

FPICOT2237A

Maintain chainsaws

Unit descriptor

This unit describes the outcomes required to carry out the routine maintenance of hand-held chainsaws. It relates to the maintenance and servicing requirements of chainsaw powerheads and cutting attachments; chain sharpening, cleanup, and storage procedures and recording requirements.

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

Employability skills

This unit contains employability skills

Application of the unit

The unit involves maintaining chainsaws in a variety of work settings including a forest environment and agricultural, workshop, nursery-horticultural and domestic settings. The skills and knowledge required for competent workplace performance are to be used within the scope of the person's job and authority

Competency field

Common Technical

ELEMENT

Elements describe the essential outcomes of a unit of competency.

PERFORMANCE CRITERIA

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.

1. Plan and prepare for maintenance

- 1.1. Applicable ***Occupational Health and Safety (OHS), legislative and organisational requirements*** relevant to the maintenance of ***chainsaws*** are identified and complied with
- 1.2. Suitable personal protective equipment and/or clothing is selected, used and maintained
- 1.3. Work order is reviewed and clarified with ***appropriate personnel***
- 1.4. Tools, equipment and materials are selected appropriate to work requirements and checked for operational effectiveness in accordance with manufacturer's recommendations and site operating procedures
- 1.5. Potential and existing risks and ***hazards*** in the work area are identified and controlled

2. Maintain chainsaw

- 2.1. ***Frequent/daily services*** are carried out in accordance with manufacturer's recommendations and organisational requirements
- 2.2. ***Periodic services*** are carried out in accordance with manufacturer's recommendations and organisational requirements
- 2.3. ***Chain checks*** are carried out in accordance with manufacturer's recommendations and organisational requirements
- 2.4. Chain and other components are removed, sharpened, maintained, adjusted and replaced in accordance with

ELEMENT	PERFORMANCE CRITERIA
3. Complete maintenance records and clean up	<p data-bbox="520 443 879 465">manufacturer's recommendations</p> <p data-bbox="459 483 1086 535">2.5. Serviced chainsaw components are reassembled and checked for operational effectiveness</p> <p data-bbox="459 589 1160 640">3.1. Records and reports are accurately completed, processed and maintained in accordance with workplace procedures</p> <p data-bbox="459 685 1107 736">3.2. Chainsaw faults, malfunctions or irregular operation are identified, tagged and reported for repair</p> <p data-bbox="459 752 1160 804">3.3. Malfunctions, faults, wear or damage to tools and equipment are reported for repair or replacement</p> <p data-bbox="459 819 1160 898">3.4. Tools and equipment are cleaned, maintained and stored in accordance with manufacturer's recommendations and workplace procedures</p> <p data-bbox="459 913 1160 994">3.5. Work area is cleared and waste materials disposed of or recycled in accordance with organisational environmental policies and procedures</p>

Comment [f1]: Addition to range statement, please check these items for accuracy and gaps

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- The ability to comply with legislation, regulations, standards, codes of practice and established safe practices and procedures for maintaining chainsaws
- Technical skills sufficient to use and maintain relevant tools, machinery and equipment, conduct routine maintenance procedures and to apply mechanical reasoning
- Communication skills sufficient to discuss work orders with colleagues and others
- Literacy skills sufficient to read and interpret maintenance plans, work requirements and specifications and to accurately locate, record and report information
- Numeracy skills sufficient to estimate, measure and calculate time required to complete a task and to calculate fuel/oil ratios
- Problem solving skills sufficient to troubleshoot and identify problems and equipment faults, and apply appropriate response procedures

Required knowledge

- Basic knowledge and understanding of applicable Commonwealth, State or Territory legislation, regulations, standards and codes of practice relevant to the full range of processes for maintaining chainsaws
- Environmental protection requirements, including the safe disposal of waste material
- Organisational and site standards, requirements, policies and procedures for maintaining chainsaws; organisational communication channels and protocols; and procedures for the recording and reporting of workplace documentation and information
- Types of tools and equipment, and the procedures for their use, operation and maintenance

REQUIRED SKILLS AND KNOWLEDGE

- Types, functions, specifications and operational principles of chainsaws
- Specifications and types of bars, chains and sprockets
- Chainsaw routine maintenance procedures
- Potential hazards and risks when maintaining chainsaws including fire hazards and prevention
- Problem identification and resolution strategies and common fault finding techniques

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 accordance 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
- elimination of hazardous materials and substances
- safe forest practices including required actions relating to forest fire
- manual handling including shifting, lifting and carrying

Legislative requirements

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

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

RANGE STATEMENT

- duty of care
 - heritage and traditional land owner issues
- 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
 - OHS
 - emergency and evacuation procedures
 - fire prevention procedures
 - recording and reporting requirements
 - equipment use and maintenance and storage requirements
 - environmental management requirements (waste disposal, recycling and re-use guidelines)
 - access and equity principles and practices
- Chainsaws may include:
- engine or electrically operated hand-held chainsaws
- Appropriate personnel may include:
- supervisors
 - clients
 - colleagues
 - line management
- Hazards may include:
- exposure to loud noise and exhaust fumes, mechanical vibration, hazardous substances (fuel), cuts and hot surfaces, rotating parts
- Frequent/daily services
- are to be conducted in accordance with manufacturer's instructions and may include:
- removing, checking and cleaning air filter for damage and penetration of foreign material
 - cleaning saw body, air intake vents and cooling fins
 - cleaning chain brake
 - inspecting chain and guide bar
 - checking screws/nuts for tightness
 - checking safety devices

RANGE STATEMENT

Periodic services

- filling fuel tanks and chain oil tanks
- are to be conducted in accordance with manufacturer’s instructions and may include:
- replacing drive sprocket
 - cleaning or replacing and setting spark plug
 - checking and replacing fuel filter
 - checking chain brake, oil system, flywheel assembly, anti-vibration system, muffler and spark arrestor
 - inspecting and replacing starter cord and starter spring
 - matching pitches and gauges of cutting components
 - dressing and cleaning cutter bar
 - cleaning fly wheel
 - removing and cleaning exhaust and fire screen

Chain checks

- are to be conducted in accordance with manufacturer’s instructions and may include:
- inspection and adjustment of chain
 - inspection and replacement of chain that is worn, damaged or incorrectly sharpened
 - sharpening of a range of chain types and setting of depth gauges without supervision

Records and reports may include:

- log book recording of maintenance outcomes, faults, malfunctions and damage, hazards and incidents
- may be compiled using a computer-based system or other appropriate organisational communication system to record and report

Environmental policies and procedures may relate to:

- waste disposal
- recycling
- re-use

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 carry out a routine maintenance service and adjustment of chainsaws
Critical aspects for assessment	The evidence required to demonstrate competency in

EVIDENCE GUIDE	
and evidence required to demonstrate competency in this unit	<p>this unit must be relevant to and satisfy all of the requirements of the elements of this unit and include demonstration of:</p> <ul style="list-style-type: none">• compliance with applicable Commonwealth, State or Territory legislative and regulatory requirements and codes of practice, including OHS and environmental, relevant to maintaining chainsaws• compliance with organisational policies and procedures relevant to workplace requirements when maintaining chainsaws• <u>effective communication with others in the workplace</u>• efficient routine maintenance and adjustment procedures of chainsaws in accordance with manufacturer's recommendations• selection and use of appropriate tools, equipment and materials• identification and diagnosis of chainsaw faults, malfunctions or irregular operations• effective sharpening and tensioning of saw chain• application of tagging, repairing, reporting and recording processes• maintenance, storing and cleaning of tools and work area•

EVIDENCE GUIDE	
Context of and specific resources for assessment	<ul style="list-style-type: none"> • 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 comply with relevant regulatory or Australian Standards requirements • The following resources should be made available: <ul style="list-style-type: none"> - workplace location or simulated workplace - materials and equipment relevant to undertaking work applicable to this unit - specifications and work instructions
Method of assessment	<ul style="list-style-type: none"> • Assessment must satisfy the endorsed Assessment Guidelines of the FPI05 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