

Fact sheet: Tree trimming and removal work – crane access method

Overview

This fact sheet provides advice on managing the risks of using cranes to access trees for tree trimming and removal work.

More information is in the Guide for tree trimming and removal work – crane access method.

What are the risks?

The crane access method involves a worker that is wearing a harness, attaching themselves to a crane and the crane then lifting the worker into a tree. The process potentially exposes workers to the risk of falls from height, being struck by falling objects, contact with energised electric lines and biting or stinging hazards including ants, bees, wasps and snakes.

What do I need to do?

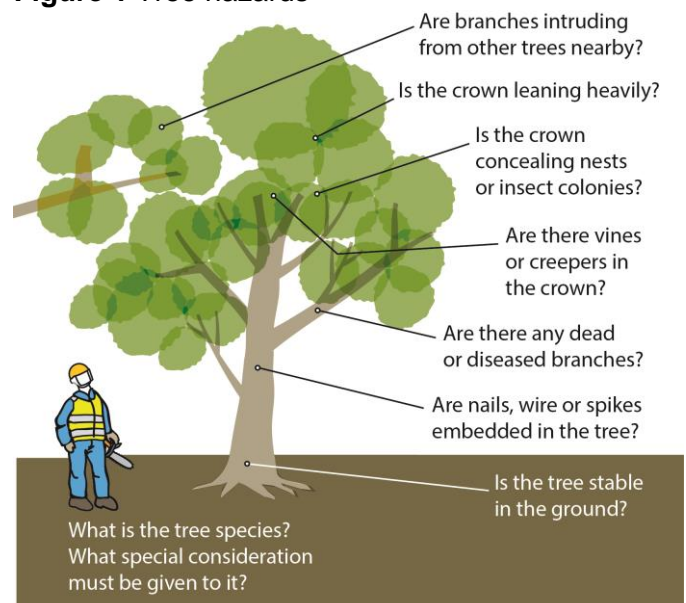
You must manage the risks of using the crane access method to access trees for tree trimming and removal work. This involves consultation with workers and other businesses who may be involved in this work. You should start by identifying potential hazards at the workplace. You can do this by considering the physical work environment, the equipment and materials to be used and the work tasks to be carried out. You can also ask your workers about any problems they encounter at the workplace.

Consider:

- The integrity of the tree to be accessed:
 - Is it decayed or dead and unsafe to access or be attached to?
 - Is the particular tree susceptible to branch failure when under load?
- If the site is safe to use a crane:
 - Is the site sloping, uneven or soft ground?
 - Is there a safe and stable route available for plant to enter and exit the site?

Figure 1 shows potential tree hazards that should be checked before starting work.

Figure 1 Tree hazards



More information on risk management is in the Code of Practice: *How to manage work health and safety risks*.

Other methods of access

Because of the high level of skill and competence required to use the crane access method safely, other methods of accessing a tree should be considered first.

Other methods of access include:

- temporary work platforms (e.g. elevating work platforms)
- suspended work boxes
- industrial rope access systems
- climbing.

Using the crane access method

Before a decision is made to use the crane access method, a risk assessment must be conducted to assess whether using this method would create a greater risk to the health or safety of a worker than climbing the tree, or using plant specifically designed to access the tree.

Training and licensing

Workers should be experienced in tree climbing and trimming and removal work and they must have the knowledge and skills to use the harness that is required to be worn when accessing trees using the crane access method.

The person being lifted by the crane must also hold a high risk work dogging licence. Any observer monitoring the person being lifted by the crane that directs the crane operator in the movement of the load must also be the holder of a high risk work dogging licence.

The person operating the crane at the workplace must be the holder of a valid high risk work licence to operate the crane.

Harness

The harness that you use must be a work positioning harness designed and certified in accordance with AS/NZS 1891.1:2007 *Industrial fall-arrest systems and devices—Harnesses and ancillary equipment*, for the purpose of lifting and suspending a person.

Crane safety mechanisms

The crane that is used to lift a worker into a tree must have safety mechanisms to prevent the worker from inadvertently falling and should meet the following requirements:

- Have a minimum safe working limit of 1000 kg at the maximum radius for the task.
- Be fitted with:
 - an upper hoist limit that stops the hoist, luff and telescope operating to prevent two-blocking, or be designed so that two-blocking cannot damage part of the crane or lifting gear
 - controls (e.g. levers and foot pedals with a constant pressure system that stops the crane's motions when the operator removes pressure from the controls)
 - 'drive up' and 'drive-down' controls on both the hoisting and luffing motions
 - a safety hook that is fixed so the safety latch cannot inadvertently open.

Communication

The person being lifted by the crane must be in visual, audio or radio contact with the crane operator. An effective method of communication should also be in place between the crane operator, person being lifted and the observer who is monitoring the person being lifted from the ground. If there is a separate dogger monitoring the load, the dogger must also be included in the communication system.

A secured two way radio and a backup system like a whistle are examples of effective audio and radio communication.

Attaching the harness to the crane

Attaching the harness to the crane should be done in a way that does not interfere or compromise the function of the crane including any damage-prevention or warning device or any part of the rope access system.

The technique that should be used is in the Guide for tree trimming and removal work – crane access method.

Emergency and rescue procedures

It is important to develop emergency procedures and ensure workers are adequately trained in them. All crew members must be familiar with emergency procedures.

Rescue and first aid training must be an integral part of an induction program for workers.

Workers must know these procedures and any changes to these procedures that are specific to a new site, before starting work.

Further information

Visit www.worksafe.qld.gov.au or call the WHS Infoline on 1300 362 128 for more information.