

**-SQA-SCOTTISH QUALIFICATIONS AUTHORITY**

**Hanover House  
24 Douglas Street  
GLASGOW G2 7NG**

**NATIONAL CERTIFICATE MODULE DESCRIPTOR**

**-Module Number- 0068618 -Session-1986-87**

**-Superclass- ZF**

**-Title- BASIC SEAMANSHIP: ROPES, WIRES AND CHAINS**

**-DESCRIPTION-**

Type and Purpose A general module which enables the student to acquire a knowledge of, and skills in working with, ropes, wires and chains on sea going vessels.

Preferred Entry Level None.

Learning Outcomes The student should:

1. know the construction of ropes, wires and chains used on vessels;
2. know the factors governing the use of different types and sizes of ropes, wires and chains for different purposes on vessels;
3. tie knots, bends and hitches commonly used at sea;
4. splice rope and wire;
5. apply a variety of ropes, wires and chains to the purpose for which they would be used on vessels.

Content/ Context Corresponding to the Learning Outcomes:

1. Listing of natural and synthetic fibres used in rope construction. Construction of wire and chain, left and right handed lay, cable laid.
2. Correct size and type of rope, wire and chain for safe working practice, e.g. blocks, sheaves, running and standing rigging, mooring ropes and wires, derrick runners and topping lifts, rope and chain stoppers.

3. Knots, bends and hitches: reef knot, rolling hitch, timber hitch, figure of eight, clove hitch, wall and crown, bowline and bowline on the bight, sheet bend, double sheet bend, sheepshank, round turn and two half hitches, marlin spike hitch. Common and palm and needle whipping. Putting a seizing on a rope and wire.
4. Splicing soft eye in plaited rope. Splicing soft eye, back, short and chain splice in a three stranded rope. Splicing soft eye in wire and in combination wire rope using any method (a locking tuck must be used).
5. Rigging painting stage, bosun's chair, pilot ladder, rope and wire stopper for mooring ropes and topping lifts, cleating a rope, turning up a rope or wire on bits, mousing a hook or shackle. Rigging purchases to include: single whip, gun tackle, luff tackle, two fold purchases, gun tackle. Meaning of the terms rove to advantage and rove to disadvantage. The power gained in each type of purchase.

Suggested Learning and Teaching Approaches environment.

Active learning and teaching approaches should be used throughout.

Most of the learning should be in a workshop

Group investigations and projects would be useful techniques to employ in this module.

The importance of safety should be emphasised throughout.

Assessment Procedures

Learning outcomes 1 and 2 should be assessed by a series of oral questions. The student should be shown a variety of ropes, wires and chains and should be expected to identify the material, the construction and the possible uses to which the rope, wire or chain could be put. Satisfactory performance will be a correct reasoned response on six occasions. Testing should take place no later than 2/3 of the way through the module to allow time for remediation and retesting. The tutor must exercise his/her professional judgement on the student's ability to communicate.

A checklist should be used for formative assessment of learning outcomes 3, 4 and 5. The student should be kept informed of progress throughout and remedial tuition should be provided in a suitable form when appropriate. Learning outcomes 3, 4 and 5 should be summatively assessed by a checklist such as the one below. A tick or cross should be used to record satisfactory/unsatisfactory performance. Satisfactory performance in all items of the checklist on two successive occasions should be considered as adequate evidence that the student has achieved the learning outcomes.

#### Checklist

The student correctly:

1. recognises types of knots, bends and hitches;
2. ties a variety of knots, bends and hitches;
3. makes rope splices;
4. makes wire and combination wire rope splices;
5. rigs bosun's chair;
6. mouses a shackle;
7. rigs any five purchases.