

Fell large trees using a chainsaw

Overview

This standard is about the felling of large trees using a chainsaw. A large tree is defined as over 380mm (15 in) at felling height.

The felling technique will be appropriate to the tree size, its weight, condition and species as well as taking into account the terrain and weather conditions. Felling methods will include the use of boring cuts, holding cuts and felling wedges to assist with the felling.

This covers both coniferous and broadleaved trees, trees that are upright, trees that are weighted towards and those that are weighted against a given felling direction.

When working with machinery you need to be appropriately trained, and hold current certification where required, in line with relevant legislation.

Fell large trees using a chainsaw

Performance criteria

You must be able to:

1. assess the risks associated with the site and the proposed work
2. select and implement the appropriate working methods in accordance with the assessed risks
3. select and use the appropriate personal protective equipment (PPE) for the work
4. maintain the safety and security of the equipment on site
5. plan how you will carry out the activity and discuss any concerns with the appropriate person about how the work can best be completed
6. maintain effective communication and teamwork when felling large trees
7. prepare the site by removing obstacles in the felling direction and establish escape route(s), as appropriate
8. prepare the site for felling large trees using a chainsaw
9. confirm all equipment has been checked and is fit for purpose
10. carry out routine operator maintenance, pre-start checks and the setting of the chainsaw for use
11. prepare the large tree for felling, appropriate to the tree condition and the specification for the site
12. prepare the site to facilitate the take-down of the tree and ensure the immediate work area at the base of the tree is clear
13. select recognised felling methods using a chainsaw, relevant to the site specification, tree size and condition, taking account of the direction in which the trees are weighted and the intended direction of their fall
14. fell large upright trees (i.e. not heavily weighted) in a pre-determined direction, using recognised felling methods and felling aids, as appropriate to the tree form, condition and the selected felling technique
15. fell large trees that are weighted towards a given felling direction using recognised felling methods (and felling aids, if required) that are appropriate to the tree form, condition and selected felling technique
16. ensure the position and condition of the felled tree is safe and suitable for subsequent operations
17. follow the environmental good practice set by your organisation and the industry and minimise environmental damage
18. maintain the health and safety of yourself and others at all times, in accordance with relevant legislation and codes of practice
19. keep accurate and up-to-date records, as required by relevant legislation and your organisation

Fell large trees using a chainsaw

Knowledge and understanding

You need to know and understand:

1. how to identify hazards and comply with the control procedures of risk assessments when felling large trees using a chainsaw
2. emergency planning and procedures for the site
3. the selection, use and care of personal protective equipment (PPE)
4. the importance of minimising environmental damage and preventing pollution incidents
5. the importance of maintaining effective communication with other team members when felling large trees using a chainsaw
6. the legal requirements for checking equipment
7. how to identify which large trees need to be felled by species, location, condition and markings
8. the relevant legal requirements and constraints for felling large trees in different circumstances
9. the implications of terrain, ground conditions, season, weather and tree condition on the felling of large trees
10. how to assess the height of the large tree in relation to its surroundings
11. the recognised felling methods, including the use of boring cuts and felling aids
12. the alternative felling methods for upright/not heavily weighted trees, including the use of guidebars greater than the diameter of the tree at felling height
13. how to recognise signs of disease and decay in trees and modify felling methods accordingly
14. the advantages of setting up or using a natural felling bench, brash mat or similar support prior to felling
15. how and when to use additional equipment to assist with the felling of large trees and the additional safeguards required
16. how to fell poles greater than guidebar length in diameter and the additional safeguards required
17. the additional safeguards to use when felling large trees in proximity to paths, roads or areas with public access
18. the current guidelines on safety clearances from overhead electricity conductors and what to do in the event of contact with power lines
19. how to recognise when a tree is difficult to fell and will require specialist techniques for felling, which could be due to its condition, aspect or position, because it is a very large tree or a tree of high commercial value
20. why it is important to maintain chainsaws to a high standard
21. your responsibilities under relevant environmental and health and safety legislation and codes of practice

Fell large trees using a chainsaw

Scope/range

Felling methods for:

- upright/balanced trees
- back-weighted trees
- forward-weighted trees
- poles
- difficult to fell trees (e.g. due to their high commercial value, condition, aspect or position)
- use of guidebars greater than the diameter of the tree

Fell large trees using a chainsaw

**Scope/range related
to knowledge and
understanding**

Additional equipment:

- lifting tongs
- cant hooks
- turning hooks
- turning straps
- take-down poles
- small hand winches
- other appropriate equipment
- winches and compatible ancillary equipment such as cable, strops, chokers, shackles and other devices may also be used for assisted felling

Fell large trees using a chainsaw

Glossary

Prepare the site – this could include setting up a bench, brash mat or similar

Prepare trees for felling – which could include brashing lower branches, removing climbing vegetation, buttresses and other obstructions

Potential impacts on the environment – such as red squirrel drays, badger sets, bat colonies

Tree positions – standing straight, leaning against and leaning in the intended felling direction

Poles – trees stripped of branches

Fell large trees using a chainsaw

Developed by	Lantra
Version Number	1
Date Approved	February 2017
Indicative Review Date	February 2021
Validity	Current
Status	Original
Originating Organisation	Lantra
Original URN	LANTw20
Relevant Occupations	Arboriculture and forestry; Chainsaw and forest machine operators; Gardener; Park Ranger; Greenkeeper; Groundsman; Landscaper; Horticulture and forestry
Suite	Treework
Keywords	fell; tree; chainsaw