



# CFMEU SAFETY ALERT

## ADVICE ON THE USE OF CRANE WORKBOXES

### INTRODUCTION

Introduction of the Occupational Health and Safety Act 2000 (OHS Act 2000) and the Occupational Health and Safety Regulation 2001 (OHS Regulation 2001) on 1 September 2001, was accompanied by the repeal of the Construction Safety Act and regulations.

This means that employers no longer have to seek authorisation in writing from WorkCover for persons to ride in a workbox suspended from a crane.

However, the OHS Regulation 2001 has specific requirements that must be observed when operating from a workbox suspended by a crane.

### OCCUPATIONAL HEALTH AND SAFETY REGULATION 2001

The OHS Regulation 2001 mandates certain types of plant must be designed in accordance with the relevant Australian Standard. Such plant includes all cranes, hoists and winches, and the relevant Australian Standard is **AS1418** Cranes, hoists and winches. The design requirements for workboxes to be used on cranes are detailed in **Part 17 of the Standard AS1418.17** Cranes, hoists and winches – Design and Construction of Workboxes, so workboxes to be suspended from cranes must comply with this Standard.

In addition, plant design registration and plant item registration is required for certain cranes, including mobile cranes with a capacity greater than 10 tonnes and tower cranes. Design registration is also required for workboxes intended to be suspended from a crane and, for registration, these must comply with **AS1418.17**.

In the area of plant designed to lift or move people, equipment or materials, the Regulation has identified control measures, one of which states:

**Clause 142(3)(d):** Persons are not lifted or suspended by any plant or its attachment (other than plant specifically designed for the lifting or suspending of persons) unless:

- (i) the use of another method of lifting or suspending is not reasonably practicable;
- (ii) a suitable and adequate personnel box or carrier, designed for the purpose, is used and securely attached to the plant;
- (iii) means are provided by which the people being lifted or suspended can have safe egress from the personnel box, carrier or plant in the event of a failure in the normal operation of the plant;
- (iv) the plant is suitably stabilized, and can be maintained by the operator in that state, at all times during which the personnel box or carrier is in use;
- (v) a suitable fall arrest device is provided to and worn by all persons who are suspended in a personnel box or carrier unless the box or carrier is fully enclosed; and
- (vi) in the case of a crane, the crane has drive-up and drive-down controls on both the hoisting and luffing motions and these controls are used by the operator in lifting and suspending operations.

**UNDER NO CIRCUMSTANCES CAN PERSONNEL BE  
FREELY SUSPENDED FROM THE HOOK OF A CRANE!**

# CODE OF PRACTICE

The work procedures to be implemented when using a workbox to suspend persons from a crane are detailed in Australian Standard **AS2550 Cranes, hoists and winches - Safe use, Part 1, General Requirements**. This Standard has been called up under the Act as an industry code of practice that has been developed to accompany the new legislation. Failure to apply the Standard may be used in any action undertaken by WorkCover as evidence to show that a person or company has contravened or failed to comply with provisions of the legislation. **Note:** A revised version of **AS 2550.1** was published by Standards Australia on the 24 May 2002.

## SUMMARY OF REQUIREMENTS

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 to access and egress 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 and implemented for the operation.

The following should be considered in assessing the operation, the workbox and the crane in accordance with the Regulation, **AS 1418.17** and **AS 2550.1**:

### 1. IS THE WORKBOX:

- a) Specifically designed and constructed to Australian Standard AS1418 part 17, Design and Construction of Workboxes and design registered if designed after 1 September 2001?
- b) Marked on one side in a prominent position with –
  - (i) the tare weight of the workbox?
  - (ii) the maximum number of occupants?
  - (iii) the maximum mass in kilograms that can be carried? and
  - (iv) an identification reference?
- c) To contain not more than three persons, one of whom will be a person competent in crane signals?
- d) In a safe working condition?
- e) Fitted with slings that are permanently attached to the workbox by locked shackles or other similar means?
- f) Provided with anchorage points 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?
- i) Only used to lift persons and their equipment?

### 2. IS THE CRANE:

- a) Fitted with a safety hook?
- b) Equipped with controls that return to the neutral position when released and this action causes the motion to stop?
- c) Equipped with power lowering?

- d) Equipped with a positive free-fall lockout control, if otherwise capable of free-fall, so that inadvertent disengagement of the lockout is not possible, thus preventing the 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 content

### **3. WHEN PERSONNEL ARE TO BE SUSPENDED FROM A CRANE, THE EMPLOYER MUST ENSURE THAT:**

- a) A written 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 safe work method statement;
- c) The rated capacity of the workbox is not exceeded;
- d) The workbox and lifting attachments and records have been inspected by a competent person prior to use, and deemed safe to use;
- e) Personnel and materials are securely confined within the workbox;
- f) The workbox is only used to lift personnel and materials necessary to carry out the work;
- g) The crane is not be used to simultaneously raise, lower or suspend any other load while the workbox is suspended from it;
- h) An appropriate work procedure has been developed and implemented to transfer any work materials to and from the workbox;
- i) The crane operator remains at the controls of the crane;
- j) All movements of the crane are to be carried out under power, and free-fall lockout has been applied where applicable;
- k) Effective means of communication between any person in the workbox and the operator has been established;
- l) Mobile cranes do not travel while people are in the workbox;
- m) Movements of the workbox are to be at slow speeds with minimum acceleration and deceleration
- n) The workbox is not secured to any structure except the designated landing(s) ;
- o) The workbox is not used in winds in excess of seven m/s (25 km/h) , electrical storms, snow, ice, sleet or other adverse weather conditions which could affect the safety of personnel;
- p) 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;
- q) If flammable liquids are carried, a suitable fire extinguisher is also carried;
- r) 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;

- s) 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 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;
- t) Where the landing is at the edge of a 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;
- u) The workbox is not used as transportation for personnel or bulk materials or for the removal of debris or scrap.

**WORKCOVER OFFICERS WITNESSING THE USE OF A WORKBOX ON A CRANE WHILST VISITING A WORKPLACE MAY SEEK CONFIRMATION FROM THE EMPLOYER THAT THE CODE OF PRACTICE (AUSTRALIAN STANDARD AS 2550, CRANES, HOISTS AND WINCHES - SAFE USE, PART 1, GENERAL REQUIREMENTS) IS BEING FOLLOWED.**

*For further information, contact your local WorkCover NSW office listed in the telephone directory or ring the WorkCover Information Centre on 13 10 50.*

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**PRINT THIS LEAFLET AND PLACE IT ON YOUR NOTICE BOARD AT WORK**



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