

# LANTw39 - SQA Unit Code H2S4 04

## Process trees mechanically



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### Overview

This standard is about processing felled trees mechanically in forests and woodlands. This will include the preparation, driving and manoeuvring of the machine

This operation can also be carried out integrally with harvesting of trees using a combined harvesting and processing head

Firewood processors and similar machines are not included

This standard covers the efficient de-branching and/or conversion (cross-cutting) of timber for subsequent handling and includes working to a specification to best advantage and minimise product loss or damage

Chainsaw limbing and cutting of large or misshapen trees may be required during processing

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

This standard is for forest machine operators processing felled timber

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### Performance criteria

*You must be able to:*

- P1 assess the risks associated with the site and the proposed works
- P2 select and implement appropriate working method in accordance with the assessed risks
- P3 select, prepare and use tools and equipment that are appropriate to the work, safely and effectively
- P4 maintain the security of machinery and equipment on site
- P5 select, prepare and maintain access and egress routes in a serviceable condition
- P6 carry out routine operator maintenance, pre-start checks and setting of the machine for use
- P7 drive and manoeuvre the machine in a safe and effective way within site restraints
- P8 ensure that damage to the worksite, any remaining standing trees, tracks, roads, drains and the wider environment is kept within specified limits
- P9 utilise additional safeguards when reversing or manoeuvring and comply with safety distances adjacent to roads and tracks or where others are working
- P10 identify the felled trees and position processor into the product stacking area
- P11 de-limb trees ensuring that the quality is within specified limits
- P12 cross-cut trees safely and effectively, to a specification avoiding splits
- P13 stack and segregate logs to enable ease of extraction, including placement of brash clear of timber zone
- P14 select a processing method which is relevant to the tree size and condition and to the given specification
- P15 meet relevant legislative, organisational and environmental requirements relevant to preparing the machine
- P16 maintain the health and safety of yourself and others at all times in accordance with current legislation

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### 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, working at height and safety clearances from overhead electricity conductors and what to do in the event of contact with power lines
- K5 how to plan and set up and use fuelling and maintenance areas
- K6 the types of tools and equipment required and how to maintain and use these safely and effectively
- K7 why it is important to maintain safety and security of equipment and vehicles when on site
- K8 the need for and benefits of carrying out routine operator checks and basic maintenance in line with manufacturer's recommendations
- K9 the function of all operating controls for base unit and processor equipment
- K10 the procedure for loading and unloading the machine from a transporter
- K11 driving techniques and site preparation that reduce damage to the ground, any remaining standing trees or the wider environment such as drains and roads to within specified limits
- K12 the implications of terrain, ground conditions, season, weather, load and timber type/condition on planning access routes and driving the machine
- K13 the various driving characteristics and techniques for driving a machine with different wheel configurations and traction aids
- K14 how to recognise and select size and species to meet required specification when processing
- K15 how to de-limb deformed trees, e.g. trees which are coarse branched, forked, multi-stemmed and/or bent
- K16 the implications of processing shattered, diseased, rotten, dead or other malformed trees
- K17 how to deal with trees with inaccessible butts, e.g. windblown or where trees are felled in an opposing direction
- K18 the procedures for setting log lengths, tolerances and minimum top diameters as appropriate to machine
- K19 how to retrieve information on individual and cumulative products (e.g. number of pieces and volumes of each specification)
- K20 how to make regular checks on specification of processed timber during operation and recognise malfunctions before and during operation
- K21 how to check and sharpen de-branching knives and why profile needs setting on knives
- K22 how to check and sharpen cross-cutting mechanism and the procedures

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- to ensure operator is safeguarded
- K23 the potential impacts of your work on the environment and how these can be minimised
- K24 your responsibilities under current environmental, health and safety legislation and codes of practice

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### Scope/range related to knowledge and understanding

**Processors** used include:

- 1 bed processors
- 2 grapple processors
- 3 stroke
- 4 reciprocating boom processors

**Prepare ground** by creating brush mats to reduce ground damage and aid flotation

**Site preparation** includes preparing for crossing water courses and the use of ramps etc

**Setting machines**

- 1 adjustments to meet job
- 2 on board weighting systems
- 3 using GPS systems

**Protection structure**

- 1 Operator Protective Structures (OPS)
- 2 Roll Over Protective Structures (ROPS)
- 3 Falling Object Protective Structures (FOPS)

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**Developed by** Lantra

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**Version number** 1

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**Date approved** December 2011

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**Indicative review date** January 2016

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**Validity** Current

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**Status** Original

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**Originating organisation** Lantra

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**Relevant occupations** Arboriculture and forestry; Chainsaw and forest machine operators

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**Suite** Treework

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**Key words** Forest; machinery; process; timber; operator

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