

Assessment Guide

Domain Forestry > Forest Foundation Skills

Unit 22999 v4 Demonstrate knowledge of landing operations and hazards, log making; and process logs on a landing under supervision Level 2 Credits 10

Entry information

There are no pre-requisite requirements for this unit.

Candidate to complete

Name	Company
NSI No.	Email / phone

Pre-assessment confirmation

I, the **candidate**,

- Understand the assessment process and assessment requirements for this unit.
- Understand the appeals and resubmission processes.
- Believe I have the skills and knowledge to successfully complete the assessment.

Assessor to complete

Name	Company
Email / phone	

Pre-assessment confirmation

- I, the **assessor**, can confirm the candidate has achieved any pre-requisite requirements.

Assessment instructions

You will need to be able to show you can:

- Demonstrate knowledge of landing operations.
- Demonstrate knowledge of log making.
- Demonstrate knowledge of hazards and hazard management for landing operations.
- Process logs on a landing under supervision.

Important information

- Carefully read through the rest of this Assessment so you know exactly what is expected.
- All evidence you provide for this assessment must be your own work.
- Clearly name and label all attached evidence.

What you need to do



Question Set 1 - Landing Operations



Question Set 2 – Log Making



Question Set 3 – Keeping Safe



Observation Checklist

Be observed processing logs on a landing.

You will need to:

- Use personal protective equipment.
- Demonstrate clear and agreed communication with landing operators.
- Process logs/stems.



Worksite Verification

A worksite verifier must confirm your skills, knowledge and/or work.

You can also attach additional evidence which shows you have the required skills and knowledge, e.g. photos, worksite documents, checklists, work samples, videos.



Question Set 1 – Landing Operations

These questions are about workers and machines active in a landing operation.

Use your own words. Your assessor may ask you more questions to check your understanding.

1. For each harvesting operation:



- Describe what it is.
- Indicate if it is part of a landing operation.

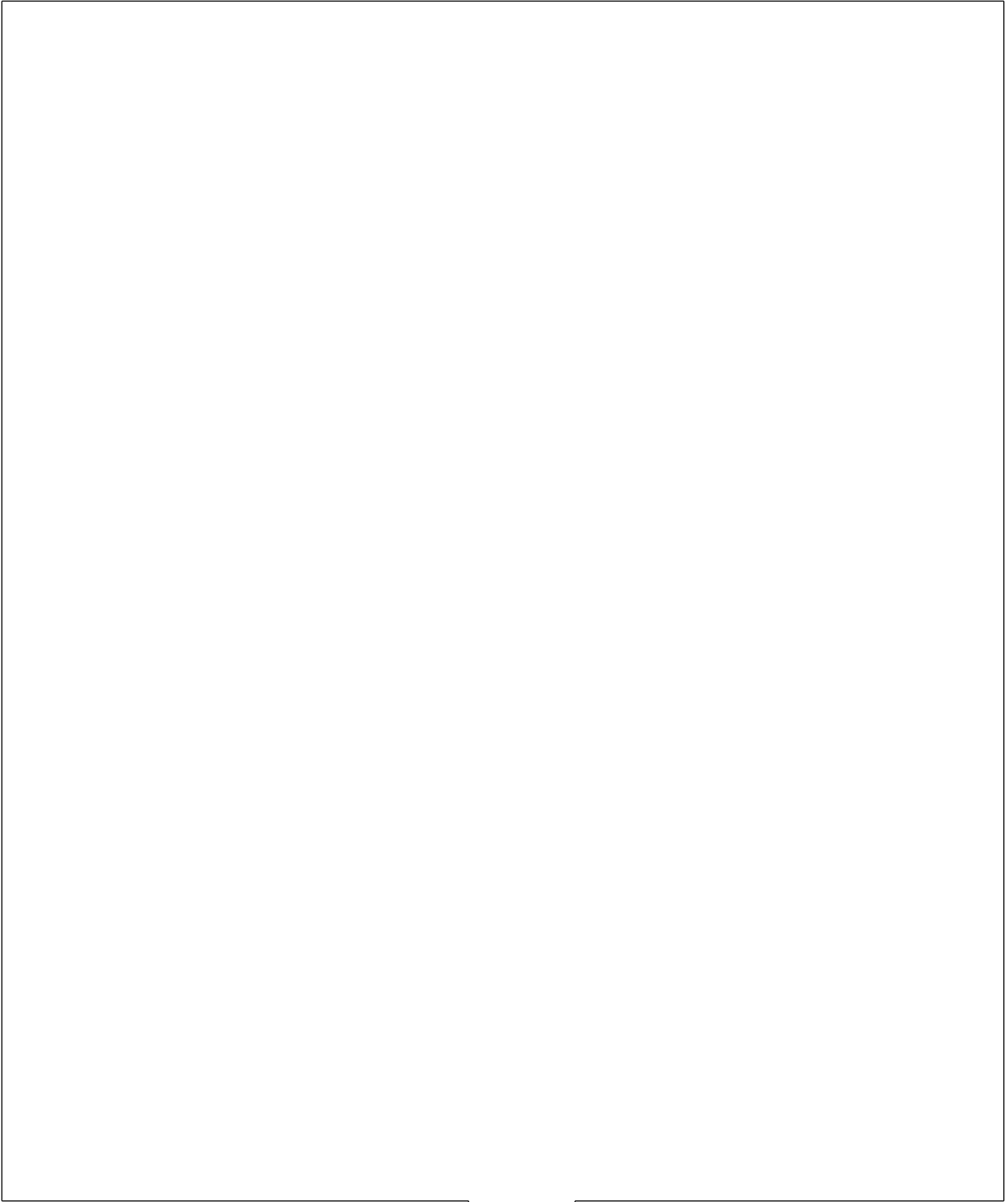
Harvesting Operation	Description	Tick if part of a landing operation
Tree felling		
Delimiting		
Extraction		
Log making		
Fleeting		

Loading		
Transportation		

2. Show the typical layout of a landing by drawing the locations of the following on the landing area given.

Three machines active on the landing must be identified.

Indicate the location of stationary machines / plant used in your operation (may include):		
<input type="checkbox"/> Cable yarder	<input type="checkbox"/> Static delimeter	<input type="checkbox"/> Fuel tanks
Indicate machine movement on the landing (machines may include):		
<input type="checkbox"/> Extraction machines e.g. skidder, tractor	<input type="checkbox"/> Mechanised Processor	<input type="checkbox"/> Loading machines
<input type="checkbox"/> Log truck	<input type="checkbox"/> Stem truck	<input type="checkbox"/> Fleeting machine
Operational areas:		
<input checked="" type="checkbox"/> Sorting areas <input checked="" type="checkbox"/> Log stacks	<input checked="" type="checkbox"/> Loading area	<input checked="" type="checkbox"/> Processing area
Safety / non-operational areas:		
<input checked="" type="checkbox"/> No go zones <input checked="" type="checkbox"/> Smoking and no smoking areas	<input checked="" type="checkbox"/> Work break area <input checked="" type="checkbox"/> Parking area	<input checked="" type="checkbox"/> Safe refuelling and maintenance areas



ROAD

3. What is the safe working distance for each interaction.



Interaction	Safe working distance
Between workers with chainsaws	
Between workers and machines	

4. Name **three** machines or mobile plant that may be present on a landing.



For each machine, describe what it is used for.

Machine 1	
What it is used for	
Machine 2	
What it is used for	
Machine 3	
What it is used for	

5. List **five** tasks (roles) that a landing worker may do as part of their job.



Assessor – record key points from candidate’s verbal answers as accurately and fully as possible.

These answers were written by:

Candidate

Assessor

Question Set 2 – Log making

These questions are about log making terminology and the purpose of log making.
Use your own words. Your assessor may ask you more questions to check your understanding.

1. Describe each of the following log making terms.

Term	Description
Log specifications	
Large end diameter (LED)	
Small end diameter (SED)	
Stem attribute identification (SAI)	
Maximum and minimum diameters	
Length	

Sonic testing

2. Explain the purpose of log making and how it can affect the final log.



3. Explain the purpose of the cutting instruction.



4. Briefly describe a log maker's responsibility for each factor.



Operational factor	Log maker's responsibility
Landing activities	
Log value	
Safety	

5. For each piece of log making equipment, describe what it is used for.



Equipment	What it is used for
Logger's tape	
Logger's tape refills	
Log callipers	
Spray paint	

Stencil	
SED tape	
Calibration tag	

6. Describe each basic stem attribute.



Stem attribute	Description
Sweep	
Knot size	
Fluting	
Diameter	

Nodal swelling	
Kink	
Wobble	
Out of round	
Draw wood	
Shatter	
Sapstain	
Off-centre pith	

Sloven	
Malform	
Crutch	
Spike knot	
Collar	
Machine or saw damage	
Pruned	

Assessor – record key points from candidate’s verbal answers as accurately and fully as possible.

These answers were written by:

Candidate

Assessor



Question Set 3 – Keeping Safe

These questions are about what you need to do to keep safe when processing logs.

Use your own words. Your assessor may ask you more questions to check your understanding.

1. Name **six** items of PPE that are required to be worn when working in a landing operation.

2. Name **six** items of equipment that are required for landing operations.

3. Describe the requirements for a safe refuelling / maintenance area on a landing.



4. Describe the requirements for the safe storage of fuel on a landing.



5. Give **one** example for each type of landing operation hazard. □
For each example, explain the risk and how you would control it.

Rolling logs

Example

The risk

How I control it

Slash

Example

The risk

How I control it

Moving machinery and vehicles

Example

The risk

How I control it

Chainsaw

Example

The risk

How I control it

Log stacks

Example

The risk

How I control it

Ground conditions

Example

The risk

How I control it

Chainsaw operators

Example

The risk

How I control it

Other operators

Example

The risk

How I control it

6. Explain each condition found in stems and logs on a landing.



Tension

Compression

7. For each tension related hazard, explain the risk and how you would control it.

Sudden log movement

The risk

How I control it

Log splitting

The risk

How I control it

8. For each compression related hazard, explain the risk and how you would control it.

Kickback

The risk

How I control it

Chain pinching

The risk

How I control it

Assessor – record key points from candidate's verbal answers as accurately and fully as possible.

These answers were written by:

Candidate

Assessor



Observation Checklist

You must be observed processing logs on a landing.

You will need to:

- Complete Part A of the checklist. Your assessor will complete Part B.
- Use personal protective equipment.
- Identify hazards and control associated risks.
- Demonstrate clear and agreed communication with landing operators.
- Process logs/stems.
- Attach any other evidence that shows your ability to process logs on a landing such as photos or worksite documents you prepared or completed.

You may be asked additional questions to check your knowledge and may need to demonstrate skills and/or carry out tasks more than once.

Note to the assessor

- Only tick off each task when satisfied the candidate can do it safely and consistently.
- All tasks must be carried out following accepted industry practice and worksite procedures.
- Where prompted, please record details of what you observed, e.g. comments about the candidate's performance, what the candidate did or said, and specific questions and responses.
- Attach any other evidence that shows what you observed and/or that supports your decision for the candidate's competency in the tasks, e.g. photos or worksite documents.
- Check the candidate has completed Part A and has attached any required evidence.

Part A: Candidate to complete

Your name			
Worksite / company			
Chainsaw make and model			
Bar length		CC rating	

Part B: Assessor to complete

For each statement below, tick if you agree.

When preparing to process logs on a landing, the candidate:



1. Identifies PPE required for landing operations. Must include:



High visibility clothing.

Hard hat.

Chaps.

Earmuffs.

Safety visor or glasses.

Safety boots.

2. Selects and wears appropriate PPE for operation being carried out.



Record PPE worn.

3. Identifies at least **six** pieces of equipment required in landing operations. May include:



Wedge and hammer.

Chainsaw.

Spare bar and chain.

Approved fuel containers.

Tools (file, spanner, file guide).

Logger's tape.

SED tape.

Log callipers.

Identification stencil.

Calibration tag.

Sonic testing equipment.

Other (please write):

4.	<p>Identifies machines active in the landing operation. <input type="checkbox"/></p> <p>Three must be identified. May include:</p> <table border="0"> <tr> <td><input type="checkbox"/> Extraction machines.</td> <td><input type="checkbox"/> Loading machines.</td> </tr> <tr> <td><input type="checkbox"/> Mechanised processor.</td> <td><input type="checkbox"/> Static delimber.</td> </tr> <tr> <td><input type="checkbox"/> Fleeting machine.</td> <td><input type="checkbox"/> Cable yarder.</td> </tr> <tr> <td><input type="checkbox"/> Log truck.</td> <td><input type="checkbox"/> Stem truck.</td> </tr> <tr> <td colspan="2"><input type="checkbox"/> Other (please write):</td> </tr> </table>	<input type="checkbox"/> Extraction machines.	<input type="checkbox"/> Loading machines.	<input type="checkbox"/> Mechanised processor.	<input type="checkbox"/> Static delimber.	<input type="checkbox"/> Fleeting machine.	<input type="checkbox"/> Cable yarder.	<input type="checkbox"/> Log truck.	<input type="checkbox"/> Stem truck.	<input type="checkbox"/> Other (please write):		
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<input type="checkbox"/> Fleeting machine.	<input type="checkbox"/> Cable yarder.											
<input type="checkbox"/> Log truck.	<input type="checkbox"/> Stem truck.											
<input type="checkbox"/> Other (please write):												
5.	<p>Identifies hazards and effectively controls associated risks. May include: <input type="checkbox"/></p> <table border="0"> <tr> <td><input type="checkbox"/> Rubbish caught in tree limbs.</td> <td><input type="checkbox"/> Kickback.</td> </tr> <tr> <td><input type="checkbox"/> Rolling or falling logs.</td> <td><input type="checkbox"/> Slash build up.</td> </tr> <tr> <td><input type="checkbox"/> Pinching.</td> <td><input type="checkbox"/> Unsafe footing.</td> </tr> <tr> <td><input type="checkbox"/> Overlapping work areas.</td> <td><input type="checkbox"/> Machine movement.</td> </tr> <tr> <td colspan="2"><input type="checkbox"/> Other (please write):</td> </tr> </table> <p>Record how candidate effectively controls associated risks.</p>	<input type="checkbox"/> Rubbish caught in tree limbs.	<input type="checkbox"/> Kickback.	<input type="checkbox"/> Rolling or falling logs.	<input type="checkbox"/> Slash build up.	<input type="checkbox"/> Pinching.	<input type="checkbox"/> Unsafe footing.	<input type="checkbox"/> Overlapping work areas.	<input type="checkbox"/> Machine movement.	<input type="checkbox"/> Other (please write):		
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<input type="checkbox"/> Pinching.	<input type="checkbox"/> Unsafe footing.											
<input type="checkbox"/> Overlapping work areas.	<input type="checkbox"/> Machine movement.											
<input type="checkbox"/> Other (please write):												
6.	Reports hazards identified in Task 5 to supervisor.	<input type="checkbox"/>										
7.	Achieves eye contact before communicating.	<input type="checkbox"/>										
8.	Uses agreed hand signals when communicating with machine operators or other skid workers.	<input type="checkbox"/>										
9.	Uses verbal communication where appropriate.	<input type="checkbox"/>										
10.	Please comment on the candidate's ability to prepare to process logs on a landing.											

When processing logs on a landing, the candidate:



11. Follows instructions correctly when processing logs and stems. Must include:



- Cutting perpendicular to the log.
- Using correct body position.
- Using the appropriate wedges.
- Using correct starting position.
- Cutting stems using straight and square cuts.
- Cutting stems using the correct combination of cuts.
- Cutting slovens and shattered ends where marked.

12. Follows instructions correctly when trimming stems. Must include:



- Trimming stems allowing enough space to work.
- Trimming stems from the ground.
- Trimming stems using an ergonomically correct stance.
- Trimming below shoulder height.
- Trimming stems flush.
- Trimming stems with safe chainsaw use.

13. Identifies compression and tension wood. Must include:



- Identifying compression wood.
- Identifying tension wood.

14. Manages compression and tension wood. Management techniques must include:



- Use of hammer and wedge.
- Correct cutting techniques.
- Requesting repositioning of log by a machine.

Throughout the observation, the candidate:



15. Completes all the above tasks in accordance with:

- Worksite procedures.
- Machine and equipment manufacturer's requirements.
- Accepted industry practice.

Please provide specific comments on the candidate's ability to process logs on a landing.

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I confirm that:

- I have observed the candidate carry out all the above tasks to the standard required.
- The candidate has demonstrated competency in processing logs on a landing under supervision.

Yes

No

**Assessor
name**

Signature

Date



Worksite Verification

Note to the worksite verifier

- The assessor **takes this form into account** when making their decision about the candidate's competency. It helps provide further evidence of the candidate's skills and knowledge beyond what the assessor can directly observe or where worksite requirements may vary.
- This form must be completed by someone who:
 - Has been approved by the assessor.
 - Has expertise in the assessed tasks (see Observation Checklist for details).
 - Regularly supervises or manages the candidate in their worksite or operation.
- In-house and/or provider assessors are not required to complete this form but may ask another suitable verifier to complete it if further evidence of competency is required.

Worksite verifier to complete

I confirm that :

- | | | |
|----|---|--------------------------|
| 1. | Has processed logs on a landing, including: | <input type="checkbox"/> |
| | <input type="checkbox"/> Demonstrating knowledge of landing operations. | |
| | <input type="checkbox"/> Demonstrating knowledge of log making. | |
| | <input type="checkbox"/> Demonstrating knowledge of hazards and hazard management for landing operations. | |
| | <input type="checkbox"/> Processing logs on a landing under supervision. | |
| 2. | Can consistently and safely do the above to the standard of this operation. | <input type="checkbox"/> |
| 3. | Met worksite and operational requirements. | <input type="checkbox"/> |
| 4. | Completed any attached documentation to worksite / operational requirements. | <input type="checkbox"/> |

Please comment on the candidate's ability to process logs on a landing.

Verifier name and title

Signature

Phone / email

Date

Assessment result

Post-assessment feedback

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Assessor judgement

I, the **assessor**, have reviewed the candidate's evidence for Unit Standard 22999 v4 and judge that it is sufficient and authentic.

I confirm the candidate can competently:

- Demonstrate knowledge of landing operations.
- Demonstrate knowledge of log making.
- Demonstrate knowledge of hazards and hazard management for landing operations.
- Process logs on a landing under supervision.

Assessment result

<input type="checkbox"/> I, the assessor , confirm the candidate has achieved this unit standard.		Stamp
Signature	Date	

Candidate response

I, the candidate :	<input type="checkbox"/> Agree with the assessment result.	<input type="checkbox"/> Wish to appeal.
Signature	Date	