

► Professional Breaker Out Competency Assessment Tool

FEBRUARY 2018

Surname:	First names:	Date of birth:
NZQA number:	Employer:	Location:
Assessor name:	Date of 1st assessment:	Follow-up assessment dates:

INSTRUCTIONS

This document is designed as a training tool. The candidate can either fill the answers out themselves or another person can ask them the questions and write the answers in the spaces provided. If the answers have already been filled out, check them against the appropriate reference material (Forestry ACoP and BPGs) and tick the correct answers. If the answer given is incorrect or unclear, ask follow-up questions to make sure there hasn't been a misunderstanding. If the answer is still not right, put a cross in the box.

When making the practical observations, tick the box if the job is done right, or a particular task doesn't happen and isn't necessarily part of every extraction cycle (e.g. sorting strops). If the practice shown is putting the head breaker out (HBO) or extraction crew at risk, stop the process and call in the foreman or contractor to address the issues. Further training is almost certainly required.

Note: A FISC-appointed assessor must conduct this assessment for it to be recorded in the Safetree database and recognised as an endorsement of current competency.

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HEAD BREAKER OUT'S DETAILS

Name of head breaker out:		Time of assessment:	
Assessment date:		Date of birth:	
Formal training received <i>(Tick units held)</i> Note: Candidates must hold all grey units. Unit status to be recorded as one of the following: A (achieved); N (not achieved); T (under training)	Units held	Unit title (abridged)	Unit status
	17769	DKO general requirements for forest operations	
	23001	Demonstrate foundation skills for cable breaking out	
	6916	DKO the ACoP for operating a chainsaw	
	6917	Demonstrate basic chainsaw operation	
	43	Maintain a chainsaw	
	23411	Operate and maintain a chainsaw in forestry situation	
	6920	DKO cable harvesting	
	24567	Break out for cable harvesting operations	
	1258	Coordinate breaking out for cable harvesting	
	1268	Prepare ropes and rigging for cable harvesting	
	1269	Plan and carry out lineshifts in cable harvesting	
	17771	Carry out lineshifts using a mobile tailhold	
	1267	DKO cable harvesting systems	
	17764	Rig an elevated support system	
1266	Organise cable harvesting operations		
22994	Factors that affect the performance of forestry workers		
Years of experience breaking out:		Time spent in current crew:	
Qualifications held:			
Crew name:		System used:	
Hauler type:		Tailhold type:	
Carriage type:		Location:	
Forest owner:		Assessor name:	

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1) GENERAL KNOWLEDGE

This section tests what the HBO knows about the task being performed. It is based on elements in unit standards 2301, 24567 and 1258.

Note: For all sections the HBO either writes their answers in themselves, or someone else can ask the questions and write their answers in the 'HBO's responses' box. The person checking the answers ticks the correct answers and enters the number of ticks into the 'score' column.

Questions	HBO's responses	Score
<p>What are the main responsibilities of the contractor in terms of breaking out? <i>(2 responsibilities required)</i></p>		
<p>What does the HBO do in a cable harvesting operation? <i>(5 main components of the job, minimum of 3 required)</i></p>		
<p>What are the roles of other workers involved in the extraction process? <i>(4 roles, minimum of 2 required)</i></p>		
<p>Explain what factors affect the payload in a cable logging operation. <i>(Minimum of 2 required)</i></p>		
<p>What is the bight of a rope and where is it most likely to occur? <i>(Minimum of 2 answers required)</i></p>		
<p>What are the 5 elements of a cable extraction cycle? <i>(Minimum of 5 elements required)</i></p>		

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1) GENERAL KNOWLEDGE CONTINUED...

Questions	HBO's responses	Score
<p>How would a HBO ensure the crew is getting the best production from the operation? <i>(3 answers required)</i></p>		
<p>Describe the environmental constraints affecting breaking out operations. <i>(5 possible answers, 2 required)</i></p>		
<p>What factors should be taken into account when selecting a drag? <i>(3 possible factors, 2 required)</i></p>		
<p>Where are the danger zones commonly found in breaking out? <i>(5 possible answers, 3 required)</i></p>		
<p>What is the emergency procedure for an accident at the work site? <i>(6 standard procedures, minimum of 6 required)</i></p>		
TOTAL SCORE FOR GENERAL KNOWLEDGE:		

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2) THE CODE OF PRACTICE

This section tests what the HBO knows about Section 12 of the *Approved Code of Practice for Safety and Health in Forest Operations*. Score the HBO's answers according to content and accuracy. Some rules are covered in later areas of this training tool so not all of Section 12 is included here, e.g. finding a safe retreat position.

Questions	HBO's responses	Score
<p>What are the 2 main responsibilities of the HBO? <i>(2 required)</i></p>		
<p>What qualification does the HBO have to hold? <i>(1 answer required)</i></p>		
<p>How far away from the ropes should the breaker outs be during outhaul? <i>(2 possible answers, 1 required)</i></p>		
<p>What rope movements or rope positions should breaker outs never position themselves under? <i>(5 answers required)</i></p>		
<p>Explain the conditions that have to be met before a breaker out can enter the hook up area. <i>(3 answers, 2 required)</i></p>		

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2) THE CODE OF PRACTICE CONTINUED...

Questions	HBO's responses	Score
<p>How far from the butt end of a stem can a strop be safely attached? <i>(1 answer required)</i></p>		
<p>How far from the head end of a stem can a strop be safely attached? <i>(1 answer required)</i></p>		
<p>What must a loader operator check before clearing the chute? <i>(1 answer required)</i></p>		
<p>Explain what should be done if a gut hook or long butt has been attached. <i>(2 possible answers, 1 required)</i></p>		
<p>What should the hauler operator do when the breaker outs are in under the rigging? <i>(1 answer required)</i></p>		
<p>What must all breaker outs be doing before the "go-ahead" signal is given? <i>(2 answers required)</i></p>		
<p>How should a breaking out crew deal with a fouled drag? <i>(1 answer required)</i></p>		
TOTAL SCORE FOR CODE OF PRACTICE:		

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3) BREAKING OUT HAZARDS

This section involves the HBO identifying generic hazards associated with breaking out, as well as other hazards that may be specific to this operation. This exercise will identify generic hazards that appear in most operations.

Questions	HBO's responses	Score
<p>What are the main hazards associated with breaking out logs or stems in a cable logging operation? <i>(5 hazards required)</i></p>		
<p>What hazards arise from wire ropes and rigging when breaking out? <i>(3 main hazards, 2 required)</i></p>		
<p>What are the main hazards associated with terrain when breaking out? <i>(3 common hazards, 2 required)</i></p>		
<p>What are the common hazards with backline anchors when breaking out? <i>(3 main hazards, 2 required)</i></p>		
<p>What are the main hazards associated with other operations when breaking out? <i>(2 hazards, 1 required)</i></p>		
<p>What factors are likely to change the hazards for breaking out? <i>(3 factors, 2 required)</i></p>		
TOTAL SCORE FOR BREAKING OUT HAZARDS:		

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4) HEALTH HAZARDS

In this section, the HBO is expected to identify the health hazards associated with breaking out. The more hazards identified the higher the score up to a maximum of 13.

Questions	HBO's responses	Score
<p>What are the main health hazards likely to affect breaker outs? (13 possible answers, 10 required)</p>		
TOTAL SCORE FOR HEALTH HAZARDS:		

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5) PLANNING

This section tests what the HBO knows about the planning that's done for the breaking out operation. There are three levels of planning: the harvesting plan, a specific breaking out plan, and the daily tailgate or toolbox meeting that determines the day's plan. Documentation should be available to support answers

Questions	HBO's responses	Score
<p>What information should the HBO be looking for in the harvesting plan? <i>(4 possible answers, 3 required)</i></p>		
<p>What are the key components of a breaking out plan? <i>(4 components, 3 required)</i></p>		
<p>Who is responsible for ensuring the breaking out plan is prepared? <i>(2 answers required)</i></p>		
<p>Who should participate in the formulation of the breaking out plan? <i>(6 possible participants, 4 required)</i></p>		
<p>What information does the HBO need to establish the daily SRP? <i>(4 factors, 3 answers required)</i></p>		





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5) PLANNING CONTINUED...








Questions	HBO's responses	Score
<p>What factors does the HBO have to take into account when determining the SRP? <i>(5 factors, 4 answers required)</i></p>		
<p>If the HBO doesn't establish a SRP, what is the default position? <i>(2 answers required)</i></p>		
<p>How does the HBO ensure the whole extraction team knows the plan? <i>(2 answers, 1 required)</i></p>		
<p>Where should the breaker outs be before signaling the hauler operator? <i>(2 answers required)</i></p>		
<p>What should be done if an upset condition occurs? <i>(1 answer required)</i></p>		
TOTAL SCORE FOR PLANNING:		

6) COMMUNICATION

This section tests what the HBO knows about the communication procedures for cable logging. They need a good understanding of the ACoP's rules to answer this section correctly

Questions	HBO's responses	Score
<p>What are the minimum ACoP requirements for a cable logging communication system? <i>(2 answers required)</i></p>		
<p>What are the signals used to warn of an emergency situation? <i>(3 answers, 2 required)</i></p>		
<p>Who is responsible for signaling the hauler operator? <i>(1 answer required)</i></p>		
<p>What should be done if the communication system fails? <i>(1 answer required)</i></p>		
<p>What does this audible signal mean and what is the verbal command? <i>(2 answers required)</i></p>	 <i>Long, short</i>	
<p>What does this audible signal mean and what is the verbal command? <i>(2 answers required)</i></p>	 <i>Short, short</i>	
<p>What does this audible signal mean and what is the verbal command? <i>(2 answers required)</i></p>	 <i>Short</i>	
<p>What does this audible signal mean and what is the verbal command? <i>(2 answers required)</i></p>	 <i>Short, short, short</i>	

6) COMMUNICATION CONTINUED...

Questions	HBO's responses	Score
<p>What does this audible signal mean and what is the verbal command? (2 possible answers)</p>	 <p><i>Short, short (pause) short, short, short</i></p>	
<p>What does this audible signal mean and what is the verbal command? (2 possible answers)</p>	 <p><i>Short, short, long</i></p>	
<p>What does this audible signal mean and what is the verbal command? (2 possible answers)</p>	 <p><i>Five shorts</i></p>	
<p>What does this audible signal mean and what is the verbal command? (2 possible answers)</p>	 <p><i>Four shorts</i></p>	
<p>What does this audible signal mean and what is the verbal command? (2 possible answers)</p>	 <p><i>Long, short, short, long</i></p>	
<p>What does this audible signal mean? (1 possible answer)</p>	 <p><i>Long, short again, once the drag is broken out and moving freely.</i></p>	
<p>What does this audible signal mean? (1 possible answer)</p>	 <p><i>One long just as the drag comes over the edge of the landing.</i></p>	
TOTAL FOR COMMUNICATION:		

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7) MAINTAINING RIGGING

This section is about maintaining the rigging the operation is using at the time. HBOs should be familiar with the different systems and their maintenance requirements.

Questions	HBO's responses	Score
<p>How often should the HBO check ropes and splices for wear and damage? <i>(2 answers required)</i></p>		
<p>What are the 2 types of strop used in cable logging? <i>(2 answers, 1 required)</i></p>		
<p>What types of connecting devices are used to attach these strops to stems? <i>(3 answers, 1 required)</i></p>		
<p>What should be checked on a butt rigging? <i>(2 answers required)</i></p>		
<p>What should be checked on a rider block or fall block? <i>(3 answers required)</i></p>		
<p>What should be checked on an MSP carriage? <i>(3 possible answers)</i></p>		
<p>What maintenance items should be checked on a basic shotgun carriage? <i>(3 possible answers)</i></p>		

7) MAINTAINING RIGGING CONTINUED...

Questions	HBO's responses	Score
<p>What maintenance items should be checked on a motorised carriage? <i>(4 possible answers)</i></p>		
<p>What are the tell-tale signs a block is about to fail? <i>(3 answers required)</i></p>		
<p>What checks should be made on tailrope blocks? <i>(5 answers, 4 required)</i></p>		
<p>What should the HBO check on the tailrope stump/s? <i>(3 answers required)</i></p>		
<p>What should the HBO check on a mobile tailhold? <i>(4 possible answers)</i></p>		
TOTAL SCORE FOR MAINTAINING RIGGING:		

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8) LINESHIFTS

This section is about lineshifts and how they are done. If a lineshift occurs during the training, use that as an indication of the HBO's competence.

Questions	HBO's responses	Score
<p>What are the HBO's responsibilities when preparing for a lineshift? <i>(3 answers, 2 required)</i></p>		
<p>How does the HBO prepare anchors for a lineshift? <i>(3 answers, 2 required)</i></p>		
<p>What are the HBO's responsibilities when carrying out a lineshift? <i>(3 answers, 2 required)</i></p>		
<p>What are the HBO's responsibilities after a lineshift? <i>(4 answers, 3 required)</i></p>		

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8) LINESHIFTS CONTINUED...

Questions	HBO's responses	Score
<p>How should a HBO secure a tailhold anchor if the stumps are unstable or too small? <i>(4 answers, 2 required)</i></p>		
<p>Demonstrate or explain how to coil a section of strawline? <i>(1 answer required)</i></p>		
<p>Demonstrate, describe or draw how to tie a pass chain and explain where it would be used. <i>(1 description or diagram and 1 answer required)</i></p>		
TOTAL SCORE FOR LINESHIFTS:		

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9) PERSONAL PROTECTIVE EQUIPMENT

Trainer must check the HBO's equipment and PPE for compliance with the standards:

- ▶ If the item is available ✓ the box, but if the item is not available put a ✗ in the box.
- ▶ If the item is available and meets the standard, tick both boxes and write '2' in the right-hand column.
- ▶ If the item is available but does not meet the standard, write '1' in the right-hand column.
- ▶ If non-spiked boots are worn because of conditions, e.g. rocky ground or hard surfaces, score '2'.

Notes to assessing PPE: Situations where the maximum score may not be achievable include:

- ▶ Helmet has stickers on it or has evidence of paint being sprayed on it, score '1'.
- ▶ Hi-viz top is in good condition but faded or dirty, score '1'.
- ▶ Non-spiked boots in good condition but candidate should really have spikes, score '1'.
- ▶ Spikes are worn down or have more than two missing off any one boot, score '1'.

Mandatory Personal Protective Equipment	Required	Meets standard	Correctly used	Score
Safety helmet	Required			
Hi-viz top/vest/coat	Required			
Safety footwear (good condition)	Required			
Gloves	Required			
Communication or RT	Required			
First aid kit – (small kit with breaker out crew)	Required			
Adequate means of hydration	Optional			
Leggings	Optional			
SCORE FOR PPE WITHOUT CHAINSAW:				

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10) PERSONAL PROTECTIVE EQUIPMENT IF USING A CHAINSAW

Use this section and the next ONLY if there is a chainsaw at the break out site and the HBO has been using it to notch stumps.

Mandatory PPE when using a chainsaw	Required	Meets standard	Available and used	Score
Chainsaw chaps	Required			
Ear protection	Required			
Eye protection	Required			
Tree felling belt with wedges and hammer	Optional			
SCORE FOR PPE IF USING A CHAINSAW:				

11) PRE-START CHECK WITH CHAINSAW (IF USED)

Chainsaw: Use ✓ or ✗ to record results	Required	Used	Score
On/off switch?	Required		
Safety mitt?	Required		
Chain brake?	Required		
Throttle lock out?	Required		
Rear hand guard?	Required		
Muffler with spark arrestor?	Required		
Chain catcher peg?	Required		
Effective anti-vibration mounts?	Required		
All components secure and intact?	Required		
Chain stationary at idle?	Required		
Chain maintained – correctly fitted and sharpened?	Required		
Handles on all files/sharpening tools?	Required		
Is the chainsaw bar long enough and in good condition? (see note)			
Is the chainsaw size appropriate for the trees being felled? (see note)			
TOTAL SCORE FOR CHAINSAW:			

Note: Bar length and saw size can be issues of personal preference or cost, so unless the saw size or bar length is putting the HBO at risk they should not be penalised for having something different to what is considered normal for the situation.

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12) PRE-START CHECK - DOCUMENTATION

This section assesses the documentation the HBO have. Write 'NC' for 'not complete' at the bottom if any of the documentation is missing.

Documentation: Use ✓ or ✗	Required	Available	Understood	Score
Harvesting plan – signed by the principal	Required			
Breaking out plan – for the current setting	Required			
Tailgate/toolbox minutes – signed by HBO	Required			
Evidence of ongoing competence (see note)	Required	Note the type of evidence and the date of collection. <i>(Up to 3 points)</i>		
TOTAL SCORE FOR DOCUMENTATION:				

Note: At least one form of evidence is required and can include audits, safe behaviour observations, diary notes or TopSpot assessments.

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13) DEMONSTRATING SAFE WORK PRACTICES

The HBO must be watched working in the crew and asked questions to confirm the work procedures demonstrated are normal practice. Only tick boxes when the HBO is seen doing the task.

Sample size is 10% of daily cycles, so 6 – 8 cycles. Any more than one x in any row means the HBO is NC, for 'non-competent'.

Cycle number:	1	2	3	4	5	6	7	8	Score
Description of observation	✓ 1 x	✓ 1 x	✓ 1 x	✓ 1 x	✓ 1 x	✓ 1 x	✓ 1 x	✓ 1 x	Add up all ticks
Stands clear during outhaul.									
Distance away from ropes									
Waits until "stop" signal sounded.									
Takes care moving in to hook up.									
Safely controls strop during sorting.									
Stands clear while slack is fed.									
Instructs other breaker outs.									
Attaches strops correctly, efficiently.									
Stands clear if rigging repositioned.									
Assists others when necessary.									
Walks out to designated SRP.									
Distance to safe retreat position									
Ensures breaker outs stand behind.									
Faces drag before signal is given.									
Signalling device is correctly held.									
Watches drag during inhaul.									
Sends clear, concise signals.									
Warns others of hazards in drag.									
TOTAL SCORE FOR DEMONSTRATING SAFE WORK PRACTICES:									
<i>If any individual distance from the ropes during outhaul is under the minimum requirement, the result is 'NC'</i>									NC

Add up all the measured distances to the safe retreat position and enter in box A.	A	Divide box A by the number of SRP measurements taken and enter in box B	B
			m
<i>If any individual SRP distance is shorter than that specified in the plan, the result is 'NC'.</i>			NC
Comments:			

14) SUMMARY PAGE

Instructions to the trainer or foreman

When you have finished the assessment, add up the scores in each section and compare them with the maximum possible score. The difference between the HBO's score and the **maximum possible** score will show where they need to brush up on their knowledge of the rules, the condition of their equipment or their practical skills.

If the HBO's percentage is below the minimum required percentage in any category, or any of the criteria highlighted in grey has not been satisfied, the HBO has not met the standards and needs further training in that particular category. If the faller's overall score is below 80% the result is **not competent (NC)**. Use this information positively to bring the HBO up to the required level.

Note that a HBO may have achieved the minimum percentage required but still not passed because they have had more than the allowable number of **x** in the practical skills assessments.

Knowledge questions	HBO's score	Maximum score possible	HBO's %	Minimum % required
1) General knowledge		42		75%
2) The Code of Practice		22		90%
3) Breaking out hazards		19		75%
4) Health hazards		13		75%
5) Planning		32		80%
6) Communication		27		90%
7) Maintaining rigging		37		50%
8) Lineshifts		20		80%
RESULT FOR KNOWLEDGE		212		75%

Practical skills	HBO's score	Maximum score possible	HBO's %	Minimum % required
9) Personal protective equipment		16		75%
10) PPE if with chainsaw (if used)		8		75%
11) Pre-start check if using a chainsaw		26		95%
12) Pre-start check – documentation		9		80%
13) Demonstrating safe work practices		128		80%
RESULT – PRACTICAL SKILLS		153 or 187		80%

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OVERALL RESULTS

Overall result	HBO's score	Maximum score possible	HBO's %	Minimum % required
Total score: Knowledge + Practical skills tests		365 or 399		80%
Outcome of HBO Certification Assessment: <i>Circle one</i> ➔			C	NC

CONGRATULATIONS ON COMPLETING THIS TREE FELLING COMPETENCY ASSESSMENT

Improving skills and renewing competency is a vital part of staying safe and productive on the job.

Now that you've completed this training tool, concentrate on correcting the things you could have done better. A registered trainer/assessor can help.

If you're satisfied with your result, and you reckon you are up to the challenge, contact a Forestry Industry Safety Council assessor and get an official assessment done. Go to the Safetree website (safetree.nz) for contact details.

Completing this assessment successfully means your achievements will be acknowledged in a national database. It also means you and your crewmates know you're a safe and competent head breaker out, and others can see you're serious about keeping your skills sharp.

See safetree.nz for more tools and information to help you and everyone around you stay safe.

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