

TLILIC0005

Licence to Operate a Boom-Type Elevating Work Platform (boom length 11 metres or more)

Learner Guide Instructions

Who is this document for?

The learner.

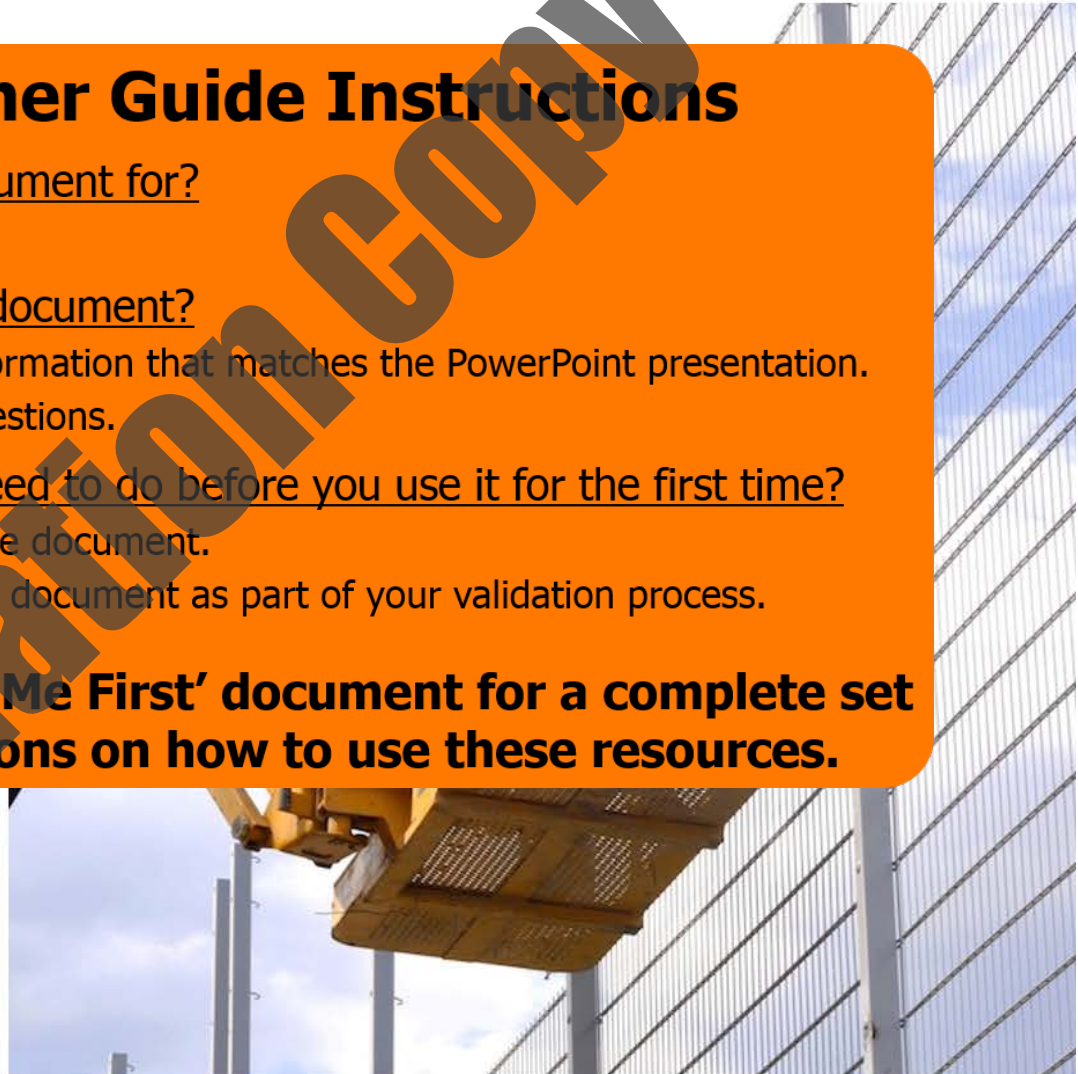
What is in this document?

- Course information that 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

TLILIC0005 Licence to Operate a Boom-Type Elevating Work Platform (boom length 11 metres or more)

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.

Evaluation Copy Only

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1.1 Introduction

This training course is based on the National High Risk Licence Unit of Competency **TLILIC0005 Licence to Operate a Boom-Type Elevating Work Platform (boom length 11 metres or more)** from the Transport and Logistics Industry Training Package.



1.1.1 Course Overview

You will learn how to:

- ◆ Plan your work.
- ◆ Conduct routine checks.
- ◆ Set up the elevating work platform.
- ◆ Operate the elevating work platform.
- ◆ Shut down and secure the elevating work platform.

After you have finished the course you can be assessed for a National High Risk Licence.



1.1.2 What is a Boom-Type Elevating Work Platform?

A boom-type elevating work platform is a telescoping device, hinged device, or articulated device or any combination of these used to support a platform on which workers, equipment and materials may be elevated to perform work.

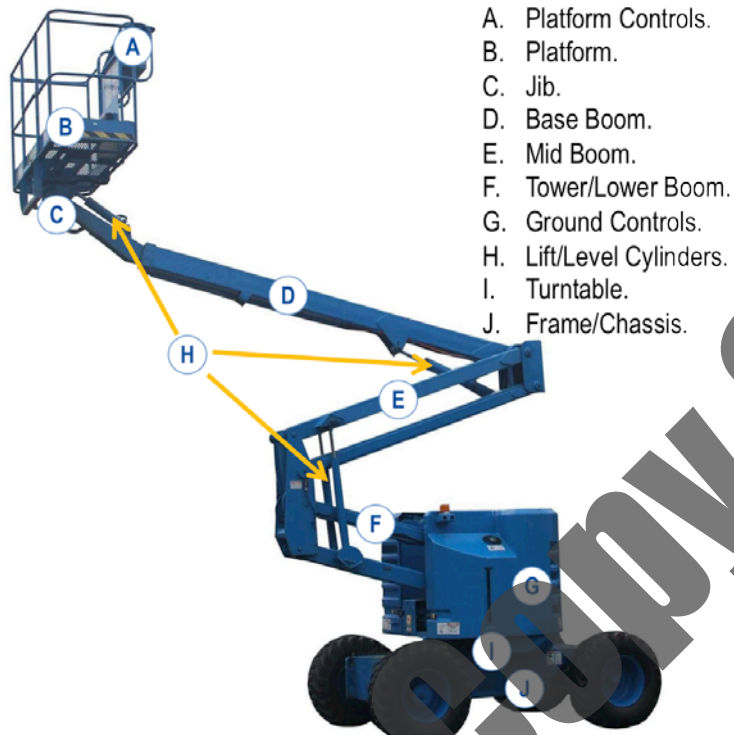


A high risk work licence is required to operate an EWP with a boom over 11 metres in length. The 11 metre boom length is measured as:

- a) The vertical distance from the floor of the platform to the surface supporting the elevating work platform with the platform at its maximum height; or
- b) The nominal reach, measured horizontally from the centre point of rotation to the outer edge of the platform in its most extended position.

1.1.3 Parts and Movements of a Knuckle Boom-Type Elevating Work Platform

The parts of a knuckle boom-type EWP are:



- A. Platform Controls.
- B. Platform.
- C. Jib.
- D. Base Boom.
- E. Mid Boom.
- F. Tower/Lower Boom.
- G. Ground Controls.
- H. Lift/Level Cylinders.
- I. Turntable.
- J. Frame/Chassis.

The movements of a knuckle boom-type EWP are:



- Articulating up and down.
- Hinging up and down.
- Raising & Lowering Boom up and down.
- Telescoping in and out.
- Slewing right and left.

1.1.4 Parts and Movements of a Telescopic Boom-Type Elevating Work Platform

The parts of a telescopic boom-type EWP are:



- A. Platform Controls.
- B. Platform.
- C. Jib.
- D. Boom Assembly (Fly Boom & Mid Boom).
- E. Base Boom.
- F. Lift Cylinder.
- G. Upright.
- H. Ground Controls.
- I. Turntable.
- J. Frame/Chassis.

The movements of a telescopic boom-type EWP are:



- Telescoping** in and out.
- Articulating** up and down.
- Hinging** up and down.
- Slewing** right and left.

1.1.5 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.

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. 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.



Your employer might 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.

1.2 Legislative and Regulatory Requirements

All work activities must be guided by and comply with the relevant legislation, regulations and work requirements.

Legislation can be broken down into four main types:

Legislation	Explanation
Acts	Laws to protect the health, safety and welfare of people at work.
Regulations	Gives more details or information on particular parts of the Act.
Codes of Practice	Are practical instructions on how to meet the terms of the Law.
Australian Standards	Give you the minimum levels of performance or quality for a hazard, work process or product.

When planning out your work you will need to think about:



- ◆ Communications on site, are they safe and adequate.
- ◆ Safe access and egress from the EWP.
- ◆ Location and specifics of the task.
- ◆ Permits required for the task.
- ◆ Type and availability of equipment required for the task.
- ◆ EWP required for the task (capacity, type, reach).
- ◆ Boom movements to access the task once the EWP is in position.
- ◆ Number of spotters required to safely carry out the task.
- ◆ Skills, experience and qualifications of EWP operators.
- ◆ Suitable safety equipment including appropriate fall arrest harness and lanyard.

Make sure you have access to everything you need before you start setting up the EWP.

Please complete section 1 review question 1.

1.3 Identify and Manage Hazards

HAZARDS CREATE RISK. CHECK FOR HAZARDS.

A **RISK** is the chance of a hazard hurting you or somebody else or causing some damage.

A **HAZARD** is the thing or situation that causes injury, harm or damage.

If you can remove or at least control a **HAZARD** you can reduce the **RISK** involved.



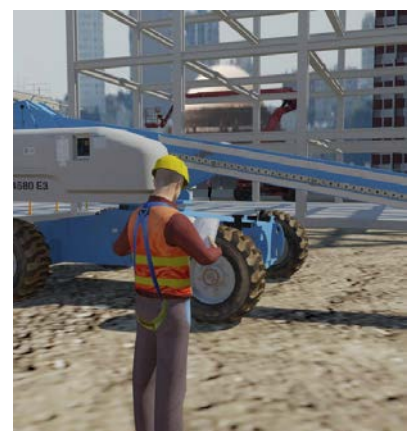
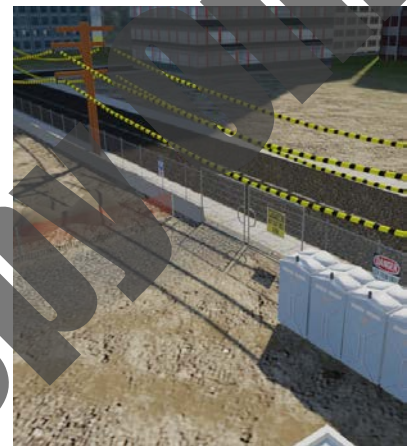
Part of your job is to look around to see if you can find any hazards before you start using the EWP.

A good tip is to check:

- ◆ **Above head height** – remember the EWP will be working well above your head!
- ◆ **At eye level** – look around to see if there is anything in the way of where you want to move the platform.
- ◆ **On the ground (and below)** – Also make sure the path of travel is clear and can bear the weight of the EWP.

Common workplace hazards and hazards that EWP operators face include:

- ◆ Ground conditions:
 - ◇ Surface condition.
 - ◇ Spills.
 - ◇ Debris.
 - ◇ Underground services.
 - ◇ Weight bearing ability.
 - ◇ Recently filled trenches.
 - ◇ Slopes.
- ◆ Poor lighting.
- ◆ Traffic:
 - ◇ Pedestrians.
 - ◇ Vehicles.
 - ◇ Other plant.
- ◆ Overhead hazards:
 - ◇ Power lines.
 - ◇ Overhead service lines.
 - ◇ Obstructions.
 - ◇ Trees.
 - ◇ Scaffolding.
 - ◇ Service pipes.
 - ◇ Bridges.
- ◆ Weather:
 - ◇ Lightning.
 - ◇ Storms.
 - ◇ Wind.
- ◆ Surrounding structures:
 - ◇ Buildings.
 - ◇ Obstructions.
- ◆ Site hazards:
 - ◇ Other workers.
 - ◇ Equipment and machines.
 - ◇ Facilities.
 - ◇ Other equipment.
- ◆ Other specific hazards:
 - ◇ Dangerous materials.
 - ◇ Chainsaws.
 - ◇ Pressure washers.
 - ◇ Tidal areas.



Once a hazard has been identified you need to talk to the right people. This can include:



- ◆ Safety officers.
- ◆ Site engineers (where applicable).
- ◆ Supervisors.
- ◆ Other workers.
- ◆ Managers who are authorised to take responsibility for the workplace or operations.

It is important to talk with workplace personnel and safety officers before starting on a worksite to make sure that any workplace policies or site-specific procedures are followed, and to identify known hazards.

1.3.1 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).
- ◆ 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.



Queensland

The Queensland Electrical Safety Regulation breaks down the distances in detail. Exclusion zones are broken down not only by size of power line but also by the competency level of the operator. This means that the requirements should be clarified with the electrical authority before work commences even if the distance appears to be outside the zones.

The following minimum distances are provided as guidance:

Power Line Type	Distance
Up to 132kV	3.0m
132kV up to 330kV	6.0m
330kV and above	8.0m

New South Wales

In New South Wales, for anyone who is not accredited, equipment operation may not be any closer than the following distances to power lines:

Power Line Type	Distance
Up to and including 132kV	3.0m
Above 132kV up to and including 330kV	6.0m
Above 330kV	8.0m

To work closer than these distances requires authority from the relevant electrical authority and adherence to cl.64(2)(e) of the regulations.

Australian Capital Territory

In the ACT mobile plant operators and persons erecting or working from scaffolding must maintain a safe minimum distance to power lines as outlined in the table below:

Power Line Type	Distance
Less than 33kv	4.0m
33kV or more (transmission lines)	5.0m

Victoria

In Victoria the Framework for Undertaking Work Near Overhead and Underground Assets states that equipment must not be closer than the following distances to power lines:

Power Line Type	Distance
Distribution lines up to and including 66kV (power poles)	6.4m (or 3.0m with a qualified spotter)
Transmission lines greater than 66kV (towers)	10m (or 8m with a qualified spotter)

Tasmania

In Tasmania equipment must not be closer than the following distances to power lines:

Power Line Type	Distance
Up to and including 133kV (poles)	6.4m (or 3m with a safety observer)
Greater than 133kV (towers)	10m (or 8m with a safety observer)

South Australia

In South Australia mobile plant operators and persons erecting or working from scaffolding must maintain a safe minimum distance to power lines as outlined in the table below:

Power Line Type	Distance
Up to 132kv (including 132kv poles)	6.4m (or 3.0m with a spotter)
132kv or more (including 132kv towers)	10.0m (or 8.0m with a spotter)

Western Australia

In Western Australia this falls under Regulation 3.64 from the OSH Regulations and states the following as the minimum distances:

Power Line Type	Distance
Up to 1kV (insulated)	0.5m
Up to 1kV (uninsulated)	1.0m
Above 1kV and up to 33kV	3.0m
Above 33kV	6.0m

Northern Territory

In the Northern Territory equipment must not be closer than the following distances to power lines:

Power Line Type	Distance
Up to and including 132kV (distribution lines)	6.4m (or 3m with a spotter)
Greater than 132kV (transmission lines)	10m (or 8m with a spotter)

Tiger Tails

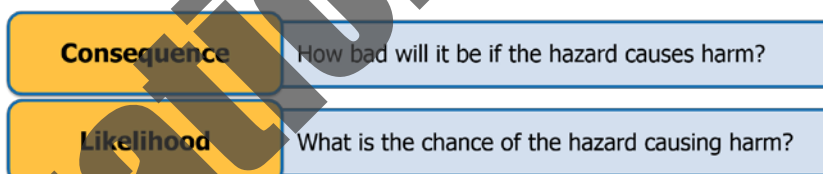
Tiger tails are used to clearly show the location of overhead power lines. Tiger tails **DO NOT** insulate the power lines so exclusion zones and safe operating distances must still be used, even when tiger tails are in use.



1.3.2 Risk Assessment

Once you have identified the hazards on site or related to the work you will be doing you need to assess their risk level.

Risk levels are worked out by looking at 2 factors:



You can use a table like the one shown here to work out the risk level:

	Consequence				
	1. Insignificant	2. Minor First Aid Required	3. Moderate Medical Attention and Time Off Work	4. Major Long Term Illness or Serious Injury	5. Catastrophic Kill or Cause Permanent Disability or Illness
Likelihood					
1. Rare	Low	Low	Moderate	Moderate	Moderate
2. Unlikely	Low	Low	Moderate	Moderate	High
3. Possible	Low	Moderate	High	High	Extreme
4. Likely	Moderate	Moderate	High	High	Extreme
5. Almost Certain	Moderate	High	High	Extreme	Extreme

For example, a hazard that has a **Major** consequence and is **Almost Certain** to occur has a risk level of **Extreme**.




Likelihood	Consequence				
	1. Insignificant	2. Minor First Aid Required	3. Moderate Medical Attention and Time Off Work	4. Major Long Term Illness or Serious Injury	5. Catastrophic Kill or Cause Permanent Disability or Illness
1. Rare	Low	Low	Moderate	Moderate	Moderate
2. Unlikely	Low	Low	Moderate	Moderate	High
3. Possible	Low	Moderate	High	High	Extreme
4. Likely	Moderate	Moderate	High	High	Extreme
5. Almost Certain	Moderate	High	High	Extreme	Extreme

The risk level will help you to work out what kind of action needs to be taken, and how soon you need to act.

The table below is an example of a site risk policy:

Risk Level	Action
Extreme	This is an unacceptable risk level The task, process or activity must not proceed .
High	This is an unacceptable risk level The proposed activity can only proceed, provided that: <ol style="list-style-type: none"> 1. The risk level has been reduced to as low as reasonably practicable using the hierarchy of risk controls. 2. The risk controls must include those identified in legislation, Australian Standards, Codes of Practice etc. 3. The risk assessment has been reviewed and approved by the Supervisor. 4. A Safe Working Procedure or Work Method Statement has been prepared. The supervisor must review and document the effectiveness of the implemented risk controls.
Moderate	This is an unacceptable risk level The proposed activity can only proceed, provided that: <ol style="list-style-type: none"> 1. The risk level has been reduced to as low as reasonably practicable using the hierarchy of risk controls. 2. The risk assessment has been reviewed and approved by the Supervisor. 3. A Safe Working Procedure or Work Method Statement has been prepared.
Low	The proposed task or process needs to be managed by documented routine procedures, which must include application of the hierarchy of controls.

The action you take will depend on:

-  The organisation's policies.
-  The worksite's procedures.
-  Relevant laws and regulations.

1.3.3 Hazard Controls

Once hazards and risks have been identified and assessed you need to work out what the best way to manage them will be.

The Hierarchy of Hazard Control is the name given to a range of control strategies used to eliminate or control hazards and risks in the workplace. Hazard controls should be applied before you start work, or as soon as a hazard is identified during the work.

The Hierarchy has 6 levels.

Always start at the top of the list and work your way down.



Hierarchy Level	Explanation
1. Elimination	Completely remove the hazard. This is the best kind of hazard control.
2. Substitution	Swap a dangerous work method or situation for one that is less dangerous.
3. Isolation	Isolate or restrict access to the hazard.
4. Engineering Controls	Use equipment to lower the risk level.
5. Administrative Controls	Site rules and policies attempt to control a hazard. Includes Safe Work Practices.
6. Personal Protective Equipment	The least effective control. Use PPE while you carry out your work. This should be selected at the planning stage of your work, and checked before starting the job.

You may need to use a range of control measures to reduce the risk to an acceptable level.

Evaluation Complete