

# EUROPEAN CHAINSAW STANDARDS: 2014

## ECS 1: Chainsaw Maintenance and Crosscutting Techniques

**What the chainsaw operator must be able to do: (Practical Test: Recommended guide bar size 30-38cm & maximum time allowed 60min)**  
**Pre-requisite: none**

		Diagnostic tools				
		Written	Practical	Oral	Other	Critical
<b>ECS1-1</b>	<b>Take care of yourself (PPE) and others around you at work</b> - Candidate to wear appropriate <u>PPE for maintenance</u> , sign RA & show ID:	√	√			<b>1</b>
<b>1:1</b>	<b>Safety boots</b>		√			<b>1:1</b>
<b>1:2</b>	<b>Eye (&amp; ear) protection as appropriate</b>		√			<b>1:2</b>
<b>1:3</b>	<b>Personal /Squad First Aid Kit - on <u>every</u> work site</b>		√			<b>1:3</b>
<b>1:4</b>	<b>Gloves appropriate to task</b>		√			<b>1:4</b>
<b>ECS1-2</b>	<b>Routine / daily CHAINSAW MAINTENANCE</b> - Candidate to check <u>function</u> of safety features: (chainsaw off)	√	√			<b>2</b>
<b>2A:1</b>	<b>Chain brake</b>		√			<b>2A:1</b>
<b>2A:2</b>	<b>Anti-vibration mounts</b>		√			<b>2A:2</b>
<b>2A:3</b>	<b>Safety chain</b>		√			<b>2A:3</b>
<b>2A:4</b>	<b>Throttle lock</b>		√			<b>2A:4</b>
<b>2A:5</b>	<b>Exhaust away from the operator</b>		√			<b>2A:5</b>
<b>2A:6</b>	<b>Chain catcher</b>		√			<b>2A:6</b>
<b>2A:7</b>	<b>Legal symbols: Head/eye/ear defender</b>		√			<b>2A:7</b>
<b>2A:8</b>	<b>Right hand guard</b>		√			<b>2A:8</b>
<b>2A:9</b>	<b>Left hand guard</b>		√			<b>2A:9</b>
<b>2A:10</b>	<b>Chain/Bar cover</b>		√			<b>2A:10</b>
<b>2A:11</b>	<b>Functional clearly marked on/off switch</b>		√			<b>2A:11</b>
	<b>Candidate to <u>sharpen whole saw chain</u>:</b>					
<b>2B:1</b>	<b>Chain checked for damage and compatibility with bar and sprockets</b>		√			<b>2B:1</b>
<b>2B:2</b>	<b>Cutters sharpened using file of correct size with handle fitted &amp; correct top/side plate angles</b>		√			<b>2B:2</b>
<b>2B:3</b>	<b>Equal length of cutters maintained</b>		√			<b>2B:3</b>
<b>2B:4</b>	<b>Filing burrs removed if needed</b>		√			<b>2B:4</b>
<b>2B:5</b>	<b>Height and profile of depth gauges checked / set</b>		√			<b>2B:5</b>
	<b>Candidate to <u>maintain guide bar</u>:</b>					
<b>2C:1</b>	<b>Straightness of bar checked</b>		√			<b>2C:1</b>
<b>2C:2</b>	<b>Identify uneven/damaged/blued/cracked rails</b>		√			<b>2C:2</b>
<b>2C:3</b>	<b>Burrs removed and edges chamfered/curved</b>		√			<b>2C:3</b>
<b>2C:4</b>	<b>Groove (depth checked) and oil holes cleared</b>		√			<b>2C:4</b>
<b>2C:5</b>	<b>Sprocket nose greased if applicable</b>		√			<b>2C:5</b>

<b>2C:6</b>	Bar turned to reduce wear		√				<b>2C:6</b>
	Candidate to undertake other maintenance tasks:						
<b>2D:1</b>	Drive sprocket inspected		√				<b>2D:1</b>
<b>2D:2</b>	<b>Chain brake cleaned &amp; inspected</b>		√		√		<b>2D:2</b>
<b>2D:3</b>	Candidate to correctly re-assemble chain, bar and side plate		√				<b>2D:3</b>
	Candidate to inspect & clean air filter:						
<b>2E:1</b>	Remove debris from around filter		√				<b>2E:1</b>
<b>2E:2</b>	Remove and clean filter protecting carburetor intake		√				<b>2E:2</b>
	Candidate to clean, inspect & re-tension starter recoil mechanism:						
<b>2F:1</b>	Remove starter cover, clear air ways, check cord wear	√	√				<b>2G:1</b>
<b>2F:2</b>	Release and re-tension cord and coil spring		√				<b>2G:2</b>
<b>2F:3</b>	Check handle/pull toggle for security		√				<b>2G:3</b>
<b>ECS1-3</b>	<b>Take care of yourself (PPE) and others around you at work</b> - Candidate to <b>wear appropriate PPE for crosscutting</b>	√	√				
<b>3:1</b>	<b>Chainsaw safety trousers</b>		√		√		<b>3:1</b>
<b>3:2</b>	<b>Chainsaw safety boots</b>		√		√		<b>3:2</b>
<b>3:3</b>	<b>Safety helmet if necessary</b>		√		√		<b>3:3</b>
<b>3:4</b>	<b>Eye &amp; ear protection</b>		√		√		<b>3:4</b>
<b>3:5</b>	Gloves appropriate to task		√				<b>3:5</b>
<b>3:6</b>	Non-snag outer clothing		√				<b>3:6</b>
<b>3:7</b>	Whistle/Mobile/Radio		√				<b>3:7</b>
	<b>Planning the work including what to do if there is an emergency</b> - Candidate to identify hazards relevant to the site and timber to be cut:						
	<b>RISK ASSESSMENT - walk site, METHOD STATEMENT – verbal, EMERGENCY PLANNING - check information</b>	√	√		√		
<b>ECS1-4</b>	<b>OPERATIONAL SAFETY CHECKS</b> - Candidate to check chainsaw for condition/sharpness etc and pre-use safety:	√	√				<b>LO-4</b>
<b>4:1</b>	Cold/Warm start method (ground/'leg lock')		√				<b>4:1</b>
<b>4:2</b>	Safe start distance from fuel (min.1m or greater according to national guidance, no spillage, gases released)		√				<b>4:2</b>
<b>4:3</b>	<b>Chain brake tested with saw running</b>		√		√		<b>4:3</b>
<b>4:4</b>	Saw checked for oiling (e.g. oil throw test or oil present on drive links)		√				<b>4:4</b>
<b>4:5</b>	Chain not moving when throttle released (no chain creep)		√				<b>4:5</b>
<b>4:6</b>	On/off switch is working (pull choke to stop if not, then label not to be used)		√				<b>4:6</b>
<b>4:7</b>	Chain tension 'warm' re-checked		√				<b>4:7</b>
<b>ECS1-5</b>	<b>MEET LEGAL &amp; SITE ENVIRONMENTAL REQUIREMENTS IN ACCORDANCE WITH NATIONAL STANDARDS</b> - Candidate to check specifications:	√	√				<b>LO-5</b>
<b>5.1</b>	Protection of fauna, flora, wildlife, waterways, site specifications etc, regards pollution/damage, selection of fuel storage:						<b>5.1</b>
<b>ECS1-6</b>	<b>INSPECT TIMBER &amp; USE SAFE CROSSCUT METHODS</b>	√	√				<b>LO-6</b>

Candidate to crosscut timber under guide bar length, according to the measurements given with some moderate tension & compression present: A <u>minimum of 10</u> cross cuts need to be demonstrated to standard using both upper & lower nose of the guide bar, including a <u>minimum of 2</u> vertical boring cuts.						
<b>6:1</b>	Walk site, check timber		√			<b>6:1</b>
<b>6:2</b>	Safe stance, well balanced		√			<b>6:2</b>
<b>6:3</b>	Bar aligned to maintain accuracy		√			<b>6:3</b>
<b>6:4</b>	<b>Head/neck are not allowed across of line of chain</b>		√		√	<b>6:4</b>
<b>6:5</b>	Use of throttle to cut safely and efficiently		√			<b>6:5</b>
<b>6:6</b>	Left thumb around top handle		√			<b>6:6</b>
<b>6:7</b>	Use of boring to initiate cuts where access is limited		√			<b>6:7</b>
<b>6:8</b>	Sequence of cuts to prevent saw becoming trapped or uncontrolled timber movement i.e. splitting		√			<b>6:8</b>
<b>6:9</b>	Tension and compression cuts should meet		√			<b>6:9</b>
<b>6:10</b>	Chain brake used appropriately: when walking with the engine running, if the saw has to be put down whilst moving cut material or before taking a hand off the saw		√			<b>6:10</b>
<b>6:11</b>	Safe withdrawal of saw from the cut		√			<b>6:11</b>
<b>6:12</b>	Ergonomics: straight back, use of legs to control saw, bending at knees		√			<b>6:12</b>
<b>ECS1-7</b>	<b>SELECT &amp; USE APPROPRIATE AID TOOLS</b> -Candidate to demonstrate use of appropriate aids to handle / move products:	√	√			<b>LO-7</b>
<b>7:1</b>	Correct <b>stance during lifting</b>		√			<b>7:1</b>
<b>7:2</b>	Avoiding excessive lifting by levering, sliding, rolling etc		√			<b>7:2</b>
<b>7:3</b>	Site left tidy & safe		√			<b>7:3</b>
<b>What the chainsaw operator must know and understand: (Theory Test) ECS1</b>						
<b>1</b>	Demonstrate knowledge of how to identify hazards and comply with the control measures of risk assessments	√	√	√		<b>1</b>
<b>2</b>	Demonstrate knowledge of eemergency planning and procedures	√	√	√	√	<b>2</b>
<b>3</b>	Demonstrate knowledge on why the PPE is required and what kind of PPE that is required	√			√	<b>3</b>
<b>4</b>	Demonstrate knowledge of carrying out daily and weekly maintenance, settings and pre-start checks as per manufacturers' recommendations	√				<b>4</b>
<b>4:1</b>	Demonstrate knowledge of information required to select a replacement chain for a given saw	√				<b>4:1</b>
<b>4:2</b>	Demonstrate knowledge of reasons for chain maintenance	√				<b>4:2</b>
<b>4:3</b>	Demonstrate knowledge of reasons for maintaining guide bar	√				<b>4:3</b>
<b>4:4</b>	Demonstrate knowledge on sprocket replacement	√				<b>4:4</b>
<b>4:5</b>	Demonstrate knowledge on clutch components	√				<b>4:5</b>
<b>4:6</b>	Demonstrate knowledge on power unit and covers and inspect for damage	√				<b>4:6</b>
<b>4:7</b>	Demonstrate knowledge on condition of spark plug	√				<b>4:7</b>
<b>4:8</b>	Demonstrate knowledge on chain tension	√				<b>4:8</b>
<b>4:9</b>	Demonstrate knowledge on air filter and compartment and explain the purpose of cleaning	√				<b>4:9</b>
<b>4:10</b>	Demonstrate knowledge on cord condition and recoil starter mechanism	√				<b>4:10</b>
<b>4:11</b>	Demonstrate knowledge on fuel filter maintenance	√				<b>4:11</b>
<b>4:12</b>	Demonstrate knowledge on condition and pre-use operational safety checks on the chainsaw	√				<b>4:12</b>
<b>4:13</b>	Demonstrate knowledge on chain oiling system and on their function	√				<b>4:13</b>

<b>4:14</b>	Demonstrate knowledge of symptoms associated with poor cutting performance	√					<b>4:14</b>
<b>5</b>	Demonstrate knowledge of maintaining the safety and security of chainsaw(s) and other equipment	√					<b>5</b>
<b>6</b>	Demonstrate knowledge of the safety considerations required during crosscutting.	√	√				<b>6</b>
<b>7</b>	Demonstrate knowledge of maintaining effective teamwork when working with others	√					<b>7</b>
<b>8</b>	Demonstrate knowledge of how to remove a trapped saw	√					<b>8</b>
<b>9</b>	Demonstrate knowledge of the alternative methods of carrying out a boring cut and the safeguards required	√					<b>9</b>
<b>10</b>	Demonstrate knowledge of the risks associated with using long chainsaw bars to cut small diameter timber	√					<b>10</b>
<b>11</b>	Demonstrate knowledge of methods required for cross cutting timber of greater diameter than the chainsaw bar	√					<b>11</b>
<b>12</b>	Demonstrate knowledge of the implications of terrain, ground conditions, season, weather and species	√					<b>12</b>
<b>13</b>	Demonstrate knowledge of causes of, and how to prevent, potential pollution, environmental damage	√		√		√	<b>13</b>
<b>14</b>	Demonstrate knowledge of how to identify your own capabilities and limitations as operator	√	√	√			<b>14</b>
<b>15</b>	Demonstrate knowledge of the principles of a safe effective stance whilst crosscutting under guidebar length in diameter	√	√	√			<b>15</b>
<b>16</b>	Demonstrate knowledge of how to apply ergonomic working methods and the implications of manual handling regulations	√	√	√			<b>16</b>
<b>17</b>	Demonstrate knowledge of how to move or roll timber by hand and with mechanical assistance	√	√	√			<b>17</b>
<b>18</b>	Demonstrate knowledge regarding first aid and chainsaw use	√				√	<b>18</b>
<b>19</b>	Demonstrate knowledge of how to identify tension and compression in timber	√	√	√		√	<b>19</b>
<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>20</b>
<b>21</b>	Demonstrate knowledge of precautions to take to avoid the danger of logs rolling	√		√			<b>21</b>
		Written	Practical	Oral	Other	Critical	