

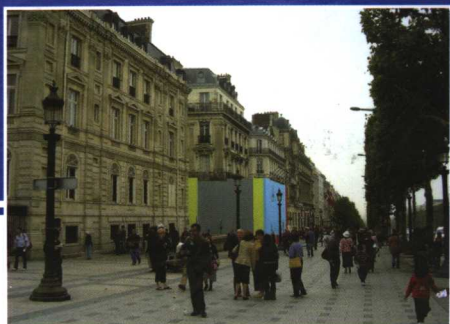
交通职业教育教学指导委员会推荐教材

航海英语阅读

主编 王维平

主审 林敏

MARITIME ENGLISH READING



大连海事大学出版社

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内容简介

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本书内容充实,新颖,围绕职业教育特色,紧扣《“04规则”中华人民共和国海船船员适任考试航海英语考试大纲》针对无限航区、近洋航区船舶二、三副职责要求,选材力求最新,跟上国际国内公约规则的要求。

本书为“高职、高专航海类专业十一五统编教材”,可作为航海类院校“航海英语阅读”课程的教材,也可供船舶驾驶员参加适任证书考试之用,或作为广大船员提高英语水平的学习参考书。

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前 言

高职高专航海类专业“十一五”规划教材(下称“系列教材”)是交通部科教司为了使高职航海类专业人才培养进一步符合《STCW78/95 公约》和我国海事局颁布的《中华人民共和国海船船员适任考试、评估和发证规则》要求而组织编写的。首批系列教材共 22 种(航海技术专业 11 种,轮机工程技术专业 11 种)。编审人员是由交通职业教育教学指导委员会航海类专业指导委员会在全国航海高职院校范围内组织遴选并聘请的专业教师。参加编审的人员普遍具有较丰富的航海高职教学经验与生产实践经历,其中主编和主审均具有副教授以上专业技术职务。

本系列教材依据 2006 年 3 月新版《高职高专院校海洋船舶驾驶(航海技术)专业教学指导方案》和《高职高专院校轮机工程技术教学指导方案》中相应课程大纲编写,适用于三年制高职高专航海技术和轮机工程技术专业学生使用,也可作为上述专业中等职业教育和船员培训教材或教学参考书。

本系列教材具有如下特点:

1. 较好地体现了《STCW78/95 公约》和《中华人民共和国海船船员适任考试、评估和发证规则》,强调知识更新、突出技能,有利于培养适应现代化船舶的航海技术应用性人才。

2. 紧密结合航海类专业人才培养目标和岗位任职条件,及时充实了新颁布的《中华人民共和国海船船员适任考试大纲》(海船员[2005]412 号)内容,有利于增强高职航海类专业毕业生岗位就业能力。

3. 按照《高职高专院校海洋船舶驾驶(航海技术)专业教学指导方案》、《高职高专院校轮机工程技术教学指导方案》设计,使教材理论教学体系与实践教学体系在知识内容与职业技能之间做到相互交融。

4. 把培养合格海员所需的品格素质、知识素质、能力素质和身心素质贯彻教材当中,强化了高职航海类专业学生素质教育力度。

在本系列教材编写、统稿和审校过程中业经多方把关,力求做得更好。时逢教育部普通高等教育“十一五”国家级规划教材遴选,本系列教材中《船舶操纵》等 12 种教材入选其中。衷心感谢为本系列教材付梓而辛劳的海事局、行业协会、港航企业、航海院校各位专家的帮助和支持。

热切期待教材使用者对本系列教材存在的问题给予指正,欢迎大家积极建言献策,以利交通职业教育教学指导委员会航海类专业指导委员会适时组织人员对本系列教材内容进行修改、调整和充实。

交通职业教育教学指导委员会航海类专业指导委员会

2006 年 12 月

编者的话

本书根据《“04 规则”中华人民共和国海船船员适任考试航海英语考试大纲》针对无限航区、近洋航区船舶二、三副职责要求,及交通部航海类专业《航海英语阅读教学大纲》编写而成。本书紧紧围绕职业教育特色,内容以“必需和够用”为原则,紧扣大纲,选材力求最新,跟上国际国内公约规则的要求。教材体例设计根据交际法教学原则,体现“以学生为主体”,着重培养学生实际应用能力。USEFUL WORDS & EXPRESSIONS 是与主题有关的有用词汇或短语,是交际法阅读教学中的 Pre-reading 阶段,让学生在进入主题学习前做好充分的准备。TEXT 是对主题内容的介绍,为随后的真实材料阅读做好铺垫。FURTHER READING 是最新的真实材料的阅读,是提高学生阅读能力的主要材料。TASKS 是基于阅读材料所设计的任务,是交际法阅读教学中的 Post-reading 阶段,真正培养学生的实际应用能力。任务的设计遵循任务型阅读的原则。SUPPLEMENTARY MATERIAL 为课外阅读材料,可视情况选择使用。本书的目的是通过大量阅读扩大航海英语专业词汇,熟悉航海英语各种体裁,增加航海专业知识,提高航海英语阅读水平。

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本书由王维平负责统稿并编写;江苏海事职业技术学院邵军负责编写第五单元第 18、19 和 20 课;浙江交通职业技术学院王劲松负责编写第五单元第 21 课;广州航海高等专科学校肖奕珊负责编写第七单元 24、25 和 26 课。广州航海高等专科学校林敏负责全书的审校工作。

本书在编写过程中得到交通职业教育教学指导委员会胡一民的具体指导;得到大连海事大学王建平教授的指点和帮助,中国海事服务中心考试中心主任赵向明为教材的编写提出许多宝贵的意见和建议,得到了大连海事大学出版社的积极支持,在此表示衷心的感谢。

由于作者水平有限,书中难免存在错误和不足,恳请读者批评指正。您的意见和建议请发到下列 E-mail 地址:wangweiping@zimc.cn

编者

2006 年 12 月

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Unit I

General Ship's Knowledge

Lesson 1 Ship Types

Text

Generally speaking a vessel can be classified according to the purposes she serves. The most common purposes are:

- (1) transportation of cargo and/or passengers;
- (2) assistances and service (by so called "special purpose vessels");
- (3) the catching of fish (fisherman);
- (4) peace keeping (warships).

Furthermore we can make the distinction between sea-going vessels and vessels for coastal trades and/or inland waterways.

The following is an overview of different types of vessels based on transportation.

1 Liners and Tramps

Vessels that have been designed to transport cargo or/and passengers are called merchant ships. They may be classified as liners and tramps.

A liner carries cargoes between two fixed destinations. Her sailing schedule has been prearranged - she has a fixed homeport, port of destination and ports of call, and fixed ETA's and ETD's. A liner-vessel is allowed to carry up to 12 passengers.

Freighters that carry cargoes according to schedules that are not fixed are called tramps. Home ports, ports of destination, ports of call, ETA's and ETD's differ with every voyage. A tramp is not allowed to carry any passengers.

Merchant ships may carry general cargoes, bulk cargoes, refrigerated cargoes, heavy cargoes, timber, and many many more.

2 General Cargo Ships

General cargo is a cargo that has been packed in crates, boxes or bags, or cargo coming in pieces (unpacked cargo items). Cargo is loaded and discharged by the vessel's own derricks or by shore based cranes. The conventional general cargo ship has several tweendecks, so that the cargoes for the various destinations can be reached and discharged without having to remove cargo for other destination first. Under the influence of cargo-palletization the "open freighter" was fitted with two or even three hatches side by side. Both types of vessels, the general cargo ship and the open freighter, are becoming rather obsolete, since general cargo is more and more transported by vessels that have been designed to carry general cargo in containers.

3 Bulk Carriers

Bulk cargo is unpacked cargo of one commodity. Dry bulk cargo, such as grain, ore, fertilizers, etc. is carried in specially designed vessels with holds that have been divided into compartments by longitudinal and transverse separations, so that the ship's stability will not be affected by a full cargo. The holds of these ships are often constructed in such a way that they are self-trimming; this means that the surface of the cargo is constantly made equal by special pumps in rolling circumstances or when the vessel has a list. Dry bulk cargo is loaded and discharged by cranes with grabs or by pumps. Liquid cargoes such as crude oil, petroleum, edible oils, etc. are carried in tankers, for example in Very Large Crude Carriers (VLCC's), chemical tankers, such as Liquefied Petroleum Gas tankers (LPG carriers) or Liquefied Natural Gas tankers (LNG carriers). Product tankers are small tankers that carry different sorts of oils.

For safety reasons tankers must be fitted double bottoms. These spaces also provide storage for fuel, lubricating oil and waters. Tankers are divided into compartments by longitudinal and transverse bulkheads. Cofferdams are empty spaces between the tanks and in the double bottom. They serve as separations to prevent liquids from leaking from one tank into the other. Cofferdams often serve as pump-room. Pumps for loading and discharging the cargo may be installed in these compartments. Tankers are often loaded and discharged in the offing by means of flexible pipes. This system of wet bulk handling reduces the number of laydays.

4 Container Ships

Cargo that has been containerized is carried by container ships. Containers are most often measured in Twenty Feet Equivalent Units (TEU's) and are stowed in a cellular arrangement in rows, bays and tiers.

The rows run abeam, or athwartship; the bays run fore to aft and the tiers are horizontal layers. The three-figure code on each container refers to this stowage system. Thus, each container can easily be found out. Container ships are sometimes equipped with their own gantry cranes that load and discharge the containers. Container ships may carry general cargoes, liquid cargoes or refrigerated cargoes. The advantages of carrying cargo in containers are: short lay time because of efficient and rapid cargo handling; few stevedores are required; less pilferage because the cargo has been stored in locked containers.

5 Roll-on/Roll-off Ships (Ro-Ro Ships)

On a Ro-Ro ship cargo is rolled on and rolled off by lorries or trailers. The great advantage of this system is that no cargo handling equipment is required. The loaded vehicles are driven aboard via ramps through special stern and bow doors and are properly secured for the passage. Upon arrival in the port of discharge, the vehicles are released and driven ashore to their destinations.

6 Coasters

A coaster carries cargo along the coast or on sea voyages. Trans-Atlantic voyages are quite common. A coaster is of limited length and tonnage. Her engine room is situated aft. Often there are no tweendecks and the cargo spaces have no obstacles, so that a variety of cargo can be handled. Hat-

ches are very broad and cover most of the main deck surface. Because of her limited length she will hardly experience any problems related to longitudinal stresses. However, due to the broad hatchways, transverse strengthenings are necessary to avoid difficulties caused by transverse stresses.

7 Refrigerated-cargo Vessels (Reefers)

Refrigerated-cargo vessels are ships that carry perishable cargoes, such as meat or fruit. These cargoes require cooling and must be stored in spaces that have precise temperature and humidity controls during the voyage. Reefers, as these ships are also called, are equipped with refrigerating plants.

8 Lash-vessels

“Lash” stands for “Lighter Aboard Ship”. A lash-vessel has a main deck that is flat and without any obstacles. A lighter is a container that floats in the water. The containers may be hoisted on board by the vessel’s own heavy derricks that stack them on board. Another way of loading the containers on board is by submerging the vessel first (for this she must be equipped with a powerful pumping-system), then have tugs or push boats tow or push the lighters over the lash-vessel, after which the vessel will emerge again and will “pick up” the lighters. This type of vessel is also referred to as a “Seabee”.

9 Heavy-load Vessel

Heavy-load vessels have been designed to lift and carry extremely heavy cargo on the main deck. Their most prominent features are very heavy derricks (“boom”), masts and lifting-blocks. Their cargoes, such as drilling platforms, engines, yachts, trains, derelicts and wrecks, are loaded onto the main deck, which is flat and free from any obstacles. A special way of loading and carrying heavy cargo is performed by submerging the ship and have the cargo-module float over it. She must be equipped with a powerful pumping-system. After pumping the ship empty the vessel will emerge again and will pick up the cargo.

10 Timber Carriers

Timber is a raw material from which wood-products are manufactured. Vessels that carry timber can easily be recognized by their tall derricks. A timber carrier has been designed in such a way that she can carry a tall deck cargo. Her plimsoll mark is provided with a special timber load-line that indicates the maximum draft to which she is allowed to be loaded under certain circumstances and in different seasons.

11 Multi-Purpose Vessels

Cargo ships that carry both general cargo, bulk cargo and containerized cargo are called multi-purpose (or multi-loads) vessels. These ships are equipped with a variety of cargo handling gears to load and discharge the different types of cargoes. An OBO-ship has been designed to carry oil/bulk/ore. She has been subdivided in such a way that oil can be carried in the largest compartments and one can be carried in the smaller compartments.

12 Passenger Ships

Passenger ships, such as cross-channel ferries, have been designed to carry passengers and

their vehicles on a prearranged route. Their main features are more or less the same as the features of the Ro-Ro vessels. Cruise ships have been especially designed to carry holidaymakers.

Notes

(1) The conventional general cargo ship has several tweendecks, so that the cargoes for the various destinations can be reached and discharged without having to remove cargo for other destination first. 传统的杂货船有些二层舱(二层柜),这样运往不同目的地的货物可以不需先翻动其他货物进行卸载。

(2) Both types of vessels, the general cargo ship and the open freighter, are becoming rather obsolete, since general cargo is more and more transported by vessels that have been designed to carry general cargo in containers. 两种船舶即杂货船和开敞式货船,已经落伍并逐渐被淘汰,因为现在杂货越来越多地由集装箱船运输。

(3) The holds of these ships are often constructed in such a way that they are self-trimming; this means that the surface of the cargo is constantly made equal by special pumps in rolling circumstances or when the vessel has a list. 这种船舶的货舱经常被建造成自平舱式,即货物的表面在船舶横摇或横倾时不断地通过特殊的泵保持平衡。

(4) Containers are most often measured in Twenty Feet Equivalent Units (TEU's) and are stowed in a cellular arrangement in rows, bays and tiers. 集装箱经常以20英尺标准单位来计量,并按排、列和层分格堆装。

(5) However, due to the broad hatchways, transverse strengthening is necessary to avoid difficulties caused by transverse stresses. 然而,由于舱口宽敞,必须加强横向支撑力以避免因横向受力而引起的问题。

(6) Another way of loading the containers on board is by submerging the vessel first (for this she must be equipped with a powerful pumping-system), then have tugs or push boats tow or push the lighters over the lash-vessel, after which the vessel will emerge again and will "pick up" the lighters. 另一种把货柜装上船的方法是先把船沉入水中(这时她必须装有强大的泵水系统),然后用拖轮或顶推船把驳船拖带或顶拖至载驳船上方,随后载驳船再次起浮承载驳船。

(7) Her plimsoll mark is provided with a special timber load-line that indicates the maximum draft to which she is allowed to be loaded under certain circumstances and in different seasons.

船舶的载重线标志设有特殊的木材载重线,表示船在某些情况下不同季节中允许装货的最大吃水。

Useful Words and Expressions

1. liner	['lainə]	<i>n.</i>	班轮
2. tramp	[træmp]	<i>n.</i>	不定期船
3. general cargo ship			杂货船
4. derrick	['derik]	<i>n.</i>	吊杆
5. crane	[krein]	<i>n.</i>	起重机
6. tweendeck	['twi:ɪndek]	<i>n.</i>	二层甲板
7. cargo-palletization		<i>n.</i>	货物货盘化
8. open freighter			开敞式货轮
9. bulk carrier			散装船
10. longitudinal	[lɒndʒi'tju:dɪnl]	<i>n.</i>	纵向的
11. athwartship	[ə'θwɔ:tʃɪp]	<i>adj.</i>	横向的
12. self-trimming			自平的
13. double bottom			双层底
14. bulkhead	['bʌlkhed]	<i>n.</i>	舱壁
15. cofferdam	['kɒfədæm]	<i>n.</i>	空隔舱
16. container ship			集装箱船
17. cellular	['seljʊlə]	<i>adj.</i>	分格的;多孔的
18. layday	['leidei]	<i>n.</i>	装卸货日期
19. Ro-Ro ship			滚装船
20. ramp	[ræmp]	<i>n.</i>	斜道;跳板
21. coaster	['kəʊstə]	<i>n.</i>	沿海商船
22. hatchway	['hætʃwei]	<i>n.</i>	舱口
23. reefer	['ri:fə(r)]	<i>n.</i>	冷藏船
24. refrigerating plant			冷藏设备
25. lash-vessel			载驳船
26. heavy-load vessel			重载船
27. timber carrier			木材船
28. multi-purpose vessel			多用途船
29. passenger ship			客船
30. cruise ship			游船

Task

Complete the following diagram, giving the short description of the purpose of the vessel serves and the particular features of design.

Type of vessel	Purpose she serves	Features of design
General cargo carrier		
Dry bulk carrier		
Tanker		
Container ship		
Ro-Ro ship		
Coaster		
Reefer		
Lash-vessel		
Heavy-load vessel		
Timber carrier		
Multi-loads vessel		
Tug		
Salvage vessel		

Supplementary Material

Vessels that render assistance and service have been designed to perform specific tasks, for example, assisting other vessels, or providing special services to navigation.

(1) A **tug** is a vessel that assists other vessels with entering or leaving the port, tows an oil rig

to its position or assists with a salvage operation. There are sea-going tugs and harbour tugs. Their engines must be capable to develop enormous powers. The largest and most powerful tugs are often fitted with Controllable Pitch Propellers (C. P. P) that have adjustable blades.

Their manoeuvrability will be enhanced even more by bow thrusters and stern thrusters. One of the main features is that the aft deck of a towing vessel is kept clear of all obstructions that may interfere with the towing-line.

(2) A **salvage vessel** is a vessel that rescues other ships and their cargoes from loss at sea. She must be equipped with heavy derricks to lift wrecks from the seabed.

(3) A **buoyage vessel** places and maintains buoys. Her aft deck is flat and provides room to carry or haul in the buoys with her hoisting installation.

(4) A **survey vessel** performs marine research. She is equipped with oceanographic instruments to carry out all kinds of measurements and assessments.

(5) A **supply boat** supplies oil rigs with stores, spare parts and supplies for domestic use. Her aft deck must be flat. Additional duties may include the towing of rigs and extinguishing fires, for which they must be equipped with high-capacity fire-extinguishing pumps.

(6) A **SAR-vessel** performs search and rescue when a ship is in distress. She must be capable to develop high speeds and must be equipped with the most modern communication equipment to maintain contact with Rescue Co-ordination Centres (RCC).

(7) A **firefloat** is a fire fighting vessel. She must have a powerful fire-extinguishing system on board.

(8) A **pilot tender (or pilot launch)** is a small boat that may be launched from the pilot boat. The pilot will embark the ship that has requested pilotage from the pilot tender. She is often fitted with a sheltered aft deck to prevent the pilot from getting wet.

(9) A **cable layer** lays cables on the bottom of the sea. She is fitted with a huge horizontal wheel that reels off the cable. This type of ship is often equipped with a dynamic positioning system to keep her in the exact position when the submarine cable is reeled off.

(10) A **lightship** serves as a beacon for navigation and is anchored in the vicinity of crowded channels or seaways. She is usually not self-propelled, which means that she has to be towed to her position.

(11) **Icebreakers** are designed to ride up the ice and crush a way through for other ships to follow. This requires a powerful engine and a considerable strengthening of her stern.

(12) A **dredger** deepens out harbours and ports, fairways, approaches and entrances, inland waterways, anchorages, roadsteads, etc. Spoil is discharged into an integrated hopper or into a hopper that is moored alongside. To keep her in position she is often spudded. There are bucket dredgers, grab dredgers (or backhoe dredgers) and suction dredgers with drag heads. A cutterhead is used to disintegrate rocky bottoms.

Lesson 2 Manning on Board

Text

1 The Organization of a Ship's Crew

The man in charge of a ship is the Master. He is responsible for the ship, her cargo and the safety of the crew. He must be well qualified and an experienced navigator. Although his correct title is the Master, he is addressed as "Captain".

The organization of the crew of a cargo ship is changing, but it is still customary to find Deck, Engine, Catering Departments in ships of a reasonable size. Each department is made up of a varied number of officers, petty officers and ratings.

The Chief Officer, or First Mate as he is often called, is the Master's Chief Officer and head of the Deck Department. He is assisted by a Second Officer (Mate), a Third Officer (Mate), and sometimes a Fourth Officer (Mate) or a Junior Officer. The Deck Department also includes a Boatswain (Bosun), both petty officers, and a number of ratings. These are made up of Able Seamen (AB), Ordinary Seamen (OS) and a middle grade known as Efficient Deck Hands (EDH). On some ships Deck Cadets are carried for training purposes.

The Chief Engineer is head of the Engine Department. He is assisted by a Second, Third, Fourth and sometimes Fifth Engineer or Junior Engineer. The engine room petty officers are the Storekeeper and Donkeyman. On tankers there is also a Pumpman. He is also a petty officer. The engine room ratings are Firemen and Greasers. There may also be Engineer Cadets.

The Catering Department is under the Chief Steward. It is divided into a saloon and galley section. The former is headed by the Second Steward, the latter by the Ship's Cook. They are both usually petty officers. They are assisted by several stewards and cooks, and by a number of junior ratings.

2 The Deck Department

The Deck Department is responsible for navigating the ship safely and economically from port to port. The Master is an experienced navigator and usually works out the best course. The Second Officer is responsible to the Master for keeping the ship on course and for looking after all the equipment used for navigation. It is also the job of the Deck Department to see that the cargo is stowed properly in the holds and kept in good condition during the voyage. The stowage of cargo is the responsibility of the Chief Officer. He is helped by the Second and Third Officers. In addition, when the ship is not fully loaded, the First Mate must see that the holds are cleaned and prepared for their next cargo. In a tanker the cargo tanks are washed out during ballast passages and freed of gas. At