

**Standard Task/Equipment
Procedures (ST/EP)**

**TASK/EQUIPMENT
Saws, chain - limbing and bucking**

<u>Key step</u>	<u>Procedures</u>	<u>Hazard</u>
Establish work area	<p>Prior to limbing or bucking ensure:</p> <ul style="list-style-type: none">• there is enough room to work• no one is working downhill.	<ul style="list-style-type: none">* Chains coming apart, turning and cutting a worker who is too close* Log roll
Difficulties	<p>If conditions/situations are encountered that are beyond your ability;</p> <p>Seek assistance, do not attempt!</p>	<ul style="list-style-type: none">* Making a situation worse, failure to take the correct action leading to mishap* Injury or death due to lack of experience
Emergency Assistance	<p>The whistle, which is carried as standard equipment when falling or bucking, is to be used to summon assistance. It is to be used for that purpose only!</p>	<ul style="list-style-type: none">* No assistance due to misunderstanding signal
Checking on workers	<p>Workers are to check on their partner every half hour by listening for them working or by making verbal contact.</p> <p>Supervisors are to ensure that all personnel are out of the bush and assembled before leaving the site.</p>	<ul style="list-style-type: none">* Undetected serious injuries* Undetected injuries, personnel left behind
Tools required	<p>Prior to bucking ensure that the necessary tools are available:</p>	<ul style="list-style-type: none">* Unable to finish buck, pinched bar

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Assess for hazards	<ul style="list-style-type: none"> - axe and at least two wedges - saw with sufficient fuel to finish the cuts 	* Failure to detect hazards resulting in mishap
	<p>Prior to commencing any limbing or bucking activities, a thorough evaluation for hazards must be made!</p>	
	<p>Evaluate and take action for:</p>	
	<ul style="list-style-type: none"> • danger trees in the work area which must be removed by a competent "danger tree faller" 	* Unstable and unpredictable
	<ul style="list-style-type: none"> • overhead hazards such as hung up branches and broken tops, which are not to be worked under 	* Dropping onto worker
	<ul style="list-style-type: none"> • loose footing 	* Slips, cuts from saw
	<ul style="list-style-type: none"> • loose debris which could be dislodged 	* Material moving unexpectedly
	<ul style="list-style-type: none"> • chain reaction situations where making the cut could cause; <ul style="list-style-type: none"> - log(s) to roll, pivot or slide - other materials to be dislodged such as rocks or stumps - log(s) to strike a danger tree or tree 	* Movement towards worker
		* Rolling onto worker
		* Pieces hitting worker
		* Movement towards worker
	<ul style="list-style-type: none"> • pivot points underneath the log which could cause it to swing 	* Dropping and/or rolling towards worker, pinched bar

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	<ul style="list-style-type: none"> • log drop after bucking cuts are completed • bowed down limbs and brush. 	<ul style="list-style-type: none"> * Saw kickback, being struck by limb or branch * Injury or death due to lack of experience
	<p>Only attempt to do work that is within your ability and knowledge!</p>	
Limbing	<p>When limbing, hold the saw firmly with the thumbs wrapped fully around the handle bars.</p>	<ul style="list-style-type: none"> * Kickbacks can cause the saw to be jerked out of the hands
	<p>Use the legs rather than the back.</p>	<ul style="list-style-type: none"> * Fatigue, back strain
	<p>Keep the saw close to the body. The further from the body, the less control.</p>	<ul style="list-style-type: none"> * Lack of control, fatigue
	<p>When limbing, position the saw in such a way that kickbacks are controlled and if they do occur the body will not be struck in an unprotected area.</p>	<ul style="list-style-type: none"> * Serious cuts from kickbacks
	<p>To limb a downed tree:</p>	
	<ul style="list-style-type: none"> • evaluate for hazards (as outlined above) 	<ul style="list-style-type: none"> * Unexpected reactions
	<ul style="list-style-type: none"> • ensure good secure footing 	<ul style="list-style-type: none"> * Slips, saw cuts
	<ul style="list-style-type: none"> • work on the uphill side of the log 	<ul style="list-style-type: none"> * Log roll
	<ul style="list-style-type: none"> • move feet rather than reaching with the saw 	<ul style="list-style-type: none"> * Fatigue, lack of control
	<ul style="list-style-type: none"> • use the end of the bar (not the tip) 	<ul style="list-style-type: none"> * Saw kickback

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	<ul style="list-style-type: none"> • use the bottom of the bar whenever possible • keep the saw as horizontal as possible • cut one limb at a time • cut compression wood and then tension wood • cut limbs flush with trunk • ensure chain is stopped before moving • engage chain brake and set saw down when chunking out • cut supporting limbs last 	<ul style="list-style-type: none"> * Saw kickback, fatigue * Saw kickback * Lack of control, saw kickback * Pinched bar, kickback * Sharp edges left if not done * Cuts, kickbacks * Fatigue, kick back, cuts, strains * Log roll, pinched bar, kickback
<p>Cutting bowed-down limbs and brush</p>	<p>Limbs and saplings under pressure present a very serious kickback hazard. To reduce risk when cutting bowed down saplings, brush, and large limbs under pressure:</p> <ul style="list-style-type: none"> • prepare an escape route • try and reduce the tension and compression at the apex of the bend • make a series of cuts in the compression side being careful not to get the bar pinched 	<ul style="list-style-type: none"> * Saw kick back, limb/sapling kickback, chunks/pieces being thrown * Not being able to move out of the way * Working with saw over waist * Pinched bar

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	<ul style="list-style-type: none"> remove as much compression as possible then cut the tension side 	<ul style="list-style-type: none"> * Saw kick back, pinched bar
	<ul style="list-style-type: none"> be sure of excellent footing and be ready to move back instantly 	<ul style="list-style-type: none"> * Slips, cuts, being struck
	<ul style="list-style-type: none"> cut the tension wood using only as much bar as necessary, and be ready to step back 	<ul style="list-style-type: none"> * Kickback, being struck, cuts
	<ul style="list-style-type: none"> keep the saw below the waist! 	<ul style="list-style-type: none"> * Kickback onto unprotected part of the body (head, neck, chest)
Pre-backing preparation	<ul style="list-style-type: none"> Prior to making the bucking cuts: chunk out completely prepare an escape route 180° uphill from cut make a final evaluation for hazards ensure good footing position so that the bucking will be done from the up-hill side 	<ul style="list-style-type: none"> * Awkward working positions, poor footing, undetected hazards * Unpredictable occurrence requiring quick movement * Swing, pivot, bind * Slips, cuts, strains * Log roll
Bucking stance	<p>When bucking, position the saw in such a way that if it does kick back, the kickback will be directed along the side of the shoulder. Stand to one side of the saw.</p>	<ul style="list-style-type: none"> * Serious cuts to the upper body, arms, and head

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Bucking for top bind	<p>To buck for top bind:</p> <ul style="list-style-type: none">• first place a cut in the far side of the log• second cut on top of the log, in the compression wood• a wedge of wood can be sawn out of the top cut to help prevent the log from splitting• third cut on the near side (this step and the previous step can be eliminated in smaller logs)• fourth and final cut in bottom of the log in the tension wood	<ul style="list-style-type: none">* Pinched bar, kickback* Kickback from contact with branches or rocks* Pinched bar if cut too far* Kickback, cutting in awkward position* Saw bar contact with dirt, rocks, or branches; awkward position; kickback and fatigue from using top of bar
Bucking for bottom bind	<p>To buck for bottom bind:</p> <ul style="list-style-type: none">• first cut in the far side of the log• second cut on the bottom of the log, in the compression wood• a wedge of wood can be sawn out of the bottom cut to help prevent the log from splitting• third cut on the near side (this step and the previous step can be eliminated in smaller logs)• fourth and final cut on the top of log, in the tension wood	<ul style="list-style-type: none">* Pinched bar, kickback* Kickback from contact with branches or rocks* Pinched bar if cut to far; saw bar contact with dirt, rocks, or branches; awkward position; kickback and fatigue from using top of bar* Kickback, cutting in awkward position

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Bucking for end pressure	To buck for end pressure: <ul style="list-style-type: none">• cut on the far side• start a cut in the top• start a wedge as soon as possible• finish the cut out through the bottom of the log, periodically snugging up the wedge	<ul style="list-style-type: none">* Pinched bar* Log sliding downhill* Pinched bar
	To buck for side bind: <ul style="list-style-type: none">• pick a bucking position on the compression side of the log• make the first cut in the compression side• place the second cut across the top of the log• make the third cut on the far side, expect the log to spring outward ("pop"). Good control of the saw is essential to prevent kickback.• the final cut is up from underneath so that the log "drops" and is completely severed	<ul style="list-style-type: none">* Log has a tendency to spring out towards the tension side* Pinched bar, kickback, awkward position* Pinched bar if cut too far* Dramatic breaking of log, saw kickback, chain reaction* Log drop, sudden movement required - saw cuts, trips
Bucking for log drop	To buck for log drop, use the bucking sequence for top bind	<ul style="list-style-type: none">* Log drop and roll,

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	and: <ul style="list-style-type: none">• make the cuts on an angle, <u>or</u>• place a wedge in the top cut when it has been completed	pinched bar
Bucking large logs	To buck large logs: <ul style="list-style-type: none">• place first cut from downhill side underneath and as far up the side of the log as possible• reposition to the top of the log and finish the cut on the far side of the log• move to the uphill side and;<ul style="list-style-type: none">– for <u>top bind</u> make the third cut in the top of the log, and the fourth cut on the bottom– for <u>bottom bind</u> make the third cut in the bottom of the log, and the fourth cut in the top	<ul style="list-style-type: none">* Unstable logs may roll down hill, awkward bucking position using top of bar* Slipping off of log* Slipping when moving, strains* Hazards as for top and bottom bind
