



Australian Government

FWPCOT3240 Grade heavy structural/engineered products

Release: 1

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Modification History

Release	Comment
1	Replaces equivalent unit FPICOT3240B Grade heavy structural/engineered products, 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 visually assess material characteristics and defects for classification into various strength and appearance grades. Materials can be sleepers, crossings, mine guides, piles, posts and other heavy structural or engineered products.

The unit applies to those who grade heavy structural and/or engineered products in a forest environment setting

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

Pre-requisite Unit

Nil

Unit Sector

Harvesting and Haulage

Forest Growing and Management

Sawmilling and Processing

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 grading	1.1 Review work order and where required check with appropriate personnel. 1.2 Select appropriate personal protective equipment and check for

	operational effectiveness. 1.3 Obtain type and quantity of material to be graded from storage location. 1.4 Plan grading process in line with work order.
2. Grade heavy structural or engineered products	2.1 Identify requirements for storage and subsequent processing of materials. 2.2 Assess characteristics and defects of each timber piece against industry standards for grade type. 2.3 Measure and record moisture content. 2.4 Mark defects for docking clearly, in line with organisational procedures. 2.5 Mark timber and sort according to grade classification, using clearly identifiable markers or stickers.
3. Distribute material	3.1 Label storage locations and direct material to storage or processing operations in line with organisational procedures. 3.2 Reject sub-standard materials; dispose of or recycle in line with environmental protection practices. 3.3 Monitor on-site movement of material to achieve intended flow. 3.4 Record assessment outcomes and distribution problems and report 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:	- identify quantities of assessable material within work orders and count numbers - measure size of undesirable timber characteristics - complete routine assessment records involving numerical grades, dimensions and quantities.
Oral communication skills to:	ask questions and actively listen to clarify content of work orders.
Reading skills to:	- interpret: - workplace health and safety and other organisational procedures - work orders - industry grading standards.

Writing skills to:	• produce basic clear labels for timber identification • complete accurate basic reports on assessment outcomes.
Problem-solving skills to:	• recognise undesirable timber characteristics and assess as unfit for specified purpose • identify and dispose of or recycle defective materials.

Range of Conditions

Not Applicable

Unit Mapping Information

FPICOT3240B Grade heavy structural/engineered products

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 FWPCOT3240 Grade heavy structural/engineered products

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1	Replaces equivalent unit FPICOT3240B Grade heavy structural/engineered products, 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:

- visually evaluate different types of heavy structural and engineered product for classification into strength and appearance grades, in line with an individual work order for each grading job
- heavy structural and engineered products for classification are to be chosen from the following list:
 - sleepers
 - crossings
 - mine guides
 - piles
 - cross arms for overhead lines
 - decking for wharves and bridges
 - poles
- after each job, complete a basic report on assessment outcomes.

Knowledge Evidence

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

- environmental protection practices for disposing of, recycling and reusing timber
- features and uses of heavy structural and engineered products:

- sleepers, crossings, mine guides, piles and cross arms for overhead lines
- decking for wharves and bridges
- poles
- typical timber defects and how they affect ability to produce a quality finished product:
 - incorrect moisture content
 - warp
 - wane
 - cupping
 - shakes
 - insect defects
 - knots
 - resin pockets
- typical work flow processes and techniques used to grade heavy structural and engineered products
- range of industry standard lengths and cross sections and applicable terminology
- range of industry standard strength and appearance grades and applicable terminology
- markings used on heavy structural and engineered products to identify grades
- typical flow of material supply in and out of the grading area
- typical industry and organisation specific storage layout and storage categories for heavy structural and engineered products
- methods to label heavy structural and engineered products for storage locations and common terms used
- purpose, features and operation of equipment used to grade heavy structural and engineered products:
 - moisture meters
 - lifting equipment for the movement of material
- organisational procedures specific to grading heavy structural and engineered products:
 - workplace health and safety with particular emphasis on equipment lock out and use of personal protective equipment
 - communication reporting lines
 - recording and reporting assessment outcomes and distribution problems.

Assessment Conditions

The following resources must be made available:

- moisture meters
- lifting equipment
- personal protective equipment suitable for grading heavy structural and engineered products
- a diverse range of heavy structural and engineered products including:
 - sleepers, crossings, mine guides, piles and cross arms for overhead lines
 - decking for wharves and bridges

- poles
- work order with specific instructions for grading and transferring heavy structural and engineered products to downstream processing or storage
- organisational procedures for grading heavy structural and engineered products.

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.

Links

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