



Australian Government

FWPCOT3242 Lay up timber roof trusses

Release: 1

FWPCOT3242 Lay up timber roof trusses

Modification History

Release	Comment
1	Replaces equivalent unit FPICOT3242B Lay up timber roof trusses, 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 plan and set up the assembly of timber roof trusses using a truss jig or computer-operated truss table and to oversee the operation of the truss press. Work is completed in a timber and wood products production setting.

The unit applies to Press operator, Timber manufactured products technician, Jig setter, Machine operator, saw operator.

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

Pre-requisite Unit

Nil

Unit Sector

Common Technical

Elements and 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 work order and construction plans and where required check with appropriate personnel. 1.2 Identify and obtain type and quantity of assembly material and hardware. 1.3 Select appropriate personal protective and other equipment and check for operational effectiveness.

	1.4 Identify and prepare setup jigs required for construction.
2. Lay up truss	2.1 Use equipment in line with organisational safety procedures, manufacturer's instructions and environmental protection practices. 2.2 Assess product size and number of joints with jig area, and plan section layout. 2.3 Select timber components from pre-cut material in line with cutting list and check for fit. 2.4 Position jig components to accurately locate and support assembly components and adjust jig or table to suit. 2.5 Position and clamp components in jigs ready for joining with allowable faults, joints and grain in line with construction standards and grading rules. 2.6 Set components to include camber adjustments, overhang and other design requirements. 2.7 Identify defective components; dispose of or recycle in line with environmental protection practices. 2.8 Nail components to maintain temporary alignment during assembly. 2.9 Position and install hardware on joints in line with construction plan.
3. Control pressing operations	3.1 Coordinate truss-pressing operations to ensure finished product complies with customer orders. 3.2 Correct assembly faults in line with organisational procedures.
4. Prepare products for despatch and report	4.1 Check finished product for quality and label in line with work order. 4.2 Remove components from jigs and safely stack in designated location. 4.3 Strap, pack and label finished products ready for transportation. 4.4 Avoid wastage of strapping and packaging materials and maximise use of recycled materials. 4.5 Record and report production outcomes and equipment faults to appropriate personnel.

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:	• interpret production data from construction plans and work orders to: • count quantities of materials and hardware components and select appropriate sizes • complete routine calculations for component layouts • measure lengths, camber, overhang and angles to construction plan specifications.
Oral communication skills to:	• ask open and closed probe questions and actively listen to clarify contents of construction plans and work orders.
Reading skills to:	• interpret detailed familiar and unfamiliar: • workplace health and safety and other organisational procedures • construction plans and work orders • manufacturers' instructions.
Writing skills to:	• produce basic clear labels for product identification and transportation • complete accurate basic records for production outcomes and equipment faults.
Planning and organising skills to:	• efficiently and logically sequence the stages of preparation and production using work order and construction plan to guide activities.

Range of Conditions

Not Applicable

Unit Mapping Information

FPICOT3242B Lay up timber roof trusses

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 FWPCOT3242 Lay up timber roof trusses

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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:

- lay up any of the following trusses in line with an individual work order and construction plan:
 - “A” type truss
 - truncated standard truss
 - girder truss
 - truncated girder
 - jack truss
 - rafter truss
 - gable truss
 - saddle truss
- strap, pack and label completed products ready for transportation.
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Knowledge Evidence

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

- quality requirements, at a basic level of understanding, of national building codes and standards
- environmental protection practices for assembling timber roof trusses:

- reducing water and energy use
- disposing of, recycling and reusing timber and other waste
- typical timber defects and how these affect ability to produce a quality finished product:
 - warp
 - wane
 - cupping
 - shakes
 - insect defects
 - knots
 - resin pockets
- typical flow of material supply in and out of the roof truss assembly area
- typical assembly sequences and range of techniques used to assemble timber roof trusses
- range of industry standard lengths, cross sections and tolerances and applicable terminology
- typical assembly faults triggering correction to ensure product quality:
 - incorrectly positioned joints
 - timber splits from nailing
 - incorrectly positioned hardware
- purpose, features and operation of equipment used to assemble timber roof trusses:
 - measuring equipment
 - assembly jigs
 - truss tables
 - circular saws
 - docking saws
 - drills
 - nail plate presses
 - staple guns
 - nail guns
 - compressor or compressed air supply
 - marking equipment
 - strapping equipment
- purpose, features and use of assembly componentry
- organisational procedures specific to assembling timber roof trusses:
 - workplace health and safety with particular emphasis on on equipment lock out and use of personal protective equipment
 - communication reporting lines
 - maintaining construction standards
 - recording and reporting production outcomes and equipment faults
 - labelling products for identification and transportation.

Assessment Conditions

The following resources must be made available:

- tools and equipment used to assemble timber roof trusses:
 - measuring equipment
 - assembly jigs
 - circular saws
 - docking saws
 - drills
 - nail plate presses
 - staple guns
 - nail guns
 - compressor or compressed air supply
 - marking equipment
 - strapping equipment
- assembly hardware:
 - nailing plates
 - gang nails
 - nail gun nails
 - staples
- personal protective equipment suitable for assembling timber roof trusses
- pre-cut sections of timber
- consumable strapping, packaging and labelling materials
- manufacturers' instructions for equipment use
- work order and construction plan with specifications for assembling timber roof trusses
- template documents for recording production outcomes and equipment faults
- organisational procedures for assembling timber roof trusses.

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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