CPCCLTC4001

Licence to Operate a Tower Crane

Learner Guide Instructions

Who is this document for?

The learner.

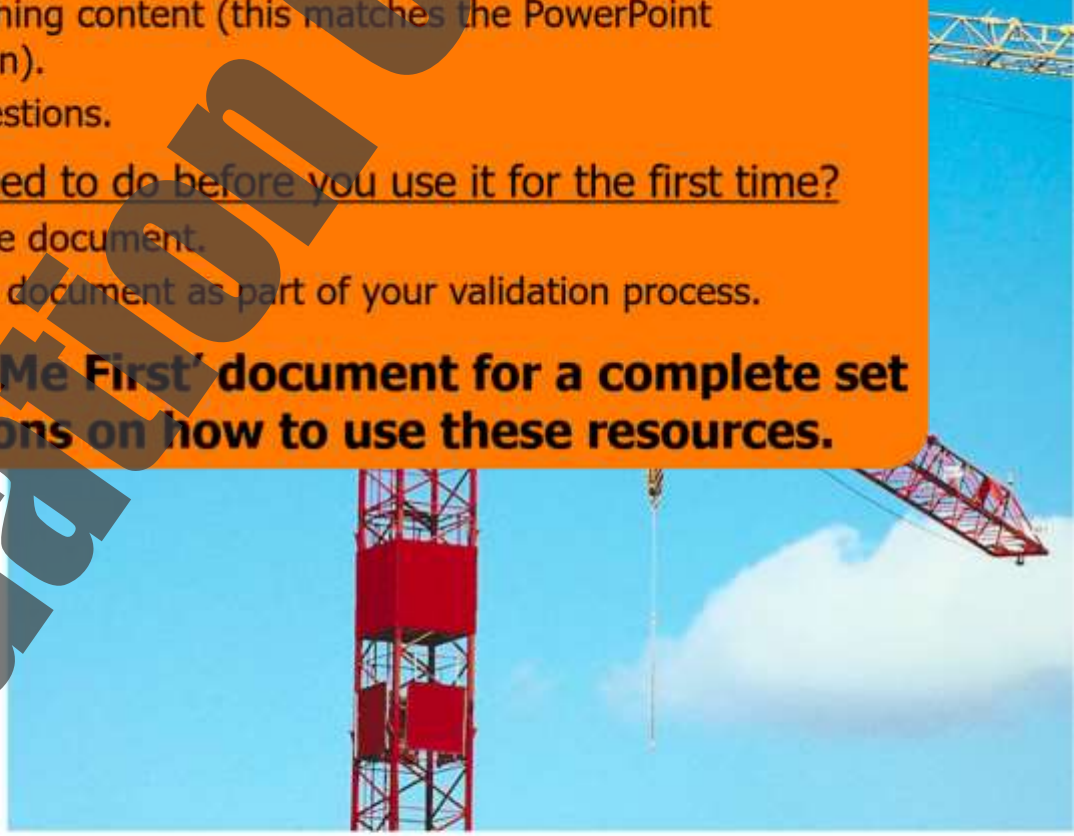
What is in this document?

- Course training content (this matches the PowerPoint Presentation).
- Review questions.

What do you need to do before you use it for the first time?

1. Rebrand the document.
2. Review the document as part of your validation process.

See the 'Read Me First' document for a complete set of instructions on how to use these resources.



LEARNER GUIDE

CPCCLTC4001 Licence to Operate a Tower Crane

Learner Name:	
Learner ID:	
Learner Contact Number:	
Learner Email Address:	
Date Training Commenced:	

This Book Contains:

☐ Course Information.
☐ Review Questions.

Table of Contents

1.1 Introduction

This training course is based on the National High Risk Licence Unit of Competency **CPCCLTC4001 Licence to Operate a Tower Crane**.

The National Standard for Licensing Persons Performing High Risk Work aims to facilitate the operation of a nationally uniform, competency-based licensing system for persons performing certain types of high risk work.

Throughout these materials you will learn about:

- Planning the job.
- Conducting routine checks.
- Transferring the load.
- Shutting down and securing the crane.

Upon successful completion of this course participants will be eligible to be assessed for a National High Risk Work Licence.

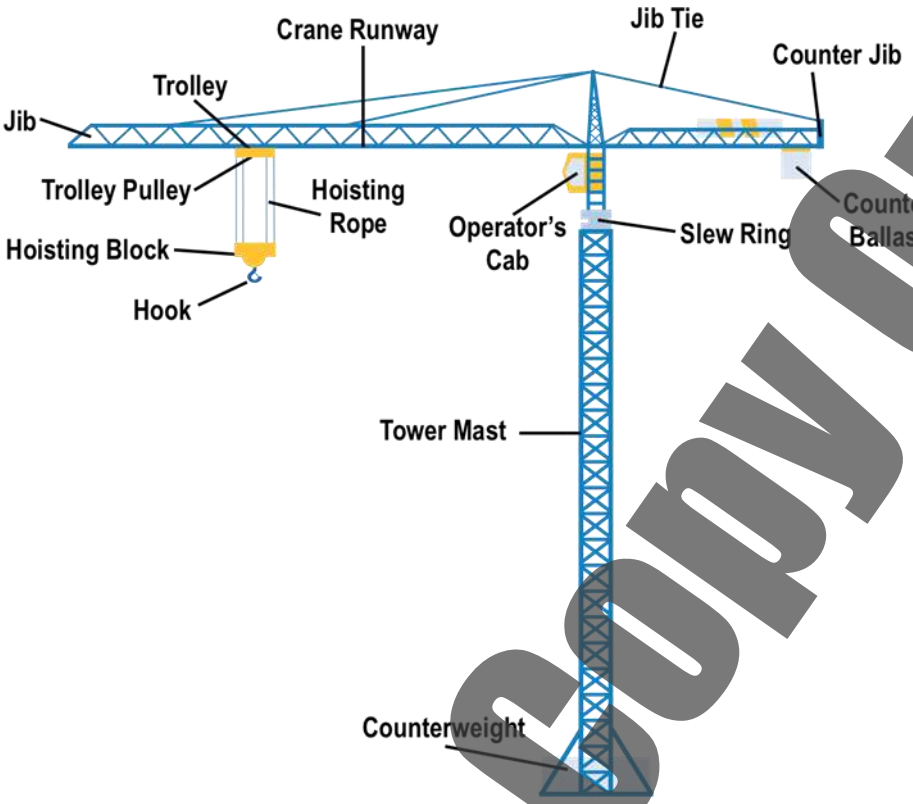
1.1.1 What is a Tower Crane?

A tower crane is a jib or boom/jib crane mounted on a tower structure. They can be demountable or permanent and can have a horizontal or a luffing jib.

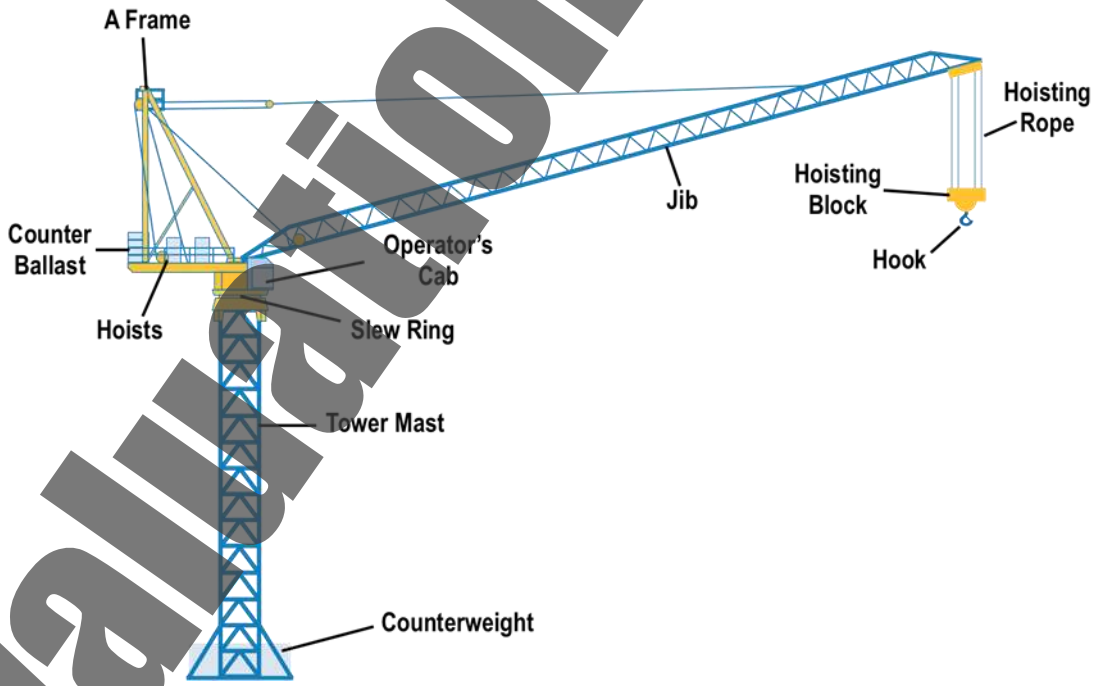
Note: Self-erecting tower cranes are not covered in these materials.

1.1.1.1 Parts of a Tower Crane

The following diagram outlines the general parts of a horizontal/hammerhead type tower crane:

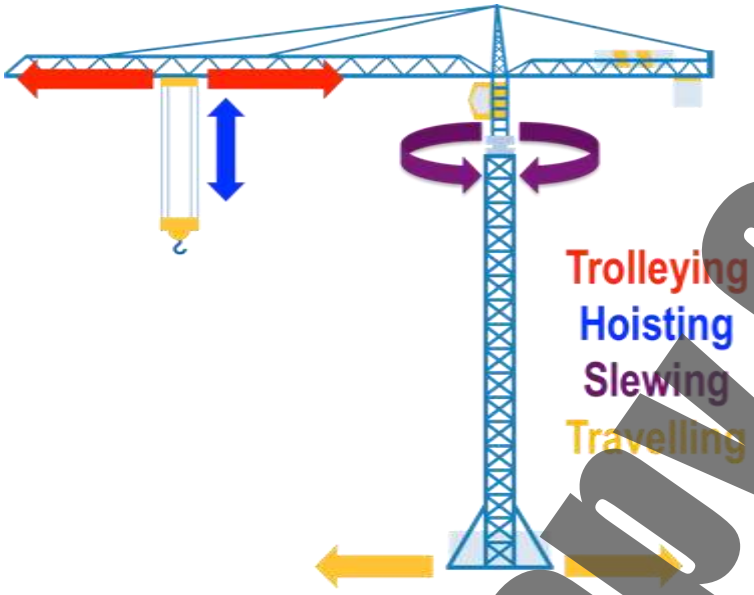


The following diagram outlines the general parts of a luffing type tower crane:

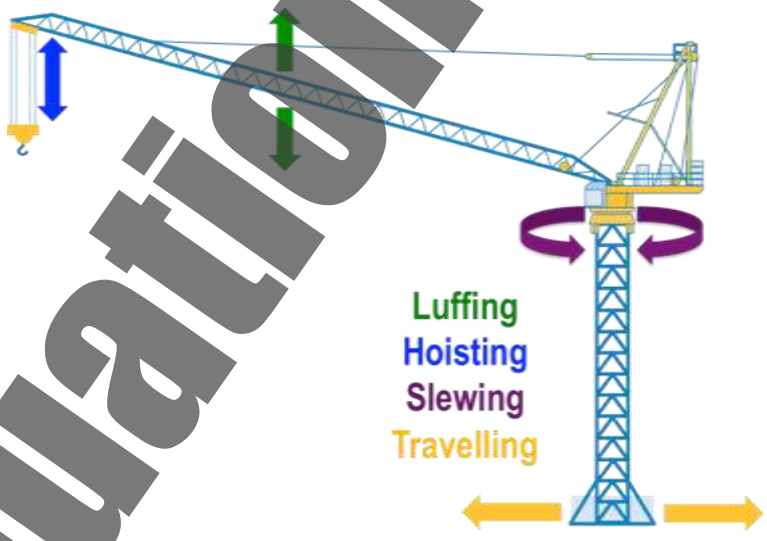


1.1.1.2 Crane Movements

Crane movements that you may use when shifting loads include:



- **Trolleying** – The movement of the trolley towards and away from the tower of the crane along the boom/jib.
- **Hoisting** – The raising and lowering of the hook block using the hoist rope.
- **Slewing** – The horizontal rotation of the crane and boom/jib.
- **Travelling** – Mobiling the crane along rails (if fitted with a travelling base).



- **Luffing** – The up and down movement of the boom.
- **Hoisting** – The raising and lowering of the hook block using the hoist rope.
- **Slewing** – The horizontal rotation of the crane and boom/jib.
- **Travelling** – Mobiling the crane along rails (if fitted with a travelling base).

1.1.2 When is a High Risk Licence Needed?

A high risk work licence allows you to lawfully work with certain high risk equipment and plant such as forklifts, cranes, hoists, elevating work platforms, scaffolding, rigging and pressure equipment. Competence in this unit does not in itself result in a licence. A licence is obtained after competence is assessed under applicable Commonwealth, state or territory work health and safety (WHS) regulations.

1.1.3 High Risk Work Licence Requirements

Once you pass your assessment you will have 60 days to apply for your licence.

You must renew your licence within 12 months of its expiry otherwise:

- Your licence can't be renewed.
- You need to repeat the course and re-apply for your licence.
- You need to enrol in the course again and be supervised by somebody who has a current licence for the same class.

You can still do high risk work without a licence as long as:

- You are enrolled in a high risk course for the class, and
- You are being supervised by somebody who has a licence for the same class.

As part of their legal duty of care, licensed workers must take reasonable steps to make sure the way they work does not impact on the safety of themselves or any others on site. Failing to work safely can result in the health and safety regulator:

- Suspending or cancelling your licence.
- Refusing to renew your licence.
- Ordering that you are reassessed to ensure you are competent.
- Taking action to prosecute.

Your employer should ask you for evidence that you have a high risk licence before you start any high risk work. You can show them:

- Your licence.
- Proof from the training company that you have passed your assessment.
- Proof that you are currently completing a course for high risk work.

Review Questions

1.	Provide a description of each of the following crane movement terms: **a)** Trolleying. **b)** Hoisting. **c)** Slewing. **d)** Luffing.	☐
a) b) c) d)		

1.2 Work Health and Safety Legislation

Work Health & Safety (WHS) legislation is defined as laws and guidelines to help keep your workplace safe.

1.2.1 Types of Legislation

Legislation can be broken down into four main types:

Legislation	Explanation
Acts	These are laws that you have to follow.
Regulations	These explain what the law means.
Codes of Practice	These are instructions on how to follow the law, based on industry standards.
Australian Standards	These tell you what the minimum requirement is for a job, product or hazard.

1.2.2 Duty of Care

All personnel have a legal responsibility under duty of care to do everything reasonably practicable to protect others from harm by complying with safe work practices.

This includes activities that require licences, tickets or certificates of competency or any other relevant state and territory WHS requirements.

Duty of care involves:

- Employers and self-employed persons.
- Persons in control of the workplace.
- Supervisors.
- Designers.
- Manufacturers.
- Suppliers.
- Workers.
- Inspectors.

To meet their duty of care obligations an employer is required to provide and maintain a work environment without risks to health and safety. This includes providing and maintaining safe plant and structures as well as safe systems of work. Adequate facilities also need to be provided by the employer to meet the needs of everyone on site.

They must also ensure that everyone has received adequate training, information, or supervision to complete their work. This includes providing sufficient information, training, instruction and/or supervision to individuals who have recently completed their High Risk Work Licence and are going to be completing unfamiliar tower crane work.

Intentionally or recklessly interfering with or misusing any WHS equipment provided by your employer is a breach in duty of care. You must cooperate with the health and safety policies and procedures set out by your employer, doing this will assist you in meeting your duty of care obligations.

Review Questions

2.	List the four (4) main types of WHS legislation or requirements.	☐

1.

2.

3.

4.

3.	List five (5) people who have a legal responsibility under duty of care.	☐

1.

2.

3.

4.

5.

1.3 Workplace Requirements

Each workplace or worksite has a series of requirements, rules and procedures that need to be followed to help ensure the safety of everyone on and around the site.

These requirements and procedures may be different from site to site so it is very important that you determine the rules for the site when you arrive.

1.3.1 Work Method Statements

A Work Method Statement (WMS) details how specific hazards and risks, related to a high risk construction task will be managed. It is developed by the employer for their employees.

Work Method Statements fulfill a number of objectives:

- They outline a safe method of work for a specific job.
- They provide an induction document that workers must read and understand before starting the job.
- They assist in meeting legal responsibilities for the risk management process, hazard identification, risk assessment and risk control.
- They assist in effectively coordinating the work, the materials required, the time required and the people involved to achieve a safe and efficient outcome.
- They are a quality assurance tool.

Work Method Statements may also be referred to as Safe Work Method Statements (SWMS), Safe Work Procedures (SWP) or Job Safety Analysis (JSA).

Review Questions

4.	What document details how specific hazards and risks, related to the task being completed, will be managed?	☐

1.4 Gather Site Information and Plan Job

Planning the job before you start is an important step in any high risk work. You need to plan and be well prepared for crane operation to ensure each task is completed safely and to a high standard. You also need to obtain the relevant site information and relate it to your work activities.

Before beginning work you should review all the information required to ensure you complete the work safely. You can find work site and safety information in:

- Legislation and regulations.
- Relevant Australian Standards.
- Management Plans.
- WHS/OHS Policy.
- Code of practice.
- Manufacturer's instructions.
- Operations manuals.
- Safe working or job procedures.

1.4.1 Planning and Preparing for Tower Crane Operations

Prior to commencing a job you need to consider:

- **Job or Task Requirements** – Think about everything the job involves such as: What is the job? Where is the job? What do I need for the job? What type of crane will be used? What are its functions, capabilities and limitations?
- **Priorities or Sequencing** – Break the entire job into tasks and put them in a logical order. When prioritising the tasks make sure you consider what tasks need to be completed before others can begin.
- **Site Rules and Regulations** – Find out and understand any regulations or site rules that affect your job. If you are unsure about any rules or regulations, speak to your supervisor.
- **Permits and Procedures** – Find out if you need a permit to complete this job. If so, you need to ensure that you have one and that it is current. You also need to understand and apply any site procedures that are in place for this task. If you have any questions about permits or procedures talk to your supervisor. Procedures outline the steps you need to follow for:
  - Emergency response.
  - Incident and accident reporting.
  - Equipment fault reports.
  - Equipment maintenance requirements.
  - Communication methods and equipment use.
  - Supervision requirements.
- **Risk Management** – This involves managing any risks or hazards that are present throughout the worksite and in relation to your task.

When planning tower crane operations you should also think about the following requirements:

- Site specific issues.
- Communications are safe and adequate.
- Access and egress to and from the work area.
- Location and specifics of the task.
- Permits or licences required to carry out the work.
- Equipment required for the task.
- Availability of equipment for the task.
- Other workers, such as a dogger or rigger.
- Type, capacity and capability of the crane.
- Safe work procedures that need to be followed.

Review Questions

5.	List three (3) things that need to be considered prior to commencing a job?	☐

1.

2.

3.

1.5 Identify and Control Hazards

Before you start work, you need to check for any hazards or dangers in the area. If you find a hazard or danger you need to do something to control it. This will help to make the workplace safer.

1.5.1 Identify Hazards

Part of your job is to look around to see if you can find any hazards before you start any work.

A **hazard** is the thing or situation with the potential to cause injury, harm or damage.

A **risk** is the possibility of harm (death, injury or illness) occurring if someone was exposed to a hazard.

If you can remove or at least control a **hazard** you can reduce the **risk** involved.