



Australian Government

Department of Education, Employment and Workplace Relations

SFIFISH309B Construct nets and customise design

Release: 1

SFIFISH309B Construct nets and customise design

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit of competency involves constructing nets used as fish or prawn trawls, purse seines, beach seines, gill nets and the net component of holding cages and, where necessary, customising a net design to suit enterprise specifications. No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.
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Application of the Unit

Application of the unit	This unit has application to fishing operations. All enterprise or workplace procedures and activities are carried out according to <i>relevant government regulations, licensing and other compliance requirements, including occupational health and safety (OHS) guidelines, maritime and occupational diver codes of practice and procedures and ecologically sustainable development (ESD) principles.</i> Equipment operation, maintenance, repairs and calibrations are undertaken in a safe manner that conforms to manufacturer instructions. Appropriate <i>personal protective equipment (PPE)</i> is selected, checked, used and maintained.
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Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units		
	SFIFISH210C	Assemble and repair damaged netting

Employability Skills Information

Employability skills	This unit contains employability skills.
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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.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare netting material for construction	1.1. Suitable net construction area is identified and sufficient space organised to maximise job efficiency. 1.2. Appropriate net design is identified and netting and joining material of the correct measurement required for construction is sourced. 1.3. Net work tools are identified and organised to maximise job efficiency and safety. 1.4. Netting and net work tools are selected according to the net design. 1.5. Netting is shaped and strengthened according to the net design. 1.6. Shaped sections of netting material are joined so as to ensure secure seams and maintain net symmetry.
2. Prepare associated net components for construction	2.1. Associated net components are identified and sourced. 2.2. Components are prepared ready to secure to the netting material or other components according to the net design selected. 2.3. Components are organised so that they can be attached in a way that maximises job efficiency and enterprise OHS requirements.
3. Attach netting material to associated components	3.1. Appropriate attachment tools and materials are identified and organised to maximise job efficiency and safety. 3.2. Netting material is attached securely to the appropriate attachment component according to specified ratios. 3.3. Other associated components are attached securely according to net design.
4. Customise net design	4.1. Net design is identified and analysed for suitability for customisation. 4.2. Alterations are made to the net design to maintain net symmetry and function according to enterprise or industry specifications. 4.3. Normal net construction processes are followed utilising the customised net design.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- attaching netting to attachment component securely and in line with required attachment ratios
- counting correct number of meshes and direction of meshes for each panel
- customising a net design to maintain net symmetry and function
- cutting tapers into netting material
- joining panels of netting of different sized meshes
- joining panels to maintain net symmetry
- preparing net construction jobs by establishing quantity of netting required
- recognising polyethylene (PE) and polyamide (PA) netting
- routine workplace communications to exchange information, clarify expectations, give directions and report on progress and issues
- using taper tables to construct netting panels of a required depth, width or taper
- using safe manual handling techniques, including minimising the risk of repetitive, forceful, constrained or awkward postures
- strengthening netting material
- using net construction tools.

Literacy skills used for:

- interpreting a gear plan
- reading tables describing the effect of tapers on panel shape.

Numeracy skills used for:

- calculating customisation ratios
- calculating joining and attachment ratios
- counting meshes
- counting the ply of twine
- measuring the diameter of twine.

Required knowledge

- factors which contribute to an efficient, fast and safe net construction job
- hazards which exists in the workplace, including:
 - considerations for choosing between different control measures, such as possible inadequacies of particular control measures
 - the range of control measures available for these hazards

REQUIRED SKILLS AND KNOWLEDGE

- measuring techniques of different types of netting and net attachment hanging ratios, and calculation methods
- naming, identifying and understanding different netting and net component terms
- netting panel joining and component attachment methods
- operating principles of a net and understanding a net design plan
- principles of net design customisation so as to maintain net symmetry and function
- the provision of OHS Acts, regulations and codes of practice relevant to the workplace, including legal responsibilities of employers, employees and other parties with legal responsibilities.

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.

Overview of assessment

Critical aspects for assessment evidence required to demonstrate competence in this unit

Assessment must confirm the ability to:

- attach associated components to the net
- attach netting using the net design ratio to the appropriate attachment component
- construct repairs for various types of damage that occurs to the netting material used for fish or prawn trawls, purse seines, beach seines, gill nets and the net component of holding cages
- customise a net design to suit enterprise specifications
- measure, cut out and join panels of netting using a net design
- use correct methods to strengthen a net.

Assessment must confirm knowledge of:

- how a net design describes a net
- how to customise a net design so as to maintain net symmetry and function.

Context of and specific resources for assessment

Assessment is to be conducted at the workplace or in a simulated work environment.

Resources may include:

- access to workplace documentation
- different types of netting used to construct nets
- fully operational net construction area
- net construction tools
- PPE.

Method of assessment

The following assessment methods are suggested:

- observation of practical demonstration
- practical exercises
- project work
- written or oral short-answer testing.

EVIDENCE GUIDE**Guidance information for assessment**

This unit may be assessed holistically with other units within a qualification.

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.

Relevant government regulations, licensing and other compliance requirements may include:

- business or workplace operations, policies and practices
- ESD principles, environmental hazard identification, risk assessment and control
- OHS hazard identification, risk assessment and control.

OHS guidelines may include:

- appropriate workplace provision of first aid kits and fire extinguishers
- clean, uncluttered, hygienic workplace
- codes of practice, regulations and/or guidance notes which may apply in a jurisdiction or industry sector
- enterprise-specific OHS procedures, policies or standards
- hazard and risk assessment of workplace, maintenance activities and control measures
- induction or training of staff, contractors and visitors in relevant OHS procedures and/or requirements to allow them to carry out their duties in a safe manner
- OHS training register
- safe lifting, carrying and handling techniques, including manual handling, and the handling and storage of hazardous substances
- safe systems and procedures for outdoor work, including protection from solar radiation, fall protection, confined space entry and the

RANGE STATEMENT	
	protection of people in the workplace • systems and procedures for the safe maintenance of property, machinery and equipment, including hydraulics and exposed moving parts • the appropriate use, maintenance and storage of PPE.
ESD principles may include:	• applying animal welfare ethics and procedures • controlling effluents, chemical residues, contaminants, wastes and pollution • improving energy efficiency • increasing use of renewable, recyclable and recoverable resources • minimising noise, dust, light or odour emissions • reducing emissions of greenhouse gases • reducing use of non-renewable resources • reducing energy use • reducing interactions with native and protected flora and fauna, marine or land parks or areas • reducing live cultured or held organisms from escaping into environment • undertaking environmental hazard identification, risk assessment and control • using and recycling of water, and maintaining water quality.
PPE may include:	• gloves, mitts or gauntlets • non-slip and waterproof boots (gumboots) or other safety footwear • protective eyewear, glasses and face mask • safety harness • sun protection (e.g. sun hat, sunscreen and sunglasses) • uniforms or overalls.
Suitable may include:	• features, such as: • accessibility • attachment points • flooring • flat surface • size and configuration • location, such as:

RANGE STATEMENT	
	• outdoors • undercover • vessel.
Job efficiency may be maximised by improvements to:	• posture of workers • proximity to resources • safety of working area through OHS policies, procedures and programs • speed and correctness of work • worker comfort.
Material may include:	• netting: • braided twine • knotted and knotless netting • monofilament • multi-monofilament • polyamide (nylon) (PA) • polyethylene (PE) • twisted twine • attachment twine • strengthening rope.
Measurement may include:	• material type: • PE • PA • braided • monofilament • twisted • mesh size for construction purposes • mesh size for fisheries regulation purposes • twine: • ply • diameter • tex and Rtex.
Tools may include:	• knives • measuring devices: • marked rod • mesh gauge • ruler • netting needles: • bone

RANGE STATEMENT	
	• flat • scissors • stands • tensioning devices • transporting aids.
Shaped may involve:	• all bars • all meshes • all points • combinations of above to form tapers.
Strengthened may include:	• selvedge • bordered with stronger netting • double twine • gathering meshes • strengthening ropes.
Joined may be:	• mesh to mesh • point to point • taper to taper • gathering meshes together • incorporating strengthening ropes.
Components may include:	• bridles • by-catch reduction devices • chain • cod-end drawstrings • damage protection devices • floats • joiners • lifting points • netting attachment • rings • rope • shackles • strengthening ropes • thimbles • weights • wire rope.
Attached may be:	• bound • knots, bends and hitches • sewn • shackled

RANGE STATEMENT	
	• spliced.
Materials may include:	• chain • combination rope • natural fibre rope • synthetic rope • wire rope.
Alterations may include:	• attachment components • attachment hanging ratios • completed net configuration • completed net size • netting material • netting mesh size.

Unit Sector(s)

Unit sector	Fishing operations
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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