

GRADER

Learner Workbook

(Formative assessment)

STUDENT COPY



RIIMPO324F –

Conduct civil construction grader operations



Learner Name: _____

Student Number: _____ Date: _____

This resource was developed by:



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Knowledge Assessment - Introduction



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% (47/52) 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-A

(PC1.1)

Give three (3) examples of compliance documentation you should read before using a grader. Compliance documentation tells you the rules and regulations you need to follow.



Question 1-B

(PC1.2)

What are work instructions and what do they explain?



Question 1-C

(PC1.3)


List three (3) common hazards you might need to plan for before starting work?

Identify by circling the hazards and labelling them in the image. Or list below.



Question 1-D	(PC1.3)
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What does the environmental management plan explain? Give at least four (4) examples.

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Question 1-E	(PC1.4)
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List three (3) examples of personal protective equipment (PPE) you may need to wear while operating your machine.

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Question 1-F	(PC1.4)
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What footwear must you wear when doing earthmoving work?

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Practical Assessment



The assessor will assign or give you a work order or task description that outlines the task that you need to perform.

If one is not provided see Example 1 / Work order 1 and Example 2 / Work order 2.

Note: Performing the actual practical task may be filmed and noted of where the video file is stored and assigned to which candidate, along with a copy of the work order must be submitted to assessor.



Practical assessment instructions



You are to demonstrate the ability to:

Operate a grader,

By cutting, leveling, filling, trimming,

- spreading materials,
- Compacting and

Safely, effectively and efficiently following workplace procedures to carry out work activity on at least **two occasions**.

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,
- cutting/digging,
- back filling,
- compacting,

and working with the following material types top soil, dirt, clay, rock or crushed rock, in situ material (lime) / sand, gravel, sand.

Including:

- assisting with loading and unloading Grader from float/trailer

Along with selecting, fitting, testing, using and removing at least two attachments, the attachment must be certified and approved in line with workplace procedures, such as the following;

- Front-mounted scarifier (mixer)
- Rear-mounted ripper
- Curved cutting edge blade
- Serrated edge blade
- Flat edge blade
- Roller

An example of a work order / job (requirements) might be the following;

Example 1 / Work Order 1. Assist with the moving of grader vehicle off and on float / trailer.

Dig up an area for a new road to be laid and use the rear mounted ripper to cut up soil. Use the curved cutting edge or flat edge blade to remove some of the top soil.

Next to the dug up soil, use the curved cutting edge blade to make a small trench for a dozer to dig a bigger hole for later use to lay pipes.

Example 2 / Work Order 2. Use a roller to flatten the Natural Ground level compacted subgrad of an area where a new road is to be laid.

Use the curved cutting edge or flat edge blade to lay in situ material (lime) / sand over new section of road to be laid and then compact it using a roller, to create a subbase course layer.

Use the curved cutting edge or flat edge blade to lay crushed rock over a subbase course layer and use a roller to compact the area for a paver to lay the Wearing course layer. Finally, assist with the moving of grader vehicle off and on float / trailer.



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

Resources Required:

Equipment

- Grader
- Float / trailer

Attachments

- Front Mounted scarifier or rear-mounted ripper.
- Curved cutting edge blade.
- Roller
- Flat edge blade

Materials

- In situ material (lime) / sand
- Crushed rock
- Top soil
- Rock

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
- Provide the candidate with a **work order or job plan** that outline the task to demonstrate, if one is not provided then use the sample contained within this document or one of your own.

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 might be to:

Do a **pre-start** requirement check, when complete **drive** the grader to area of **operation** to **cut, level, fill, spread and compact** to pre-determined **specifications** and **use a number of attachments on different material types**. Along with **housekeeping** requirements and **prepare the grader for relocation** and **assist in loading the grader** onto a float or trailer.

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 may be filmed and noted of where the video file is stored.

Summary of practical assessment task.



What to do for practical task demonstration.

- Practical Assessment 1** – Pre-Start – Demonstrate the skills and knowledge required to do a prestart check before operating a grader, the actual practical task may be filmed and noted of where the video file is stored.
- Practical Assessment 2** – Drive and operate grader by identifying an hazards and risks, start and operate grader.
- Practical Assessment 3** – Complete operations to specification demonstrate the operational use of a grader according to specifications / (work order) using at least two different material types and two different occasions.
- Practical Assessment 4** – Fit and remove and use attachments of grader according to job description.
- Practical Assessment 5** – Load, unload and relocate grader.
- Practical Assessment 6** – Housekeeping.

Knowledge and Practical Assessment Summary – Competency Sign Off

Files to be submitted.

Knowledge Assessment

- 1 x Knowledge assessment

Practical Work

- 2 x activities performed in work place or simulated environment (Additional evidence: Video footage of candidate performing work order)

Name of work order and/or Video File 1: _____

Name of work order and/or Video File 2: _____

Documents that need to be submitted.

- 2 x Copies of work order
 2 x Job safety and environment analysis, (JSEA) – 1 each for work order
 2 x Environmental management plan (EMP) – 1 each for work order
 2 x Safe work method statement (SWMS) – 1 each for work order
 2 x Job plans with notes and attachments of required documentation – 1 each for work order
 1 x Trainer's Assessment Work book filled in of candidate's assessment. Assessment Checklists

Knowledge and Practical Assessment Summary		Satisfactory	Not Satisfactory
0. Knowledge Assessment		<input type="checkbox"/>	<input type="checkbox"/>
1. Pre-Start		<input type="checkbox"/>	<input type="checkbox"/>
2. Drive and operate Grader		<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 Grader		<input type="checkbox"/>	<input type="checkbox"/>
6. Housekeeping		<input type="checkbox"/>	<input type="checkbox"/>
Competency:	Not Yet Competent <input type="checkbox"/>	Competent <input type="checkbox"/>	
	Date _____	Date _____	
Feedback to be given to candidate or to Workplace Supervisor			
Trainer / Assessor signature:	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		
Date:			