

OPERATE & MAINTAIN CHAINSAWS



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PUBLICATION NOTES

BHP Billiton Iron Ore is proud to support Greening Australia to provide valuable conservation and land management training to communities throughout the Pilbara through the Indigenous Training Program.

This Learning Guide series has been developed as part of our partnership of the program.

Gavin Price, Head of Environment, BHP Billiton Iron Ore

Greening Australia is proud to produce and provide the comprehensive suite of new ALEP Learning Guides. The guides are compatible with the new horticulture and conservation industries training package and suited to developing skills in Indigenous communities within remote areas of the country where employment opportunities are limited. We would like to thank BHPBIO for their generous support in the development of the guides.

Brendan Foran, National CEO Greening Australia

The second series of ALEP Guides is aligned with a number of units of competence from the *Training Package AHC10 – Agriculture, Horticulture and Conservation and Land Management* (Release 8.0). The units selected are frequently used within Certificates I to III in Horticulture and Conservation and Land Management. As such they cover, where possible, the elements, performance criteria and required skills and knowledge of each unit.

The principal goal of these resources is to support the learning process; the learning activities may complement a trainer's assessment plan. The intent is that they will be used in an interactive manner with learners rather than as self-paced study guides. The structure and sequence have been designed to follow the logical steps of the practical tasks wherever possible. Concepts are introduced and then consolidated with discussion and/or practical activities.

The writers consider that these guides can provide a sound technical foundation but also strongly encourage trainers to complement the guides with additional, authentic resources from relevant industry texts and websites. The guides can be used in part or in their entirety but should always be linked to practical activities to strengthen the teaching and learning.

Genuine consideration was given to the level of language used in the guides. The goal has been to find a balance between simplifying the language to an accessible level and ensuring that the vocational concepts are addressed. The writers contend that with appropriate support these texts can provide an opportunity for students to strengthen their language, literacy and numeracy skills, which may be required for pathway progression.

A number of Aboriginal people have been involved in developing this ALEP Guide, which is considered suitable for use within a program based on Aboriginal pedagogies.

INTRODUCTION

Welcome to *Operate and maintain chainsaws*. This learner guide provides information about how to:

- Maintain a chainsaw
- Do pre-start checks
- Use a chainsaw to cut up timber that has already been felled
- Finish the job and clean up

RESOURCES REQUIRED

To complete this training you will need the following:

1. Appropriate Personal Protective Equipment (PPE)
2. Tools for doing maintenance on chainsaws
3. Manufacturer's instructions for the chainsaw being used
4. Access to fallen or felled timber
5. A chainsaw



Much of the training for this unit should be completed on the job.

LEARNING ACTIVITIES

There are four kinds of activities to complete. These activities may go toward your final assessment.

SECTION	ACTIVITY	SATISFACTORY (Y/N)	DATE
DISCUSSION ACTIVITIES			
1.4	Policies and procedures		
4.3	Tools and equipment		
6.3	Reporting requirements		
WORKBOOK ACTIVITIES			
3.2	Calculate volume		
4.2	Hearing protection		
4.4	Mixing fuel and oil		
PRACTICAL ACTIVITIES			
4.1	Contribute to a Job Safety Analysis		
4.4	Pre-start checks and maintenance		
5.6	Starting and cutting with the chainsaw		
PROJECT			
6.3	Complete a full job involving chainsaw use		

1.1 HAZARDS, RISKS & CONTROLS

A **hazard** is anything that can cause injury or damage the health of a person or animal.





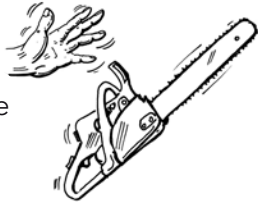



Risk is the chance of a hazard causing injury and the chance of the injury being serious. Using a chainsaw is a high-risk activity because there is a high chance of injury, and there is a high chance the injury could be serious.

A **control** is something you do or use to reduce the risk of a hazard causing an injury.

There are many hazards when working with chainsaws. It is important to understand these and use appropriate controls to reduce the risks involved in using a chainsaw.

Some of the terms used in the table below might be new to you. These will be discussed in the next sections of the guide.



HAZARDS	CONTROLS
NOISY EQUIPMENT Can cause: Damage to hearing 	<ul style="list-style-type: none"> • Wear earmuffs • Replace muffler if damaged
SHARP CHAIN TEETH Risk of: Cuts 	<ul style="list-style-type: none"> • Take care when sharpening • Don't rotate the chain by hand • Wear cut-resistant chainsaw chaps and gloves • Only use a chainsaw if you are trained
MANUAL HANDLING Risk of: Muscle injury, fatigue 	<ul style="list-style-type: none"> • Hold chainsaw correctly • Use correct stance and cutting techniques • Don't use a chainsaw if you are tired or unwell
FLAMMABLE FUEL Risk of: Explosions and burns Inhalation and splashes from fuel 	<ul style="list-style-type: none"> • Wear safety glasses • Do not smoke or create sparks around fuel • Only fuel up in a well-ventilated area • Use a funnel to prevent spills
VIBRATION Risk of: Hand-arm Vibration Syndrome and nerve damage 	<ul style="list-style-type: none"> • Check the anti-vibration fittings are in good condition • Take regular breaks during the day • Use suitable gloves
FLYING DEBRIS Risk of: Eye injury, cutting and bruising Breathing difficulty Skin irritation 	<ul style="list-style-type: none"> • Wear a visor attached to a safety helmet • Wear long sleeves, trousers and dust mask • Wear steel-capped boots and chainsaw chaps • Wear protective gloves and safety glasses
POWERFUL EQUIPMENT Risk of: Head injury caused by kickback Leg and foot injury from chain Cuts Fatigue 	<ul style="list-style-type: none"> • Only use equipment you are capable of handling, rest if fatigued, wear cut-resistant chaps or trousers and steel-capped boots • Check the chain brake is working properly • Only use a chainsaw if you are trained
SLIPS, TRIPS AND FALLS Risk of: Injury from falling over 	<ul style="list-style-type: none"> • Wear safety boots with ankle support, steel cap and non-slip soles • Clear debris from the worksite



NOTE

Standards are legally enforceable. This means you must follow them.

1.2 LEGAL REQUIREMENTS

Australian Standard 2727-1997 *Chainsaws – Guide to safe working practices* is a document that guides chainsaw operators and their employers in the safe use of chainsaws. This learner guide attempts to cover the basic recommendations of this standard.

Chainsaws have many safety features. These are required by Australian Standard AS 2726.2-2004 *Chainsaws – Safety requirements Part 2: Chainsaws for tree service*. Any chainsaw sold in Australia must meet this standard.

In some states, you need to have a permit to collect firewood on public land and in specified areas. To get the permit you may need to be trained and assessed in chainsaw operations.

If you need to use a chainsaw as part of your job, your employer has a duty of care to make sure you are trained to use the equipment. Some employers might want you to be accredited through an industry or government body such as the Forest Products Commission WA.

1.3 DUTY OF CARE

‘Duty’ means a legal obligation – something you must do. So ‘duty of care’ means that legally, you must care for yourself and those around you. Under Workplace Health and Safety (WHS) law, employers and employees have responsibilities.

EMPLOYER RESPONSIBILITIES

The key responsibility of an employer is to show a duty of care towards their employees. They do this by:

- Providing a safe workplace that is free from unnecessary hazards
- Supplying the required PPE and safety equipment for all employees working with equipment that presents a hazard
- Supplying equipment and tools that meet Australian Standards
- Making sure all employees who need to work with equipment that presents a hazard are trained appropriately
- Listening to and acting on feedback from employees

EMPLOYEE RESPONSIBILITIES

The key responsibility of an employee is to show a duty of care to themselves and others. They do this by:

- Completing the training provided by the employer and following the processes learnt
- Using and looking after PPE and safety equipment as directed
- Following the workplace policies and procedures
- Following manufacturers’ safety instructions on equipment and when using dangerous materials
- Making suggestions as to how to reduce risks in the workplace

1.4 POLICIES & PROCEDURES

Policies and procedures are documents written by employers. They describe everything employers and employees have to do. Following your workplace policies and procedures will help you meet your duty of care and your other legal requirements.

Your workplace is likely to have a relevant Standard Operating Procedure (SOP) or Safe Work Method Statement (SWMS).



DISCUSSION ACTIVITY

List the policies and procedures in your workplace that relate to chainsaw use. If you don't have any, use the one from the *Resources* section.

With your work team, read through and discuss the documents.



See *Safe Operating Procedure Resource R1*, page 36



1.5 MANUFACTURERS' INSTRUCTIONS

Chainsaws always come with instructions from the manufacturer. You need to read the book for the equipment you are using, even if you have used similar chainsaws before.

These books will tell you about:

- Safety
- Operation
- Maintenance
- Servicing
- New features

