



Australian Government

MSFPT3003 Repair upright and grand piano actions, keys and pedals

Release: 1

MSFPT3003 Repair upright and grand piano actions, keys and pedals

Modification History

Release 1 - New unit of competency

Application

This unit of competency covers repairing upright and grand piano actions, keys and pedals, and applies in a workplace and on-site environment conducted for small to large scale enterprises.

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

Pre-requisite Unit

Competency Field

Unit Sector

Piano Technology

Elements and Performance Criteria

Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1 Plan for repairing actions, keys and pedals	1.1 Work health and safety (WHS) requirements, legislative requirements and workplace practices relevant to repairing pianos are verified and complied with
	1.2 Customer requirements are received, analysed and confirmed with appropriate personnel with written instructions followed
	1.3 Communication with others involved with the work is established and maintained to ensure efficient work flow, coordination, personnel cooperation and safety
2 Prepare for repair	2.1 Tools and equipment are selected consistent with the needs of the job
	2.2 Selected tools and equipment are checked for service ability and safety and any faults repaired and reported

- according to workplace practices
- 2.3 Personal protective equipment is correctly fitted and used
 - 2.4 Materials required for the repair of piano actions, keys and pedals are selected
- 3 Repair piano actions, keys and pedals
- 3.1 Correct posture for repairing is demonstrated which minimises fatigue and promotes muscular control
 - 3.2 Tools and equipment are applied in the repair process
 - 3.3 Actions and keys are removed or dismantled, as required by the repairing process
 - 3.4 Faulty or damaged parts are removed from actions, keys and pedals
 - 3.5 Action parts are re-centred, as required
 - 3.6 Materials for replacement felts and leathers are selected, cut and glued to action parts
 - 3.7 Faulty or damaged parts are replaced in accordance with manufacturer recommendations and workplace practices
 - 3.8 Quality of the repair process is continuously monitored in accordance with workplace practice and quality procedures
 - 3.9 Correct posture for repairing is demonstrated which minimises fatigue and promotes muscular control
- 4 Clean up work area
- 4.1 All tools, materials and other equipment are checked, cleaned and returned to their appropriate location
 - 4.2 Work area is cleared and waste removed
 - 4.3 Workplace documentation is completed and filed

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency. Detail on appropriate performance levels for each furnishing unit of competency in reading, writing, oral communication and numeracy utilising the Australian Core Skills Framework (ACSF) are provided in the Furnishing Training Package Implementation Guide.

Range of Conditions

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

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| Unit context includes: | <ul style="list-style-type: none">• WHS requirements, including legislation, building codes, material safety management systems, hazardous and dangerous goods codes, and local safe operating procedures or equivalent• work is carried out in accordance with legislative obligations, environmental legislation, relevant health regulations, manual handling procedures and organisation insurance requirements• work requires individuals to demonstrate some discretion, judgement and problem solving |
| Tools and equipment include: | <ul style="list-style-type: none">• knives• guillotine• measuring equipment• centering equipment• glue brushes and sticks• glue pots |
| Correct posture includes: | <ul style="list-style-type: none">• standing or seated according to type of piano and height of individual• evenly distributing body weight between both feet while standing to reduce fatigue• resting arm, where available, to aid control during tuning and reduce tiredness |
| Faulty or damaged parts include: | <ul style="list-style-type: none">• actions:<ul style="list-style-type: none">• broken damper springs• faulty hammer heads and shanks• faulty hardware• keys:<ul style="list-style-type: none">• broken keys• discoloured keys• faulty key leads• pedals:<ul style="list-style-type: none">• loose/worn pedal caps• worn pedal felt• damaged trap work• broken pedals |

Re-centering of action parts includes:

- identify faulty centre pins
- extraction of faulty centre pins
- re-bushing flanges
- replacement of centre pins
- replacement of flanges

Felts and leathers include:

- 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

Personal protective equipment includes:

- that prescribed under legislation, regulations and enterprise policies and practices

Information and procedures include:

- workplace procedures relating to the use of tools and equipment
- work instructions, including job sheets, cutting lists, plans, drawings and designs
- workplace procedures relating to reporting and communication
- manufacturer specifications and operational procedures

Unit Mapping Information

Supersedes and is equivalent to LMFP3003A Repair upright and grand piano actions, keys and pedals.

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 MSFPT3003 Repair upright and grand piano actions, keys and pedals

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Performance Evidence

- Interpret work order and locate and apply relevant information
- Apply safe handling requirements for equipment, products and materials, including use of personal protective equipment
- Identify materials used in the work process
- Follow work instructions, operating procedures and inspection processes to:
 - minimise the risk of injury to self or others
 - prevent damage to goods, equipment and products
 - maintain required production output and product quality
- Repair a minimum of two (2) actions, keys and pedals in both upright and grand pianos
- Use mathematical ideas and techniques to correctly complete measurements, calculate area and estimate material requirements
- Communicate ideas and information to enable confirmation of work requirements and specifications and the reporting of work outcomes and problems, interpret basic plans and follow safety procedures
- Avoid backtracking, work flow interruptions or wastage
- Work with others and in a team by recognising dependencies and using cooperative approaches to optimise work flow and productivity

Knowledge Evidence

- State or territory WHS legislation, regulations, standards and codes of practice relevant to the full range of processes for repairing upright and grand piano actions, keys and pedals
- organisational and site standards, requirements, policies and procedures for repairing upright and grand piano actions, keys and pedals
- Reading and interpreting workplace documents, including work orders, work instructions and operator instructions
- Environmental protection requirements relating to the disposal of waste material
- Established lines of communication and protocols
- Types, characteristics, uses, limitations and preparation of materials and equipment used in piano repair and manufacture
- Types of tools and equipment used to repair actions, keys and pedals and procedures for their safe use, operation and maintenance
- Relevant problem identification and resolution
- Set-up and operation of tools and equipment used for repairing actions, keys and pedals
- Storage systems and labelling

- Procedures for the recording, reporting and maintenance of workplace records and information
- Appropriate mathematical procedures for estimation and measurement

Assessment Conditions

- Assessors must:
 - hold training and assessment competencies as determined by the National Skills Standards Council (NSSC) or its successors
 - have vocational competency in the furnishing industry at least to the level being assessed with broad industry knowledge and experience, usually combined with a relevant industry qualification
 - be familiar with the current skills and knowledge used and have relevant, current experience in the furnishing industry.
- Assessment methods must confirm consistency of performance over time rather than a single assessment event and in a range of workplace relevant contexts.
- Assessment must be by observation of relevant tasks with questioning on underpinning knowledge and, where applicable, multimedia evidence, supervisor's reports, projects and work samples.
- Assessment is to be conducted on single units of competency or in conjunction with other related units of competency. Foundation skills are integral to competent performance in the unit and should not be assessed separately.
- Assessment must occur on the job or in a workplace simulated facility with relevant process, equipment, materials, work instructions and deadlines.
- Access is required to hand and power tools used in the repair and manufacture of pianos, safety and personal protective equipment, holding and supporting equipment, and upright and grand pianos.

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