



Australian Government

MSFPT4007 Control tuning hammers

Release: 1

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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 control tuning hammers by accurately moving the tuning pins in very small increments.

This unit applies to piano technologists who work in accordance with established procedures, using discretion, judgement and problem-solving to apply and communicate technical solutions to resolve predictable and unpredictable issues. They use factual, technical and theoretical knowledge to identify, analyse, compare and act on information from a range of sources.

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 using tuning hammers	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 work to ensure efficient workflow, coordination, personnel cooperation and safety 1.4 Analyse written instructions and apply to job requirements 1.5 Select tools and equipment consistent with needs of job, inspect for serviceability and safety, and repair any faults or report in accordance with workplace procedures
2. Set pin in specified	2.1 Set pin at desired pitch utilising a pitch standard, within accuracy

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
position	constraints to ± 0.5 cents 2.2 Strike key using stabilising blows 2.3 Demonstrate coordinated motor and auditory reflexes throughout tuning 2.4 Tune and stabilise strings using appropriate techniques
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 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 information in familiar workplace documents
- Numeracy skills to work with numerical concepts involved in piano tuning.

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 MSFPT3009 Develop control of tuning hammers.

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 MSFPT4007 Control tuning hammers

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Performance Evidence

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

- set tuning pins and tune and stabilise strings using tuning hammers on upright or grand pianos on 3 occasions.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- workplace standards, requirements, policies and procedures for tuning pianos
- piano tuning process
- types, characteristics, uses, limitations and preparation of materials and equipment used in piano tuning
- types of tools and equipment used to tune pianos and procedures for their safe use, operation and maintenance, including:
 - pitch standard
 - tuning lever/hammer
 - temperament strip
 - mutes and wedges
 - tip wrench
 - tuning tips and heads
- pitch standards, including:
 - piano
 - electronic keyboard
 - electronic tuning device (ETD)
 - tuning fork
- hammer techniques, including:
 - selection of tuning tip and angle
 - jerking movements
 - positioning hammer on pin at correct angle to avoid bending of tuning pin
- stabilisation techniques, including:
 - use of firm key blows in conjunction with placement of pin

- calculation of string stretch
- problem identification for tuning hammer work and resolution
- set-up and operation of tools and equipment used for tuning pianos
- 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 tuning.
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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 required for performance evidence, including:
 - pianos for tuning
 - materials used in the tuning pianos
 - 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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