



EWP Under 11m Guide

Plant and Equipment Course

RIIHAN301E Operate Elevating Work Platform

Learner Guide

Course Induction

You are doing this course with National Courses Pty Ltd (RTO 41072). We trade as:



1) Identification (ID)

You must complete the state body official ID document and requirements.

2) Student Handbook

The Student Handbook was sent with your booking confirmation email.

The student handbook is an important document that explains our processes and systems and includes the following information:

- **Your rights & responsibilities**
- **Complaints, appeals & feedback**
- **Code of conduct**
- **What happens if you are caught cheating**
- **Support options**
- **Fees and refunds**
- **Privacy and data handling**
- **Certification & record keeping**

3) Training & Assessment Requirements

Your trainer will explain:

- how today's training and assessment will work
- timeframes for assessment
- assessment methods
- that training and assessment is completed in English

4) Certification Outcome

If you complete all assessment tasks satisfactorily, you will be deemed Competent and you will receive:

- A Statement of Attainment: RIIHAN301E Operate Elevating Work Platform

Before leaving today, check your full name and date of birth are correct.

5) The venue

Your trainer will explain:

- Toilets and facilities
- Emergency exits and procedures
- Where to refill water bottles
- Rules regarding smoking and vaping i.e. smoking/Vaping are not allowed inside the venue. If you need to smoke or vape, you must go outside the venue.

6) Mobile Phones

During the assessment, mobile phones are strictly forbidden. All assessment answers must be completed in English without the use of a mobile phone.



7) Attendance

100 percent attendance is required for this course

8) Questions & Support

If you have questions or need support, speak with your trainer at any time. Your Learner Guide was sent via email as a downloadable link and will also be emailed again after the course with your certificate.

Your enrolment should be complete. If not, you must complete your enrolment now. If you did not provide us with a USI on enrolment it is essential you have this to us today. Please do this in your own time today and supply it to the trainer by the end of the day to not hold up and delay the class. It is not possible to get your certification without having a USI. If you have issues with the USI not matching your name, please call **1300 857 536**.

Get a USI	Find My USI
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1.1 Introduction

This course is based on the unit of competency **RIIHAN301E Operate Elevating Work Platform.**

This unit covers the operation of elevating work platforms in the resources and infrastructure industries.






It includes:



- Planning and preparing for operations.
- Working from the platform.
- Carrying out maintenance.
- Cleaning up.

1.1.1 What is an Elevating Work Platform?

There are a number of different elevating work platforms (EWPs) available. The height, reach, safe working load, ground conditions and terrain all play a part in selecting the correct EWP for the job at hand.

Type	Description	Example
Trailer Mounted EWP	These are mounted on a moveable trailer and can be towed by most vehicles with a tow ball. They have manually adjusted stabilisers to provide stability for the platform while it is being used and have a range of working heights up to 26 metres.	
Self-Propelled EWP with Telescoping Boom	These are self-propelled units for use on flat slabs or firm unsealed areas. The work platform is elevated using a straight extension (telescoping) boom. There are controls at ground level and on the platform.	
Self-Propelled EWP with Telescoping Knuckle Boom	These are self-propelled units for use on flat slabs or firm unsealed areas. The work platform is elevated by a boom with at least 2 main sections, with a knuckle between them, and is mounted on a turret which allows slewing. This arrangement permits the boom to reach up and over obstacles. Both boom sections may incorporate a	

	telescoping extension. There are controls at ground level and on the platform.	
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Type	Description	Example
Vehicle-Mounted EWP	<p>These are usually road-registered trucks with a boom or knuckle boom mounted on the truck chassis.</p> <p>The boom is mounted on a turret to allow slewing, and outriggers are fitted to the chassis. There are controls at ground level and on the platform.</p>	
Scissor Lift	<p>A scissor lift is an aerial platform that provides more space than a regular boom-type EWP and can be raised or lowered, but has no ability to slew or telescope.</p> <p>Scissor lifts are most appropriate on firm flat surfaces and are not suitable for steep inclines. Some are fitted with outriggers/stabilisers.</p>	

This unit of competency qualifies you to gain a nationally recognised EWP yellow card. The card indicates that you have been trained to safely operate various types of EWPs, 11 meters or lower.

A national High Risk Work Licence is required to operate a boom-type elevating work platform with a reach of 11 meters or higher.

1.2 Site Policies and Procedures



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.

Before starting your work you need to make sure you have access to all operations documentation for the job. This will help you to do your work in the safest way and make sure all work is compliant.

Operations documentation includes:

Site Details	The information and safety requirements of the workplace environment (where you will be working).
Hazard Details	Any hazards in the work area or related to the work. This could also include instructions on how to handle dangerous or hazardous materials.
Task Details	Instructions of what the work is or what you will be doing (this can include diagrams or plans). Also instructions on how to safely do the job.
Faulty Equipment Procedures	Isolation procedures to follow or forms to fill out.
Signage	Site signage tells you what equipment you need to have, or areas that are not safe to be in.
Emergency Procedures	Instructions on what to do in emergency situations, for example if there is a fire, accident or emergency where evacuation or first aid is needed.
Equipment and Work Instructions	Details of how to operate plant and equipment and the sequence of work to be done.



Your worksite will also have instructions for working safely including:

- Emergency procedures, including using fire fighting equipment, first aid and evacuation.
- Handling hazardous materials.
- Safe operating procedures.
- Personal protective clothing and equipment.
- Safe use of tools and equipment.

1.3 Work Instructions

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. 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?
- **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?

You also need to make sure you have all of the details about the kind of work you will be doing:

- **The Task** – What is the EWP being used for? How long will the task take? Does it need any special equipment?
- **Plant and Equipment** – What type of EWP will be used? How big is it? How much room does it need? What equipment and tools are needed?
- **Communications** – How are you going to communicate with other workers?
- **Procedures and Rules** – Do you need any special permits or licences? Are there site rules that affect the way you will do the work?

1.3.1 Reading and Checking Your Work Instructions

All work needs to follow worksite, environment 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.

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.

1.3.2 Work Method Statements

Many worksites require a work method statement before any potentially dangerous work can start. A work method statement is a list of steps that outlines how a job will be done. It also includes any hazards that occur at each step, and what you need to do about them.

These statements can also be known as Safe Work Method Statement (SWMS), Job Safety Analysis (JSA) or Safe Operating Procedure (SOP).

1.4 Emergency Procedures

Emergency procedures will vary depending upon the worksite. These procedures could include:



- Emergency shutdown.
- Evacuation.
- First aid.
- Fire fighting.

1.4.1 Emergency Shutdown of Equipment

If there is a fire, emergency or accident you might need to use the emergency stop on the equipment you are using. This will turn the equipment off immediately.

You can also use the emergency stop if the equipment stops working properly or you lose control of the equipment.



1.4.2 Evacuation



Things to remember are:

1. Keep calm.
2. Move away from the danger to a designated evacuation point, sometimes called an emergency assembly area.
3. Do not let other people into the area.
4. Call emergency services in accordance with workplace procedures and policies.

1.4.3 First Aid

First Aid is the quick care given to an injured or ill person. Every site will have a First Aid Officer. If somebody needs first aid you must tell your supervisor or First Aid Officer. Do not try to give first aid if you have not been trained.



1.4.4 Fire Fighting Equipment

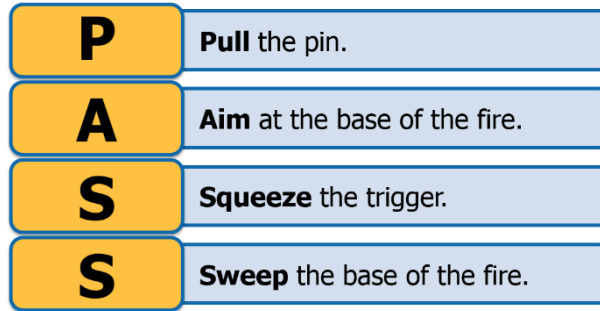


Fire fighting equipment on site could be anything from small fire extinguishers through to large water cannons. Different fire fighting equipment should be used for different types of fire. Always check the equipment for information on what type of fire it can be used on.

Steps for using a fire extinguisher:

1. Evacuate the area.
2. Isolate the area.
3. Call emergency services or other designated on site procedure.
4. If it is safe to do so, use an extinguisher to attempt to control the fire using the PASS system.

The **PASS** system:



Contact your site emergency management team as soon as possible and call the fire brigade on 000.

1.5 Hazard Identification and Control

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 that has the potential to cause injury, harm or damage.

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).



Some hazards you should check for in the work area:

- **Installed Services** – underground or above ground power lines, telephone lines, gas pipes, cables. To find out the location of underground services you may need to contact the site supervisor (who will contact the supply authorities or council for maps of the site).



- **Weather Conditions** – electrical storms, wind, heat, floods, fires, humidity.
- **People** – site workers, non-inducted workers, site visitors, others authorised or unauthorised.
- **Environmental/Ground Conditions** – uneven or unsafe ground, excavations, holes and potholes, unstable faces, over-hanging rocks, recently filled trenches, sinkage areas, dust and noise, trees and other vegetation.



- **Equipment/Machinery** – other vehicles, conveyors, fixed plant, abandoned or unattended equipment, ancillary equipment, lifting equipment.
- **Damaged or Defective Equipment** – pressurised hoses and fastenings, non-pressurised hoses, ancillary machinery equipment, vandalised equipment.



- **Structural Hazards** – adjoining pit walls or structures, buildings, structures, facilities, bridges, suspended pathways, walkways, service drains, fences, structural obstructions, ramps.
- **Chemical Hazards** – fuel, chemicals, contaminants, gases, dusts. Specific training may be required to deal with chemical hazards. Speak with your supervisor if you are unsure if you need specialised training for the chemical hazards on your worksite.

- **Stored Energy** – any system or equipment that stores any form of energy could become a hazard or risk.

1.5.2 Working Near Power Lines

Working near power lines can be really 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 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.

QLD

The Queensland Electrical Safety Regulation breaks down the distances in detail. Exclusion zones are broken down not only by size of electric/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:

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

NSW

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

Electric/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.

ACT

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:

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

VIC

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

Electric/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)

TAS

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

Electric/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)

SA

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:

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

WA

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

Electric/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

NT

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

Electric/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)

1.5.2.1 Tiger Tails

Tiger tails are used to show where overhead power lines are. They are bright coloured and easier to spot overhead than the standard wire on its own.

Just because power lines have tiger tails doesn't mean they are safe to hit. The tiger tails do not stop the flow of power. Even with tiger tails in sight you still must keep to the safe distances for the state you are working in.



1.5.3 Control Hazards

After you have found hazards or dangers you need to work out how bad they are:



1. What is the chance that the hazard will hurt someone or cause damage?

2. If it does happen, how bad will the injury or damage be?

Thinking about these things will help you to choose how to control the hazards. Hazards controls need to follow:



- Legislation (laws).
- Australian Standards.
- Codes of Practice.
- Manufacturers' specifications.
- Industry standards.

The best way to control hazards is to use the Hierarchy of Hazard Control. This is the name given to a range of control methods used to eliminate or control hazards and risks in the workplace.

You start at the top of the list and see if you can take away (eliminate) the hazard or danger.

If you can't take it away you move down the list to see if you can swap it for something safer (substitution).

Keep working through the list until you find something that controls that hazard or danger.

This table shows you the 6 different types of controls in order from best to worst:

Hierarchy Level	Action
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.
6. Personal Protective Equipment	The least effective control. Use PPE while you carry out your work.

Hazard control measures need to be put in place before you start your work, or as soon as you see a hazard while you are doing your work. Hazard controls can sometimes be listed in your work instructions or you can ask your boss or supervisor for help.

Once a hazard control is in place you will need to check to make sure it is working well to control the hazard or danger.

Talk to your supervisor or safety officer if you are not sure if it is safe enough to carry out your work. If you think the hazard is still too dangerous you should not try to do the work.

1.5.3.1 Personal Protective Equipment

Personal Protective Equipment (PPE) is clothing and equipment designed to lower the chance of you being hurt on the job. It is required to enter most work sites.

It includes:



- **Head protection** – hard hats and helmets.
- **Foot protection** – non-slip work boots.
- **Hand protection** – gloves.
- **Eye protection** – goggles, visors or glasses.
- **Ear protection** – plugs or muffs.
- **Breathing protection** – masks or respirators.
- **Hi-visibility clothing** – clothing that makes you stand out and lets other people know where you are.
- **Weather protection** – clothing that protects you from the sun or from the cold.

Make sure any PPE you are wearing is in good condition, fits well and is right for the job.

If you find any PPE that is not in good condition, tag it and remove it from service. Then tell your supervisor about the problem and they will organise to repair or replace the PPE.

Make sure that you have the minimum PPE required at all times. All operators working in the EWP basket need to have:

- A safety harness.
- A hard hat.
- Rubber-soled steel cap boots/shoes.
- Goggles, respirators (to suit the task being performed).



1.5.4 Environmental Protection Requirements

Environmental protection requirements are part of every worksite. Make sure you check with your supervisor about what environmental issues need to be managed during your work.

All environmental details should be listed in an 'Environmental Management Plan' for the site. It can include details for:

- Waste management.
- Water quality protection.
- Noise control.
- Vibration control.
- Dust management.



The plan will outline the steps and processes needed to prevent or minimise damage to the environment through the use of machinery and equipment.

1.5.4.1 Environmental Protection Constraints

Within the environmental protection requirements are certain constraints. These are activities that must not be carried out or that must be conducted in a particular way in order to protect or preserve the environment.

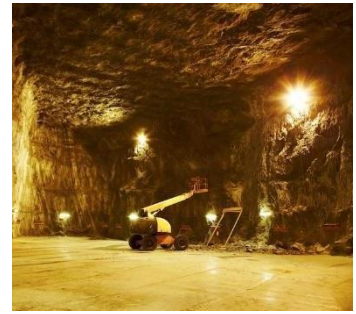
Environmental requirements and constraints can include:



- **Dust** – This can be a WHS issue as well as an environmental problem. Dust can be controlled with covers or water, which is sprayed onto surfaces using water tankers. In some cases water may be applied with a fog machine to capture and settle the dust.
- **Start Times for Vehicles** – These restrictions are generally only used when the worksite is located within hearing distance of a town or village. It may not apply to large sites or mines that are operational 24 hours a day.
- **Safe Work Practices and Procedures** – These are designed to minimise the hazards and risks to the environment associated with particular tasks.

Environmental constraints on the worksite will affect where and how you operate the EWP.

It is important to be aware of changes in the work environment such as ground stability, weather and lighting changes, obstructions such as trees, or any other environmental factor that could affect the EWP in some way.



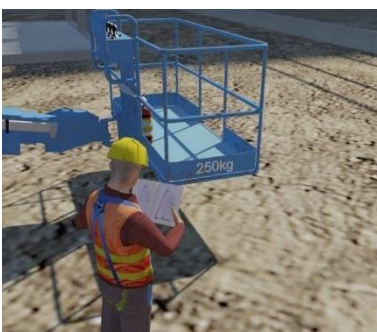
Procedures for dealing with these constraints may include isolating them, or using different equipment to eliminate them (for example, temporary lighting or different access equipment).

2.1 Choose Plant and Equipment

Once you have confirmed your job requirements you need to choose the right plant and equipment to get the job done.

When choosing plant and equipment you need to think about:

1. The task requirements, specifications and goals.
2. The appropriateness of the equipment for the completion of the task.
3. The characteristics, correct use, operating capacity and limitations of each item.
4. The potential risks to yourself and others in the intended use of the equipment.



Information about technical capabilities and limits can be found in the operator manuals supplied by the manufacturer of each item.

It is not safe to operate plant or equipment outside site procedures and the manufacturer's specifications. This may cause the machinery to break and could also cause an accident or injury.

All plant and equipment will need to be inspected before you use it to make sure every item is in safe working order. Any faults must be rectified before you start and should be reported in accordance with site procedures.

2.1.1 Safe Working Load (SWL)

The other consideration to make when selecting which EWP to use is the Safe Working Load (SWL) of the machine.

The SWL should be clearly marked on the side of the EWP.

The SWL includes the weight of all workers, tools and equipment in the basket.



NEVER, under any circumstances, exceed the SWL of the EWP. Doing this will make the EWP unstable and can cause damage to its structure.

Check the weight of all items that you intend to take up in the basket before loading the EWP to make sure you are not exceeding the SWL.

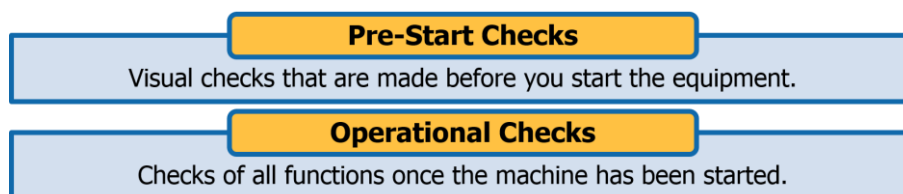
2.2 Conduct Routine Checks

Before you use any piece of plant or equipment, you need to conduct routine checks to make sure it is safe to use. Check the machine logbook before you start your inspection to see if there are any faults that still need to be fixed before you can use the EWP.

Also make sure you are wearing the correct PPE before you start checking the machine.



Routine checks are made up of:



Generally, routine checks are performed at the start of each day or shift.

You can use an inspection checklist to keep a record of the checks you have made.

2.2.1 Pre-Start Checks

Pre-start checks are done before the engine is started. Walk around the EWP and look for anything that is out of the ordinary.

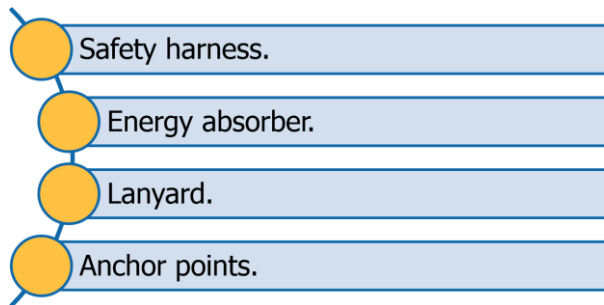
Part or Component	What to Check
Structure	<p>Check the general condition of the EWP.</p> <p>Check for oil or other fluid leaks.</p> <p>Check for any signs of visual weaknesses, damage, stressed welds or paint separation.</p>
Outriggers or Stabilisers	<p>Check for damage, cracks and wear.</p> <p>Also check the keeper plates, packing, pins, bolts and nuts.</p>
Tyres and Wheels	<p>Check the condition and air pressure of the tyres to make sure they are within the manufacturer's specifications.</p> <p>If the EWP is fitted with solid wheels check for cuts, gouges or damage.</p>
Basket and Platform	<p>Check for damage and wear.</p> <p>Ensure the handrails are secure and the self-closing doors are working.</p> <p>Check for grease or slippery areas on the floor of the platform.</p>
Fluids and Lubrication	<p>Check that the oils (engine, transmission, hydraulic) and fuel are at the right levels.</p> <p>Check that the water or other approved coolant is at the right level.</p> <p>Transmission fluid needs to be checked in accordance with the manufacturer's specifications.</p> <p>Check that parts are lubricated to ensure smooth operation.</p>
Engine	<p>Check condition and security of battery.</p> <p>Check electrolyte levels.</p> <p>Check for any obvious signs of damage or wear.</p>
Hydraulic Rams and Hoses	<p>Hydraulic rams and pressure hoses are checked for splits, leaks, fractures, bulges and bent piston rods.</p>
Decals and Signage	<p>Check that all decals and signage are present on the machine.</p>
Service History and Logbook	<p>Check the machine hour meter, manufacturer's recommendation and logbook to find out if the EWP needs to be serviced.</p> <p>Commonly the service logbook can be found in a yellow pouch in the EWP basket.</p>

For exact details on the components for the machine you are operating, check the operator's manual as different brands may have different requirements.

2.2.1.1 Safety Equipment

You must check all safety equipment before starting up the EWP.

Safety equipment includes:



To check your safety harness equipment you need to:

- Check that the harness fits properly and that it is in good condition.
- Check the energy absorber and lanyard assembly for damage or wear, and check that it is correctly attached to the harness.

There are specific reinforced anchor points within the EWP basket that the lanyard needs to be attached to.

Check that these anchor points are in good condition and that the lanyard attaches correctly, allowing you to move properly in the basket.

2.2.2 Operational Checks

Operational checks are made once the engine of the EWP is started.

Climb up to the EWP platform using 3 points of contact at all times (2 hands and 1 foot or 2 feet and 1 hand). This is the safest way to climb in and out of the EWP. Never jump from the EWP.

Make sure the self-closing action of the door shuts behind you.

You will need to let the engine idle for the required amount of time. Depending upon the individual machine this idle time could range from 3 to 10 minutes.



Always make sure your safety harness is on and secured to the basket. Test all EWP movements and functions to their full extent.

Controls and functions that need to be checked on the EWP:

Part or Function	What to Check
All Controls	<p>Test all movements of the EWP.</p> <p>Make sure all controls are not damaged and they return to a central position when released.</p> <p>Check both upper and lower controls function correctly (raise, lower, slew, forward, reverse etc.).</p>
Gauges and Instruments	<p>Check that all instruments are displaying properly and are not signaling any alarms or warnings.</p> <p>Test all flashing lights and alarms.</p>
Safety and Emergency Devices	<p>Test the dead-man and emergency stop device on both upper and lower controls.</p> <p>Check the platform emergency descent is working.</p> <p>Ensure the drive cut out and pothole protection systems are working.</p>
Travel, Turning and Brakes	<p>Test all movements and brakes. Make sure there is no excessive time delay between applying the brakes and bring the EWP to a complete stop.</p>
Ancillary Equipment	<p>Test out all communications devices and any other systems or functions fitted.</p>

2.2.2.1 EWP Controls

If you are not familiar with the EWP you are using, read the operator’s manual to learn where the controls are located.

Check that the ground controls are clearly marked. Once in the basket check that all controls on the platform are also clearly and properly marked.

EWP controls will allow movements/functions such as:

- Raising and lowering the basket.
- Slewing left and right.
- Emergency stopping.
- Telescoping the boom in and out.
- Hinging.



- Articulating.
- Sounding the horn.
- In controlling the functions of the EWP you will need to employ effective hand-eye coordination. This relates to both the ability of the eyes to direct attention and the hands to perform the task. Your eyes receive constant task-related visual information, and your hands must constantly act to carry out the tasks.



After you have started the EWP, test the ground controls to check the following operations:

- Lift and lower the basket.
- Check the auxilliary power unit on diesel and gas machines. If the machine does not have an auxilliary power unit or emergency lowering valves (taps), refer to the operator's manual for instruction on how to lower the machine in the event of an emergency.
- And if applicable:
 - Slew the boom to the left and right, making sure there are no potential hazards in performing this function. If the boom cannot be slewed, check that the slew locking pin has been removed.
 - Telescope the boom out to the range required for the tasks to be undertaken and then telescope it back again.

Next, check the basket controls:

- Turn the select switch to platform/basket.
- Use 3 points of contact to climb into the EWP basket.
- Attach your harness and put on your hard hat (safety helmet), rubber-soled steel cap boots/shoes and other PPE as required.
- Make sure the self-closing action of the platform gate is working.
- Test the dead man switch to make sure it is functional.



- Test the automatic levelling device.
- Check all alarm systems.

Test each of the control levers in the basket to make sure all operations are functioning correctly and smoothly.

2.2.3 Report All Faults



Once all routine checks are finished, you will need to report any problems, faults, defects and damage that you found during the inspection so that they can be repaired and the machine and equipment are safe for you or the next operator to use.

Make sure the EWP is tagged out (isolated from use) until the repairs have been made.

Record the details of the problem in a fault report or the EWP logbook.

2.3 Set Up Elevating Work Platform

Before setting up the EWP you need to check the ground suitability for the machine.

Check the work area for the following factors that might influence the safe operation of the EWP:

- Rough, uneven ground.
- Backfilled ground.
- Soft soils.
- Hard compacted soil.
- Bitumen.
- Rock.
- Concrete.



The work area should be flat and able to stand the weight of the machine.

If it is not flat, has a soft base or has been backfilled or is waterlogged etc., you will need to make sure you have the required ground cover, such as steel plates and/or sleepers, to control the hazards associated with loose or unstable ground.

To position the EWP, there are a few things you need to consider:

- Arrival.
- Set-up.
- Traffic control.
- Stabilise the EWP.
- Packing.
- Sloping surfaces.
- Hazard control measures.

2.3.1 Arrival

Upon arrival to the site, you need to notify the relevant people (site foreman, safety officer, etc.). You can then discuss your work program with them and seek their advice.

Also, check the environmental conditions, including the wind speed, to ensure they are within the manufacturer's specifications.



2.3.2 Set-Up



Set the EWP up as close as possible to the work that you are required to do, but at the same time create minimum disturbance to others. Make sure the EWP will not be on a slope that exceeds the manufacturer's recommendations.

Firmly apply the parking brake and place the transmission in neutral (or in accordance with the manufacturer's recommendations).

If you are setting up next to a building with an underground level or car park, have a competent person assess the ground conditions before you set up. There is a possibility that the weight of the EWP could cause the walls of the lower levels to crack or collapse.

2.3.3 Traffic Control

Place all the required traffic control displays and warning devices. Warning signs at the front and rear should be placed at least 50 metres, but not more than 150 metres, from the EWP.

Ensure any necessary barricades or road marker cones are placed along the side of the EWP. Road marker cones should be arranged to keep traffic clear of the area where the elbow of the boom will be operating.



Set the rotating flashing lights in motion.

2.3.4 Stabilise the EWP



If the EWP does not have outriggers/stabilisers:

- Chock both sides of one pair of its wheels by firmly placing suitable obstructions against each wheel.



If the EWP has outriggers:

- Chock the front wheels and set the outriggers onto a firm footing.
- Make sure the area is clear of workers before lowering the outriggers/stabilisers. The outriggers need to be fully extended, unless they are also being used to level the machine.
- Never reset the outriggers while the machine is elevated as this can cause major instability and allow the machine to overturn.
- Remember to avoid soft ground, sloping surfaces or other conditions that may affect the stability of the unit.

2.3.5 Packing



Selecting the correct packing is important. There are different kinds and sizes of packing available, such as:

- Pig-sty materials.

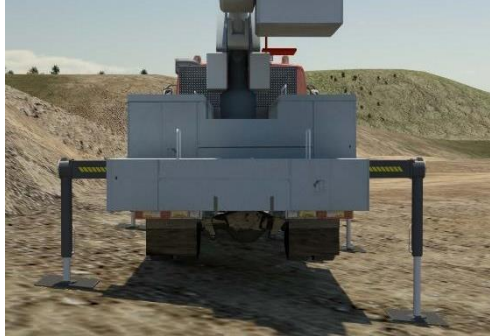
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- Steel plates.
- Mats on timber planks.
- Concrete rafts.

2.3.6 Sloping Surface

If the EWP is being set up on a sloping surface, position the outriggers/stabilisers on the lower sloping side first, again making sure the area is clear of workers before lowering the outriggers/stabilisers.

This will allow you to level the platform and then engage the remaining stabilisers.



2.3.7 Hazard Control Measures

Once the EWP has been set up it is important to put any hazard control measures into place.

Hazard controls may include:

- Safety tags on electrical switches/isolators.
- Insulated power lines.
- Safety observer used inside exclusion zone.
- Disconnected power.
- Personal Protective Equipment (PPE).
- Traffic barricades and controls.
- Illumination/lighting requirements.
- Pedestrian and traffic controls.
- Trench covers.
- Movement of obstructions.



2.3.8 Store Tools and Equipment



All tools and equipment should be stored or secured in a fixed or removable box or container.

DO NOT leave tools lying around on the floor of the EWP basket. They can create a tripping hazard, foul the controls or fall from the EWP down on people below.

2.4 Operate Elevating Work Platform

When operating the EWP, make sure that you:

- 1** **Look up and around before raising the basket.**
Check that there are no overhead obstructions or power lines that might have been overlooked.
- 2** **Commence the elevation by shifting the control lever.**
Do not operate the lift at a high speed, especially if you are in a confined area.
- 3** **Raise the basket into position.**
Slewing and telescoping where applicable.
- 4** **Elevate the EWP to the full extension required.**
Provided it is safe to do so.

2.4.1 Mobile the EWP

Moving (or 'mobiling') an EWP requires special care because of the greater risk of de-stabilising the machine. Never move an EWP with its outriggers extended.

The following safety measures need to be applied when moving an EWP:

- Retract the boom (where applicable) and lower the basket.
- Wear your harness and attach it to the anchor point.
- Check that the turntable/basket lock is engaged (where applicable).
- When mobiling a self-propelled boom-type EWP, keep the boom in line with the chassis and the basket behind the drive wheels.
- Make sure the path you are going to travel is clear of obstructions and check for potholes, obstructions, people, other machinery and any other hazards.
- Make all of your steering movements smoothly.



- If you are moving an EWP up or down a hill, always travel with the platform pointing up the hill.

If you have to move an EWP with an elevated platform:



- Be constantly aware of overhead obstructions, e.g. power lines, services, people, surrounding structures and other machinery.
- Travel at creep speed with the utmost caution, ensuring the surface is flat with no gradients or speed humps etc.
- Check the ground conditions for potholes, soft, unstable or rough surfaces and anything that will make the machine unstable.
- Never travel over rough or uneven ground. If the surface is rough or has potholes, lower the machine to increase its stability.

2.4.2 Respond to Alarms

Each machine has its own set of alarms, monitoring systems and gauges to help you safely and efficiently operate it, and warn you if something is wrong.

Each make and model of the same type of machine can be different so it is important that you are familiar with all of the systems for the equipment you are using. Check the operator's manual for a full list of devices, alarms and warnings.

If at any time during the operation of the EWP a warning device goes off you must immediately stop and lower the platform (if safe to do so) and investigate the cause of the problem.

You should never operate a faulty EWP so it is important to figure out what caused the warning device or alarm to go off.



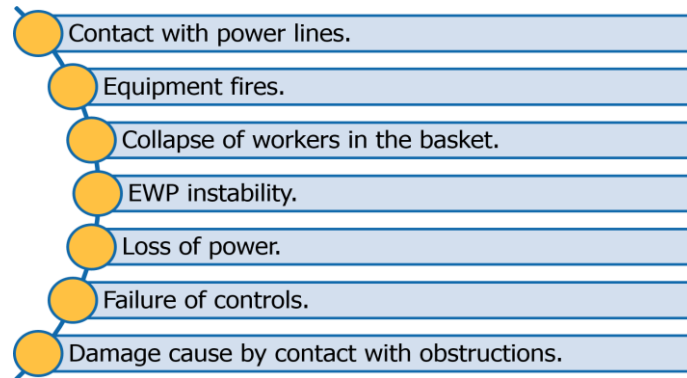
If it turns out that you are trying to lift a load that is too heavy, or have set up the EWP incorrectly you will need to re-think how you are trying to carry out the job. Speak to your supervisor for guidance.

If the EWP is faulty you will need to move it to a safe location (if it is still safe to drive), isolate it from use with a danger tag, remove the keys and report the problem to your supervisor.

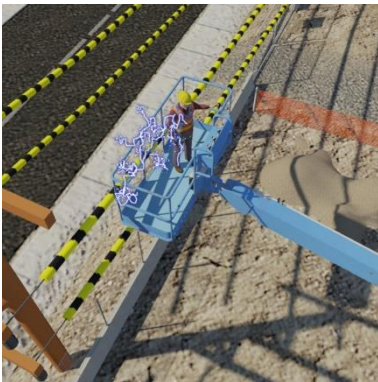
2.4.3 Emergency Procedures

Any number of things can go wrong while you are operating the EWP. The best thing you can do is know how to deal with these situations when they happen so you have the best chance of avoiding injury.

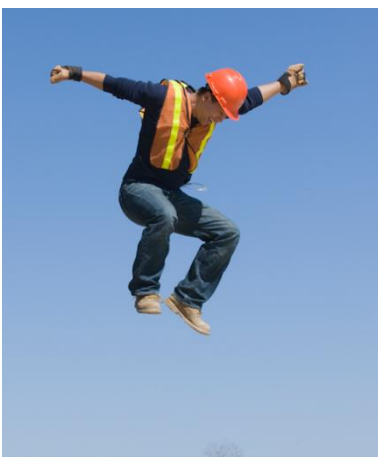
Unsafe and/or emergency situations could include:



2.4.3.1 Contact with Power Lines



If you come into contact with power lines you should:



1. Stay calm.
2. **DO NOT** climb out of the machine, as it may be 'live'.
3. Warn others to keep clear.
4. Try to move the machine away from the power lines, if possible, to break the contact with the lines. If you manage to do this, come down immediately, have the machine checked over by the owner for arcing and other damage and call the power authority so they can check the lines for damage.
5. If you cannot break clear of the power lines and you are using a truck-mounted EWP with an abseiling or emergency descent device (EDD) mounted on the outside of the basket, descend from the basket using this device (for more details, see below). For other workers in the vehicle cabin or on the vehicle tray, there is generally no reason to alight from the vehicle. Assign a lookout to warn others to stay clear.
6. If there is a danger of fire, or if you are alone, jump clear from the machine on to dry ground and move away from the machine. Do not step down.
7. Stay near the machine until help arrives.
8. Have someone notify the site manager/supervisor, who should call the relevant authorities immediately.

2.4.3.2 Collapse of Workers in the Basket

If you are on the ground and your workmate up in the basket appears to have fainted and has slumped down inside the basket, you should:

- Try to make contact with the person (yell out to them or call their mobile phone).
- If you get no response, call for first aid or ask someone else to go for first aid assistance.
- Check for hazards in or around the work area, such as power lines, dangerous substances or materials that might have caused asphyxiation.
- If no hazards are found and the machine is safe, switch it to ground controls and lower the person down.
- If there is an electrical hazard, do not touch the machine. Call the power authority to have the power supply shut down and the problem rectified.



2.4.3.3 EWP Starts to Tilt to One Side

If the EWP starts to tilt to one side, you should:



- Stop work immediately and lower the platform to the ground.
- Get out of the basket/platform, alight from the machine and check the outriggers (e.g. packing sinking into a soft or unstable ground surface, or an outrigger hydraulic ram slowly leaking internally).
- Check the ground conditions and repack the outriggers before continuing.
- If you are not sure, get advice from a competent person before trying to elevate the platform again.

In most cases you will need to relocate the EWP to stable ground.

2.4.3.4 EWP Motor Cuts Out

If the motor of the EWP cuts out the platform must be lowered to the ground. This can be done by:

Calling out to an operator at ground level to engage the ground controls and lower the basket.

Bleeding the valves of the hydraulic arms.

Using the Emergency Descent Device (EDD), if one is fitted (see below).

Using the hydraulic accumulator (for truck-mounted machines).

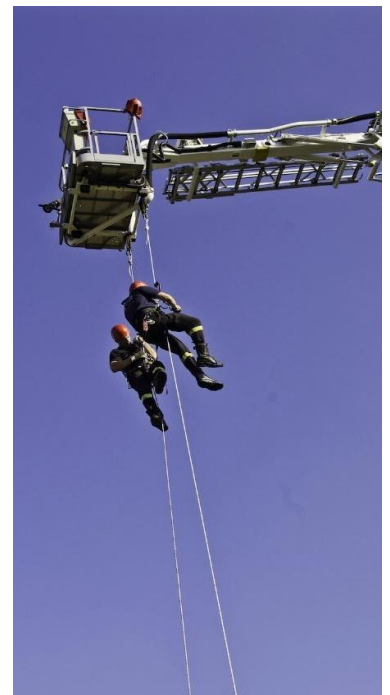
Many EWPs are fitted with Emergency Descent Devices (EDDs) for emergency evacuations from the basket or the work platform.



- The first thing to do in an emergency situation (such as the failure of the controls at height) is to call out to an assistant to lower the basket using the ground controls.
- If it is not possible to safely lower the basket to the ground, you may need to activate the EDD.
- These descent devices vary from one EWP to another, so you should be trained in the EDD procedures that apply for the particular machine(s) you will be operating, and you need to check the supplier's requirements in relation to the EDD.

As a general rule, the following procedures will apply:

1. Release the EDD safety release clip.
2. Press the securing pin to release the EDD.
3. Make sure there is no-one beneath the boom, and particularly the basket, before activating the EDD.
4. Attach the EDD to the 'D ring' on your safety harness.
5. Disconnect the safety strap from the safety harness and climb to the outside of the basket.



6. Use one hand to hold the rope just below the EDD and the other hand to hold onto the basket, while slowly transferring your weight to the EDD.
7. Release your foothold from the basket and transfer your hand from the basket to the rope above the EDD.
8. Increase or decrease your speed of descent by changing the angle at which the tail of the rope is fed into the EDD. To gain the maximum braking effect, use your hand that is holding the tail of the rope (i.e. below the EDD) to hold the rope up, and then allow the rope to run slowly through your hands as you lower yourself to the ground.
9. The descent of a person escaping via the EDD can also be slowed if an assistant on the ground gently pulls on the rope.

2.4.4 Report All Incidents

An incident can be described as one of 2 things:

1. An accident resulting in personal injury or damage to property.
2. A near miss or dangerous occurrence which does not cause injury but may pose an immediate and significant risk to persons or property, and needs to be reported so that action can be taken to prevent recurrence.



All incidents must be reported. Your workplace should have a standard procedure for reporting incidents.

Some sites will have a verbal system of reporting where you speak with a supervisor who then documents the fault, while others may require the operator to organise repairs of the fault directly.

3.1 Shut Down and Secure EWP



After you have finished your work in accordance with the work plan, you will need to shut down the EWP. You should follow the correct shut down procedures. These can be found in the operator's manual, manufacturer's specifications or site procedures.

Before you lower the platform you should look around and under the basket to make sure the area is clear of hazards. If people are present, sound the horn to get their attention and indicate to them what is happening.

Once the platform is lowered, drive the machine to its designated parking area, place it in a safe position, lower it fully, engage the motion locks and brakes, then turn everything off.

- With the basket/platform fully lowered, remove your harness, stow it in a safe, dry place, dismount from the machine using 3 points of contact at all times, remove your tools and equipment from the basket and lock the control panel doors. Shut down the motor and (if required) isolate the fuel supply.
- Raise the outriggers and pin them (where required).
- Gather up any packing materials and place them in the designated area (where required).
- Install the boom locking pin or strap (where required).
- Turn off the motor, or for a truck-mounted machine disengage the Power Take Off (PTO).
- Place the machine on charge, if required, or fill it with fuel in accordance with your supervisor's directions. Leave the oil and coolant checks until the following day, to prevent oil burns or water scalding.
- Remove the keys from the EWP, lock the ground control cabinet and make sure the keys are stored in a safe place.



3.1.1 Secure and Stow Outriggers



The securing and stowing of outriggers requires special attention:

- Retract the outrigger footplates.
- Retract the outrigger beams.
- If applicable, lock in the outriggers with the correct locking pins or clips.
- Clean the steel plates.
- Place 'pig-sty' packing either on the carrier or in a designated storage area, which will be available for future access.

3.2 Post-Operational Checks



Post-operational checks need to be done to make sure the EWP is ready for the next operator.

General maintenance activities are done to keep all plant and equipment working safely for longer.

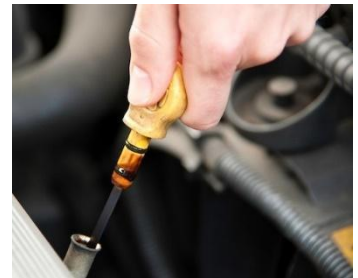
As part of your job as an EWP operator, you need to inspect your machine to find and report any faults or damage that may have occurred during your work activities.

Your inspection should include:

Visual Inspection of the EWP	Physically looking for anything odd, wrong, broken or damaged.
Visual Inspection of the Environment	Is any fluid leaking?
Signals	Alarms, lights, electronic indicators showing that something may be wrong.
Gauges	Showing temperatures and the levels of fuel, oil and other fluids.

Post-operational checks should include all of the things you look for when conducting pre-start checks. For example:

- Fluid levels.
- Condition of tyres and wheels.
- Condition and security of outriggers/stabilisers.
- Hydraulics (rams, hoses and connections).
- Structure and attachments for damage or wear.



Check the machine for breakages, other damage or leaks. More specifically, you need to check:

- All the hydraulic arms, rams and lines, to make sure they have not been damaged or bent during the machine's operation.
- The boom for dents or cracks in its welds and joints.
- The slew ring for any bending or other damage.
- The basket to make sure it is in good working order and has not been damaged.
- The outriggers/stabilisers to make sure they are in good order.
- All safety devices to make sure that they are intact and operational.



Report any faults or damage to your supervisor immediately, make sure they are noted in the logbook for corrective action and, where necessary, attach warning tags to the machine.

3.2.1 Reporting Faults



Once a fault has been found, it needs to be reported and fixed.

Most sites have a fault report form that will need to be filled in with the details. The form will generally need the machinery or equipment make and model numbers, the site identification numbers, the type of fault and the person reporting the fault.

You also need to make sure the EWP is tagged out (isolated from use) until the repairs have been made.

3.3 Carry Out Maintenance Tasks

Maintenance activities could include:

- Cleaning and lubricating the EWP.
- Authorised servicing and minor replacements or repairs.
- Recording and reporting of faults through workplace procedures.

When conducting maintenance activities it is important to keep people in the area safe by using barricades or fences if necessary and locking out machines.



Tasks should be completed within designated areas and others should be informed of what you are doing.

You should conduct servicing, maintenance and housekeeping tasks to ensure the EWP stays at its operating capacity for as long possible.

You will also need to coordinate with mechanics, maintenance supervisors or other site workers to ensure the vehicle is serviced at regular programmed intervals.

3.3.1 Carry Out Lubrication Tasks

Some parts of the EWP may need to be regularly lubricated to keep the machine in safe working order.

Check the operator's manual for details.



3.3.2 Servicing and Minor Replacements

Replacements that the operator can make will vary with the EWP and worksite but could include filters, fluids, accessories and ancillary items.

If you need to remove the radiator cap on a machine that has not completely cooled off, slightly loosen the cap to release the pressure and then slowly remove the cap. Make sure you use gloves and safety goggles and a rag or cloth when removing the cap.

All maintenance needs to be completed in accordance with workplace procedures and the manufacturer's specifications.

Make sure you are authorised and trained to maintain the EWP before taking any action.

On some sites you may not be authorised to conduct servicing and maintenance of equipment. Always check with your supervisor before taking any action.



3.3.3 Processing Maintenance Records

Most sites have workplace forms, logbooks or checklists for writing down details of all machine maintenance work.

They are used to record the history of the machinery and equipment so that all operations and any problems can be monitored.

They are also a way of making sure that all repairs and maintenance are done correctly and on time.



Written maintenance records for your EWP may include:

- Inspection checklists.
- Fault reports.
- Fuel, oil, hydraulic and other fluid usage.
- Computer readings of various EWP functions.
- Diary entries.
- Service manuals or logbooks.
- Repair request forms.
- Part requisition forms.

You will usually need to include details like the EWP make and model number, site identification numbers, the type of maintenance carried out, the repairs or replacements that were done and the person who did the work.



Follow your site record keeping and reporting procedures. If in doubt about completing and processing written maintenance records, talk to your supervisor or an experienced worker.

3.4 Clean Up After Work

Once all your EWP tasks are finished, you will need to clean up the site. This includes removing any tools and equipment that have been used.



3.4.1 Clearing the Work Area

In clearing your work area you will be carrying out housekeeping activities. Housekeeping procedures on your site may include:

- **Eliminating or controlling any potential hazards.** Your duty of care means you shouldn't leave a possible source of danger or accident for others.
- **Using the correct PPE.** Make sure you use appropriate PPE when dealing with waste or possible hazardous materials as you clear up. For example, chemicals used for cleaning can be dangerous unless used correctly.
- **Removing any hazard controls that are no longer needed.** For example, temporary fences, barricades and signage.
- **Recycling or disposing of materials.** For example, clays, mud, topsoil, organic materials, stones, rocks, gravel and bituminous mixes, paper and site rubbish. Put any waste materials in the bins provided, and recycle where possible, in line with the site plans for environmental management or waste disposal.
- **Maintaining and storing plant, equipment and tools.**



Good housekeeping will help you to see any problems or hazards on the worksite. This will help you to make sure the working environment is safe.

It is your responsibility to clean up after your work activities and not leave it to someone else to do.

3.4.1.1 Disposing of Environmentally Sensitive Materials



Make sure all materials are removed and disposed of or recycled in accordance with environmental protection legislation and the site waste management policy.

You may have to dispose of environmentally sensitive fluids, oils and other materials.

Always make sure you do so in accordance with the site environmental management plan which will include workplace environmental protection procedures.

3.5 Checking and Maintaining Equipment

All tools and equipment must be kept in good working order. This means cleaning, checking, maintaining and storing them correctly, by following worksite procedures and manufacturers' guidelines.



3.5.1 Cleaning, Checking and Maintenance

Clean all items by removing dirt, mud, moisture or other contaminants.

While you are cleaning, check each item for damage or wear and tear. If anything is wrong report it, repair it, or have it fixed by a qualified person.

Plant, tools and equipment need to be maintained in line with manufacturers' recommendations or your worksite procedures.

Maintenance could involve the greasing of metal surfaces or lubricating moving parts.



3.5.2 Storage



Make sure plant and equipment is stored correctly and in the right place.

Most items will have storage instructions to make sure they don't get damaged and can be easily found the next time they are needed.

Keeping plant, equipment and tools in the best possible condition means they will have a longer working life. It also ensures they are

safe to use.

Always follow the manufacturer's guidelines, operating instructions and worksite procedures for looking after each item.