

LANTw42 - SQA Unit Code H2SR 04

Use mechanically powered winches in timber work



Overview

This standard is about using mechanically powered wire winches to pull felled trees or timber to a position for further processing or extraction

This standard also covers use of winches for single line pull in timber extraction, as an aid to directional felling of trees, takedown of hung-up trees, restraint or rolling of trees (e.g. when working on windblow, timber on slopes or unstable felled trees), as well as for de-bogging or self-recovery

When working with machinery you need to be appropriately trained or certificated in line with current legislation

Your work must conform to all current legislation and codes of practice

This standard is suitable for those working as part of a team to pull felled trees or timber within a forest or woodland environment

LANTw42 - SQA Unit Code H2SR 04

Use mechanically powered winches in timber work

Performance criteria

- You must be able to:*
- P1 assess risks associated with the site and the work to be carried out
 - P2 select and implement appropriate working method in accordance with the assessed risks
 - P3 meet relevant legislative, organisational and environmental requirements relevant to preparing the winch
 - P4 maintain the security of machinery and equipment on site
 - P5 carry out routine operator maintenance, pre-start checks and setting of the machine for use
 - P6 ensure the cable is of adequate diameter capacity and length for the load to be applied and the distance to be pulled
 - P7 maintain effective teamwork when winching
 - P8 pull out cable avoiding obstacles to the winching process
 - P9 identify and select timber for extraction according to specification
 - P10 choker timber as appropriate to ensure safe and effective winching
 - P11 operate the winch in keeping with site constraints, in a safe and effective way
 - P12 ensure that damage to the worksite, any remaining standing trees, tracks, roads, drains and the wider environment is kept within specified limits
 - P13 stop winching when signalled to do so
 - P14 utilise additional safeguards and comply with safety distances when winching near roads and tracks or where others are working
 - P15 ensure timber is in a safe position before releasing chokers (or attaching load to winch if skidding)
 - P16 follow organisational and industry environmental good practice and minimise environmental damage
 - P17 maintain the health and safety of yourself and others at all times in accordance with current legislation

LANTw42 - SQA Unit Code H2SR 04

Use mechanically powered winches in timber work

Knowledge and understanding

You need to know and understand:

- K1 how to identify hazards and assess risks
- K2 how to interpret risk assessments
- K3 emergency planning and procedures for the site
- K4 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
- K5 potential impacts of your work on the environment and how these can be minimised
- K6 the need and benefits for carrying out routine operator checks and maintenance in line with manufacturer's recommendations
- K7 the principles of powered winch operation and the loads to be applied, including the multiplication of forces when pulley (snatch) blocks are used
- K8 the acceptable limitations to cable wear when using the winch for assisted directional felling or restraint of windblow
- K9 the information from the 'certificate of conformity' required to ensure the cable is of a stated breaking strain
- K10 the implications of terrain, ground conditions, season, weather type of timber and species to laying out cable and chokering timber
- K11 the operator checks necessary on the cable and its terminal, strops, pulleys, shackles, hooks, chokers etc before and during use, including identification of the load bearing capacity of the equipment
- K12 your own limitations and capabilities when laying out cable and chokering timber
- K13 the additional problems, hazards and risks posed by working on steep slopes when laying out cable and chokering timber
- K14 how to recognise type of timber and species and select product categories to meet required specification when chokering
- K15 the various methods of chokering poles butt first and tip first including the optimum attachment position for the chokers on the timber
- K16 the types of chokers and chokering attachment to the cable methods available
- K17 what to look out for when routing the cable with regard to obstacles that may be encountered when the winch is operated
- K18 the additional points to consider when laying out the cable and chokering multiple stems
- K19 the considerations necessary when selecting strops and anchor points when setting pulleys used in offset pulling, double rigging or hi-leading, with regard to multiplication of forces applied
- K20 the bearing capacity of pulley anchor strops in various configurations, (e.g. 'basket' versus 'chokered' method of attachment)

LANTw42 - SQA Unit Code H2SR 04

Use mechanically powered winches in timber work

- K21 the signals and methods of signalling to the winch operator or intermediate banksman
- K22 how to deal with timber that has come against an obstacle as it is winched in
- K23 the effect of poorly choked or awkward shaped loads on line wire extraction
- K24 the additional hazards and risks involved when using vehicle-mounted winches with no ground anchors (e.g. on forestry tractors or skidders) and their unsuitability for restraint of windblown stems and root-plates or in assisted directional felling
- K25 how offset pulleys should be set if winching down a steep ground to avoid damage to winching equipment or injury to operator
- K26 your responsibilities under current environmental, health and safety legislation and codes of practice

LANTw42 - SQA Unit Code H2SR 04

Use mechanically powered winches in timber work

Additional Information

Scope/range

Timber either as single or multiple stems

LANTw42 - SQA Unit Code H2SR 04

Use mechanically powered winches in timber work

Glossary

Choker timber – the use of a chain that tightens automatically and will not undo

LANTw42 - SQA Unit Code H2SR 04

Use mechanically powered winches in timber work

Developed by Lantra

Version number 1

Date approved December 2011

Indicative review date January 2016

Validity Current

Status Original

Originating organisation Lantra

Original URN O29NTW45

Relevant occupations Chainsaw and forest machine operators

Suite Treework

Key words Choker; winches; forest; operator;