



Australian Government

Department of Education, Employment and Workplace Relations

LMFMI3001A Assemble instrument components

Revision Number: 1

LMFMI3001A Assemble instrument components

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the work involved in the assembly of timber components of musical instruments.
------------------------	--

Application of the Unit

Application of the unit	This unit supports the attainment of skills and knowledge required for competent workplace performance in furnishing operations of all sizes. The assembly of instrument components applies to a relevant workplace environment and involves application of skills and knowledge at a tradesperson level. These skills and knowledge are to be used within the scope of the individual's job and authority.
--------------------------------	---

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	Nil	

Employability Skills Information

Employability skills	This unit contains employability skills.
-----------------------------	--

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
---	--

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan for component assembly	1.1. Applicable OHS, legislative and organisational requirements relevant to machine material are verified and complied with 1.2. Work order is reviewed, confirmed and clarified with appropriate personnel 1.3. OHS policies and procedures relevant to the assembly of components are to be followed throughout the application of this competency 1.4. Work instructions are used to determine job requirements including design, tolerances, process, materials, finish and quality 1.5. Assembly sequence is planned 1.6. Procedures are determined for checking quality at each stage of the process
2. Prepare for component assembly	2.1. Fixing and joining devices are selected in line with work instructions and type of materials to be joined 2.2. Suitable work area is selected for the task 2.3. Components, hardware, fittings and attachments are collected 2.4. Tools and equipment suitable to the fixing method are selected and checked for safe operation 2.5. Required (if any) jigs are selected and checked for suitability for purpose
3. Assemble components	3.1. Components are laid out and joined using: jigs (if required), appropriate fastenings 3.2. Hand and/or power tools and equipment are used as required 3.3. Assembled instrument is checked for alignment and squareness, correct number and fittings of fasteners, hardware, fitting and attachments, conformity to work instruction and quality requirements 3.4. Components which do not meet quality specifications are repaired or tagged for further processing or recycling/disposal 3.5. Finished instruments are organised and stored in holding area ensuring there is no obstruction to traffic, products are not damaged in storage, incompatible items are not stored together, products are arranged to match the sequence of work
4. Finalise component	4.1. Faulty and/or defective equipment is tagged and

ELEMENT	PERFORMANCE CRITERIA
assembly	reported in accordance with workplace procedures 4.2. Waste and scrap is removed following workplace procedures 4.3. Tools and equipment used is cleaned, inspected for serviceable condition and stored appropriately in accordance with workplace procedures 4.4. Equipment and work area clean-up is maintained in accordance with workplace procedures and professional standards

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- collect, organise and understand timber technology and information related to musical instrument products
- communicate ideas and information to enable confirmation of work requirements and specifications, coordination of work with supervisor, other workers and customers, and the reporting of work outcomes and problems
- maintain quality records related to instrument assembly
- work with others and in a team by recognising dependencies and using cooperative approaches to optimise work flow and productivity
- identify, anticipate and respond to faults in timber and/or assembly components
- recognise and respond to circumstances outside instructions or personal competence
- plan and organise activities including the preparation and layout of own worksite and the obtaining and use of tools and materials to avoid any backtracking, work flow interruptions or wastage
- use mathematical ideas and techniques to correctly complete measurements, calculate area and volume and estimate other material requirements
- clarify and confirm work instructions
- plan own work within the given task parameters
- accept responsibility for given tasks
- set, monitor and satisfy personal work goals
- satisfy the competency requirements for the job
- maintain current knowledge of tools and materials
- maintain current knowledge of assembly techniques
- seek learning opportunities
- use the workplace technology related to the selection and assembly of components including calculators, measuring devices and assembly systems

Required knowledge

- State or Territory OHS legislation, regulations, standards and codes of practice relevant to the full range of processes for machining material
- organisational and site standards, requirements, policies and procedures for machining material
- environmental protection requirements relating to the disposal of waste material
- established communication channels and protocols
- problem identification and resolution
- types of tools and equipment and procedures for their safe use, operation and maintenance

REQUIRED SKILLS AND KNOWLEDGE

- characteristics of timber, timber products and defects
- computer programs
- cutting patterns and sequences
- cutting tool condition assessment
- industry standard cross-sections and lengths
- storage systems and labelling
- procedures for the recording, reporting and maintenance of workplace records and information
- appropriate mathematical procedures for estimation and measurement

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

- Read and interpret a work/job specification
- Effectively conduct operator maintenance on tools and equipment
- Comply with legislation, regulations, standards, codes of practice and established safe practices and procedures
- Communicate effectively and work safely with others in the work area
- Assessment must confirm appropriate knowledge and skills to:
 - safely perform component assembly functions
 - plan the assembly of components
 - prepare for the assembly of components
 - assemble components
 - finalise assembly of components

Context of, and specific resources for assessment

- The application of competency is to be assessed in the workplace or realistically simulated workplace
- Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints
- Assessment of essential underpinning knowledge, other than confirmatory questions, will usually be conducted in an off-site context
- Assessment is to comply with relevant regulatory or Australian Standards requirements
- The following resources should be made available:
 - workplace location or simulated workplace
 - materials and equipment relevant to the assembly of musical instrument components
 - specifications and work instructions

Method of assessment

Assessment must satisfy the endorsed assessment guidelines of the Furnishing Industry Training Package

Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of underpinning knowledge

EVIDENCE GUIDE

Assessment methods must be by direct observation of tasks and include questioning on underpinning knowledge to ensure its correct interpretation and application

Assessment may be applied under project related conditions (real or simulated) and require evidence of process

Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances

Assessment may be in conjunction with assessment of other units of competency

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

OHS requirements

- are to be in accordance with Commonwealth, State or Territory legislation and regulations, organisational safety policies and procedures. Requirements may include but not be limited to the use of personal protective equipment and clothing, fire fighting equipment, First Aid equipment, hazard and risk control and elimination of hazardous materials and substances, manual handling including lifting and carrying.

Legislative requirements

- are to be in accordance with applicable legislation from all levels of government that affect organisational operation. Requirements may include but not be limited to award and enterprise agreements, industrial relations, Australian Standards, confidentiality and privacy, OHS, the environment, equal opportunity, anti-discrimination, relevant industry codes of practice, duty of care and heritage.

Organisational requirements

- may include but not be limited to legal, organisational and site guidelines, policies and procedures relating to own role and responsibility, quality assurance, procedural manuals, quality and continuous improvement processes and standards, OHS, emergency and evacuation, ethical standards, recording and reporting, access and equity principles and practices, equipment use, maintenance and storage, environmental management (waste disposal, recycling and re-use guidelines)

Work order

- is used to determine job requirements including design, tolerances, process, materials, finish and quantity

Appropriate personnel

- may include but not be limited to supervisors, suppliers, clients, colleagues and managers

RANGE STATEMENT	
Tools and equipment	may include but are not limited to measuring tapes or rules, hammers, mallets, squares, bevels, chisels, planes, hand saws, power saws, power drills/screwdrivers, air compressor and hoses, clamps, screwdrivers, pincers
Workplace environment	- may be a small, medium or large workplace - may be involved in the manufacture or repair of violins, violas, cellos, mandolins, banjos, dulcimers, guitars and other musical instruments
Materials	may include but are not limited to timber, veneers, manufactured board, glues, screws, nails, dowels
Information and procedures may include:	- workplace procedures relating to the use and operation of tools and equipment - workplace instructions, including job sheets, plans, drawing and designs - workplace procedures relating to reporting and communication

Unit Sector(s)

Unit sector	Musical Instruments
--------------------	---------------------

Competency field

Competency field	
-------------------------	--

Co-requisite units

Co-requisite units		

