

THINK MARITIME



海
航運
與我

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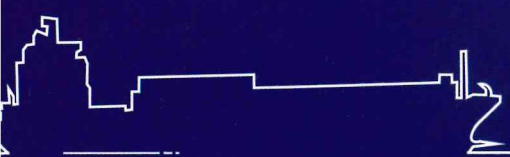
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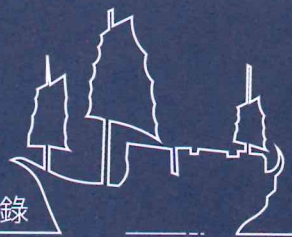
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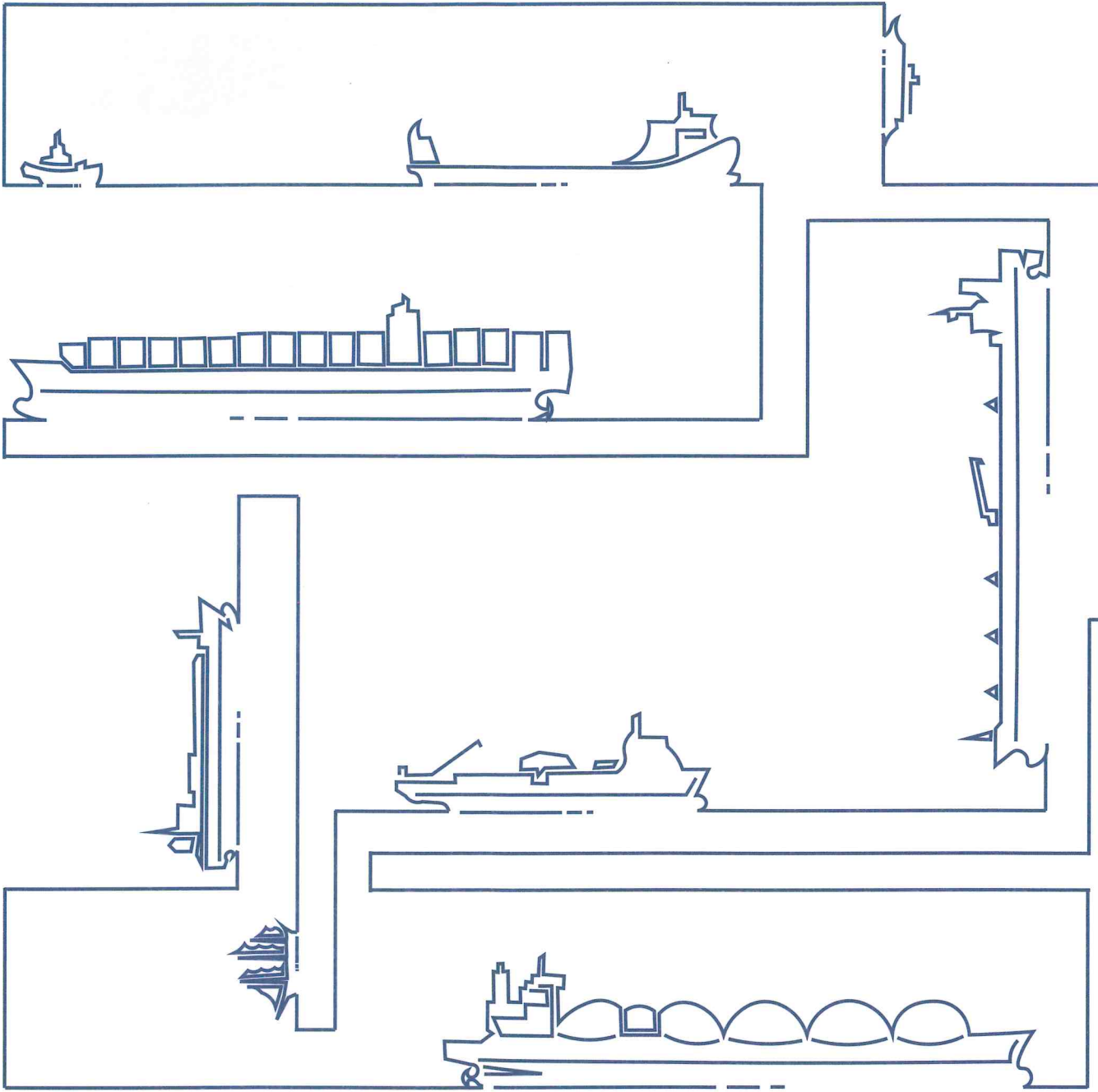
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CHAPTER ONE

航
運
與
我

第一章

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航運與我

簡介

Introduction

Welcome to our world! Yes, this is an exciting world!!
歡迎進入我們的世界。對! 一個令人興奮的世界!!





Seldom do we appreciate the fact that a majority of all world trade is carried out by sea.

The impact of the maritime world on almost every aspect of life is greater than almost anyone may realise.

The odds are rather high that whatever you look at within a radius of about 10 feet has been touched by the shipping industry.

If you are reading an electronic version of this book, the device you are using was likely transported in either part or whole by sea.

If you are reading a paperback version, the logs used to produce the paper pulp, the factory where the pulp was produced, and the paper and printing factories are connected by a supply-chain that has seaborne transport as a vital link. It is the same for the clothes and shoes we wear, the breakfast cereal we eat, the furniture we relax on, and the cars, trains, planes and buses we use to get around.

Imagine how much your average fast food burger would cost if the raw materials (wheat, meat, vegetables, sauce ingredients, cheeses, etc) and the equipment used, from the stoves, the steel used to make the stoves, and the gas used to heat them, as well as the knives and other utensils, were shipped by air instead of sea.

絕大多數的國際貿易都是靠海運完成, 但我們甚少瞭解這個事實。

航運世界的影響力, 令人無法想像, 無處不在。

相信在你圍繞你10呎範圍內的東西, 極有可能與航運業有關。

如果你正在閱讀的是電子版, 你所使用的電子設備, 可能是部分或全部經由海運運送的。

如果你正在閱讀的是平裝本, 無論是供應鏈中用作生產紙張漿的原木, 紙漿製造廠, 造紙廠, 以至小冊子印刷廠, 海運正是連接整個供應鍊的重要環節。在日常生活中, 我們的衣履鞋襪、早餐麥片、閒適傢具及出行汽車、火車、飛機和巴士等都是如此。

想像一下, 如果快餐店選用的原材料 (例如: 小麥、肉類、蔬菜、醬汁配料和芝士等)、煮食所需的設備、爐具、鋼材、燃氣以及刀叉餐具等, 統統經由空運取代海運。那麼一個普通漢堡包, 要花費多少錢呢?



think maritime 航運與我

As you live in Hong Kong, you may already know that this beautiful world city gets more than just its name, "Fragrant Harbour", from its maritime past. Today, Hong Kong continues to be seen as the Asia-Pacific region's voice of global shipping, with our owners and managers operating and controlling ships totaling 200 million deadweight or 125 million gross tons. And this vast shipping sector is supported by a dynamic community comprising many vibrant services sectors, which include world leaders in insurance, finance, shipbroking, maritime law and surveyors.

Ours is a truly global industry, which taps into commercial, technical, banking and legal skills of the highest standards to ensure that world trade continues smoothly and that we can continue to enjoy its many benefits, including greater choice and lower prices.

Now, we would like to show you some of the many and various enriching, unique careers that you can choose from to be part of this fascinating industry.

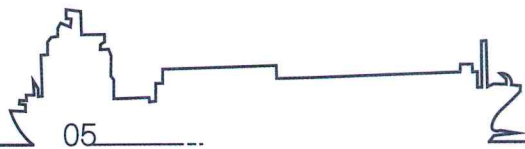
居於香港, 你可能已經知道, 這個美麗的世界城市, 在過往海運世界得著的, 已遠超過僅代表芳「香」海「港」的名字。今時今日, 香港繼續代表亞太區在全球航運發聲, 船東和管理公司控制和管理船舶的噸位總量高達2億載重噸或1.25億總噸。如此龐大的航運界, 是有賴眾多充滿活力的業界服務群體, 包括保險、融資、船舶經紀、海事法以及驗船等領域的許多業界翹楚。

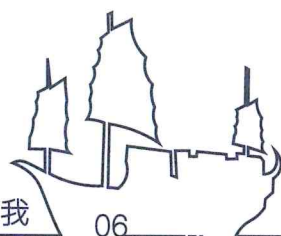
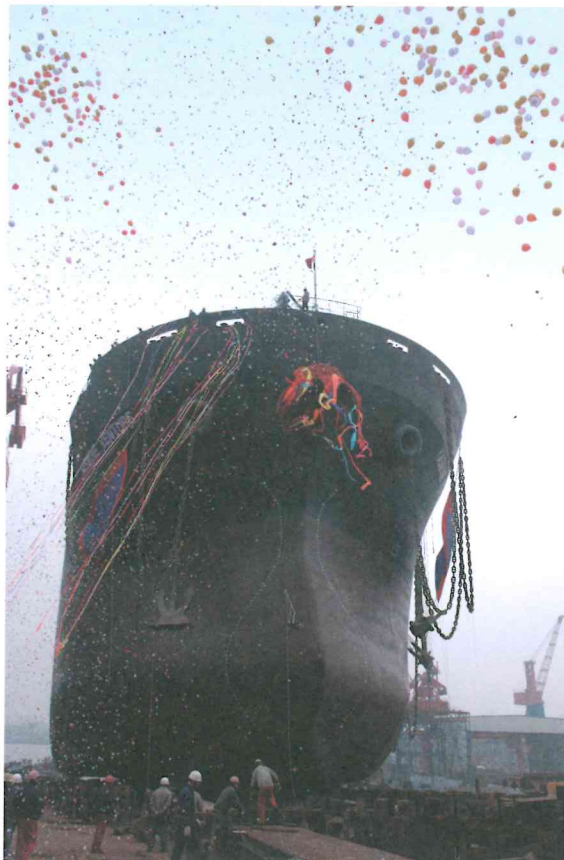
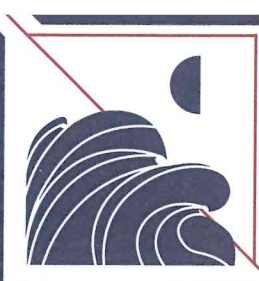
航運業確實是全球性的行業, 必須以最高標準的商業、技術、銀行和法律技能, 才能確保世界貿易繼續順利進行, 而市民大眾能夠繼續受惠, 包括有更多的選擇和更低廉的物價。

現在, 特意為你介紹豐富多樣的職業類別, 讓你從中選擇, 成為這引人入勝行業的一份子。

Hope you enjoy the journey
– Bon voyage!

一路順風, 旅途愉快!





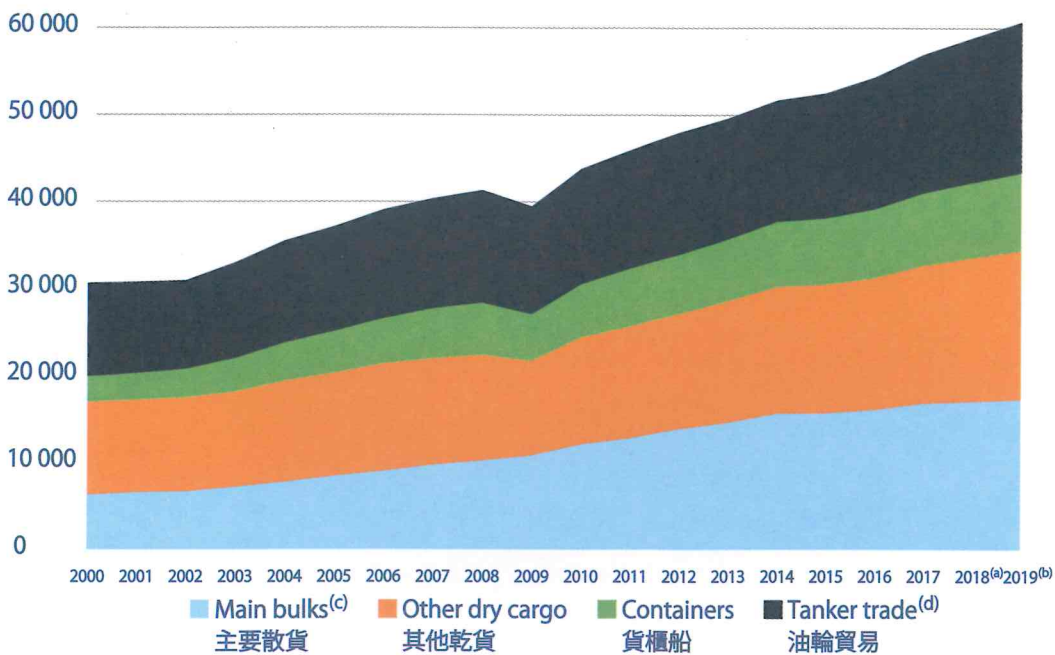
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世界貿易

Global Trade

International Maritime Trade in Cargo tonne-miles, 2000–2019
(Estimated billion tonne-miles)



World Trade continues to grow although at a slower rate.

即使增速不復以往，國際貿易始終保持著增長。

(a) Estimated. 估計。

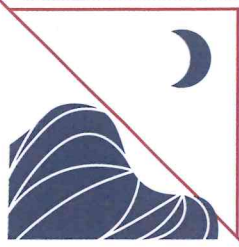
(b) Forecast. 預測。

(c) Iron ore, grain, coal, bauxite/alumina and phosphate. In 2006, the category was modified to include iron ore, grain and coal only. Data relating to bauxite/alumina and phosphate are included under other dry cargo.

(d) Crude oil, refined petroleum products, gas and chemicals.

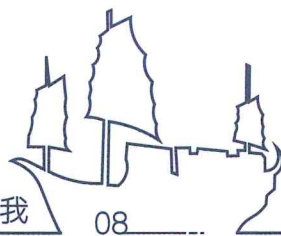
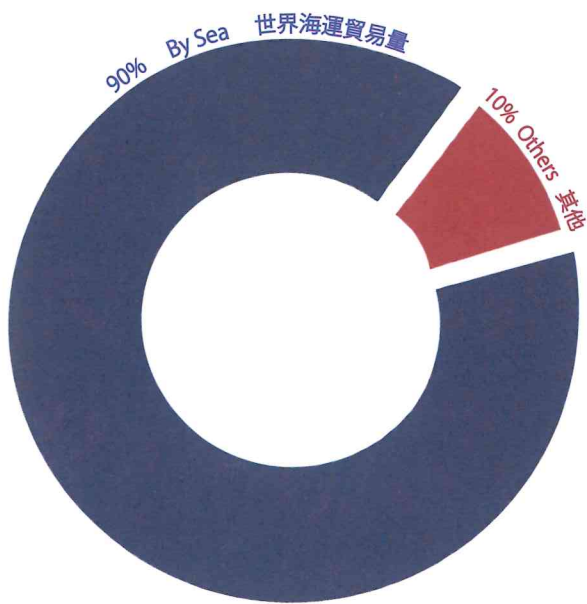
Source: UNCTAD secretariat calculations, based on data from Clarksons Research, 2019, Shipping Review and Outlook, spring

資料來源：UNCTAD秘書處的數據，根據克拉克森研究所的數據，2019年《航運評論和展望》春季版



And world seaborne trade is estimated to account for 90% of world trade.

據估算, 世界海運貿易量佔國際貿易量的90%。



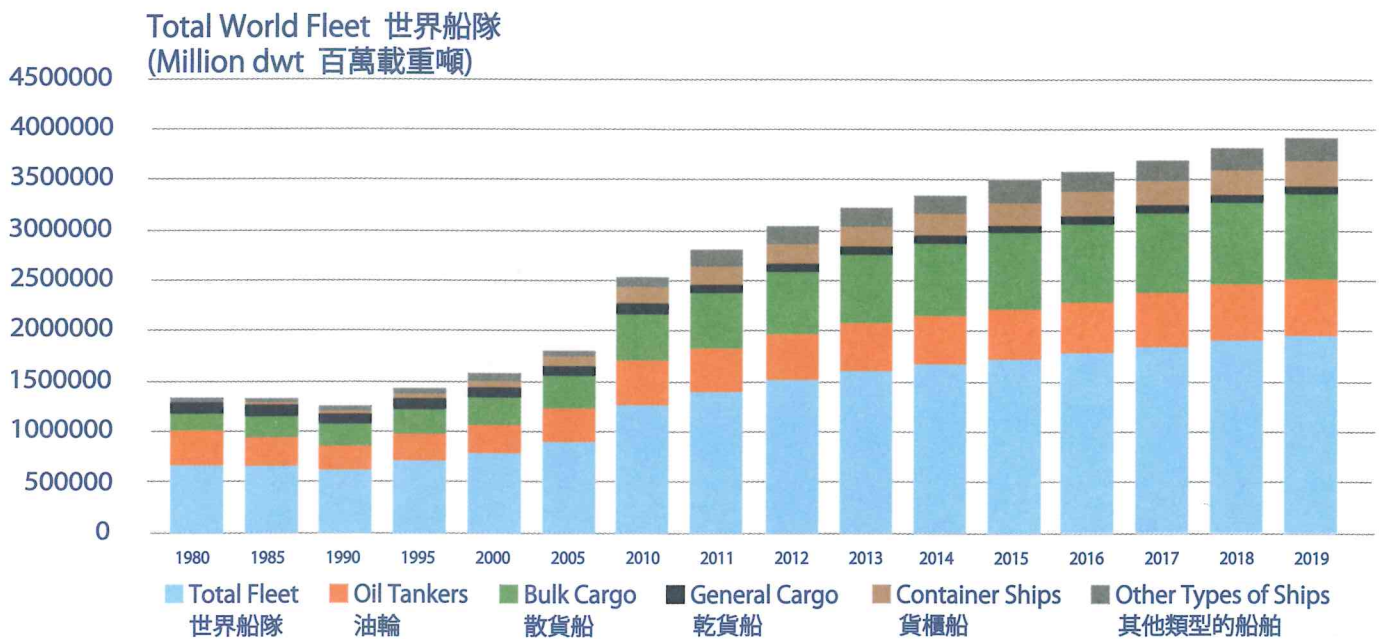
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世界船隊

Total World Fleet

Carried by an increasing number of highly technically advanced and tightly regulated ships. But the cost of that trade is very low.

符合嚴格監管和配備先進科技的船舶數量持續增加。貿易成本卻非常低。



Source: UNCTAD



一般海運成本（貨物從亞洲到美國或亞洲到歐洲）

Typical Ocean Freight Costs (Asia - US or Asia - Europe)

	TV Set (1 Unit) 一部電視	\$10.00	\$700.00
	DVD/CD Player (1 Unit) 一部DVD/CD 播放機	\$1.50	\$200.00
	Vacuum Cleaner (1 Unit) 一部吸塵機	\$1.00	\$150.00
	Scotch Whisky (1 Bottle) 一支威士忌酒	\$0.15	\$50.00
	Coffee (1 Kg) 一千克咖啡	\$0.15	\$15.00
	Biscuits (1 Tin) 一盒餅乾	\$0.05	\$3.00
	Beer (1 Can) 一罐啤酒	\$0.01	\$1.00

Source: Marisec

■ Shipping Costs (US\$)
海運成本(美元)

■ Typical Shelf Price (US\$)
一般零售價(美元)



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環保足跡

Environmental Footprint

Despite the huge volumes that are now being carried by ships, the environmental impact is very low, especially compared with other forms of transport. Comparing sea transport to other forms of transport, it is clear that if more cargo was shipped by sea, air pollution and greenhouse gas emissions would be greatly reduced.

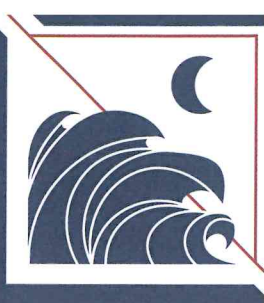
A television set, for example, carried by air from Shanghai to New York would release over 100kg of CO₂. The same television, carried by sea, would only release just over 4 kg of CO₂.

But the large number of ships and huge volume of seaborne trade mean that air emissions from ships cannot be ignored. New technology is being developed and operational efficiencies introduced to meet the strong environmental desire for zero emission ships to be commercially viable by 2030 and for the shipping fleet to emit zero Greenhouse Gases by the end of the century, if not before.

雖然船舶運載大量的貨物，但是與其他運輸方式比較，船舶對環境的影響相對是十分輕微的。顯而易見，如果更多貨物經由海運，其所產生的空氣污染和溫室氣體排放將會大大減少。

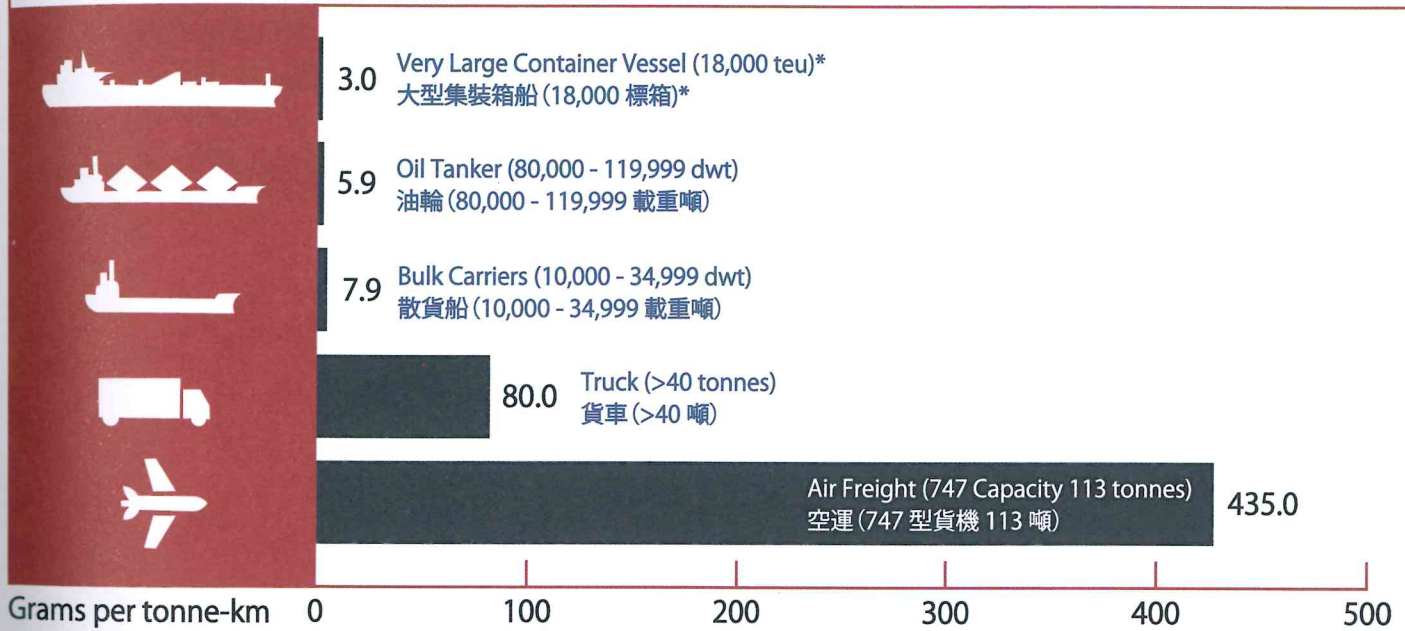
舉例：一部電視機由上海空運至紐約，將排放100公斤的二氧化碳。如果使用海運方式，只會排放約4公斤的二氧化碳。

然而，龐大數目的船舶和大量的海運貿易意味著船舶氣排放問題絕不容忽視。為滿足環保的強烈要求，現正開發新技術和提高運營效率，希望到2030年船舶零排放將在商業上變得可行，並且到本世紀末（甚或更早），船隊能達到零溫室氣體排放的目標。

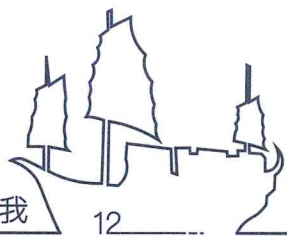


不同運輸工具的二氧化碳排放比較

Comparison of Typical CO2 Emissions Between Modes of Transport



Source: IMO GHG Study, 2009 (*AP Moeller Maersk 2014)



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環保足跡

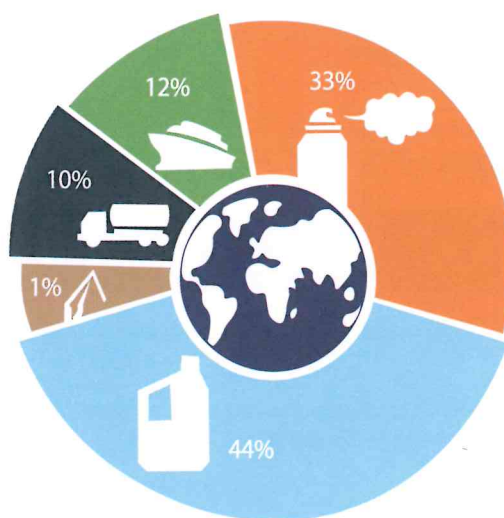
Environmental Footprint

Most of the oil spilled in our oceans and the vast majority of plastic come from land sources, not from ships. Despite this, the industry is adopting new technology and complying with new regulations to reduce to zero all forms of ship source pollution of our seas.

And while world seaborne trade of oil and oil products is increasing, the quantity of oil accidentally spilled is reducing.

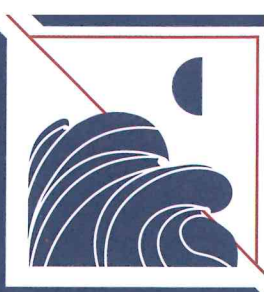
大部份海洋油污事件和絕大多數塑料垃圾的源頭都是自岸上而非船舶。儘管如此，航運界正採用新科技和遵新法規，務求令源自船舶的海洋污染減至零。

世界海運石油和油產品貿易正在增加，而意外漏油的數卻在下降中。

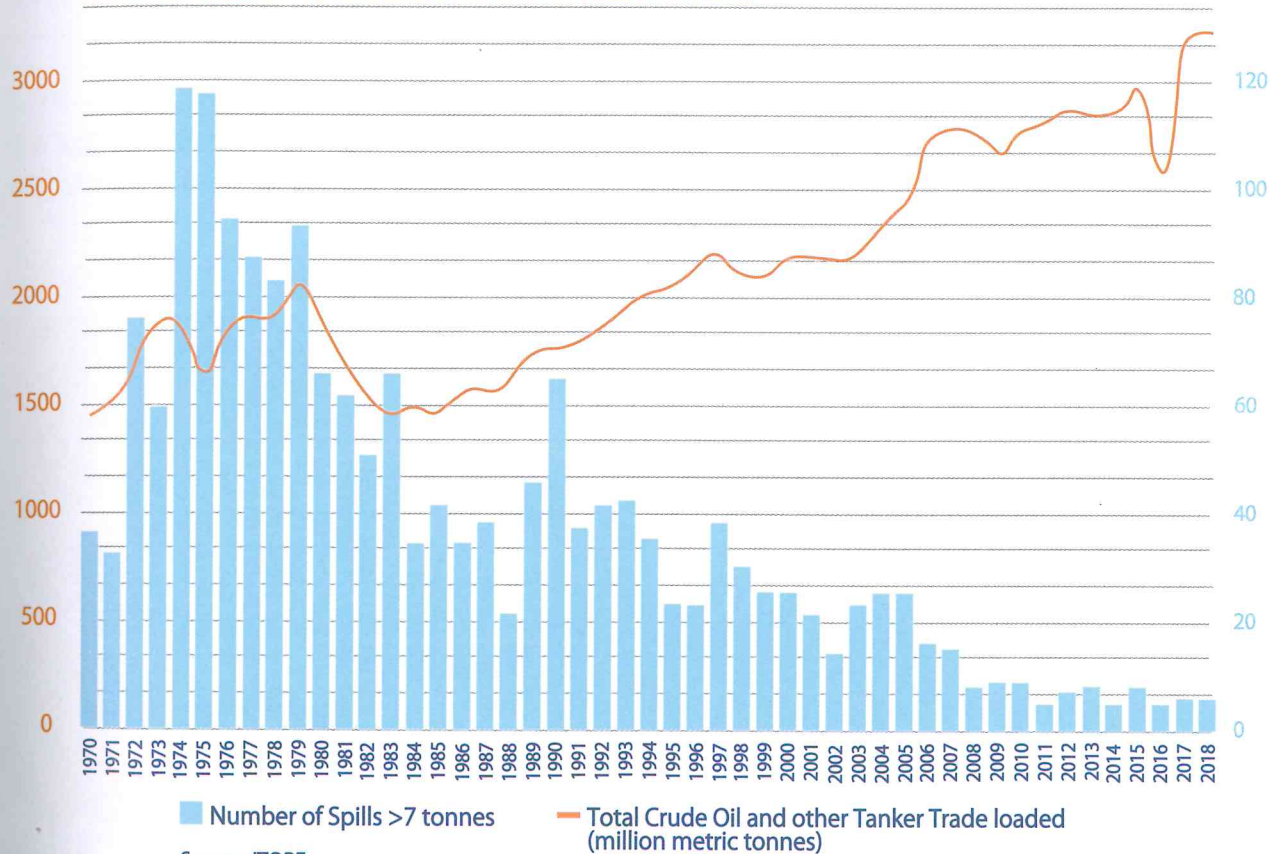


- Land Based Discharge
岸上排放
- Atmospheric Input
環保投入
- Maritime Transport
海運
- Dumping
傾倒廢物
- Oil Exploration and Production
石油勘探和生產

Source: Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP)



Decline in Number of Tanker Spills vs Growth in Crude and Other Tanker Trade Loaded
 油輪漏油數量下降與原油和其他油輪貿易量增長比較



Source: ITOPF



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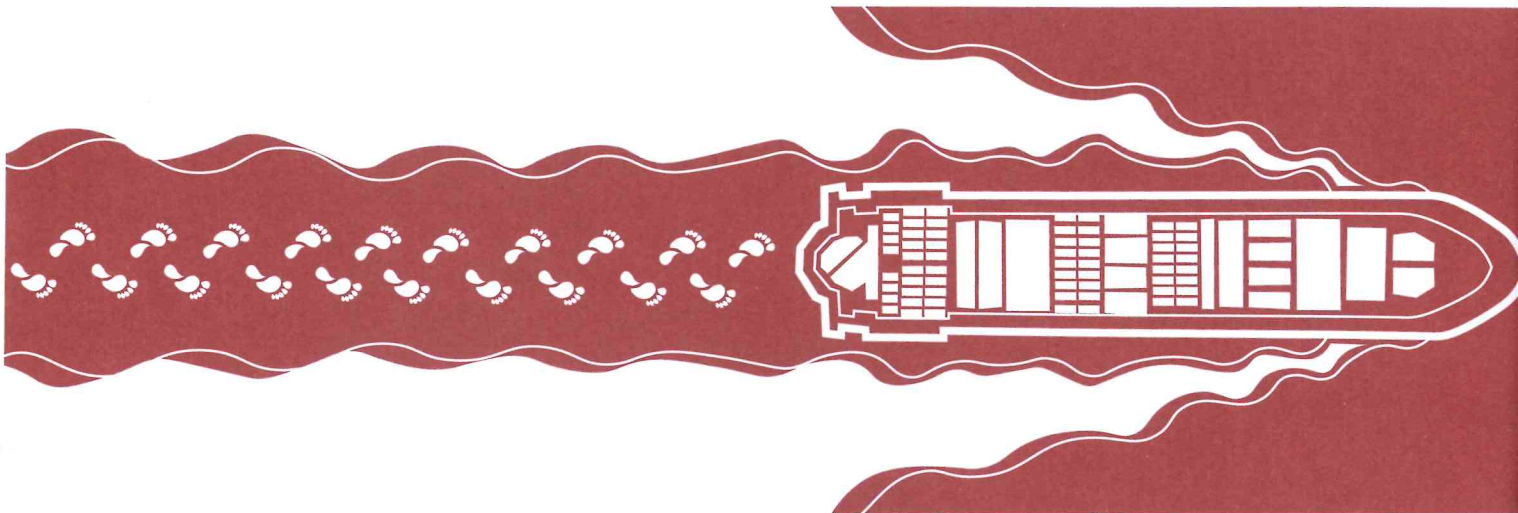
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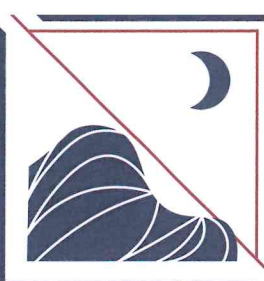
Environmental Footprint

The maritime industry recognises that protection of the environment and our oceans are the largest challenges for the future and in response is greatly reducing its environmental footprint, not only air and oil pollution, but also in areas such as ballast water, anti-fouling paint, underwater noise, and other areas where the surrounding environment might be affected.

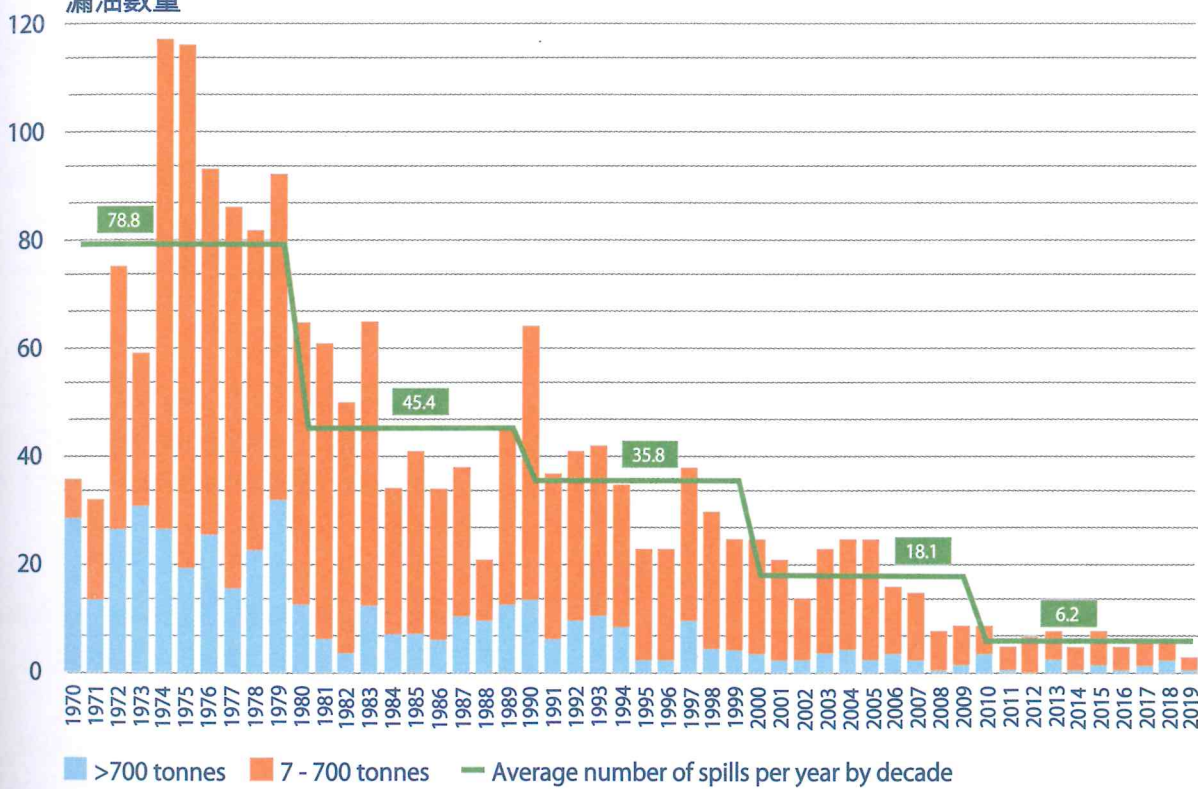
航運業明白保護環境和海洋是未來最大的挑戰，正設法降低航運業對環境的影響，不單是空氣污染和油污染，還包括壓艙水、防鏽漆、水下噪音以及其他可能對周圍環境造成的影響。



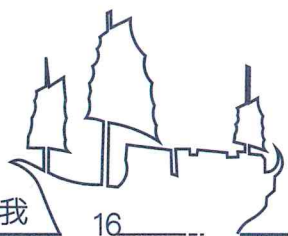
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Number of Spills 漏油數量



Source: ITOPF



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「一帶一路」倡議和大灣區發展

'Belt & Road' Initiative and Greater Bay Area Development

Both the Belt & Road Initiative (BRI) and the Greater Bay Area (GBA) development plan offer exciting opportunities to the maritime industry.

The initiative of jointly building the Silk Road Economic Belt and the 21st-Century Maritime Silk Road (BRI), raised by our country in 2013, is a global development plan that now involves over 140 countries, spanning across Asia, Africa, Europe and Latin America.

The GBA outline development plan, promulgated in 2019, covers the period up to 2035 and reaffirms Hong Kong's position as an international financial, shipping and trade centre. It will fully leverage the respective advantages of, and deepen co-operation between, Guangdong, Hong Kong and Macao.

Both the BRI and the GBA plan present many opportunities for Hong Kong's maritime sector, especially in terms of career opportunities for Hong Kong people with the appropriate skills.

The following skills and competencies, in particular, will be in great demand: marine insurance, marine law, arbitration and mediation, marine engineering, master mariner and nautical skills, ship surveying, maritime finance and information technology.

「一帶一路」倡議和大灣區發展計劃為航運業帶來令人興奮的機會。

2013年國家提出共建「絲綢之路經濟帶」和「21世紀海上絲綢之路」的重大倡議(即「一帶一路」倡議(BRI)),是一項遍及亞洲、非洲、歐洲和拉丁美洲,目前有超過140個國家參與的全球發展倡議。

2019年發布的大灣區(GBA)發展計劃綱要,展望遠至2035年,並重申香港作為國際金融、航運和貿易中心的重要地位。計劃綱要將充分利用廣東、香港和澳門的各自優勢,加強彼此合作。

「一帶一路」倡議和大灣區發展計劃為航運界帶來很多機遇,尤其給予具有適當技能的香港人就業機會。

特別對具有航運保險、海事法、仲裁與調解、輪機工程、船長和航海技能、船舶檢驗、航運金融和資訊科技等技能的人才需求相當大。

seafarers

CHAPTER TWO

海員

第二章

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seafarers

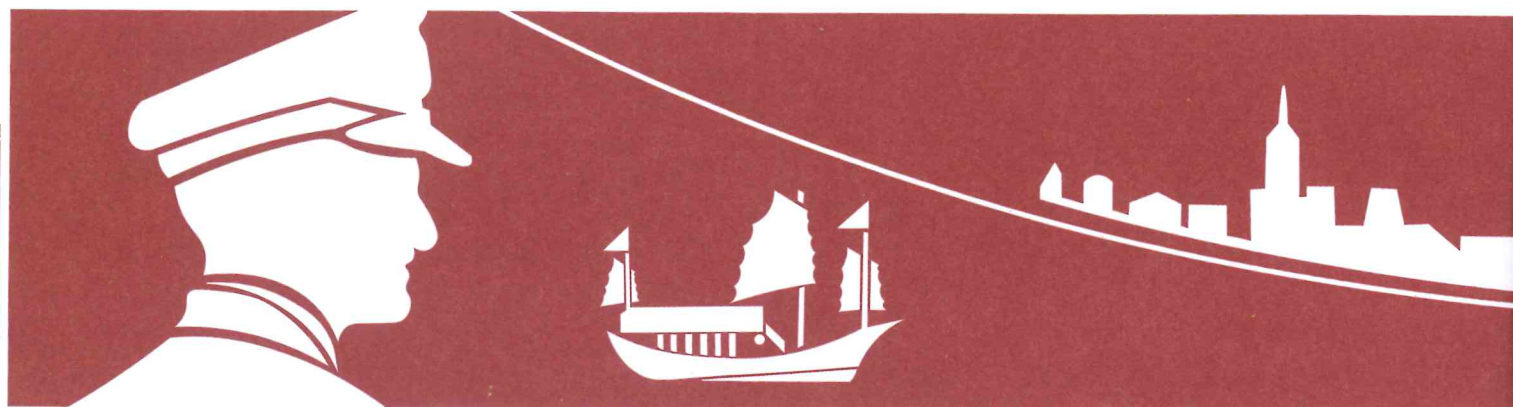
海員

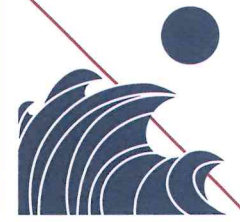
The maritime fleet includes many different types of ships. Chapter three of this brochure show outlines of many of these ships, which include passenger ships such as ferries or cruise liners, container ships, tankers, which may carry oil, gas or chemicals, bulk carriers and specialized ships.

There are many different jobs on these ships, including deck officers, engineers, members of the crew or part of the hospitality and support services, and all work as a team to ensure the safe operation of the ship and delivery of its cargo or passengers.

海事船隊包括多種不同類型的船舶。本冊子第三章介紹各種船型，例如：渡輪或郵輪等客輪、貨櫃船、油輪（可運載氣體和化學品）、散貨船和特種船等。

船上有多個不同工種，包括甲板部高級船員、輪機員、船員和負責支援膳食服務的船員，他們團隊合作，確保船舶安全航行，以及貨物和旅客安全到達目的地。



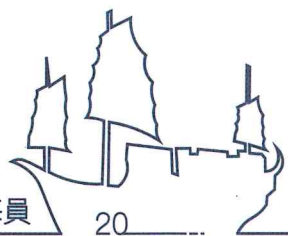
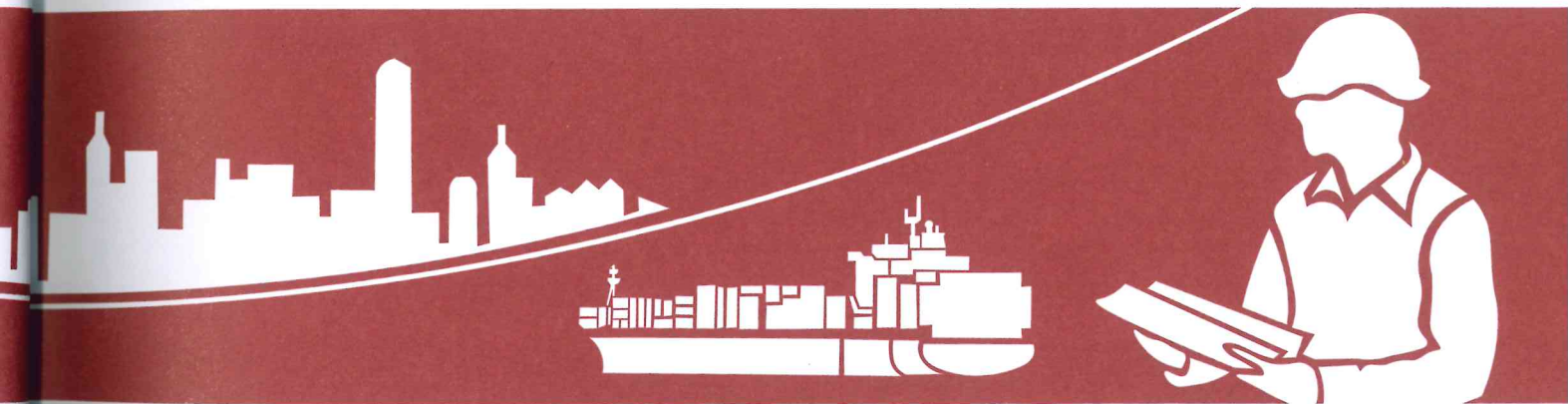


Working on ocean-going ships will take you around the globe, but if you prefer to live at home, then you can follow a career as a seafarer on tugs, ferries or other local and river trade craft.

And should you later wish to come ashore, with seafaring experience you can move on to many shore-based jobs, such as with the Hong Kong administration or port services, or in areas such as maritime law, insurance, finance, or ship management.

在遠洋船上工作可帶你環遊世界, 但如果你不喜歡離鄉別井, 那麼你可以選擇在拖船、渡輪或其他本地船和內河船上工作。

在遠洋船上工作, 日後你也可以到岸上工作, 由於已具備航海經驗, 你可選擇多種岸上工作, 例如: 投身香港政府或港口服務機構, 又或從事海事法、保險、金融或船舶管理等工作。



seafarers 海員

甲板部航海人員職級

Selected Seafarer Ranks ~ Deck

MASTER
船長

Usually addressed as the Captain. Is in overall command of the ship and is effectively her onboard General Manager and ultimately responsible for the safe navigation and operation of the ship. He is also the owner's representative and deals with charterers, port agents and cargo formalities. The Master should hold a Certificate of Competency (CoC) Class 1 (Deck Officer), which is also called a "Master Mariner License".



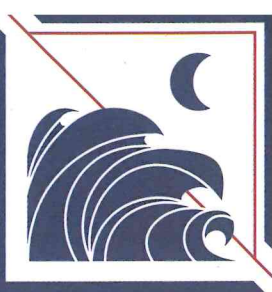
又稱為船長, 是船上的總經理, 指揮船舶的一切工作, 負責船舶的安全航行和營運。船長也是船東代表, 與租家和港口代理聯繫, 處理貨物的相關手續。船主必須持有一級(遠洋)甲板部高級船員合格證明書, 又名“船長”牌。

CHIEF OFFICER
大副

Often known as and addressed as the Mate is responsible for the day to day working of the deck crew and for the stowage, loading, carriage and discharge of the cargo with particular attention to the ship's stability. The Mate should hold at least a Certificate of Competency (CoC) Class 2 (Deck Officer).



負責管理甲板部船員的日常工作, 及貨物的存放、運送和裝卸時, 船舶的安全穩定。大副必須持有二級(遠洋)甲板部高級船員合格證明書。



SECOND OFFICER
二副

Often known as the Second Mate. Is the ship's Navigation Officer with a prime responsibility for the upkeep of charts and voyage planning. The Second Officer is also the officer-in-charge of ship's infirmary/hospital.



是船舶的駕駛員, 主要負責更新船用海圖和航道規劃。二副亦是船上醫務室/醫院的主管。

THIRD OFFICER
三副

The Third Mate holds a at least a Certificate of Competency (CoC) Class 3 (Deck Officer), and assists both the Mate and Second Mate and is responsible for the upkeep of the ship's lifesaving and fire-fighting equipment.



三副須要考獲三級(甲板部高級船員)合格證書, 協助大副和二副, 並負責保養船上逃生及消防設施。

DECK CADET
甲板部實習生

Deck Cadet is an under-training officer, who follows a structured training programme with academic studies ashore coupled with practical experience afloat for the Class 3 CoC certificate.



均是正在受訓的甲板部船員, 按照既定的培訓課程, 參加校內培訓之餘, 還須累積一定的海上訓練以考取第三級甲板部高級船員證書。



seafarers 海員

輪機部航海人員職級

Selected Seafarer Ranks ~ Engineer

CHIEF ENGINEER OFFICER 輪機長 / 大俾

The Chief Engineer is effectively the ship's onboard overall technical manager and is responsible for the operation and upkeep of all machinery engineering systems and the structural integrity of the ship. He is also responsible for the quality and quantity of bunker (fuel) on board. The Chief Engineer should hold a Certificate of Competency (CoC) Class 1 (Marine Engineer Officer).



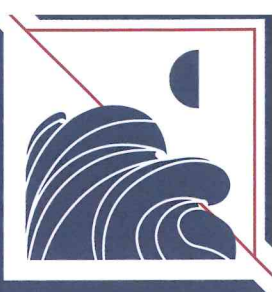
是船舶的技術總管，負責船舶上所有機械設備，主機系統和船體結構的保養和正常運作，也負責船上燃油的質素和數量。輪機長必須持有一級（遠洋）輪機部高級船員合格證明書。

SECOND ENGINEER OFFICER 二管輪 / 二俾

The Second Engineer is responsible for the day-to-day management of the Engineers and engine-room crew. The Second Engineer is the deputy to the Chief Engineer and has a prime responsibility for the main engines as well as spare gear and stores. The Second Engineer should hold at least a Certificate of Competency (CoC) Class 2 (Marine Engineer Officer).



負責船舶機艙人員的日常管理，是輪機長的副手。他專責主機和所有備件的保養和儲存。二管輪必須持有二級（遠洋）輪機部高級船員合格證明書。



THIRD ENGINEER OFFICER

二管輪 / 三俤

The Third Engineer works closely with the Second Engineer and often has prime responsibility for the ship's electrical plant (alternators) and the boiler. He also assists with any main engine upkeep. In the absence of a dedicated Electrician or Electro- Technical Officer he would also be responsible for the ship's 'electrics'.



協助大管輪工作, 專責船上的交流電發電機和鍋爐, 亦需要負責主機的日常保養。如船上並沒配有電工或電機人員, 二管輪還需負責船上的"供電"。

FOURTH ENGINEER OFFICER

三管輪 / 四俤

The Fourth Engineer holds a minimum of a Class 3 Engineering Officer CoC Certificate and assists with all aspects of machinery upkeep. He is also responsible for the maintenance of the generator and fuelling, and daily monitoring of fuel supplies.

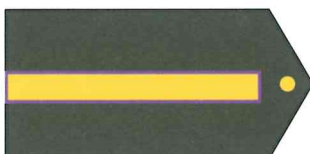


必須至少持有第三級當值輪機員證書, 協助保養船上所有機械設備, 主要負責保養及維修發電機、加油和監察日常燃油的庫存情況。

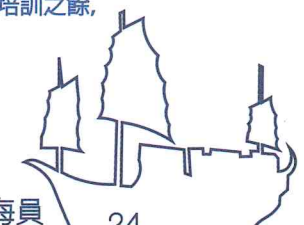
ENGINE CADET

輪機部實習生

The Engine Cadet is an under-training Engineer Officer, who follows a structured training programme with academic studies ashore coupled with practical experience afloat for the Class 3 COC Certificate.



均是正在受訓的輪機部船員, 按照既定的培訓課程, 參加校內培訓之餘, 還須累積一定的海上訓練以考取第三級當值輪機員證書。



seafarers 海員

其他航海人員職級

Selected Seafarer Ranks ~ Other

ELECTRICAL / ELECTRO-TECHNICAL OFFICER 電工 / 電機員

Many ships carry Electrical or Electro-Technical Officers responsible for the vast amount of electrical and electronic equipment, as well as the large number of reefer containers on a container vessel.

很多船舶上配有電工或電機員，負責船上大量的電路和電機設備保養，還有在貨櫃船上的大量冷藏集裝箱。

CATERING OFFICER, PURSER, CHIEF STEWARD 膳食官，事務官，管事

Depending on the business of the ship, on board cruise ships the catering staff are managed by a Purser or Catering Officer who is responsible for the ship's 'hotel services' or other hospitality services and paperwork.

因應船舶的業務種類，郵輪上事務官或膳食官管理船上負責飲食的船員，船上的“酒店服務或船員伙食後勤服務”和文書工作。



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DECK RATING
甲板水手

The Deck Ratings - Able Seamen - carry out routine upkeep work and provide the helmsmen and lookouts whilst the ship is at sea.

甲板水手 - 水手(一級)負責船舶的日常保養, 在海上航行時負責掌舵和瞭望工作。

ENGINE ROOM RATING
機艙水手

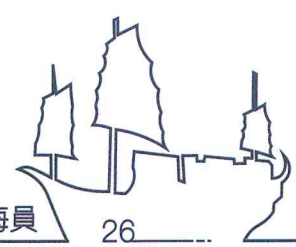
Under the Petty Officer (Motorman) are the engine-room ratings who assist the engineers with machinery upkeep and watchkeeping.

機械高級船員(機工)以下通稱機艙水手, 協助輪機員做好機械保養和當值的工作。

COOKS AND STEWARDS
大廚和服務員

Provide the 'hotel services' vital to the well-being of all onboard.

提供船上至關重要的“酒店”後勤服務。



seafarers 海員

晉升船長途徑 (遠洋船)

Career Path to Master Mariner (Seagoing)

Certificate of Competency (Deck Officer) Class 1 Examination [Master Mariner]

一級(遠洋)甲板部高級船員合格證明書考試 [船長]

Certificate of Competency (Deck Officer) Class 2 Examination [Chief Officer]

二級(遠洋)甲板部高級船員合格證明書考試 [大副]

Certificate of Competency (Deck Officer) Class 3 Examination [Navigational Watch-Keeping Officer]

三級(遠洋)甲板部高級船員合格證明書考試 [二副/三副]

STCW2010 Regulation Training Requirement

STCW2010 規則的培訓要求

1. Personal Safety and Social Responsibilities
個人安全及群居責任
2. Fire Prevention, Fire Fighting and Advanced Fire Fighting (combined)
消防訓練 (基本及高級合併課程)
3. Personal Survival Techniques
個人求生技能
4. Proficiency in Survival and Rescue Boats other than Fast Rescue Boats
救生船隻操作技能 (不包括高速艇)
5. Security Awareness Training for All Seafarers
保安意識訓練 (所有船員)
6. Elementary First Aid and Proficiency in Medical First Aid (Combined)
急救 (基本及醫療技能合併課程)

**18-month sea time applies to those who study the Higher Diploma in Maritime Studies of the Maritime Services Training Institute whereas the 12-month to 36-month sea time applies to those who study the BBA(Hons) in International Shipping and Transport Logistic of the Hong Kong Polytechnic University or other recognised bachelor degree programmes.

**需具18個月海上工作經驗之要求適用於會修讀海事訓練學院海事科技高級文憑的人士，而具12個月至36個月海上工作經驗的則適用於會修讀香港理工大學國際航運及物流管理(榮譽)工商管理學士學位或其它認可學位課程的人士。

24-month sea time
需24個月海上工作經驗

12-month sea time
需12個月海上工作經驗

12-month to 36-month (max. 24-month sea time remission may be granted depending on education and modules taken)
需12個月至36個月海上工作經驗 (視乎受教育程度及選修課程，不超過24個月海上工作經驗)

*Sea time remission granted subject to Department's approval
*海上工作經驗的豁免，須經海事處審批



Maritime Services Training Institute
海事訓練學院
2-year "Higher Diploma in Maritime Studies"
2年制 "海事科技高級文憑"

Entrance Requirements

Five HKDSE subjects at Level 2 or above,
including English Language and Chinese Language;
OR VTC Foundation Diploma (Level 3);
OR VTC Diploma in Vocational Education;
OR Yi Jin Diploma ; OR Equivalent.

入學資格

香港中學文憑考試五科成績達第二級或以上,
包括英國語文及中國語文;
或VTC基礎文憑(級別三);
或VTC中專教育文憑;
或毅進文憑;或同等學歷。

The Hong Kong Polytechnic University
香港理工大學

4-year "BBA (Hons) in International Shipping and Transport Logistics"
4年制 "國際航運及物流管理(榮譽)工商管理學士學位"

Entrance Requirements

General Entrance Requirements for HKDSE students:
Level 3 in English and Chinese Language; and
Level 2 in Mathematics and Liberal Studies; and
Level 3 in 2 other elective subjects
[(can include Extended Modules of Mathematics (M1/M2)]

入學資格

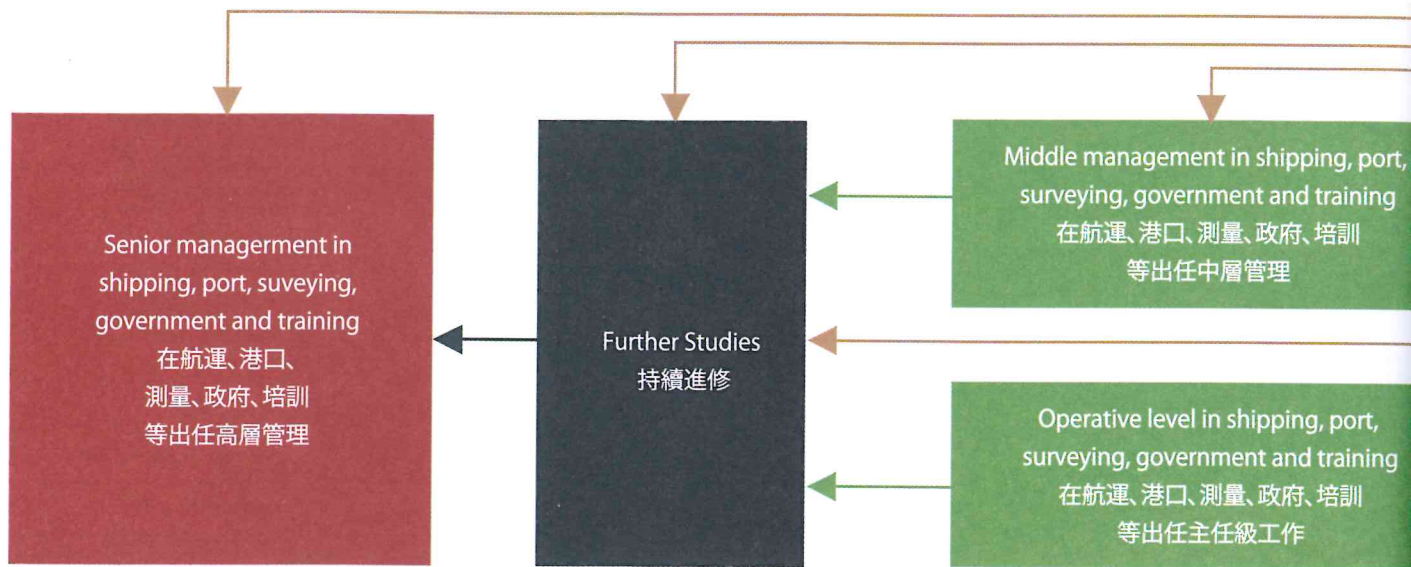
一般中學文憑考生入學資格:
香港中學文憑英國語文及中國語文須達三級或以上;和
數學及通識教育須達第二級或以上;和
兩科其他選修科目須達第三級或以上
[可包括數學延伸部份(單元1/單元2)]



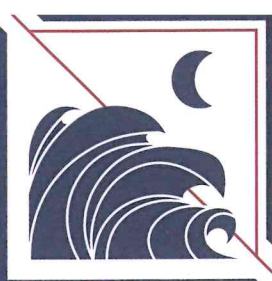
seafarers 海員

甲板部船員岸上事業發展

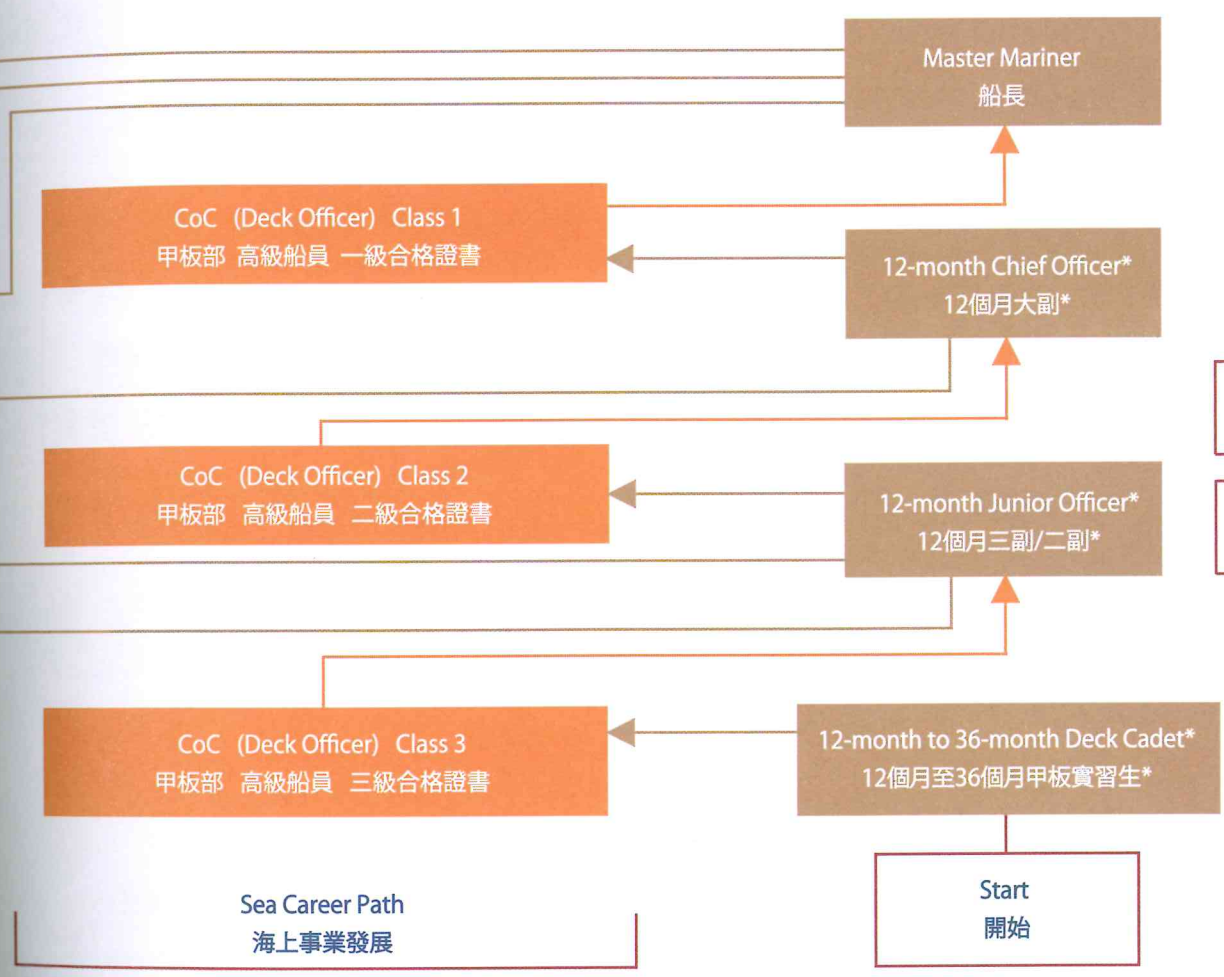
Career Opportunities - Deck



Shore Career Path
岸上事業發展

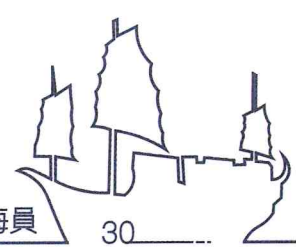


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*Working on sea-going vessels
*在遠洋船工作

CoC =
Certificate of Competence
合格證書



seafarers 海員

晉升輪機長途徑 (遠洋)

Career Path to Chief Marine Engineer (Seagoing)

Certificate of Competency (Marine Engineer Officer) Class 1 Examination [Chief Engineer]

一級(遠洋)輪機部高級船員合格證明書考試 [輪機長/大俾]

Certificate of Competency (Marine Engineer Officer) Class 2 Examination [Second Engineer]

二級(遠洋)輪機部高級船員合格證明書考試 [大管輪/二俾]

Certificate of Competency (Marine Engineer Officer) Class 3 Examination [Engineer Watch-keeping Officer]

三級(遠洋)輪機部高級船員合格證明書考試 [二或三管輪/三或四俾]

STCW2010 Regulation Training Requirement

STCW2010 規則的培訓要求

12-month sea time
需12個月海上工作

1. Personal Safety and Social Responsibilities
個人安全及群居責任
2. Fire Prevention, Fire Fighting and Advanced Fire Fighting (combined)
消防訓練 (基本及高級合併課程)
3. Personal Survival Techniques
個人求生技能
4. Proficiency in Survival and Rescue Boats other than Fast Rescue Boats
救生船隻操作技能 (不包括高速艇)
5. Security Awareness Training for All Seafarers
保安意識訓練 (所有船員)
6. Elementary First Aid and Proficiency in Medical First Aid (Combined)
急救 (基本及醫療技能合併課程)

*Sea time remission might be granted
subject to Marine Department's approval
*海上工作經驗的寬減需通過海事處審批



Hong Kong Institute of Vocational Education
香港專業教育學院

2-year "Higher Diploma in Mechanical Engineering"
(Marine Elective: Marine Engineering Knowledge & Applied Thermal Fluids)
2年制 "機械工程學高級文憑"(選修輪機工程及應用熱流體力學)

Entrance Requirements

Five HKDSE subjects at Level 2 or above,
including English Language and Chinese Language;
OR VTC Foundation Diploma (Level 3);
OR VTC Diploma in Vocational Education;
OR Yi Jin Diploma ; OR Equivalent.

入學資格

香港中學文憑考試五科成績達第二級或以上,
包括英國語文及中國語文;
或VTC基礎文憑(級別三);
或VTC中專教育文憑;
或毅進文憑;或同等學歷。

HKU / PolyU / HKUST

香港大學 / 香港理工大學 / 香港科技大學
4-year "BEng (Hons) in Mechanical Engineering"
4年制 "機械工程學(榮譽)工學士學位"

Entrance Requirements

General Entrance Requirements for HKDSE students:
Level 3 in English and Chinese Language; and
Level 2 in Mathematics and Liberal Studies; and
Level 3 in 2 other elective subjects
[(can include Extended Modules of Mathematics (M1/M2)]

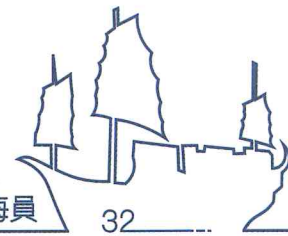
入學資格

一般中學文憑考生入學資格:
香港中學文憑英國語文及中國語文須達三級或以上;和
數學及通識教育須達第二級或以上;和
兩科其他選修科目須達第三級或以上
[可包括數學延伸部份(單元1/單元2)]

For other entrance qualifications, please visit website of individual university:

其他認可入學資格, 請瀏覽各大學的網頁:

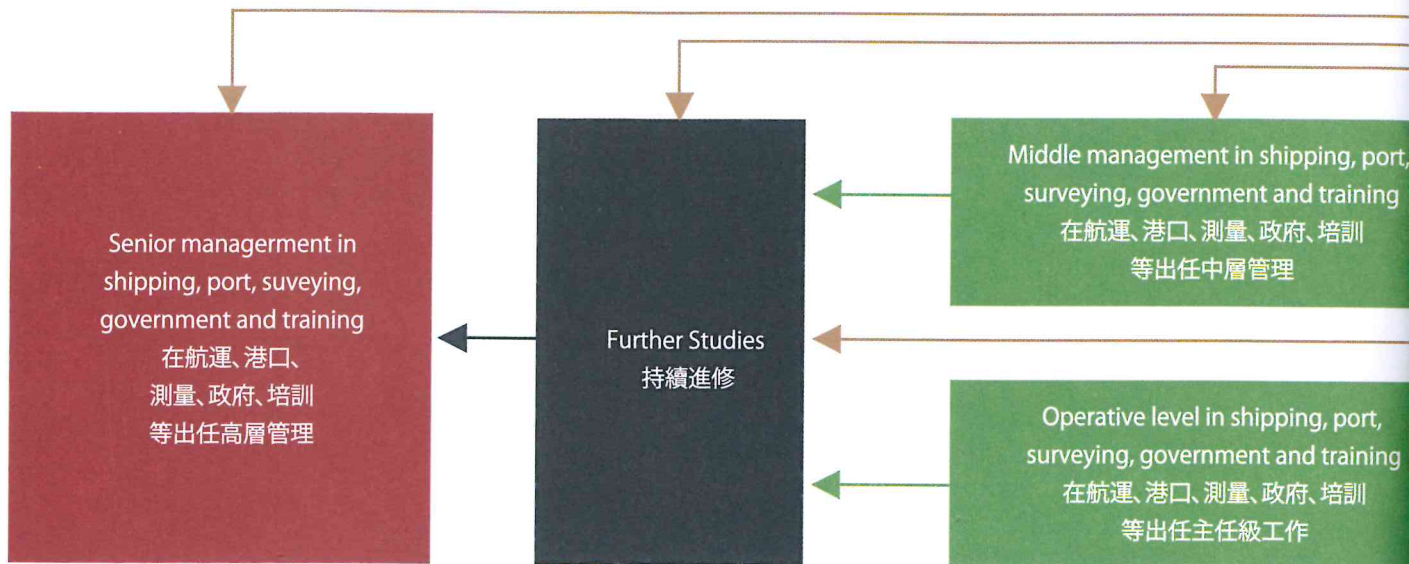
www.hku.hk, www.polyu.edu.hk, www.ust.hk



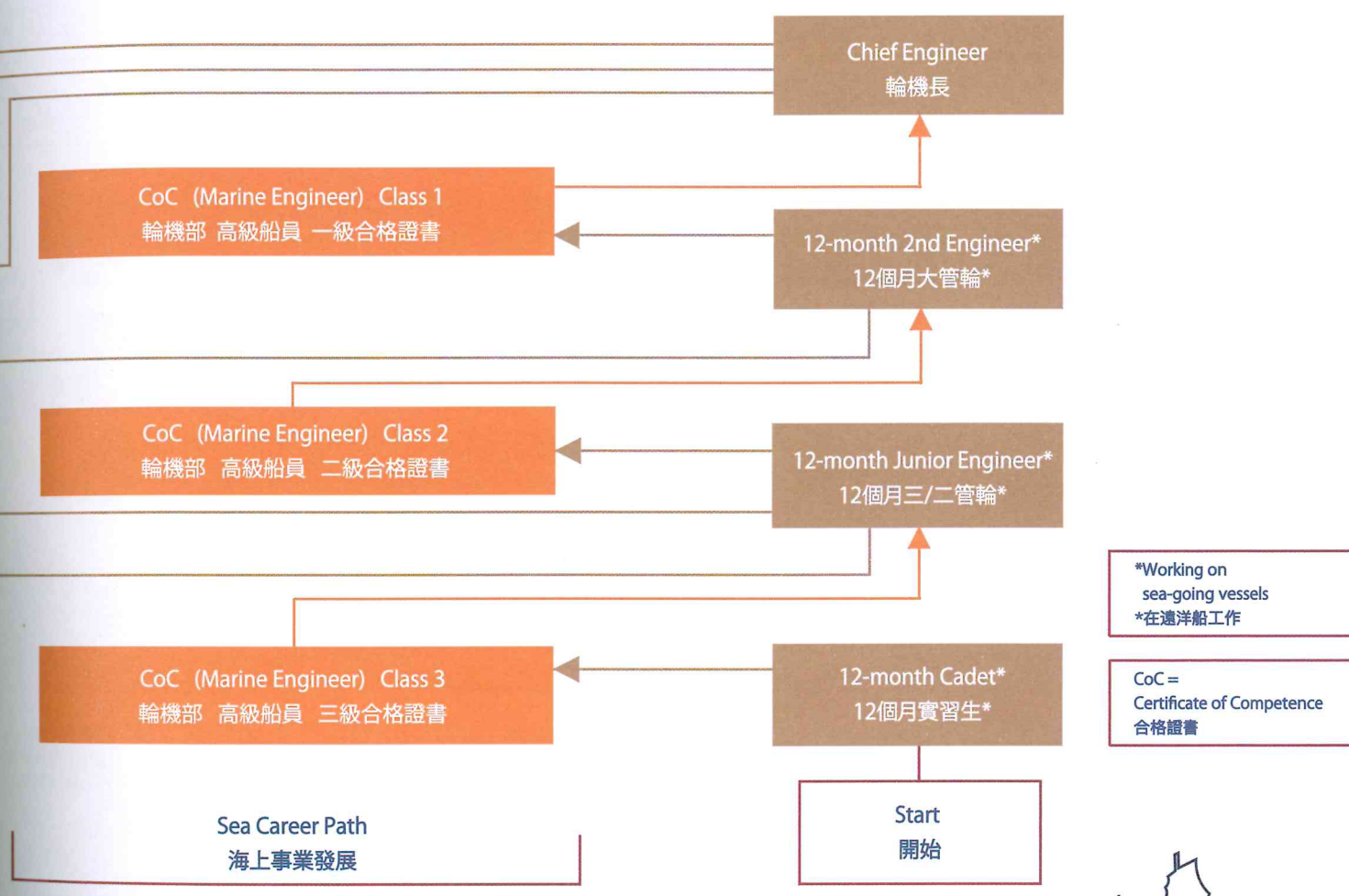
seafarers 海員

輪機部高級船員岸上事業發展

Career Opportunities - Engineer

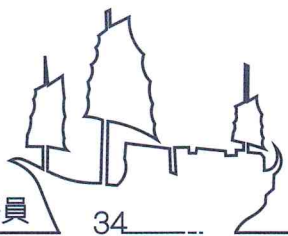


Shore Career Path
岸上事業發展



*Working on sea-going vessels
*在遠洋船工作

CoC =
Certificate of Competence
合格證書



晉升船長途徑 (內河船)

Career Path to Master Mariner (River Trade)



36- to 48-month experience in River Trade
with 500 hours of bridge watch-keeping duties
需36至48個月內河船上工作經驗
包括500小時航行值班

Maritime Services Training Institute
職業訓練局 海事訓練學院
23 weeks "Certificate for Junior General Purpose Ratings"
23週 "初級全能海員證書"

Entrance Requirements

Hong Kong permanent resident, lawfully employable in Hong Kong, secondary 3 or above, above 16.5 years of age, and able to pass an interview and simple eye sight and colour blindness tests.

入學資格

香港居民, 可在香港合法受僱, 具中三或以上程度, 年齡屆滿16歲半, 和通過面試及一項簡單的視力和色盲測試。

Maritime Services Training Institute
海事訓練學院
2-year "Higher Diploma in Maritime Studies"
2年制 "海事科技高級文憑"

Entrance Requirements

Five HKDSE subjects at Level 2 or above, including English Language and Chinese Language; OR VTC Foundation Diploma (Level 3); OR VTC Diploma in Vocational Education; OR Yi Jin Diploma; OR Equivalent.

入學資格

香港中學文憑考試五科成績達第二級或以上, 包括英國語文及中國語文; 或VTC基礎文憑(級別三); 或VTC中專教育文憑; 或毅進文憑; 或同等學歷。

The Hong Kong Polytechnic University
香港理工大學

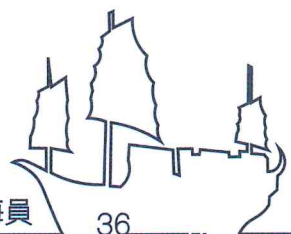
4-year "BBA (Hons) in International Shipping and Transport Logistics"
4年制 "國際航運及物流管理(榮譽)工商管理學士學位"

Entrance Requirements

General Entrance Requirements for HKDSE students:
Level 3 in English and Chinese Language; and
Level 2 in Mathematics and Liberal Studies; and
Level 3 in 2 other elective subjects
[[can include Extended Modules of Mathematics (M1/M2)]

入學資格

一般中學文憑考生入學資格:
香港中學文憑英國語文及中國語文須達三級或以上; 和
數學及通識教育須達第二級或以上; 和
兩科其他選修科目須達第三級或以上
[可包括數學延伸部份(單元1/單元2)]



seafarers 海員

晉升輪機長途徑 (內河船)

Career Path to Chief Marine Engineer (River Trade)

The holder of a Class 2 Certificate of Competency (Marine Engineer Officer) (River Trade) is eligible to become the engineer officer in charge of a river trade high speed passenger craft plying between Hong Kong and Macau.

擁有二級(內河)輪機師合格證書的人,有資格成為負責香港和澳門之間往返內河的高速客船的機房主管。

Certificate of Competency (Marine Engineer Officer) (River Trade) Class 1 Examination [Chief Engineer]

一級(內河)輪機部高級船員合格證明書考試 [輪機長/大俾]

Certificate of Competency (Marine Engineer Officer) (River Trade) Class 2 Examination [Second Engineer]

二級(內河)輪機部高級船員合格證明書考試 [大管輪/二俾]

Certificate of Competency (Marine Engineer Officer) (River Trade) Class 3 Examination [Watch-keeping Officer]

三級(內河)輪機部高級船員合格證明書考試 [二或三管輪/三或四俾]

STCW2010 Regulation Training Requirement

STCW2010 規則的培訓要求

6-month sea time
需6個月海上工作經驗

*Depending on engine power of vessels served, sea time remission might be granted by Marine Department
*海事處會因應所服務船隻的馬力審批海上工作經驗的寬減

1. Personal Safety and Social Responsibilities
個人安全及群居責任
2. Fire Prevention, Fire Fighting and Advanced Fire Fighting (combined)
消防訓練 (基本及高級合併課程)
3. Personal Survival Techniques
個人求生技能
4. Proficiency in Survival and Rescue Boats other than Fast Rescue Boats
救生船隻操作技能 (不包括高速艇)
5. Elementary First Aid and Proficiency in Medical First Aid (Combined)
急救 (基本及醫療技能合併課程)

12/24-month sea time
需12/24個月海上工作

12-month sea time
需12個月海上工作

To qualify for the issue of a Certificate of Competency (Marine Engineer Officer) (River Trade) Class 3, a candidate must :

- (a) be of not less than 18 years of age;
- (b) have received basic education to the standard of Form 3 or equivalent;
- (c) (i) have at least two years of acceptable technical education and practical training of suitable quality standard, which are relevant to the duties of a marine engineer, and qualifying sea service as an assistant engineer of at least six months; or
(ii) have served at least two and a half years as oiler or assistant fitter in a seagoing ship; or
(iii) hold a Local Certificate of Competency as engineer for machinery over 150 BHP or an equivalent local certificate of competency.
- (d) have completed approval STCW training courses; and
- (e) pass the examination.

要獲發三級(輪機師)(內河航行)適任證書, 考生必須:

- (a) 不少於18歲;
- (b) 完成中三或同等程度的基本教育;
- (c) (i) 有至少兩年與輪機員職務相關認可的工業教育和適當的實習訓練, 以及有至少有六個月擔任內河助理輪機師的經驗; 或
(ii) 在遠洋船上擔任加油工或輪機打磨匠至少2½年; 或
(iii) 持有輪機員本地合格證明書(150匹制動馬力以上)或同等的本地合格證明書。
- (d) 完成認可的STCW培訓; 和
- (e) 通過考試。

Hong Kong Institute of Vocational Education

香港專業教育學院

2-year "Higher Diploma in Mechanical Engineering"

(Marine Elective: Marine Engineering Knowledge & Applied Thermal Fluids)

2年制“機械工程學高級文憑”(選修輪機工程及應用熱流體力學)

Entrance Requirements

Five HKDSE subjects at Level 2 or above, including English Language and Chinese Language; OR VTC Foundation Diploma (Level 3); OR VTC Diploma in Vocational Education; OR Yi Jin Diploma; OR Equivalent.

入學資格

香港中學文憑考試五科成績達第二級或以上, 包括英國語文及中國語文; 或VTC基礎文憑(級別三); 或VTC中專教育文憑; 或毅進文憑; 或同等學歷。

HKU / PolyU / HKUST / CityU

香港大學 / 香港理工大學 / 香港科技大學 / 香港城市大學

4-year "BEng (Hons) in Mechanical Engineering"

4年制“機械工程學(榮譽)工學士學位”

Entrance Requirements

General Entrance Requirements for HKDSE students:
Level 3 in English and Chinese Language; and
Level 2 in Mathematics and Liberal Studies; and
Level 3 in 2 other elective subjects
[(can include Extended Modules of Mathematics (M1/M2)]

入學資格

一般中學文憑考生入學資格:
香港中學文憑英國語文及中國語文須達三級或以上; 和
數學及通識教育須達第二級或以上; 和
兩科其他選修科目須達第三級或以上
[可包括數學延伸部份(單元1/單元2)]

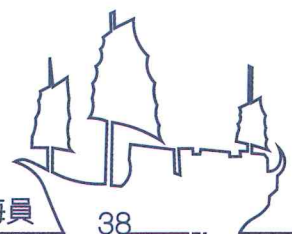
For other entrance qualifications, please visit website of individual university:

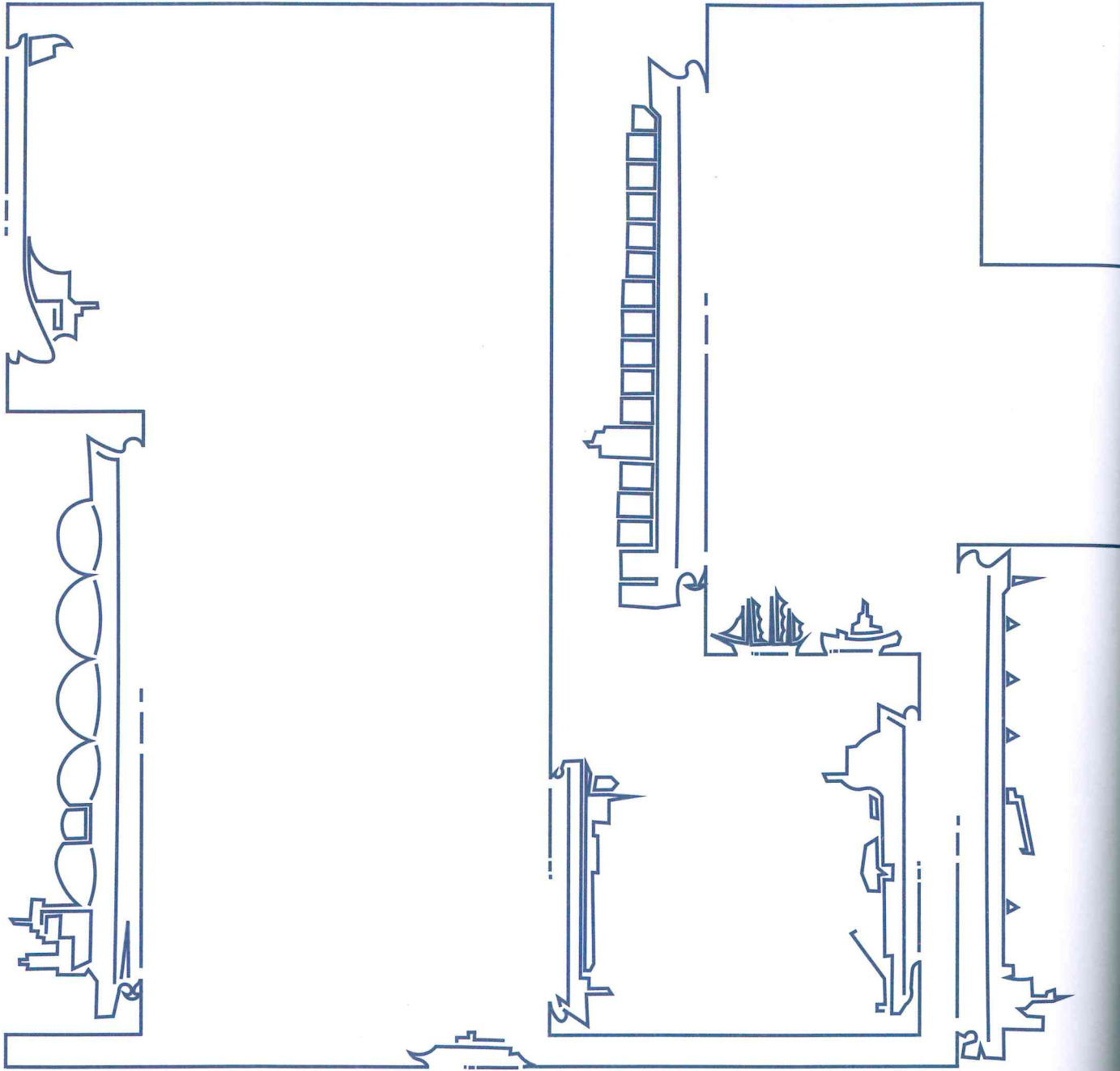
其他認可入學資格, 請瀏覽各大學的網頁:

www.hku.hk, www.polyu.edu.hk, www.ust.hk, www.cityu.edu.hk

SEAFARERS . 海員

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maritime
fleet

CHAPTER THREE

海事
船隊

第三章

maritime fleet 海事船隊

船型

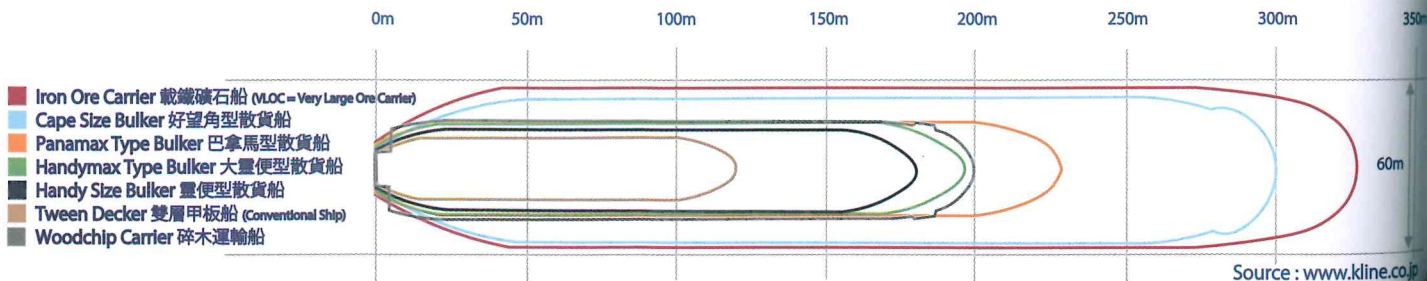
Ship Types

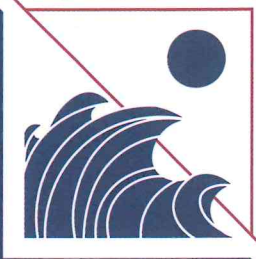
BULK CARRIERS

Bulkcarriers are ships which carry Bulk Cargo, ie Grains, Beans, Sugar, Salt, Sulphur, Coal, Bauxite, Iron Ore, Cement, Timber and Steel products, etc. There are many different sizes of bulk carriers for different cargoes and trades. The Handysize, Handymax and Supermax ships generally carry steel and timber products, grains, beans, sugar, salt and sulphur, and cargo is generally loaded and discharged using ship's deck cranes. Panamax and Post Panamax ships generally only carry coal, grains and beans while Capesize ships carry Coal and Iron ore and VLOC's only carry iron ore, which are all loaded and discharged using specialized shore loaders.

散貨船

散貨船是指運輸散裝貨物(如:穀物、大豆、糖、鹽、硫磺、煤、鋁土礦、鐵礦石、水泥、木材和鋼材等)的船舶。不同的貨物和運輸任務由不同的大小不一的散貨船承運。小靈便型、大靈便型和超大型船舶一般運載鋼材和木材製品、穀物、糖、鹽和硫磺。貨物一般採用船上吊機裝卸。巴拿馬型和超巴拿馬型船舶通常只載運煤炭、穀物和大豆,海岬型船舶則載運煤炭和鐵礦石,而超大型礦石船則只載運鐵礦石,這些礦石都是用專門的岸上吊機裝卸的。

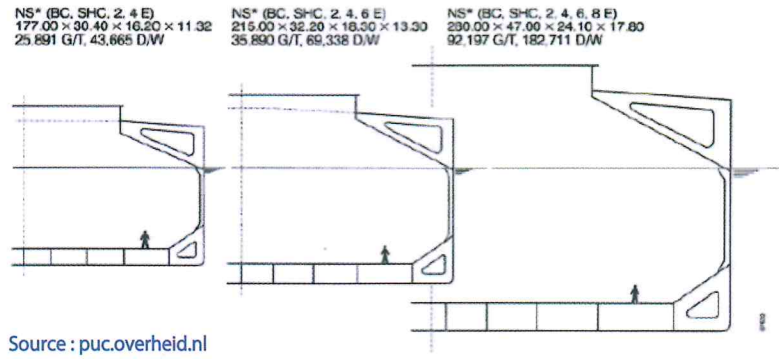




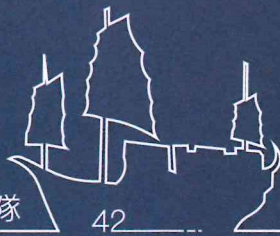
Source : Marine Gyaan

Typical cargo hold cross sections of Handysize, Panamax and Capesize ships:

典型的靈便型、巴拿馬型、好望角型船貨艙橫截面：



Source : puc.overheid.nl



maritime fleet

海事船隊

船型

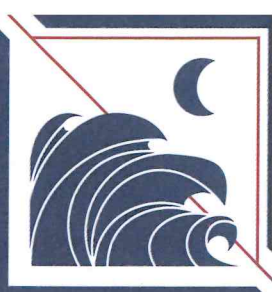
Ship Types

TANKERS

Tankers are ships which only carry liquid oil cargos. In small to medium size tankers, different oil products are stored in a number of separate tanks allowing different grades to be carried. Some tanks may have heating coils to control the carrying temperature. Tankers have powerful cargo pumps for discharge to reduce time in port. Like bulkcarriers, there are many different size tankers. Each type is designed to carry a specific cargo on a particular trade. Refined oil products, petrol, diesel, kerosene, and lubricating oils are carried in smaller ships ranging in size from 10,000dwt to 45,000dwt. The refined products of naphtha, pitch, petcoke and fuel oils are carried in the larger ships from 45,000dwt to 160,000dwt. Crude oil is shipped in the VLCC and ULCC tankers.

油輪

油輪是只運輸液體油貨的船舶，儲存在多個獨立的油艙中，可以運輸不同等級的油貨。有些油艙有加熱設施來控制運輸溫度。油輪配有強大的油泵，可加快卸貨速度，縮短在港時間。與散貨船一樣，油輪也有大小不同的類型。各類油輪都是為特定運輸任務和特定貨物而設計的，如下圖所示。汽油、柴油、煤油和潤滑油等成品油通常由1萬噸至4.5萬噸的小型油輪承運。而石腦油、瀝青、活塞油和燃料油的精煉成品油由4.5萬噸至16萬噸的大型油輪承運。原油用超大型油輪和特超大型油輪承運。



CARGO TYPE
貨物類型

VESSEL CLASS AND CAPACITY ('000MT DWT)
船級和載貨量

Refined Products
精練油產品

GP (General Purpose) 10 - 25 DWT 通用型油輪

MR (Medium Range) 25 - 45 DWT 中程油輪

LR1 (Long Range 1) 45 - 80 DWT 遠程油輪I型

Refined Products
or Crude Oil
精練油產品或原油

AFRA (AFRAMAX) 80 - 120 DWT 阿芙拉型油輪

LR2 (Long Range 2) 120 - 160 DWT 遠程油輪II型

Crude Oil
原油

VLCC (Very Large Crude Carrier) 160 - 320 DWT 大型油輪

ULCC (Ultra-Large Crude Carrier) 320 - 550 DWT 超大型油輪

Source : EIA (U.S. Energy Information Administration, London Tanker Broker Panel)

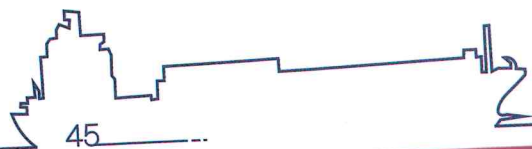


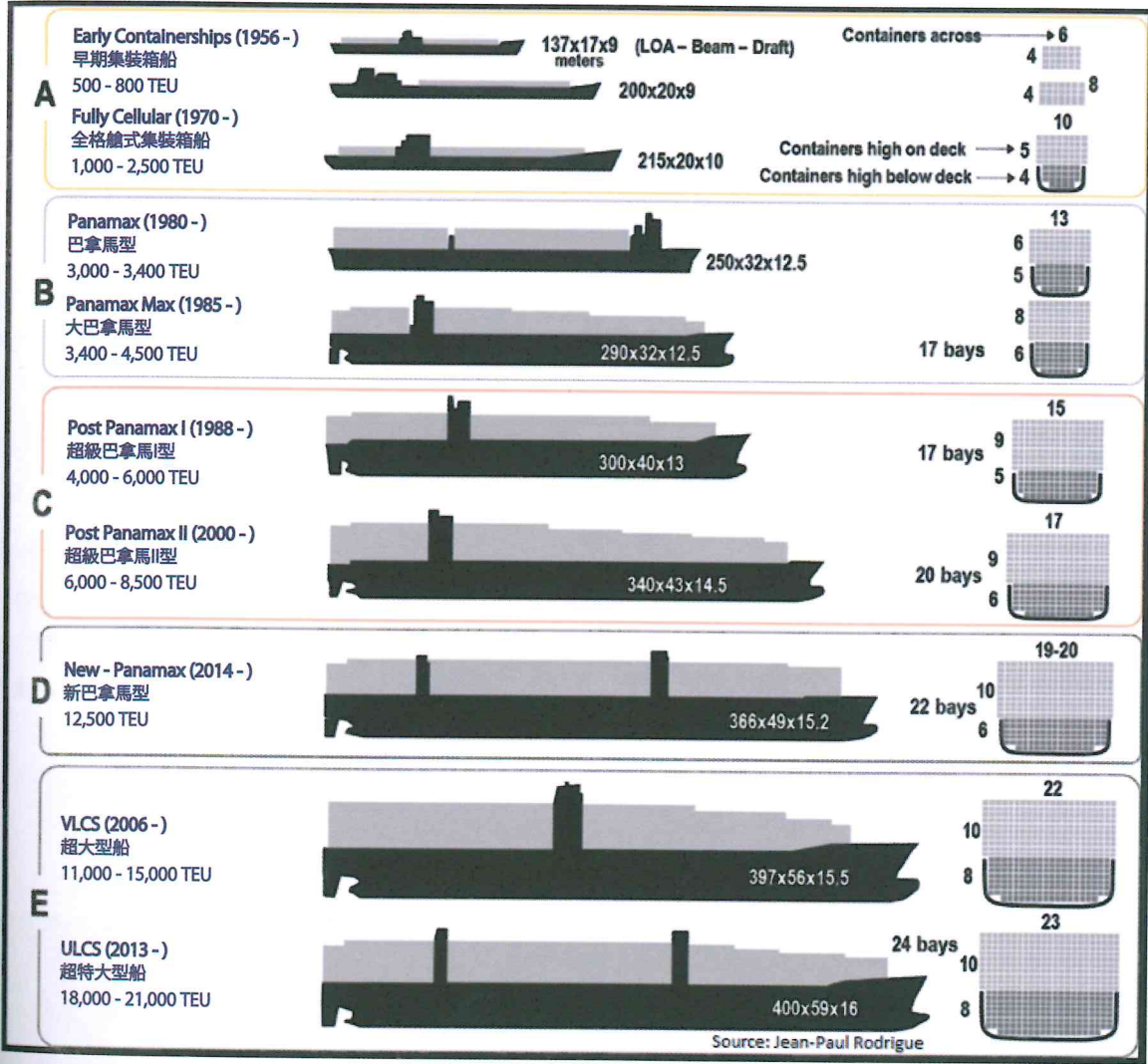
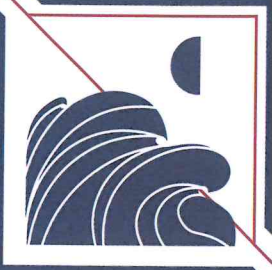
CONTAINER SHIPS

Container ships are specifically designed to carry containers which are generally loaded and discharged using specialist shore container cranes, although many smaller feeder ships, under 3000teu, are fitted with ships cranes for use at ports without them. The cargo carried in containers is generally consumer products that are sold in shops and vary enormously. Food products tend to be carried in refrigerated containers while other goods are shipped in dry containers. The size of a container ship is designated by the number of TEU, twenty foot equivalent units, although, today most containers are forty feet, FEU. Containers are secured against movement in cargo holds by cellguides but on deck, with no cellguides, they are held together using twistlocks placed in the 4 corners of each container and lashed to the hatchcovers using steel rods and turnbuckles. The growth of containers and container ships has closely tracked world GDP for over 50 years. Due to globalization container ship sizes have steadily increased over the last 60 years as shown below. The large ships operate on long trades, ie Asia to Europe or to the USA only calling at hub ports, while local trades rely on smaller geared feeder ships to deliver containers to and from smaller regional ports.

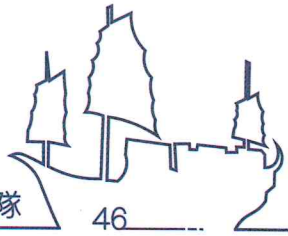
集裝箱船

集裝箱船是專門設計用來運輸集裝箱的。它們通常使用專業的岸邊集裝箱吊機裝卸，但許多小於3000標箱的小型支線船都裝有船用起重機，供在沒有吊機的港口使用。集裝箱運輸的貨物一般是在商店裡出售的消費品，貨物種類繁多。食品往往用冷藏集裝箱運輸，而其他貨物則用乾燥的集裝箱運輸。雖然現今大多數集裝箱都是40英尺，但是集裝箱船的大小，是以該船能裝載多少20英尺標準箱來計算。集裝箱在貨艙內由艙室導軌固定，以防移動，但在沒有艙室導軌的甲板上，它們是用扭鎖固定在一起的，扭鎖設在每個集裝箱的四個角落，並用鋼條和螺絲扣綁在艙蓋上。50多年來，集裝箱和集裝箱船的增長一直緊跟世界GDP的增長步伐。由於全球化的原因，集裝箱船的尺寸在過去60年中穩步增加，如下圖所示。大型船舶用於長途運輸，即亞洲到歐洲或美國的樞紐港口，而本地運輸則依靠小型帶吊機的支線集裝箱船在較小的區域港口運送集裝箱。





Source: Jean-Paul Rodrigue



maritime fleet 海事船隊

船型

Ship Types

OTHER SHIP TYPES

Bulkcarriers, Tankers and Containerships make up around 80% of international shipping. Other significant ship types are, Passenger Ships, Gas Carriers, Multipurpose Cargo Liners, Car and Truck Carriers, Chemical, Juice and Cement Carriers, Fishing vessels and Specialist Offshore Oil Industry Supply, Anchor Handling and Heavy Lift Vessels.

COMPARISON OF SHIP SIZES

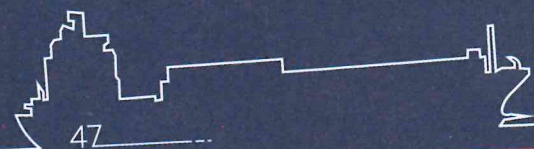
Ships have continued to increase in size to maximize economies of scale as freight rates have generally fallen over time. Note the relative size of the largest, ULCC Tanker, 4 million Barrels, compared to a 20,000 teu Container Ship, 400,000 dwt Iron Ore Bulkcarrier, and 6000 person Passenger Ship scaled against one of the world's largest nuclear powered Aircraft Carriers.

其他船型

散貨船、油輪和集裝箱船約佔國際航運的80%。其他主要的船型有客船、天然氣運輸船、多用途貨物班輪、汽車和卡車運輸船、化學品、果汁和水泥運輸船、漁船和專業海上石油供應船、拋錨船和重型起重船。

船舶尺寸比較

由於運費普遍下降，現在的船舶規模正不斷擴大來實現規模經濟的最大化。下圖是世界上最大的400萬桶級的超大型油輪(ULCC)，與2萬標箱的集裝箱船、40萬噸級的鐵礦石散貨船和6000人級的客輪以及世界上最大的核動力航空母艦的比較圖。

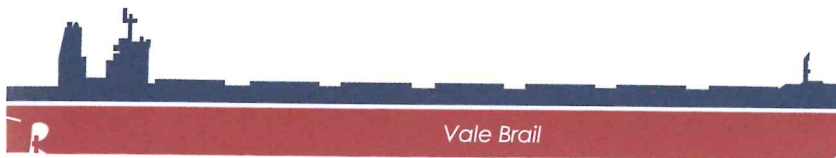




Oil Tanker 油輪
458m (1503 ft)



Container Ship 集裝箱船
399m (1309 ft)



Bulk Carrier 散貨船
362m (1188 ft)

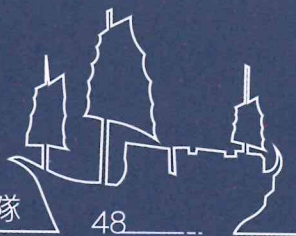


Passenger Ship 客船
360m (1181 ft)



Aircraft Carrier 航空母艦
341m (1119 ft)

Source : Wikipedia



maritime fleet 海事船隊

運河的影響

The Impact of Canals

Ships trade worldwide but there are restrictions on the ship size which can safely pass through the Suez and Panama canals, either fully laden or in ballast. The Panama Canal recently opened new locks allowing ships up to 366m long, with maximum 51m beam and 15.2m draft to pass through.

The largest ships that can pass through the Suez Canal cannot be longer than 400m with a maximum 56m beam, and 20.1m draft and air draft of 68m from waterline to the top of the mast. All tankers up to LR2 can pass safely through the Suez and Panama canals fully laden but a VLCC can only pass the Suez Canal in ballast but are too wide to pass through the Panama Canal.

船舶在世界範圍內航行，但蘇伊士運河和巴拿馬運河對通過運河的滿載和空載船舶有尺寸方面的限制。巴拿馬運河最近啓用了新的船閘，現在允許長366米、寬51米、吃水多至15.2米的船舶通過。

能夠通過蘇伊士運河的船舶不能超過400米長度，56米的寬度、20.1米的吃水以及從水線到桅桿頂部68米的高度。所有的LR2級油輪都可以滿載通過蘇伊士運河和巴拿馬運河，但超大型油輪只能空載通過蘇伊士運河，由於超寬而不能通過巴拿馬運河。

maritime
business

CHAPTER FOUR

航
運
業
務

第四章

maritime business 航運業務

船東

Shipowning

Within a modern shipowner's office, a wide range of functions are provided to ensure the smooth operation of a fleet. Whilst many shipowners utilize the services of third party managers, many carry out all technical functions 'in-house', involving technical, crewing and insurance personnel. Even when owners out-source their technical management to third party managers, they may continue to employ their own technical superintendents to monitor their fleet.

Larger shipowners and charterers also employ their own in-house counsel to provide legal services and liaise with other law firms carrying out work on their behalf, whilst finance, accountancy and treasury functions are also an integral part of a shipowning company and provide the point of reference for the ship finance industry.

現今船東公司擁有多種功能, 確保船隊的正常營運。雖然有不少船東聘用第三方管理公司的服務, 但是仍有很多船東親自經營船隊, 處理技術、船員和保險各方面的日常管理。即使船東外聘技術管理團隊, 還是會僱用自己公司的技術總管監督船隊。

較大的船東和租家也會聘請自己的法律顧問, 提供法律諮詢並與外部律師行合作完成本職工作。同時, 融資、會計和財政部門也是船東公司不可或缺的部分, 並且能夠為船舶融資提供參考。





Whilst an individual shipowner will decide on strategy and investment, he will invariably have a commercial department to develop new business and handle the operations of the fleet, effectively an in-house shipbroking division. The commercial department will liaise with shipbrokers and charterers to ensure that all the commercial aspects of a shipowner's business are carried out smoothly.

In such a capital intensive industry, the finance function of the shipowner is critical: both in managing payments and handling accounts, and ensuring that the most suitable and competitive financing of the fleet is in place.

Hong Kong is home to one of the world's most vibrant and respected shipowning communities. Many shipowners are household names who have been established for over half a century, whilst the strength of Hong Kong's maritime services make the SAR an increasingly attractive home to new shipowning companies. The Hong Kong Shipowners Association is a globally respected organization who for over sixty years has represented the interests of the shipping community.

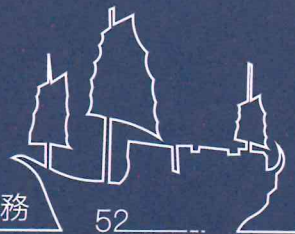
In effect, a shipowner's office is a maritime cluster in itself, but relies on and works together with the other sectors of the shipping community to ensure this vital component of world trade continues to run effectively.

雖然個別船東會親自決定公司的策略和投資方向,但總要有一個商務部門來開拓新業務和處理船隊的日常經營,就好像一個行之有效的內部船舶經紀部門。商務部門與船舶經紀與租家聯繫,確保船東的商務能順利進行。

在這個資本密集的航運業,船東的財務功能(支付管理和帳戶處理)十分重要,保證船隊能以最適和最具競爭力的融資方式下經營。

香港是世界最有活力和極受尊崇船東團體的家。許多船東都是在香港經營超過半個世紀的著名家族企業。憑藉香港航運服務的優勢,不斷吸引新的航運公司在這裡建立家園。香港船東會是個備受全球尊敬的機構,六十多年來一直為航運業爭取利益。

事實上,船東公司本身就是一個航運集群,但仍需與航運業的其他界別合作,才能使這個世界貿易最重要的部分持續有效運作。



maritime business 航運業務

船舶管理

Shipmanagement

Whilst a shipowner's commercial department will source employment for a ship, the day to day operation of the ship, including supplying crew, stores, ensuring compliance with international regulations and supervising drydocking and maintenance, will be carried out by a shipmanager. Many shipowners carry out this function internally, but there is a substantial industry of third party shipmanagers who take on this role for shipowners. Shipowners then benefit from the economies of scale provided by being part of a larger fleet and by being able to out-source their technical functions to a larger organization. To meet the increasing regulatory and technical demands of the shipping industry, shipmanagement companies invest heavily in training and information technology, with all the leading shipmanagers having their own training establishments in the major centres for the supply of ships' crews.

雖然船東的商務部門會為船舶尋找業務，但是船舶的日常經營，包括船員配備、物資供應、確保符合有關國際法規及監督塢修和保養，會交給船舶管理公司負責。很多船東公司會把這些工作交給內部部門處理，但是業內仍有不少船東將此外判。船舶管理的外判因具有集群效應而可使船東坐享規模經濟的效益。船舶管理公司為了滿足航運業日益增多的法規和技術要求，須要投放大量資源在培訓和資訊技術上。所以，全球的大型船舶管理公司在主要船員供應中心都設有培訓設施。





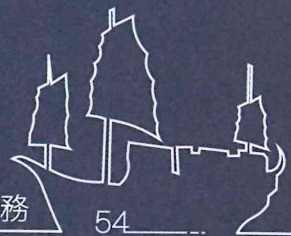
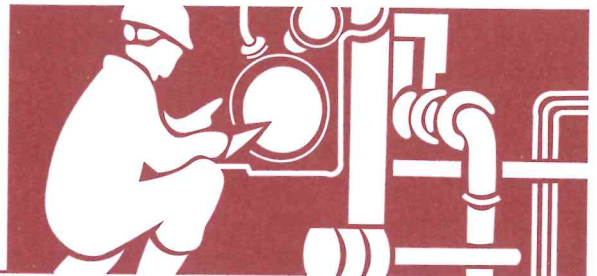
Shipmanagement companies provide careers in a wide range of shipping functions. In addition to the technical department which oversees all aspects of the day to day operations of the ships under management, shipmanagers have departments covering crewing, which deal with the recruitment, training and ongoing human resources management of seafarers; travel department, which manage the global relocation and visa requirements for ship's crew; and insurance and claims departments covering all aspects of marine insurance. Further, shipmanagers undertake all the accounting functions of running a ship and also employ staff to market the role of the Shipmanagement company. Some of the larger Shipmanagement companies employ naval architects and superintendents who are involved in the design and construction supervision of new ships for customers as well as the selection of shipyards.

Hong Kong is acknowledged as a global leader in the provision of third party Shipmanagement services.



船舶管理公司提供各種與船舶相關的就業機會。除了負責監督船舶日常運營的技術部外，還設有船員事務部，負責海員的招聘、培訓和人力資源管理；旅遊部，負責管理船員的全球旅遊和簽證需求；以及保險及理賠部，負責全部有關海上保險的安排等。此外，船舶管理公司也兼顧船舶的財務工作，及聘用推廣其公司的市場人員。某些大型船舶管理公司還會僱用造船師和機務總管，參與新船設計和監督建造，以及挑選船廠。

香港被公認為全球提供第三方船舶管理服務的領導者。



maritime business 航運業務

船舶經紀

Shipbroking

Shipbroking is the front line of commercial shipping, connecting the parties involved in finding employment for ships and in the sale and purchase of ships.

Shipbroking has been traditionally involved in two main disciplines - chartering and ship sale and purchase. A chartering broker sources employment for a ship on behalf of a shipowner, or when acting for a charterer or cargo interest, looks for the best ship to perform a particular voyage or longer term charter. A ship sale and purchase broker is involved in the global market for buying and selling ships for trading. The broker also acts for shipbuilders and buyers for acquisition of newbuilding ships and for scrapyards and sellers for demolition of aged ships.

The ability to source and analyse information and keep close relationships with customers is the key to being a successful shipbroker. In an industry where markets fluctuate constantly, interpreting trends and developments in both the shipping industry and the global economy are vital. An important part of the shipbroker's job is providing market analysis and research to customers, along with an up-to-the minute provision of opportunities in all shipping markets.

船舶經紀是商貿航運的前線，為船舶提供租船和買賣服務。

船舶經紀傳統上涉及兩個主要領域——租船和買賣船。租船經紀代表船東為船舶尋找生意。如果代表租家或貨主，為他們尋找最適合的船舶完成某個航次或長期的租約。船舶買賣經紀則在國際市場上買賣船舶以作經營之用。亦有為買家與船廠商訂訂購新船，或為賣家與拆船廠洽談拆除舊船。

成功的船舶經紀應具備尋找和分析資訊的能力和能與客人保持緊密關係的能力。像航運業這個萬變的行業，分析航運市場和全球經濟趨勢和發展是非常重要的。船舶經紀主要的工作，就是為客戶提供市場分析和研究，洞察航運市場的即時商機。

Whilst the shipbroker is not involved in the technical aspects of ship operation, knowledge of all aspects of the shipping industry is required. Having agreed the charter rate (or freight) or price for the ship, the shipbroker is then involved in the drafting and preparation of the contract, whether a charter party when a ship is hired to carry cargo on time charter or voyage charter basis or a Memorandum of Agreement (MOA) for when a ship is sold, or a Shipbuilding Contract for a new ship ordered, a demolition contract for a ship scrapped. The shipbroker is then involved in ensuring that voyage instructions are provided for trading ship, hire (on time charter) or freight (on voyage charter) is paid on time, documents are drafted correctly and all other aspects required to ensure that the transactions are completed smoothly.

Due to sophisticated shipping markets, a product has been developed for trading shipping derivatives, known as Forward Freight Agreements, which are used as a risk management tool by cargo interests and shipowners. Most major shipbroking companies now have specialist teams of derivatives brokers.

Hong Kong is home to the Asian offices of many of the world's largest shipbrokers, as well as having a vibrant group of independent, locally based brokers in what remains a highly individual and entrepreneurial profession.

雖然船舶經紀並不介入船舶營運的技術層面，但是航運知識對於船舶經紀來說也是必須的。在談妥租金(或運費)和船舶價格後，船舶經紀下一步就是要介入起草合約。如果租出船舶運輸貨物就是租約(期租或程租)，如果賣出船舶就是買賣合同，購買新船是造船合約，拆除舊船是拆船合同。然後船舶經紀需確保航次指令得到貫徹執行、租金(期租)或運費(程租)按時支付、有關文件正確起草以及有關業務順利完成。

隨著航運市場複雜化，貿易航運衍生市場應運而生，即：遠期運價協議，被貨方和船東用作風險管理的工具。許多主要的船舶經紀公司現在都有衍生經紀的專家隊伍，提供服務。

世界許多大型船舶經紀公司在香港設有亞洲辦事處，有一批獨立的、本地船舶經紀活躍在這個高度個人化和企業化的專業。



maritime business 航運業務

海運保險

Marine Insurance

Insurance and risk management underpin the maritime industry and all ships must be adequately insured before they are allowed to set sail. Hong Kong is a leading centre of marine insurance.

Insurance brokers act for the buyers of marine insurance and assist in identifying the risks which need to be insured against and then obtaining the most suitable insurance coverage for the buyer. In addition, insurance brokers often provide ongoing services to the client in an ever-changing market (such as assistance with claims).

Marine insurance broadly falls into four categories:

- 1) Hull and Machinery insurance, which insures against physical loss and damage to the insured ship;
- 2) Liability insurance, which insures ship owners and operators against liabilities;
- 3) War Risks insurance, which covers risks excluded by 1) and 2);
- 4) Cargo insurance, which covers loss of or damage to cargo carried and is often purchased by the owners of the cargo.

保險和風險管理是海運業的後盾，所有船舶必須得到足夠的投保才獲准航行。香港是主要的海運保險中心。

海運保險經紀代表投保方，分析面臨的風險，為投保人從保險市場上選取最合適的風險保障。另外，市場瞬息萬變，保險經紀會持續更新，為客戶服務（例如協辦保險索賠）。

海上保險大致分為四大類：

- 1) 船體和機械保險，為受保船舶的實際滅失提供保險；
- 2) 責任保險，為船東和經營者承保責任風險；
- 3) 戰爭險保險，承保1)和2)保險內不承保的風險；
- 4) 貨物保險，承保所載貨物的滅失，通常由貨主購買。



Hull and Machinery insurance is the oldest form of insurance. An underwriter assesses the risk and agrees, through negotiation with the broker, what premium is required to insure the ship. Many aspects are taken into consideration – such as the age of the ship, the previous record of claims made by the insurance buyer, and the trades that the ship will be employed in.

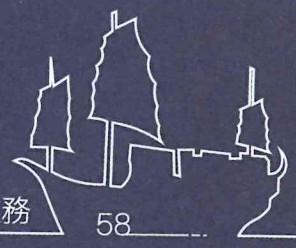
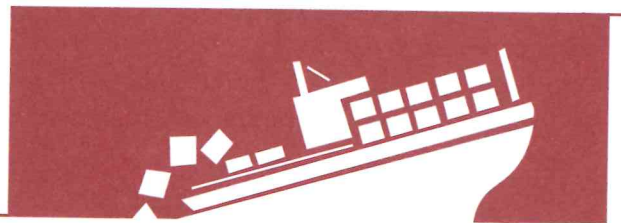
Liability insurance is generally covered by Protection and Indemnity (P&I) Clubs. P&I Insurance is a unique form of insurance whereby members of P&I Clubs mutually insure each other for liabilities arising out of the ownership, management and operation of ships, such as pollution, cargo claims and personal injury. A small number of P&I Clubs, members of the International Group of P&I Clubs, together insure the liabilities of around 90 percent of the world's ocean-going tonnage. P&I Clubs employ their own underwriters and highly specialised claims handlers.

Hong Kong is home to a vibrant marine insurance market, with many of the world's leading insurance brokers and companies having a presence here.

船體和機器險是最傳統的保險形式。承保人評估保險，並通過與經紀人磋商，確定承保船舶所需的保費。當中需要考慮多種因素，例如：船舶年齡、投保人的索賠紀錄和船舶將要從事的業務等。

責任保險一般由船東保賠協會 (P&I Clubs) 承保。P&I 是一種獨特的保險方式，會員互相承保在船舶擁有、管理以及營運中所產生的責任，例如：污染、貨損和個人傷亡索賠等。少數的保賠協會和國際船東保賠協會集團共同承保全球商船噸位的90%的責任風險。保賠協會僱用自己的承保商和專業索賠處理人員。

香港是蓬勃海運保險市場的家園，許多世界頂級的保險經紀均在香港開設公司。



maritime business 航運業務

船舶融資

Ship Finance

The shipping industry is one of the most capital intensive industries in the world and hence has a significant demand for financial services. Ship finance is a specialized sector of the banking industry and requires a sound understanding of the economics of shipping, an ability to analyze risk and strong relationships with ship owning customers. The finance costs of a ship remain the biggest single overhead for a shipowner and hence this area of shipping is amongst the most important.

Whilst traditional ship mortgage finance is still popular, the ship finance industry has become increasingly sophisticated and ship finance banks are also involved in sale and leaseback transactions, Initial Public Offerings and other financial products. Ship finance banks work closely with shipowners in tailoring the appropriate product to meet the shipowner's needs. In addition, ship finance banks provide cash management and payment systems for shipowners which cater to specialised areas such as payment of crew wages and currency management.

航運是世界上資本最密集的行业之一，因此對融資服務有很大的需求。船舶融資是銀行業的一個專業部門，對航運經濟有足夠的瞭解，具有分析風險的能力及與船東有良好的關係。船舶融資成本仍然是船東最大的單項經營開支，因此，亦是航運界中一個極重要的範疇。

雖然傳統的船舶抵押貸款仍然是慣用的模式，但船舶融資已變得越來越複雜。船舶金融銀行也參與售後回租業務、首次公開股票發行以及其他金融產品。船舶金融銀行與船東緊密合作，度身定做適合船東所需的產品。此外，船舶金融銀行還會為船東提供現金理財和船員支薪及貨幣管理等特殊需要的支付系統。

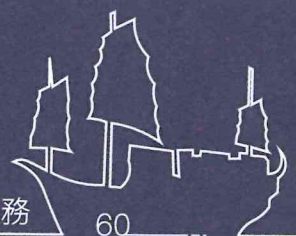
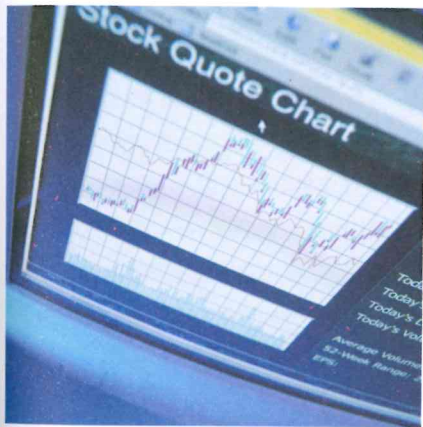


Ship finance bankers work closely with shipowners and maritime lawyers in producing loan documentation and presenting individual applications to credit committees, hence the ship financier must have a sound knowledge of the industry and the long-term performance of charterers and other parties involved in the transaction.

Hong Kong has a significant and highly competitive presence in the ship finance market, with most of the world's major shipping banks having a presence here and using Hong Kong as a regional base to conclude ship finance transactions throughout the region.

船舶金融銀行與船東和海事律師行緊密合作, 制定貸款文件, 並向信貸委員會提交個別申請。因此, 船舶金融公司必須對航運業以及租家和其他參與交易者的長期業績表現有全面的瞭解。

香港在船舶金融市場既重要且具有高度競爭力, 全球幾乎所有主要有提供船舶相關服務的銀行都在香港開設分公司, 或將香港作為基地, 完成地區的船舶融資交易。



maritime business 航運業務

海事法

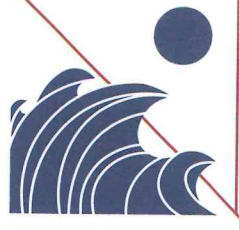
Maritime Law

Maritime law is a highly specialised area of the legal profession and covers all aspects of shipping and international trade. In an industry as diverse and global as shipping, disputes and incidents require a high level of legal skill and Hong Kong is a global centre in the provision of legal services to the maritime industry.

Maritime lawyers are involved in all aspects of the shipping industry and play a pivotal role in the maritime cluster. Specialists in ship finance and sale and purchase are involved in drafting newbuilding contracts between owners and shipyards, secondhand sales agreements, ship finance agreements and all aspects regarding the registration of ships and incorporation of shipping companies. This involves working closely and on behalf of shipowners, shipyards, ship finance institutions, brokers and flag states. As an increasing level of sophistication is found in ship finance agreements, specialists in this field must keep abreast of developments in the changing tax and registration requirements of different jurisdictions.

海事法是法律專業中專業性極高的領域，涵蓋航運業和國際貿易的各個層面。航運是一個多元化的全球行業，難免出現事故和糾紛，需要高水平的法律專家幫助解決，而香港正是為航運界提供法律服務的全球中心。

海事律師涉足航運業的各方面，在航運界舉足輕重。船舶融資和買賣的法律專家從事為船東和造船廠起草新船合同、二手船買賣合同、船舶融資合同，以及船舶註冊和航運公司註冊方面的工作。這包括代表船東、船廠、船舶融資機構、經紀公司和船旗國，並與他們緊密合作。隨著船舶融資合同日趨複雜化，從事這行業的專家必須與時並進，瞭解不同司法管轄區內不斷變化的稅收和註冊要求。



Admiralty Law covers the field of the law governing collisions, groundings and salvage, which sees maritime lawyers playing a vital role in some of the most high profile incidents in shipping. Following a maritime incident, whether it is a major collision, a claim for damaged cargo or a personal injury claim, maritime lawyers will be involved in all aspects of the case, from taking statements from crew onboard to working closely with insurers and P&I Clubs in reaching a settlement. Other diverse aspects of shipping handled by maritime lawyers are all aspects of documentation regarding title to goods, an increasingly sophisticated area given that cargoes can change hands several times during a voyage.

Hong Kong is acknowledged as one of the most efficient and reasonable jurisdictions and has its own Admiralty Court Judge. Many international law firms maintain a significant shipping department in their Hong Kong offices and the Hong Kong Maritime Law Association provides a forum for practitioners in this field. The Hong Kong Maritime Arbitration Group is a well established association of globally recognised arbitrators and mediators, and is increasingly relied on to assist in the resolution of shipping disputes in the region.

海事法涵蓋有關船舶碰撞、擱淺和救援等各方面的法律，海事律師在大型海事事故中擔當很重要的角色。海事事故發生後，無論是重大碰撞、貨物索賠或人身傷亡索償，海事律師都會全面介入，包括從船員取得書面陳述，並與保險公司和保賠協會緊密合作，爭取解決方案或達成和解。海事律師還有其他方面的職務，包括處理各項有關貨物擁有權的文件，由於貨物在航程中可以被多次易手，這會是相當複雜的工作。

香港被公認為是最高效，最合理的司法管轄區之一，並且擁有自己的海事法庭法官。許多國際律師事務所的香港辦事處均設有航運部門，而香港海商法協會為行內的從業人員提供一個論壇。香港海事仲裁協會是一個由國際認可的仲裁員和調解員組成的協會，日益得到信賴，協助解決區內的航運紛爭。



maritime business 航運業務

船舶設計與海事技術

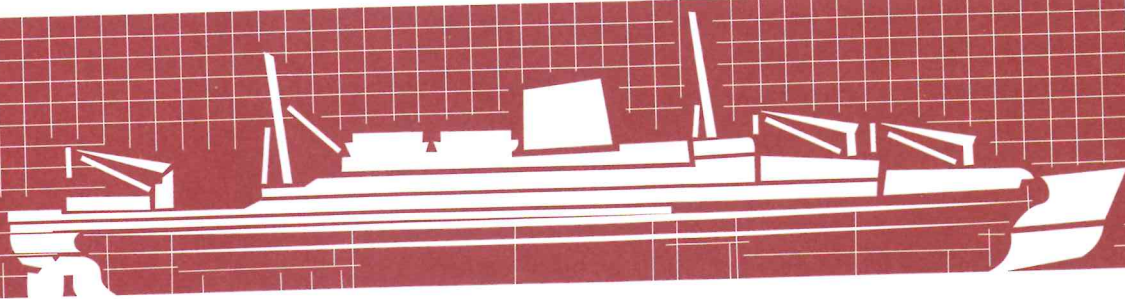
Ship Design and Marine Technology

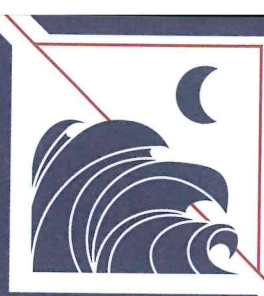
Ships are complex structures and operate in a tough marine environment. Designing a new ship requires a collaborative effort of many skilled naval architects and marine engineers.

Naval architects integrate these activities, which require managerial qualities and the ability to bring together the often-conflicting demands of the various design constraints to produce a product which is fit for purpose.

船舶結構複雜，在惡劣的海洋環境中作業。設計新船需要許多熟練的造船師和輪機工程師的通力合作。

造船師整合這些活動，需要很高的管理素質以及將各種設計約束中經常互衝突的需求結合在一起的能力，以生產出適得其用的產品。





In addition to this leadership role, a naval architect also has a specialist function in ensuring that a safe, economic, environmentally sound and seaworthy design is produced. To undertake all these tasks, a naval architect must have an understanding of many branches of engineering and must be in the forefront of high technology areas. He or she must be able to effectively utilize the services provided by scientists, lawyers, accountants, and business people of many kinds.

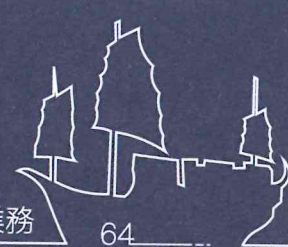
The International Maritime Organization, IMO, sets out the basic regulations that new ships need to meet, based on previous successful designs and learning experiences from casualties. Higher safety and environmental standards are a constant theme as the regulations are pushed higher year by year.

When a new design is first started, based on a shipowner's requirements, it is necessary to know the type and amount of cargo to be carried, the trade routes envisaged, overall dimensions, deadweight, endurance and speed. From this information a basic hull form can be developed, lines plan; after which a hydrostatic mathematical model is made to work out the draft, stability and power needed and if any improvements can be made of the hull form.

除了領導角色外，造船師還需肩負確保安全生產、符合經濟效益、環保和適航設計的職能。為承擔這些重任，造船師必須對眾多工程領域瞭如指掌，必須站在高科技領域的最前沿，還必須集思廣益，有效地使用科學家、律師、會計師和各種商人所提供的服務。

國際海事組織 (IMO) 根據過往的成功設計和事故所汲取的經驗，制定了新船所需滿足的基本規則。隨著規則標準逐年提高，更高的安全和環保標準是永恆的主題。

造船師在按船東的要求開展新設計時，首先需要知道運載貨物的類型和數量、預計的運輸路線、總體尺寸、載重量、耐久性和速度。根據這些信息，可以開發出基本的船型和線型圖，隨之製作一個靜水數學模型，計算所需的吃水深度、穩性和功率，以及是否需要對船體進行改良。



After finalizing the model and lines plan, it is a good practice to make a physical model and run it in a tank testing facility to verify the mathematical design to see if any improvements can be made. As the environmental regulations become tougher it is often necessary to repeat this process a number of times to eke out small improvements where possible. Once the hull model is completed it is put into a circulating tank to select the most efficient propeller and to make any possible minor adjustments to the after-body lines to further enhance efficiency.

Once the lines plan and power are settled, the detailed design can proceed on many fronts at once. The designers follow the rules of the selected ships Registry and Classification Society which are based on detailed interpretations of IMO regulations. The lead naval architect oversees many specialist designers, mechanical, electrical, outfitting and nautical experts, to arrive at the final design. Modern ship design is developed on a collaborative network in 3D which allows much greater detail than previous 2D plans. Once the main equipment has been located, service piping, electrical and outfitting can be designed with minimal risk of overlaps, enhancing ergonomics and maintenance. Modern computer technology has greatly assisted and advanced ship design enabling very advanced and efficient ships to be built but this cannot be achieved without highly skilled naval architects and marine engineers.

在模型和線型圖確定後，理想的做法是製作一個實體模型，放入水池進行測試以驗證其數學設計，查看是否有任何可改進的地方。隨著環保規則越來越嚴格，通常有必要多次重複這一過程，並在可行的情況下作出小改進。船體模型完成後，把它放入環流槽中，以選擇最有效的螺旋槳，並對艉部線體進行小調整，進一步提高效率。

一旦落實線型圖和功率後，便可立即進行多方面的詳細設計。設計師遵循所選船舶註冊地和船級社根據IMO法規制定的規則。主管造船工程師監督許多專業設計師，以及機械、電力、艙裝和航海專業人員共同完成最終設計。現代船舶設計是透過三維協同網絡開發的，較以往的二維平面設計可以提供更多細節。當主要設備就位，便可設計管道，電力和艙裝設備，將重疊風險減至最低，同時加強人體工程學和維護保養。現代電腦技術大大幫助和提升船舶設計，確保建造十分先進和高效的船舶。但是假若沒有高技能造船工程師和海洋工程師的協作，這一切是無法實現的。

hong kong
marine
department

CHAPTER FIVE

香港
海事處

第五章

HONG KONG marine department 香港海事處

The Hong Kong Marine Department has two principal functions; the administration of the port and the administrative control of all ships on the Hong Kong Shipping Register.

香港海事處有兩個主要的職能，管理香港港口和在香港註冊的船舶。

香港港口

Hong Kong Port

The Marine Department ensures the safety of navigation and efficiency of shipping activities in the waters of Hong Kong. This is achieved by comprehensive traffic management, harbour patrol, vessel traffic service, provision of appropriate marking buoys and rigorous enforcement of international regulation.

香港海事處確保在香港水域內，船舶航行安全和航運業務運作順暢。海事處通過執行全面海上交通管理、港口巡邏、船隻航行監察服務、設置合適航行標示浮泡，以及嚴格執行國際法規來履行這方面的工作。





The Vessel Traffic Centre (VTC) provides vessel traffic services to ships navigating in the waters of Hong Kong, and the Harbour Patrol Section, which operates a fleet of patrol launches to regulate marine traffic on site and carry out law enforcement duties. With a sophisticated radar system, the VTC can track a maximum of 10,000 targets at any one time. Located next to the VTC is the Maritime Rescue Coordination Centre (MRCC), which has search and rescue responsibility for maritime distress situations that occur within Hong Kong waters and a major part of the South China Sea.

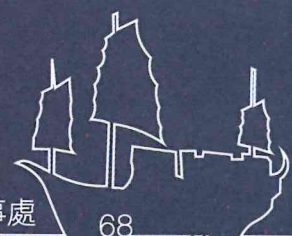
The Marine Department helps cargo operation and the safety of navigation by maintaining a number of cargo working areas, allocating mooring buoys, providing and maintaining navigation lights, keeping hydrographic data for the waters of Hong Kong up to date, and controlling typhoon shelters for vessels using the harbour. Port State Control inspections are also carried out by Marine Department surveyors on ships calling in Hong Kong to ensure compliance with the applicable international standards.

The Government Dockyard, which is under the Marine Department, has the responsibility for the design, procurement and maintenance of all vessels owned by the Government of the Hong Kong Special Administrative Region.

海事處船隻航行監察中心 (VTC) 提供在香港水域航行船舶的航行監察服務, 而海港巡邏組的巡邏艇船隊現場管理海上交通及進行執法工作。透過精密的雷達系統, 船隻航行監察中心可同時追蹤10,000目標。香港海事救援協調中心 (MRCC) 位於船隻航行監察中心附近, 負責搜尋和救助在香港和南中國海主要水域內發生的海難事故。

海事處透過劃出貨物處理區域、分配繫泊浮泡、提供及保養航行燈塔、維持香港水域最新水文資料、管理香港水域內的所有避風塘等工作, 協助貨運業務的操作和航行安全。香港海事處的驗船師還會對停靠在香港的船舶進行例行隨機抽檢, 執行港口管控, 以確保符合國際標準。

香港海事處轄下的政府船塢負責設計、採購和維修保養屬於香港特別行政區政府的所有船隻。



HONG KONG marine department 香港海事處

香港船舶註冊

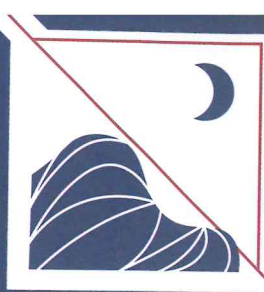
Hong Kong Shipping Register

The flags flown by a ship registered in Hong Kong are those of 'Hong Kong, China', and signify the nationality of the ship and the laws and regulations under which it operates. The Hong Kong Shipping Register is now one of the world's top 4 ship registers, reaching 127 million gross tons registered at the end of December 2019, and has a well-regarded reputation for the quality of its operation and of the ships that fly its flags.

The Marine Department, as the Flag Administration, is responsible for maintaining the register and issuing all ship and crew certificates. As an Associate Member of the industry's global legislative body, the International Maritime Organization (IMO), the Hong Kong Government, in consultation with the local industry, participates fully in the development of global maritime regulation. Hong Kong adopts all major international conventions and as a major Flag Administration fulfills all its international obligations.

在香港註冊的船舶懸掛"中國香港"船旗,代表船舶國籍和經營時需要遵守的法規。香港船舶註冊目前是世界四大船舶註冊之一。截至2019年12月底,香港船舶註冊已達到1.27億總噸。香港船舶註冊以優質管理和高質量船舶享譽盛名。

香港海事處負責香港船舶註冊的日常工作,簽發所有船舶和船員證書。香港特區政府是國際海事組織(IMO)的附屬會員,在充分諮詢業界的前提下,全面參與全球海事法規的制定工作。香港採用所有主要的國際公約,作為主要的船旗主管機關履行所有的國際義務。



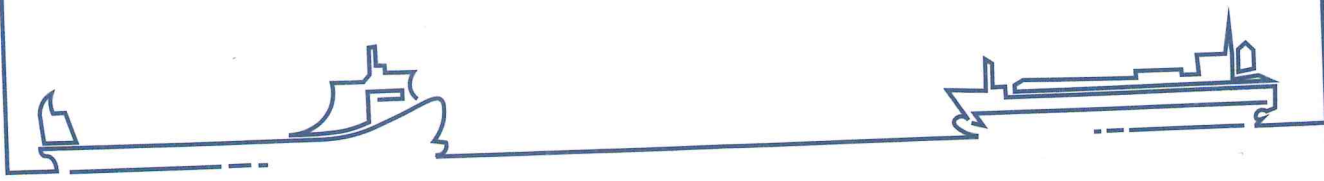
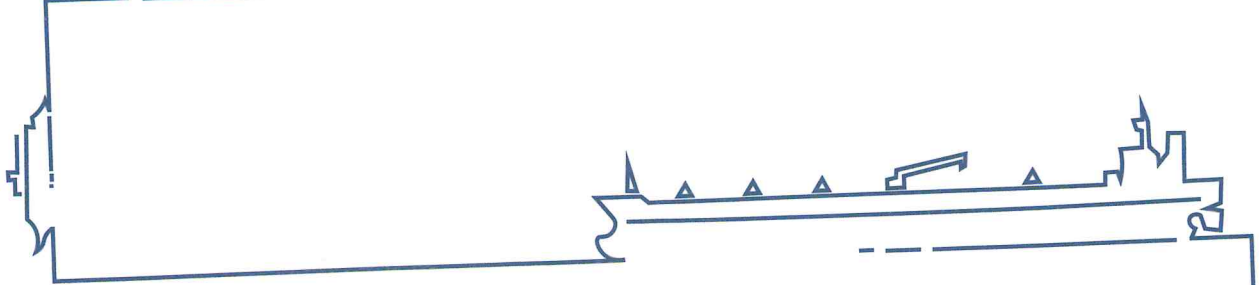
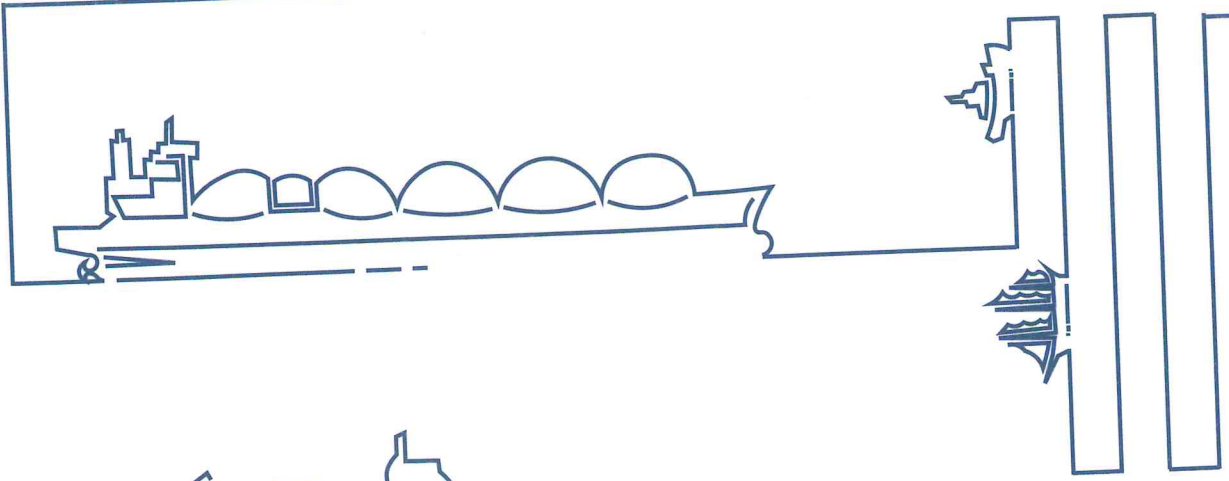
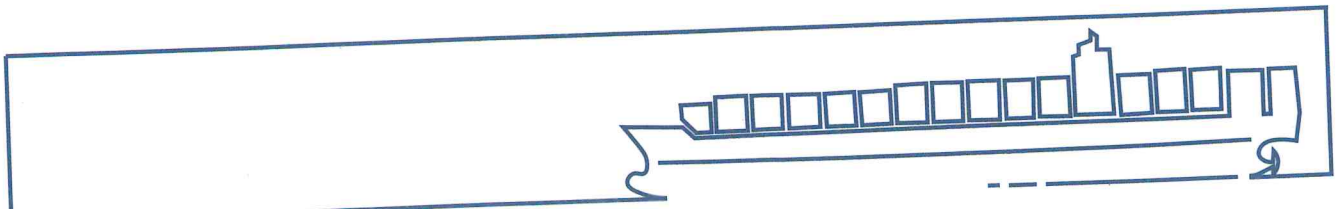
Operator's Licences or Certificates of Competency are issued by the Marine Department to seafarers who have met the requirements of the Hong Kong standards to operate ships trading locally, or the Standards of Training, Certification and Watchkeeping, 1995 (STCW) 95 as amended in 2010 to work on ships trading internationally.

Consular assistance for Hong Kong ships and their crews may be obtained anywhere in the world from the nearest Consulate of the People's Republic of China.

符合香港相關要求標準，並在本港水域服務的船員，可獲香港海事處簽發船舶操作人員證書或適任證書。而在國際航線船舶服務的船員所獲得的相關證書，則按照《1995年海員培訓、發證和值班標準國際公約》2010年修正案的要求所簽發。

香港註冊的船舶及其船員，在必要時可獲世界任何一個中華人民共和國領事館給予所需協助。





port
services

CHAPTER SIX

港
口
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第六章

port services 港口服務

貨櫃碼頭

Container Terminals

There are nine container terminals in Hong Kong, located in the Kwai Chung and Tsing Yi port area, financed and owned by five private terminal operators. The container terminals in Hong Kong are renowned for their efficiency, using advanced handling facilities and information technology. In 2018, the container terminals handled over 15.5 million TEUs, representing approximately 80% of the total container throughput in the entire Hong Kong port. Altogether, there are 24 berths in the nine container terminals, with 7,694 metres of quay length and a total capacity of 21 million TEUs. The container terminal operators are striving to maintain Hong Kong as the key container hub port of the region and to provide premier service to the container shipping industry.

香港共有9個貨櫃碼頭，分別位於葵涌和青衣的港口區域。由5間私人碼頭營運商投資和擁有。香港貨櫃碼頭以高效、設備先進、資訊發達而著稱。2018年，貨櫃碼頭處理超過1,550萬個標箱，佔香港港口總吞吐量的80%。9個貨櫃碼頭共有24個泊位，碼頭長度達7,694米，可處理總量達2,100萬個標箱。香港貨櫃碼頭的營運商將竭力維持香港作為地區貨櫃碼頭中心的地位，為貨櫃航運業提供最優質的服務。

領港員 (引水員)

Pilots

Pilots are highly trained and experienced seafarers with special local knowledge, who are responsible for safely guiding a ship through the harbour and to its nominated berth for docking. This is a highly professional and well respected profession, and one that requires great flexibility in working hours as well as good eyesight and physical fitness. New entrants will be subject to apprenticeship and periodical training to keep up with changes in the industry.

領港員是訓練有素、熟悉本地海域情況的資深海員，負責引導船舶安全經不同水道進入指定泊位停泊。這是一個非常專業和受人尊敬的職業，但是沒有固定的工作時間，還要有良好的視力和體魄。新入行者須經過實習和定期培訓來緊貼航運業的最新變化。

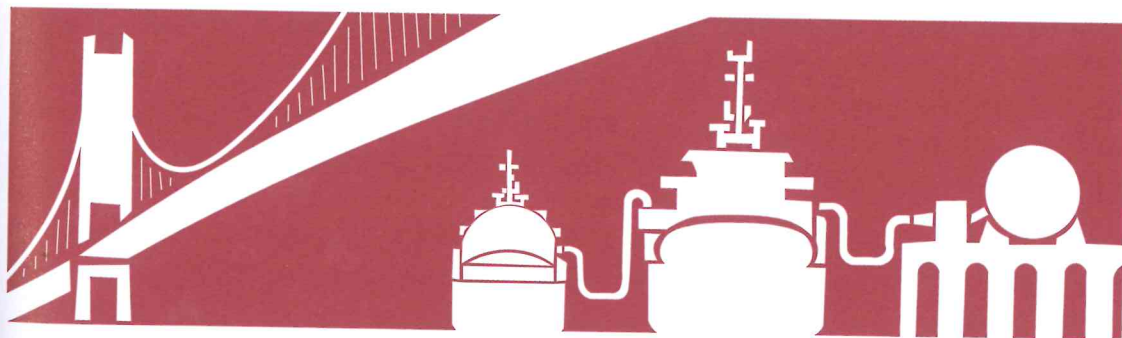


燃料補給

Bunkering

Bunkering is the supply of fuel for the world's commercial shipping fleet. A study completed in 2014 estimated that ships use around 250 to 350 million tonnes of fuel each year. Prior to 1 January 2020, ships were permitted to use the residue from the refining process, called 'residual fuel', with a maximum of 3.5% m/m sulphur content. From that date, all ships must only use fuel containing a maximum 0.5% m/m sulphur, in order to reduce air pollution from sulphur oxides. In the near future, it is expected that LNG fuel will be available in Hong Kong, for ships that are able to use this fuel. An estimated 7.4 million tonnes of bunkers are supplied every year in Hong Kong, brought to the ships by specialised barges ranging in size from 500 to 3,500 tonnes deadweight. The bunkering industry includes the sale and purchase of fuel, trading and warehousing, through technical and managerial positions.

燃料補給是指為世界商船隊補給燃油。據2014年完成的一項研究估計，船舶每年消耗大約2.5至3.5億噸燃油。2020年1月1日之前，船舶可使用精煉過程中的殘留物，稱為「殘渣燃料」，最高含硫量為3.5% m/m 。但自此之後，所有船舶只能使用含硫量上限為0.5% m/m 的燃料，以減少二氧化硫造成的空氣污染。預計在不久將來，香港會有液化天然氣（LNG）供給能使用這燃料的船舶。香港每年為各類商船補給約740萬噸的燃油，由介乎500至3,500載重噸的駁船進行補給工作。燃料補給行業內的技術和管理人員的職務還包括燃油買賣、貿易和倉儲。



port services 港口服務

船舶物資供應

Ship Supply

Ships require provisions, stores and spare parts, and there are many ship supply companies (also called 'chandlers') in Hong Kong who provide these services. Also provided are repair technicians to maintain and fit the highly technically advanced equipment that is now common in all ships. Repair technicians are likely to have an engineering or electrical qualification and will undergo specialized training for the equipment to be maintained and fitted.

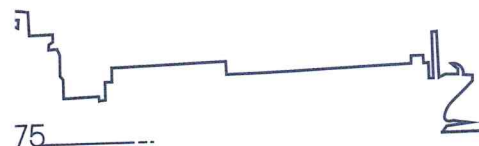
船舶需要物資補給、儲備和備件供應，香港有許多公司，稱為「船舶物資供應商」，專門提供這方面的服務，還會提供技師負責維修及安裝目前船上已普遍具備的先進設備。維修技師具有工程或電工資格，另需經過特別培訓才能維修和安裝船上的設備。

船舶代理

Ship Agency

The Ship Agent is partly entrusted by the principal, who could be the owner of the ship, charterer or operator, to arrange and coordinate delivery of the many services required for a vessel's call, such as stevedores, chandlers, water supplier, launches for the crew to get ashore, surveyors, medical services, etc. The Ship Agent may also have a commercial role, to find cargo to be loaded on the ship in Hong Kong, or for loading in other ports for discharge in Hong Kong.

船舶代理有部份是由委託方（可以是船東、租家或經營商）委託，安排和協調船舶靠岸的各項需要，例如：碼頭工人、船舶物資供應、食水供應、船員登岸渡輪、驗船師和醫療服務等。船舶代理還有商業角色，為在香港船舶尋找貨源和裝貨付運，或安排在其他港口裝運抵香港卸貨。





塢修和船舶維修

Docking and Ship Repair

Hong Kong does not have a large ship repair industry, but it is an active one, repairing and upgrading the ships that call at Hong Kong and the Pearl River Delta ports, as well as, the numerous river and local trade craft such as ferries, tugs and barges. New entrants will follow an apprentice training scheme, particularly in the fields of marine, mechanical, civil or electrical engineering. Management trainees may be employed from university graduates in maritime or civil engineering and seafarers may choose to transfer after obtaining their professional qualifications as a marine engineer.

香港船舶維修業的規模不大, 但卻十分活躍, 負責維修和改良停靠香港和珠江三角洲港口的船舶, 以及渡輪、拖輪和躉船等眾多內河貿易船舶。新入行者需完成實習培訓計劃, 特別是海運、機械、土木或電機工程的培訓。管理層見習員通常是從大學海事或土木工程專業的畢業生中招募, 而船員也可在獲得遠洋船隻輪機師專業資格後, 考慮轉投這個行業。

海員福利

Seafarers Welfare

The Mission to Seafarers cares for seafarers by providing centres in ports around the world, visiting seafarers on board their ships and working with other agencies in justice and welfare cases. The Mission is committed to meeting the spiritual and practical needs of seafarers regardless of nationality or creed. Mission staff provide a warm welcome and friendship, and are always available to discuss problems and offer help of whatever kind is required. The Mission operates two clubs in Hong Kong for the use of visiting and locally registered seafarers, one in the heart of Tsim Sha Tsui and the other near the container port in Kwai Chung.

海員傳道會是關心海員的組織, 為海員在全球港口設立服務中心、登船探訪海員、與其他機構處理有關海員的法律權益和福利待遇。傳道會竭誠滿足任何國籍和信仰的海員在精神上和實際上的需求。傳道會的工作人員熱情友善, 樂意隨時與海員商討面對的困難和提供幫助。傳道會在香港設有兩間俱樂部, 供外地和本地海員使用, 一間位於尖沙嘴中心地帶, 另一間則在葵涌貨櫃碼頭附近。



port services 港口服務

政府服務

Uniformed Services

MARINE POLICE

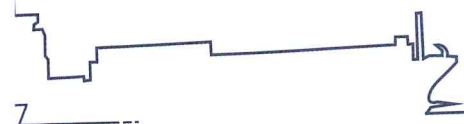
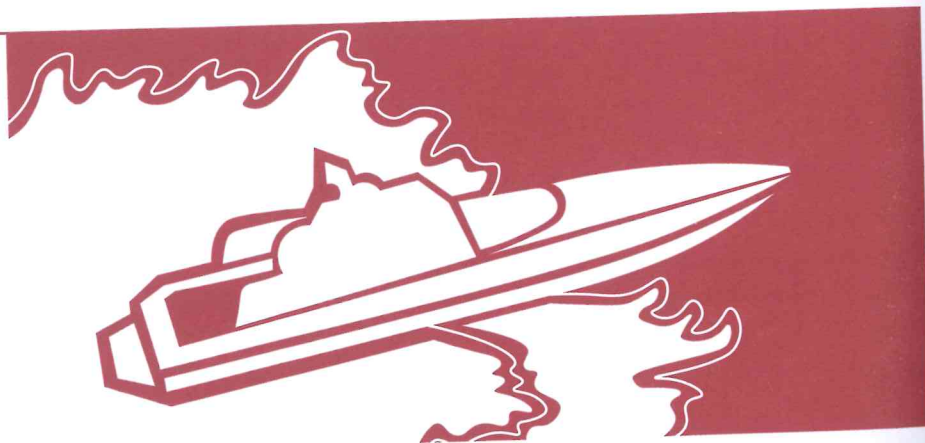
The Marine Region of the Hong Kong Police Force is responsible for the integrity of the waters and 244 islands which lie within the 1,850 square kilometers of the Hong Kong SAR. In addition to routine policing, the Region has responsibilities in such diverse areas as quarantine, immigration, conservancy, search and rescue operations, and port and maritime regulation. Generally, permanent residents of Hong Kong SAR who have completed secondary education are eligible to join the Hong Kong Police Force.

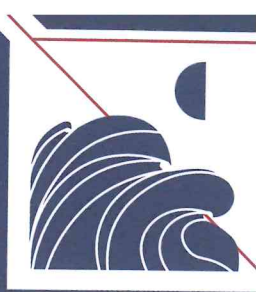
Detailed entry requirements are found at www.police.gov.hk

水警

香港警務處的水警總區負責整個香港水域，包括香港特別行政區1,850平方公里內的244個島嶼。除了日常警務工作，水警總區的職責包括檢疫、出入境、環境保護、搜索與拯救行動，以及港口和海事執法工作。基本上，任何完成中學教育的香港特別行政區永久居民均可申請加入香港警隊。

有關詳情，請瀏覽 www.police.gov.hk





FIRE SERVICES DEPARTMENT

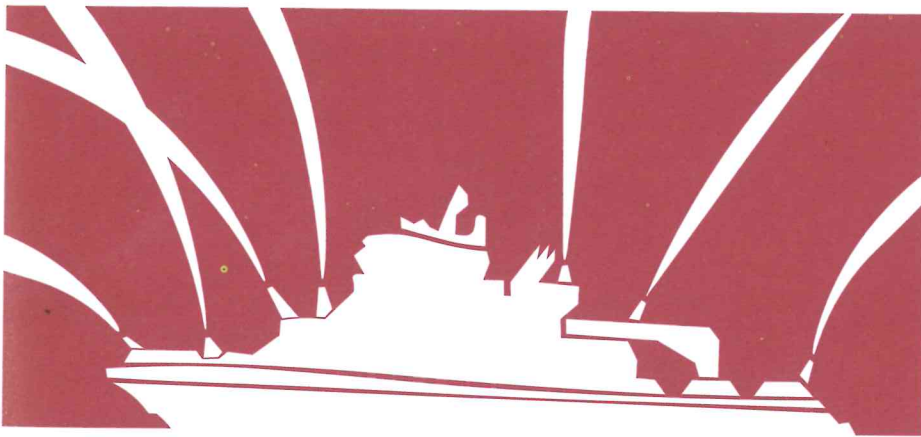
The mission of the Hong Kong Fire Services Department is to protect life and property of Hong Kong citizens from fire and other calamities. There are 8 fireboats and 6 other vessels. The major fireboat 'Elite' with a displacement of over 600 tonnes was commissioned in May 2002. The fireboat is equipped with an electronic automatic fire-fighting system and the range of its water jet is up to 150 meters. It is mainly deployed to fight fires on large ships, such as container ships. The fireboat is operated under the control of the Marine and Diving Division of the Hong Kong Command. The duties of a Fireman/Firewoman (Operational/Marine) are to carry out fire-fighting, rescue operations and other operational/marine duties.

For more information, visit www.hkfsd.gov.hk

消防處

香港消防處的使命是保障香港市民的生命財產免受火災和其他災害侵害。消防處有8艘滅火輪和6艘其他消防用船。2002年5月, 排水量超過600噸的主要滅火輪 "精英" 號投入服務, 船上裝有自動電子滅火系統, 水柱射程範圍可達150米, 主要用於如貨櫃船等大型船舶的滅火工作, 並由香港行動總區的海務及潛水區負責。消防員(行動組/海務組)主要執行滅火及救援工作, 以及負責其他行動/海務職務。

有關詳情, 請瀏覽: www.hkfsd.gov.hk



port services 港口服務

CUSTOMS AND EXCISE DEPARTMENT

The port of Hong Kong also acts as a (regional and international) border, and the Customs and Excise Department of the Hong Kong SAR Government is, among others, tasked with protecting the Region against smuggling, with protecting and collecting revenue on dutiable goods and with detecting and deterring narcotics trafficking and abuse of narcotic drugs. It is also responsible for the inward and outbound clearance of cargo and passengers through the port of Hong Kong. The Customs and Excise Department is one of Hong Kong's 'Disciplined Services' and certain members are authorised to carry firearms for their enforcement/protection.

For the detection and suppression of smuggling activities in the waters of the Hong Kong Special Administrative Region, the Customs and Excise Department employs a fleet of launches and craft.

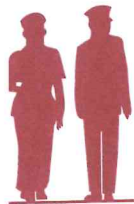
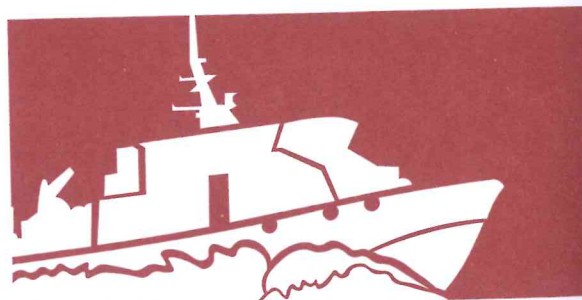
Generally, Hong Kong Permanent Residents who have completed their secondary education and meet the physical fitness standards are eligible to join the Customs and Excise Department.

香港海關

香港港口也是(區域和國際)邊界,香港特別行政區政府海關和其他部門,負責打擊香港水域的走私活動,保護貨物和徵收應課稅項目,偵查和打擊毒品販運及其濫用。它還負責貨物和旅客經香港進出的通關手續。香港海關是香港的「紀律部隊」之一,某些成員獲授權可攜帶槍支進行執法和保護活動。

為偵破和打擊香港特別行政區水域的走私活動,香港海關配備一批快艇和執法船隻。

一般來說,完成中等教育和符合體能標準的香港永久居民均有資格加入香港海關。



education and training

CHAPTER SEVEN

教育及培訓

第七章

education and training

教育及培訓

乘風航

Adventure-Ship

Adventure-Ship is a charitable organization founded in 1977. The organization operates a 34.5m long purpose-built Chinese sailing junk, 'Jockey Club Huan' to provide adventure-based nautical training for youngsters of different abilities to foster their holistic development. The programs aim to promote the personal growth and character building of young people, including those with disadvantaged background, through experimental learning, skills training and value reflection. By participating in the innovative seamanship and adventure activities designed for diverse weather conditions, the trainees learn to work cooperatively and push themselves in a supportive environment aboard the floating classroom.

乘風航是1977年成立的慈善机构，拥有34.5米长的特製中式帆船「賽馬會歡號」，為各種能力的年輕人提供以歷奇為本的航海訓練，培養他們的整體質素。訓練計劃宗旨是通過實驗學習、技能訓練和價值觀反思，幫助包括來自弱勢背景的學員促進個人成長和建立個性。透過精心策劃和別具創意的全天候歷奇活動，學員能在這海上教室，學習互相扶持，攜手合作，共同面對挑戰。





香港航海學校

Hong Kong Sea School

Hong Kong Sea School aims to nurture its students to achieve their full potential through dynamic teaching approaches and activities. Whilst imparting knowledge and skills, its unique discipline training, water sports activities and boarding life cultivate in the students a strong sense of responsibility, devotion to duty and good interpersonal skills for further scholastic endeavours, or developing careers in the maritime or other industries. The School, located in Stanley, was founded in 1946, and became a mainstream secondary school in 2001 without changing its original characteristics, such as provision of seamanship training to its students and maintenance of its naval tradition. Classes range from Secondary 1 to 6, enabling students to study towards the HKDSE Examination and acquire the Pleasure Vessel Operator Grade 2 Certificate. A reform of the maritime curriculum to enable students to acquire the Local Vessel Grade 3 Coxswain Certificate is in the pipeline.



香港航海學校採用不同的教育方式和活動，發揮學生多方面的潛能。在傳授知識和技能的同時，透過獨有的紀律訓練、水上活動和寄宿生活，培養學生的責任感、忠於職守及善於處事待人的素質，為未來升學、投身海事或其他行業，奠下良好基礎。學校於1946年成立，校址位於赤柱。雖然學校於2001年轉制為主流中學，但是仍然保持它的固有特色，如向學生提供航海訓練、秉承海事傳統等。學校營辦中一至中六課程，包括香港中學文憑試科目及遊樂船隻二級操作人課程。學校正進行海事課程改革，目標是讓學生考取本地三級船長資歷。



education and training

教育及培訓

海運及空運人才培訓基金

Maritime and Aviation Training Fund

The Government attaches great importance to the manpower development of the maritime industry. A total of \$300 million were injected into the Maritime and Aviation Training Fund (MATF) in 2014 and 2019 to operate training and incentive schemes, sponsorships and scholarships. Through these schemes and trainings, MATF aims at:

- attracting more new blood to expand the pool of talent and address the issue of aging workforce;
- diversifying expertise of the workforce to meet manpower demands of the sectors, especially high value-added services; and
- enhancing the overall competency and professionalism of the sectors and in turn our global competitiveness as international maritime and aviation centres.

As of July 2020, there are 15 funding schemes under the MATF, of which 10 are maritime-related, three aviation-related and the remaining two applicable to both the maritime and aviation sectors. The schemes are currently administered by Transport and Housing Bureau, Marine Department, Vocational Training Council and various tertiary institutions in Hong Kong (mainly for scholarship and overseas exchange sponsorship schemes).

特區政府一直致力推動香港的海運業人才培訓，分別於2014年及2019年，合共撥款三億港元以營運「海運及空運人才培訓基金」(基金)，為海運和航空業的訓練獎勵、津貼及獎學金等計劃提供財政支援。透過各項計劃和培訓，基金的宗旨為：

- 吸引更多新血入行，以擴大人才庫和應對從業員老化的問題；
- 培訓不同專業領域的人員，以滿足各個界別，特別是高增值服務界的人手需求；以及
- 提升行業的整體能力和專業水平，從而增強香港作為國際海運和航空中心的競爭力。

截至2020年7月，基金下設有15項資助計劃，當中10項與海運有關，三項與航空有關，其餘兩項則同時適用於海運和航空業。各項計劃現由運輸及房屋局、海事處、職業訓練局及本港多間大專院校(主要負責獎學金及海外交流學生資助計劃)管理。



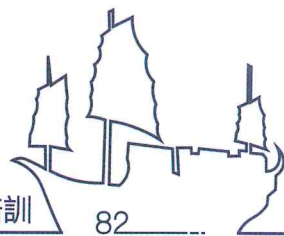
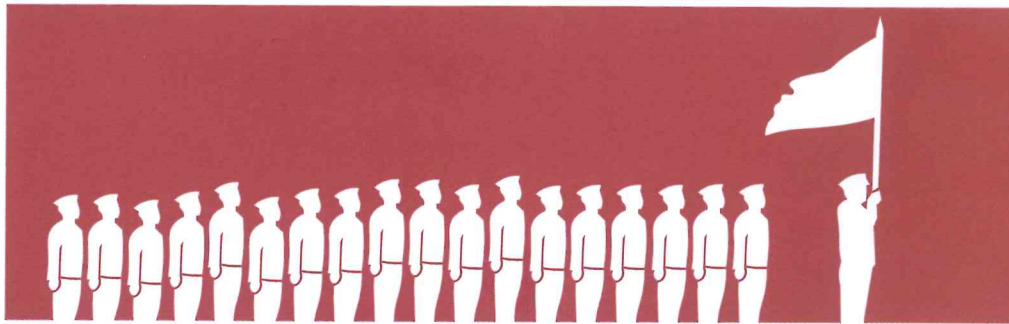


香港海事青年團

Hong Kong Sea Cadet Corps

The Hong Kong Sea Cadet Corps was incorporated in 1968 and is a government subsidized Uniformed Youth Organisation with cadet members aged 12-18. The Corps aims at providing nautical skills, team-building and discipline training through maritime activities and to develop in its cadets qualities of leadership, positive value, devotion to duty, self-respect and civic awareness. The Administration Headquarters are located in Diamond Hill, and there are two centres for nautical training and water sports activities, one in Stanley Bay and the other in Sai Kung.

香港海事青年團成立於1968年，是政府資助的青少年制服團體，隊員年齡介乎12至18歲，目的是藉著各種海事活動，為隊員提供航海技能、團隊精神和紀律訓練，並培養隊員發展多方面的素質，例如領導才能、正確的價值觀、責任感、自尊和公民意識。香港海事青年團的行政總部位於鑽石山，兩所航海訓練和水上體育活動中心則分別位於赤柱聖士提反灣和西貢。



education and training

教育及培訓

海事訓練學院

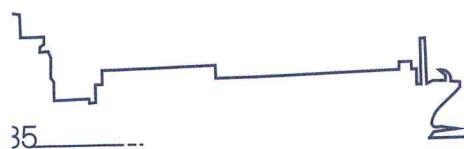
Maritime Services Training Institute (MSTI)

The Maritime Services Training Institute (MSTI) provides a wide range of training courses for new entrants, in-service seafarers, and employees of maritime industry. Through its network and the Maritime Services Training Board, the MSTI maintains close relationships with the employers. The Institute continuously provides quality vocational and professional education and training services to satisfy the manpower demands and training needs of the industry.

To fulfil the training and certification requirements for seafarers and mid-stream and shore-based workers, it offers both pre-employment and in-service training courses. Its planned training capacity is approximately 3,500 trainees per year. Training courses offered by the MSTI include two full-time pre-employment courses, namely the 2-year (5 semesters) Higher Diploma in Maritime Studies (HDMS) for Hong Kong Diploma of Secondary Education graduates and 23-week Certificate for Junior General Purpose Ratings (CJGPR) for Secondary 3 graduates, and modular day and evening courses for new entrants, in-service seafarers and employees of the maritime industry. Furthermore, the MSTI also runs tailor-made safety training courses for different corporations.

海事訓練學院致力為新入行人士、現役海員及與海事相關行業從業員提供多元化訓練課程。透過學院本身的網絡及海事服務業訓練委員會，它與業界保持著緊密的合作關係，並且掌握了業內對人力及培訓的需求，為業界提供優質的職業專才教育服務。

為配合海員、中流作業及與海事相關行業從業員的培訓及發證需要，學院開辦職前及在職進修訓練課程，每年可提供約3,500個學額。其中包括兩項分別給在香港完成中六及中三的學生提供兩項全日制職前訓練課程：兩年制〈海事科技高級文憑〉和二十三週〈初級全能海員證書〉課程。學院並且為新入職人士、現役海員及與海事相關行業從業員提供所修讀的日間及晚間單元制課程等。此外，學院亦配合不同的機構提供度身訂造的安全培訓課程，以便提高他們的專業知識和技能。





For those who are interested in pursuing a career as a marine engineer, the Hong Kong Institute of Vocational Education provides a Higher Diploma in Mechanical Engineering (Marine Electives) programme.

香港專業教育學院為那些有志成為輪機師的學生提供〈機械工程高級文憑《輪機選修科》〉課程。

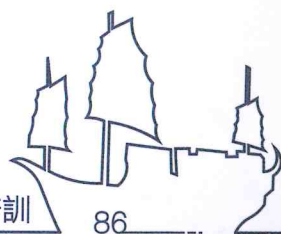
香港理工大學物流及航運學系



The Hong Kong Polytechnic University, Department of Logistics and Maritime Studies

The Department's mission is to bring competitive advantage to the maritime and logistics industries, with an emphasis on maritime studies, shipping, shipping law, supply chain management and transportation, through excellence in educational, research and partnership endeavors for the industries. The academic programmes offered by the Department include degree and postgraduate programmes. All these programmes are well recognised by the relevant maritime and logistics professional bodies.

物流及航運學系的目標是透過優質教育、研究和與業界的夥伴合作，為航運業及物流業帶來競爭優勢。特別是在海事教育、航運、海事法、供應鏈管理及運輸等方面，並提供學位及深造課程，此等課程皆獲相關的海事和物流專業組織認可。



education and training

教育及培訓

英國特許船務經紀學會香港分會

Institute of Chartered Shipbrokers, Hong Kong Branch

The Institute of Chartered Shipbrokers (ICS) was founded in 1911. It is the only internationally-recognized professional body representing shipbrokers, ship managers and agents throughout the world. ICS membership represents a commitment to maintaining the highest professional standards across the shipping industry. Only Fellows of the Institute may receive 'Chartered Shipbroker' status. There are 120 members and over 4,000 individual members throughout the world with 26 Institute branches established in key shipping areas and 7 branches in U.K.

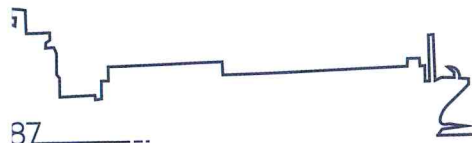
As a major provider of shipping related education and training, ICS delivers its main educational programme – TutorShip – direct from its London head office and under agreement through its 16 Institute Teaching Centres worldwide, in order to assist the students to sit the ICS Professional Qualifying Examinations.

Hong Kong Branch was formed 1963. Its mission is to promote maritime education and training widely in the industry and collaborate with other professional associations and academies towards the common goal of supporting Hong Kong as an international maritime centre. It helps ICS develop training programmes in Greater China. Its members are not only in shipbroking profession but also in other sectors of maritime cluster such as ship managers, owners, lawyers, underwriters, agents, etc.

英國特許船務經紀學會創立於1911年，學會是代表全球航運業專業人員-船舶經紀人、船舶管理經理人及船務代理人的唯一國際認可之專業團體。學會之會員承諾維持在航運界的最高專業標準。只有學會會士能獲得特許船舶經紀人身份。現時學會有120間公司會員及超過4,000個個人會員分佈於各主要航運區域的26個分會及在英國的7個分會。

作為一個有關航運的教育和培訓的提供者，學會由倫敦總部及16個協議授課中心提供主要的教育課程 - 輔導課程，以幫助學員參加學會的專業資格考試。

香港分會成立於1963年，其使命是在航運界中，廣泛地提倡航運教育及訓練，與其他專業團體及學術界加強合作，以期達到支持香港作為國際航運中心的共同目標。香港分會亦協助學會，在大中華地區發展訓練課程。分會的會員及會士中，不單有船舶經紀人，亦有服務於其他與航運有關行業的專業人士，當中包括：船舶經理、船東、律師、承保商及船務代理人等。



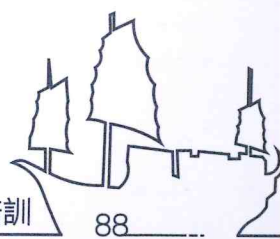
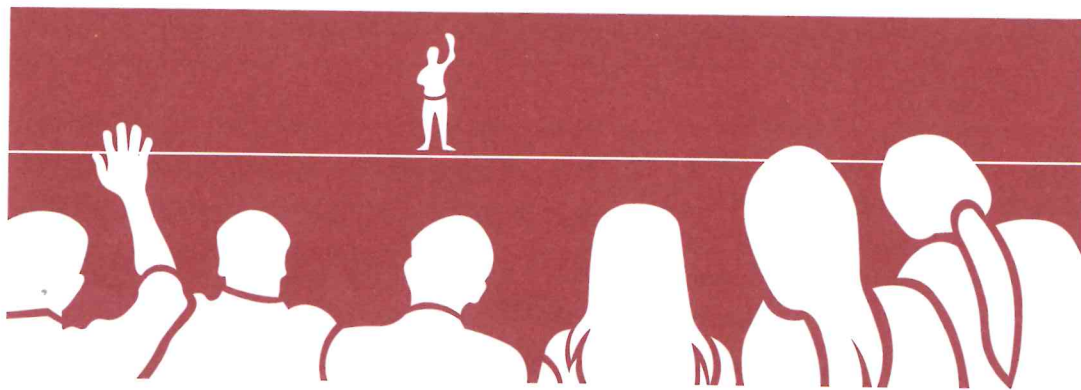


海運學會

Institute of Seatransport

The Institute of Seatransport is based in Hong Kong and has members from all the different sectors of the local shipping industry. The aims of the Institute are to promote the exchange of professional knowledge within the Hong Kong shipping industry, and to promote the recognition and contribution of the professional seatransport industry for the community in Hong Kong. In addition, it is a Chinese language-based institute for the exchange of views. The Institute holds regular seminars and publishes quarterly the magazine 'Seaview'. The Institute also offers professional training courses through cooperation with the Hong Kong Polytechnic University, the School of Continuing and Professional Education of the City University and the Transport and Logistics Training Board of the Vocational Training Council.

海運學會以香港為中心，會員來自本地航運界的各行各業。學會的宗旨是促進香港海事專業知識交流，提高社會各界對海事專業及其貢獻的認識。此外，學會定期舉辦各種研討會，以中文為主要交流語言，並出版季度刊物「海運季刊」。學會還與香港理工大學、香港城市大學專業進修學院及職業訓練局物流貨運業訓練委員會合作提供專業培訓課程。



education and training

教育及培訓

航海學會香港分會

Nautical Institute Hong Kong Branch

The first meeting of the Committee of the Hong Kong Branch of the Nautical Institute committee was held in 1984. The Nautical Institute, with members from all over the world, is a non-Government Organization with consultative status at the IMO. Members include seafarers and marine professionals to whom assistance is given in order to run their ships efficiently while complying with the relevant regulations. The publications of the Nautical Institute are written by fellow professionals and provide the Industry with useful operational and Best Practice Guidance. The Branch organizes various networking opportunities, as well as technical and social gatherings, seminars and professional development courses.

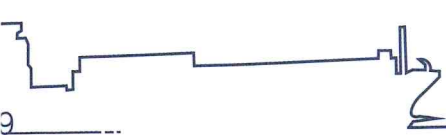
航海學會於1984年首次在香港分會舉辦委員會會議。航海學會是一個非政府組織，會員來自世界各地，在國際海事組織(IMO)具有諮詢地位，並為海員和海事專才等會員提供所需協助，以便在遵守相關規定的前提下有效地經營船務。航海學會還會出版由專業人員撰寫的船務相關知識和最佳實踐指南。香港分會舉辦各種交流活動、技術和社交聚會、研討會和專業發展課程。

海事專才推廣聯盟

Maritime Professional Promotion Federation (MPPF)

It is a non-profit organization, the main objective of which is to promote marine industry to young people in Hong Kong in order for them to become future maritime professionals. It arranges career talk visits to secondary schools, organizes seminars, as well as promotional activities. If you are interested in the maritime industry, you are welcome to visit the website and Facebook for more information.

海事專才推廣聯盟是一個非牟利組織，主要目標是向香港年輕人推廣投身航運界，成為未來的海事專才，並到訪中學進行職業講座，舉辦研討會和各項推廣活動。如果你對航運業感興趣，歡迎瀏覽相關網站和Facebook專頁，以獲取更多資訊。



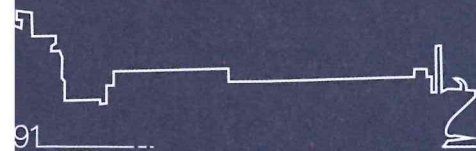
glossary

專業術語

GLOSSARY

專業術語

Aframax 阿芙拉型油輪	A tanker size range defined between 80,000 and 120,000 dwt. 介乎8萬至12萬載重噸的油輪。
boat Charter 光船租賃	The hire or lease of a vessel from one company to another (the charterer), which in turn provides crew, bunkers, stores and pays all operating costs. 船舶出租人將船舶租給或借給另一公司(租家),而承租人需自資僱用船員並支付燃油、物資及所有船舶的營運費用。
Ballast Voyage 空航	A voyage performed without carrying cargo, usually to position the ship from the last discharge port to the next loading port. 又叫「吉載航次」。通常指船舶航次,沒有運載任何貨物,從卸貨港駛至下一個裝貨港。
Bulk Cargo 散貨	Unpacked cargoes such as coal, ore and grain. 散裝不加包裝的貨物,例如:煤、礦石和糧食。
Bunkers 燃料	The ship's fuel. 船舶燃料。
Capesize 好望角型船	Bulk carrier size range defined as 100,000 dwt or larger, primarily carries coal and iron ore. 10萬載重噸或以上的散貨船,主要運載煤和鐵礦石。
Charterer 租家	Cargo owner or another person/company who hires a ship from a shipowner. 向船東租船的貨主或個人或公司。
Charter-party 租約	Transport contract between shipowner and shipper of goods (charterer). 船東和托運人(租家)簽訂的合約。
COA 包運合同	Contract of Affreightment. An agreement to transport a defined amount of cargo at an agreed freight rate over an agreed period of time, with the shipowner choosing the ship(s). 指由船東選擇船舶,以議定的運費和週期運輸定量貨物所簽訂的合約。
Crude Oil 原油	Unrefined oil. 未經提煉的石油。
Daily Operating Costs 日常營運費	The cost of a vessel's technical operation, crewing, insurance and maintenance, but excluding costs of financing. 船舶技術、船員、保險和保養的經常開支,但並不包括融資費用。





Demurrage 滯期費	Money paid to the shipowner by charterer, shipper or receiver; for failing to complete loading/ discharging within time allowed according to charter-party. 租家、托運人或收貨人因未能按租約擬定的時間內完成裝卸所需支付船東的費用。
Dirty Oil 污油	Less refined oil products such as fuel oil. 不太精煉的油產品, 例如: 燃料油。
Dry (Market) 乾貨 (市場)	Generic term for the bulk market. 散貨市場的通稱。
Dry Docking 塢修	To put a vessel into a dry dock for the inspection, repair and maintenance. Normally done on a regular basis of approximately every thirty months. 船舶進入乾船塢進行檢驗、維修和保養。通常每30個月進行一次。
Dwt 載重噸	Deadweight ton. A measure expressed in metric tonnes (1,000 kg) of a ship's carrying capacity, including bunkers, fresh water, crew and provision. This is the most important commercial measure of the capacity of a ship. 以公噸 (1,000公斤) 來量度船舶運貨能力的單位, 包括燃料油、淡水、船員和補給物。這是衡量船舶運載能力最重要的商業指標。
GT 總噸	Gross tonnage (GT). A measure of a ship's internal capacity that is normally used as a means to categorize commercial vessels. The volume measured includes all areas of the ship, from keel to funnel and from bow to stern. It is used to determine regulations, safety rules, registration fees, and port charges for the vessel. 以公噸來量度船舶內部容量的單位, 通常用作對商船, 特別是對貨船分類的方法, 量度的體積包括從龍骨到煙囪及從船首到船尾的所有區域。總噸主要用來定義商船的等級, 決定應用的法規制度、安全規則、註冊和港口費用。
FFA 遠期運價協議	A Forward Freight Agreement is a financial forward contract that allows ship owners, charterers and speculators to hedge against the volatility of freight rates. It gives the contract owner the right to buy and sell the price of freight for future dates. 遠期運費協議是一種金融遠期協議, 允許船東、租船人和投資人對衝運費的波動。賦予協議人買賣運費期貨的權利。
Freight Rate 運費費率	The agreed charge for the carriage of cargo expressed per tonne of cargo. Note also Worldscale. 以每噸計算的協定運費。另可參閱世界指數。
Handysize/ Handymax 靈便型船	Bulk carrier size ranges defined as 10,000-40,000 dwt and 40,000-60,000 dwt, respectively. 分別介乎1至4萬載重噸和4至6萬載重噸的散貨船。
ILO 國際勞工組織	International Labour Organization, the United Nations agency concerned with employer/employee relationship. 專責關注僱主與僱員關係的聯合國機構。



GLOSSARY

專業

IMO 海事組織	International Maritime Organization: the United Nations agency devoted to shipping. 專責與航運相關事務的聯合國機構。
ISM Code 管理法規	International Safety Management code for the safe operation of ships and for pollution prevention, as adopted by the IMO. 由國際海事組織通過有關船舶安全航行和防止污染的法規。
LNG	Liquefied Natural Gas. 液化天然氣。
LPG	Liquefied Petroleum Gas. 液化石油氣。
Neopanamax 駁型貨輪	The largest size ship able to transit the widened Panama Canal. 能夠通過擴闊後之巴拿馬運河的最大型貨輪。
NT 淨噸	Net tonnage (NT). A measure of the ship's volume of all cargo spaces. It indicates a vessel's earning space and is a function of the moulded volume of all cargo spaces of the ship. 以公噸來量度船舶所有貨艙體積的單位, 表示船舶的盈利體積, 是船舶所有貨艙的體積總和。
OBO	Oil/Bulk/Ore carrier. A ship that can carry either oil or dry bulk, so reducing ballast voyages. 油散礦船, 指可運載油和乾散貨的船舶, 用以減少船舶空航。
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Multi-product 多集裝船	Tanker equipped to carry several types of oil cargo simultaneously. 配備可同時裝載多種油產品的油輪。
Reefer 冷凍船	A vessel capable of handling refrigerated cargoes such as meat, fish and fruit. 能夠運載如肉類、魚類和水果等需要冷藏貨物的船舶。



Spot Market 即期市場	Short term contracts for voyage, trip or short term time charters, normally no longer than three months in duration. 航程、航次或短暫定期租賃的短期合約，一般為期不超過三個月。
Suezmax 蘇伊士型油輪	A tanker size ranger defined as 120,000 - 200,000 dwt. 介乎12萬至20萬載重噸的油輪。
TEU 標準箱	Twenty foot Equivalent Unit. The container unit of measurement represented by a standard twenty foot long container. 長20呎集裝箱，代表標準貨櫃的量度單位。
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GLOSSARY

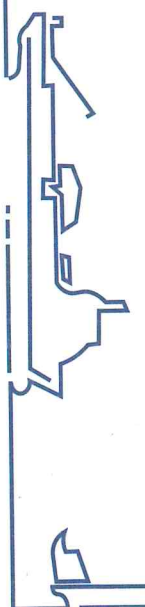
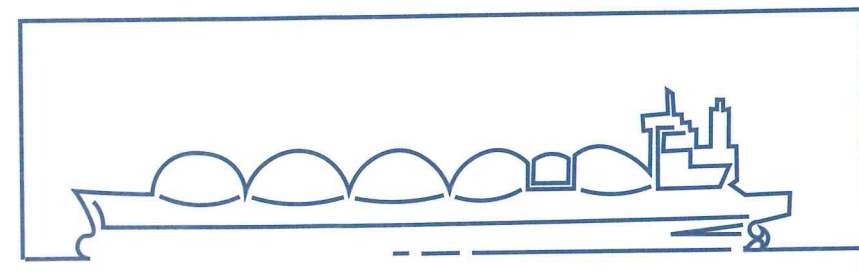
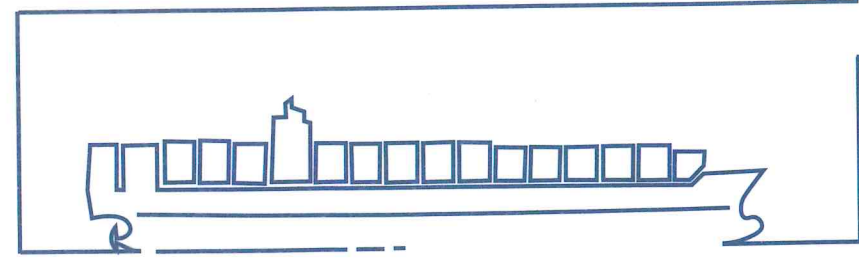
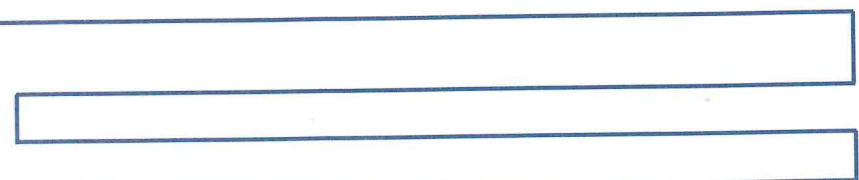
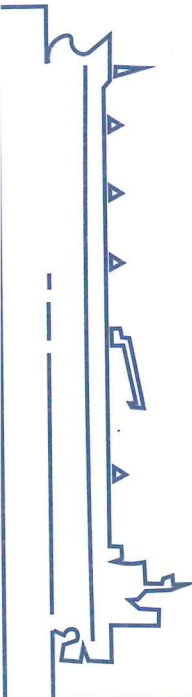
專業

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list

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Hong Kong Shippers Council
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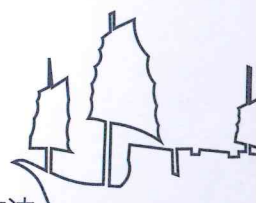
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