

Plant – Designated plant

12.02.09

The use of crane workboxes >

This information bulletin provides guidance on the application of Regulation 110 of the [Workplace Health and Safety Regulations](#) in relation to lifting persons by crane.

Introduction

The use of a workbox shall be limited to those situations where it is necessary to suspend persons to perform special tasks of short duration and where it has been substantiated to be inappropriate to use elevating work platforms, scaffolding or temporary platform arrangements.

Before operating near overhead powerlines, please study NT WorkSafe information bulletin [05.01.02](#), Electrical Safety - Working close to overhead powerlines.

Requirements for the workbox

The workbox shall:

- be specifically designed in accordance with [AS 1418.17](#) – *Cranes Part 17: Design and Construction of Workboxes* and have the design registered with NT WorkSafe.
- be provided, by a competent person, with an Inspection and Test Certificate upon completion of construction and testing;
- be marked on one side in a prominent position with:
 - > the safe working load for the box (in kg);
 - > the tare mass (weight of the box in kg);
 - > the maximum hoisted load (swl of box + tare mass in kg);
 - > the minimum allowable (rated) crane capacity (kg); and
 - > the design registration number.
- have slings permanently attached to the workbox by locked shackles or other similar means
- have provisions for safety harness lanyards to be attached;
- be painted in a high visibility colour;
- be in a safe working condition;
- contain not more than three persons, one of whom shall be a person competent in crane signals; and
- only be used to lift persons and their equipment.

putting safety first >



Requirements for the crane used with a workbox

- A crane used with a workbox shall:
- have a current Record of Inspection issued by a registered designated plant inspector;
- be in safe working condition and have been inspected by a competent person prior to use;
- be fitted with a safety hook;
- be equipped with controls that return to the neutral position when released and this action causes the motion to stop;
- be equipped with power lowering;
- be equipped with a positive lockout control so that inadvertent disengagement of the lockout is not possible, thus preventing free fall of the workbox;
- be fitted with an up limit switch on the hoist motion; and
- be fitted with a down limit switch, if the workbox is lowered below the crane supporting surface, unless other safe systems of work are implemented.

Before operation of the crane

Before persons are to be suspended from a crane, the crane operator shall:

- ensure that the workbox and lifting attachments have been inspected by a competent person prior to use, and that the logbook has been checked;
- ensure that the maximum radius of the task to be performed, the crane has a minimum rated lifting capacity of 1,000kg;
- ensure that, when the jib or boom of the crane is at its maximum radius for the task to be performed, the rated lifting capacity of the crane in this condition, when divided by 2, is equal to or greater than the total load of the workbox and its contents; and
- ensure that the workbox is not used in winds in excess of 7m/s (25 km/h), electrical storms or other adverse weather conditions that could affect the safety of persons.

Operation of the crane

When persons are suspended from a crane, the crane operator shall:

- remain at the controls of the crane ;
- ensure that all movements of the crane are carried out under power;
- ensure that the workbox is only being used to lift persons and their equipment;
- have effective means of communication with any person in the workbox;
- ensure that the crane does not travel while people are in the workbox; and
- ensure that movements of the workbox are slow with minimum acceleration and deceleration.

It is recommended that flammable liquids, oxygen and acetylene cylinders and the like, be correctly secured and housed in a compartment separate to the workbox. Only minimum quantities, sufficient to carry out the work, should be carried together with a suitable fire extinguisher.

Use of safety harness

All persons suspended from a crane shall wear a general-purpose safety harness, complying with [AS/NZ 1891.1 – Safety belts and harnesses](#), and be instructed in the correct use and emergency

procedures. The safety line shall be attached to the safety harness anchorage points except where the workbox is fully enclosed.

When the workbox is suspended over water and is lowered below the crane-supporting surface, consideration should be given to use personal flotation devices in place of safety harnesses.

Note

Persons shall not enter or leave the workbox when elevated except in an emergency – unless each of the following conditions are met:

- risk analysis shows that this alternative 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.
- where the landing is at the edge of a structure, the maximum gap between the workbox and landing shall not exceed 100mm. The workbox shall be secured to a suitable point on the landing and access and egress shall not take place unless a safety harness is properly worn and attached to a suitable anchorage on the structure.

Abuse or negligence with respect to the use of workboxes may result in cancellation or suspension of the crane operator's licence.

Additional information in relation to the requirements for cranes can be found in the Workplace Health and Safety Regulations and in other NT WorkSafe information bulletins.

NT WorkSafe >

GPO Box 1722

Darwin NT 0801

Telephone: 1800 019 115
Facsimile: (08) 8999 5141
Email: ntworksafe@nt.gov.au
Website: worksafe.nt.gov.au