



# Anglia Woodfuels

## Site & Risk Assessment

<b>Work Activity</b>	Use of tractor mounted chipper.	
<b>Chipping client</b>		
<b>Property</b>		
<b>Date</b>		
<b>Explanatory note:</b>	This assessment covers the use of self-powered and tractor-driven chippers. It includes the use of large-capacity machines hired for producing woodchips for heating fuel, where loading the feed chute is performed using a forwarder.	<b>Check</b>
<b>Other relevant model risk assessments</b>	M&E 014 - Use of Forwarders.	
	M&E 035 - Use of woodchippers.	
	Work on or near roads.	
	Use of tractors.	
<b>Other relevant site risk assessments</b>		
<b>Physical hazards arising</b>	<p>Contact with moving cutters due;</p> <ul style="list-style-type: none"> <li>• Trips and slips</li> <li>• Attempting to clear debris whilst the engine is engaged and running.</li> <li>• Entanglement with material being fed.</li> <li>• Attempting to push material towards the cutters.</li> <li>• Being drawn into the machine by feed rollers.</li> </ul> <p>Entanglement of unguarded PTO shafts.            Injury - including cuts, abrasions, and splinters caused by snatching, jerking handling of material being fed.            Being struck by flying shards and chips, or swinging tail-end branches.            Eye injuries from branches and twigs.            Contact with hot parts.            Grabbing of forwarder boom by feed rollers.</p>	
<b>Additional local physical hazards</b>	Movement of vehicles with trailers around chipper working area for loading purposes – possibility of collision with working machine.	
<b>Health hazards arising</b>	<p>High noise levels.            Back strain from lifting and twisting.            Chipping of species containing vaporising toxins e.g. laurel and rhododendron.            Vibration from large branches being fed into the machine.            Inhalation of exhaust fumes            Inhalation from dust.</p>	
<b>Additional local health hazards</b>		

<b>Groups at risk in general</b>	Operator/s of chipper and other machinery. Others working or standing in close proximity.	<b>Check</b>
<b>Persons or groups at risk locally</b>	All groups/visitors must be named here.	

Principal organisational precautions	Selection, training and information – AWF contractor:	Check
	<ul style="list-style-type: none"> <li>• Use is restricted to trained and experienced contractor. Training can be provided by LANTRA, local colleges or independent training providers. It is recommended that operators should attain the NPTC certificate of competence in brushwood chipper operations.</li> <li>• The minimum age of operators is 18 unless working under direct 1-1 supervision.</li> <li>• Operators will be given a copy of the FASTCo Safety Guide No. 604.</li> <li>• The manufacturers’ operating instructions should be available, followed and kept with the machine for reference, such as clearing blockages, changing and adjusting blades etc.</li> </ul> <p><b>Selecting the work area:</b></p> <ul style="list-style-type: none"> <li>• The machine should be sited on firm ground, in an area clear of obstructions and tripping hazards.</li> <li>• The machine should be located so that other vehicles can safely manoeuvre and be loaded.</li> <li>• If using the chipper in a confined area, ensure that the exhaust gases vent freely to open air.</li> <li>• If the chipper is detached from the towing vehicle, the handbrake should be applied and the wheels chocked.</li> </ul> <p><b>Machine operation:</b></p> <ul style="list-style-type: none"> <li>• Do not place any part of the body inside the feed chute whilst the machine is running.</li> <li>• Check that any partially chipped debris has been cleared from the feed area before starting the chipper.</li> <li>• Check the material to be chipped is free from stones, metal and other debris that could damage the cutters or be ejected from the chipper.</li> <li>• Do not feed material of a larger size than that specified by the manufacturer.</li> <li>• The operator should always stand to one side, out of line from the feed rollers.</li> <li>• The operator should let go of the material as soon as the rollers begin to feed it in.</li> <li>• Use a push stick at least 1.5m long for feeding short lengths of timber into the chipper.</li> <li>• Keep the area immediately in front of the feed chute free from debris to prevent tripping.</li> <li>• Carry out pre-use inspection and maintenance in accordance with the manufacturers recommendations.</li> <li>• If the chipper is defective, report all faults to the Anglia Woodfuels Health &amp; Safety Officer and do not use the machine until necessary repairs have been undertaken.</li> </ul> <p><b>Clearing jams:</b></p> <ul style="list-style-type: none"> <li>• Reverse the feed and re-position the material, or</li> <li>• Switch off and clear the jam following the manufacturer’s instructions.</li> </ul>	

Principal organisational precautions cont...	Maintenance	Check
	<ul style="list-style-type: none"> <li>• All maintenance must be carried out in accordance with the manufacturer's instructions.</li> <li>• Check the drum/disc and cutting blades after each day of use for damage and wear, and arrange any repairs before the machine is used again;</li> <li>• Before carrying out any work on the cutters, ensure that the engine stop/the tractor engine is turned off and the key removed and that the drum/disc is stationary;</li> <li>• Cutter blades must be replaced if damaged, dull or worn down to the minimum size specified by the manufacturer;</li> <li>• Gloves must be worn when handling cutter blades;</li> <li>• New/sharpened blades must be of the size and type specified by the manufacturer, and must be fitted with the recommended bolts and clearance between the cutter and the anvil.</li> <li>• Edges should be sharpened to the angles specified by the manufacturer.</li> <li>• Fixing bolts should be replaced if worn and in accordance with the manufacturers recommendations.</li> </ul> <p><b>Special risk from chipping Cherry laurel</b> The process of chipping cherry laurel and similar species may give rise to measurable levels of hydrogen cyanide fumes. HSE carried out a limited sampling exercise at an NT property in 1996. The greatest level of fumes given off is likely to be inside the guards to the cutting blades when removed and in close proximity to freshly dumped chips.</p> <p><b>Precautions when chipping cherry laurel</b></p> <ul style="list-style-type: none"> <li>• Operators should wear respiratory protection to either BS EN 140 or 136 fitted with a filter with B and P3 classifications.</li> <li>• Work upwind of the chipper and avoid calm days.</li> <li>• Leave piles of chips for several days to allow the fumes to disperse.</li> <li>• Do not leave piles of chips in areas to which children and dogs have access.</li> </ul> <p><b>Working near the highway</b></p> <ul style="list-style-type: none"> <li>• Roadside work should be set out and signed in accordance with the HMSO Code of Practice on safety at road works – see ref. In further guidance.</li> <li>• Position the chipper away from the road edge.</li> <li>• The operator/feed should be on the furthest side from the road.</li> <li>• Avoid standing the chipper so that it is on a slope.</li> <li>• The discharge chute should be positioned to avoid chips being blown on to the highway, or in the direction that will affect members of the public.</li> </ul> <p><b>Public protection</b></p> <ul style="list-style-type: none"> <li>• Members of the public, staff, and event attendees not involved with the work, should not be allowed within 15 metres from the machinery – If necessary, the work should be cordoned off.</li> <li>• The engine start key must be removed whenever the machine is left unattended.</li> <li>• Noise warning signs should be placed to warn the public and earplugs should be offered at working displays.</li> </ul>	

<b>Further local organisational precautions</b>	<p>When chipping into a trailers make sure that the driver of the receiving vehicle is shielded from the line of discharge from the chipper or they stand away from the vehicle and outside the minimum 15 metre safe distance if that is not possible. Forwarder operators should position their vehicles out of the line with the in-feed chute to avoid being struck by debris expelled from the feed rollers.</p>	<b>Check</b>
<b>Principal physical precautions</b>	<p><b>Chipper</b></p> <ul style="list-style-type: none"> <li>• Before use, the chipper must be properly converted from any transport mode, and any locks for the chipping component engaged.</li> <li>• Check that any safety devices/safety trip bars around the in-feed chute function correctly before commencing work.</li> <li>• Check that the PTO guard is properly fitted and secure.</li> <li>• Guards for other moving parts of the chipper e.g. pulley belts, shafts, fan blades and exhaust are in position, secure and undamaged.</li> <li>• A clearly marked and working engine-stopping device must be readily accessible for the operator.</li> <li>• All H&amp;S signs should be in good condition and text should be in English.</li> </ul> <p><b>Design of in-feed chute</b></p> <ul style="list-style-type: none"> <li>• This risk assessment is accompanied by the HSE's ais 38 – <i>Power-fed mobile wood chippers – Operator protection at infeed chutes</i>. All users of the chipper must comply with these requirements.</li> </ul> <p><b>Refuelling</b></p> <ul style="list-style-type: none"> <li>• Stop the engine and allow to cool before refuelling.</li> <li>• Do not refuel within the chipping work area.</li> <li>• Ensure there are no sources of ignition within the vicinity of refuelling.</li> <li>• Take care when refuelling over dry and easily ignitable ground cover.</li> </ul> <p><b>Personal protective equipment</b></p> <p>Operators and those working within the vicinity must wear;</p> <ul style="list-style-type: none"> <li>• Safety helmet – BS EN 397</li> <li>• Eye protection – BS EN 166</li> <li>• Hearing protection – BS EN 352 – Earmuff for the operator and disposable ear muffs for all others.</li> <li>• Gloves for handling material and suitable for refuelling.</li> <li>• Cuffs and sleeves should be tucked inside sleeves to prevent them from being caught in material.</li> <li>• Safety boots.</li> <li>• High-visibility clothing should be worn by all machinery operators, anyone who is within the work area and is alongside roads.</li> <li>• Respiratory protection should be worn when chipping cherry laurel – see the section above.</li> <li>• A first-aid kit that includes large wound dressings should be readily available.</li> <li>• Eyewash should be readily available.</li> </ul> <p><b>Other equipment</b></p> <ul style="list-style-type: none"> <li>• Chock for secure parking of the chipper.</li> <li>• Adequate tool kit for daily maintenance.</li> <li>• Hand cleaning equipment and paper towels.</li> </ul>	

	<ul style="list-style-type: none"> <li>• A fire extinguisher should be ready and available of appropriate size.</li> </ul> <p><b>Transporting the chipper</b></p> <ul style="list-style-type: none"> <li>• Check that you have adequate insurance.</li> <li>• Check that you are conforming to all Highways regulations relating to the towing and tow speed of the chipper and that it conforms to the manufacturer recommendations.</li> <li>• Stop the engine and remove any stop/start key.</li> <li>• Clear way as much chip off the chipper as possible.</li> <li>• Secure the choc onto the chipper frame.</li> <li>• Lock/secure the in-feed and chute into their transport position.</li> <li>• Check that the chipper is safely secured to the towing vehicle.</li> <li>• Make sure the jockey wheel is lifted and secure.</li> <li>• Make sure the electrics and trailer brakes fitted.</li> <li>• Check all lights</li> <li>• Check that you have the correct number plate on the trailer.</li> <li>• Check to make sure the chipper is secure and safe to transport.</li> </ul>	<b>Check</b>
<b>Further local physical precautions</b>		
<b>Specific legal requirements</b>	Noise at work Regulations 1989 Manual Handling Operations Regulations 1992 Personal Protective Equipment Regulations 1992 Provision and Use of Work Equipment at Work Regulations 1998	
<b>Further guidance</b>	FASTCoSafety Guide No 604 – Wood chippers HSE - Agricultural Safety Leaflet – AS15 (rev) – Farm & Estate Forestry Operations HSE - Agricultural Safety Leaflet – A24 – Power take-off and PTO shafts HSE - Agricultural Information Sheet – No 38 – Power fed mobile chippers- operator protection at in-feed chutes. HSE - Approved Code of Practice L22 – Safe use of work equipment HMSO booklet - Safety at street works and road works – A Code to Practice	
<b>Risk Assessment Date</b>	16 <sup>th</sup> July 2008	
<b>Site assessment compiled by</b>	Name:	Signature:
<b>Date</b>		
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