

Guidelines for Work Whilst Suspended from a Crane

The following information (but not limited to) has been prepared by WorkSafe ACT to assist you to comply with your safety duties.

The use of a workbox shall be limited to those situations where it is necessary to elevate personnel to perform special tasks of short duration and where it has been substantiated to be impractical to use scaffold or other plant that provides temporary access, such as an elevating work platform.

The workbox is not to be used as a means of access to and egress from a workplace instead of a properly designed system unless a documented risk analysis shows that this is safer than all other alternative means, and the structural adequacy of the landing area has been established and the landing area is clear. In such circumstances, a safe work procedure must be developed for the operation.

The following should be considered in assessing the operation, the workbox and the crane in accordance with the ACT *Scaffolding and Lifts Regulation 1950*, AS 1418.17, AS 2550.1 and the National Standard for Plant (1010):

1.0 – Is the workbox:

- a) Specifically designed and constructed to Australian Standard AS1418 part 17, *Design and Construction of Workboxes*, and
- b) Marked on one side in a prominent position with-
 - i). The tare of the workbox
 - ii). The maximum number of occupants
 - iii). The maximum mass in kilograms that can be carried, and
 - iv). A manufacturer/designer reference
- c) To contain not more than three persons, one of who will be a person competent in crane signals
- d) The workbox is in a safe working condition and the rated capacity is not exceeded
- e) Fitted with permanently locked shackles attached to a matching set of four legged slings
- f) Provided with suitable anchorage point for safety harness lanyards to be attached
- g) Painted in high visibility colours
- h) Fitted with an optional access door, that only opens inwards and has provision to secure the door

2.0 – Is the crane:

- a) Fitted with a safety hook
- b) Equipped with controls that return to a neutral position when released and that causes the motion to stop
- c) Equipped with power raising and lowering for hoist and luffing functions
- d) Equipped with a positive free-fall lockout control, if otherwise capable of free-fall, so that inadvertent disengagement of the lock-out is not possible, thus preventing free-fall of the workbox
- e) Fitted with an up limit switch on the hoist motion
- f) Fitted with a down limit switch, if the workbox is to be lowered below the crane supporting surface
- g) Such that at the maximum radius of the task to be performed, it has a minimum rated capacity of 1000kg
- h) Such that when the jib or boom of the crane is at its maximum radius for the task to be performed, the rated capacity for the crane in this condition, when divided by 2, is equal to or greater than the total load of the workbox and its contents

3.0 – When personnel are to be suspended from a crane, the person conducting a business or undertaking (PCBU) must ensure that:

- a) A written risk assessment has been completed and a safe work method statement has been developed for the operation
- b) All persons involved in the operation have been appropriately trained and are familiar with the requirements of the safe work method statement IB0413
- c) The workbox, lifting attachments and work method statement have been inspected by a competent person prior to use, and deemed safe to use
- d) Personnel and materials are and remain securely within the workbox
- e) The crane is not to be used to simultaneously raise, lower or suspend any other load while the workbox is suspended from it
- f) An appropriate work procedure has been developed and implemented to transfer any work materials to and from the workbox
- g) The crane operator remains at the controls of the crane
- h) All movements of the crane are carried out under power, and free-fall lockout has been applied where applicable
- i) Effective means of communication between any person in the workbox and the operator has been established
- j) Mobile cranes do not travel while people are in the workbox
- k) Movements of the workbox are to be at slow speeds with minimum acceleration and deceleration
- l) The workbox is not secured to any structure except the designated landing/s
- m) The workbox is not used in winds in excess of seven m/s (25kmh), electrical storms, snow, ice, sleet or other adverse weather conditions which could affect the safety of personnel
- n) Flammable liquids, oxygen and acetylene cylinders, and the like, are correctly secured and housed in a separate compartment from the personnel, and that no more than the minimum quantities, sufficient to carry out the work are carried and a suitable fire extinguisher is also carried
- o) Personnel in the workbox are wearing a general purpose fall arrest harness complying with AS/NZS 1891.1, with the lanyard or lanyard assembly attached to the safety harness anchorage points
- p) Personnel do not enter or leave the workbox when elevated except in an emergency, unless a risk analysis shows that this means of access is safer than all other alternative means, the clear structural adequacy of the landing area has been established and the landing area is clear, and an appropriate work procedure has been developed and implemented for the operation
- q) Where the landing is at the edge of the structure, the maximum gap between the workbox and landing does not exceed 100 mm, the workbox is to be secured to a suitable point on the landing and access and egress does not take place unless a fall arrest harness is properly worn and attached to a suitable anchorage on the structure
- r) The workbox is not used as transportation for personnel or bulk materials or for the removal of debris or scrap.

General Compliance Requirements

Where a request has been lodged to use a workbox the following publications must be referenced for guidance:

- ACT *Work Health and Safety Regulation 2011*
- ACT *Scaffolding and Lifts Regulation 1950*
- AS 1418 – 1994 Cranes, hoists and winches
- AS 1418.17 Design and Construction of Workboxes
- National Standard For Plant [NOHSC: 1010 (1994)]
- AS 2550.1 – 2002 Cranes, hoists and winches –

Safe use

For plant designed to lift or move people, equipment or materials, the National Standard For Plant has identified control measures, one of which states:

Clause 40 Plant Designed to Lift or Move:

- b) Persons are not lifted or suspended by any plant or its attachment (other than any plant specifically designed for lifting or suspending of persons), unless –
 - i). The use of another method is impracticable, and
 - ii). A suitable and adequate personnel box or carrier, designed for the purpose, is used and securely attached to the plant, and
 - iii). The plant, is fitted with a means by which the personnel box or carrier may be safely lowered in the event of an emergency or the failure of the power supply, and
 - iv). The plant, is suitably stabilised and stationary at all times while the workbox is in use,
 - v). A copy of the applicable work method statements must be available with the crane operator and be presented to an WorkSafe ACT inspector on request.