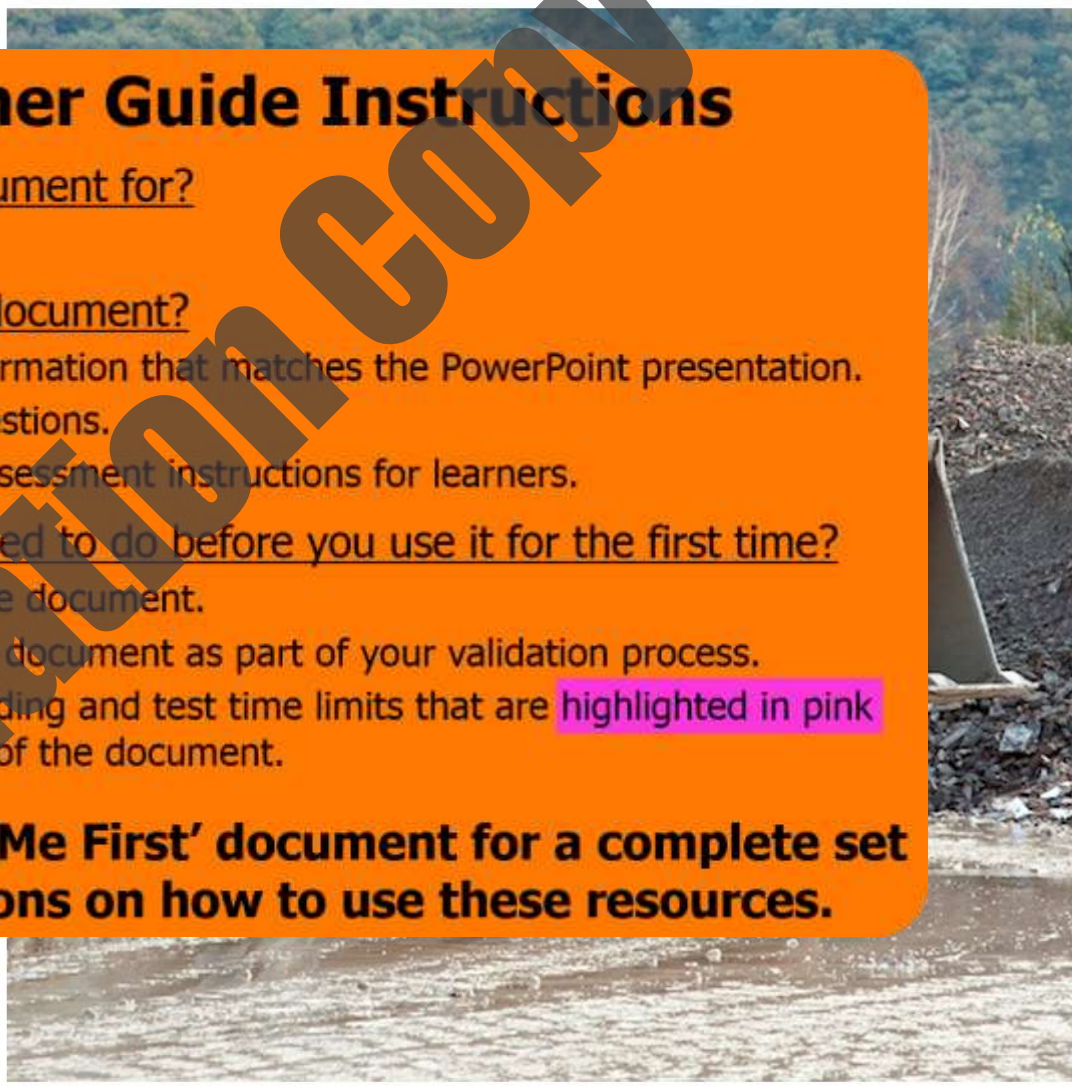
RIIMPO304E

Conduct Wheel Loader Operations



Learner Guide Instructions

Who is this document for?

The learner.

What is in this document?

- Course information that matches the PowerPoint presentation.
- Review questions.
- Practical assessment instructions for learners.

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.
3. Set the reading and test time limits that are highlighted in pink at the end of the document.

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

LEARNER GUIDE

RIIMPO304E Conduct Wheel Loader Operations

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

This Book Contains:

- ☐ Course Information.
- ☐ Review Questions.
- ☐ Practical Assessment overview and instructions.

Table of Contents

1.1 Introduction

This course is based on the unit of competency **RIIMPO304E Conduct Wheel Loader Operations.**

In this course you will learn how to use a wheeled loader including:

- Planning your work.
- Checking the equipment.
- Using the loader.
- Maintenance and housekeeping.

1.1.1 What is a Wheeled Loader?

A wheeled loader is a self-propelled wheeled machine with an integral front-mounted bucket-supporting structure and linkage.

The wheeled loader is able to load or excavate through the forward motion of the machine, and it lifts, transports and discharges material.

Common operation of a wheeled loader would be moving stockpiled material from ground level and placing it into a dump truck or into an open trench.

1.1.1.1 Wheeled Loader Components

The following diagram outlines the basic components of a wheeled loader:

Component	Description
Cabin	Where the operator sits. Contains the controls for the operation of the wheeled loader.
Tractor	Contains the engine of the machine.
Access Point	The point where the operator can safely access the loader cabin.
Arms	Raises and lowers the bucket.
Bucket	Used to move materials. The most common attachment.
Hydraulic Ram	Moves the arms and bucket/attachment.

1.2 Work Safely

You must follow all safety rules and instructions when performing any work.

If you are not sure about what you should do, ask your boss or supervisor.

They will tell you what you need to do and how to do it in a safe way.

1.2.1 Health & Safety Rules

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

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

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

1.2.2 Operations Documentation

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:

Operations Documentation	Description
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 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.

1.2.3 How to Keep Everyone Safe

WHS law says that all companies and workers need to keep themselves and other people safe while they work. This is called a duty of care.

To keep yourself and other workers safe you need to:

- Follow your instructions.
- Follow all workplace rules.
- Make sure all equipment is safe to use.
- Carry out your work safely.
- Report any problems.

If you think something is dangerous tell your boss or supervisor as soon as possible.

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.

Review Questions

1.	What are the 4 main types of laws and rules to keep everyone safe?	☐

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2.	What information could you access to make sure your work is compliant?	☐

3.	List 3 things that may be included in 'operations documentation'.	☐
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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 obstacles in the way? What are the ground conditions like? Is the site ready for your work to begin? Are there any 'out of bounds' areas you need to avoid?
- **The Weather** – Is there wind, rain or other bad weather? Is it too dark?
- **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 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 kind of material is being moved? How much is there to move? How long do you have to complete the work? Where will the load be discharged? Does it need a special type of bucket or attachment? Are there grades and levels that need to be achieved?
- **Plant** – What type of plant will be used? How big is it? How much room does it need?
- **Attachments** – What equipment will you need to shift the load safely? Is the equipment available?
- **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 e.g. contamination control requirements?

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 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 a Safe Work Method Statement (SWMS), Job Safety Analysis (JSA) or Safe Operating Procedure (SOP).

1.3.3 Plans and Specifications

Some of your work instructions might be given to you in plans, maps, reports and specifications. You will need to get the information out of these documents and use it to do your job.

Specifications will tell you the types, quantities, grades and classifications of materials you will be working with.

Make sure you are familiar with the site product or materials before you start to move them around. Have a look at the composition of the materials to see what kind of equipment you will need to move them, and what techniques to use.

Some materials are more cohesive or sticky while others may be much less stable to work with, or create hazards like dust, contamination or damage to equipment if they are not handled just the right way.

You need to check the floor clean up procedures to make sure you are able to achieve the specified levels and grades. These will be outlined in the project specifications and your instructions. This could also include other areas such as the pad, road, ramps, and bench clean up procedures.

Plans are usually "scale drawings" that represent a large area on a small sheet of paper and show proportion at the same time.

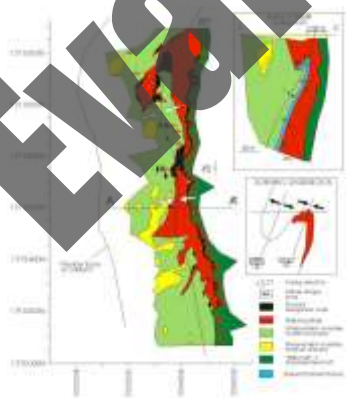
Project plans and maps give you an overview of the site, for example:

- The location of your work area in relation to the whole mine site.
- The position of stockpiles, work zones, roads and access areas.
- The location of environmentally sensitive or 'no go' areas.
- Contours, or the lay of the land, e.g. slopes, banks, depressions.

1.3.4 Geological and Survey Data

Geological and survey data is used to guide you through a job. It tells you what the area is like, what things you will need to think about and what work you need to complete.

1.3.4.1 Geological Data



Geological data gives you information about:

- Rock or material types and characteristics.
- Wet and dry areas.
- Water tables or other sources of water.
- Broken ground, faults or joints.
- Compaction levels.

All of this information will help you to decide on what equipment you need to use, where and how you should travel with equipment and areas to avoid.

1.3.4.2 Survey Data

Survey data covers information about job outcomes including:

- Bench heights and widths.
- Floor heights.
- Floor, ramp and bench grades.
- Underground working and voids.

Survey data can also be used to mark out:

- Work circuits.
- Pick up areas.
- Dump areas.
- Spill zones.
- Routes or traffic ways.

1.3.5 Emergency Procedures

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

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

1.3.5.1 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.

1.3.5.2 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.

1.3.5.3 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.

1.3.5.4 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:

P	**Pull** the pin.
A	**Aim** at the base of the fire.
S	**Squeeze** the trigger.
S	**Sweep** the base of the fire.

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

Review Questions

4.	What details about the work area can you get from your work instructions?	☐

5.	What is a Work Method Statement?	☐

6.	Why do you need to understand plans, maps, reports and specifications?	☐

7.	List 4 types of information you can get from geological data.	☐

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8.	What information can you get from survey data?	☐