TLILIC0040

Licence to Operate a Non-Slewing Mobile Crane (greater than 3 tonnes capacity)

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

TLILIC0040 Licence to Operate a Non-Slewing Mobile Crane (greater than 3 tonnes capacity)

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

This Book Contains:

- ☐ Course Information.
- ☐ Review Questions.

The review questions can be retained by the trainer/assessor as proof of formative assessment if required.

Table of Contents

1.1 Introduction

This training course is based on the National High Risk Work Licence Unit of Competency **TLILIC0040 Licence to Operate a Non-Slewing Mobile Crane (Greater than 3 Tonnes Capacity).**

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.

You will learn about:

- Planning the work.
- Conducting routine checks.
- Transferring loads.
- Mobiling loads.
- 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.

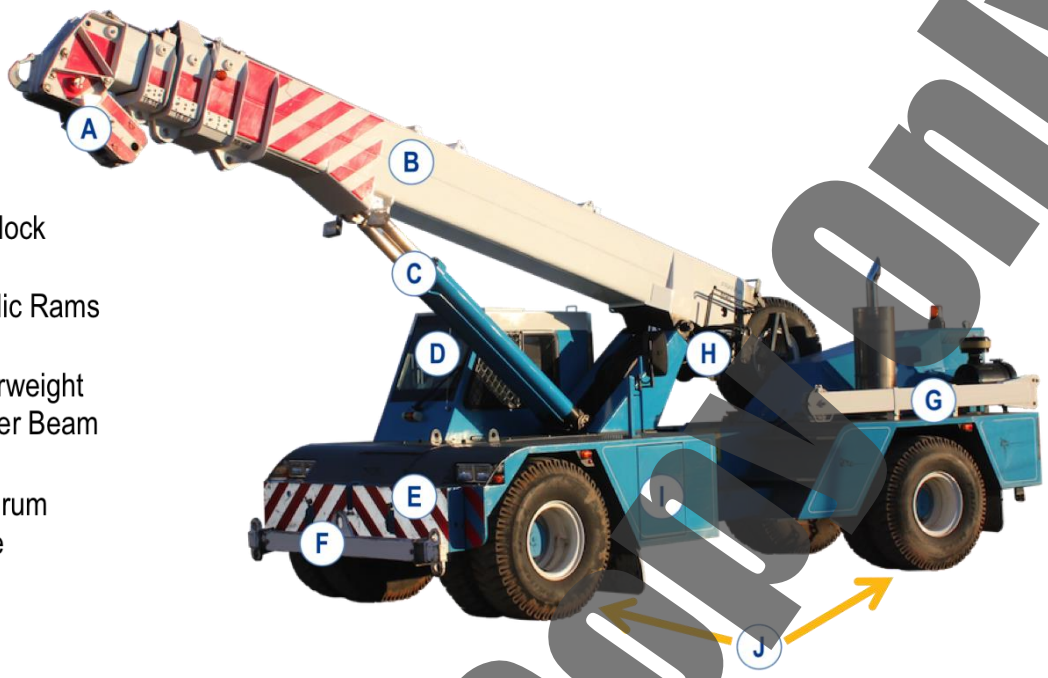
1.1.1 What is a Non-Slewing Mobile Crane?

A non-slewing mobile crane is a powered mobile crane with a capacity of more than 3 tonnes and which incorporates a boom or jib that is not capable of being slewed.

A non-slewing mobile crane may be an articulated type or a locomotive crane but not a crane engaged in vehicle tow truck operations.

1.1.1.1 Parts of a Non-Slewing Mobile Crane

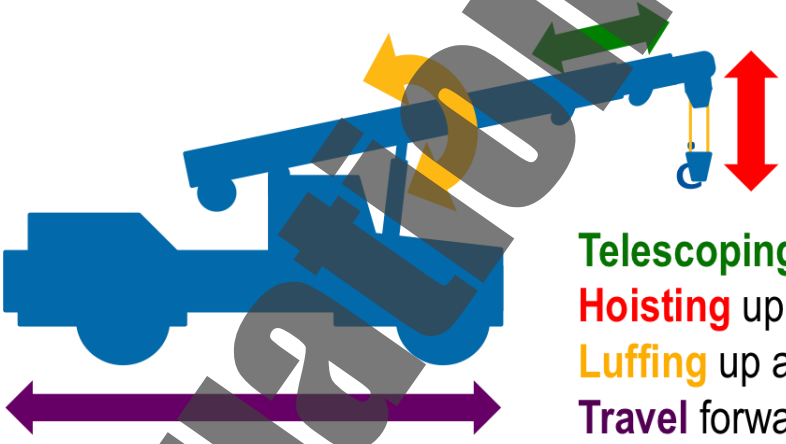
The following diagram outlines the basic crane parts:



A. Hook Block
B. Boom
C. Hydraulic Rams
D. Cabin
E. Counterweight
F. Spreader Beam
G. Jib
H. Rope Drum
I. Storage
J. Tyres

1.1.1.2 Crane Movements

The following diagram outlines the basic crane movements:



Telescoping in and out.
Hoisting up and down.
Luffing up and down.
Travel forwards and backwards.

1.2 Working Safely

You must follow all safety rules and instructions when performing any work. If you are not sure about what you should do, ask your boss or supervisor. They will tell you what you need to do and how to do it in a safe way.

1.2.1 Health and Safety Rules

Every workplace has to follow laws and rules to keep everyone safe. There are 4 main types:

Type	Explanation
Acts	Laws to protect the health, safety and welfare of people at work.
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.

Some states use OHS laws, and other states use WHS laws. They both talk about the same thing, but use different words or names for people. If you have any questions about safety rules you should talk to your boss or supervisor.

1.2.2 Duty of Care

Everybody in the workplace has a responsibility to keep themselves and others as safe as possible while they are at work. This is called a 'Duty of Care'.

Any licensed worker must take reasonable steps to make sure the way they work does not impact on the safety of themselves or any other worker. This is their legal duty of care. Your duty of care requires the following:

- To take reasonable care of your own safety and the safety of others.
- To cooperate with your employer in any way that ensures the health and safety of the workplace.
- To avoid taking unnecessary risks, acting dangerously or using workplace equipment in unsafe ways, or ways it is not designed to be used.

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.
- Take legal action to prosecute you.

Your employer must take steps to ensure that the workplace is as safe as possible for you and other workers. In order to do this they can:

- Provide a safe workplace with minimal risks.
- Provide and maintain safe plant, equipment and structures.
- Provide and maintain safe systems/procedures for work.
- Provide facilities that are adequate for the personnel on site.
- Provide instruction, training, supervision and information for any work to be undertaken safely, **including any time you are required to use an unfamiliar piece of equipment**.
- Take action to ensure all equipment, plant & substances used on site is handled and stored in a safe way.

Please complete section 1 review questions 1 and 2.

1.3 Planning for the Work

There will be specific requirements and things to consider when you plan for the particular task you will be completing.

You should think about:

- Communications (safe and adequate).
- Location of the task.
- Access and egress, both to the site and for the specific task.
- Permits and/or licences required for the task.
- Requirements for taglines, dogman/rigger.
- Load configuration and conditions, weight, size of the load, slinging arrangements, load balance, load security (loose load).
- Equipment required for the task.
- Availability of equipment.
- Capability/capacity of the crane.
- Safe work procedures.
- Sequence of movements.
- Distance to be travelled, the speed of travel, the travel direction, slope and ground conditions.
- Specifics of the task.

For example, if you needed to set up a crane in a busy street, you would need to check with the local authorities to see if there are any permits required for traffic control, any exclusion zones that need to be put in place, or if there are any conditions/requirements under which you would need to operate the crane. You can also determine the location of underground services that need to be considered by speaking with the local authorities.

1.3.1 Work Instructions and Safety Information

All work needs to follow worksite and company safety procedures.

Procedures help to make sure that all work is done in a safe way, without damaging equipment or putting people in unsafe situations. They also help to make sure that work is done in the correct order and doesn't interrupt or get in the way of other work that is happening on the site.

Your work instructions will tell you the safest way to do the job, and the equipment that you will need to use. It is a good idea to check your work instructions with your boss or supervisor to make sure you know exactly what you need to do.

You need to be clear about what work you will be doing. Make sure you have everything about the job written down before you start. This includes what you will be doing, how you will be doing it and what equipment you will be using.

Make sure you have all of the details about where you will be working and the job. For example:

The Site

Is there clear access for all equipment? Are there buildings, structures, facilities or trees in the way? What are the ground conditions like? Is there a safe place for the load to be moved to?

The Weather

Is there wind, rain or other bad weather? Is it too dark?

Facilities and Services

Are there power lines or other overhead or underground services to think about?

Traffic

Are there people, vehicles or other equipment in the area that you need to think about? Do you need to get them moved out of the area? Do you need to set up barriers or signs?

Hazards

Are there dangerous materials to work around or think about? Will you be working close to power lines or other people?

The Task

What load is being moved? How big is it? How much does it weigh? Does it need any special lifting arrangements?

Instructions for the task can include:

- Manufacturer's guidelines (instructions, specifications, checklists).
- Industry operating procedures.
- Workplace procedures (work instructions, operating procedures, management plans, safety policies, checklists).

If you don't know where to get your instructions or you can't understand them, you can ask your boss or supervisor. They will tell you where to find your work instructions and explain what they mean.

You can also speak with your WHS workplace representative for more information about workplace safety.

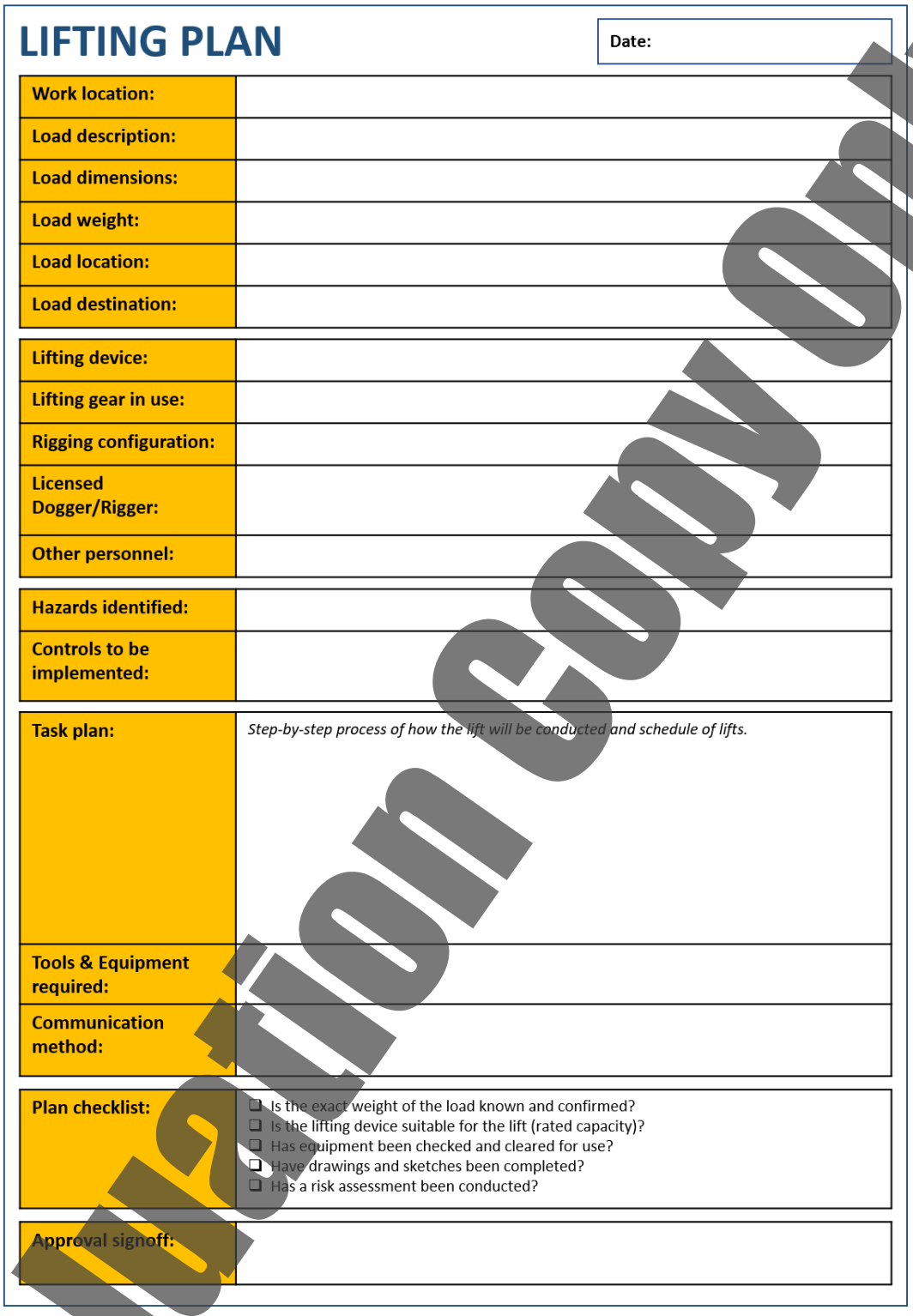
1.3.1.1 Lifting Plans

Before starting the work, you will need to plan the job. This usually includes completing a Lifting Plan.

A lifting plan should include:

- Confirmed details of lifting and slinging requirements.
- Confirmed dimensions and mass.
- Site access and egress.
- Suitability and availability of materials.
- Tools and equipment.
- Identification of potential hazards.
- Probable control measures.
- Identification of site coordination requirements.

Shown here is an example of a lifting plan template:



LIFTING PLAN

Date:

Work location:	
Load description:	
Load dimensions:	
Load weight:	
Load location:	
Load destination:	
Lifting device:	
Lifting gear in use:	
Rigging configuration:	
Licensed Dogger/Rigger:	
Other personnel:	
Hazards identified:	
Controls to be implemented:	
Task plan:	*Step-by-step process of how the lift will be conducted and schedule of lifts.*
Tools & Equipment required:	
Communication method:	
Plan checklist:	❑ Is the exact weight of the load known and confirmed? ❑ Is the lifting device suitable for the lift (rated capacity)? ❑ Has equipment been checked and cleared for use? ❑ Have drawings and sketches been completed? ❑ Has a risk assessment been conducted?
Approval signoff:	

You will need to speak with other personnel on site while putting together the plan so that you can organise coordination requirements and hazard control measures.

Once you have completed your preliminary lifting plan in accordance with procedures and site requirements you will need to confirm that the job can be carried out the way you have planned. This is called confirming the job feasibility.

Confirming the job feasibility includes:

- Checking with any other personnel involved in the work to make sure they are:
  - Available.
  - Experienced, competent and qualified.
  - Aware of the requirements of the job and the lifting equipment that is available.
- Organising to contact:
  - The load designer.
  - Site management.
  - Suppliers.

The load designer is the person who determines the best way to pack and unpack items from a truck, pallet or container. They work out how items will fit together in the best way, as well as making sure the load is properly balanced.

You may need to speak to the load designer to make sure you:

- Unload items in the correct order.
- Load items correctly.

The load designer may also have information about:

- The load weight or size.
- The weight distribution for the load.

Speak with your supervisor once you have completed your plan to make sure it is achievable in the timeframe available to you.

Please complete section 1 review questions 3 to 5.

1.4 Risk Management

Before starting any work it is important to manage any hazards or risks in the area, or related to the work.

A **Hazard** is a thing or situation with the potential to cause harm or damage.

A **Risk** is the chance of a hazard causing harm or damage.

By lowering or removing risks we can make hazards less dangerous.

1.4.1 Identify Hazards

Common workplace hazards related to non-slewing crane operations include:

- Overhead power lines.
- Overhead service lines.
- Underground services.
- Buildings, facilities and other surrounding structures.
- Obstructions and obstacles.
- Pedestrians and workers.
- Dangerous materials.
- Bad weather conditions such as dangerously strong winds, lightning or storms.
- Insufficient lighting.
- Vehicle traffic.
- Plant and equipment.
- Ground stability and condition, e.g. surfaces that are potentially non-weight bearing.
- Unusual or difficult terrains.
- Hazards specific to the site or workplace, such as slopes, trees or recently filled trenches, e.g. those associated with demolition sites such as rubble and other obstacles.

Part of your job is to look around to see if you can find any hazards before you start any work moving the crane and load.

When you start checking for hazards, make sure you look everywhere. A good way to do this is to check:

- **Up high** above your head.
- All around you **at eye level**.
- **Down low** on the ground (and also think about what is under the ground).

1.4.2 Consulting with Other Workers about Hazards and Risks

Controlling a hazard can be a team effort and it's important that everybody knows what they need to do and how or if they need to change their work process to suit.

You should also speak with several personnel on site when preparing for work including:

- Safety officers.
- Site engineers (where applicable).
- Supervisors.
- Colleagues.
- Managers who are authorised to take responsibility for the workplace or operations.
- Health and Safety Representatives.
- Work Health and Safety Committee members.

These people can help you to identify workplace specific hazards including unsuitable ground conditions and appropriate controls. It is important to speak with them to ensure that all workplace policies and procedures are being followed as well.

1.4.3 Working Near Power Lines

Working near power lines can be dangerous if you are not careful.

It is very important that you know the safe operating distances for different types of power lines and the steps you must take if your job needs you to work closer than the safe distances.

Generally, if you need to work closer than the safe work distance you must:

- Contact the local electrical authority for permission to work closer (this is called an exemption or access permit).
- Have the power lines shut off. If this is not possible then have the power lines insulated.
- Use a spotter (depending on local laws and rules).

Distances are different depending on the state or territory you are working in and the voltage of the power lines. You should check with the local electrical authority for information and advice to find out the voltage of power lines in your work area.