



Australian Government

UEEEL0017 Repair and maintain mechanical components of electrical machines

Release: 1

UEEEL0017 Repair and maintain mechanical components of electrical machines

Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Application

This unit involves the skills and knowledge required to repair and maintain mechanical components of electrical machine.

It includes working safely to industry standards in planning and repairing/maintaining mechanical components of electrical machines and documenting workplace activities.

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

Pre-requisite Unit

UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

UEECD0019 Fabricate, assemble and dismantle utilities industry components

UEECD0020 Fix and secure electrotechnology equipment

UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications

UEEEL0004 Carry out basic repairs to electrical components and equipment

Competency Field

Electrical

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1 Prepare to repair mechanical components

- 1.1** Work health and safety (WHS)/occupational health and safety (OHS) requirements and workplace procedures for a given work area are identified and applied
- 1.2** Existing WHS/OHS risk control measures and workplace procedures are followed in preparation for the repair work
- 1.3** Safety hazards not previously identified are reported on job safety assessments, risks assessed and risk control measures sought from work supervisor
- 1.4** Nature of repair work is obtained from workplace documentation or from work supervisor to determine scope of work to be undertaken
- 1.5** Advice is sought from the work supervisor to ensure work is coordinated effectively with others
- 1.6** Sources of materials required for work are determined in accordance with workplace instructions and procedures
- 1.7** Tools, equipment and testing devices needed to carry out work are obtained and checked for correct operation and safety
- 1.8** Appropriate machine is selected, checked for safety and prepared for any necessary machining operation
- 1.9** Cutting tools are selected, sharpened and set-up for each machining operation

2 Repair mechanical components

- 2.1** Existing WHS/OHS risk control measures and workplace procedures are followed
- 2.2** Circuits/machines/plant are checked and isolated in accordance with WHS/OHS requirements and workplace procedures
- 2.3** Component being machined is positioned and clamped in accordance with workplace procedures
- 2.4** Machining is carried out safely and to suit the mechanical component and material being machined in accordance with safe work practices and workplace procedures
- 2.5** Measurements are taken and confirmed to ensure repairs comply with technical industry standards, job

specifications and workplace requirements

- 2.6** Mechanical components are repaired in accordance with technical industry standards, job specifications and workplace requirements
- 2.7** Existing safe work methods for dealing with unplanned situations are discussed with appropriate person/s and documented
- 2.8** Unplanned situations are responded to in accordance with workplace procedures in a manner that minimises risk to personnel and equipment and with the approval of an authorised person
- 2.9** Ongoing checks of the quality of repair work are undertaken in accordance with workplace procedures
- 2.10** Repairs are carried out efficiently without unnecessary waste of materials and energy and damage to apparatus circuits, the surrounding environment or services

3 Complete work and report

- 3.1** WHS/OHS work completion risk control measures and workplace procedures are followed
- 3.2** Work area is cleaned and made safe in accordance with workplace procedures
- 3.3** Component fittings are aligned to verify repaired component/s conform to industry standards, job specifications and requirements
- 3.4** Work completion is documented and appropriate person/s notified in accordance with workplace procedures

Foundation Skills

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

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the UEE Electrotechnology Training Package Companion Volume Implementation Guide.

Repairing and maintaining electrical machine components must include at least two of the following:

- shaft
- bearing housing
- end shield
- fan
- coupling
- machine housing

Unit Mapping Information

This unit replaces and is equivalent to UEENEEG164A Repair and maintain mechanical components of electrical machines.

Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>