



Australian Government

Department of Education, Employment and Workplace Relations

FPISAW3229B Operate a portable sawmill

Release: 1

FPISAW3229B Operate a portable sawmill

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit describes the outcomes required to produce sawn green boards using a portable sawmill in line with site requirements and customer specifications

Compliance with licensing, legislative, regulatory or certification requirements may be required in various jurisdiction

This unit replaces FPISAW3229A Operate a portable sawmill

Application of the Unit

Application of the unit The unit involves operating a portable sawmill in a forest setting

The skills and knowledge required for competent workplace performance are to be used within the scope of the person's job and authority

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for sawing	1.1. Applicable Occupational Health and Safety (OHS), environmental, legislative and organisational requirements relevant to operating a portable sawmill are identified and followed 1.2. Work order is reviewed and checked with appropriate personnel 1.3. Type and quantity of logs to be sawn is selected from the location 1.4. Equipment is selected appropriate to work requirements and checked for operational effectiveness in line with manufacturer's recommendations 1.5. Sawing process is planned to optimise volume and quality of recovery 1.6. Communication with others is established and maintained in line with OHS requirements
2. Break down logs	2.1. Pre start-up checks are carried out on equipment in line with site requirements 2.2. Logs to be sawn are positioned with cant hooks, winches or log rollers and stabilised with chock logs or pre-notched runners in line with site procedures 2.3. Sawn board dimensions are obtained from customer orders or work order 2.4. Number of boards and sequence of cuts from an individual log are estimated taking into account log characteristics 2.5. Saw, carriage and mill are adjusted to suit dimensions of boards to be cut 2.6. Saw is operated to saw logs while controlling sawn edges 2.7. Defects in logs, reject boards and off-cuts are directed to waste or sawn recovery 2.8. Portable sawmilling process and equipment faults are recorded and reported to the appropriate personnel
3. Conduct operator maintenance	3.1. Equipment lock-out procedures are followed in line with OHS legislation and site procedures 3.2. Saw and saw blades are checked for blunt or damaged condition in line with site procedures 3.3. Blunt or damaged saws and saw blades are identified and dealt with in line with site procedures and

ELEMENT**PERFORMANCE CRITERIA**

manufacturer's recommendations and environmental requirements

3.4. Machine area is kept clear of dust and debris in line with OHS and site requirements

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level required for this unit

Required skills

- Technical skills sufficient to use and maintain relevant tools, machinery and equipment; safely and efficiently operate a portable sawmill
- Communication skills sufficient to use appropriate communication and interpersonal techniques with colleagues and others
- Literacy skills sufficient to accurately record and report workplace information, and maintain documentation
- Numeracy skills sufficient to calculate dimensions, and to estimate, measure and calculate time required to complete a task
- Problem solving skills sufficient to accurately identify blunt or damaged saws; identify problems and equipment faults and demonstrate appropriate response procedures

Required knowledge

- Applicable Commonwealth, State or Territory legislation, regulations, standards, codes of practice and established safe practices relevant to the full range of processes for operating a portable sawmill
- Environmental protection requirements, including the safe disposal of waste material, minimising carbon emissions and the cleaning of plant, tools and equipment
- Organisational and site standards, requirements, policies and procedures for operating a portable sawmill
- Environmental risks and hazards
- Using energy effectively and efficiently
- Using material effectively and efficiently
- Portable sawmilling systems
- Characteristics of timber and timber defects
- Break down processes, feed rates and finish
- Blade condition assessment

REQUIRED SKILLS AND KNOWLEDGE

- Established communication channels and protocols
- Problem identification and resolution strategies and common fault finding techniques
- Types of tools and equipment and procedures for their safe use, operation and maintenance
- Appropriate mathematical procedures for estimating and measuring, including calculating time to complete tasks
- Procedures for recording and reporting workplace information

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

A person who demonstrates competency in this unit must be able to provide evidence that they can safely and efficiently operate a portable sawmill within organisational requirements

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to, and satisfy, all of the requirements of the elements of this unit and include demonstration of:

- following applicable Commonwealth, State or Territory legislative and regulatory requirements and codes of practice relevant to operating a portable sawmill
- following organisational policies and procedures relevant to operating a portable sawmill
- operating a portable sawmill to produce green boards in line with the work order and within prescribed organisational specifications
- conducting operator maintenance on portable sawmill machinery

Context of and specific resources for assessment

- Competency is to be assessed in the workplace or realistically simulated workplace
- Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints
- Assessment of required knowledge, other than confirmatory questions, will usually be conducted in an off-site context
- Assessment is to follow relevant regulatory or Australian Standards requirements
- The following resources should be made available:
 - workplace location or simulated workplace
 - materials and equipment relevant to undertaking work applicable to this unit
 - specifications and work instructions

Method of assessment

- Assessment must satisfy the endorsed Assessment Guidelines of the FPI11 Training Package
- Assessment methods must confirm consistency and

EVIDENCE GUIDE

accuracy of performance (over time and in a range of workplace relevant contexts) together with application of required knowledge

- Assessment must be by direct observation of tasks, with questioning on required knowledge and it must also reinforce the integration of employability skills
- Assessment methods must confirm the ability to access and correctly interpret and apply the required knowledge
- Assessment may be applied under project-related conditions (real or simulated) and require evidence of process
- Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances
- Assessment may be in conjunction with assessment of other units of competency
- The assessment environment should not disadvantage the candidate
- Assessment practices should take into account any relevant language or cultural issues related to Aboriginality, gender or language backgrounds other than English
- Where the participant has a disability, reasonable adjustment may be applied during assessment
- Language and literacy demands of the assessment task should not be higher than those of the work role

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

OHS requirements: are to be in line with applicable Commonwealth, State or Territory legislation and regulations, and

RANGE STATEMENT

organisational safety policies and procedures, and may include:

- personal protective equipment and clothing
- safety equipment
- first aid equipment
- fire fighting equipment
- hazard and risk control
- fatigue management
- elimination of hazardous materials and substances
- safe forest practices including required actions relating to forest fire
- manual handling including shifting, lifting and carrying
- machine isolation and guarding
- legislation
- organisational policies and procedures
- workplace practices

Environmental requirements
may include:

Legislative requirements:

are to be in line with applicable Commonwealth, State or Territory legislation, regulations, certification requirements and codes of practice and may include:

- award and enterprise agreements
- industrial relations
- Australian Standards
- confidentiality and privacy
- OHS
- the environment
- equal opportunity
- anti-discrimination
- relevant industry codes of practice
- duty of care

Organisational requirements
may include:

- legal
- organisational and site guidelines
- policies and procedures relating to own role and responsibility
- quality assurance
- procedural manuals
- quality and continuous improvement processes and standards

RANGE STATEMENT

- OHS, emergency and evacuation procedures
- ethical standards
- recording and reporting requirements
- equipment use and maintenance and storage requirements
- environmental management requirements (waste minimisation and disposal, recycling and re-use guidelines)

Work order is to include:

- instructions for the portable sawmill location
- sawing logs and despatching from the work site to down-stream processing

and may include:

- species
- diameter
- length
- quantity
- grade
- instructions for the environmental monitoring of work and procedures
- environmental care requirements relevant to the work

Appropriate personnel may include:

- supervisors
- suppliers
- clients
- colleagues
- managers

Logs are to include:

assessment of:

- diameter range
- curvature
- faults
- species
- moisture content

Sawing

is the process of cutting a log into parts including green boards and off-cuts

Equipment includes:

- portable sawmills
- procedures for machine lock-out, i.e. protecting operators and co-workers from accidental injury by isolating the machine from the power source

RANGE STATEMENT

Optimising includes:

- planning the cutting of a log to achieve the most from it, i.e. the most and widest boards possible
- ensuring environmental requirements are central to this planning process

Communication may include:

- verbal and non-verbal language
- constructive feedback
- active listening
- questioning to clarify and confirm understanding
- use of positive, confident and cooperative language
- use of language and concepts appropriate to individual social and cultural differences
- control of tone of voice
- body language

Pre start-up checks

are conducted to ensure:

- saw has been set-up correctly
- blades are installed accurately
- machinery is operating to optimum performance

Positioned may include:

use of:

- cant hooks
- winches
- log rollers
- mechanical lifting equipment

Stabilised may include:

use of:

- chock logs
- wedges
- pre-notched runners

Sequence of cuts

is the process of sawing a log into its parts as specified by the work order and the characteristics of the log in an order which optimises return of green boards

Carriage may include:

component of the portable sawmill that:

- supports the log and assists with feed during the sawing process
- supports the saw and allows the saw to travel

RANGE STATEMENT

- through the log
- Sawn edges** are to include:
- waste sections of timber
 - round sides of the first cut
- Defects** may include:
- defects arising from a change in moisture content
 - warp
 - wane
 - curvature
 - shakes
 - insect defects
 - knots and resin pockets
 - sweep
 - taper
 - end splits
 - shape
- Sawn recovery**
- is the marketable timber from the reject timber and off-cuts
- Records and reports** may detail:
- sawing procedures
 - product type
 - size
 - inspection
 - grading and labelling outcomes
 - storage locations
 - quality outcomes
 - hazards
 - incidents
 - equipment malfunctions
- and may be:
- manual
 - using a computer-based system or another appropriate organisational communication system
- Dealing with** may include:
- repairing blunt or damaged saws and saw blades
 - disposing of blunt or damaged saws and saw blades that cannot be repaired

Unit Sector(s)

Unit sector No sector assigned

Co-requisite units

Co-requisite units

Competency field

Competency field Sawmilling and Processing