



Australian Government

Department of Education, Employment and Workplace Relations

FPISAW3213B Level and tension circular saws

Release: 1

FPISAW3213B Level and tension circular saws

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to level and tension circular saws and includes inspecting saws, repairing defects such as dished blades, damaged teeth and cracks, levelling ridges and lumps, and tensioning the saw

General workplace legislative and regulatory requirements apply to this unit; however there are no specific licensing or certification requirements at the time of publication

This unit replaces FPISAW3213A Level and tension circular saws

Application of the Unit

Application of the unit

The unit involves levelling and tensioning circular saws in a forest products factory 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 repair	1.1. Applicable Occupational Health and Safety (OHS), environmental, legislative and organisational requirements relevant to levelling and tensioning circular saws are identified and followed 1.2. Work order is reviewed and checked with appropriate personnel 1.3. Equipment is selected appropriate to work requirements and checked for operational effectiveness in line with manufacturer's recommendations 1.4. Levelling and tensioning process is planned in line with site procedures and environmental requirements 1.5. Communication with others is established and maintained in line with OHS requirements
2. Assess saw condition	2.1. Saws are handled safely without damage to teeth 2.2. Foreign material built up on saw surfaces is cleaned for inspection 2.3. Saw is inspected to assess condition of teeth and saw plate 2.4. Saw is declared unserviceable where hazardous defects are found 2.5. Unserviceable saws are segregated and disposed of in line with site procedures, manufacturer's requirements and environmental requirements
3. Level saw	3.1. Radial and circular ridges or lumps are assessed and matched on both sides of the blade 3.2. Gauges and straight edges are used in both radial and circular directions and monitored for accuracy 3.3. Ridges or lumps are progressively removed through levelling, the use of structure rolls or levelling rolls to achieve flatness 3.4. Hammering and rolling patterns are controlled to reduce internal blade stresses to avoid spring-back and re-occurrence of defects
4. Tension saw	4.1. Consistency of blade curvature is assessed with a straight edge or tension gauge 4.2. Tension requirements are determined from assessment of curvature consistency and curvature required for site production requirements 4.3. Blade is tensioned using appropriate tools and

ELEMENT**PERFORMANCE CRITERIA**

- equipment in line with required standard
- 4.4. Final checks are made to ensure tension amount, distribution, placement and level in line with site production requirements
- 4.5. Saws damaged in the levelling and tensioning process are repaired/sent for repair and those that cannot be repaired are disposed of in line with site procedures, manufacturer's recommendations and environmental requirements
- 4.6. Levelling and tensioning process and equipment faults are investigated, **recorded and reported** in line with 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; efficiently and safely level and tension circular saws
- Communication skills and interpersonal techniques sufficient to interact appropriately with colleagues and others in the workplace
- Literacy skills sufficient to accurately record and report workplace information, and maintain documentation
- Numeracy skills sufficient to estimate, measure and calculate time required to complete a task
- Problem solving skills sufficient to 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 levelling and tensioning circular saws
- 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 levelling and tensioning circular saws
- Environmental risks and hazards

REQUIRED SKILLS AND KNOWLEDGE

- Characteristics of metal and saws
- Levelling and tensioning methods
- Saw condition assessment
- 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 level and tension circular saws 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 levelling and tensioning circular saws
- following organisational policies and procedures relevant to levelling and tensioning circular saws
- levelling and tensioning circular saws in line with work order and within prescribed organisational requirements
- removing and replacing circular saws from equipment
- assessing circular saw conditions in line with standard operating procedures

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 essential underpinning 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

EVIDENCE GUIDE

Method of assessment

- Assessment must satisfy the endorsed Assessment Guidelines of the FPI11 Training Package
- Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of underpinning knowledge
- Assessment must be by direct observation of tasks, with questioning on underpinning 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 essential underpinning 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

RANGE STATEMENT

regional contexts) may also be included.

OHS requirements:

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

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- procedural manuals
- quality and continuous improvement processes and standards
- 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)

Levelling

is the process of removing lumps and ridges in the blade using the appropriate and specialised saw hammers

Tensioning

is the process of placing tension in a blade to counteract forces and rotational stresses

Work order is to include:

- instructions for the levelling and tensioning of circular saws in designated equipment

and may include:

- 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

Equipment may include:

- hammers
- stretcher rolls
- specialised levelling rolls
- tensioning instruments
- gauges and straight edges to check accuracy of hammering or rolling processes on particular sections of the saw blade

Communication may include:

- verbal and non-verbal language
- constructive feedback
- active listening
- questioning to clarify and confirm understanding

RANGE STATEMENT

- 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
- Disposing of** may include:
- recycling unserviceable saws/saws damaged in the levelling and tensioning process that cannot be repaired
 - re-using unserviceable saws/saws damaged in the levelling and tensioning process that cannot be repaired
- Radial and circular ridges or lumps** are to include:
- defects obtained during saw operation
- Gauges and straight edges** are to include:
- measuring instruments used to check the results of hammering and/or rolling the blade
- Stretcher and levelling rolls** are to include:
- devices for assisting in the process of removing saw defects such as ridges and lumps
- Patterns** are the sequences applied when hammering or rolling identified areas of the blade to remove distortions and stresses in the form of lumps, ridges, twists, loose, tight, or neutral sections
- Spring-back** is the principle of compensating for 'metal creep' that causes saw blade steel to stress-relieve over time thus reducing tension permanence in blades
- Curvature** is the amount of tension achieved in a blade by compressing and elongating predetermined sections or zones in the blade
- Records and reports** may include:
- levelling and tensioning
 - inspection
 - storage locations
 - quality outcomes
 - hazards
 - incidents
 - equipment malfunctions
- and may be:
- manual
 - using a computer-based system or another

RANGE STATEMENT

appropriate organisational communication
system

Unit Sector(s)

Unit sector No sector assigned

Co-requisite units

Co-requisite units

Competency field

Competency field Sawmilling and Processing