



Australian Government

MEM04036 Maintain patterns

Release: 1

MEM04036 Maintain patterns

Modification History

Release 1. New unit.

Application

This unit of competency defines the skills and knowledge required to maintain casting and moulding patterns.

It covers identifying and analysing defects in patterns, disassembling and assessing pattern components, repairing or manufacturing replacement pattern components to conform to specifications, and assembling pattern components. Potential production and/or maintenance problems are also identified.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Band: A

Unit Weight: 2

Pre-requisite Unit

MEM04018 Perform general woodworking machine operations

MEM09002 Interpret technical drawing

MEM11011 Undertake manual handling

MEM12006 Mark off/out (general engineering)

MEM12023 Perform engineering measurements

MEM12024 Perform computations

MEM12026 Perform advanced trade calculations in a manufacturing, engineering or related environment

MEM13015 Work safely and effectively in manufacturing and engineering

MEM14006 Plan work activities

MEM16006 Organise and communicate information

MEM18001 Use hand tools

MEM18002 Use power tools/hand held operations

Competency Field

Casting and moulding

Elements and Performance Criteria

| Elements | Performance Criteria |
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| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i> |
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| 1. Determine job requirements | 1.1 Follow standard operating procedures (SOPs) 1.2 Comply with work health and safety (WHS) requirements at all times 1.3 Use appropriate personal protective equipment (PPE) in accordance with SOPs 1.4 Identify job requirements from specifications 1.5 Plan sequence of maintenance operations |
| 2. Identify and analyse defects in patterns | 2.1 Determine defects from produced components, production reports or pattern inspections 2.2 Disassemble pattern and assess condition of components against prints, drawings and manufacturers' drawings |
| 3. Repair pattern and reassemble | 3.1 Choose appropriate repair process based on assessments 3.2 Replace or recondition worn or damaged components to specifications 3.3 Check pattern components and assemble for conformance with specifications |
| 4. Identify production/maintenance problems | 4.1 Check production components to ensure compliance to specifications, as required 4.2 Identify and record conditions leading to production faults 4.3 Identify recurrent faults and initiate solutions |

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Specifications include one • drawings

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| or more of the following: | <ul style="list-style-type: none">• job sheets• work instructions. |
| Patterns include one or more of the following: | <ul style="list-style-type: none">• spur gear• bevel gear• chain gear and sprocket• conveyor screw• propeller• flat back• irregular joint• turned• wheel• pipe. |

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>