Excavators should never be used for lifting persons as they operate at speeds and in a manner not suitable or safe.
7. All excavators used for lifting should have:
 - the safe working load clearly marked
 - specific accessories (slings, hooks, chains) also marked with SWL
 - a specific load hooking point / device
 - handling capacity tables available in the cab
 - if the rated capacity is over 1te
 - a boom lowering control device on the raising boom cylinders
 - an acoustic or visual warning device that indicates when the load capacity or moment is reached
8. A specific risk assessment and method statement should cover the use of excavators as lifting equipment.
9. During the lifting operation:
 - All operatives should be kept away from the lifting area, including that below in excavations.
 - The slinger / signaller should move away from the danger area prior to lifting.
 - Wherever possible the bucket should be removed to increase visibility.
 - Lifting accessories should be able to hang free at all times. See pictures below. Swivels should be used to achieve this. The quick hitch should never be tilted back to put additional strain on the lifting equipment.
10. The following tests and inspections must be carried out:
 - Daily (pre-use) Checks*
Carried out by the operator. These should be recorded and include for defect reporting.
 - Weekly Inspections*
Again these can be carried out by the operator if competent to do so. A note of deficiencies and the action required must be made.
 - Thorough Examination*
Excavators used for lifting must undergo a Thorough Examination every 12 months. All lifting accessories must be inspected every 6 months. If a quick hitch is not permanently fitted it is treated as a lift accessory.
11. CPCS training carried out prior to 2008 did not include use of excavators for lifting. There are half-day courses available from CPCS that specifically cover lifting operations.



Figure 1 - Master link rotation restricted to approx $\pm 70^\circ$



Figure 2. – Swivel allows unrestricted rotation but reduces available headroom



Figure 3 – Hitch tilted backwards with master link subject to bending

X
Bad Practice



Figure 4 – Hitch tilted backwards with master link subject to twisting



Figure 5 – Chain and master link can hang freely without obstruction

✓
Good Practice