



Australian Government

FWPCOT2222 Produce laminated beams

Release: 1

FWPCOT2222 Produce laminated beams

Modification History

Release	Comment
1	Replaces equivalent unit FPICOT2222B Produce laminated beams, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.

Application

This unit of competency describes the outcomes required to prepare and cut boards for beam production.

The unit applies to production workers who produce laminated beams in a forest products factory setting and involves laying up and clamping beams, and joining timber components.

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

Pre-requisite Unit

Nil

Unit Sector

Timber Manufactured Products

Sawmilling and Processing

Wood Panel and Board Production

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Prepare for assembly	1.1 Review construction plan and work order and where required check with appropriate personnel. 1.2 Identify type and quantity of timber and glue required and obtain

	materials. 1.3 Select appropriate equipment and check for operational effectiveness in line with manufacturer's recommendations. 1.4 Select and prepare required assembly jigs.
2. Cut boards for beams	2.1 Visually assess condition of boards and check moisture content. 2.2 Use equipment in line with organisational safety procedures, manufacturer's instructions environmental protection practices. 2.3 Straight or scarf cut boards; optimise quantity and eliminate faults. 2.4 Sort cut boards according to length and mark in line with organisational procedures. 2.5 Reject defective components and dispose of in line with environmental protection practices. 2.6 Store assembly jigs for further use or dispose of in line with environmental protection practices.
3. Assemble beams	3.1 Select timber components from pre-cut material in line with cutting list and beam design. 3.2 Mix glue in line with manufacturer's recommendations. 3.3 Set glue spreader to apply even coating and apply glue line to ensure minimal wastage. 3.4 Lay components in jigs ready for joining with allowable faults, joins and grain in line with construction standards and grading rules. 3.5 Start press and check controls and operation in line with organisational procedures. 3.6 Set press with jigs and position beam to correct orientation. 3.7 Apply load and heat to beam. 3.8 Check and remove beam from press. 3.9 Identify routine processing and equipment faults and resolve or report to appropriate personnel.
4. Prepare beams for despatch and report	4.1 Check and label finished beams in line with work order. 4.2 Remove components from jigs and safely stack in designated location. 4.3 Strap, pack and label finished beams ready for transportation. 4.4 Avoid wastage of strapping and packaging materials and maximise use of recycled materials. 4.5 Complete production and quality records and report in line with organisational procedures.

Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.

Numeracy skills to:	• identify quantities of required material within work plans and count raw materials • calculate routine mixing ratios for glue • calculate time for glue to cure • complete routine production records involving quantities tallied against orders.
Oral communication skills to:	• ask questions and actively listen to clarify contents of work orders • make accurate verbal reports on processing and equipment faults.
Reading skills to:	• interpret: • workplace health and safety and other organisational procedures • work orders • safety data sheets for glue • manufacturer's recommendations for equipment and glue use.
Writing skills to:	• produce basic clear labels for product identification and transportation • complete accurate basic records for production outcomes, equipment faults and maintenance requirements.
Planning and organising skills to:	• efficiently and logically sequence the stages of preparation and production using work order to guide activities.
Problem-solving skills to:	• identify and dispose of defective materials • recognise faulty equipment and resolve by reporting or rectifying.
Technology skills to:	• select and use appropriate machinery, tools and personal protective equipment used for producing laminated beams.

Range of Conditions

Not Applicable

Unit Mapping Information

FPICOT2222B Produce laminated beams

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPCOT2222 Produce laminated beams

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1	Replaces equivalent unit FPICOT2222B Produce laminated beams, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format. Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including Required Skills and Knowledge, Evidence Guide and Range Statement.

Performance Evidence

- A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:
- prepare and cut boards for beam production in line with individual work orders
- across the above jobs, complete these processes:
 - straight cut timber to length with a vertical cut
 - scarf cut timber at a level, providing a larger end grain surface for bonding
 - strap, pack and label bundles of completed products ready for transportation
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Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- environmental protection practices for forest products factory settings:
 - reducing water and energy use
 - cleaning plant, tools and equipment
 - safely disposing of, recycling and reusing timber and other waste
- types of glue used for producing laminated beams; procedures and standards for mixing, curing and applying it
- range of industry standard cross sections, their strength, tolerances and applicable terminology
- assembly sequences

- componentry and construction standards
- typical component defects and how these affect ability to produce a quality finished product:
 - warp
 - wane
 - cupping
 - shakes
 - insect defects
 - knots
 - resin pockets
- storage layout and categories for stacking finished materials
- types of tools and equipment used for producing laminated beams; their purpose, features and operation:
 - measuring equipment
 - assembly jigs
 - docking and trimming saws
 - presses
 - marking equipment
 - glue spreader
 - strapping equipment
- organisational procedures specific to producing laminated beams:
 - workplace health and safety with particular emphasis on equipment lock out
 - use of equipment
 - communication reporting lines
 - recording and reporting production outcomes and equipment faults.
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Assessment Conditions

The following resources must be made available:

- tools and equipment used to produce laminated beams including:
 - measuring equipment
 - assembly jigs
 - docking and trimming saws
 - presses
 - marking equipment
 - glue spreader
 - strapping equipment
- glue
- personal protective equipment suitable for producing laminated beams
- commercial product range of timber

- manufacturers' instructions for:
 - equipment use
 - mixing and curing glue
- work order and construction plan with specifications for assembling laminated beams
- template documents for recording production outcomes and equipment faults
- organisational procedures for producing laminated beams.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.
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