Modification history

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| Release | Comments |
| Release 1 | This version released with FWP Forest and Wood Products Training Package Version 5.0. |

| FWPCOT3XXX | Assess and maintain saw technology tools |
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| Application | This unit of competency describes the skills and knowledge required to assess and maintain straight edges, hammers, measuring equipment, back gauges and tension gauges.  The unit applies to individuals who maintain saw technology tools in a forest and forest product factory settings.  All work must be carried out to comply with workplace procedures, according to state/territory health and safety regulations, legislation and standards that apply to the workplace.  No occupational licensing, legislative or certification requirements apply to this unit at the time of publication. |
| Prerequisite Unit | Nil |
| Unit Sector | Common Technical; applies across sectors |

| Elements | Performance Criteria |
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| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Prepare for maintenance | 1.1 Review work order to determine job requirements and where required seek clarification from appropriate personnel  1.2 Review environmental protection procedures and workplace health and safety requirements including use of personal protective equipment, equipment lockout and safe manual handling techniques  1.3 Identify, assess and take actions to mitigate risks and hazards associated with maintaining sawdoctoring tools  1.4 Identify and implement workplace procedures for minimising and disposing of waste, cleaning tools and equipment material and maximising energy efficiency  1.5 Select appropriate repair and maintenance tools and equipment and check for operational effectiveness  1.7 Plan maintenance process according to work order |
| 2. Maintain straight edge | 2.1 Assess straight edge damage and wear and select appropriate maintenance method  2.2 Determine correct work angle for re-surfacing or removal of wear  2.3 Clamp straight edge at correct angle to prevent movement, vibration and slippage during the re-surfacing process  2.4 Inspect abrasive wheel or cutting tool, clean or change as required to suit work material removal, tolerance and surface texture requirements.  2.5 Grind, machine or file straight edge to remove distortions and maintain edge straightness and flatness without overheating or causing distortion  2.6 Remove all signs of wear or damage from reference surfaces  2.7 Clean straight edge and debur edges  2.8 Dispose of distorted straight edge according to environmental protection practices  2.9 Record and report maintenance activities to appropriate personnel. |
| 3. Maintain tension gauges | 3.1 Select grinder or other safe and appropriate method for maintaining tension gauges according to workplace procedures  3.2 Set grinder to produce required radius or circle diameter for the tension gauge  3.3 Position tension gauge and clamp in grinder securely, ensuring cord height is central to gauge length and arc is ground square to plane of the gauge body  3.4 Inspect grinding wheel and dress and change to suit work, material and required tolerance  3.5 Grind gauge to required accuracy and profile until all visible edge and face wear is removed  3.6 Select and monitor grinding speed and feed rates to avoid overheating, distortion and burn marks  3.7 Dispose of tension gauges distorted during the process according to environmental protection practices  3.8 Record and report maintenance activities to appropriate personnel. |
| 4. Maintain measuring equipment | 4.1 Access information required for maintenance or measuring equipment from manufacturer manuals  4.2 Check and calibrate measuring equipment against manufacturer specifications  4.3 Tag and remove from service faulty measuring equipment according to workplace procedures  4.4 Clean and store measuring equipment according to workplace and equipment manufacturer specifications  4.5 Record and report maintenance activities to appropriate personnel. |
| 5. Maintain hammers | 5.1 Hammers are cleaned according to manufacturer instructions  5.2 Assess condition of hammers according to workplace and manufacturer procedures  5.3 Grind and resurface worn hammers  5.4 Unserviceable hammers are removed from service and replaced according to workplace procedures.  5.5 Record and report maintenance activities to appropriate personnel. |
| 6. Maintain back gauges | 6.1 Maintain back gauges according to manufacturer instructions  6.2 Tag and remove from service damaged or worm back gauges  6.3 Clean and store back gauges according to workplace procedures  6.4 Record and report maintenance activities to appropriate personnel. |

| Foundation Skills  This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria. | |
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| Skill | Description |

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| Reading | * Extract key information from operational manuals to determine safe operating procedures for equipment |
| Writing | * Prepare routine written reports using required format, language and structure |
| Oral Communication | * Employ active listening and questioning to clarify content of work orders |
| Numeracy | * Read basic numeric setting on grinding wheels * Estimate speeds to suit straight edge and tension gauge requirements * Use standards units of measurements for speed * Interpret tension gauge markings |
| Navigate the world of work | * Identify main tasks, responsibilities and boundaries of own role |
| Interact with others | * Use modes of communication suitable to purpose to confirm and clarify understanding |
| Get the work done | * Recognise and respond to routine problems |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| FWPCOT3XXX Assess and maintain saw technology tools | FWPCOT3211 Maintain sawdoctoring tools | Added new elements;  redrafted performance evidence; expanded knowledge evidence and assessment conditions to include additional tools; changed title and unit code to reflect updates and for compliance. | Non-equivalent |

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| Links | Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47 |

| TITLE | Assessment requirements for FWPCOT3XXX Assess and maintain saw technology tools |
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| Performance Evidence | |
| An individual demonstrating competency must satisfy all the elements and performance criteria in this unit. There must be evidence that, on at least one occasion, the individual has:   * assessed the condition and maintained each of the following saw technology tools: * straight edges * hammers * measuring equipment * back gauges * tension gauges * in doing the above job, the individual has: * followed relevant workplace health and safety and environmental protection procedures * read and clarified a work order for assessing the condition and maintaining saw technology tools * prepared for maintenance activities * maintained a straight edge * maintained a tension gauge * ground and resurfaced a hammer * maintained measuring equipment * maintained back gauge * completed workplace reports on maintenance activities. | |

| Knowledge Evidence |
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| An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:   * purpose, features and operation of tools and equipment used to maintain saw technology tools: * grinding machines * grinding machine attachments * abrasive grinding wheels * types, purpose, features and use of: * straight edges * hammers including doghead, twist face, cross face, combination * measuring equipment including micrometers, vernier callipers, feeler gauge, pressure gauge, setting gauge * back gauges * tension gauges * methods for: * assessing condition of straight edges and tension gauges * selecting appropriate grinding wheels * selecting and preparing appropriate straight edge/tension gauge material * maintaining straight edges, back gauges and tension gauges to specified requirements * maintaining measuring equipment * grinding and resurfacing hammers * angles at which straight edges and tension gauges are ground * range of speeds at which abrasive wheels can be operated without damaging materials being processed * types of risk and hazards and mitigation measures associated with maintaining saw technology tools * workplace procedures specific to maintaining saw technology tools: * workplace health and safety with particular emphasis on equipment lock out, use of personal protective equipment (PPE) and safe manual handling * communication reporting lines * recording and reporting processing problems and equipment faults * environmental protection practices for repairing and maintaining saw technology tools: * reducing water and energy use * cleaning plant, tools and equipment * disposing of, recycling and reusing materials. |

| Assessment Conditions |
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| Assessment of the skills in this unit of competency must take place under the following conditions:   * physical conditions: * skills must be demonstrated in a saw technician workshop, sawmill or an environment that accurately represents workplace conditions * resources, equipment and materials: * grinding machines * grinding machine attachments * abrasive grinding wheels with suitable characteristics * hand files * oil stones * straight edges, back gauges, hammers, measuring equipment and tension gauges * PPE suitable for repairing and maintaining saw technology tools * specifications: * template documents for recording maintenance activities * manufacturer instructions for use, repair and maintenance of equipment * work order with specific instructions for maintaining saw technology tools * organisational procedures for maintaining saw technology tools.   Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and / or standards. |

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