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 blade and sawing machine performance |
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| Application | This unit of competency describes the skills and knowledge required to assess and maintain the cutting performance of sawing blades or knives and sawing machines including circular saws, band saws, chippers, canters and reducers. The unit applies to individuals who assess and maintain the cutting performance of sawing machines and blades or knives in a timber sawmill environment.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 work | 1.1 Review work order to determine job requirements and where required seek clarification from appropriate personnel1.2 Review and implement workplace health and safety requirements, including the use of personal protective equipment, equipment lockout and safe manual handling techniques1.3 Identify, assess and take actions to mitigate risks and hazards associated with assessing and maintaining the cutting performance of sawing blades or knives1.4 Identify and implement workplace procedures for minimising and disposing of material and maximising energy efficiency |
| 2. Monitor and inspect sawing blades or knives and machine | 2.1 Obtain information relating to current and past performance problems and review to assess process problems2.2 Observe sawing machine and in-feed and out-feed equipment under operating conditions to determine the extent of problems2.3 Monitor condition and performance of sawing blades or knives to identify cutting problems according to workplace procedures2.4 Examine timber fed through sawing in-feed and out-feed equipment to determine potential causes of the cutting problem2.5 Apply problem-solving techniques to identify the causes of cutting problems and poor saw performance2.6 Lock out the machine and inspect parts to identify worn, broken and loose components |
| 3. Assess technical performance of sawing operation | 3.1 Compare technical performance of sawing operation against other comparable machine and blades3.2 Assess technical performance of sawing operation to identify future improvements and feasibility of options for new components3.3 Communicate the outcomes of technical assessment to appropriate personnel |
| 4. Rectify cutting problems | 4.1 Identify characteristics of occurring cutting problems and diagnose possible causes4.2 Refer to other trades and operations personnel to validate assessed causes4.3 Prepare solution responses and discuss with relevant personnel to identify and agree on a preferred option4.4 Implement selected course of action, review cutting results and communicate to appropriate personnel4.5 Record and report causes of cutting problems and action taken according to workplace procedures |

| Foundation SkillsThis 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 |
| Reading | * Source and extract information from machine records, service history and log books to determine potential causes of cutting problems
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| Numeracy | * Locate and interpret routine numerical data involving angles, dimensions, and speeds cutting performance records
* Use formulae to calculate sawing efficiency
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| Navigate the world of work | * Identify main tasks, responsibilities and boundaries of own role
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| Interact with others | * Use modes of communication suitable to purpose to confirm and clarify understanding
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| 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 blade and sawing machine performance | FWPCOT3216 Assess and maintain saw performance | Reworded Application; revised performance criteria and evidence for mapping; renamed elements for clarity; updated unit code and title to reflect changes and for compliance. | 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 blade and sawing machine performance |
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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 the individual has, on least on one occasion, assessed cutting performance of one or more of the following sawing machines and associated sawing blades or knives:* band saw
* circular saw
* chipper
* canter
* reducer

In doing the above, the individual has:* read and clarified work order to determine job requirements
* monitored sawing operation and inspected sawing machine, in-feed and out-feed equipment and associated sawing blades or knives for identifying the types and the root cause of cutting problems
* assessed technical performance of sawing operation
* identified a safe course of action for rectifying the cutting problem
* reported on the cutting problem, fault diagnosis process and rectification outcomes.
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| 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 sawing machines and associated blades or knives, including one or more of the following:
* band saws and band saw blades
* circular saws and circular saw blades
* chippers, canters, reducers and associated blades or knives
* typical sawing problems, causes and solutions:
* cuts not straight or clean
* excess heat
* pitch marks in the job
* diamond shapes and roughness in the cut
* saw blades changed too regularly
* typical causes of damage and poor saw performance:
* forcing timber through the in-feed equipment
* hydraulic and electrical system not performing well
* damage from foreign matter
* incorrect operating speeds
* oversized material removal
* incorrect setting of in-feed and out-feed equipment
* poor sharpening or setting of sawing blades or knives
* methods for:
* assessing condition and performance of sawing blades or knives and machine
* diagnosing causes of damage and poor performance
* rectifying problems and improving cutting performance
* types of risk and hazards and mitigation measures associated with assessing and maintaining cutting performance
* workplace procedures specific to assessing and maintaining cutting performance:
* workplace health and safety with particular emphasis on machine lockout, use of personal protective equipment (PPE) and safe manual handling techniques
* communication reporting lines
* recording and reporting cutting problems, the fault diagnosis process and rectification outcomes
* disposal of material and other waste.
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| 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 timber processing or manufacturing facility or an environment that accurately represents workplace conditions
* resources, equipment and materials
* one or more of the following sawing machines and associated blades and knives: band saws, circular saws, chippers, canters, reducers
* PPE suitable for assessing and maintaining saw performance
* specifications:
* records of equipment fault and cutting performance
* template documents for recording and reporting cutting problems, the fault diagnosis process and rectification outcomes
* workplace procedures for assessing and maintaining sawing machine performance
* manufacturer instructions for use, repair and maintenance of sawing machine, including in-feed and out-feed equipment
* work order with specific instructions for assessing cutting performance of sawing machine and blades or knives.

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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