

造（修）船人员业务提高实用丛书

造船实用英语

张晓峰 ◆ 编著

大连海事大学出版社
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Practical English for Shipbuilding

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编者的话

随着国际航运业不景气的加深,作为航运业源头的造船业也遭遇了严冬,造船业曾经繁荣的景象被竞争和萧条取代,国内外许多船厂都进行了“关、停、并、转”,进行新一轮洗牌式变革。国内造船企业改变了经营策略,由过去的坐等造船业务变成主动和船东接触、寻求新的客户和新的造船机遇。当前我国造船企业多数是国有企业,在过去的造船经营中基本是“国轮国造”,造船的客户都是说中文的,而随着我国造船业的拓展,我们的造船客户也有如 Maersk、CMA CGM、Ocean Tankers、BW Shipping、Gearbulk 等国外集装箱、油船、散货船船东,而这些船东所带的验船师、监理人都不懂中文,我们长期以来形成的说中文机制被打破,船厂各个部门都需要做相应的调整。

笔者自 2011 年起受大连船舶重工集团有限公司、大连中远川崎船舶工程有限公司、大连船舶重工集团舾装有限公司等邀请做提高职工素质的教学工作,编写出版的《与船东、验船师沟通技巧》等书籍,填补了造船业培训市场的空白。这些培训是全方位的,有理念的更新、有语言的学习,也有对国外造船信息的了解。笔者根据在大连几家造船公司的培训经验,整理编著了《造船实用英语》,以满足目前造船市场的需要。本教材具有实用性、语言学习性、知识性、综合性等特点。

本教材是适合于船厂职工英语学习和业务培训使用的综合教材,也是适合于船厂入职培训的教材,同时还是适合于造船培训院校师生的教材或者参考资料。本教材还是 2015 年中国海事局“海事调查指导书编写”的延展研究。本教材中所有对话使用的人名、部门名为虚构,在对话设计中融合了造船业务,并传递造船人的勤奋、专业、智慧等正能量。

感谢大连中远川崎船舶工程有限公司刘智冬先生等人在本教材的编写过程中给予的帮助。为了完善本教材,在编写过程中笔者邀请了周云龙等技术专家参与研讨,通过研讨使得教材的编写更有针对性。

由于时间和精力有限,本教材还有许多不完美之处,恳请读者和同行批评指正。笔者的邮箱是 crewedu4ever@aliyun.com 或者 2598825994@qq.com。

张晓峰

2016 年盛夏于大连海事大学心海湖畔

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Section 1

Familiarization of Shipbuilding Industry

第 1 篇 熟悉造船业

本篇设计主要考虑到下列要素:首先造船企业很多员工在造船营销方面很少了解国际航运市场,他们多数是各司其职,只关心自己的业务工作部分,而缺乏对航运经济的起码了解与把握;其次,造船企业每年都要吸收新员工,补充新鲜血液,而这些新员工中很多人所学的课程中没有和造船企业与经济相互关联的科目;再次,通过本篇的学习,可以完成造船人的观念转变,把在 2007 到 2008 年的航运高峰时期形成的造船本位主义观念转变,增强服务意识和大局观念,更好地为船东服务并赢得更多的客户。

Chapter 1

International Shipping Economy and Shipbuilding

第 1 章 国际航运经济与造船

本章主要是对国际航运经济与造船的简单介绍,让学员熟悉航运经济的观察方法、了解航运经济和造船业的关联,并对与船东、验船师沟通的文化背景、策略与方式进行介绍。

Lesson 1

Relationship Between International Shipping Economy and Shipbuilding Industry

第 1 课 国际航运经济和造船业的关联

We will get familiar with the stock markets, several indices jump into our minds, such as Hang Seng index (Hong Kong), Nikkei index (Tokyo), FTSE 100 index (London), Shanghai Stock index (Shanghai), Shenzhen Stock index (Shenzhen), DAX (Frankfurter), CAC40 (Paris), Dow Jones indexes and Nasdaq Composite index (New York). They are economic indicators. When they are higher, the stock markets are booming. Similarly, the stock markets are bust when they are lower.

Is there any index showing the conditions of the shipping industry? In other words, how do we know the shipbuilding market is on the shipowners' side or the shipbuilders' side? We need to

check the following indices, namely BDI, HARPEX, BDTI, and BCTI, *etc.*

Solid Cargo Indices

The term BDI is short for Baltic Dry Index. It is a number (in USD) issued daily by the London-based Baltic Exchange. Not restricted to Baltic Sea countries, the index provides “an assessment of the price of moving the major raw materials by sea. Taking in 23 shipping routes measured on a time-charter basis, the index covers Handysize, Handymax, Supramax, Suezmax, Panamax, and Capesize dry bulk carriers carrying a range of commodities including coal, iron ore and grain.”

Dating back to 1744, the Virginia and Maryland coffee house in Threadneedle Street, London, changed its name to Virginia and Baltick, to more accurately describe the business interests of the merchants who gathered there. Today's Baltic Exchange has its roots in a committee of merchants formed in 1823 to regulate trading and formalize the exchange of securities on the promises, which by then had moved to the Antwerp Tavern(安特卫普客栈).

Terms of Handysize, Handymax, Supramax, Suezmax, Panamax, and Capesize are explained as follows:

Actually there are no normal, academic, and authorial explanations concerning the exact tonnage for those ships. They have already been used in the shipping industry for quite a long time.

—*Handysize* usually refers to a dry bulk vessel (or, less commonly, to a product tanker) with deadweight of up to 50,000 tons. It allows ships to enter smaller ports to pick up cargoes. The prefix of the word “Handy” is an adjective which refers to easy to be handled. So handysize ships imply that those ships are easily manoeuvred into a sea port, a river port without much limitations on the draughts, lengths, breadths, or other particulars.

—*Handymax* usually refers to the maximum ships of the handysize, which most ranges from 35,000 to 50,000 tons. The suffix max refers to the maximum, and thus handymax refers to the maximum of the handysize.

—*Supramax* is also a term for a bulk carrier. It is similar to Handymax. The deadweight tons are typically 52,000 to 58,000 in size with 5 cargo holds and four cranes of 30 tons lifting capacity.

—*Suezmax* is a naval architecture term for the largest ship measurements capable of transiting the Suez Canal in a laden condition, and is almost exclusively used in reference to tankers. Since the canal has no locks, the only serious limiting factors are draft (maximum depth below waterline), and height due to the Suez Canal Bridge. The current channel depth of the canal allows for a maximum of 20.1 metres (66 ft) of draft, meaning that a few fully laden supertankers are too deep to fit through, and either have to unload part of their cargo to other ships (“transshipment”) or to a pipeline terminal before passing through, or alternatively avoid the Suez Canal and travel around Cape Agulhas instead. The canal was deepened in 2009 from 18 to 20 metres (59 to 66 ft).

—*Panamax* is a kind of dry cargo ships which are exclusively designed to transit Panama Canal. The LOA is below 291.4 metres and the breadth is below 32.3 metres. The deep draught is



below 12 metres. Normally the gross tonnage is from 60,000 to 75,000.

—*Capesize* is a kind of dry cargo ships which have to detour from the Good Hope Cape if they wish to transit the Indian Ocean from the Atlantic Ocean and *vice versa*. The gross tonnages ranges from 80,000 to 175,000.

The new Panama Canal opened on 26th, June, 2016. The maximum data for new locks are 427 m long, 55 m wide, 18.3 m deep.

Therefore the Panamax for container ships ranges from 8,800 to 12,000 TEU with gross tonnage of 94,000. The Panamax for oil tankers is around 160,000, but the draught is less than 17 m. The Panamax for bulk carriers ranges from 100,000 to 130,000, but the draught is within 14.5 m.

Malaccamax ship is the largest ship capable of transiting Malacca Strait. The maximum particulars are LOA 470 m, width 60 m, DWTC 3000,000 or 18,000 TEU for a container ship.

Another index of the solid cargo is HARPEX for container cargoes. It is an index to focus on container freight. It provides an insight on the transport of a much wider base of commercial goods than commodities alone. HARPEX is regarded as a Current-Activity Indicator, because it measures and charts the changes in freight rates for container ships. Container ships typically carry a wide variety of finished goods from a multitude of sellers. These are factory output goods headed for retail markets, at the other end of the supply chain.

Liquid Cargo Indices

Even though, human beings have been exploring new energies for automobiles, manufacturing, daily uses, *etc.*, the use of oil is still the lion's share. Therefore, the oil transport is still the biggest industry in marine shipping. There are two indices to show the oil transport situations in the market, namely, BDTI and BCTI.

The term BDTI is short for Baltic Exchange Dirty Tank Index and it is the indicator for carrying crude oil cargo. On the other hand, the term BCTI is short for Baltic Exchange Clean Tank Index. It shows the indicator for carrying product oil, such as gas oil, diesel oil, kerosene, jet oil, fuel oil, *etc.*

The crude oil carriers are composed of small oil tankers, VLCCs, ULCCs. The product oil carriers are not that large.

As the shipbuilders, we shall focus on those indices to know what kinds of cargoes are profitable and then we know which types of ships are hot in the building industry. So far, we know the buildings of large containers and VLCCs, ULCCs are the new trend in the shipbuilding industry.

Dialogue

Background of the Dialogue:

The first speaker is a staff of the shipowner. His name is George Santos, a Pilipino. The second speaker is a staff from the Marketing Department of DSIC. His surname is Zhang. They are friends after cooperation in the shipyard.



- S1: Long time no see, Zhang.
- S2: Hello, there. How is everything going, George?
- S1: Everything is going fine. We are planning to modify our bulk carriers to meet the requirements of the international shipping market, Zhang.
- S2: My company—DSIC is good at building all kinds of ships, so may I ask you what kind of ships you wish to modify into?
- S1: You know, our company is called Bulk Carrier. In recent years, the carriage of bulk carrier is still in the valley. In contrast, the oil transportation is still beneficial, therefore we decide to shift at least 10 VLBCs into VLCCs.
- S2: Understood. I also looked up the BDI and BDTI recently. The BDI is still about 500. Compared with the peak, 13,200, the BDI is too low, I dare say. BDTI is a little higher. You might be familiar that DSIC is competitive in all kinds of building and ship's modification is just a piece of cake. I will report it to my boss to decide about that.
- S1: Hang on, hang on. I didn't say that my general manager have chosen your shipyard to modify my ship. We will invite the tender and your shipyard needs to bid to get the project, Zhang.
- S2: Come on, George. Our company is almost the largest shipyard in China. The technique we use now is the most modern one in China as well. There is no other reason to choose the other shipyards, George.
- S1: You know that is the necessary procedure. You may report it to your boss and we need to see your plan on the modification.
- S2: Okay, George. Thanks for your information and I will report it to my department leader as soon as possible.
- S1: Anyway, is Louis still your department leader?
- S2: Yes, he is. George.
- S1: Alright. Tell him that I'd like to talk with him in due course.

Lesson 2

International Route and Types of Ships

第2课 国际航线和船舶种类

There are four big oceans on the earth. In descending order, the oceans are, the Pacific Ocean, the Atlantic Ocean, the Indian Ocean, and the Arctic Ocean. Though the oceans are vast, the routines are similar.

Trans-Pacific Ocean Route

This route is one of the busiest routes in the world, because the most significant economic bodies surround the ocean. The most important countries in the economic bodies are China, USA, Russia, Canada, Japan, Korea, *etc.* The international businesses make the routes hasty. There are

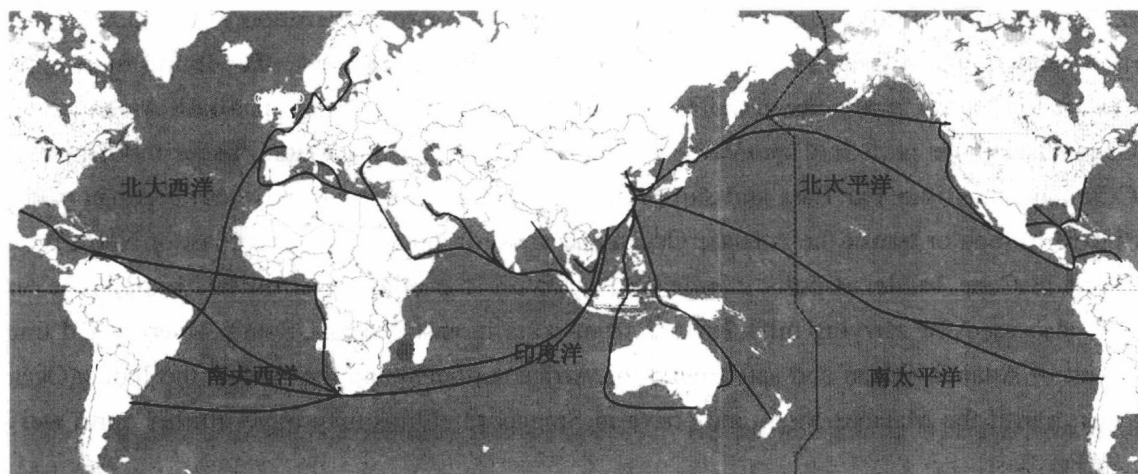


Fig. 2-1 Trans-ocean Passage/过大洋航路

6 sub-routes in the Pacific Ocean. The first sub-route is from the Far East area, such as China, Japan, DPRK, R. O. Korea, east part of Russia to North America countries, Canada, USA, and Mexico and *vice versa*. The second sub-route is from the Far East to Caribbean countries, such as Cuba, Bahamas, Haiti, Dominican Republic, Jamaica, Puerto Rico, *etc.* and *vice versa*. The ships with Panamax below have to transit the Panama Canal or detour the entire South America continent if the sizes of ships are bigger than that of Panamax. The third sub-route is from the Far East to ports in the South America countries and *vice versa*. The route aforementioned may call at Hawaii to replenish bunkers and fresh water. The ships are large enough to sustain violent storms, winds, and seas. The fourth sub-route is from the Far East to the Indian Ocean via the Strait of Malacca and Singapore and *vice versa*. All the ships sailing in this route are inevitable to transit the entire South China Sea and Malacca Strait. The fifth sub-route is from Far East to Australia or New Zealand. *En route*, the ships are necessary to transit the South China Sea, Celebes Sea, Banda Sea, Arafura Sea, Torres Strait, Coral Sea, *etc.* and *vice versa*. The sixth sub-route is from Australia or New Zealand to North America and *vice versa*. Ships may call at Honolulu to take bunkers. However, the ships may sail around the entire South America continent if they are huge and transit to the east coast port of North America.

Trans-Atlantic Ocean Route

As the Europe economic centres and North America economic centres surround the Atlantic Ocean, the routes in the Atlantic Ocean are concentrated. There are six major routes in the Atlantic Ocean. The first route is from Northwest Europe ports to North America ports and *vice versa*. This is the busiest route in the Atlantic Ocean. In addition to the cargo transport, cruise ships normally sails on this route. The second route is from Northwest Europe ports to Caribbean ports or to the west coast of America ports and *vice versa*. On this route, the ship may arrive in or transit Caribbean Sea and transit Panama Canal. If the ship is very large, such as large container ships, VLBC, ULBC, VLCC or ULCC may prepare to sail around the South America continent upon arrival at the Caribbean Sea waters. The third route is from North America ports to the Mediterra-

nean Sea and *vice versa*. This route may further extend to Asia via transition of the Indian Ocean. On this route, ports in Azores or Madeira are the relay ports for bunkers. The fourth route is from Northwest Europe ports or ports in the Mediterranean Sea to the ports in the South America. Ports in Canary Islands or ports in Cape Verde are the relay ports in this route. Under the fifth route, VLCCs may start from Far East and sail around the Africa continent and then arrive in ports in Northwest Europe or transit the Atlantic Ocean and arrive in ports in the east coast of North America. Ports in Cape Verde or ports in Canary Islands are the relay ports on this route. The sixth route is also used for carrying oils. It starts from ports in east coast of South America and transit the south of Atlantic Ocean and sail around the Africa continent and then enters the Indian Ocean, and then transit the Malacca Strait and arrive in Singapore. Ships may travel further north and arrive in Far East.

Indian Ocean Route

Since the countries in the Gulf are OPEC countries, most routes in the Indian Ocean are related to the oil products. In descending order, the routes are:

—Persian Gulf – Good Hope Cape – West Europe or North America route: As Europe countries and North America countries are large customers of the oil, most VLCCs or ULCCs are on this route.

—Persian Gulf – Southeast Asia – Singapore or Far East route: Since China, Japan, Korea are significant consumers in product oil, the import of oil to this area is significant. Malacca Strait and/or Makassar Strait are to be transited *en route*.

—Persian Gulf – Suez Canal – the Mediterranean Sea – West Europe: This route is not only used for oil transport but also for other commodities transports.

The super large vessels such as ULBCs, ULCCs may choose the routes as follows:

—Far East – Southeast Asia – East Africa: This route is used for carrying bulk cargoes.

—Far East – Southeast Asia – the Mediterranean Sea – Northwest Europe: This route is used for carrying all kinds of cargoes, such as bulk cargoes, general cargoes, *etc.*

—Far East – Southeast Asia – Good Hope Cape – West Africa: This is the route for carrying bulk cargoes, such as grains, ores, *etc.*

—Australia – New Zealand – the Mediterranean Sea – Northwest Europe: This route is used for carrying ores.

Coastal Routes

All lines aforementioned are ocean-going. However, there are coastal routes other than the ocean-going routes. For example, a lot of general cargo ships hop among Europe ports. In China, most shipowners run short voyages. For example, they use their handy container ships to run from ports of Mainland China to Japan, DPRK, R. O. Korea, Taiwan, Hong Kong, *etc.* They may open shipping businesses from ports in North China to South China and *vice versa*. The ships haven't jumped out of the oceans.

Liners and Tramps

Most container ships, cruise ships are arranged in liners while most general cargo ships and



bulk carriers and vast other types of ships are arranged in tramps. The routes are also dependent upon the areas where the shipowners from and the businesses which the shipowners run. For example, Maersk may arrange the liners to transit the oceans for container logistics whereas COSCO Shipping Bulk may arrange tramps for their bulk cargo carriage. Fig. 2-1 is used to comprehend the route easily.

Dialogue

Background of the Dialogue:

The first speaker is the representative of the shipowner. His name is Philip Williams, an English people who serves Maersk. The second speaker is a staff from the Department of Design, DACKS. His surname is Zhou. Philip is visiting Zhou, because the shipowner desired to build a large container ship in DACKS.

S1: Nice to meet you, sir. I am Philip Williams and from Maersk. This is my business card.

S2: Pleased to meet you, Mr. Williams. I am the person in charge of the ship design. Take a seat, sir. This is my business card. My surname is Zhou, so you just call me Zhou.

S1: Hi, Mr. Zhou. You can call me Philip. My shipowner intends to build a 20,000 TEU container ship, so my intention is to discuss the design of the ship with you.

S2: Philip, thank you very much for your concern. May I ask whether you are to make a firm decision to build this ship in DACKS or you intend to invite several shipyards to make the design? I mean, if my question doesn't touch your business secret.

S1: No, no, no. Zhou. That's okay. I will explain it for you. Yes, we have invited several shipyards in China to make the design. Before we make the final decision, we will consider several factors, price and cost, technical factors, shipyard capabilities, etc. As far as I know, DACKS is very competitive. This is why I will discuss it with you in more details, Zhou.

S2: Thanks for your trust, Philip. We will make every endeavour to create the ship. May I ask the trade area, if you don't mind?

S1: Sure, the ship may transit the North Atlantic Ocean and the voyages are designed from Northwest European ports to North America ports, Zhou.

S2: Okay, it is to say the ship will sail in the North Atlantic Ocean in winter. So we will care about the restrictions on the loadline, Philip.

S1: Exactly, Zhou

S2: Alright, Philip. We will organize a team to design the ship and send the drawings to you as soon as we have finished the drawings. Much appreciated, Philip.

S1: Although it is confidential in shipyard selection, I may be on your side personally.

S2: Thanks for the word. I am sure, DACKS is the most suitable shipyard. We have the slogan "the world class ship from the world class shipyard." You won't feel disappointed if you choose our shipyard.



Lesson 3

Introductions to Shipowners

第3课 船东介绍

Shipowners, as the name suggested, are persons or companies who actually own their ships. Millions of shipowners registered in different countries according to the economic, political, or geographic causes. The shipowners are classified into different types in the viewpoints of the shipbuilders. The shipowners are different from the ship operators and bareboat charterers in some cases. In other words, ship operators and bareboat charterers don't have the ownerships of the ships, and they barely have the rights to use the ships. For example, a ship operator may be at the disposal to run a ship under the authorization of the shipowner, because the shipowner is not professional in management of a ship. The ship operator may run a Safety Management System and manage the ship under ISO 9001 or other safety system and the operator may employ crewmembers from another ship's management company. The bareboat charterer is the second hand shipowner and the owner may hire a ship under time charter party or voyage charter party. The bareboat charterer does not actually own a ship, but the charterer uses the ship as a shipowner in a certain period of time. It is imagined that the actual customer for the shipbuilder is exclusively the shipowner rather than the ship operator or bareboat charterer.

State-Run Shipping Companies and Private Shipowners

In China, the largest shipping companies are State-run, for example, China COSCO Shipping Corporation Limited which merged from China Ocean Shipping Company Limited (COSCO) and China Shipping respectively on February 18th, 2016, and Hainan airplane group. Compared with the State-run shipping companies, private shipowners are comparatively quite small. COSCO and China Shipping were two largest companies in China. They were also at the top of the world. As the companies were owned by Governments of China, the managers were nominated by the Central Government. In common practice, the State-run shipping industries are called shipping companies rather than the shipowners. On the other hand, the shipping companies are owned by non-governmental running authorities for the private companies. In that case, the managers of the companies are called shipowners as they own the ownerships of their companies.

Shapes and Sizes of the Shipowners

Based on the asset, gross tonnages of the ships, the shipowners are also classified into four types, namely very large size, large size, middle size, and small size shipowners.

In Chinese valuation system, if the value of the asset is more than 20 billions and/or the total gross tonnage is more than one billion, the shipowner is the very large size one, such as China COSCO Shipping Corporation Limited. When the value of the asset is between 5 billions and 20 billions and/or the total gross tonnage is between 0.6 billion and 1 billion, the shipowner is called the large size one, such as SINOTRANS & CSC. While the value of the asset is between 0.5



billion and 5 billions and/or the total gross tonnage is between 60 millions and 600 millions, the shipowner is called the middle size one. The typical examples in China are Zhejiang Shipping, Shanghai Time Shipping Co. Limited, Fujian Crown Sea Shipping Company Limited, *etc.* While the value of the asset is below 0.5 billions and/or the total gross tonnage is below 60 millions, the shipowner is called the small size one. It is envisaged that most of the shipping companies in China are the small size ones.

Professional Shipowners

The world renowned shipowners are professional companies dealing with one particular shipping business type.

—Container shipowners are owners of container ships. Those ships are used for carrying two types of containers, namely twenty feet equivalent unit (TEU) containers and forty feet equivalent unit (FEU) containers. The famous container shipowners are, for example, Maersk Sealand, Mediterranean Shipping Company, CMA CGM, Evergreen Line, Hapag-Lloyd, OOCL, COSCO Container Lines, Hanjin Shipping, MOL-Japan, Hamburg Süd Group, APL, NYK, *etc.*

—Bulk carriers or bulk freighters, or bulkers are merchant ships specially designed to transport unpackaged bulk cargo, such as grains, coal, ore, and cement in its cargo holds. Since the first specialized bulk carrier was built in 1852, economic forces have fuelled the development of these ships, causing them to grow in size and sophistication. The bulk transportation is now in bust. The depression of the shipping industry directly impact on the bulk transportation. Moreover, bulk transportation is casual and it is unpredictable for the forthcoming cargo transport. Ships are normally arranged in tramps. For a particular ship, she may be arranged to set sail from China to America this voyage, but she will possibly be arranged to bound for Europe next voyage. All of this will rely on the businesses abruptly arisen. Today's bulkers are specially designed to maximize capacity, safety, efficiency, and durability. The famous bulk carrier shipowners, for examples, are China Ocean Shipping Bulk, Gearbulk AG-Hong Kong, Gearbulk AG-Indonesia, NYK Line, MOL(Mitsui O. S. K. Lines, Ltd.), Enterprises Shipping & Trading, *etc.*

—Oil tanker shipowners. An oil tanker, also known as a petroleum tanker, is a merchant ship designed for the bulk transport of oil. There are two basic types of oil tankers: the crude tanker and the product tanker. Crude tankers move large quantities of unrefined crude oil from its point of extraction to refineries. Product tankers, generally much smaller, are designed to move refined products from refineries to points near consuming markets. Oil tankers are often classified by their size as well as their occupation. The size classes range from inland or coastal tankers of a few thousand metric tons of deadweight (DWT) to ultra large crude carriers (ULCCs) of 550,000 DWT. Tankers move approximately 2,000,000,000 metric tons (2.2×10^9 short tons) of oil every year. Second only to pipelines in terms of efficiency, the average cost of oil transport by tanker amounts to only two or three United States cents per 1 US gallon (3.8 L). Oil tanker shipowners are, for example, BW Shipping, Ocean Tankers, Alphamax Petroleum Transport Co. Limited, Big Sea Co. Limited, B. P. Supply Co. Limited, C & P Company Limited, C. S. K. Marine Co. Limited, Delta Shipping Co. Limited, Khun Nathee Co. , Limited, *etc.*