Australian Government

Department of Education, Employment and Workplace Relations

# FPICOT3211B Maintain sawdoctoring tools

**Release: 1**

# FPICOT3211B Maintain sawdoctoring tools

## Modification History

Not Applicable

## Unit Descriptor

**Unit descriptor**

This unit describes the outcomes required to assess tool wear and the need to recondition straight edges and tension guides using grinders or other enterprise-accepted reconditioning methods

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 FPICOT3211A Maintain sawdoctoring tools

## Application of the Unit

**Application of the unit**

The unit involves maintaining sawdoctoring tools 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

Not Applicable

# Employability Skills Information

**Employability skills** This unit contains employability skills

# Elements and Performance Criteria Pre-Content

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| 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 maintenance | 1.1. Applicable ***occupational health and safety*** (OHS), ***environmental***, ***legislative*** and ***organisational requirements*** relevant to maintaining sawdoctoring tools are identified and followed |
| | 1.2. ***Work order*** is reviewed and clarified with ***appropriate personnel*** |
| | 1.3. Sawdoctoring tools to be reconditioned are removed from the designated machinery |
| | 1.4. ***Equipment*** is selected appropriate to work requirements and checked for operational effectiveness in line with manufacturer recommendations |
| | 1.5. Maintenance process is planned in line with site procedures and environmental requirements |
| | 1.6. ***Communication*** with others is established and maintained in line with OHS requirements |
| 2. Recondition straight edge | 2.1. ***Straight edge*** damage and wear are assessed in line with site procedures |
| | 2.2. ***Grinder*** or other accepted method is used to remove damage or wear in line with site procedures |
| | 2.3. Correct work angle for re-surfacing or removal of wear is determined in line with site procedures |
| | 2.4. Straight edge is clamped at the correct angle to prevent movement, vibration and slippage during the re-surfacing process |
| | 2.5. Abrasive wheel or cutting tool is inspected and if required, cleaned or changed to suit work material removal, ***tolerance*** and ***surface texture*** requirements |
| | 2.6. Straight edge is reconditioned to required accuracy and tolerance without being subjected to overheating or methods that cause distortion, and all signs of wear or damage are removed |
| | 2.7. Straight edge is cleaned and edges deburred in line with site procedures |
| | 2.8. Sawdoctoring tools distorted during the process are ***dealt with*** in line with site procedures, manufacturer recommendations and environmental requirements |
| 3. Recondition tension gauge | 3.1. Grinder or other appropriate enterprise method for ***reconditioning tension gauges*** is selected in line with site procedures |
| | 3.2. Grinder is set to produce the ***radius or circle*** |

| ELEMENT | PERFORMANCE CRITERIA |
|---|---|
| | ***diameter*** required for the tension gauge |
| | 3.3. Tension gauge is positioned and securely clamped in grinder to ensure chord height is central to gauge length and arc is ground square to the plane of the gauge body |
| | 3.4. Grinding wheel is inspected, ***dressed*** and changed to suit work, material and required tolerance |
| | 3.5. Gauge is reconditioned by grinding to required accuracy and profile until all visible edge and face wear has been removed |
| | 3.6. Grinding is done at ***speeds and feeds*** that avoid overheating, distortion and burn marks |
| | 3.7. Tension gauges distorted during the process are dealt with in line with site procedures, manufacturer recommendations and environmental requirements |
| | 3.8. Reconditioning process and equipment faults are ***recorded and reported*** to the appropriate personnel |

# 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 maintain sawdoctoring tools
- Communication skills sufficient to use appropriate communication and interpersonal techniques with colleagues and others
- Literacy skills sufficient to record and report workplace information; maintain documentation
- Numeracy skills sufficient to measure, estimate and calculate time required to complete a task
- Problem solving skills sufficient to identify problems and equipment faults; 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 maintaining sawdoctoring tools
- Environmental protection requirements, including the safe disposal of waste

## REQUIRED SKILLS AND KNOWLEDGE

material, the minimisation of carbon emissions, and the cleaning of plant, tools and equipment

- Organisational and site standards, requirements, policies and procedures for maintaining sawdoctoring tools
- Environmental risks and hazards
- Using energy effectively and efficiently
- Characteristics of sawdoctoring tools
- Grinding procedures
- Tolerances, speeds and feeds
- 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 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.

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| **Overview of assessment** | A person who demonstrates competency in this unit must be able to provide evidence that they can safely and efficiently maintain sawdoctoring tools according to 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:<br>• following applicable commonwealth, state or territory legislative and regulatory requirements and codes of practice relevant to maintaining sawdoctoring tools<br>• following organisational policies and procedures relevant to maintaining sawdoctoring tools<br>• maintaining sawdoctoring tools in line with prescribed organisational requirements |
| **Context of and specific resources for assessment** | • Competency is to be assessed in the workplace or realistically simulated workplace<br>• Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints<br>• Assessment of required knowledge, other than confirmatory questions, will usually be conducted in an off-site context<br>• Assessment is to follow relevant regulatory or Australian Standards requirements<br>• The following resources should be made available:<br>  • workplace location or simulated workplace<br>  • materials and equipment relevant to undertaking work applicable to this unit<br>  • specifications and work instructions |
| **Method of assessment** | • Assessment must satisfy the endorsed Assessment Guidelines of the FPI11 Training Package<br>• Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of required knowledge |

**EVIDENCE GUIDE**

- 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 organisational safety policies and procedures, and may include:

- personal protective equipment and clothing

## RANGE STATEMENT

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| | • safety equipment<br>• first aid equipment<br>• fire fighting equipment<br>• hazard and risk control<br>• fatigue management<br>• elimination of hazardous materials and substances<br>• safe forest practices, including required actions relating to forest fire<br>• manual handling including shifting, lifting and carrying |
| **Environmental requirements may include**: | • legislation<br>• organisational policies and procedures<br>• workplace practices |
| **Legislative requirements**: | are to be in line with applicable commonwealth, state or territory legislation, regulations, certification requirements and codes of practice and may include:<br>• award and enterprise agreements<br>• industrial relations<br>• Australian Standards<br>• confidentiality and privacy<br>• OHS<br>• the environment<br>• equal opportunity<br>• anti-discrimination<br>• relevant industry codes of practice<br>• duty of care |
| **Organisational requirements** may include: | • legal<br>• organisational and site guidelines<br>• policies and procedures relating to own role and responsibility<br>• quality assurance<br>• procedural manuals<br>• quality and continuous improvement processes and standards<br>• OHS, emergency and evacuation procedures<br>• ethical standards<br>• recording and reporting requirements<br>• equipment use, maintenance and storage requirements |

## RANGE STATEMENT

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| | • environmental management requirements (waste minimisation and disposal, recycling and re-use guidelines) |
| **Work order** is to include: | • instructions for the reconditioning of sawdoctoring tools |
| | and may also include: |
| | • instructions for the environmental monitoring of work and procedures<br>• environmental care requirements relevant to the work |
| **Appropriate personnel** may include: | • supervisors<br>• suppliers<br>• clients<br>• colleagues<br>• managers |
| **Equipment** is to include: | • grinders and grinding attachments<br>• straight edges<br>• feeler gauges<br>• templates<br>• hand files<br>• oil stones<br>• vernier callipers<br>• micrometers |
| **Communication** may include: | • verbal and non-verbal language<br>• constructive feedback<br>• active listening<br>• questioning to clarify and confirm understanding<br>• use of positive, confident and cooperative language<br>• use of language and concepts appropriate to individual social and cultural differences<br>• control of tone of voice |
| **Straight edge** may include: | • checking level and flatness of saw blades<br>• machine alignment<br>• alignment of mechanical parts<br>• timber<br>• any other surface required to be flat or level |
| **Grinder** may include: | • bench and pedestal grinders with holding, clamping or profiling attachments |

## RANGE STATEMENT

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| | • automatic feed |
| **Tolerance** | is the enterprise-accepted curvature of the radius on tension gauges and ratio to perfect flatness and straightness from 0 degrees for both tension gauges and straight edges |
| **Surface texture**: | • is the measured roughness value of the freshly ground or filed surface on a straight edge or tension gauge<br>• of ground or filed surfaces requires a high quality machined surface finish with edges free of any burrs, nicks or dents that may interfere with accuracy of light readings |
| **Dealing with** may include: | • recycling distorted tools/gauges<br>• sending distorted tools/gauges to landfill |
| **Reconditioning** is to include: | • grinding, machining or filing the straight edge or tension gauge edges to maintain edge straightness and flatness<br>• removing all signs of wear from reference surfaces<br>• removing all types of distortions from tension gauge and straight edge bodies to achieve required flatness and straightness of tolerances |
| **Tension gauge** | is used to measure tension drop or curvature in wide band and circular saw blades |
| **Radius or circle diameter** | is the arc ground onto the tension gauge suited to the amount of curvature required in the blade |
| **Dressing** is to include: | • cleaning or shaving the top surface of the grinding wheel to remove the build-up of old sharpening metal and coolant |
| **Speeds and feeds** is: | • the cutting speed (in m/min or m/sec of the abrasive wheel) at which grinding passes are made across surfaces<br>• the amount of material removed in a single pass by the abrasive wheel |
| **Records and reports** may include: | • product type and size<br>• inspection information<br>• maintenance outcomes<br>• common and recurring faults<br>• malfunctions and damage<br>• hazards and incidents |

**RANGE STATEMENT**

and may be:

- manual
- a computer-based system
- other appropriate organisational communication system

# Unit Sector(s)

Not Applicable

# Competency field

**Competency field** Common Technical