



Australian Government

MEMPE007 Pull apart and re-assemble engineering mechanisms

Release: 1

MEMPE007 Pull apart and re-assemble engineering mechanisms

Modification History

Release 1. Supersedes and is equivalent to MEMPE007A Pull apart and re-assemble engineering mechanisms.

Application

This unit of competency defines the skills and knowledge required to pull apart engineering mechanisms or any mechanism made up of a number of components. It includes determining the types and quantity of components in the mechanism and re-assembling the mechanism. The mechanisms must have an associated maintenance/instruction manual for the individual to reference.

This unit describes entry-level skills and knowledge in preparation for employment within the metal, engineering, manufacturing and associated industries and is suitable for use in institutional-based vocational programs. Skills development takes place under direct supervision.

It is not to be used in a traineeship or apprenticeship training program or associated qualifications. It is only to be used in pre-employment programs and carries no credit towards apprenticeship/trade and other qualification types in manufacturing and engineering.

The skills in this unit are intended to be developed in combination with the project unit, MEMPE006 Undertake a basic engineering project, and with the development of skills for the unit *MEM18001 Use hand tools*.

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

Pre-requisite Unit

Nil

Competency Field

Pre-employment

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare a job plan	1.1 Comply with work health and safety (WHS) requirements at all times

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.2 Identify job requirements by inspecting the mechanism and from other work information in consultation with a supervisor 1.3 Identify required tools and machines in accordance with job requirements 1.4 Prepare a job plan showing tools and machines to be used and an appropriate sequence of operations 1.5 Confirm plan with supervisor
2. Pull the mechanism apart	2.1 Use and wear appropriate personal protective equipment (PPE) in accordance with procedures 2.2 Clear the work area according to job requirements 2.3 Obtain appropriate tools and equipment 2.4 Follow safe working practices 2.5 Pull the mechanism apart marking components to aid correct re-assembly 2.6 Identify and record the name and quantity of each component 2.7 Use measuring equipment according to job requirements
3. Re-assemble the mechanism	3.1 Use and wear appropriate PPE in accordance with procedures 3.2 Follow safe working practices 3.3 Re-assemble the mechanism following markings and associated manual 3.4 Use measuring equipment according to job requirements
4. Complete work requirements	4.1 Clear work area of waste and clean according to requirements 4.2 Maintain and/or store machines, tools and equipment according to instructions

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.

Mechanism includes one or more of the following:	• any piece of equipment, plant or machinery made up of a number of engineering components • small compressor • small two or four stroke engines • industrial gear boxes • mechanical winches.
Measuring equipment includes one or more of the following:	• micrometers • vernier scaled measuring devices • rules • calipers • gauges.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEMPE007A Pull apart and re-assemble engineering mechanisms.

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for MEMPE007 Pull apart and re-assemble engineering mechanisms

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include:

- following work instructions and safe work practices
- preparing a job plan
- disassembling a mechanism on at least two occasions
- identifying components
- re-assembling a mechanism on at least two occasions
- using appropriate measuring skills
- cleaning and storing of machines and equipment.

Note: Where a volume and/or frequency is not specified, demonstration must be provided at least once.

Knowledge Evidence

Evidence required to demonstrate the required knowledge for this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include knowledge of:

- safe work practices and use of personal protective equipment (PPE)
- engineering mechanisms
- measuring equipment
- non-destructive methods for marking components
- basic disassembly and re-assembly techniques
- use and care of tools
- types of tools and machines used to pull apart and re-assemble components.
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Assessment Conditions

- Assessors must:
 - have vocational competency in pulling apart and re-assembling engineering mechanisms at least to the level being assessed with relevant industry knowledge and experience.

- satisfy the assessor requirements in the *Standards for Registered Training Organisations 2015 or its replacement* and comply with the *National Vocational Education and Training Regulator Act 2011*, its replacement or equivalent legislation covering VET regulation in a non-referring State as the case requires.
- This unit must be assessed in a learning institution and must cover the successful disassembly and re-assembly of an engineering mechanism and the skills developed would usually be developed by an individual working alone under direct supervision.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required including relevant workplace procedures, product and manufacturing specifications.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
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