

EUROPEAN CHAINSAW STANDARDS: 2015

ECS (Tension): SIMULATION OF SEVERING timber under heavy tension-

This unit is appropriate for chainsaw operators who do not have access to e.g. windblown trees for training or assessment, or are cutting timber under heavy tension in their work situation. The timber will be horizontal or near horizontal in aspect.

What the chainsaw operator must be able to do: (Practical Test-Recommended guide bar size 30-38cm & maximum time allowed 1hr)

Minimum pre-requisite: ECC1

		Diagnostic tools				
		Written	Practical	Oral	Other	Critical
ECS (T)-1	TAKE CARE OF YOURSELF (PPE) AND OTHERS AROUND YOU AT WORK - Candidate to wear appropriate PPE, sign RA & show ID:	√	√			1
1:1	Chainsaw safety trousers		√			√ 1:1
1:2	Chainsaw safety boots		√			√ 1:2
1:3	Safety helmet		√			√ 1:3
1:4	Eye & ear protection		√			√ 1:4
1:5	Gloves appropriate to task		√			1:5
1:6	Non-snag outer clothing		√			1:6
1:7	Personal /Squad First Aid Kit - on work site		√			√ 1:7
1:8	Whistle/Mobile/Radio		√			1:8
ECS (T)-2	PLANNING THE WORK INCLUDING WHAT TO DO IF THERE IS AN EMERGENCY - Candidate to identify hazards relevant to the site & trees:	√	√			2
2:1	Risk Assessment		√			2:1
2:2	Method statement		√			2:2
2:3	Emergency planning		√			2:3
ECS (T)-3	OPERATIONAL SAFETY CHECKS - Candidate to check chainsaw for condition/sharpness etc and pre-use safety:	√	√			3
3:1	Cold/Warm start method (ground/'leg lock')		√			3:1
3:2	Safe start distance from fuel (min.1m or greater according to national guidance)		√			3:2
3:3	Chain brake tested with saw running		√			√ 3:3
3:4	Saw checked for oiling (e.g. oil throw test or oil present on drive links)		√			3:4
3:5	Chain not moving when throttle released (no chain creep)		√			3:5
3:6	On/off switch is working (pull choke to stop if not, then label not to be used)		√			3:6
3:7	Chain tension 'warm' re-checked		√			3:7
ECS (T)-4	MEET LEGAL & SITE ENVIRONMENTAL REQUIREMENTS IN ACCORDANCE WITH NATIONAL STANDARDS - Candidate to check specifications:	√	√			4
4.1	Protection of fauna, flora, wildlife, waterways, site specifications etc, regards pollution/damage:		√			√ 4.1

ECS (T)-5	SIMULATE SEVERING TREE ROOT-PLATES BOTH UNDER & OVER EFFECTIVE GUIDE BAR DIAMETER USING APPROPRIATE CUTS ON TENSIONED TIMBER SECTIONS - The candidate must restrain one with a winch (backward, forward or side tensioned) using safe techniques:	√	√					5
	Candidate to demonstrate 2 different cuts to sever a minimum of 3 tensioned timber sections using appropriate cuts from: 1. Boring technique; 2. V-cut 3. Stepped cuts. 3 different tension/compression situations need to be simulated: 1. Tension above 2. Tension below; 3. Side tension							
5:1	Check no risk to the operator from the tensioned timber sections springing (including sideways)		√			√		5:1
5:2	Identify tension and compression in timber sections and select severing methods		√			√		5:2
5:3	Sever timber section with simulated tension safely using a technique involving boring cuts if appropriate		√			√		5:3
5:4	Sever timber section with simulated tension safely using a technique involving 'V'-style cuts		√			√		5:4
5:5	Sever timber section with simulated tension safely using a technique involving stepped cuts		√			√		5:5
5:6	Ensure timber sections are left in a safe and appropriate position and condition to enable subsequent operations		√					5:6
5:7	Restrain a timber section with simulated top, bottom or side tension with a winch using safe anchor point(s) and compatible winching components & ancillary equipment		√					5:7
5:8	Sever simulated winch-restrained timber section safely using appropriate cuts (may be achieved as part of 3, 4 or 5 above)		√			√		5:8
5:9	Ensure timber sections and simulated root-plate ends are left safe, in appropriate position & condition		√					5:9
5:10	Recover, clean and check winch as appropriate		√					5:10
5:11	Site left safe & tidy		√					5:11
LO-6	PREPARE THE SITE & SIMULATE FELLING A DAMAGED TREE - The candidate will have to fell a minimum of either a section of timber under severe tension in the felling direction or timber section with a broken top as chosen by the assessor:	√	√					
6:A1	Timber section inspected for signs of rot or decay, loose branches & accurate evaluation of weight distribution and selection of fuel storage		√			√		
6:A2	Correct brashing technique demonstrated: position of the saw in relation to the operator, bar on opposite side of stem or out of line of head/neck and body		√					
6:A3	Saw body not used above shoulder height		√			√		
6:A4	Choice of felling direction made		√					
6:A5	Escape routes prepared and selected		√			√		
6:A6	Where a winch/mechanical assistance is being used: maintain safe working distances		√					
	Candidate to cut a sink to determine felling direction, using:							
6B:1	Safe stance		√					
6B:2	Top sink cut normally between 45-60°		√					
6B:3	Bottom sink cut as close to ground as practicable		√					
6B:4	Cuts 20-30% into stem unless RA dictates otherwise		√					
6B:5	Sink cuts to meet accurately		√					
6B:6	Sink facing in the chosen direction of fall		√			√		
6B:7	Chain brake as appropriate		√					
6B:8	Boring cut made if safe & appropriate into the middle of the sink at appropriate height, depth and width to remove centre of the timber section		√					

	Candidate to make the main felling cut using:					
6C:1	Safe stance	✓				
6C:2	Buttresses removed or "ears" cut at appropriate depth and height to avoid tearing as appropriate	✓				
6C:3	Main felling cut in line with or slightly above level of sink & use of plunge/boring cuts as appropriate	✓				
6C:4	Final felling cut from tension side if appropriate	✓				
6C:5	Safe withdrawal of the saw	✓				
6C:6	Chain brake as appropriate	✓				
6C:7	A hinge retained no less than 10% timber diameter at felling height unless the RA dictates otherwise	✓				
6C:8	Site check for safety before the main felling cut completed & shout verbal warning	✓				
6C:9	Appropriate aid tools as required to assist felling the timber section	✓				
6C:10	Use a prepared escape route as soon as the timber section begins to fall, not losing sight of it	✓			✓	

ECS (Tension): - SIMULATION

What the chainsaw operator must know and understand: (Theory Test) Tension						
1	Demonstrate knowledge of safety considerations and legal requirements when dealing with timber under heavy tension	✓		✓	✓	1
2	Demonstrate knowledge of safety regarding overhead and underground services when dealing with timber under heavy tension	✓		✓	✓	2
3	Describe the features of tension and compression in the timber to be considered when dealing with timber under heavy tension	✓		✓	✓	3
4	Demonstrate knowledge of when it is appropriate to use aid tools when dealing with timber under heavy tension	✓		✓	✓	4
5	Demonstrate knowledge of where winches may also be used when dealing with timber under heavy tension	✓		✓	✓	5
6	Demonstrate knowledge of additional safety considerations that may be needed when dealing with timber under heavy tension	✓		✓	✓	6
7	Demonstrate knowledge of other types of uprooted or damaged trees that will require specialist methods	✓		✓	✓	7
8	Demonstrate knowledge of selecting and inspecting winch and ancillary equipment for condition and compatibility	✓		✓	✓	8
9	Demonstrate knowledge of inspection of an uprooted tree, site and winch anchor point(s) and system to be set up	✓		✓	✓	9
10	Demonstrate knowledge of selecting a winch anchor point and suitability of attachments & winch	✓		✓	✓	10
11	Demonstrate knowledge of when offset winching should be used and additional precautions required	✓		✓	✓	11
12	Demonstrate knowledge of alternative methods of restraining timber under heavy tension	✓		✓	✓	12
13	Demonstrate knowledge of how to sever multiple windblown trees from roots, both under and over guidebar length in diameter	✓		✓	✓	13
14	Demonstrate knowledge of methods of dealing with timber that has side tension	✓		✓	✓	14
15	Demonstrate knowledge of how to fell leaning, half-blown trees	✓		✓	✓	15

16	Demonstrate knowledge of safety factors to consider when felling broken trees leaning, half blown trees and hung sections	√		√	√		16
17	Demonstrate knowledge of methods of dealing with a broken tree section lodged in or on a standing tree	√		√	√		17
18	Demonstrate knowledge of severing timber under heavy tension, working on slopes	√		√	√	√	18
18	Demonstrate knowledge of severing timber under heavy tension, working with a range of timber types, hazardous and/or damaged timber	√		√	√	√	18
19	Demonstrate knowledge of identifying safety points when planning work, cutting timber under heavy tension (e.g. the order of operation)	√		√	√	√	19
20	Demonstrate knowledge of safety requirements where machinery is to be used to extract timber as windblown clearance progresses	√		√	√	√	20
		Written	Practical	Oral	Other	Critical	