

To include in all translations:

This is a translation of the original English version of the EFESC handbook and its appendices.  
 This translated version is subordinate to the original English version.

## EUROPEAN CHAINSAW STANDARDS version 2022

### ECS 1: Chainsaw Maintenance and Crosscutting Techniques

What the chainsaw operator must be able to do:

chainsaw maintenance and crosscutting with a chainsaw with recommended guide bar size 30-38cm

<b>ECS1-1</b>	<b>Take care of yourself (PPE) and others around you at work - Chainsaw operator to wear appropriate PPE for maintenance.</b>
<b>1:01</b>	<b>Safety boots</b>
<b>1:02</b>	<b>Eye (&amp; ear) protection as appropriate</b>
<b>1:03</b>	<b>Personal /Squad First Aid Kit - on <u>every</u> work site</b>
<b>1:04</b>	<b>Gloves appropriate to task</b>
<b>ECS1-2</b>	<b>Routine / daily CHAINSAW MAINTENANCE - Chainsaw operator must be able to check function of safety features: (chainsaw off)</b>
<b>2A:1</b>	<b>Chain brake</b>
<b>2A:2</b>	<b>Anti-vibration mounts</b>
<b>2A:3</b>	<b>Safety chain</b>
<b>2A:4</b>	<b>Throttle lock</b>
<b>2A:5</b>	<b>Exhaust away from the operator</b>
<b>2A:6</b>	<b>Chain catcher</b>
<b>2A:7</b>	<b>Legal symbols: Head/eye/ear defender</b>
<b>2A:8</b>	<b>Right hand guard</b>
<b>2A:9</b>	<b>Left hand guard</b>
<b>2A:10</b>	<b>Chain/Bar cover</b>
<b>2A:11</b>	<b>Functional clearly marked on/off switch</b>
	<b>Chainsaw operator must be able to sharpen whole saw chain:</b>
<b>2B:1</b>	<b>Chain checked for damage and compatibility with bar and sprockets</b>
<b>2B:2</b>	<b>Cutters sharpened using file of correct size with handle fitted &amp; correct top/side plate angles maintained</b>
<b>2B:3</b>	<b>Equal length of cutters maintained</b>
<b>2B:4</b>	<b>Filing burrs removed if needed</b>
<b>2B:5</b>	<b>Height and profile of depth gauges checked / set</b>
	<b>Chainsaw operator must be able to maintain guide bar:</b>
<b>2C:1</b>	<b>Straightness of bar checked</b>

<b>2C:2</b>	<b>Identify uneven/damaged/blued/cracked rails</b>
<b>2C:3</b>	Burrs removed and edges chamfered/curved
<b>2C:4</b>	Groove (depth checked) and oil holes cleared
<b>2C:5</b>	Sprocket sidegreased if applicable
<b>2C:6</b>	Bar turned to reduce wear
	Chainsaw operator must be able to undertake other maintenance tasks:
<b>2D:1</b>	Drive sprocket inspected
<b>2D:2</b>	<b>Chain brake cleaned &amp; inspected</b>
<b>2D:3</b>	Chainsaw operator to correctly re-assemble chain, bar and side plate
	Chainsaw operator must be able to inspect & clean air filter:
<b>2E:1</b>	Remove debris from around filter
<b>2E:2</b>	Remove and clean filter protecting carburetor intake
	Chainsaw operator must be able to clean, inspect & re-tension starter recoil mechanism:
<b>2F:1</b>	Remove starter cover, clear air ways, check cord wear
<b>2F:2</b>	Release and re-tension cord and coil spring
<b>2F:3</b>	Check handle/pull toggle for security
<b>ECS1-3</b>	<b>Take care of yourself (PPE) and others around you at work - Chainsaw operator to wear appropriate PPE for crosscutting</b>
<b>3:01</b>	<b>Chainsaw safety trousers</b>
<b>3:02</b>	<b>Chainsaw safety boots</b>
<b>3:03</b>	<b>Safety helmet if necessary</b>
<b>3:04</b>	<b>Eye &amp; ear protection</b>
<b>3:05</b>	Gloves appropriate to task
<b>3:06</b>	Non-snag outer clothing
<b>3:07</b>	Whistle/Mobile/Radio
	<b>Planning the work including what to do if there is an emergency - Chainsaw operator must be able to identify hazards relevant to the site and timber to be cut:</b>
	<b>RISK ASSESSMENT - walk site, METHOD STATEMENT – verbal, EMERGENCY PLANNING - check information</b>
<b>ECS1-4</b>	<b>OPERATIONAL SAFETY CHECKS - Chainsaw operator must be able to check a two-stroke chainsaw for condition/sharpness etc and pre-use safety: (Still applicable if battery chainsaw is used for cross-cutting)</b>
<b>4:01</b>	Cold/Warm start method (ground/'leg lock')
<b>4:02</b>	Safe start distance from fuel (min.1m or greater according to national guidance, no spillage, gases released)
<b>4:03</b>	<b>Function of chain brake tested, left hand guard and throttle lock</b>
<b>4:04</b>	Saw checked for oiling (e.g. oil throw test or oil present on drive links)

<b>4:05</b>	Chain not moving when throttle released (no chain creep)
<b>4:06</b>	On/off switch is working (pull choke to stop if not, then label not to be used)
<b>4:07</b>	Chain tension 'warm' re-checked
<b>ECS1-5</b>	<b>MEET LEGAL &amp; SITE ENVIRONMENTAL REQUIREMENTS IN ACCORDANCE WITH NATIONAL STANDARDS - Chainsaw operator must be able to check specifications:</b>
<b>5:01</b>	<b>Protection of fauna, flora, wildlife, waterways, site specifications etc, regards pollution/damage, selection of fuel storage:</b>
<b>5:02</b>	Use bio-oils whenever possible
<b>5:03</b>	Prevent waste or dispose of it without causing further damage, in accordance with the regulations, especially according to the standard for recyclable waste
<b>ECS1-6</b>	<b>INSPECT TIMBER &amp; USE SAFE CROSSCUT METHODS</b>
<b>6:01</b>	Walk site, check timber
<b>6:02</b>	Safe stance, well balanced
<b>6:03</b>	Bar aligned to maintain accuracy
<b>6:04</b>	<b>Head/neck are not allowed across of line of chain (unless checking the line of the cuts with bar tip in full view)</b>
<b>6:05</b>	Use of throttle to cut safely and efficiently
<b>6:06</b>	<b>Left thumb around top handle</b>
<b>6:07</b>	Use of boring to initiate cuts where access is limited
<b>6:08</b>	<b>Sequence of cuts is made to avoid saw becoming trapped or uncontrolled timber movement i.e. splitting</b>
<b>6:09</b>	Tension and compression cuts should meet
<b>6:10</b>	<b>Chain brake used appropriately: when walking with the engine running, if the saw has to be put down while moving cut material or before taking a hand off the saw</b>
<b>6:11</b>	Safe withdrawal of saw from the cut
<b>6:12</b>	Ergonomics: straight back, use of legs to control saw, bending at knees
<b>ECS1-7</b>	<b>SELECT &amp; USE APPROPRIATE AID TOOLS - Chainsaw operator must be able to use appropriate aids to handle / move products:</b>
<b>7:01</b>	Correct stance during lifting
<b>7:02</b>	Avoiding excessive lifting by levering, sliding, rolling etc
<b>7:03</b>	Site left tidy & safe
<b>What the chainsaw operator must know and understand: ECS1</b>	
<b>1</b>	Demonstrate knowledge of how to identify hazards and comply with the control measures of risk assessments
<b>2</b>	Demonstrate knowledge of emergency planning and procedures
<b>3</b>	Demonstrate knowledge on why the PPE is required and what kind of PPE that is required
<b>4</b>	Demonstrate knowledge of carrying out daily and weekly maintenance, settings and pre-start checks as per manufacturers' recommendations
<b>4:01</b>	Demonstrate knowledge of information required to select a replacement chain for a given saw

<b>4:02</b>	Demonstrate knowledge of reasons for chain maintenance
<b>4:03</b>	Demonstrate knowledge of reasons for maintaining guide bar
<b>4:04</b>	Demonstrate knowledge on sprocket replacement
<b>4:05</b>	Demonstrate knowledge on clutch components
<b>4:06</b>	Demonstrate knowledge on power unit and covers and inspect for damage
<b>4:07</b>	Demonstrate knowledge on condition of spark plug
<b>4:08</b>	Demonstrate knowledge on chain tension
<b>4:09</b>	Demonstrate knowledge on air filter and compartment and explain the purpose of cleaning
<b>4:10</b>	Demonstrate knowledge on cord condition and recoil starter mechanism
<b>4:11</b>	Demonstrate knowledge on fuel filter maintenance
<b>4:12</b>	Demonstrate knowledge on condition and pre-use operational safety checks on the chainsaw
<b>4:13</b>	Demonstrate knowledge on chain oiling system and on their function
<b>4:14</b>	Demonstrate knowledge of symptoms associated with poor cutting performance
<b>5</b>	Demonstrate knowledge of maintaining the safety and security of chainsaw(s) and other equipment
<b>5:01</b>	Demonstrate knowledge of risks of improper handling of batteries (transport, storage and charging)
<b>5:02</b>	Demonstrate knowledge of factors leading to battery damage
<b>5:03</b>	Demonstrate knowledge of how to identify battery damage
<b>5:04</b>	Demonstrate knowledge of proper transportation, storage and charging of batteries,
<b>6</b>	Demonstrate knowledge of the safety considerations required during crosscutting.
<b>7</b>	Demonstrate knowledge of maintaining effective teamwork when working with others
<b>8</b>	Demonstrate knowledge of how to remove a trapped saw
<b>9</b>	Demonstrate knowledge of the alternative methods of carrying out a boring cut and the safeguards required
<b>10</b>	Demonstrate knowledge of the risks associated with using long chainsaw bars to cut small diameter timber
<b>11</b>	Demonstrate knowledge of methods required for cross cutting timber of greater diameter than the chainsaw bar
<b>12</b>	Demonstrate knowledge of the implications of terrain, ground conditions, season, weather and species
<b>13</b>	Demonstrate knowledge of causes of, and how to prevent, potential pollution, environmental damage
<b>14</b>	Demonstrate knowledge of how to identify your own capabilities and limitations as operator
<b>15</b>	Demonstrate knowledge of the principles of a safe effective stance while crosscutting under guidebar length in diameter
<b>16</b>	Demonstrate knowledge of how to apply ergonomic working methods and the implications of manual handling regulations
<b>17</b>	Demonstrate knowledge of how to move or roll timber by hand and with mechanical assistance
<b>18</b>	Demonstrate knowledge regarding first aid and chainsaw use
<b>19</b>	Demonstrate knowledge of how to identify tension and compression in timber

<b>20</b>	Demonstrate knowledge of the methods and safeguards required when dismantling timber (e.g. hardwood or similar tops) with vertically aligned stems, branches or sections
<b>21</b>	Demonstrate knowledge of precautions to take to avoid the danger of logs rolling

### ECC1 assessment: EFESC prescriptions of tasks and criteria

**To obtain a European Chainsaw Certificate level 1, you must pass an assessment in which your skills and knowledge, both theoretical and practical, are tested. With this certificate you can prove your competence to work according to the European minimum Chainsaw Standards level 1.**

**If national standards or assessment procedures are more stringent and ECS1 is covered, an ECC1 label can be added to the current certificate by a certified assessment center.**

**During the assessment, the following minimum tasks and criteria must be checked objectively according the standards by a certified assessor. Training and assessing must be separated: the assessor may not be familiar with the candidate.**

**Pre-requisite to ECC1 assessment: none**

### ECC1 assessment tasks:

**Using a battery chainsaw is permitted. Apart from sharpening, which can be conducted on battery chainsaw, all other maintenance must be conducted on two-stroke chainsaw.**

**Candidates need to demonstrate knowledge and basic practical skills of operating two-stroke chainsaws.**

**Theoretical test:**

- Written or oral

**Practical Test: (only sharpening and cross-cutting can be undertaken with battery chainsaw)**

- Recommended guide bar size 30-38cm & maximum time allowed 60min
- Candidate has to sign RA, show ID and wear appropriate PPE for maintenance and crosscutting
- Candidate has to check function of safety features (chainsaw off)
- Candidate has to maintain guide bar
- Candidate has to undertake other maintenance tasks
- Candidate has to inspect & clean air filter
- Candidate has to clean, inspect & re-tension starter recoil mechanism
- Candidate has to sharpen whole saw chain
- Candidate has to identify hazards relevant to the site and timber to be cut
- Candidate has to check the legal & site environmental requirements in accordance with national standards.

	- Candidate has to perform timber Inspection, Risk Assessment (RA), work planning and emergency planning
	- Candidate has to check chainsaw for condition/sharpness etc and pre-use safety
	- Candidate has to crosscut timber under guide bar length, according to the measurements given with some moderate tension & compression present: <u>A minimum of 10 cross cuts</u> need to be demonstrated to standard using both upper & lower side of the guide bar, including <u>a minimum of 2 vertical boring cuts</u> .
	- Candidate has to demonstrate an ergonomic use of appropriate aids to handle / move timber
	- Candidate using battery chainsaw has to demonstrate basic skills in handling a two-stroke chainsaw (maintenance, fuelling, starting and operational safety checks)

**Critical faults or a combination of relevant faults against the good practice of these standards will lead to not passing the assessment.  
The assessor has the right and duty to stop the assessment if direct safety is compromised.**

### ECC1 critical assessment criteria:

**Theoretical test:**

- If multiple choice: recommended minimum score to succeed: 70% (depending on the national scoring system)

**Practical Test:**

**CRITICAL (C): IF ONE OF THE FOLLOWING critical POINTS IS NOT FULFILLED, THE CANDIDATE CAN NOT PASS ECC level 1:**

- |             |   |
|-------------|---|
| <b>none</b> | - the candidate wears appropriate PPE for maintenance and crosscutting                                  |
| <b>none</b> | - the candidate checks function of chainbrake, left hand guard and throttle lock                        |
| <b>none</b> | - sequence of cuts is made to avoid saw becoming trapped or uncontrolled timber movement i.e. splitting |

**RELEVANT (R): IF, AFTER ONE WARNING, MORE THAN THE MAXIMUM NUMBER OF RELEVANT ERRORS ON THE TOPICS BELOW ARE MADE, THEN THE CANDIDATE CAN NOT PASS ECC level 1:**

<b>3 Max. number of errors allowed</b>	- the candidate has a personal /Squad First Aid Kit – on <u>every</u> work site
	- the candidate checks the chain catcher, etc
	- the candidate sharpens the cutters using file of correct size with handle fitted & correct top/side plate angles
	- the candidate checks / set the height and profile of depth gauges
	- the candidate identifies uneven/damaged/blued/cracked rails
	- the candidate checks protection of fauna, flora, wildlife, waterways, site specifications etc, regards pollution/damage
	- the candidate performs timber Inspection, Risk Assessment (RA), work planning and emergency planning
	- the candidate uses the chain brake appropriately: when walking with the engine running, if the saw has to be put down while moving cut material or before taking a hand off the saw
	- Head/neck are not allowed across of line of chain (unless checking the line of the cuts with bar tip in full view), left thumb around top handle