

Extract wood products by cable crane

Overview

This standard is about extracting wood products by cable crane. This will include rigging a cable crane, preparing the operating machinery and using the system to extract timber products in a forest or woodland environment.

This covers planning your work and the work site, including assessing, setting up and rigging the system so that you operate the cable crane safely and efficiently and with minimal damage to the environment. Wood products may include whole trees, pole lengths, logs and other shortwood.

You must be able to operate the cable crane within its operating limits over a variety of ground conditions, in co-operation with other operators such as the choker man.

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

Your work must conform to all relevant legislation and codes of practice when carrying out this work.

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Performance criteria

You must be able to:

1. assess the risks associated with the site and the proposed work
2. select and implement appropriate working methods, in accordance with the assessed risks
3. select, prepare and use the appropriate personal protective equipment (PPE) for the work
4. select, prepare and use the appropriate tools and equipment, safely and effectively
5. confirm all equipment has been checked and is fit for purpose
6. maintain the security of machinery and equipment on site
7. prepare and maintain access and egress routes in a serviceable condition
8. ensure that damage to the work site, any remaining standing trees, tracks, roads, drains and the wider environment is kept within specified limits
9. carry out routine operator maintenance, pre-start checks and the setting of the machine for use
10. drive and manoeuvre the machine in a safe and effective way, within site restraints
11. set up and rig the cable crane to extract wood products, in line with the manufacturer's and industry guidance
12. erect and anchor the tower where appropriate
13. rig and anchor the tail spar, identifying ropes and suitable anchor points
14. install skyline carriage
15. undertake routine splicing of wire
16. maintain effective teamwork and communication with other team members using an appropriate method
17. keep the amount of extracted wood products at landing to a volume that can be handled by machinery such as a forwarder or processor/harvester
18. operate the cable crane to extract wood products in keeping with the site restraints, in a safe and effective way
19. ensure the stability of the cable crane is maintained
20. ensure the site is left in a condition which meets environmental requirements, in accordance with the specification
21. maintain the health and safety of yourself and others at all times in accordance with relevant legislation

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Knowledge and understanding

You need to know and understand:

1. how to identify hazards and assess risks
2. how to interpret risk assessments
3. the selection, use and care of personal protective equipment (PPE)
4. site procedures including communication systems and emergency planning
5. the types of tools and equipment required and how to maintain and use these safely and effectively in line with the manufacturer's recommendations
6. the legal requirements for checking equipment
7. why it is important to maintain the safety and security of equipment and vehicles on site
8. the current guidelines on machinery operation, risk zones and safety clearances from overhead electricity conductors, and what to do in the event of contact with power lines
9. the implications of working at height in relation to rigging a cable crane
10. how to set up and rig an artificial spar
11. how to rig an offset cable crane and when it would be appropriate to use offset winching
12. how to rig an intermediate support and when it would be appropriate to do so
13. how to set up and rig artificial support
14. how to establish ground anchors and their effectiveness
15. how to repair the main skyline and wire ropes
16. the importance of offset working when the landing area is restricted
17. the advantages and disadvantages of quick release chokers and chokering aids and equipment
18. the types of skyline carriage
19. the implications of extracting different wood products
20. the different characteristics and techniques for extracting wood products by cable crane with different systems of operation
21. the capabilities and limitations of the cable crane system used, including slope limitations, the length of timber loaded and the maximum safe working load
22. the implications of ground conditions, season and weather conditions, on extracting wood products by cable crane
23. the advantages and disadvantages of uphill and downhill extraction
24. the potential impact of your work on the environment and how this can be minimised
25. your responsibilities under relevant environmental, health and safety legislation and codes of practice

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Scope/range

Extract one or more of the following wood products:

- whole trees
- pole lengths
- logs and other shortwood

Communicate with other team members using one or more of the following:

- hand signals
- two-way radio
- headsets

Glossary

wood products - whole trees, pole lengths, logs and other shortwood.

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