

04  
CROSSCUTTING  
USING A  
CHAINSAW

City &   
Guilds  
NPTC



Husqvarna®

## Use of this worksheet

This worksheet is part of a series of interactive worksheets that has been produced in association with Husqvarna to support the delivery of training for the City & Guilds (NPTC) suite of chainsaw qualifications.

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## Content

This worksheet covers the following outcomes:

**Be able to work safely**

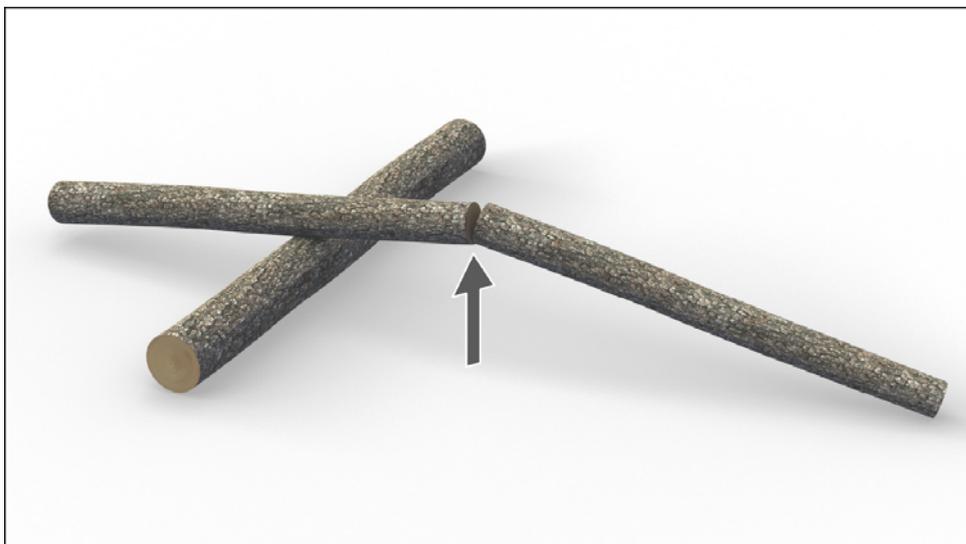
**Be able to cross-cut timber using a chainsaw**

**Know how to cross-cut timber using a chainsaw**

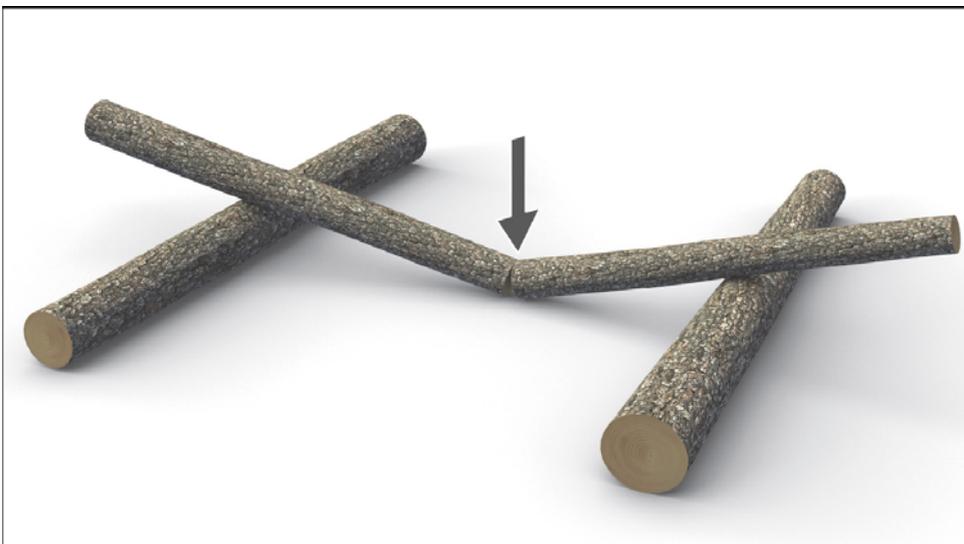
## Inspecting timber to identify tension and compression, describing tension and compression

It is vitally important to be able to identify where timber is under tension and where it is under compression, if cuts are to be made safely and without risk of damage to the chainsaw. An incorrect cut can result in the branch or trunk splitting, or the guide bar of the saw becoming trapped.

**Tension** is found on the outside edge of strained timber and when the cut (kerf) opens.



**Compression** is found on the inside edge of strained timber and when the cut (kerf) closes.



For safety, the operator must stand to the side when cutting, as the trunk can move upwards or sideways. On sloping ground the operator should be above the trunk, to avoid injury if it were to roll down the slope.

### The procedure for removing a trapped saw



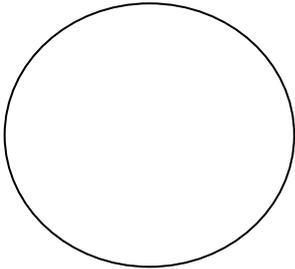
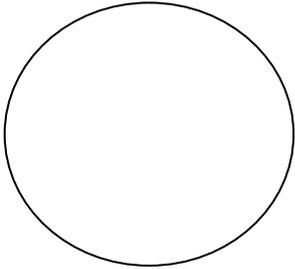
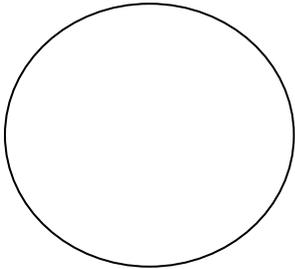
1. Switch off engine and apply chain brake
  2. Lever the cut open
  3. Drive in a wedge
  4. Withdraw the saw
- or**  
Use another saw to free the trapped saw, at least 300mm (12") from the trapped saw.

### Methods for crosscutting timber above guide bar length

Apart from using a chainsaw with a larger guide bar, there are **three** methods of crosscutting timber in excess of the guide bar length; these are:

- using reduction cuts
- rolling timber over
- cutting from both sides.

In the boxes below draw the following

	<b>TENSION</b>
	<b>COMPRESSION</b>
	<b>BORE</b>

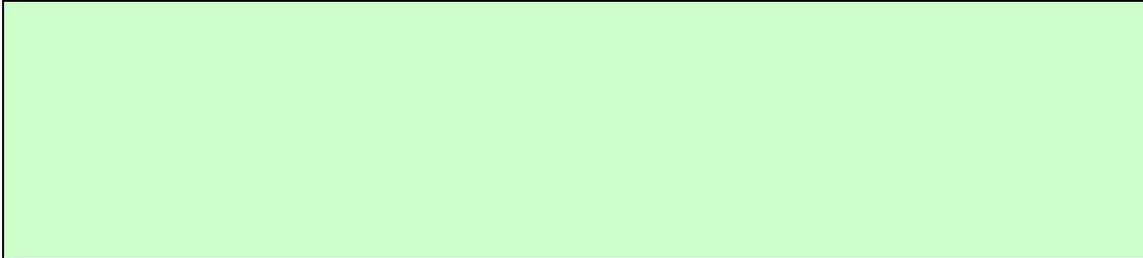
## How to apply ergonomic working methods

Fatigue can be a contributory cause in accidents and therefore it is important to find better ways of working that reduce fatigue. This may include **(enter the missing words)**:

- replacing manual labour with \_\_\_\_\_ where possible
- operators working in a pattern to prevent \_\_\_\_\_ movements
- Providing work areas at a comfortable \_\_\_\_\_ to avoid stooping.

## Grading and presenting logs for extraction and further processing

Describe below how logs should be presented for “shortwood techniques”.



**Grab and Forwarder**



If timber is to be moved by hand, safe lifting techniques should be used and operators should only move timber within their own personal lifting capacity, tackling the lightest first. Wherever possible 'aid tools' should be used for dragging rolling and lifting. **Name the aid tools in the pictures below.**



Name:



Name:



Name:



If machines are to be used, they must not exceed their safe lifting or pulling capacities. Chainsaw operators must have communication with the machine operators and be outside the risk zone.

## **Timber stacking**

Timber should be stacked in an appropriate and safe position, in line with the job specification and considering the method of extraction to be used.

Manually stacked timber should not exceed 1 metre high.

## Precautions to avoid uncontrolled timber movement

There are number of precautions that can be taken to avoid uncontrolled timber movement. These include (enter the missing words):

- ensuring manual stacks do not exceed \_ \_ in height
- using site features such as \_ \_ \_ \_ \_ to brace timber behind
- avoid stacking timber on \_ \_ \_ \_ \_ or non-secure ground
- improving site safety through the use of appropriate \_ \_ \_ \_ \_



## Notes

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