



Australian Government

Department of Education, Employment and Workplace Relations

RIISAM203B Use hand and power tools

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers the use of hand and power tools in resources and infrastructure industries. It includes planning and preparing for work, selecting and using hand tools and power tools, and cleaning up.

Application of the Unit

This unit is appropriate for those working in operational, service or maintenance roles, at worksites within:

- Civil construction
- Coal mining
- Drilling
- Extractive industries
- Metalliferous mining

Licensing/Regulatory Information

Refer to Unit Descriptor.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

<p>Elements describe the essential outcomes of a unit of competency.</p>	<p>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.</p>
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare	1.1 Access, interpret and apply compliance documentation relevant to the use of hand and power tools 1.2 Obtain, confirm and apply work instructions for the allotted task 1.3 Obtain, confirm and apply safety requirements from the site safety plan and organisational policies and procedures relevant to the allotted task 1.4 Identify, confirm and apply environmental protection requirements for the allotted task from the project environmental management plan
2. Select and use hand tools	2.1 Select hand tools consistent with needs of the job 2.2 Check tools for serviceability and safety, and report faults 2.3 Clamp or fix materials in position 2.4 Use hand tools safely and effectively according to their intended use 2.5 Safely locate hand tools when not in immediate use
3. Select and use power tools	3.1 Select power tools and equipment consistent with needs of job and in accordance with standard work practice, and report any faults 3.2 Check tools for serviceability and safety, and report faults 3.3 Visually check power leads/hoses for serviceability/safety in accordance with the site safety plan 3.4 Clear route for safe placement and connection of leads/hoses 3.5 Clamp or fix material in position for power tool application where applicable 3.6 Use power tools safely and effectively in application processes 3.7 Locate power tools safely when not in use
4. Clean up	4.1 Clear work area and dispose of or recycle materials in accordance with project environmental management plan 4.2 Clean, check, maintain and store machinery, tools and equipment in accordance with manufacturer's recommendations and standard work practices

Required Skills and Knowledge

Required skills

Specific skills are required to achieve the performance criteria in this unit, particularly for the application in the various circumstances in which this unit may be applied. This includes the ability to carry out the following as required to use hand and power tools:

- apply legislative, organisation and site requirements and procedures
- speak clearly and directly, listening carefully to instructions and information
- interpret and understand the information required for the preparation and application of hand and power tools, including work instructions, quality assurance procedures, manufacturer's instructions, materials safety data sheets and equipment
- apply teamwork to a range of situations, particularly in a safety context
- solve problems particularly in teams and in dealing practically with safety issues
- show initiative in adapting to changing work conditions or contexts particularly when working across a variety of work placements
- manage time, particularly in organising priorities and planning work including the scheduling and use of equipment, materials and tools to avoid back tracking and re work
- take responsibility for self organisation of work priorities
- show a willingness to learn and to use a range of mediums to learn
- use technology related to determining requirements, the planning and application of hand and power tools, including the use of calculations, mechanical equipment and the reporting/recording of results

Required knowledge

Specific knowledge is required to achieve the Performance Criteria of this unit, particularly its application in a variety of circumstances in which the unit may be used. This includes knowledge of the following, as required to use hand and power tools:

- site and equipment safety requirements
- hand tools and their application
- portable power tools and their application
- energy/power sources
- materials associated with use in the industry
- equipment types, characteristics, technical capabilities and limitations
- operational, maintenance and basic diagnostic procedures
- materials safety data sheets (MSDS) and materials handling methods
- project quality requirements
- industry and worksite terminology
- electrical, hydraulic and compressed air safety
- JSA's/safe work method statement

Evidence Guide

<p>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.</p>	
<p>Overview of assessment</p>	
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>The evidence required to demonstrate competency in this unit must be relevant to worksite operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit and include evidence of the following:</p> <ul style="list-style-type: none"> • knowledge of the requirements, procedures and instructions for the use of hand and power tools • implementation of requirements, procedures and techniques for the safe, effective and efficient use of hand and power tools • working with others to undertake the use of hand and power tools that meets all of the required outcomes • consistent timely use of hand and power tools that safely, effectively and efficiently meets the required outcomes
<p>Context of and specific resources for assessment</p>	<ul style="list-style-type: none"> • This unit must be assessed in the context of the work environment. Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills. • The assessment environment should not disadvantage the participant. For example, language, literacy and numeracy demands of assessment should not be greater than those required on the job. • Customisation of assessment and delivery environment to sensitively accommodate cultural diversity. • Aboriginal people and other people from a non English speaking background may have second language issues.

	<ul style="list-style-type: none"> • Assessment of this competency requires typical resources normally used in the work environment. Selection and use of resources for particular worksites may differ due to site circumstances. • Where applicable, physical resources should include equipment modified for people with disabilities. • Access must be provided to appropriate learning and/or assessment support when required.
Method of assessment	<p>This unit may be assessed in a holistic way with other units of competency. The assessment strategy for this unit must verify required knowledge and skill and practical application using more than one of the following assessment methods:</p> <ul style="list-style-type: none"> • written and/or oral assessment of the candidate's required knowledge • observed, documented and/or first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> • implementation of appropriate requirement, procedures and techniques for the safe, effective and efficient achievement of required outcomes • consistently achieving the required outcomes • first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> • working with others to undertake the use of hand and power tools
Guidance information for assessment	Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.

Range Statement

<p>Relevant compliance documentation may include:</p>	<ul style="list-style-type: none"> • legislative, organisation and site requirements and procedures • manufacturer's guidelines and specifications • Australian standards • code of practice • Employment and workplace relations legislation • Equal Employment Opportunity and Disability Discrimination legislation
<p>Work instructions may include:</p>	<ul style="list-style-type: none"> • verbal or written and graphical instructions, signage, work schedules/plans/specifications, work bulletins, charts and hand drawings, memos, materials safety data sheets (MSDS) and diagrams or sketches • plans and specifications • quality requirements, including: dimensions and tolerances, standards of work and material standards • safe work procedures or equivalent related to using hand and power tools
<p>Safety requirements may include:</p>	<ul style="list-style-type: none"> • protective clothing and equipment • use of tools and equipment • workplace environment and safety • handling of materials • use of fire fighting equipment • use of First Aid equipment • hazard control • hazardous materials and substances • personal protective equipment • emergency procedures related to equipment operation which may include • emergency shutdown and stopping • extinguishing equipment fires • organisational First Aid requirements and • evacuation
<p>Environmental protection requirements may include:</p>	<ul style="list-style-type: none"> • organisational/project environmental management plan • waste management • water quality protection • noise • vibration • dust and • clean-up management
<p>Hand tools will include but not be</p>	<ul style="list-style-type: none"> • clamps

<p>limited to at least one:</p> <ul style="list-style-type: none"> • cutting tool • tightening tool • impact tool • digging/leverage tool • measuring tool • securing/clamping tool 	<ul style="list-style-type: none"> • vices • adjustable spanners • crow bars • pinch bars • bolt cutters • chisels • hacksaws • handsaws • hammers • measuring tapes • axes • rakes • hand augers • picks • mattocks • pliers • shovels • spades • sledge hammers • spanners • wrenches • spirit levels and • wire cutters • file • screwdriver <p>retractable cutters</p>
<p>Checking tools is to include:</p>	<ul style="list-style-type: none"> • checking of electrical safety/inspection tag for currency • equipment defect identification • assessment of conditions and hazards and determination of work requirements
<p>Materials are:</p>	<ul style="list-style-type: none"> • to include those associated with the use of hand and power tools such as: timber, rock, concrete, metals, plastics
<p>Power tools will include at least two of those powered by but not limited to:</p>	<ul style="list-style-type: none"> • 240 volt electricity • compressed air • battery driven and • hydraulics
<p>Power tools may include:</p>	<ul style="list-style-type: none"> • kanga hammers • cut off saws • drills

	<ul style="list-style-type: none">• screwdrivers• angle grinders• pneumatic wrenches• impact hammers• tampers• rotary hammers/drills• circular saws• planers• sanders and• scalers
Equipment is to include:	<ul style="list-style-type: none">• power leads and• safety switches and• may include air hoses

Unit Sector(s)

Service and Maintenance

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.