

**PRACTICAL ASSESSMENT**

THE MANUAL FOR THE CHAINSAW USED IN THE ASSESSMENT MUST BE AVAILBLE!

**ECC 1: Chainsaw Maintenance and Crosscutting**

ASSESSMENT ACTIVITIES	ASSESSMENT CRITERIA	
<p><b>What the chainsaw operator must be able to do:</b></p>		
<p>1. Observe safety precautions and wear appropriate PPE</p>	<p><i>For maintenance activity footwear with toe protection, work gloves as appropriate to task and non-snag clothing is sufficient.</i></p> <p><i>When starting and checking operational functions of saw, full PPE as outlined in national safety guidance or manufacture handbook MUST be worn</i></p> <p><i>Candidate to explain why the PPE is required</i></p>	<p><b>Assessor to visually observe PPE</b></p>
<p>2. Carry out daily and weekly maintenance, settings and pre-start checks as per manufactures handbook</p>	<p>i. Identify, check and explain the function of the safety features listed in the manufactures handbook</p>	<p>Make sure the safety features is as in manufactures handbook.</p> <ul style="list-style-type: none"> <li>- Rear hand braking guard</li> <li>- Chain catcher</li> <li>- Throttle lock</li> <li>- Chain brake</li> <li>- Safety chain</li> <li>- Anti-vibration mounds</li> </ul>
<p>3. Maintain the safety and security of chainsaw(s) and other equipment</p>	<p>ii. Select maintenance tools for routine maintenance</p>	<p>Equipment recommended by the manufacturer to carry out maintenance and adjustments</p> <ul style="list-style-type: none"> <li>- will include combi-spanner, cleaning tools, sockets etc as appropriate</li> <li>- maintenance checklist</li> </ul>
	<p>iii. Inspect chain for wear or damage to component parts and comment on why a chain might be accepted or rejected</p>	<p>Drive link</p> <ul style="list-style-type: none"> <li>- Shape and profile of tang must be maintained to clear bar groove of debris and carry oil along the bar</li> <li>- The gauge must match the thickness of the bar groove'</li> </ul> <p>Tie straps</p> <ul style="list-style-type: none"> <li>- Tie straps, if worn can damage bar and sprockets</li> <li>- Sets the distance between dive links to match sprockets (chain pitch)</li> </ul> <p>'Rivets'</p> <ul style="list-style-type: none"> <li>- Act as bearings and must obtain oil from bar</li> </ul> <p>Cutters</p> <ul style="list-style-type: none"> <li>- Can be obtained in a variety of types for different applications</li> </ul> <p>Depth gauge</p> <ul style="list-style-type: none"> <li>- regulates the amount of wood the cutter scoops out, and are sometimes ramped to act as guard link</li> </ul> <p>Guard links</p> <ul style="list-style-type: none"> <li>- Smooth out cutting action of the chain</li> <li>- Reduce potential for kick back</li> <li>- Reduce vibration</li> </ul>
	<p>iv. A used chain needs to be available and the hole chain needs to be sharpened in accordance with manufacturer's information</p>	<ul style="list-style-type: none"> <li>- Identify correct sharpening angles and file size from e.g. manufacturer's charts</li> <li>- select tools as recommended by the manufacturer</li> <li>- Check chain for damage and select 1<sup>st</sup> cutter to sharpen</li> <li>- Chain or bar secured in vice as appropriate</li> <li>- Cutters sharpened using file of correct size with handle fitted</li> <li>- Top and side plate angles maintained</li> <li>- Consistent length of cutters maintained</li> <li>- Burrs removed if applicable</li> <li>- Height and profile of depth gauges maintained using appropriate tools</li> <li>- Filing angles</li> <li>- Cutter length</li> <li>- Depth gauge setting</li> </ul>
	<p>v. Demonstrate knowledge of information required to select a replacement chain for a given saw</p>	<p>Guide bar, sprocket and chain must be compatible, as shown in manufacturer's charts, in relation to:</p> <ul style="list-style-type: none"> <li>- Chain pitch</li> <li>- Gauge/thickness of drive links</li> <li>- Number of drive links/chain/bar length</li> <li>- Cutter type</li> </ul>

	vi. Maintain guide bar	<ul style="list-style-type: none"> <li>- Straightness of bar checked and commented on</li> <li>- Identify uneven and damage rails and correct as appropriate (e.g.' dress' bar)</li> <li>- Bar groove depth checked</li> <li>- Blueing and cracking identified and commented on</li> <li>- Burrs removed correctly and edges chamfered</li> <li>- Groove and oil holes cleared correctly</li> <li>- Nose sprocket greased if applicable</li> <li>- Bar turned to reduce wear</li> </ul>
	vii. Check sprocket and comment on limits of sprocket wear in accordance with manufactures handbook	<p>In-board clutch:</p> <ul style="list-style-type: none"> <li>- Sprocket checked for wear and comment made on condition</li> </ul> <p>Outboard clutch:</p> <ul style="list-style-type: none"> <li>- Sprocket checked for wear and comment made on condition</li> </ul>
	viii. Chain brake mechanism cleaned inspected and commented on in accordance with manufactures handbook	<ul style="list-style-type: none"> <li>- Clear debris from chain brake mechanism/clutch housing.</li> <li>- Chain brake band checked for damage or wear and commented on</li> <li>- Replace the whole unit or band in accordance with manufacturers instruction</li> <li>- If damaged and replacement not possible, label saw, e.g. 'Not to be used - defective chain brake'</li> </ul>
	ix. Reassemble chain, bar and side plate and adjust chain tension Assessor to make sure tension is right	<ul style="list-style-type: none"> <li>- Ensure tensioning mechanism correctly located</li> <li>- Side plate fitted and nuts hand tightened</li> <li>- Side nuts tightened and 'cold' tension confirmed</li> </ul>
	x. Clean air filter in accordance with manufactures handbook	<ul style="list-style-type: none"> <li>- Filter cleaned using brush or washed in water with detergent then dried</li> <li>- Excess debris removed from around filter prior to removal</li> <li>- Filter removed, protecting carburettor</li> <li>- Filter maintained appropriate to condition</li> <li>- Filter and cover refitted correctly</li> </ul>
	xi. Check spark plug as appropriate to manufactures handbook	<ul style="list-style-type: none"> <li>- Engine cover and spark plug removed</li> <li>- Plug checked, and replaced as necessary</li> <li>- Wear/damage assessed visually</li> </ul>
	xii. Service recoil starter mechanism in accordance with manufactures handbook	<ul style="list-style-type: none"> <li>- Starter cover removed and air ways cleared</li> <li>- Cord and coil spring released and re-tensioned</li> <li>- Pull toggle checked for security</li> </ul>
	xiii. Check chainsaw for condition and pre-use operational safety in accordance with manufactures handbook	<ul style="list-style-type: none"> <li>- Chainbrake tested with saw running according to manufacturer's guidance</li> <li>- Saw checked for oiling function (e.g. oil throw test or oil present on drive links)</li> <li>- Chain becomes stationery when throttle released</li> <li>- On / off switch is working (pull choke to stop if not, then label not to be used)</li> <li>- Tension</li> </ul>
4. Meet specified legislative and organisational environmental requirements in accordance with national standards	i. Candidates must ensure they are complying with relevant legislative requirements applicable to the work being carried out.	
5. Inspect timber and choose safe work position 6. Use safe crosscut methods 7. How to identify tension and compression in timber	i. Crosscut timber under guide bar length to specification as appropriate to site or management requirements. Crosscut timber under moderate compression	<ul style="list-style-type: none"> <li>- Safe stance</li> <li>- Bar aligned to maintain accuracy</li> <li>- Head out of line of chain</li> <li>- Use of throttle to cut safely and efficiently</li> <li>- Cutting techniques employed to complete severance of timber</li> <li>- Use of boring to initiate cuts where access is limited</li> <li>- Sequence of cuts to prevent saw becoming trapped</li> <li>- Tension and compression cuts should meet</li> <li>- Chain brake used appropriately: when walking with the engine running, if the saw has to be put down whilst moving cut material, before taking a hand off the saw</li> </ul>

	ii.	<ul style="list-style-type: none"> <li>- Tension – found on the outside edge of strained timber and when cut, the kerf opens</li> <li>- Compression – found on the inside edge of strained timber and when cut, the kerf closes</li> <li>- Important in crosscutting because the sequence of cuts should always result in the final cut being made from the tension side so that the saw does not become trapped in the kerf</li> </ul>
8. Select and use appropriate aid tools	<ul style="list-style-type: none"> <li>- Use of appropriate aids to handle / move products</li> <li>- Correct stance during lifting</li> <li>- Avoiding excessive lifting by levering, sliding, rolling</li> </ul>	