



Australian Government

MSFPT4003 Repair piano actions, keys and pedals

Release: 1

MSFPT4003 Repair piano actions, keys and pedals

Modification History

Release 1. Changes to code, application, elements, performance criteria, assessment requirements. Foundation skills added. Range of conditions removed. Assessment requirements changed.

Application

This unit describes the skills and knowledge required to repair piano actions, keys and pedals.

Piano technologists with this competency follow established procedures, using discretion, judgement and problem-solving to apply and communicate technical solutions to resolve predictable and unpredictable issues.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

Competency Field

Piano Technology

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan and prepare for repairing actions, keys and pedals	1.1 Analyse and confirm job requirements with personnel, customer or from workplace documentation 1.2 Identify and follow work health and safety requirements including physical and ergonomic needs 1.3 Establish and maintain communication with others involved with the work to ensure efficient workflow, coordination, personnel cooperation and safety in accordance with workplace procedures 1.4 Select tools and equipment consistent with task needs, inspect for serviceability and safety, and repair any faults or report in accordance with workplace procedures 1.5 Select materials required to repair piano actions, keys and pedals in accordance with job requirements
2. Repair piano actions, keys and pedals	2.1 Use required tools and equipment to remove or dismantle actions and keys

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	2.2 Remove faulty or damaged parts from actions, keys and pedals 2.3 Re-centre action as required to support repair 2.4 Select materials for replacement felts and leathers and cut and glue to action parts 2.5 Replace faulty or damaged parts in accordance with manufacturer recommendations and workplace procedures 2.6 Monitor quality of the repair process in accordance with workplace quality procedures
3. Clean up work area	3.1 Check, clean and store equipment and any unused materials in accordance with workplace procedures 3.2 Clean work area, safely dispose of any waste and identify items for recycling in accordance with workplace procedures and environmental standards 3.3 Complete required workplace records

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

- Reading skills to interpret familiar workplace procedures and work documentation
- Writing skills to communicate factual information in familiar workplace documents
- Numeracy skills to measure and estimate material requirements.

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

Unit Mapping Information

Release 1. Supersedes and is not equivalent to MSFPT3003 Repair piano actions, keys and pedal.

Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0601ab95-583a-4e93-b2d4-cfb27b03ed73>

Assessment Requirements for MSFPT4003 Repair piano actions, keys and pedals

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and demonstrated the ability to:

- repair a minimum of two actions, keys and pedals in at least one upright or one grand piano.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- workplace standards, requirements, policies and procedures for repairing upright and grand piano actions, keys and pedals
- types, characteristics, uses, limitations and preparation of materials and equipment used in piano repair and manufacture
- typical faults and or parts that may be damaged, including:
 - actions:
 - broken damper springs
 - faulty hammer heads and shanks
 - faulty hardware
 - keys:
 - broken keys
 - discoloured keys
 - faulty key leads
 - pedals:
 - loose/worn pedal caps
 - worn pedal felt
 - damaged trap work
 - broken pedals
- tasks involved in recentring action parts, including:
 - identifying faulty centre pins
 - extracting faulty centre pins
 - re-bushing flanges
 - replacing centre pins

- replacing flanges
- types of tools and equipment used to repair actions, keys and pedals and procedures for their safe use, operation and maintenance, including:
 - knives
 - guillotine
 - measuring equipment
 - centering equipment
 - glue brushes and sticks
 - glue pots
- uses and locations of felts and leathers:
 - felts
 - box cloth
 - cushion felt
 - check felt
 - hammer-rest baize
 - backtouch baize
 - name board felt
 - celeste-rail felt
 - bushing felt
 - damper felts
 - leathers:
 - doeskin
 - pigskin
 - sheepskin
 - kangaroo skin
 - split skin
- problem identification of actions, keys and pedals and resolution
- set-up and operation of tools and equipment used for repairing actions, keys and pedals
- procedures for recording, reporting and maintaining workplace records and information
- best physical and ergonomic approaches to promote muscle control and avoid fatigue, including:
 - standing or seated according to type of piano and height of individual
 - evenly distributing body weight between both feet while standing to reduce fatigue
 - use a resting arm, where available, to aid control during tuning and reduce tiredness
- work health and safety requirements for piano repair.
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Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - pianos to be repaired as specified in performance evidence
 - hand and power tools
 - repair materials
 - workplace procedures, manufacturing specifications, codes, standards, manuals, and reference materials.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

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