

-SQA-SCOTTISH QUALIFICATIONS AUTHORITY

**Hanover House
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NATIONAL CERTIFICATE MODULE DESCRIPTOR

-Module Number- 0068633 -Session-1986-87
-Superclass- ZF
**-Title- GENERAL SHIP KNOWLEDGE: CARGO WORK 4
(x 1/2)**

-DESCRIPTION-

Type and Purpose A specialist module (1/2) which enables the student to acquire a basic knowledge of safe procedures when preparing for the loading, carrying and discharging of refrigerated, bulk, dangerous, deck and unitised cargoes.

Preferred Entry Level 08630 General Ship Knowledge: Cargo Work 1
08631 General Ship Knowledge: Cargo Work 2

Learning Outcomes The student should:

1. know the procedures to be followed in the carriage of refrigerated cargoes in conventional dry cargo ships;
2. know the procedures to be followed in the carriage of dry bulk cargoes, including grain and coal;
3. know the procedures to be followed in the carriage of dangerous cargoes;
4. know the procedures to be followed in the carriage of deck cargoes;
5. know the procedures to be followed in the carriage of unitised cargoes;
6. know the importance of effective shipboard ventilation;
7. know and use cargo plans.

Content/
Context

Corresponding to the Learning Outcomes:

1. Descriptions of refrigerated hold arrangements and the machinery employed; preparation of holds, inspection of cargo prior to loading, precautions when stowing and carrying; ventilation.
2.
 - (a) The contents of the 'Code of Safe Practice for Bulk Cargoes' and relevant M notices, definitions of associated terms, principal hazards in the carriage of bulk cargoes, precautions taken before, during and after loading, methods used in loading/discharging deadweight bulk cargoes.
 - (b) The stowage of grain in accordance with MS Rules; ventilation.
 - (c) The hazards associated with coal cargoes; procedures and precautions when loading and discharging, precautions while carrying to avoid spontaneous combustion.
3. An outline of the content of the 'Blue Book' and of the IMO 'Dangerous Goods Code'.
4. An outline of the content of MS Load Lines (Deck Cargo) Regulations 1968 and an outline of the stowing and securing of timber deck cargoes.
5. The types of pallets and containers, methods of loading and stowing these, the hazards involved in handling and carrying containers, container fittings and lashings.
6. The formation of ship sweat and cargo sweat, typical conditions and voyages giving rise to sweat, types of damage caused, arrangements to avoid damage; control by ventilation, a natural ventilation system, a forced ventilation system incorporating dehumidifiers and its operation in given circumstances.
7. The problems associated with the stowage of a mixed cargo, the principals of stowage of both general and bulk cargoes, common methods of presenting information on a cargo plan, compiling a plan from given data and interpreting information from a given plan.

Suggested Learning and Teaching Approaches	<p>Active learning and teaching approaches should be used throughout.</p> <p>Films, videos, diagrams and models should be used extensively where appropriate. Ship visits should be made whenever possible.</p> <p>Films and video should be used to stimulate discussion, not simply to convey information.</p> <p>Students should work individually, in pairs or in groups and, whenever possible, should be encouraged to contribute to group discussion, drawing on their own experience.</p> <p>The importance of safety should be emphasised throughout.</p>
Assessment Procedures	<p>Learning outcomes 1 to 6 inclusive should be assessed by a series of short answer questions, satisfactory performance being 70% or better depending on the difficulty of the test set. Testing should take place no later than 2/3 of the way through the module to allow time for remediation and retesting.</p> <p>Learning outcome 7 should be assessed as follows:</p> <ul style="list-style-type: none">(i) obtaining cargo plans compiled from raw information from the student;(ii) requiring the student to interpret cargo plans;(iii) requiring the student to produce checklists for use in compiling cargo plans. <p>Satisfactory performance for learning outcome 7 would be respectively:</p> <ul style="list-style-type: none">(i) the production, on two occasions, of realistic cargo plans which take into account potential hazards, the lay-out of cargo spaces, the ship's route, on-board and known dockside cargo handling equipment, the bulk of individual cargo items and the ship's stability/trim condition;(ii) the interpretation, on two occasions, of proposed cargo plans - the interpretation should show an awareness of potential hazards and of conditions which may lead to cargo deterioration, with written recommendations to overcome these factors;

- (iii) the production of checklists to be used in compiling cargo plans for each cargo specified in the section on content/context.

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