

Trainer Value Pack



ELEVATING WORK PLATFORM SAFETY & LICENCE GUIDE



Training support material for:

TLILIC0005

**Licence to operate a boom-type
elevating work platform
(boom length 11 metres or more)**

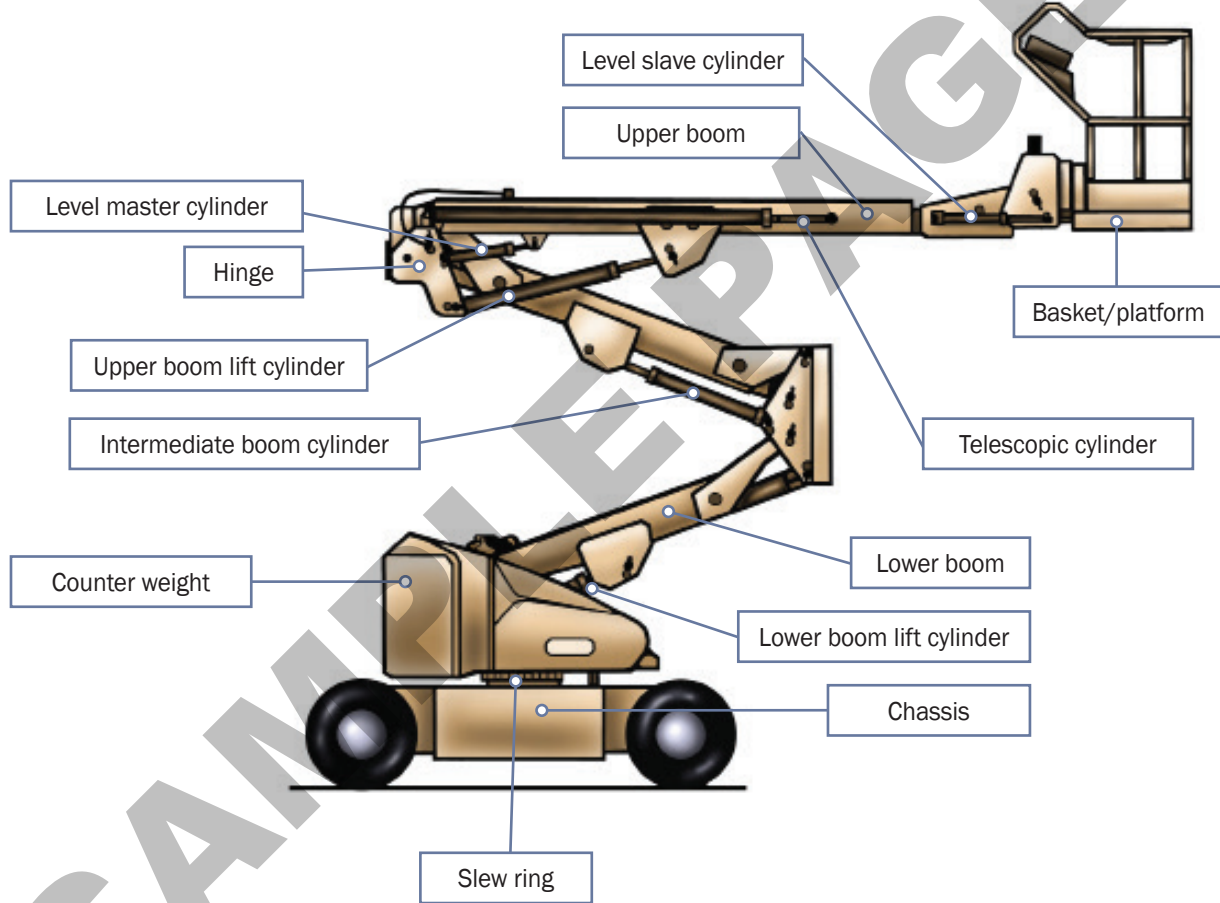
Produced by:



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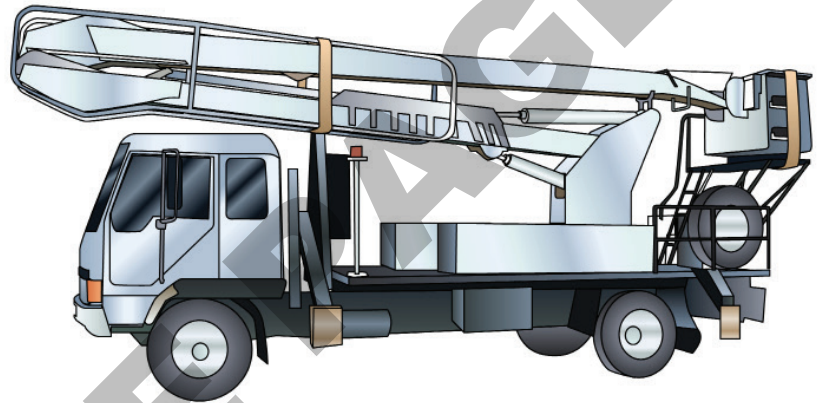
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Parts of a boom-type elevating work platform



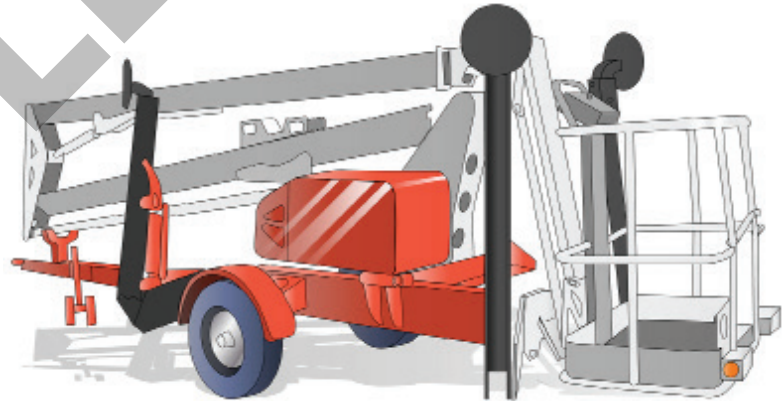
Types of EWP (continued)

Truck-mounted EWPs offer a safe and easy way of working at heights with the flexibility of quick movement between sites. There are both articulating and telescopic versions of truck mounted EWPs available.



Trailer mounted EWPs have the ability to place operators at locations that require vertical height and horizontal reach. They are available in varied sizes and can be electric or engine powered.

A key feature of trailer mounts is 'up and over reach' with the flexibility of towing the trailer lift to the job sites using your own vehicle.



PLAN WORK / TASK

Element 1



Safety information and work procedures

You will also have to make sure you know about the safety information and procedures related to the job. Ways to find out this information include:

<p>Legislation and regulations</p> 	<p>Australian standards</p> 	<p>Worksite OHS/WHS policies</p> 
<p>Codes of Practice</p> 	<p>Instructions from manufacturers such as operation manuals.</p> 	<p>Safe work procedures (SOPs).</p> 

Wind hazards

Wind is a common hazard when working on an elevating work platform. It can cause the boom to move uncontrollably, make objects fall from the platform or even make the EWP tip over.

Wind can also cause dust and debris to be blown around which can get into the operators eyes and affect vision.



If you are working and the wind speed exceeds the limit of the EWP – stop work immediately and bring the platform to the ground.

The wind speed rating of the EWP can be found by checking the data plate, operators manual or machines specifications.



Working near or over water

When working over or near water, assess the hazards and risks to decide what personal protective equipment should be worn and what control measures should be in place.

Emergency retrieval system



Try not to be attached to the EWP.



Wear a life jacket



Have a rescue boat



Have a rescue plan



Have a spotter

Other things to plan for

Other than hazards there are more things you need to plan for before you start work. For example:

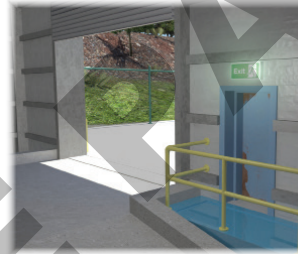
Problems or challenges on the site. These might be shift times, movement of people etc.



People you need to talk to and communicate with.



Are the doorways big enough to get in and out of?



You will need to check the location and details of the work.



You might need permits before you start work.



Check you have the right equipment for the job.



You must make sure the EWP has enough capacity to carry the weight in the basket.



PREPARE FOR WORK / TASK

Element 2



Check the service logbook

The EWP logbook is used to record details of when the EWP was operated and who the operator was. Any defects that are found and servicing and repairs carried out on the EWP are also recorded. You should check the EWP's logbook to make sure it is the right logbook for the machine you are using. Check also if any defects have been reported, and if they have been fixed.

If you check the service logbook and find:

- a defect that has not been fixed
- the EWP hasn't been tested
- the EWP does not meet Australian Standards 2550.10

You should:

Tag out the machine



Do not use the EWP



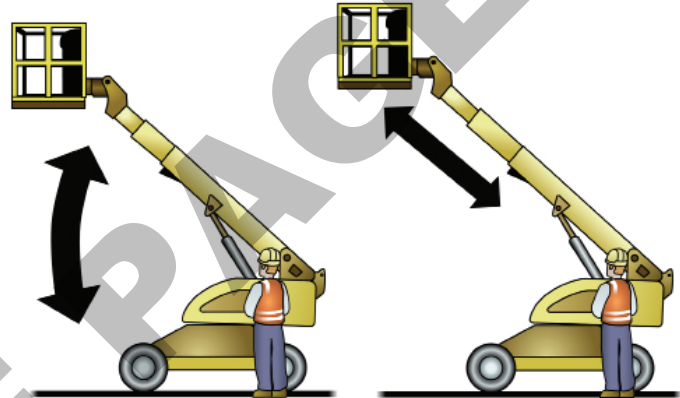
Report the problem to your supervisor, and as per your site procedures.



QUESTION 45

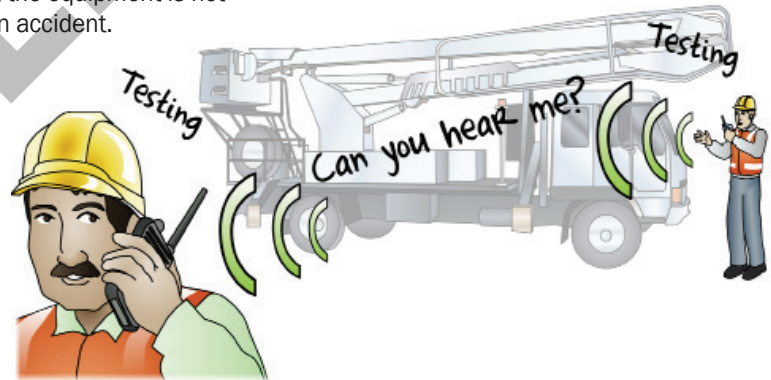
Why do you need to do a full extension test on all movements of the EWP?

You need to do the test to make sure the EWP is safe to use and can fully extend without problems. You need to make sure you know what all the controls are for.

**QUESTION 46**

When is the right time to check that the EWP and communications equipment (for example, the radio) is working properly?

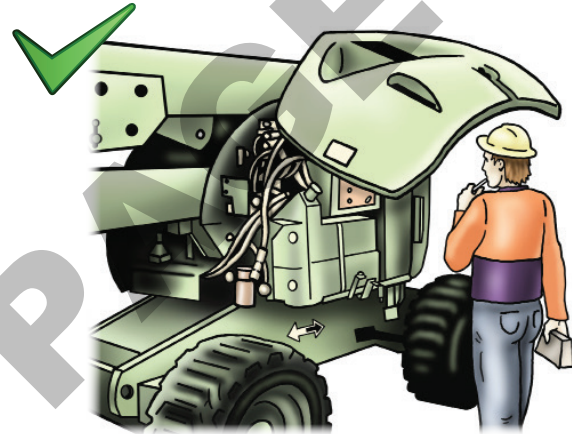
You should check before you start the job. Finding out later that the equipment is not working can cause an accident.



QUESTION 47

Why is it important to inspect (check) the EWP before you start using it?

You must inspect the EWP first to make sure it is safe to use and it is the right EWP for the job.

**QUESTION 48**

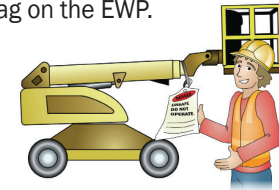
You are about to use an EWP. You do some checks and you find some obvious problems with the EWP.

What should you do?

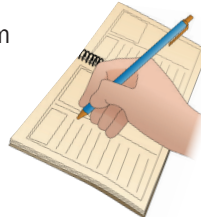
1. Take out the keys.



2. Put a danger tag on the EWP.



3. Write the problem in the logbook.



4. Tell a supervisor about the problem.

Do not use the EWP until the problem has been fixed.



Outrigger hazard controls

If you have set up the work platform, but one of the outriggers starts to sink you must stop immediately and lower the basket to the ground.

Fix the sinking problem by stabilising the ground with packing.



If you cannot fix the ground conditions, move the EWP to another spot where the ground is more stable.



Planning the path of movement (continued)

When you move the boom, watch for things like trees, powerlines or any other obstructions.

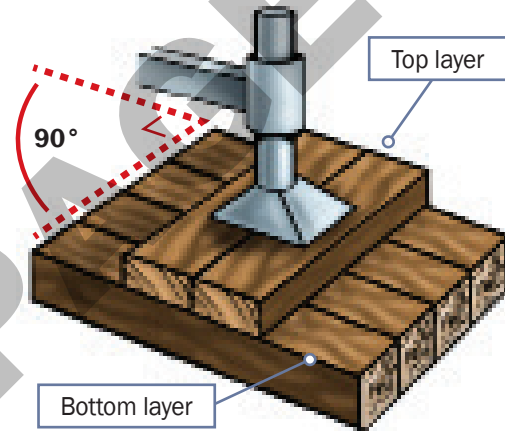


Whenever you are moving the EWP itself, or the boom of the EWP, you need to think about all hazards and all

QUESTION 54

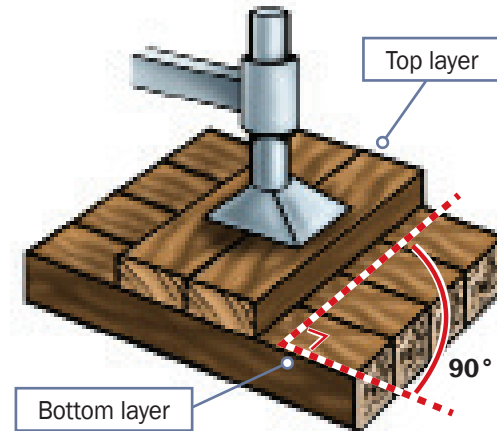
What should the angle from the top layer of pigstyng to the outriggers be?

The angle should be 90 degrees.

**QUESTION 55**

What should the angle between the top and bottom layer of pigstyng be?

The angle should be 90 degrees between layers of stacking of pigstyng.



PERFORM WORK / TASK

Element 3

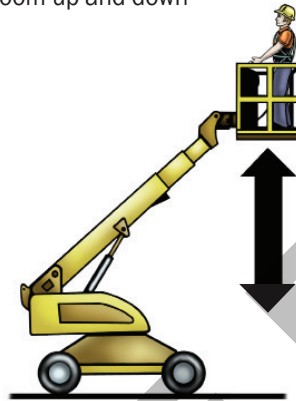


QUESTION 73

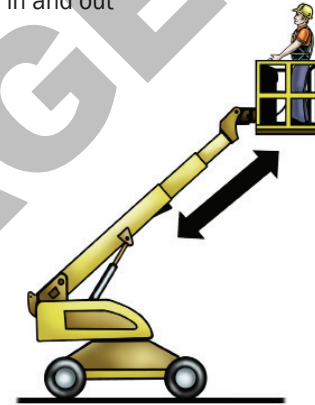
EWPs can perform a number of different movements.

What are some movements an EWP can do?

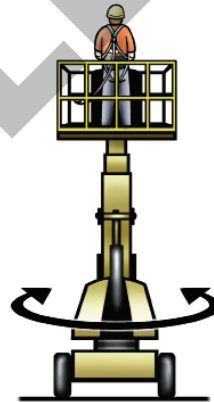
Move the boom up and down



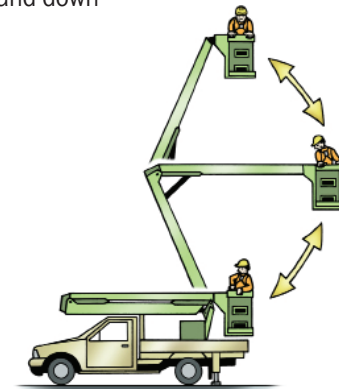
Telescope in and out



Slew left and right



Hinge up and down

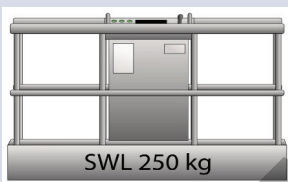


QUESTION 77

You and another worker are about to start a job.

- You will be using an EWP with a Working Load Limit (WLL) of 250 kg
- You weigh 85 kg and your workmate weighs 95 kg
- You also need to carry tools and parts

What is the most (in kilograms) your tools and parts can weigh?

**Step 1:**

Body weight of you and your workmate:

$$85 \text{ kg} + 95 \text{ kg} = 180 \text{ kg}$$



85 kg

95 kg

Step 2:

Take the total body weight away from the WLL:

$$250 \text{ kg (WLL)} - 180 \text{ kg (body weight)} = 70 \text{ kg}$$

This means you and your workmate can carry up to 70 kg of parts and tools.



40 kg

30 kg

Mobiling the EWP

When mobiling the EWP, the safest position for the basket and boom is lowered and retracted. This gives the EWP maximum stability.

Always check that the EWP's warning devices are working before you move.



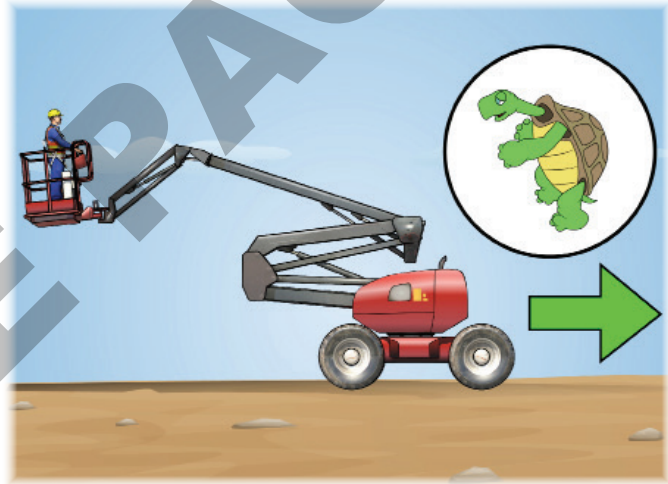
Mobilising the EWP (continued)

Always check the manufacturer's instructions before moving any self-propelled EWP. These instructions will tell you:

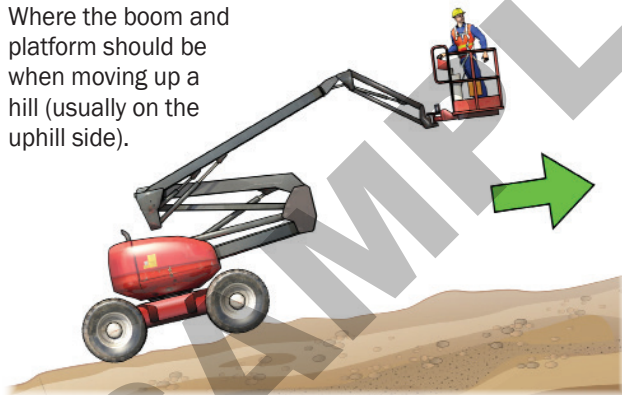
If the EWP can be driven across slopes.



The speed at which the EWP can be safely driven.



Where the boom and platform should be when moving up a hill (usually on the uphill side).



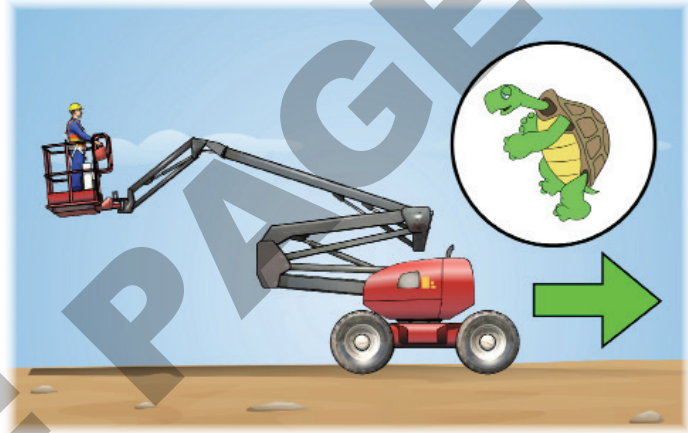
Note:
The EWP should always be moved around at an extremely slow speed.

QUESTION 82

You are mobilising (driving) a self-propelled EWP. The basket is raised in the air.

What is the safest speed?

The safest speed is creep speed (very, very slow), or the speed the manufacturer says is safe.

**QUESTION 83**

You have to mobile (move) an EWP across a slope or hill.

How will you do this?

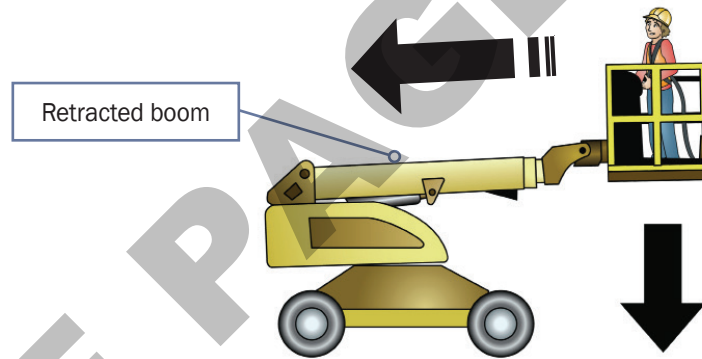
This is very dangerous and should be avoided. Check your EWP operator manual for more information.



QUESTION 84

What's the best position for the basket when mobilising (moving) the EWP?

The basket should be lowered and the boom retracted.
The EWP will be more stable.

**QUESTION 85**

Why is it not safe to raise or lower the boom over people?

The people under the boom may be out of sight and can be badly hurt or killed.



Emergency lowering devices

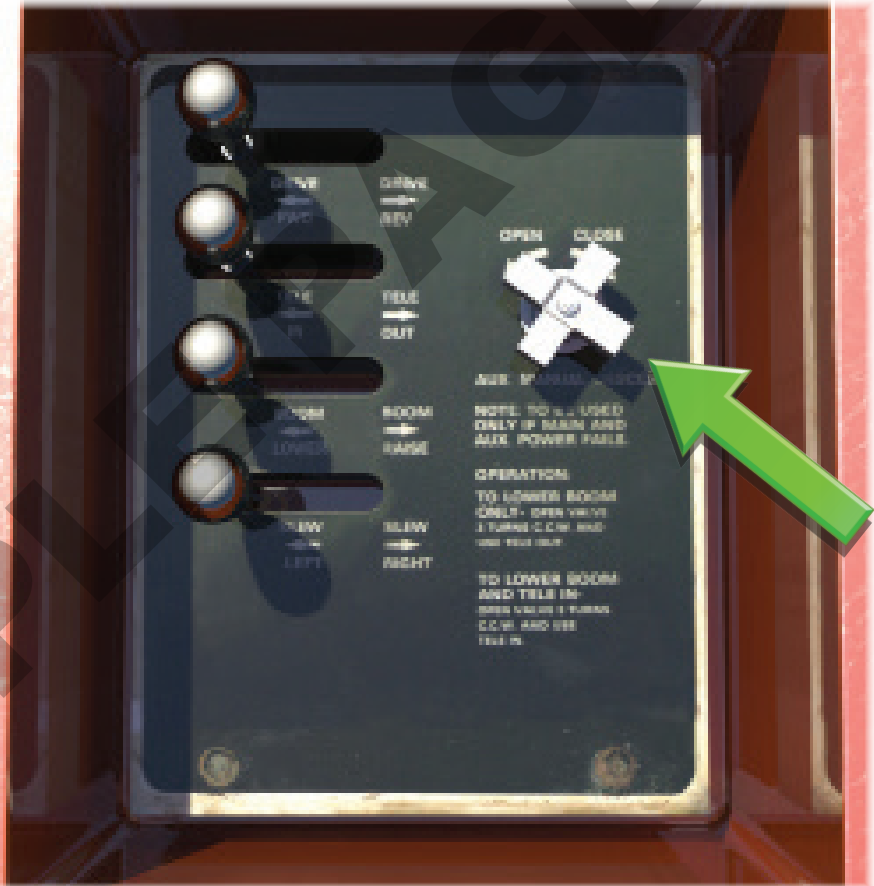
If the motor cuts out while you are working, you will need to lower the work platform.

How you do this will depend on the type of platform you are using.

Older work platforms have a hydraulic accumulator. These give the hydraulics enough pressure to slew and lower the platform.

Newer EWP's often have a battery operated electro-hydraulic lowering device for emergencies. This allows you to lower the platform when the motor has stopped.

If these mechanisms fail, you may need to lower the platform using hydraulic bleed valves, or pump down mechanisms.

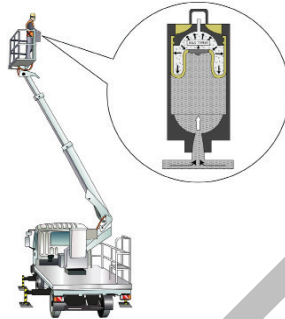


QUESTION 93

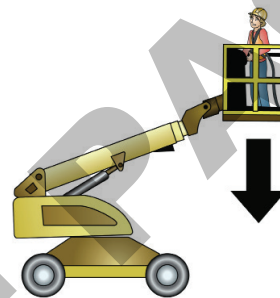
You are working high off the ground. The EWP's engine stops.

What will you do?

For an older (truck-mounted) EWP use the hydraulic accumulator to lower the basket.



For a newer EWP use the electro-hydraulic emergency lowering device.



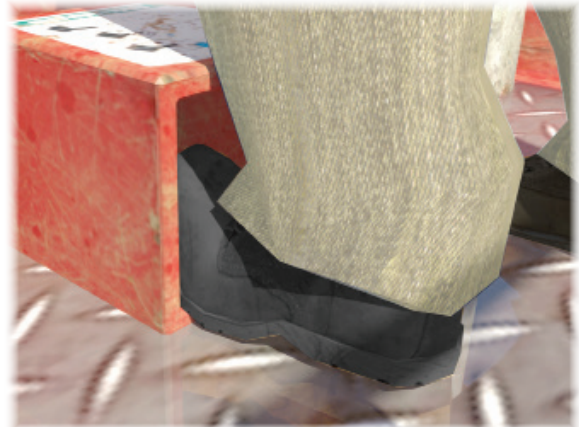
If nothing else works, ask someone on the ground to use the hydraulic bleed valves, or pump down mechanisms.

**QUESTION 94**

When is it okay to use the dead man control to stop the EWP from moving?

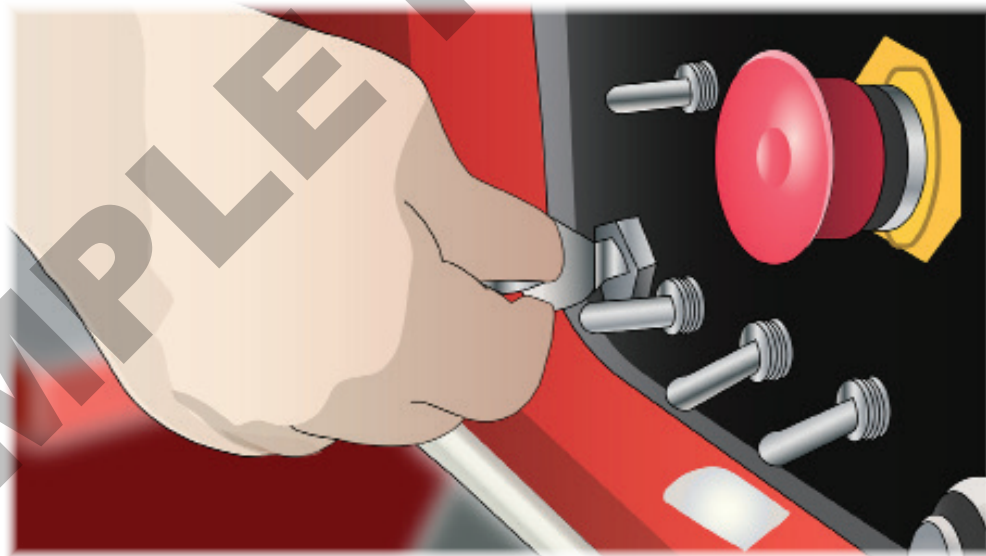
You can only do this in an emergency.

The dead man control is not a normal operating control.



PACK UP

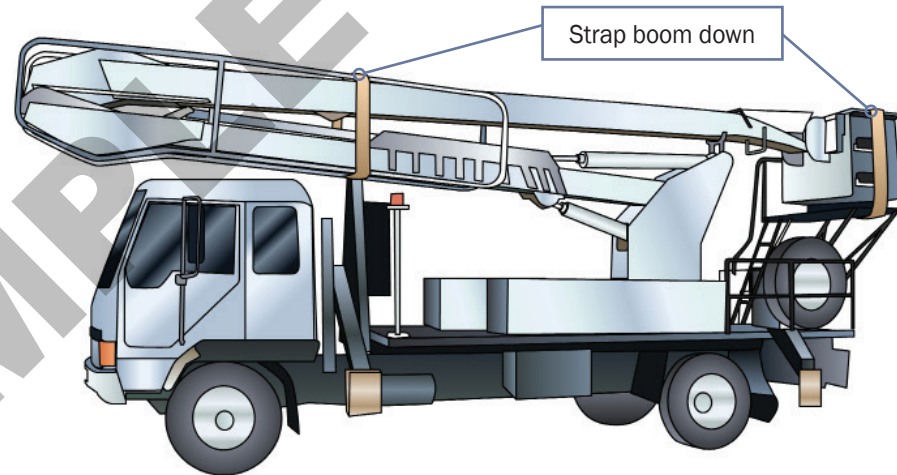
Element 4



QUESTION 102

Why do you need to use the locks and brakes on an EWP when you have finished a job?

Use locks and brakes to hold the boom in place and make it safe for travel. The operator's manual will have information on how to do this.



QUESTION 109

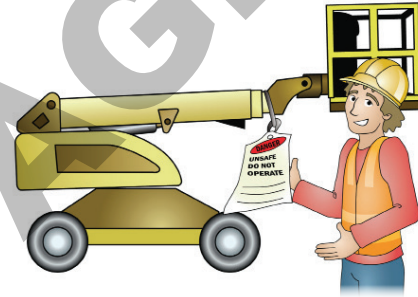
You have finished using the EWP. You do your post-operational checks.

What do you have to do if you find a problem or fault?

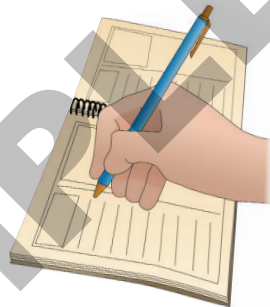
1. Take out the keys.



2. Put a danger tag on the EWP.



3. Write the problem in the logbook.



4. Tell a supervisor about the problem.



ELEVATING WORK PLATFORM

TLILIC0005

Licence to operate a boom-type elevating work platform (boom length 11 metres or more)



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National Licence
RTO-VET Learning Materials

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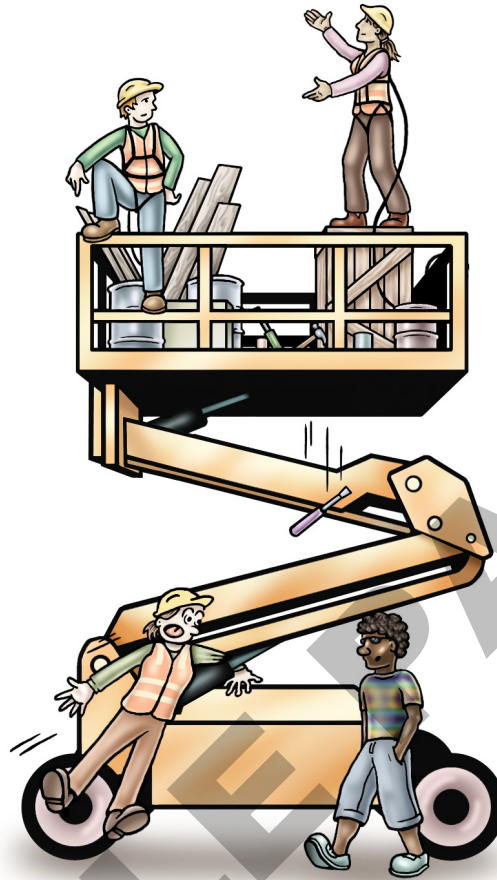
Plan Work





Theory Training Task 3

Performance Criterion: 2.2



Look at the picture above. Can you list the dangerous work practices that are taking place with this EWP?

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Performance Criterion: 1.3

Choosing the right EWP

There are different types of elevating work platforms (EWPs). Depending on the work and the location you will select and use a certain type of EWP. It's important to make sure the EWP is suited to the job and the conditions.

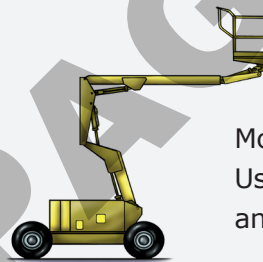


Theory Training Task 18

Performance Criterion: 1.3

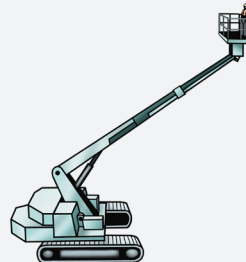
Draw a line to match the correct name with the correct type of EWP.

Trailer-mounted boom lift



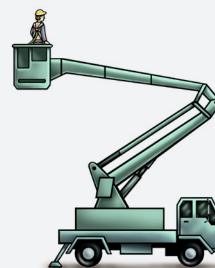
Most often used EWP.
Used on construction
and building sites.

Self-propelled EWP



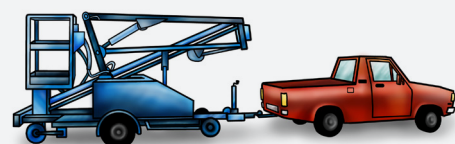
Used on rough terrain.
Surface must be level.

Track-mounted EWP



Used for work on
powerlines. Also used
for cutting trees to
keep a safe space
near powerlines. Can
move from site to
site quickly.

Truck-mounted EWP



Used by trades people for maintenance
and some building work.

Performance Criterion: 1.7, 1.8

Communication

There are many ways you can get and give instructions when using an EWP. How you get and give instructions to other workers depends on where you are and if you can see other workers (or they can see you).



Theory Training Task 19

Performance Criterion: 1.7, 1.8, 2.1

- a) List at least three (3) ways you might have instructions given to you in the workplace.

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- b) You have been given instructions for your next job by your supervisor. You didn't understand everything he said. What should you do? Tick the correct answer.

- Keep quiet so you don't look foolish.
- Ask him to clarify the parts you didn't understand so you can do your job safely.
- Attempt to do the job anyway so that you don't make him mad.

- c) A workmate makes gestures at you using his hands when you are working with an EWP. You don't know what they mean. What do you do?

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Theory Training Task 20

Performance Criterion: 1.7, 3.7

Look at the following signs. Explain what each sign means.



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Practical Training Task 1

Chapter 1—Plan Work

Performance Criteria 1.1, 1.5, 2.2, 3.1

Plan Work

Learners: You **must** do this task under the **control of a licensed EWP operator**. Please wait for your trainer to advise you before trying the task.



1. Your trainer will take you to an area where you will use an elevating work platform (EWP).
2. Your trainer will select a basic task for you to plan—for example, moving an EWP.
3. Your trainer will help you fill out a safe work method statement (SWMS) showing how you did the planning to move your EWP.

When you fill out the SWMS make sure:

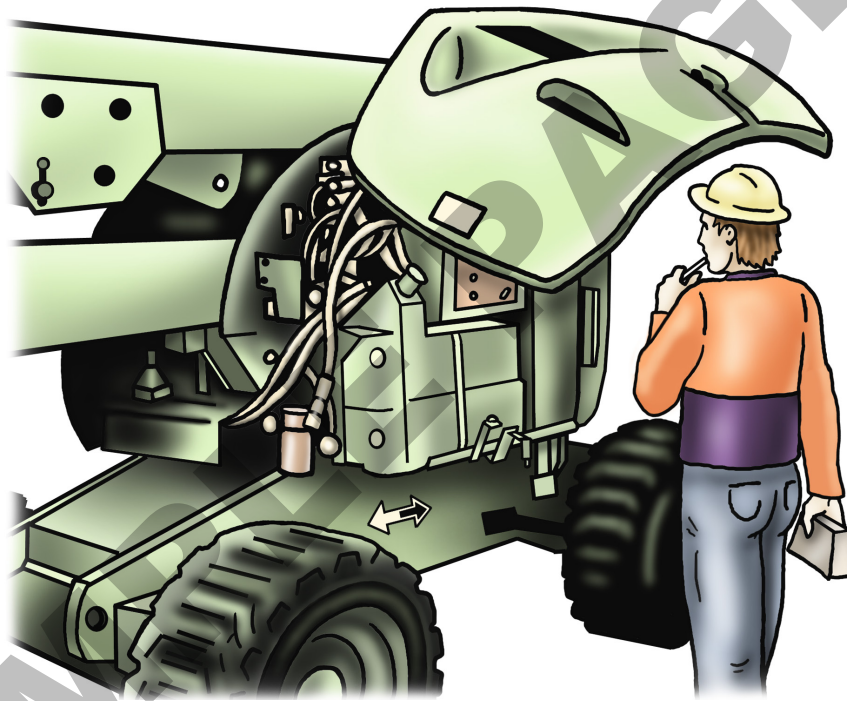
- Possible workplace hazards are identified. This means you need to know (identify) workplace hazards before you start work. Look for hazards. Look above you, look around you, and check the ground below you.
- Hazard control measures are identified consistent with appropriate standards to make sure the safety of personnel and equipment. This means you act to control or prevent a danger that can injure or hurt you. You use the actions to do away with or to reduce risk to workmates and property. Take the actions before you start the task.
- Elevating work platform is appropriate for the task. This means there are different types of elevating work platforms (EWPs). Depending on the work and the location you will select and use a certain type of EWP. It's important to make sure the EWP is suited to the job and the conditions.
- Appropriate communication methods are identified. This means there are many ways you can get and give instructions when using an EWP. How you get and give instructions to other workers depends on where you are and if you can see other workers (or they can see you).

Now fill out your SWMS (see over). After you finish your SWMS, your trainer will check you have done all the planning you needed to do. The licensed operator/trainer will then sign and date the box below.

Chapter 1: Satisfactory Not yet satisfactory

Signature (licensed operator/trainer) Date

Conduct Routine Checks



Performance Criterion: 2.12

Check the EWP service logbook

Before using an EWP, you must test and check it. Check the service logbook/daily inspection checklist before you use the EWP.



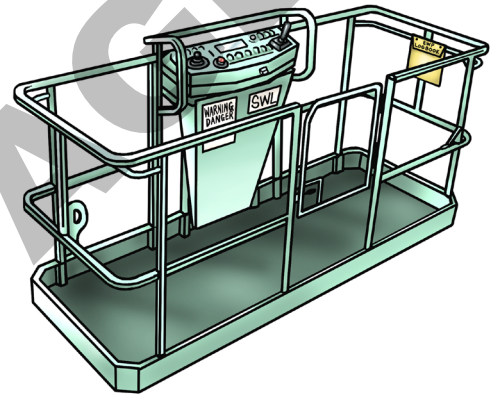
Theory Training Task 21

Performance Criterion: 2.12

Tick the correct statements:

a) Where would you find the service logbook/daily inspection checklist?

- Near the motor
- In the cab of the truck
- In a yellow pouch in the basket
- Next to the start-up controls



b) What is the main purpose of a service logbook/daily inspection checklist?

.....

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c) Tick the **correct** statement:

Before using an EWP:

- There is no need to check the logbook for previous damage or defects as they don't concern you.
- You should always check previous logbook entries to make sure the EWP is in good working order and all defects have been attended to.
- It is up to the person that uses the EWP after you to check all logbook entries.

Performance Criterion: 2.6, 2.9, 2.10, 2.11

Conduct pre-start operational checks

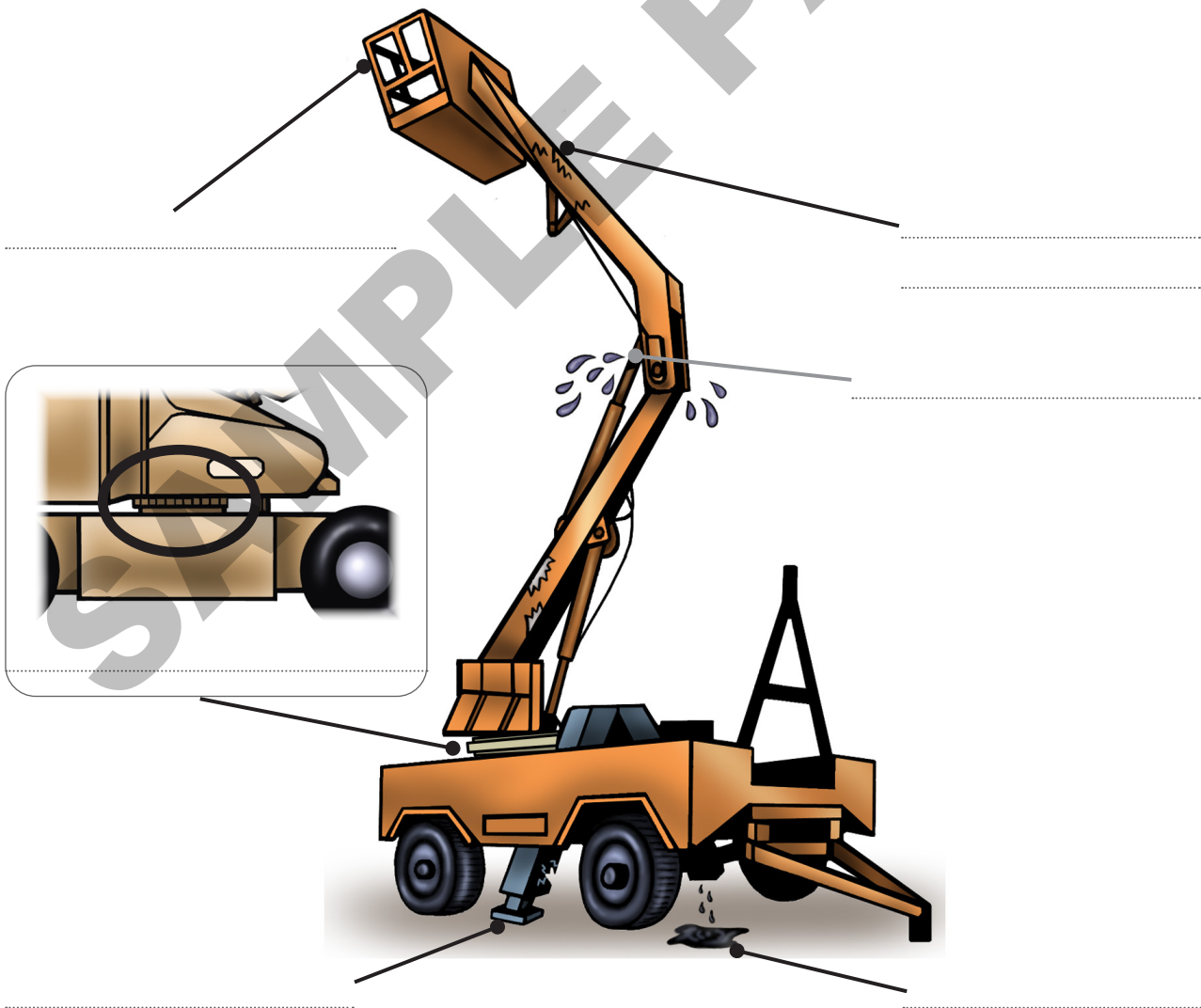
Once you have done a visual check of the EWP you should do a thorough pre-start operational check. The purpose of a pre-operational check is to make sure the EWP is safe to use. You may find a simple problem or something more serious. Different workplaces may use different forms or systems to check an EWP. For example, a daily inspection checklist shows you what you must check on the EWP before you use it.



Theory Training Task 24

Performance Criterion: 2.6, 2.9, 2.11

Label the checks you should complete on the chassis/boom of an EWP.

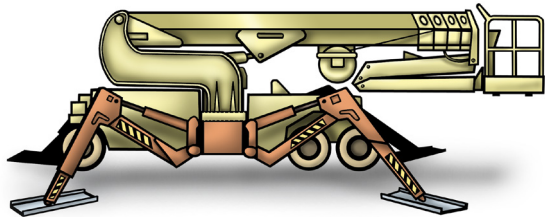




Theory Training Task 26





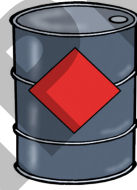




Performance Criterion: 3.3, 3.4

Calculate the total weight of the safety gear, tools and people below to see if they can be safely lifted in the EWP shown below.



=

SWL 225 KG

 30 kg	+	 105 kg	+	 2 kg	=	<input type="text"/>
Can the above items be lifted?		Yes	No			
 160 kg	+	 70 kg	+	 2 kg	=	<input type="text"/>
Can the above items be lifted?		Yes	No			
 2 kg	+	 88 kg	+	 125 kg	=	<input type="text"/>
Can the above items be lifted?		Yes	No			

Mapping

TLILIC0005 Licence to operate a boom-type elevating work platform
(boom length 11 metres or more)



The information and questions contained in the learner guide and PowerPoint presentation have been mapped to the elements, performance criteria, and knowledge evidence for the unit of competency TLILIC0005 Licence to operate a boom-type elevating elevating work platform (boom length 11 metres or more) .

Elements and performance criteria

Element 1	Performance Criteria	Learner guide and PowerPoint
Plan work / task	1.1 Task requirements are identified from work orders or equivalent and confirmed with relevant people and a site inspection is completed in accordance with workplace procedures	<ul style="list-style-type: none"> • Question 2, 9, 10, 13, 21 • Introductions to elevating work platforms: • Plan work /task - Safety information and work procedures - Work plan - Job order - Other things to plan for
	1.2 Work area ground/operating surface is assessed to determine suitability for operational use of EWP in accordance with manufacturer requirements and workplace procedures	<ul style="list-style-type: none"> • Prepare for work / task: - Outrigger hazard controls - Check the ground - Soil conditions - Driving the EWP to the work area - Packing - Question 13, 17, 21, 51, 52, 53, 55, 56, 57, 58, 63
	1.3 EWP capabilities are established for the load/s and work/task requirements in accordance with manufacturer requirements and workplace procedures	<ul style="list-style-type: none"> • Plan work / task – Working load limit (WLL) Prepare for work / task: Loads and Forces • Question 22, 23, 72, 77, 78
	1.4 Appropriate paths for operating the EWP and moving in work area are assessed and determined in accordance with workplace procedures	<ul style="list-style-type: none"> • Question 53, 59, 61, 69, 82 • Prepare for work / task: Drive and position the EWP • Perform work / task: Mobilizing the EWP.
	1.5 Relevant hazard and risk control measures are applied and advised to relevant person/s in accordance with workplace procedures	<ul style="list-style-type: none"> • Question 9, 11, 12, 16, 17, 18, 67 • Plan work – How to remember the Hierarchy of Hazard Control •

	2.5 Pre-start EWP checks are carried out in accordance with manufacturers requirements and safe work procedures	<ul style="list-style-type: none"> • Prepare for work / task: EWP faults • Question 20, 31, 33, 34, 35, 36, 37, 38, 48, 49
	2.6 EWP is started and is checked for any abnormal noises in accordance safe work procedures	<ul style="list-style-type: none"> • Question 91
	2.7 EWP is positioned correctly as per work plan in work area in accordance with relevant manufacturer requirements and safe work procedures	<ul style="list-style-type: none"> • Question 62, 81
	2.8 EWP is stabilised appropriately in accordance with the workplan, relevant manufacturer requirements and safe work procedures	<ul style="list-style-type: none"> • Question 62, 83, 84
	2.9 Operational checks from base controls are carried out in accordance with relevant manufacturer requirements and safe work procedures	<ul style="list-style-type: none"> • Question 41, 43, 45, 46, 48, 79
	2.10 All platform controls are located, identified and tested in accordance with manufacturer requirements and safe work procedures	<ul style="list-style-type: none"> • Question 26, 45, 74
	2.11 All damage and defects are reported and appropriate action is taken to rectify in accordance with manufacturer requirements and safe work procedures	<ul style="list-style-type: none"> • Question 26, 27, 28, 49, 50, 109 • Prepare for work / task: Check the service logbook
	2.12 EWP logbook is inspected and is correct for the EWP, is completed and signed in accordance with manufacturer requirements and safe work procedures	<ul style="list-style-type: none"> • Question 26, 27, 29, 30
	2.13 Weather and work environmental conditions are assessed to determine any impact on EWP operation and positioning as per workplan in accordance with manufacturer requirements and safe work procedures	<ul style="list-style-type: none"> • Plan work / task – Wind hazards • Question 14, 76, 80

Element 3	Performance Criteria	Learner guide and PowerPoint
Perform work / task	3.1 Relevant hazard prevention/control measures identified are checked for implementation in accordance with safe work procedures	<ul style="list-style-type: none"> • Question 18, 31, 54, 71, 73, 85, 86, 98 • Plan work / task– How to remember the Hierarchy of Hazard Control • Prepare for work / task: Loads and Forces
	3.2 EWP is safely located at point of work in work area in accordance with safe work procedures	<ul style="list-style-type: none"> • Prepare for work / task: Driving the EWP to the work area • Question 53
	3.3 EWP platform is positioned for work tasks and stability and all operations are monitored constantly in accordance with safe work procedures	<ul style="list-style-type: none"> • Question 75, 88, 100, 101
	3.4 Work gear and tools are stowed and secured in accordance with safe work procedures	<ul style="list-style-type: none"> • Question 73, 106, 108
	3.5 EWP is operated using all movements in accordance with safe work procedures and manufacturer requirements	<ul style="list-style-type: none"> • Question 42
	3.6 Unplanned and unsafe situations are responded to in accordance with safe work procedures	<ul style="list-style-type: none"> • Question 44, 50, 87, 90, 91, 92, 93, 94, 95, 96, 97, 99 • Perform work / task: Emergency lowering devices
	3.7 All communication signals are correctly interpreted and followed whilst EWP is operated in accordance with safe work procedures	<ul style="list-style-type: none"> • Question 24
	3.8 EWP platform is accessed and egressed in accordance with safe work procedures and manufacturer requirements	<ul style="list-style-type: none"> • Question 105