

BACKHOE / LOADER

Learner Workbook



TRAINER'S MARKING GUIDE

RIIMPO319E –
Conduct backhoe/loader operations



Learner Name: _____

Student Number: _____ Date: _____

This resource was developed by:



Version 2.1 – June 2022



Contact Details

Candidate's details
Name:
Address:
Student Number:
Phone number:
Email:
I.D supplied / USI No ?
Signature:

Trainer/Assessor's / Supervisor details
Name:
Company/registered training organisation:
Phone number:
Email:
Assessment location:
Assessment date:
Signature:

I declare that:

Student Signature: Date:	This submission is all my own work and has not been copied nor does it violate the material that is listed under the Statement on Plagiarism and Academic Integrity rules, except for any collaboration that has been authorized by my tutor as group work.
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Training support materials

Training package: Resources and Infrastructure Industry Training Package

Unit of competency: RIIMPO319E - Conduct backhoe/loader operations

Application / Context of Assessment

This unit describes the skills and knowledge required to operate a backhoe/loader to load, distribute and place materials.

This unit applies to those working in site based roles.

Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and industry sectors, and must be sourced from state jurisdictions prior to applying this unit.

Notes to Candidate:

Practical components of this assessment must be filmed on the operational use of a backhoe/loader, Distribution and placement of materials must be safely, effectively and efficiently follow workplace procedures to carry out work activity's on at least two occasions using at least two attachments on each occasion.

Assessment Conditions

Mandatory conditions for assessment of this unit are stipulated below. The assessment must:

Include access to:

- backhoe/loader
 - personal protective equipment
 - be conducted in a safe environment; and,
- be assessed in context of this sector's work environment; and,
- be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- confirm consistent performance can be applied in a range of relevant workplace circumstances

Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated work environment* provided it is realistic and sufficiently rigorous to cover all aspects of this sector's workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.

Knowledge Assessment



The assessor must be satisfied the candidate has successfully demonstrated each element and performance criteria contained in the Unit of Competency.

Knowledge Assessment Instructions



1. This assessment should be completed in writing (pen not pencil). However, where necessary it may be undertaken verbally. If verbal assessment is undertaken the candidates' responses must be clearly recorded by the assessor. The assessor must clearly note on the assessment that it was undertaken verbally.
2. Candidates should be allowed 10 minutes reading time before commencing the assessment and a further 180 minutes to complete the assessment.
3. The assessment should be completed in a quiet area free from distraction.
4. The assessment is to be completed without the assistance of learning resources. Students may ask the assessor for assistance to clarify questions they do not understand.
5. A pass mark of 90% (77/85) must be achieved for a satisfactory result. The assessor must provide feedback to the candidate to clarify any answers deemed to be incorrect.
6. Reasonable adjustment to the assessment is to be made by the assessor where deemed necessary.



Knowledge Assessment



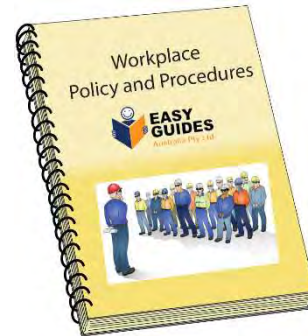
Question 1

PC (1.1)

Give three (3) examples of compliance documentation you should read before using a backhoe/loader.

Answer may include but is not limited to:

- Occupational Health and Safety Acts (OHS and/or WHS)
- Codes of Practice
- Regulations
- Operator’s manual
- Site procedures
- Standards (eg: AS 2598-1995 Earth-moving machinery).



Question 2

PC (1.2)

What are quality requirements?

Quality requirements explain the standards you must meet to complete the job in a way that satisfies the customer.



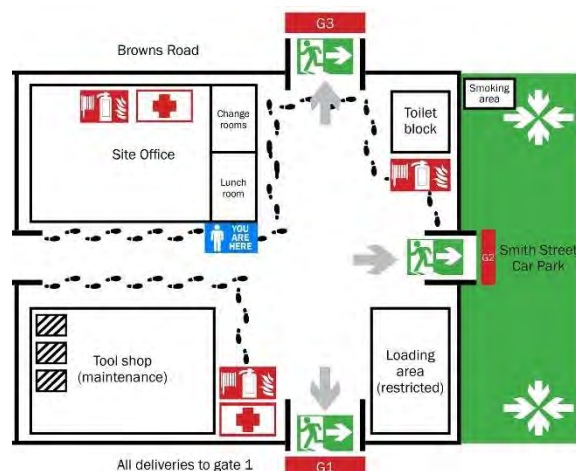
Question 3

PC (1.2,1.3, 1.7)

What is a site safety plan and what does it explain?

The site safety plan tells you about the worksite and how it meets government rules and regulations. It explains:

- Hazards and risks on the site
- What PPE to use
- The emergency procedures on the site
- How to use plant, equipment and tools safely
- Where and how to park safely.



Question 4	PC (1.3)
What does the environmental management plan explain? Give four (4) examples.	
<p>The environmental management plan tells you how to:</p> <ul style="list-style-type: none"> • Manage waste and recycling • Reduce erosion • Prevent damage to underground services • Reduce or prevent air pollution • Prevent soil contamination • Prevent damage to nature (trees, plants, etc) • Avoid environmental damage • Manage an environmental incident. 	



Question 5	PC (1.3, 2.4)
List three (3) common hazards you might need to plan for before starting work?	
<p>Answer may include but is not limited to:</p> <ul style="list-style-type: none"> • People (other workers and the general public) • Other vehicles, equipment and machines • Buildings and other structures • Low bridges • Obstructions • Hazardous materials such as chemicals, gasses, explosives and acids • Underground services such as gas, water, electricity and communication lines • Trees • Overhead powerlines • Ground conditions such as soft or uneven ground • Trenches and excavations. 	



Question 18**PC (3.5)**

You have finished with the backhoe/loader for the day and it has been parked and shutdown. What two things need to be done before you leave?

Answer may include but is not limited to:

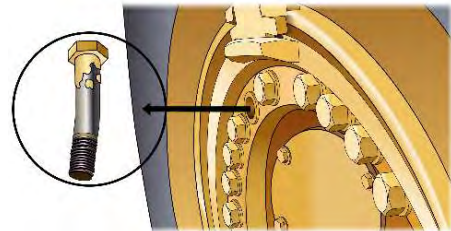
1. Perform a post-operational inspection to check for any damage or defects
2. Make sure the backhoe/loader is secured to prevent unauthorised access and use.

**Question 19****PC (3.5)**

You need to make sure the backhoe/loader is safe for the next operator. What checks do you do after you've finished using it? Give three (3) examples.

Answer may include but is not limited to:

- Leaks
- Obvious problems and damage
- Fluid/oil levels
- Condition and security of wheels
- Lubrication (eg: grease nipples, pivot points)
- Fuel level

**Question 20****PC (2.4)**

How do you safely inflate a tyre which is on a split rim?


Answer may include but is not limited to:

Always refer to manufacturer's instructions and workplace policies and procedures. Some rims may have to be inflated only after being secured back onto the vehicle.

Where possible place the tyre/rim inside a secure cage to inflate and stand outside the projection area to prevent injury/death in the case of rim failure.

Question 27	PC (2.4)
What is the risk when pushing over dead trees?	
Branches could break off and fall onto the backhoe/loader potentially injuring and/or killing the operator.	

Question 28	PC (2.4)
If the backhoe/loader tips over, which safety devices protect you from being crushed?	
The rollover protective structure (ROPS) and the seat belt protect the operator.	

Question 29	PC (2.4)
Why should you never lift someone in the bucket?	
Answer may include but is not limited to:	
<ul style="list-style-type: none"> • Buckets are not designed and made to carry people. • It is unsafe and you could cause an injury or death. • You could be prosecuted and fined. • It is not a safe work practice. 	

Practical Assessment



The assessor must be satisfied the candidate has successfully demonstrated each element and performance criteria contained in the Unit of Competency.

It is the assessor's responsibility to decide if the candidate has competently demonstrated a skill. The assessor may question a candidate further if their demonstration needs clarification.



Practical assessment instructions



Practical assessment should be performed in a normal working environment where possible. However, under some circumstances may occur in a simulated work environment (refer to assessment conditions for further information).

The Assessor must:

- Clearly explain to the candidate what is expected of them
- Check that the candidate has been provided with the necessary tools and equipment
- Complete checklists as the candidate goes through the tasks
- Only question a candidate during a practical task if it is safe to do so
- Stop the assessment immediately if the candidate is doing something dangerous
- Stop the assessment immediately if the machine or objects are likely to be damaged
- Inform the candidate of the result of the assessment

If an assessor needs to stop the assessment because of danger or possible damage, the candidate must be marked as not yet competent. If the assessment is stopped, further training would need to take place before a re-assessment can be undertaken.

Tasks in the assessment do not have to be assessed in isolation, they may be done as one continual task, a simple example of this may be to:

*Ask the candidate to perform the **pre-start** requirements, when complete they should **drive** the backhoe/loader to an area where they can **operate** it to **excavate a trench** to pre-determined **specifications** and **stockpile** the removed material. On completion of the trench the candidate could then **backfill** and compact the trench. Next they could drive the backhoe/loader to the attachment storage area, **remove the current attachment** and **fit a new attachment** for example a lifting device. They could then **lift and carry materials** as specified by the assessor. On completion the lifting device could be removed and the original attachment re-fitted. Now the candidate will be required to complete any **housekeeping** requirements then **prepare the backhoe/loader for relocation** and **move the backhoe/loader between worksites**. If the scenario above was completed twice it should meet the requirements as long as two different material types are used.*

Note: Performing the actual practical task must be filmed and noted of where the video file is stored.

Summary of practical assessment task.



The candidate is to demonstrate the ability to:

- Operate a backhoe/loader,
- Distribute and
- Place Materials,
- Safely, effectively and efficiently following workplace procedures to carry out work activity on at least two occasions using at least two attachments on each occasion.

The assessor is to submit 2 work orders to candidate to follow which outlines work to be performed for at least 2 different material types such as the following:

- mixing materials
- stripping/spreading materials
- trench excavation
- backfilling
- lifting and carry materials
- loading dump trucks, wagons, hoppers or chutes
- cutting/boxing

Attachments that can be used are the following:

- extending devices
- tilt bucket
- buckets
- compaction wheel
- ripper, plate compactor
- rock breaker
- auger
- broom
- mower/slasher
- forklift
- 4 in 1 bucket and free/rock grab

Examples of a work order / job (requirements), might be the following;

Example 1 / Work Order 1. Dig a trench so that concrete sewerage pipe can be laid and place concrete pipe into trench then back fill in trench. Use rock breaker to break up concrete of foot path and drive way to place sewerage pipe.

Example 2 / Work Order 2. Move a large amount of gravel from front of a house to the back of a house to form a flat drive way. Then move any excess dirt from site into a dump truck.

Note: Performing the actual practical task must be filmed and noted of where the video file is stored.

Practical Assessment Summary – Competency Sign Off

Files to be submitted.

Written Assessment

- 1 x Written quiz assessment

Practical Work

- 2 x activity's performed in work place or simulated environment (Video footage of candidate performing work order)

Name of Video File 1: _____

Name of Video File 2: _____

Documents that need to be submitted.

- 2 x Copy's of work order
 1 x Trainer's Assessment Work book filled in of candidate's assessment.

Written / Practical Assessment Summary		Satisfactory	Not Satisfactory
0. Written Quiz		<input type="checkbox"/>	<input type="checkbox"/>
1. Pre-Start		<input type="checkbox"/>	<input type="checkbox"/>
2. Drive and operate backhoe/loader		<input type="checkbox"/>	<input type="checkbox"/>
3. Complete operations to specification		<input type="checkbox"/>	<input type="checkbox"/>
4. Attachments		<input type="checkbox"/>	<input type="checkbox"/>
5. Load, unload and relocate backhoe/loader		<input type="checkbox"/>	<input type="checkbox"/>
6. Housekeeping		<input type="checkbox"/>	<input type="checkbox"/>
Competency:	Not Yet Competent <input type="checkbox"/> Date _____	Competent <input type="checkbox"/> Date _____	
Feedback to be given to candidate or to Workplace Supervisor			
Trainer / Assessor signature: Date:	The learner has been assessed as <input type="checkbox"/> Not Yet competent / <input type="checkbox"/> competent in the elements and performance criteria, critical aspects for assessment, required skills and knowledge for this unit and the evidence presented is: <input type="checkbox"/> Authentic <input type="checkbox"/> Valid <input type="checkbox"/> Reliable <input type="checkbox"/> Current <input type="checkbox"/> Sufficient		