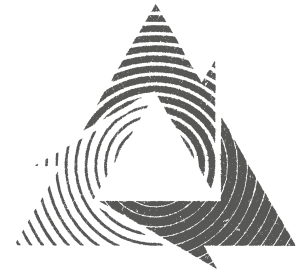

5 TRAINING MODULE 5

Working with Power Tools: Part 2



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Staying safe with power tools

The previous module looked at the general risks around using power tools and outlined the tools that you are most likely to use whilst working at a community wood recycling enterprise. In this module we will be considering more of the specific risks around using the chop saw - a very widely-used power tool - and how to avoid or reduce them.

This module will not teach you how to select the right tool for the job nor how to use it effectively (your colleagues will show you and your skill will develop over time).

First, let's recap on the 'Golden Rules' of power tool usage:

Golden rule 1

Never use a tool that you have not been trained and authorized to use.

Golden rule 2

Make sure that you use the right tool in the right way for the right job.

Whatever power tools you use, the most important thing is that you adopt the very safest and best habits around tool usage so that you can enjoy learning to use them effectively and safely.

The learning outcomes of module 5

After successfully completing this module you will be able to:

- Understand the key hazards to yourself and to others of using the chop saw
- Understand how to ensure that the tool is safe to use
- Understand the correct procedures to follow when using the tool

Section 1—Preparation for using power tools

Things to check before work begins

Before we carry out any work with power tools—and regardless of which tool we are using—there are some basic things to check. By always doing these few simple things we can help ensure the safety of the user and those around them.

Consider the following questions—you do not need to hand the answers to your Trainer for marking, but should discuss the answers with them.

What are the hazards of using the wrong tool?
1. Could damage the workpiece? How? (give an example)
2. Could injure the user? How? (give an example)
3. Could damage the tool? How? (give an example)

Extension leads: Why is it important to use the correct lead?

If you need to use an extension lead, you must consider these issues:
1. Why consider the wattage of a tool before using an extension lead?
2. Why plug it into an RCD?

3. Why should an extension lead be fully unwound before use?

4. What is wrong with using a lead with damaged cable insulation?

Making your work area safe:

Before using any power tools, we must ensure that the work area is as safe as possible for the user and other people. Consider these issues:

- Is there sufficient working space?
- Is the floor wet/slippery?
- Is there sufficient lighting?
- Is there a stable bench/table to work from?
- Are other people in the area?
- Can you put up a barrier to keep people away?
- Are there any trip hazards?
- How will any dust/fragments be collected/dissipate?
- Will any noise be a nuisance to other people?

Checking the tool before use:

It is essential to make sure the tool is complete, undamaged and up to the task before using it. Consider these issues:

- Is it complete?
- Are any parts—especially guards - broken or damaged?
- Does any part of it rattle, wobble or seem loose?
- Is the blade/bit secure?
- Is the lead undamaged/are any internal wires showing?
- Is the plug sound?
- Are any moving parts seized?
- Is the blade/bit sharp and undamaged?

Section 2—Using specific power tools: A safety checklist

The chop saw—things to think about

This part of the module is a practical exercise with the chop saw. It must be completed under the supervision of your Trainer.

These pages do not form part of the Certification process but you must record that you have carried out and understood this module in your ITL.

Firstly, there are the relevant issues to consider when setting out to use the chop saw.

- Is the tool set up properly?
- Is it on a stable bench/table?
- Can it wobble or move around?
- If using continuously, can it be secured to the workbench?
- Is it positioned so the timber being used can be moved around without causing a hazard?
- Is there sufficient light in which to work?
- Is the area cordoned off and safe for others?

A. Identifying the right PPE to use.

Carefully consider what protective equipment is to be used whilst using the chop saw. Circle the 4 items of PPE you must use:

Gloves	Hard hat	Steel-toe boots	Safety glasses/goggles
Ear defenders	Dust mask	Chemical suit	High-viz jacket

B. Identifying guards/safety devices that are part of this tool or that should be used with it.

State what guards/safety devices there are and need checking that they work properly before using the tool:

C. Understanding how to mount the workpiece safely.

How could the workpiece move whilst being cut? Does the chop saw have built-in parts to help with mounting or securing the workpiece?	
1. How could the workpiece move if not secured?	2. How should the workpiece be secured/positioned on the tool?

D. How to prepare to use the tool

How to position yourself, hold, start and turn off the chop saw:		
1. How should you stand?	2. How should you hold the tool?	3. How do you start and stop the tool?

E. How could the tool hurt you if incorrectly used?

Can it:
1. Cut you—how?
2. Burn you—how?
3. Hit you with dust/fragments (particularly in the eyes)—how?
4. Trip you up—how?
5. What other ways can it hurt you?

F. After using the saw

What are the issues to be considered after using the chop saw?
1. Should you leave the tool plugged in when it is not in use? If not, why?
2. When can the tool be considered safe?
3. How do you prepare the tool for storage?

G. Maintaining the saw

What if any maintenance can be carried out by the user on the chop saw?
1. Can the blades be sharpened?
2. Can the blades be changed?
3. Can bearings/other parts be oiled/replaced?
4. Can any other maintenance be carried out by the user?

Section 3—Trainee exercises and questions

In part A of this section, there is a Risk Assessment for the chop saw. Read it carefully and tick off each section as you discuss it with your Trainer.

In part B, there are some questions for you to answer.

Remember: don't hesitate to ask for help from your Trainer.

A. Risk Assessment—Chop Saw

What are the Hazards	Who might be harmed and how	State what measures are in place and/or what action is taken	Tick when read
Risk of electric shock	Users Possible severe injury Possible loss of life	We check tool for damage or loose parts and check guards are properly in place; check plug and cable for damage/exposed wires before plugging in; ensure lead/any extension cables avoid water; do not use outside in damp conditions or if the tool is damp; use an RCD circuit breaker at all times; PAT test regularly; unplug tool to change blade.	
Risk of severe cut injury	Users Possible loss of fingers or major cut to limb, even death	We check tool for damage or loose parts and check guards are properly in place; check the work piece for nails/metal; follow the manufactures' instructions on how to use; no forcing of blade through work piece; clear area of trip hazards; firmly secure work piece; keep hands away from blade; unplug tool before blade change; maintain good balance whilst using.	
Hair or clothing becoming entangled in moving parts	Users Possible cut to limb or face injury, even death	We ensure staff tie back long hair; remove loose clothing or wear suitable overalls.	
Dust or other fragments in eyes	Users and others in close proximity Irritation, damage to the eye	We wear eye protection at all times; cordon area to prevent people getting too close.	
Inhaled dust	Users and others in close proximity Irritation, discomfort or damage to nose/ lungs	We wear dust mask at all times; cordon area to prevent people getting too close.	
Wrist and hand injuries due to tool jamming, binding or bouncing	Users	We check work piece for nails/metal; use tool as per manufacturers' instructions; don't force tool to cut; ensure that the blade is suitable for the work piece; keep work piece in line with blade; ensure work piece is secure.	

What are the Hazards	Who might be harmed and how	State what measures are in place and/or what action is taken	Tick when read
Blade shattering or coming off	Users and others in close proximity Severe cut, burn or other Injury to eye, face or body	We ensure blade is properly fixed; ensure blade is not blunt/damaged; check work piece for nails/metal etc. always use tool as per manufacturer's instructions; don't force blade through cut.	
Ejecting work piece	Users and others in close proximity Injury, especially to head/face	We check tool is stable before use; ensure blade is sharp; ensure work piece is secured; always use tool as per manufacturer's instructions; don't force blade through cut.	
Tool noise	Users and others in close proximity Discomfort or lasting damage to hearing	We wear ear protection at all times; cordon area to prevent people getting too close.	
Burn from blade	Users Discomfort or minor burn from blade after use.	We do not touch blade after use, even when unplugged; allow tool to cool before changing blade; don't use a blunt blade.	
Hand/Arm Vibration Syndrome (HAVS)	Users Discomfort. Potential loss of function	We take regular breaks from tool use; don't force tool through cut; do not use for extended periods.	

B. Questions to answer

1. Briefly, what are things to consider when getting ready to use the chop saw?
2. What are the main risks to health & safety when using the chop saw?

3. Briefly, how can you help make your work area safe?
4. What PPE is needed when using the chop saw?
5. How can you help reduce the risk of electric shock when using the chop saw?
6. How do you reduce the main risks to health & safety of using the chop saw?

Office use only		Number of correct answers required to pass Module 5: 5			
Passed:		Retake:		Date:	
Trainer's signature:					