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Freight Forwarders Training Courses

for Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Tajikistan, Turkmenistan, Ukraine, Uzbekistan

Module 2 Sea Transport

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2 SEA TRANSPORT

2.1 Sea port

Learning objectives
The student should be aware of the major sea ports in the world.
The student should understand in general what refers to the transport possibilities to and from sea ports, and the main types of loading and unloading, and other facilities at the ports.
The student should also understand what feeder service means.

Seaports, from the simply physical sea/land interface they once used to be, have successively turned into commerce and industrial centres, then into logistics and distribution platforms, and are now becoming intermodal nodes in international supply chains networks, the efficiency of which now drives trade competitiveness.

A port is a sheltered bay or place where ships can anchor or moor safely. When it comes to commercial ports, the description alters as follows:
"an area where land and water joins, that have the facilities and tools to accommodate the loading, discharging and storing of cargo intended for sea-going vessels, as well as the receiving and dispatching of this cargo to and via means of transport on land, and where other sea related activities will take place."
In the definition of the port above, the joining of land and water is mentioned. This means that ports do not necessarily have to be situated right next to the sea. Both Rotterdam and Amsterdam in the Netherlands, for instance, do not border on the sea.

A port offers the safekeeping of vessels. However, to make these ports economically more attractive to vessels, there is still much that needs to be done.

2.1.1 Major sea ports in the world

Learning objectives
The student should be aware of the major sea ports in the world, and be able to name a few of the top ranked sea ports.

There are more than 2,000 ports around the world, from single berth locations handling a few hundred tons a year, to multipurpose facilities handling more than 300 million tons a year. For developing countries, according to the World Bank statistics, more than 80 percent of the foreign trade in tonnage is carried out by sea.

Containerization of general cargo traffic has progressed steadily over the past two decades. But the container traffic is distributed unevenly between the Far East (45%), Europe (23%), North America (16%), Near and Middle East (6%), Central and South America (4%), and Africa (3%). (World Bank figures)

Worldwide, the port traffic is made up by 45% of liquid bulks (mainly oil, petroleum products, and chemicals), 23% of dry bulks (coal, iron ore, grain, and phosphate), and 32% of general cargo.

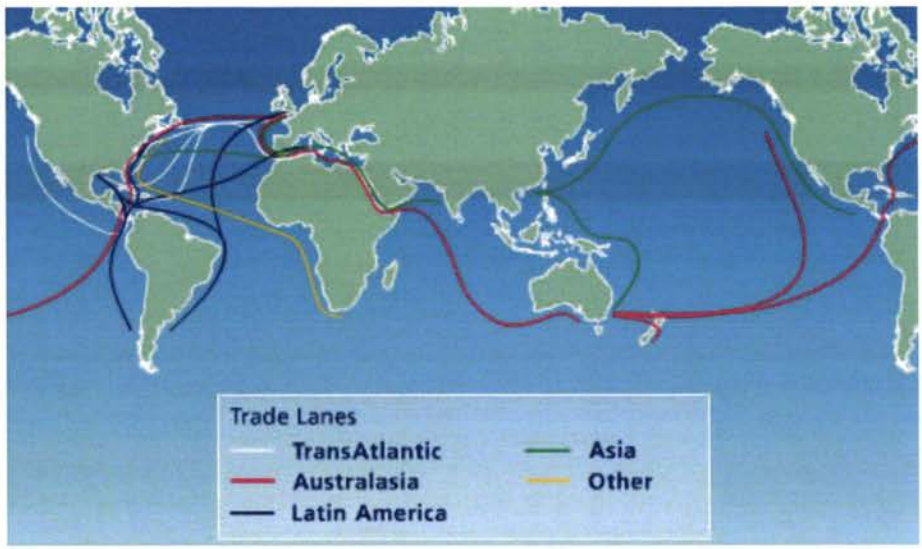
Major world sea ports

Ports can be compared in many different ways - by volume or value of trade, number of calling vessels, revenues, storage capacity, productivity or efficiency, as examples. The most frequently used comparisons are the total cargo tonnage handled, and the total TEUs handled in the port. Because of the generally high value of the containerized cargo and the large investments involved in ports for container traffic, the measurement of container TEUs are often used.

A major sea port can be also known for its specialization in container traffic, bulk cargo, or both. In general, the trade volumes generated from or to the region largely decide the potentiality of the sea port in competing for the top ranking, and the trade patterns i.e. the types of cargo traded determines then whether the port shall be specialized in handling containers, general cargo or bulk cargo.

The following chart displays the main sea trade lanes in the world.

World Sea Trade Lanes



Port Ranking in Tonnes

Worldwide, the top ranking ports in terms of cargo tonnage handled are as follows:

Ranking of Ports Worldwide
By total cargo tonnage (1000 tons)

Rank	Port		Country	Tons (1,000)
	2004	2005	(in 2005)	(in 2005)
1	Singapore	Shanghai	China, PRC	443,000
2	Shanghai	Singapore	Singapore	423,268
3	Rotterdam	Rotterdam	the Netherlands	370,231
4	Hong Kong	Hong Kong	China, PRC	230,139
5	Nagoya	Nagoya	Japan	185,000
6	Antwerp	Antwerp	Belgium	160,054
7	Klang	Dampier	Australia	104,366
8	Dampier			

Port Ranking in TEU

Worldwide, the top ranking ports in terms of container traffic handling are as follows:

Ranking of Ports Worldwide
By container traffic (1000 TEUs)

Rank	Port		Country (in 2005)	TEUs (1,000) (in 2005)
	2004	2005		
1	Hong Kong	Singapore	Singapore	23,200
2	Singapore	Hong Kong	China, PRC	22,430
3	Shanghai	Shanghai	China, PRC	18,090
4	Shenzhen	Shenzhen	China, PRC	16,200
5	Bushan	Bushan	Korea	11,840
6	Kaohsiung	Kaohsiung	Taiwan	9,471
7	Rotterdam	Rotterdam	the Netherlands	9,300
8	Los Angeles		United States	

Up until 2005, 14 of the world's top 20 container terminals were Asian-based, of which 7 ports located in China. In 2004, approximately 64% of the world container traffic was attributed to the Asian ports, whereby the top 8 Chinese ports represented 26.1%. Europe had a share of 20.6% and America 15%. The fast economic development in Asia and particularly in China resulted in the dramatic increase of cargo throughputs in the Chinese ports as well as the ports in the regions that share trade links with China. All these developments have led to the adjustments in the world port ranking in the past years.

A further detailed ranking of world ports in the previous years is available via the following web links:
http://en.wikipedia.org/wiki/World%27s_busiest_port#By_container_traffic
http://www.aapa-ports.org/industryinfo/statistics.htm.

Sea ports in the region

The main sea ports in different regions in the world are shown below.

North America

West coast: mainly pacific cargo from/to Asia Pacific.

- Los Angeles /Long Beach, San Francisco (U.S.): container
- Seattle, Oakland (U.S.)
- Vancouver (Canada)

East coast: cargo from Europe, Mediterranean or Africa via the Atlantic, and cargo from South America

- New York, Boston, Charleston (U.S.)
- Montreal (Canada)

South:

- Houston (U.S.): container
- Louisiana (U.S.): Bulk cargo

South America

- Tubarao, Sepetiba (Brazil): dry bulk cargo

Europe

- Rotterdam (the Netherlands): container and bulk cargo
- Antwerp (Belgium): container and bulk cargo
- Hamburg, Bremen (Germany)
- Le Havre (France)
- St. Petersburg (Russia): dry bulk cargo

Mediterranean Area

- Gioia Tauro, Genoa (Italy): container
- Algeciras, Valencia, Barcelona (Spain): container

Red Sea and Gulf Area (Near East)

- Dubai (UAE): Bulk cargo, container
- Khor Fakkan (UAE): container
- Salah (Oman)
- Jeddah (Saudi Arabia)

Asia Pacific

- Shanghai (China): Container, bulk cargo
- Singapore (Singapore): Container, bulk cargo
- Hong Kong (China): Container, bulk cargo
- Shenzhen, Qingdao, Dalian, Ningbo, Tianjin, Xiamen, Guangzhou (China)
- Nagoya (Japan): Container, bulk cargo
- Bushan (Korea), Kaohsiung (Taiwan)
- Dampier, Headland (Australia): dry bulk cargo

Port Links

The following sites provide a full list of the world sea ports:
http://www.transportationsource.com/, or
http://transport.intele.net/sea_ports_directory.cfm

For detailed information on a certain sea port around the globe, please go to either one of the following links:
http://www.hal-pc.org/~nugent/port.html
http://www.plazamarinefuel.com/world_wide_port_links.htm

Rotterdam – a major sea port in Europe

All the economic activities that have been attempted over the years resulted in Rotterdam becoming a large, flourishing harbour city. A few contributing factors included are the development in technique, the progress of industrial life, and the municipal politics in Rotterdam.

Rotterdam is one of the most important ports in the world. This is mainly due to its accessibility. There are no locks in the fairway and vessels with the deepest draught can easily and quickly reach Rotterdam. In fact, Rotterdam offers an excellent connection to the hinterland. This means that various destinations in Europe can be reached swiftly by train, inland vessel, truck or coastal shipping. Besides that there are many service companies available in Rotterdam, such as banks, insurance companies and trading houses.

In 2002, more than 322 million tonnes of goods were transhipped through Rotterdam. In terms of total weight, Rotterdam was the largest port in the world at that time. Since 2003, Rotterdam has been surpassed by Asian ports like Shanghai and Singapore. In 2004 and 2005 Rotterdam port was ranked 3rd in terms of total cargo tonnage and 7th in container TEUs.

Questions:

1. Ranking of sea ports in the world can be measured by:

a. The total tonnage of cargo handled by the port
b. The total TEUs of container traffic handled by the port
c. The total volume of ships handled in the port
d. All of the above

(d)

2. The following are major world sea ports except:

a. Rotterdam, Antwerp
b. Shanghai, Singapore
c. Florence, Duisburg
d. Los Angeles, Dubai

(c)

2.1.2 Port accessibility

Learning objectives
The student should understand the main factors influencing port accessibility, i.e. the transport possibilities to and from a sea port.

Transport possibilities to and from the sea ports are largely subject to two conditions:

- Limits of water depth
- Hinterland connections.

The conditions of water depth and hinterland connections further determine the port's possibility to function competitively as a node in the intermodal transport.

Water depth

Water depth is of utmost importance to a sea port, considering in particular the possibility to accommodate the ever enlarging vessels.

All the major sea ports in the world, without exception, either enjoy natural deep water, or undertake the deepening of channels on a regular basis by dredging or by constructing the locks. It is also obvious among the sea ports that water depth is becoming the decisive element in the port competition.

For example, the port of Rotterdam is a natural deep sea port. The 15 meters deep water allows it to accommodate the largest container vessels to date. The port of Shanghai, limited by the water depth in the city area, has invested billions of dollars in constructing a deep sea port that is 33km away from the mainland, which is connected only by a cross-ocean bridge.

Hinterland connections

Hinterland connection is another important element that determines the competitiveness of a sea port. Hinterland connections mean the possibilities of sea cargoes arriving from the sea-going vessels being further transported to destinations by another mode of transport, i.e. road, rail or inland waterway, or vice versa.

When speed and reliability is a major concern in the competition among sea ports, and between sea transport and other modes of transport, the competitiveness of the port is often, and to a large degree, subject to the availability and efficiency of the hinterland connections.

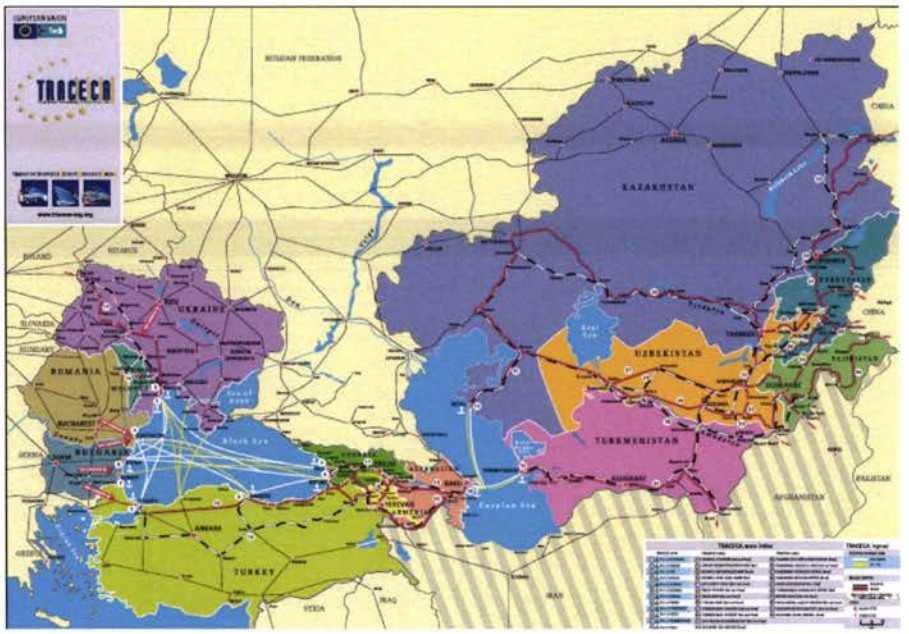
European Examples

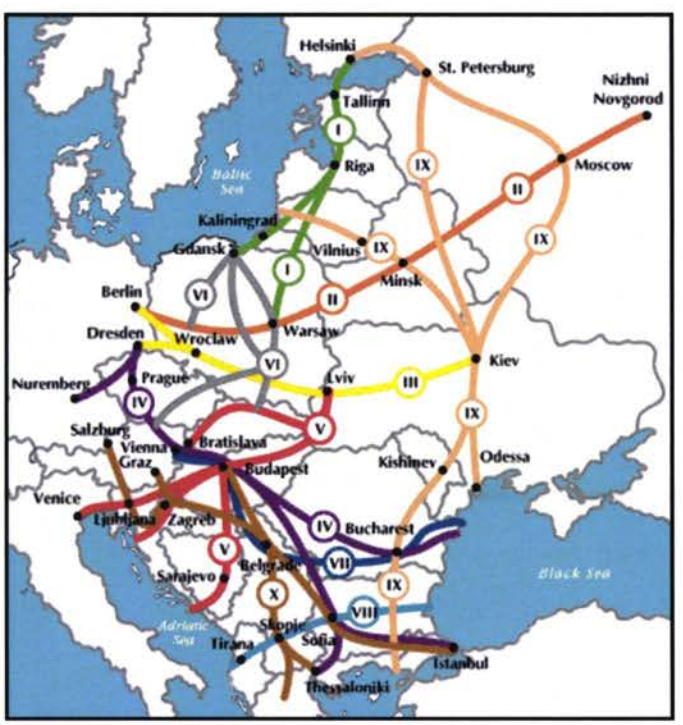
The next picture gives an idea of the hinterland connection network in the European ports by road, rail, barge and sea (feeders).

(Source: Port of Rotterdam)

In Europe, the European Union takes initiatives to improve the hinterland connections of the sea ports with the Eastern European and Asian regions. Many projects towards this end have been carried out, concentrating on institutional and transport infrastructure development. The main corridors that the European Union focuses on are such as the so called TEN Corridors and TRACECA (Transport Corridor Europe Caucasus Asia). More information is available on http://www.traceca-org.org.

Traceca Countries





European TEN Corridors

Considerations in choosing the mode of transport for

hinterland connections in Europe

When choosing a suitable transport modality, the relation between transport costs and transport speed especially, should receive serious consideration. From a European point of view, the goal is to reduce the road transport congestion, for transport to become less polluting and to have low energy consumption. A few examples of modern transport types therefore are:

- large scale transportation (carrying) of containers by rail or by inland water (shuttles); combination of Rhine ships, suitable for container transport – trucks - railways
- container transhipment via *inland terminals*, for combined transport
- Ro/Ro operations over inland waters to transport motor vehicles, agricultural vehicles and heavy loads; also in combination with ferry operations over sea
- carrying of trailers and so-called "swap-bodies" (freight unit, not to be piled) via railway and combined transport
- launching of coastal trade liners for door to door carrying over sea and inland waters.

Railway transport gets a whole new meaning in its connection with the hinterland. As a result,

- a large number of railway junctions have been and will be erected at factory installations
- *inland terminals for railway and water connections* have been and will be erected for the benefit of combined transport
- shuttle trains are being employed regularly between fixed traffic jam stations; or alternatively, block trains carrying much cargo from A to B.

Feeder connections within Europe are based on century long experiences in maritime shipping. Currently, the maintenance of the shipping routes, traffic control along the shipping routes and the accessibility of the ports, requires constant attention.

Inland water transport at present is applied not only for the transport of bulk cargo but also for containers. Other developments are:

- push navigation has contributed extensively to the carrying of large amounts of raw material; push navigation units of 4 barges are sufficient for approximately 10,000 tons loading capacity
- the carrying of containers over water is a specialised type of transport that has a high regularity and frequency
- special Rhine ships (Ro/Ro) are employed to carry motor vehicles
- Tanker shipping is concerned with the transport of liquid raw materials in large quantities and has experienced a certain amount of specialisation as well.

Port in intermodal transport

Sea ports are an important mode in intermodal transport that involves sea voyage. With good hinterland connections the modal shift at port, for the same shipment, becomes possible.

Intermodal Transport

People refer to intermodal transport when several transport modes are required. Transport is performed between the place of origin and the place of destination, via a few transhipment points. At these points, transport modalities are changed.

Intermodal transport relates to the transport itself

Trucks and trailers transported by rail

Multimodal Transport

Multimodal transport is the type of transport where the carrier, who organises the transport, accepts responsibility for the entire transport operation, and issues the appropriate transport documents for this, i.e. the Multimodal Transport Document.

For a better understanding between intermodal transport and multimodal transport, the UNCTAD (United Nations Conference on Trade and Development) has given illustrations in this respect in relevant documents concerned.

United Nations Conference on Trade and Development – UNCTAD Definitions in relation to "Unimodal", "Intermodal", "Combined" and "Multimodal Transport"

- from several sources and the resolution regarding the "1991 UNCTAD/ICC Rules for Multimodal Transport Documents"

Unimodal transport: the transport of goods by one MODE of TRANSPORT, by one or more carriers.
If there is only one carrier, he issues his own transport document, e.g. a bill of lading, an airway bill, a consignment note, etc. If there is more than one carrier, for example, carriage from one port via another port to a third port with transhipment at the intermediate port, one of the carriers may issue a "through bill of lading" covering the entire transport. Depending on the back clauses of this through bill of lading the issuing carrier may be responsible for the entire port-to-port transport, or only for the part which takes place on board his own vessel.

Intermodal transport: The transport of goods by several MODES of TRANSPORT from one point or port of origin via one or more interface points to a final port or point where one of the carriers organizes the whole transport.

Depending on how the RESPONSIBILITY for the entire transport is shared, different types of transport documents are issued:

- Segmented transport - If the carrier that organizes the transport takes responsibility only for the portion he performs himself, he may issue an Intermodal or Combined transport bill of lading.
- Combined/Multimodal transport - If the carrier organizing the transport takes responsibility for the entire transport, he issues a Combined or Multimodal Document.

In this connection it must be stressed that the expression "combined transport" was based on the no-longer-supported old 1975 "ICC Rules for Combined Transport".
These have now been replaced by the new 1991 UNCTAD/ICC Rules for Multimodal Transport Documents, and consequently we should use the expression "multimodal".

Questions:

1. True or False?

Port accessibility refers to the transport possibilities to and from the sea ports. These days the port accessibility is largely subject to the following conditions:

a. Depth of the waterways in the port (T)

b. Hinterland connections (T)

c. Port accessibility determines the role a port can play in intermodal transport (T)

2.1.3 Feeder services between ports

Learning objectives
The student should understand what feeder service means, and its role in sea transport.

As export and import traffic increases worldwide, the ships become larger and larger. The daily cost associated with the vessel is also increasing. In response to the increasing daily cost, there is the tendency to reduce the waiting time that a large vessel, e.g. the 80,000 metric tons container vessels, spends in a port. The increasing size of the vessel also limits its possibilities to call at sea ports of all sizes, but very few have sufficient water depth and proper cargo handling facilities.

In parallel with the trend of larger vessels with a limited number of calling ports, smaller vessels operate even more frequently between the large sea ports where the larger vessel call, and smaller ports (inland ports or small coastal ports) where the cargoes are generated from or destined to.

Feeder services feed the deep sea vessel.

In feeder services, ship size scarcely has any relevance. Large ships are travelling, for example, to the Mediterranean ports more frequently in Europe, even if it's only for short trips.

In Europe, shortsea transport shares a significant part of the transport market. Shortsea operators perform almost 40% of all transport duties in Europe.

In terms of the types of vessels used for feedering services, there are a variety of choices:

- Container ships
- RO/RO – ships
- Conventional ships

- Bulk ships

Often, it is also seen that many shortsea operators have specialised in door-to-door transport. It usually happens in conjunction with road haulage. It is remarkable how many shortsea vessels are able to penetrate deep into the hinterland, mainly because of their low building up structure.

The type of vessel that performs ocean-river shipping in Europe is known as a coastal trade liner.

Questions:

1. Which of the descriptions below about feeder service is incorrect?

a. Feeder service is the inland waterway transport

b. Feeder service provides cargoes to the large sea vessels calling only at large sea ports

c. Feeder service helps to run the large sea vessels more economically by reducing their time spent in a port

d. Feeder service can be the sea voyage between two coastal ports, or between a major sea port and an inland river port

(a)

2. There are different types of vessels that operate feeder services. Such vessels can be:

a. Container ships, and Conventional ships

b. RO/RO – ships

c. Bulk carriers

d. All of the above

(d)

2.1.4 Port facility

Learning objectives
The student should be aware of the main types of facilities and equipment used in port handling i.e. loading/unloading and horizontal transport, and understands they involve other facilities as well in order to make a port function properly and efficiently.

Loading / unloading facilities

Loading and unloading is the major and main activity that a port performs. In order to improve the port accessibility and enhance the port efficiency, loading and unloading facilities are therefore, often a major concern to the port, as well as the port users.

General Cargo

General cargo was traditionally loaded and unloaded by cranes mounted either on a ship or ashore. Further transport to and in sheds are performed by forklift trucks and other equipment for horizontal transport.

Conventional handling of general cargo

Containers

A significant improvement in this field is the world wide implementation of standardised containers, which introduced the specialised equipment for the fast and efficient container handling in ports. Examples are the rail mounted container cranes for loading and unloading. The reach of these cranes has increased significantly throughout the years in order to serve larger and larger container vessels.

Bulk Cargo and Others

In regard to dry and liquid bulk cargo, special equipment is often needed in the loading / unloading, which can handle large volumes with a minimum of labour. For dangerous goods special offshore berths have also been implemented to increase safety.

Offshore jetty for liquid bulk vessels

Horizontal transport facilities

Horizontal transport facilities refer to those equipment and facilities used for the transport and handling of cargo within the port, e.g. at the container yard.

The most often used equipment in container handling is:

- tug masters
- straddle carriers
- reach stackers.

Tug master

Reach stacker

Other facilities in the port

Apart from the loading/unloading facilities and those for horizontal transport within the terminal, the port is also equipped with other facilities in order to function properly. Such facilities include those for administration purposes, e.g. administration buildings, and communication facilities, warehouses and container yards. In container handling, there is also a control tower in the port where the coordination and communication with regard to the container movement and storage in the terminal is carried out.

Questions

1. What kind of (un)loading equipment is this?

Offshore jetty for liquid bulk

Conventional general cargo crane

Gantry crane

Straddle carrier

2.2 Types of Vessels

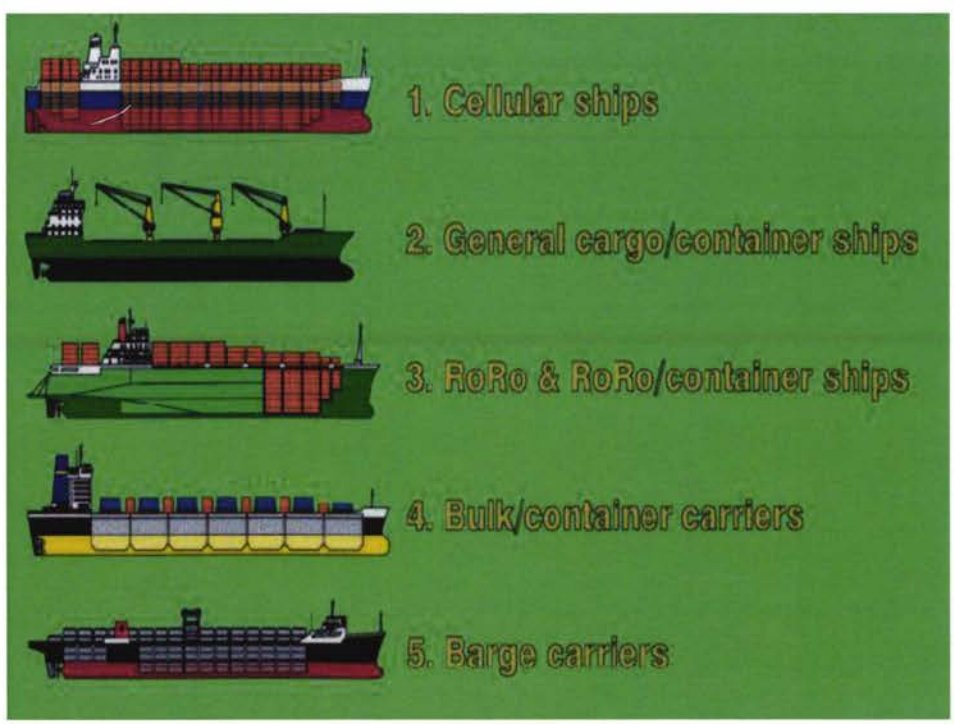
Learning objectives
The student should be aware of the different types of vessels and their respective applications in relation to the nature of the cargo.

The period after the Second World War showed a continuous increase in world trade and in sea trade. This increase in global commerce which lasts even to this day has greatly influenced the development and types of ships.

More and more ships have come since the beginning of global commerce. Subsequently the ships became faster and larger and a lot of small ships were taken out of service. After the 1970's, more and more universal ships were replaced by specialized vessels that can carry only one type of cargo. In addition to the traditional general cargo vessel and bulk carriers, new types of vessels were also developed such as oil and chemical tankers, container ships, heavy-lift ships, Roll-on/Roll-off and so on.

Below is a scheme layout, which can give you a first impression of the different types of vessels.

Schematic layout of vessel types



Question:

1. What vessel type is this?

Container vessel

Liquid bulk tanker

General cargo vessel

Ro/Ro vessel

2.2.1 Conventional ships

Learning objectives
The student should be aware of the general features of conventional vessels, and understand the types of goods that are usually carried by conventional ships.

Conventional ships are used for transport of general cargo, or a combination of the general cargo and cargoes of other types such as container or bulk cargo. Three concepts are often being used interchangeably; "conventional ships", "general cargo vessels" and "multipurpose vessels".

Conventional ships can be distinguished by:

- General cargo vessel: this vessel is employed in the carrying of traditional general cargo and (partly) bulk cargo loads
- "Multi-purpose" vessel: one part of this vessel is employed to carry general cargo, whilst another part of the loading capacity has been prepared to carry containers.

General cargo vessel

The general cargo vessel has one or more tweendecks, which allows the goods to be stored in lots.

In dividing the holds for storage of different cargoes, the following issues are normally taken into account:

- types of goods which might be loaded together or must be separate from each other;
- cargo destinations in order to ensure efficient discharging at the port of destination;
- equal distribution of the cargo on board, in order to achieve equilibrium (stability).

General cargo onboard a conventional cargo vessel

Equipment

General cargo vessels often have air-conditioned holds at their disposal for the carrying of perishable goods, sometimes including tanks that have been provided for the carrying of small portions of liquid cargo.

In order to function independently from the loading and discharging possibilities at the quays, general cargo vessels are often with their own loading and discharging gear at every hold.

In modern vessels this equipment consists of on-board cranes. The amount of cranes aboard a ship depends on the shipping area and on the type of cargo that the vessel has been put in. The same applies to the cranes' capacity.

On board modern general cargo vessels, you will also find large hatch covers that can be opened quickly, as well as cranes on deck and a variety of cooling and freezing options to choose from.

Loading/Unloading

Ship management is directly involved with the loading and discharging of a general cargo vessel. The captain is responsible for the stowage of goods, as well as the condition of the separate shipments. He also has to supervise the workforce and materials, as appointed by the stevedore.

The loading, discharging and stowage of general cargo (crates, boxes, cases, packages, barrels and drums, etc.) requires a large amount of labour. For that reason, these actions are performed explicitly by general cargo stevedores.

Characteristic of the stevedoring companies for general cargoes is the fact that they need many operational people to load, discharge and stow a vessel. On the other hand, the number of administrative people is generally small.

Multi-purpose vessel

Multi-purpose vessels are mainly operating in shipping areas where the employment of full container vessels is not yet economically feasible. It also concerns the infrastructure of some countries of origin and destination. Some countries may have limited capabilities in respect to the rapid off and on transport of containers.

Multi-purpose vessel

Test Question

1. The characteristics of conventional ships are:

a. Conventional ships are used for the transport of general cargo

b. Conventional ships can be distinguished by general cargo vessel or multi-purpose vessel

c. They are often equipped with loading and discharging cranes on board

d. All of the above

(d)

2.2.2 Container ships

Learning objectives

The student should understand the differences between a container vessel and other types of vessels, and understand the development trends as well as constraints of container vessels.

General cargo had always been carried in the conventional ships. However, with the introduction of the container, more and more general cargo is now being shipped in containers. The arrival of the containerisation has replaced the conventional general cargo vessels by more and more specially equipped container vessels. The carrying of cargo in containers has become a very special way to transport goods. Goods can also be shipped in bulk in the appropriate containers. Nowadays container vessels mainly sail in the liner trade.

The cellular container ships have the same outward appearance as the boxes that they carry. These vessels have been designed to be as rectangular as possible with regard to both width and length, in order to carry as many containers as possible, on deck as well as below deck.

Development of Containers

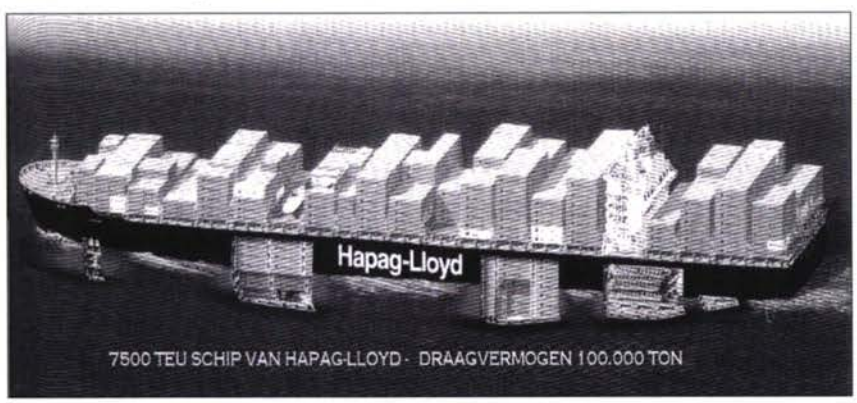
The sharp increase in costs in the industrialised parts of the world during the sixties had a major effect on conventional scheduled voyages. The transhipment of general goods was/is time consuming and very labour intensive. This not only contributed to increasing costs, but also resulted in low returns on the capital invested in ships. Only sailing ships earn money, so the shorter the time in port of the ship, the better it was for the investors. In an effort to reduce port time larger cargo units were employed.

The first development step towards larger cargo units was from loose general goods to pallets and other forms of transporting goods in units. The real revolutionary breakthrough arrived with the introduction of the container.

The arrival of the container saw the end of the nostalgia and romance associated with the aroma of spices and fresh fruit. There are hardly any ships to be seen any more with multiple derricks and dockworkers loading or offloading packages, wooden chests and boxes carried on their shoulders. Nowadays there are rows of neatly stacked containers in tidy rows waiting to be loaded. And ships are only for one or sometimes two days at the quay. Crew hardly has any time to go ashore. Everything is about time and time is money.

Containerisation

Containerisation is ultimately a transport system of which the extent and scope are the primary features determined by the trade volumes between countries and/or parts of the world.



Consequences of containerisation

- Mechanisation of cargo handling and technological advancement in construction and building of ships during the late 1950's led to expanded scale. The spectacular growth in world trade activities further contributed to this.
- "Industrialisation" of transport: this yielded major savings in transhipment costs as well as personnel costs.
- *For example: 1 container ship replaced approximately 5 conventional ships.*
- The standard unit which the container eventually became, offered *intermodal transport* possibilities: Goods en route from the factory to the consumer required less handling, and transferring goods from one type of transport method to another was also simplified to a great extent.

For more information about the history of containerisation, please refer to the reference reading at the end of this section.

Generation of Container Ships

With the development of technology, container ships become larger and larger. As a result, people are starting to refer to the generation of container ships.

The size of the container vessel is expressed according to the intended amount of TEU's (Twenty feet Equivalent Unit) to be carried. TEU is the standard unit of measurement for containers. One 40 ft container is equal to 2 TEU's.

	total TEU's
1st generation	Up to appr. 1100
2nd generation	Up to appr. 1800
3rd generation	Up to appr. 3000
4th generation	Up to appr. 4800
Panamax	Up to appr. 6000
Suezmax	Up to appr. 7500

17 containers wide

By the end of 2004, there were vessels carrying approximately 8000 TEU and more. Current plans are underway to design vessels capable of carrying 10.000 TEU. These vessels will carry containers both on and below deck.

Every ship hold will be closed by means of a hatch cover, on top of which containers could also be positioned, thus creating more shipping space.

Constraints

There are other constraints however, that limit the shipping companies from using the largest container vessel. Panama Canal for example, is still a physical limitation for the biggest container ships.

Container ship in Panama Channel

The construction of cellular vessels with open holds and cell guides that leads past the upper deck (9 levels), the "Ultimate Container Carrier", is not in great demand. There are only a few of these vessels that are operational at present.

An "Ultimate Container Carrier"

Loading and Unloading

Container ships are loaded and discharged at container terminals. These terminals are concentrated on the loading and discharging of container ships. That loading and discharging of containers has become largely automated requires large investments in respect of materials like cranes and internal transport at the terminal. The number of operational people directly involved with the task of loading or discharging is however small.

Compared to the general cargo stevedore, the amount of operational people at a container stevedoring company is smaller while the amount of administrative people is larger. In order to conduct the loading or discharging process along the right way, an even greater work force is needed, in proportion to this undertaking.

Questions:

1. What does TEU mean in container shipping?

a. Twenty feet Equivalent Unit

b. TEU is the standard unit of measurement for containers

c. The intended amount of TEUs to be carried on a ship is often used to describe the size of the container vessel

d. All of the above are true

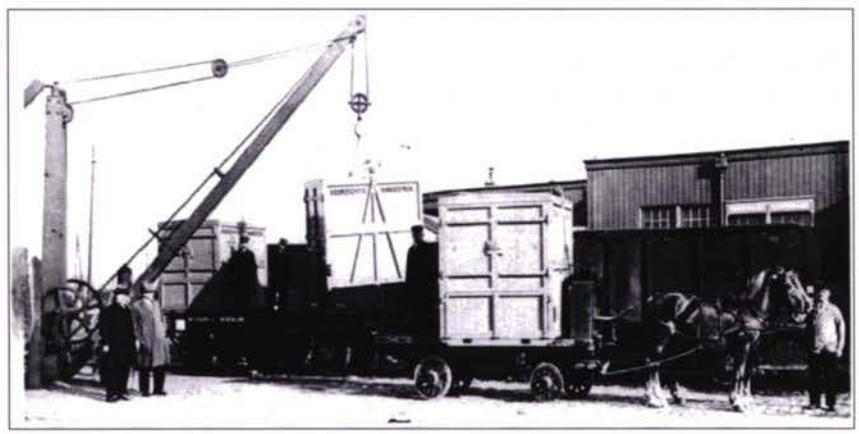
(d)

2. Which description of the container vessel is incorrect?

a. Up to date the largest container vessel can carry approximately 8,000 TEUs
b. The container vessel can become larger and larger, there is no limitation of any kind to this trend
c. The loading and unloading of container ship demand less operational people in comparison to conventional vessels
d. Efficient operation of container vessels often entails large investments in container terminal and terminal facilities
(b)

Reading:

The history of containerization

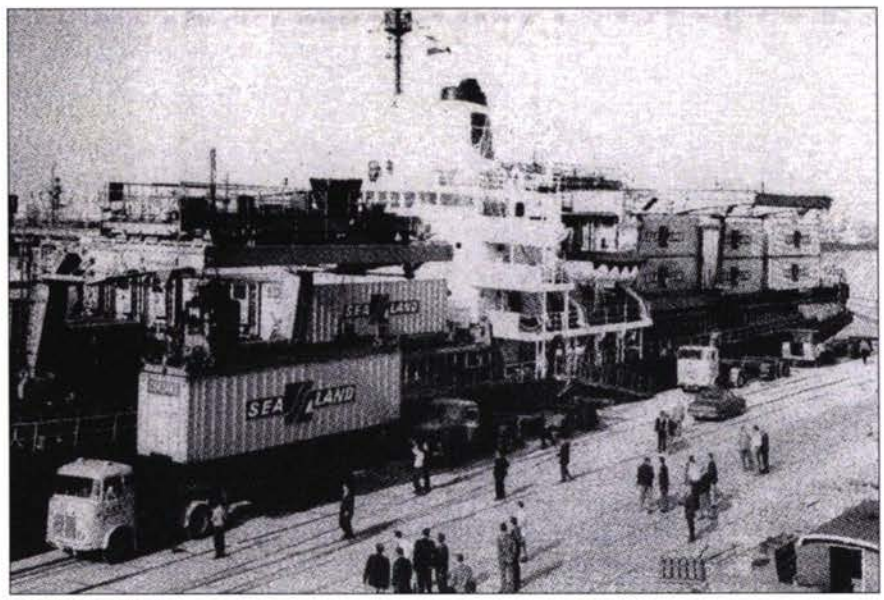


The first form of containerisation originated in America in 1932. In that year Thoburn C. Brown, son of a tinsmith, designed and manufactured the first aluminium container that could be placed on a semi-trailer.
Brown did business with the American army during the Second World War. The army used 8ft containers for transporting army supplies to the front in Europe. The commercial use of containers remained confined to America then.
Keith Tantlinger invented the *spreader* during that time. It is a special piece of equipment a crane can use to pick a container up for loading or unloading it onto or for a ship. Before spreaders came into use, the containers were suspended from cranes with chains and a lot of manpower was required to set them down in place.

After the Second World War Malcolm McLean started up the "Pan Atlantic Steamship Company" carrier company which would later evolve into the present day MaerskSealand. He was convinced that there would be large cost savings involved if cargo handling could be limited to a minimum. Using containers would be a good solution to this problem. He ordered containers that would fit on board the tankers that provided service to his business between Port Newark and Houston. Despite the difficulty he had convinced the American Coast Guard that the containers posed no risk to the ships or other cargo. This initiative turned out to be a streak of genius.

From 1956 onwards, Malcolm McLean designed special container ships, container terminals and twist lock receptacles with which the containers were anchored. At that point Brown was still the leading container builder, but he was unable to meet the McLean Industries' demands. This opened up the playing field to other companies also specialising in container building, such as Fruehauf in Massachusetts for example.

By 1966, Sealand had 23 ships that had been specially modified for the purpose of transporting containers. During that same year, the first container ship, the SS Fairland, called at the port of Rotterdam.



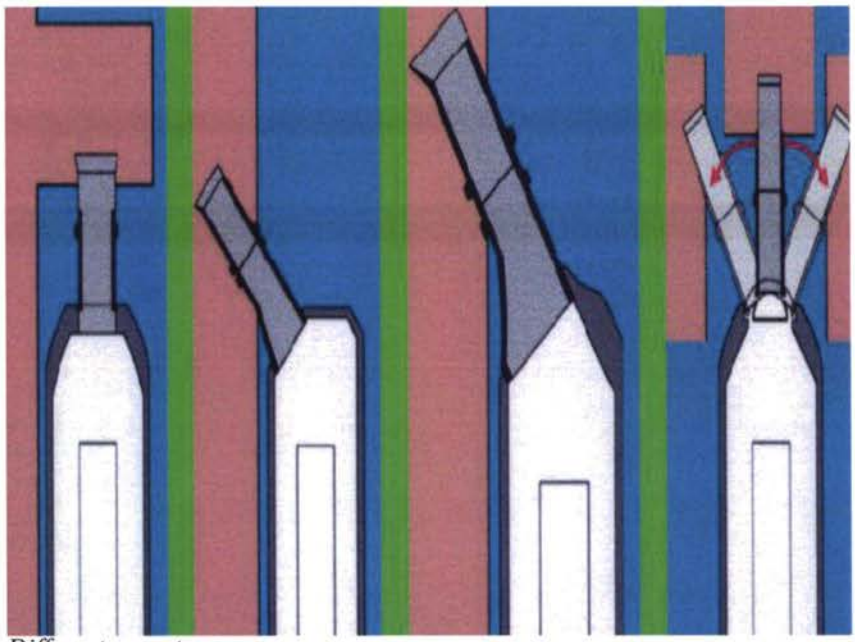
Rotterdam, 1966

2.2.3 Ro-Ro carriers

Learning objectives
The student should be aware of the general features of Ro-Ro vessel, and understand the types of goods that are usually carried by Ro-Ro ships.

Ro-Ro vessels are specially equipped for the transport of rolling materials on board, that in most cases can be driven on board by itself.
Correspondingly, special arrangements have to be made to accommodate this type of transport at the ports.
For example, there has to be a proper connection between the ship and the quay. One possible solution is to use a platform that can be adjusted according to height – the *ramp*.

Ramp Examples



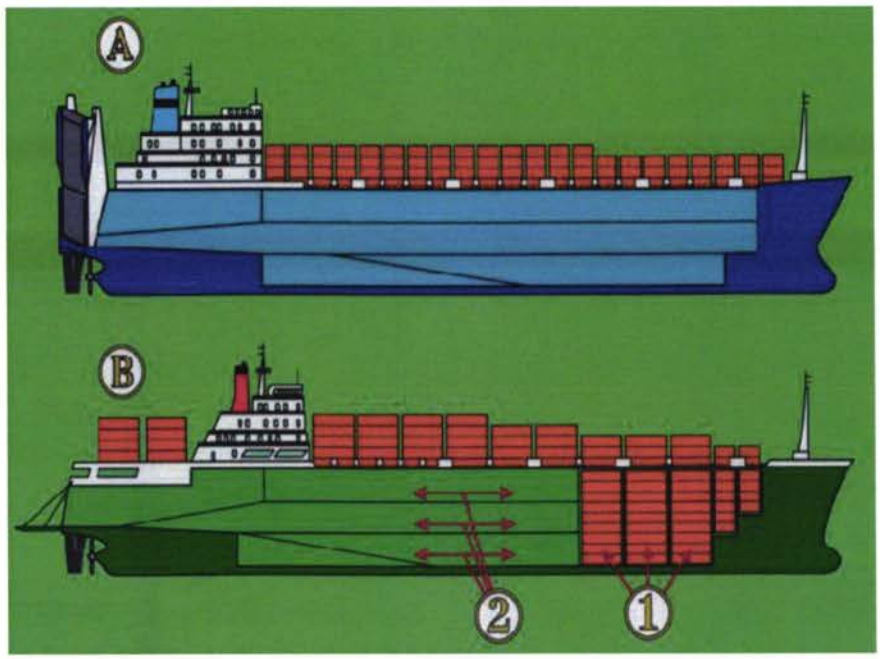
Different ramp types

The ramp is lowered from the ship onto the quay, assuming that provisions have also been made ashore.

Ro/Ro Characteristics

A Ro/Ro vessel has several decks, which facilitates the stowage of vehicles or trailers. Compared with general cargo or container vessels, on Ro/Ro vessels there is a loss of space above and beside the vehicles and trailers. This loss of space (and therefore less revenue) is compensated for by a quick "turnaround". In other words, a Ro/Ro vessel is designed for quick trips, as well as a minimum delay at the ports.

Schematic lay-out of the decks on board a Ro/Ro vessel



The number of people working at Ro-Ro terminals and Ro-Ro stevedoring companies is small. The works consist mainly of the skilled lashing of the equipment, such as trailers and trucks.

Question:

1. Judge whether the statement below is true or false:

a. Ro-Ro means Roll on / Roll off. (T)

b. Ro-Ro vessels carry rolling materials on board, such as cars. (T)

c. Different from other types of vessels, the Ro-Ro ship must have a proper connection between the ship and the quay, one example of this is a ramp. (T)

d. Ro-Ro vessels are designed to carry more containers. (F)

2.2.4 Bulk carriers (dry bulk cargo vessels)

Learning objectives
The student should understand the general features of dry bulk carriers, the three classes of the vessel, and the types of goods that are usually carried by them.

Bulk carriers are ships especially designed to carry loose cargo in bulk. Distinguished from the tankers which are for the liquid bulk cargo, bulk carriers pertain to the dry bulk cargo, e.g. coal, iron ore, grains and derivatives.

Types of Bulk Carriers
There are three types of bulk carriers:

e. Handy size, 30,000 tons dead weight (tdw), often with own cargo gear (precious ore, sand, scrap, clay, grain and forest products)
f. Panamax, 80,000 tdw, no cargo gear (grain and ore)
g. Capsize, 160,000 tdw, no cargo gear (coal, ore)

Development
In earlier times, besides the general cargo the conventional vessels used to carry bulk cargo as well. Many adjustments had to be made to accomplish this, for instance, the removal of the between-decks. Economic developments necessitated the shipment of larger amounts of bulk cargo in one go. As a result, larger and more specialized vessels were built to satisfy this demand.
Whilst container shipping is prompted worldwide to enlarge the capacity of container ships, specialisation according to product type is demanded in the carrying of dry bulk loads.

Bulk cargo vessel

Characteristics

A bulk carrier can be described as a "smooth deck ship" without loading and discharging gear. The machine room is situated at the back and the deckhouse in far back, or in front. The loading and discharging operations are almost completely mechanised: discharged by grabs or by suction pipes, and loading through a shooter or via a conveyor belt.

As a result of the mechanisation of the loading and discharging process and the automation, the bulk cargo handling requires very few people to load or discharge the vessels.

Bulk carriers as well as tankers are almost always active in tramp shipping.

M/S Svealand 282450 tDW OBO-carrier

Questions:

1. There are three types of bulk carriers. Which one below is incorrect?

a. Handy size, 30,000 tdw

b. Panamax, 80,000 tdw

c. Panamax, 70,000 tdw

d. Capsize, 160,000 tdw

(c)

2. True or False?

a. Bulk carriers and tankers are always active in tramp shipping (T)

b. The loading and discharging of bulk carriers is often automatic, thus involving very few people (T)

2.2.5 Tankers (liquid bulk cargo vessels)

Learning objectives

The student should be aware of the general features of liquid bulk vessels, and the division between tankers according to products carried on board.

Tankers, also called liquid bulk cargo vessels, carry liquid bulk cargoes such as crude oil and oil products, liquid chemicals and gas, and liquid foodstuffs.

Types of Tankers

A further division can be made among tankers according to the type of goods that the tanker is designed to transport. These are:

- Gas tankers
- Crude oil tankers
- Product tankers
- Chemical tankers
- Others

(Source: Ship Knowledge, a modern encyclopedia, Klaas van Dokkum, Dokmar, 2003)

Gas Tankers

Gas tankers are ships that are used to carry liquefied gas. In general there are two kinds of liquefied gases: Liquefied Petroleum Gas (LPG) and Liquefied Natural Gas (LNG). Gas tankers have to be well insulated and often are steam turbine ships, the boil-off of the cargo can be used as fuel for the boilers.

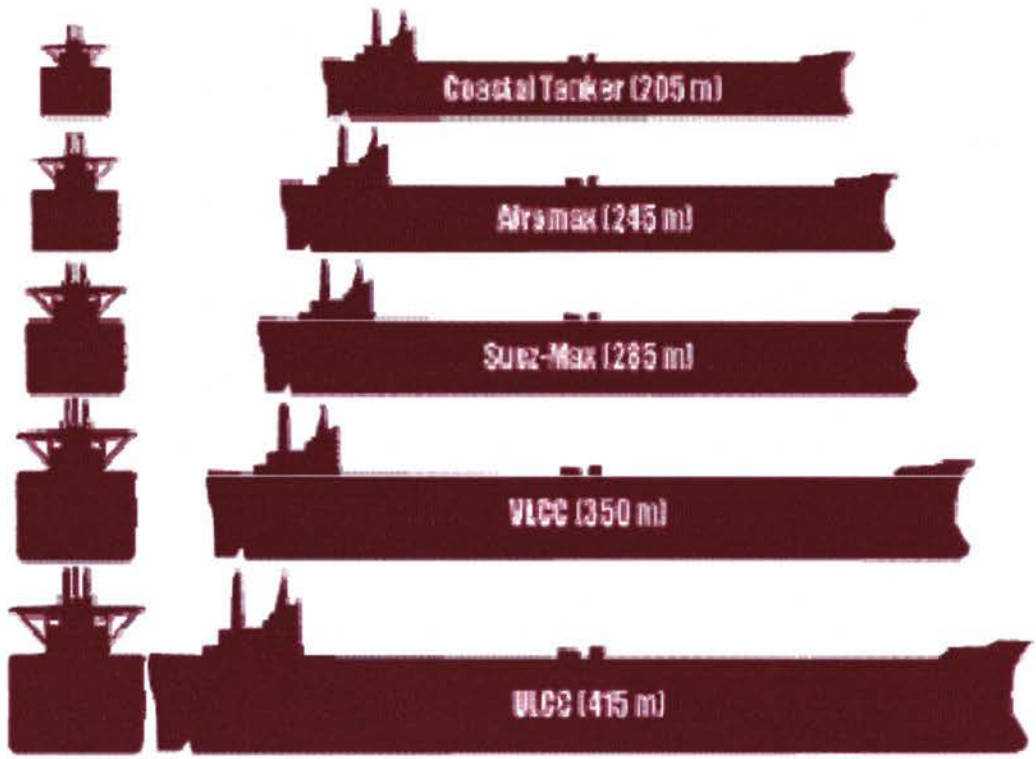
Crude Oil Tankers

Crude oil tankers are used to carry the crude oil from a loading port near an oil field or from the end of the pipeline to a refinery. In general these vessels are very large. The carrying capacity has risen to as much as 500,000 tons, which is very much stabilised these days. Crude oil tankers have a limited number of tanks, usually approximately 15 tanks plus two slop tanks. Crude oil tankers receive their cargoes through pipes from on shore facilities or from a single mooring buoy, via a hose or via a flexible pipeline arm mounted on the jetty. Due to the large draught of the vessel, the sailing routes and the number of ports that a large crude oil tanker can call at are often limited.

Five classes of crude oil tankers:

Five classes of crude oil tankers:

- Ultra Large Crude Carrier (ULCC) > 300,000 dwt
- Very Large Crude Carrier (VLCC), 200,000-30,000 dwt
- Suez max (old max Suez draught), ca. 120,000-160,000 dwt
- AFRA max, ca. 70,000 – 100,000 dwt
- Costal tanker



Product Tankers

Product tankers are for the carriage of the "product", which are the products of refineries and the petrochemical industries instead of crude-oil. Product tankers have a large number of tanks with a total carrying capacity of approximately 50,000 tons. Normally every tank has its own filling and discharge line to the manifold and its own cargo pump. The piping systems on a product tanker are different from the systems in crude oil tankers.

Chemical Tankers

Chemical tankers are meant for the transport of chemical goods. Due to the toxicity and flammability of the typical chemical cargo, there are very strict requirements and regulations for chemical tankers, ensuring that in case of leakage from one of the tanks, the crew and environment are not subjected to danger. Separation between tanks is of the utmost importance. The size of chemical tankers varies between 2500 and 23,000 gross tons.

The deck of a parcel tanker

Test Questions

1. According to the type of goods that the tanker is designed for, further division can be made among tankers. The following are the different types of tankers:

a. Gas tankers

b. Crude oil tankers

c. Chemical tankers

d. All of the above

(d)

2.2.6 Heavy lift ships (equipped with cranes and derricks)

Learning objectives
The student should understand the main types and uses of the heavy lift ships.

To this category belong pontoons that are either self-propelled or not self-propelled, as well as vessels carrying heavy loading equipment needed for offshore operations.

Sea Towage and Salvage
This concerns the carrying of floating equipment (for example, dry docks, dredging materials), laden pontoons and lighters. Assistance is given at offshore operations and at the salvaging and clearing of wrecks.

Sea towage of heavy loads for the oil industry

Offshore Assistance

These vessels are used to supply offshore drilling rigs and such. This also includes vessels working in the offshore maintenance.

An offshore vessel

Question:

1. Heavy lift ships are used for:

a. carrying of floating equipment such as dry docks, dredging materials

b. supplying offshore drilling rigs and alike

c. either of the above

d. neither of the above

(c)

2.2.7 Developments and specializations in shipping

Learning objectives
The student should understand the development trends of the main types of vessels, and be aware that there are other types of vessels for different purposes.

The last decade has clearly shown the existence of a pattern in respect of vessel development. In tanker shipping the growth of the manufacturing of very large tankers (till about 500.000 GT) has stabilized. Specialisation according to product type is demanded in the carrying of dry bulk loads, whilst container shipping is prompted worldwide to enlarge the capacity of container ships. The new generations of container ship are getting faster as well.

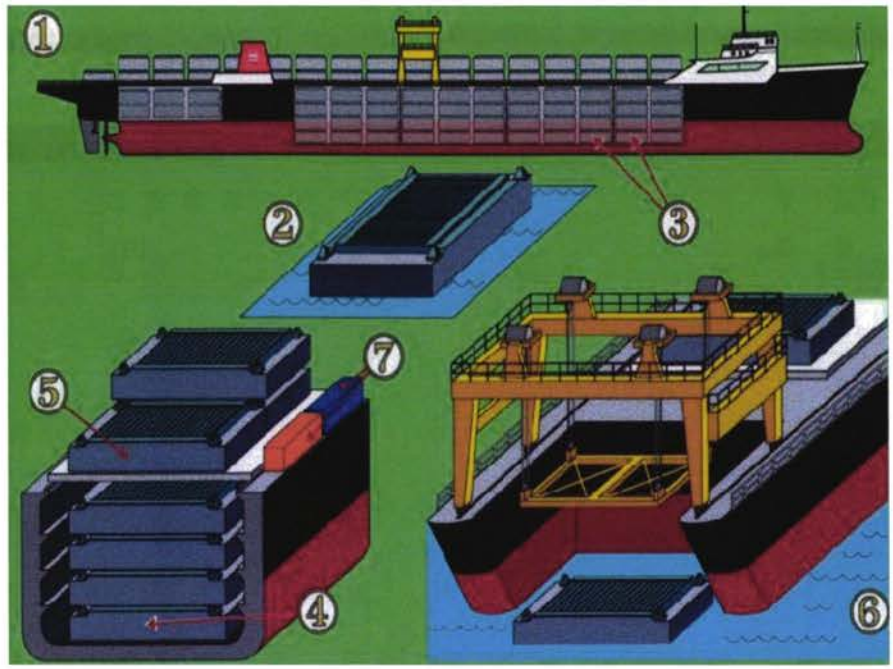
Kangaroo and Lashing Vessels
In certain areas vessels that are equipped for and able to transport barges, or identical ships suitable for inland shipping are employed.

Manoeuvring lash-barges into the sea vessel

Lashing barges are used for the carrying of specific raw materials over the river from inland to the seaport. After the barges have been transferred to the lash ship at the port, the trip can begin. At the port of destination, the lash barges will find their way, after being discharged from the sea-going vessel, along the river to their end destination inland.
(Lash = Lighter Aboard Ship)

The most well-known shipping area for the lashing barges is the US - Gulf.

Lashing vessel



Offshore Vessels

An offshore vessel is the collective name for a large variety of vessels that are involved with the finding and exploration of oil and gas fields under the seabed.

Supply ships belong to this category as well. They frequently put in at ports along the coastlines of the North Sea and the Atlantic Ocean.

Supply ship

Smaller Sea-going Vessels

These ships carry a large proportion of the transport between European ports, both for dry bulk loads and containers.

Characteristic of these ships is their smaller size. They have the advantage though, of being able to service many (smaller) ports. Apart from this, they also have access to the smaller (and therefore more) shipping routes.

An interesting form of shipping is maintained by vessels known as coastal trade liners. These vessels have the ability to carry freight without transhipment far into the hinterland, due to their slight draught and low air draught.

Coaster

Containers are carried by smaller container vessels, which connect the container *main ports* and the smaller ports in the area - the *feeder ports*.
This type of shipping is known as *feedering,* and the vessels are called *feeder ships.*

Feeder

Cooled and Refrigerated Shipping

Cooled and refrigerated shipping carries bananas and other fruit, fish and meat.

Question:

1. Which statement below is incorrect concerning the development of vessels in shipping?

a. In tanker shipping the growth of the manufacturing of very large tankers (till about 500.000 GT) has stabilized

b. The speed of the new generations of container ship remains the same

c. Container shipping is prompted worldwide to enlarge the capacity of container ships

d. Specialisation according to product type is demanded in the carrying of dry bulk loads

(b)

2.3 International Organizations and Regulations in Sea Transport

Learning objectives
The student should understand the objectives, organisation and main activities of the international organisations such as IMO and BIMCO.
The student should understand the meaning and scope of international regulations IMDG Code, Hague / Hague-Visby Rules and Hamburg Rules.
The student should know the main issues in packing and labelling regarding handling of dangerous goods at sea.

Question:

1. What is the main purpose of these organisations / rules? Please write an explanation.

IMO

Answer: Standards for maritime safety, navigation and environmental protection

BIMCO

Answer: Standardised documentation and uniform application of shipping rules & regulations

IMDG

Answer: Regulations for classification and treatment of dangerous goods and harmful substances

2.3.1 IMO

Learning objectives
The student should understand what IMO stands for, the main purpose, activities, organization and the major conventions drafted by IMO.

IMO is an abbreviation of International Maritime Organisation, www.imo.org.

Objectives:

- To provide machinery for co-operation among governments in the fields of governmental regulation and practices relating to technical matters of all kinds affecting shipping engaged in international trade
- To encourage and facilitate the general adoption of the highest practicable standards in matters concerning maritime safety, efficiency of navigation and prevention and control of marine pollution from ships.

Organisation:

A General Assembly of all member states effectuates once per 2 years.

A Council of 32 member states is appointed for 2 years.

Five Committees are established: Maritime Safety, Maritime Environment, Facilitation, Legal, and Technical Co-operation.

The Assembly approves budget and work programs, and elects Council members. The duties of the Council include such as appointments of the Secretary General, work organisation and consultation with other organisations.

Facts:

- 1948: UN Maritime Conference adopts Convention on the Inter-Governmental Maritime Consultative Organisation (IMCO), entered into force in 1958
- 1982 Name changed into IMO; 160 member states
- IMO Budget is 34 Million UK Pounds per 2 years, 22 Million is for staff funding; contribution of member states depends on their tonnage
- Tools: Conventions, Protocols, Codes, Recommendations, Technical assistance
- Important Conventions so far:
  - SOLAS - Safety of Life at Sea 1974
  - MARPOL - Prevention of Marine Pollution 1973/78
  - STCW - Standards for Training, Certification and Watchkeeping 1978
  - LOADLINE - Prevention against overloading of ships 1966
  - TONNAGE - Uniform system of tonnage measurement 1969
- Ratified IMO regulations must be incorporated into the national law of the member states
- Responsibility remains with the national authorities.

Question:

1. IMO is:

a. International Maritime Organization

b. Main purpose is to encourage and facilitate highest practicable standards for maritime safety, navigation and environmental protection

c. Important conventions are such as SOLAS 1974, MARPOL 1973/78, STCW 1978

d. All of the above

(d)

2.3.2 International Maritime Dangerous Goods Code (IMDG Code)

Learning objectives
The student should be aware of the IMDG Code in sea transport of dangerous goods, and understand how IMDG is applied as well as the main subjects covered by the Code.

More information on dangerous goods and the IMDG code can be found in Module 11 – Safety, Security and Dangerous Goods.

Origin

As a further step towards meeting the need for international rules governing the carriage of dangerous goods in ships, the International Conference on Safety of Life at Sea, held in 1960, laid down a general framework of provisions in chapter VII of the Convention and invited IMO to undertake a study with a view to establishing a unified international code for the carriage of dangerous goods by sea. This study by IMO pursued in co-operation with the UN Committee of Experts took account of existing maritime practices and procedures.
In 1965 the first edition of the Code was completed by the working group, then approved by the Maritime Safety Committee (MSC) and adopted by the Assembly of IMO. The experts of the working group are drawn from those countries that have considerable experience in the carriage of dangerous goods by sea, whom are appointed by the MSC.
MSC is also authorized by the Organization's Assembly to adopt amendments to the Code, thus enabling IMO to respond promptly to developments in transport.

Content

Among other things, the IMDG Code covers the following subjects:

- classification
- identification (description)
- a list of dangerous goods
- labelling
- the shipping documents
- packing;
- container traffic; and
- stowage, with particular reference to the segregation of incompatible substances.

Application

Contracting governments of the SOLAS Convention and the MARPOL Convention should implement the regulations of the IMDG Code in their national legislation in pursuance of their obligations under:

- Chapter VII, regulation 1.4 of the 1974 SOLAS Convention, as amended; and
- Annex III, regulation 1 (3) of MARPOL 73/78, as amended.

Observance of the IMDG Code ensures compliance with the mandatory provisions of the SOLAS Convention and of Annex III of MARPOL 73/78.

Amendments

The IMDG Code has undergone many changes, both in layout and content, in order to keep pace with the expansion and progress of the industry and to achieve and maintain a level of harmonization among the IMDG Code, the UN Recommendations on the Transport of Dangerous Goods, and the regulations of the other transport modes according to ADN, ADR, ICAO-TI's and RID.

Since the 1st of July 1992, the IMDG Code comprises regulations for the carriage of harmful substances, referred to as MARINE POLLUTANTS. These are based on the regulations of Annex III of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 (MARPOL 73/78), which deals with the prevention of pollution by harmful substances carried by sea in packaged form. Annex III is referring to the IMDG Code.

In 1996 the MSC agreed that the IMDG Code should be reformatted to be consistent with the format of the UN Model Regulations. The MSC adopted on the 23rd of May 2000 Amendment 30-00 to the IMDG Code, which comprises the first full revision in reformatted style. This amendment entered into force on the 1st of January 2002. In May 2004 the MSC adopted Amendment 32-04, which enters into force from the 1st of January 2006.

Test Question

1. True or False?

a. IMDG is the international regulation concerning the carriage of dangerous goods by sea. (T)
b. IMDG has provisions as regards to the classification, labelling and packing of dangerous goods. (T)

2.3.3 Dangerous Goods Packaging and Labelling for Sea Transport

Learning objectives
The student should understand the main points in terms of packing in relation to dangerous goods, and the classification of dangerous cargoes in IMDG Code. The student should also be able to recognize the different labels corresponding to the classes of dangerous goods.

Packaging

IMDG Code Packing Provisions

The International Maritime Dangerous Goods Code (IMDG Code) comprises a number of provisions with regard to the packing requirements. Examples are:

- packaging must bear normal transport actions
- no chemical reaction with contents
- well closed: leakage prevention
- no spill of contents.

Also regulations are given related to

- consolidation of different commodities
- labelling
- information on documents
- requirements for transport equipment
- transport and handling procedures.

Labelling

9 Classes of Dangerous Goods

The IMDG Code distinguishes 9 Classes of dangerous goods:

1 Explosives
2 Compressed (Liquefied) Gases
3 Flammable liquids
4 Flammable solids
5 Oxidizing materials and organic peroxides
6 Poisons and infectious substances
7 Radioactive materials
8 Corrosive materials

9 Miscellaneous dangerous goods

Classes 1, 2, 6 and 7 are so-called Closed classes: transport is only allowed for goods named in a special list.

Other classes are Open classes: only the relevant physical characteristics are listed.

All classes have specific labels. Additional labels exist to indicate temperature, fumigation etc. The following pictures show the labels for each class as regulated in IMDG Code.

Labels of class 1

** Place for division - to be left blank if explosive is the subsidiary risk.
* Place for compatibility group - to be left blank if explosive is the subsidiary risk

Labels of class 2

Labels of class 3

Labels of class 4

Labels of class 5

Labels of class 6

Labels of class 7

Labels of class 8

Labels of class 9

MARINE POLLUTANT Mark

ELEVATED TEMPERATURE Mark

FUMIGATION WARNING Sign

Test Questions:

1. Which of the following statements is incorrect?

a. IMDG has classified dangerous goods into 9 classes

b. Some small amount of spill of the contents in dangerous goods packing is allowed

c. Packaging of dangerous goods shall be ensured of no chemical reaction with the contents

d. All classes of dangerous goods have specific labels

(b)

▪ Hague Rules / Hague-Visby Rules / Hamburg Rules

Learning objectives

The student should be aware of the three important conventions regulating the carriage of goods by sea, and their applicability.

The student should also understand the main differences between the three conventions.

The most well-known international conventions that regulate the commercial activity of the carriage of goods by sea are the Hague Rules (1924), Hague-Visby Rules (1968) and the Hamburg Rules (1978). They are of great importance in understanding the different rights and liability regimes that apply to parties involved in the sea transport.

The Hague Rules

When international shipping developed into the nineteenth century, the dominant legal regime for the sea transport still followed the notions of freedom of contract. As a result, the ocean carriers often insert into the bill of lading the provisions to exclude their liabilities, even many of the basic liabilities that would have been implied in common law. The perceived injustice created by carrier's ocean bill of lading led a number of cargo-importing countries to enact legislation creating basic minimum obligations on the carrier and restricting its ability to exclude liabilities. In this respect, the US Harter Act 1893 is a good example which had also been the most influential national legislation.

The carriers, via the Maritime Law Committee of the International Law Association (CMI), produced a model set of rules in The Hague in 1921 in reaction to the cargo interests' initiatives, and in order to reach a degree of international uniformity. This set of rules became The International

Convention for the Unification of Certain Rules Relating to Bills of Lading in 1924 (the Hague Rules 1924).

In the Hague Rules, the carrier was given obligations to take care of cargo during the carriage and was not entitled to exclude liability. In return the carriers were given a number of protections. In addition, the Hague Rules allowed carriers to limit their liability to £100 gold value in respect of packaged goods with a high value. Legal suit has to be brought within the limit of one-years time. The Hague Rules are also mandatory and imply that any clause which seeks to reduce the duties or liabilities set out in the Rules would be null and void.

The Hague Rules were strongly supported and acceded by many countries representing the carriers' interests, including most of the West European countries and other large shipping countries. As of 2005 there are some 87 state parties to the Hague Rules (http://www.comitemaritime.org/ratific/brus/bru05.html).

Hague-Visby Rules

In 1968, a protocol designed to amend provisions that had been generally recognised as causing particular problems in the Hague Rules 1924 was agreed upon in Brussels. The Hague Rules as amended by this Protocol have been called since then, the Hague-Visby Rules.

Hague-Visby Rules vs. Hague Rules

The major change in the Hague-Visby Rules was the carrier's limitation of liability. The Hague-Visby Rules increased the package limit to around £500, together with an alternative limit based on weight and a special provision dealing with limitation in the case of containers. The special drawing right (SDR) introduced by the International Monetary Fund (IMF) replaced the gold francs as the method of calculating limits.

In general, the Hague-Visby Rules retains the same form and structure of the Hague Rules. It is therefore widely considered to represent the ship-owner's interests as well. As of 2005 there are 27 parties (including regions) to the 1968 Protocol. (http://www.comitemaritime.org/ratific/brus/bru06.html) From its member states the importance and influential power of the Hague-Visby Rules are easily seen.

Application of Hague-Visby Rules

The Hague Visby Rules are mandatory in application to the carriage under Bill of Lading, or similar documents of title relating to the carriage of goods, if

- the Bill of Lading is issued in a Contracting State or
- the carriage is from a port in a Contracting State or
- the contract contained in or evidenced by the Bill of Lading provides that these Rules, or legislation of any State giving effect to them, are to govern the contract.

The last point is known as choice of law, which in the bill of lading is often incorporated in a special clause, known as the **Paramount Clause**.

As in the Hague Rules, the mandatory application of the Hague-Visby Rules means that the Rules must not be deviated from. Different arrangements by parties, which according to the Hague-Visby Rules are to reduce or exclude the carrier's obligation, are therefore null and void. Such clauses can be disregarded.

For application of the Hague-Visby Rules the following is **irrelevant**:

- the nationality of the ship
- the nationality of the carrier
- the nationality of the shipper
- the nationality of the consignee
- or whoever is involved in the contract of carriage

What is regulated by the Hague Visby Rules?

In short, it may be said that the provisions cover the following matters:

- the obligations of the carrier
- the situations in which the carrier can invoke including discharge of liability and the extent to which the carrier can limit his liability
- the period during which the carrier has direct responsibility for the cargo to be carried.

Obligations of the carrier

According to the Hague-Visby Rules, the main obligation of the carrier is in fact:

> *to deliver goods in the same condition as in which the carrier received these goods.*

Furthermore, the carrier is under an obligation to provide a sea-worthy vessel and keep it in good condition. In details, the following aspects are concerned:

- seaworthiness
- crew, equipment and supply
- the good condition of the holds, the refrigerating and cooling chambers.

- In general, the carrier is confronted with a duty of due diligence, since he is obliged to:
  '...properly and carefully load, handle, stow, carry, keep, care for and discharge the goods delivered.

Period of responsibility
The period of responsibility refers to the period over which the carrier undertakes to deliver the goods in the same condition as they were received. According to the Hague-Visby Rules, this covers the period

> *".... from the time the goods are loaded on to the time they are discharged from the ship"* (from tackle to tackle).

The parties to the contract of carriage (the shipper and the carrier) are free to stipulate by agreement that loading and/or discharging will happen at the expense and risk of the cargo-interested party.
A prevalent stipulation is e.g. F.I.O. (Free In and Out).

Hamburg Rules

The introduction of Hamburg Rules in 1978 was largely due to a political scheme change in the arena of international trade and transport. The Hague and Hague-Visby Rules were largely considered by many developing countries to be the product of the developed industrialised countries and therefore, the interests of the developing states were there under represented. The whole scheme of the Hague and Hague-Visby Rules was also considered outdated and legally defective. Under the political pressure for change, channelled through the UN and in particular, the UN Conference on Trade and Development (UNCITRAL), a set of rules was therefore drafted to replace the Hague and Hague-Visby Rules and was agreed at a Diplomatic Conference in Hamburg in 1978. This is known as the Hamburg Rules.

Hamburg Rules vs. Hague-Visby/Hague Rules
The Hamburg Rules further increases the liability of carriers as such against cargo owners. The period of the carrier's responsibility is extended beyond the ship's rail to cover the period when it has the goods in its charge in a port. A uniform system of liability based upon the presumed fault of the carrier, along with joint liability of the actual and contracting carrier, has been introduced. The limits of liability of the carrier have been increased. The time bar has been extended from one year to two years. The Hamburg Rules also give a wide choice of jurisdiction to the cargo claimant.
The Hamburg Rules take for example a different approach to:

- deck cargo

- the period of responsibility for the cargo before and after the sea transport
- higher compensation for loss and damage
- longer limitation period.

In short, the differences between the Hague / Hague-Visby Rules and the Hamburg Rules are that the Hamburg Rules apply to a much stricter liability regime for the carrier than the other two.

☞ *the Hamburg Rules are more favourable for cargo-interested parties and less favourable for carriers.*

Whether the Hamburg Rules have provided a better legal and commercial solution to the international maritime transport still remains a question. It is perhaps also largely a political, rather than a legal, question as to whether the Hamburg Rules will ultimately be more widely accepted.
By 2005 the Hamburg Rules had 26 member states, the majority of which are in Africa with little maritime interest.
(http://www.comitemaritime.org/ratific/uninat/uni02.html)

Test Questions

1. Among Hague Rules, Hague-Visby Rules and Hamburg Rules, which one is generally considered to be more favourable to the shipper's interests, thus also a stricter liability regime for the carrier?

c. Hamburg Rules
b. Hague-Visby Rules
a. Hague Rules
d. All are the same
(a)

2. Hague Rules or Hague-Visby Rules will apply as long as the following condition(s) is/are met:

a. The Bill of Lading is issued in a Contracting State
b. The carriage is from a port in a Contracting State
c. The Paramount Clause in Bill of Lading chooses the Rules to apply
d. Either of a, b, or c
(d)

3. True or False?

What is governed by the Hague Rules / Hague-Visby Rules?

a. The liabilities of the carrier (T)
b. Situations to which the carrier can refer, for exemption or limited liability (T)
c. Rules for packaging and labelling of dangerous goods in sea shipping (F)
d. Rules concerning safety and security in sea shipping (F)
e. The period during which the carrier is liable for the cargo to be carried (T)

2.3.4 Baltic and International Maritime Council (BIMCO)

Learning objectives
The student should understand what BIMCO stands for, the main purpose, organizational structure and activities undertaken by BIMCO.

BIMCO is an abbreviation of The Baltic and International Maritime Council, www.bimco.org. BIMCO is a major international organization in relation to charter shipping in the freight market, dealing with various matters of interest to international shipping.

Objective:

To pursue all issues affecting members, seeking co-operation, and providing input of a practical nature to ensure that economic impact of new regulations on ship owners is fully appraised.

BIMCO aims at reducing members' exposure to disputes through development of standardised documentation and uniform application of shipping rules & regulations.

Organisation:

The General Meeting is the governing body.

A Board of Directors comprises owner members of 20 countries.

BIMCO operates a Permanent Secretariat in handling of daily affairs. An Executive Committee is responsible for management. A Documentary Committee is responsible for documentary matters.

Facts:

- Established in 1905 for the shipping industry, headquartered in Copenhagen, Denmark
- Representing ship owners, shipbrokers, agents, and P&I Clubs covering 61% of the world's ocean dry cargo and tanker fleet
- Members in 121 countries, covering all ocean trade worldwide
- Representing members at inter-governmental organisations, regional and national authorities on shipping regulations and legislation
- Developing standardised documentation, based on agreed shipping rules & regulations (Charter Parties, Bs/L etc.)

The Documentary Committee at BIMCO deals with the design and development of shipping documents. Many of the common printed charter party forms have in one way or another been approved by BIMCO. BIMCO may also at any time be asked to provide information on, for example, congestion in a certain port, port dues and charges, port regulations and practices etc. If someone in shipping circles has been repeatedly and deliberately violating the rules of the trade or otherwise has been acting improperly he/she may be officially reported to BIMCO.

Question:

1. BIMCO is:

a. The Baltic and International Maritime Council, headquarter in Denmark
b. BIMCO is concerned with charter shipping in the freight market
c. BIMCO has developed many standardized charter parties
d. All of the above

(d)

2.4 Shipping Services

Learning objectives

The student should be aware of the two types of ocean traffic in practice (liner shipping and charter shipping), and understand the differences between them.

The student should understand the different types of operations and operators in liner shipping.

The student should understand the different types of charters in charter shipping, the basic charter terms used, and the essential conditions for a charter contract.

You can compare the difference between liner shipping and tramp shipping with the difference between a tram and a taxi. The tram driver knows well ahead of time when he will be at which stop. He can almost give a minute-by-minute account of where he will be at any given time of the day. He maintains a scheduled service and the tram, the mode of transport, determines the route and time. A taxi driver, on the other hand, has no idea where he will be next. He goes to the passenger (the cargo), wherever the passenger may be. In other words: the passenger/cargo determines the route and time.

Questions:

1. *True or False?*

   To operate a sea-going vessel, there are two ways to do so. What can they be?

   a. Liner shipping (T)
   b. Charter Shipping (T)
   c. Tramp Shipping(T)

2. *What characterises Liner Shipping and Charter Shipping? Please explain briefly.*

Question	Answer
Mostly bulk cargo	Charter Shipping
Mostly containers	Liner Shipping
Fixed routes	Liner Shipping
Crossing the world where cargo is available	Carter Shipping
Fixed sailing schedules	Liner Shipping
Ship mostly empty to next port after discharge	Charter Shipping
Ship rented for a limited period	Charter Shipping
Ship rented for a certain voyage	Charter Shipping
Fixed tariffs	Liner Shipping

2.4.1 Liner Shipping

Learning objectives
The student should understand the main features of liner shipping, and the shipments that are carried by liner services.
The student should have a clear picture of the different players as well as organizations that may be engaged in liner shipping, e.g. liner conference, consortia, outsiders and understand the purposes of, and differences between them.

Liner Shipping

In liner shipping the ship owner, either carrier or operator, runs a regular service between more or less fixed ports and usually on a fixed time schedule. The liner operator acts as a common carrier, accepting all general cargo shipped between the ports covered by his service.
In liner shipping, ships sail to and from specific ports according to fixed schedules. Only by exception (emergencies) do scheduled ships deviate from this schedule.

Liner traffic is a firmly controlled activity where remuneration is geared more to the long term rather than to single voyages. The freight rates in the tariff are by definition not subject to the large variations that characterize the market in tramp shipping. Nevertheless, liner traffic is susceptible to market variations, depending on availability of cargo and load factors on each voyage.
Liner vessels get the larger share of their cargo through contracted liner agents. Forwarding agents and liner agents play an important role in creating the contract of carriage between the ship owner and the cargo owner.

Liner shipments

General cargo has always been carried in the liner trade. Since the introduction of the container, however, more and more general cargo is shipped in containers. Since the early era of containerization, the market has seen a sharp drop of conventional shipments, and instead, a continuous increase in container shipments.
Consequently the conventional general cargo vessels are more and more frequently replaced by specially equipped container vessels.
Despite the fact that containers prevail over liner shipping, the containerization did not completely knock out the conventional liners.

Instead, they developed pure container trades parallel to conventional liner traffic.

Container traffic requires large investments in specially equipped vessels, port installations and terminal equipment. So it can be said that container line shipping is often operated by international companies, for multi-national purposes, to meet the larger customers' demand.
When it involves less investment in port, equipment, or vessel, and with often less cargo quantity in supply or shorter transport distance, we easily see that conventional shipments still prevail.

Liner conferences / Consortia

Liner Conferences
A liner conference is a voluntary organization of two or more vessel-operating carriers, active in a certain sailing area on the basis of common contractual terms, prices and timetables, whose main function is to set acceptable rates for vessels and shippers.
The goal of the conference is to maintain a stable market and fair competition among carriers, also to reduce competition between ship owners calling at the same ports. Another important element is to administer operating rules that guarantee the shipper a consistent level of service from participating lines.
In short, the line conference can be characterized as a kind of cartel whereby liner carriers offer their services at fixed rates. Conferences determine freight rates and coordinate ship capacities and sailing schedules. Examples of conferences are FEFC (Far East Freight Conference) and TACA (Trans Atlantic Conference Agreement).
Due to emerging anti-trust legislation in the European Union, at present the practices of the conferences in Europe are subject to discussion.

The advantage of the liner conference is the provision of the reliability in time schedule and service. The disadvantage is that the high service may always push up the prices.

Liner conferences may be closed, which is normal, or open, which is a requirement by national government such as in the United States. In an open liner conference, anyone who wishes to operate within a liner conference is entitled to do so.

Liner operators are usually more involved than other ship owners in the improvement of cargo handling techniques and they often participate actively in developing those ports at which they call regularly.

The shippers are entitled to certain quantity rebates provided they only use the service of the particular line.

Consortia

Some lines belonging to a conference, or indeed all lines in a conference may join together to form a freight pool or a consortium.
The purpose of making a consortium is essentially operational, bringing together the fleets of the companies concerned into a single fleet for providing the service. Mostly, consortia have traded within conferences, combining the operating activities of two or more of the conference lines.
Consortia may have different degrees of integration, from loose arrangements of a purely practical nature to tightly knit commercial combinations. The ships in a consortium are still owned by the individual liners. The liners within a consortium also remain legally separate, but the co-operational relationship between them can extend into more commercial activities such as joint marketing, the issue of joint bills of lading and so on. Also it is the consortium that deals with the liner operations in the trade.

It is difficult to quantify the number of consortia in the world today. Estimated is that about 40 are in the trades to and from Europe alone.

Non-conference lines (outsiders)

In many instances liner shipping is carried out within liner conferences. A line operator who has not yet been admitted into a closed liner conference, however, may also compete with the conference members as an "outsider".
Liner traffic not carried out within liner conferences is often referred to as semi-liner.
Because outsiders generally cannot offer the frequency of departures or level of service that the conference can, they tend to offer lower prices. Generally speaking, outsiders are cheaper but, due to revenue and demand factors, the outsiders may often alternate travel schedules, and for this reason, the outsiders are not as reliable as the conference or pool carriers.
In certain sailing areas, e.g. North America, some cooperation exists between conferences and independent lines in the field of capacity and tariffs.

Charter shipments

Not always does the liner operator have sufficient cargo available from the liner conferences. Imbalance in cargo volumes between the outward and

homeward legs of a round voyage often forces the lines to compete in the open market. Therefore when the market is low or the cargo quantities available from liner services decrease, in order to fill the empty space on board the liner, operators may charter the vessel on a time base or trip base, i.e. time charter or trip charter.
In case of time-chartered tonnage, it will be either expensive or cheap depending on the supply of ships and employment terms, especially the point of redelivery.

In case of a trip charter, the availability of cargo for the scheduled sailing, which has to be performed anyway, may not be very good. The vessel may be hired at a low daily rate.
Often, during such low market conditions the competition from outsiders gets stronger. The outsiders may enter a liner trade for only a number of trips, accepting freight rates that are lower than the liner tariff rates just to keep the ships going until the open market conditions improve again.

Ro-Ro traffic

Another type of transport in liner shipping, due to its special cargo types that are often transported, is Ro-Ro traffic. Ro-Ro traffic is often used for the transportation of such cargoes as vehicles, trucks and heavy lifts (unpacked).

The Ro-Ro market, as a sector of its own, was established rather late in the 1970's. Initially it was just a typical short trade between highly industrialized countries. But the increasing demand of the movement overseas of industrial products, machinery, vehicles and building materials in the 1970's, and the congestions caused in most of the importing countries forced the liner operators to look for a possible new type of ship, which could operate quickly and shorten the time spent in ports.

The ocean going Ro-Ro ships require a minimum of port installations with a very fast and flexible cargo handling system. The Ro-Ro ships are also able to accommodate a mixture of commodities, not restricted only to rolling units but are also able to load all goods movable by fork-lift trucks and of course containers.

Questions:

1. Shipments in liner shipping can be:

a. Container

b. Ro-Ro traffic

c. Conventional cargoes

d. Either of above

(d)

2. True or False?

A liner conference is:

a. A cooperation of Charter Parties (F)

b. An annual meeting of a Liner Shipping Company (F)

c. A cooperation of Liner Shipping Companies (T)

d. A group of liner shipping companies operating in the same region (T)

3. Which one below is not considered as a general characteristic of these Conferences?

a. Fixed arrival / departure times

b. Mostly fixed tariffs

c. Lower tariffs

d. Standardised transport conditions

(c)

4. True or False?

a. Open liner conferences also include shippers as members (F)

b. Outsiders often compete with liner conferences, but they can also cooperate in the field of capacity and tariffs (T)

c. Ships engaged in liner services will never be chartered on a time base or trip base, regardless of the market situation or the cargo quantities available (F)

d. Liners in a conference can join together to form a consortium for operational purposes (T)

2.4.2 Charter Shipping

Learning objectives
The student should understand the main features of charter shipping, the difference between chartering and liner shipping, and the shipments that are usually carried in chartering.
The student should have a clear picture of the affreightment process, the parties involved in chartering, and their distinctive functions.
The student should further understand the four types of charters, the difference between them, the main charter terms used in voyage charter, and the essential conditions in respect of voyage charter as well as time charter.

Charter Shipping

Charter shipping, also called tramp shipping, carries most of the cargo in terms of quantity or volume in sea transport worldwide. In charter shipping ship owners do not have their ships sailed according to a fixed schedule. Depending on supply and demand they let their ships tramp around the world seas.
Charter shipping mainly deals with bulk cargo. In general, full ship loads of mostly a single type of goods, are carried by tramp shipping. Examples are:

- Grain
- Coal
- Ore
- Mineral oils
- Chemicals
- Juices
- Edible oils.

Different from liner shipping where ships sail to and from specific ports according to fixed schedules, in tramp shipping the ships go to the cargo, wherever it may be. The cargo determines where the ship goes.

Chartering Centres of the World

London is the largest chartering centre in the world, with the Baltic Exchange an important meeting place. New York is the second.

The Baltic Exchange

...history in the making

Despite radical changes to trading practices over the last few decades, London has retained its status as the maritime and financial centre of the world. A key player in this thriving capital city is the Baltic Exchange. Founded some 250 years ago, the Baltic has readily adapted to industrial and technological progress whilst still remaining true to its original purpose - to facilitate the business of international bulk shipping.

Other charter centres in Europe are Hamburg and Genoa.

Thanks to the current communication technologies, it is no longer necessary to be physically present in any of these centres. In the charter business therefore you must always take into account that the time differences between the various parts of the world may play an important role.

Parties involved in charter shipping

Ship Owner

The ship owner is the owner of a ship. When the owner decides to use his ship for tramp shipping, he himself constantly has to look for cargo. This takes a lot of time and also requires specific knowledge and skills that the owner of the ship usually does not have himself. He therefore sub-contracts the search for cargo to one or more brokers.

Charterer

The charterer is the person who hires (charters) the ship for a previously agreed voyage or time period. In principal, anyone who has cargo to carry may hire/charter a ship. In practice, however, it's usually the commercial houses or manufacturers and this often involves bulk shipments. Large

shipments are such as grain, oil, ore, fertilizer etc. However, even moving a factory can give cause to charter a ship.

Ship Broker

Like forwarding agents or liner agents in liner shipping, it is the brokers who bring together the ship owner and the charterer in chartering shipping.

The functions of shipbrokers

Broadly speaking, the difference between ship's agents specialising in liner shipping and those offering tramp shipping can be described as follows:

- ship's agents specialising in liner shipping look for clients on behalf of the shipping line he represents and therefore have contact with the 'line operator" and the various parties involved with the cargo (liner agent or forwarding agent).
- ship's agents specialising in tramp shipping have relatively more international contacts, and look for clients for themselves, not as representatives of a shipping line (shipbroker).

The work area of a shipbroker is broad and international. For a shipbroker, canvassing means making and maintaining contact with as many parties as possible. He therefore doesn't necessarily keep himself busy acquiring cargo, but rather with seeking out clients. In addition, visiting all these parties (his clients) regularly is an absolute must. The clients may happen to determine whether and when an agent should be appointed in a port and his/her position.

A shipbroker is in contact with the following parties:

- ship owners
- commercial houses
- manufacturers
- other charter brokers.

To fare well in business, it is essential for the shipbroker to be continually well informed of all developments in the market. Depending on these developments, his/her services may now be required by ship owners and then again by cargo owners. For all concerned, it's a matter of supply and demand.

Types of Ship Brokers

Though legally a broker should bring together two parties and act for both of them, in shipping practices we find that a broker will always act for and on behalf of one principal only, either an owner or a charter. The broker who acts on behalf of the ship owner is called the owner's broker. The broker who acts on behalf of the charterer is the charterer's broker. Due to development and specialization, brokers can be further distinguished in many other types.

Confidential or exclusive broker is the one who the owner chooses to do his business solely with. Differently, the owner may also prefer to work through a large number of brokers, the latter will then have equal possibilities to do the business.
In a market with such widely differing sectors as the bulk market, one broker cannot possibly cover all parts with his direct connections. A broker thus engaged in efforts to bring together an owner's confidential broker with the broker of a suitable charterer is called a **competitive broker**.
Cable brokers are those brokers who mainly list orders circulated in one shipping centre such as for example New York, and then distribute the lists to brokers in other shipping centres such as London, Tokyo, Oslo or Hamburg.

Based on the different work areas the brokers engage, we may also distinguish between the shipbrokers in general and those concerned with sale and purchase, port agency and liner or loading agency.

Sale and purchase broker is mainly engaged in the sale and purchase of vessels.

Port agent represents the owner and assists the vessel for the owner's account in order that the vessel will have the best possible despatch. The port agent will have contacts with all local authorities.

Liner agent functions as a kind of general agent for the line within a geographical area. Liner agents represent the owners in many different ways. Liner agents will have contact with possible shippers and forwarding agents within the area and will also do all the work for the line otherwise carried out by a port agent.
(Source: Shipbroking and Chartering Practice, Lars Gorton, Rolf Ihre, Arne Sandevarn, 5th edition, LLP, 1999)

Sometimes in the charter party the owner and the charterer will agree that the charterer has the right to nominate the port agent in order to further his interests. In this case, the owner may protect his interest to a certain extent by appointing a **husbandry agent** or **protective agent (protecting agent)**.

Protecting agent is a trusted agent specially appointed by the ship owner to manage his interests when for example he has to accept a charterer's agent as stipulated by the charter party. A protecting agent is usually nominated when the charterer's agent nominates someone who is unknown to the ship owner or when disputes are expected. Nevertheless, nominating a protecting agent means that the ship owner has to pay an additional agency fee.

Husbandry agent is a trusted agent representing the shipping company when a ship is chartered. The husbandry agent manages only ship and shipping company matters, for example repairs to the ship and crew. The person fulfilling this role is usually not involved in loading or discharging matters. His agency fee is paid by the ship owner.

If all parties involved in a tramp vessel shipment appoint their own agents, the following agents could be at work on the same ship. In the example we assume that the owners are hiring out the ship to the time charterer who has, in turn, entered into a voyage charter agreement.

first agent	→	charterer's agent, in service of the voyage charterer
second agent		protecting agent for the time charterer
third agent	→	husbandry agent for the ship owner

In this case, the second agent ensures that the first agent doesn't act contrary to the interests of the time charterer. The third agent looks only after the ship owner's interests.
In practice, the agent can fulfil more than one of the abovementioned roles at the same time.

Charter contracts

In tramp shipping, there are different ways in which a ship can be hired, for example for a specific voyage or for a specific time. Correspondingly there are three main types of charters, namely voyage charter, time charter and bareboat charter. Often, the contract of affreightment, similar to consecutive voyages which is a special type of voyage charter, is listed as a different type of chartering.

1) Voyage charters

When the charterer and the owner agree that the ship will carry a certain cargo from point A to point B, or will make several consecutive voyages between these points, it is a voyage charter.
A voyage charter is therefore for one or more voyages, for example 'three consecutive voyages". The person who charters the ship is known as a voyage charterer, the payment is called freight and the contract a voyage charter-party.

The voyage charter is typical within charter shipping. The charterer may be the person owning the cargo but may also charter the vessel for someone else's account. The "owner" of the vessel from whom the actual voyage charterer charters the ship may himself be a time charterer or even a voyage charterer who sub-charters (sub-lets) the ship. In case the owner is not the registered owner of the ship, he is normally described as "time chartered owner" or "disponent owner". Thus there may be a chain of charter-parties which must all be regarded as separate and distinct.

In a voyage charter, the freight is calculated for the voyage or the voyages to be performed. It can be a fixed amount per ton of cargo to be carried or a lump sum. The level of the freightage depends on the market, i.e. supply and demand.

A fixed number of loading and discharging days are incorporated into the freight. If the charterer needs more loading and/or discharging days, an additional cost will have to be paid for additional port time. This is called *demurrage*. If fewer days are required, the ship owner will usually repay a portion to the charterer. This is called *despatch*. In Europe, despatch is very rare these days. The number of loading and discharging days is stated in the charter party.

The usual cost of operation, the port costs and the fuel costs are the responsibility of the owner.

2) Time charters

If, the owner puts the ship at the disposal of the charterer for a certain period of time, during which period the charterer, within the limits of the agreement, controls the commercial operation of the vessel, this is a time charter.

In a time charter the ship is rented for a specific period. The charter party determines which ship should be delivered to the charterer and again returned to the owner. The charterer temporarily takes over the role of owner and becomes the replacement owner, or the so-called "substitute owner". It is often said that the charterer is responsible for the commercial operation, whereas the owner remains responsible for the nautical operation. Under a time charter the crew is employed by the owner who is also responsible for the maintenance of the vessel and the supervision of the cargo. The charterer, however, within the framework of the contract, has the right to decide the voyages to be made and the cargoes to be carried.

In a time charter, the freight is determined per time unit (for example per month of 30 days) and is regularly paid in advance. The freight is largely influenced by the market.

As in voyage charters, the usual costs involved in operating a ship are the responsibility of the owner. Contrary to voyage charters however, the fuel and port costs incurred in a time charter are the responsibility of the time charterer.

3) Bareboat charters

Bareboat charter is also called demise charter, meaning that the vessel is put at the disposal of the charterer for a certain period of time, but the charterer takes over virtually the entire responsibility for the operation of the vessel and all the costs and expenses except the capital costs. Under a bareboat charter, an empty ship, without crew, supplies, fuel etc. is therefore made available to the charterer by the ship owner. This is done at a specific rate per ton of carrying capacity at summer level, calculated for the rental period. Since the charterer takes over almost all of the owner's functions except for the payment of capital costs, the charterer will have the commercial as well as the technical responsibility for the vessel and will pay for maintenance, crew costs and insurance, etc. in a bareboat charter. In principle, the captain and crew are appointed by the charterer. In practice, though, this is not always the case.

In practical terms a bareboat charter is used as a method of financing the acquisition of newly constructed ships. Bareboat charters are the norm, for example, when a bank or a group of investors buys a ship as an investment. They have no further knowledge of matters relating to the operation of the ship. In such a case they can give the boat to an existing shipping company, via a broker, as a bareboat charter. The ship owner therefore doesn't have to buy a ship at a high cost, he simply hires it.

Bareboat charter usually covers a (very) long period of time, for example 10 years, and is often hinged to a management agreement. In addition, the charterer often has the option to buy the ship when paying the last term payment, or during the charter period.
The bareboat charter has been a comparatively unusual type of charter but with changing trading and investment patterns it has become more common. It is often described as a kind of ship financing rather than a genuine charter agreement.

Management Agreement

A management agreement is not a chartering agreement in its traditional sense but rather a know-how and service agreement, where the manager may be entrusted with the duty to man and supervise the ship, or also a much wider duty, to operate and find employment for the vessel as if he were the

owner and for the account of the actual owner. The detailed responsibilities of the manager vary but principally the manager concludes agreements with respect to the vessel in the name of the owner and for the owner's account.
Correspondingly, recent years have also seen the establishment of so-called "ship management" companies. The activities of those companies may be restricted to commercial management, technical management or crew management. It is important to realise that management companies only act on behalf of the ship owners.

4) Contract of affreightment / volume contract

Contract of affreightment, abbreviated to CoA, is a special type of charter where a ship owner makes an agreement with a charterer to carry for the charterer during a specified period of time, a large quantity of goods between certain ports. The ship owner chooses the ship. Depending on the circumstances it may also be called quantity contract or volume contract.
A CoA can have different bases. Usually the CoA is also a contract that is

- for the carriage of a specified type and quantity of cargo
- covering two or several shipments
- running over a long period.

Under CoA, the ship owner commits himself, usually in a direct relationship with a manufacturer, to carry an agreed amount of cargo from point A to point B within an agreed time. The shipping company has the freedom to determine for themselves which ship (of the same type) to use and when. The ship owner may employ several of his vessels on an almost continuous basis. Contracts of affreightment also afford the shipping company the opportunity to take on cargo for the return journey, for example, which may imply an efficiently operated, advanced transportation system with a regular flow of cargo.
Under the CoA or volume contract the individual vessel has less importance for the charterer, but the important thing is that the owner performs his duty to carry an agreed type of tonnage.

Bases to form CoA

The following are examples of the different bases where a CoA is formed.

- The owner undertakes to carry between X and Y tons of grain from A to B during year xxxx.
- The owner undertakes to carry all cargo shipped by the charterer from loading port A to the destination B during the period xxxx-xxxx (years).
- The owner has the right to carry all crude oil imported by the charterer during xxxx and xxxx (years).
- The owner has the right and obligation to carry all vehicles exported by the charterer during the period xxxx-xxxx (years), and the charterer is to guarantee that he/she will have at least five shipments per year, each consisting of X-Y vehicles.

(Source: Shipbroking and Chartering Practice, Lars Gorton, Rolf Ihre, Arne Sandevarn, 5th edition, LLP, 1999)

Charter terms

Charter terms are often used in voyage charter to explain the detailed agreements with regard to freight. In voyage charter there are three main types of charter terms:

- gross charter
- net charter
- FIO charter

Charter rate is the freight rate of a charter contract in USD / ton or USD / cbm. All charter rates include depreciation of the ship, cost for crew, bunker and administration. Depending on the charter term, port related costs and loading / unloading costs may or may not be included.

Gross Charter

Gross charter includes all the voyage freight, including all port related costs and loading/unloading costs. This is the most usual form.

Net Charter

Net charter is the charter rate that does not include loading and unloading costs, or port related costs which occur during the time period of the presentation of Notice for Readiness for loading until the end of loading.

Net charter is advantageous for ship owners in case the port conditions are not known (handling rate per day unknown, congestion etc.).

FIO

FIO represents Free In and Out, or Free In/Out.

FIO is the charter rate that does not include loading / unloading costs. The charterer is then responsible for the costs of loading goods onto the vessel and discharging goods from the vessel.

Different forms are possible:

- FIO = free in / free out; ship owner pays no loading and unloading costs
- FD = free discharge; ship owner pays no unloading cost
- FI = free in; ship owner pays no loading costs
- FIOT = free in and out / trimmed; ship owner pays no loading, unloading and trimming costs
- FIOS = free in and out stowed; ship owner pays no loading, unloading and stowing costs

Affreightment process

The chartering procedure can be practically divided into three stages, namely the stage of investigation, the stage of negotiation and the follow-up stage.

1) Investigation stage

The investigation stage starts when a charterer directly or through a broker enters the market with an order. Before the charterer enters the market with the order he/she has to decide whether he/she wants to commence firm freight negotiations immediately, or whether he/she wishes primarily to collect suggestions and intends to start negotiations only after the materials gathered have been sorted out and evaluated.

Depending on the status of the business deal, the order may therefore open with the wording "FIRM ORDER..." or "PROSPECTIVE ORDER / ORDER EXPECTED TO BECOME DEFINITE" or similar wording.

Corresponding to the different types of order, the owner may give a firm offer or an indication, which is a proposal accompanied by a freight idea. In case of proposals, the charterer may initiate discussions with a number of owners until he/she finds a suitable one and asks for a firm offer. Once a firm offer is made, the parties can proceed to the second negotiation stage.

2) Negotiation stage

The negotiation stage can be divided into two parts. The first part is the negotiation of the main terms, and the second is the negotiation of the details and wording of the clauses.

The main terms are those essential to the charter party, and breach of any of them will not lead to an agreement. Both the ship owner and charterer or their respective brokers give offers and counteroffers and will continue in this way until they reach a compromise. In practice, often a standard charter form will be referred to. At this stage the charterer or its broker will then compile a full recapitulation of all terms and details as so far agreed. The owner or his broker will carefully check this "recap" without delay.

The main negotiation of terms is usually done within narrow time limits. The agreement on "main terms" is always stated to be "subject to details".

The next step of negotiating the details is concerned with all the additional points and terms which are not covered in the main terms, but which have to be clarified before a charter can be completed. This process might be laborious and long lasting. When both parties have agreed on each detail, then this means that all parties have reached a "clean fixture".

3) Follow-up stage

Some additional matters that may remain as part of the chartering work are dealt with during the follow-up stage. Examples are such as the drawing-up, copy and distribution of the charter party and that allty will have the documents duly signed.

Essential conditions of a charter contract

Essential conditions of a charter contract are those of vital importance to the engagement. In lieu of the essential conditions the contract will be incomplete or the contract will not be considered to be concluded. In most cases the main terms are essential conditions of a charter party.

In both voyage charter and time charter, the following details will be considered as essential:

- the ship owner's name
- the ship's name and particulars
- laydays / cancelling day for the delivery
- charter – party form
- commissions

Particular to voyage charter, the following details are also needed:

- cargo quantity and description of the commodity

- loading and discharging ports and berths
- loading and discharging rates and terms
- demurrage and despatch
- freight and payment conditions

Particular to time charter, the following details will be necessary too:

- place of delivery and redelivery
- intended trade with geographical limits and other trading limits
- bunkers on board on delivery and redelivery
- hire and conditions for hire payment.

Questions:

1. Which description fits which Charter type?

Questions	Answer
To rent the ship and crew for one year	Time Charter
To transport fruit from Brazil to Romania	Voyage Charter
To rent the ship without crew, fuel and etc. for ten years	Bare Boat Charter

2. Which statement below about the Charter Party is incorrect?

a. It is a contract between the ship owner and charterer of a vessel

b. A ship owner executes the Charter Shipping

c. To form a charter party, there are many parties involved including ship owner, charterer, and brokers

d. Charter party usually takes a standard form which is recommended by The Baltic Exchange and BIMCO

(b)

3. If a ship owner has agreed to carry a large quantity of goods during a specified period between certain ports, this is a contract of

a. Contract of affreightment

b. Time charter

c. Voyage charter

d. Bareboat charter

(a)

4. The Charter Term FIOS means

a. Free in / free out; ship owner pays no loading and unloading costs

b. Free in and out / trimmed; ship owner pays no loading, unloading and trimming costs

c. Free in and out / stowed; ship owner pays no loading, unloading and stowing costs

d. The charter rate that does not include loading and unloading costs, or port related costs
(c)

5. The following are essential conditions of a voyage charter contract, except:
a. The ship owner's name, the ship's name and particulars
b. Bunkers on board on delivery and redelivery
c. Lay days / cancelling days for the delivery; freight and payment conditions
d. Loading and discharging ports and berths
(b)

2.5 Documents in Shipping

Learning objective
The student should have knowledge on the main documents in sea shipping (liner shipping and charter shipping).
The student should be aware when and how the main documents are applied.

2.5.1 Bill of Lading

Learning objectives
The student should understand the three functions assumed by bill of lading in liner services, and the information generally contained in a bill of lading.
The student should also understand the different types of bills of lading in practice, and the legal implications associated with each. The student should be able to explain in what circumstances which bills of lading are used, and why.

Bill of lading in general

B/L Development
Among all the documents in relation to sea transport, the bill of lading (B/L) is the central document in line shipping. It is the main document for the regulation of the relationship between the shipper, the carrier and the consignee. It is often filled in by the shipper or by a forwarding agent, and signed by a representative of the carrier.
In medieval times, the merchants travelled with their goods and did not need to receive documentation from the carrier, or to give such documentation to the buyer of the goods at a foreign port. The need for a B/L arose when merchants first decided not to accompany their goods any more during maritime transport but, instead, put them in the custody of the master and ship owner for transportation to overseas destinations. With the help of

information and telecom services, during the long journey at sea the goods may virtually go through a few sales and purchases before they reach the destination market on shore. Such development in the economic needs and the ocean transport practice has resulted in the B/L document, to which distinctive functions and legal rights have accordingly been attached.

Functions of B/L

In recent and modern sea transport, the B/L is generally considered to have three functions:

- As a receipt: the carrier acknowledges that he has received the goods, type, quality and quantity as stated (either on board the ship or for shipment) and that they will be delivered to the consignee.
- As evidence of the contract of carriage: between carrier and shipper (holder of the B/L), stating clearly all conditions regarding transport and delivery of the goods.
- As a document of title: the B/L is a document enabling the seller, who has shipped the goods for delivery to the buyer, to transfer the right to obtain delivery of the goods, to the buyer. The holder of the B/L is entitled at the destination to demand delivery of the goods carried.

Negotiable vs. Non-negotiable

Depending on whether the B/L is transferable in terms of the rights and obligations attached to it, the B/L may be regarded as "negotiable", "quasi-negotiable" or "non-negotiable". In practice, the B/L then may be made out to a named person, to a named person or order, to the holder, or to a named person "not to order". When a B/L is transferred, the holder will make this action clear by a so called endorsement.

Endorsement

Endorsement literally means: mention on the reverse side. This means that the holder of the B/L transfers the rights and obligations in the B/L to another person by mentioning the name of his company on the reverse side, provided with an authorised signature.

A blank endorsed B/L is a B/L to the bearer (to order). Anyone who possesses it can claim the right to the goods as a lawful holder of the B/L.

A B/L is fully endorsed when also the name of the beneficiary is mentioned (to order of ...). With a Letter of Credit the bank for example can be mentioned in the B/L formally as the party at the receiving end (to order of ...Bank).

Layout of B/L

The reverse side of the B/L mentions the transport conditions. Most times these conditions are referred to as the Hague-Visby Rules, or whichever rules have been incorporated.

The front side of the B/L mentions data concerning the cargo, such as:

1. Name of the carrier, in print
2. The B/L number
3. Reference of the shipper
4. Name of the shipper
5. Name of the receiver
6. Notification address
7. Name of the vessel
8. Port of loading
9. Port of discharge
10. Where freight is due
11. Number of originals (e.g. 3)
12. Specification of the goods (marks, numbers, quantity, type of packaging, description of the goods, weight etc.)

Below is an example of a container bill of lading.

Any Container Line **BILL OF LADING**

SHIPPER/EXPORTER Export-Import Trade Software, Ltd 201 Arnold Ave. Suite J Pt. Pleasant, NJ 06611 UNITED STATES OF AMERICA		BOOKING NUMBER 123WEST	BILL OF LADING NUMBER
		EXPORT REFERENCES Exporter File Number - N-China123456 Transaction Number - 45678TH Letter of Credit Number - BB1234566 Forwarder Reference Number - 40/1238N	
CONSIGNEE EXits China Inc. Friendship Hotel Software Road West Bejing 100001 Mao Sector CHINA [MAINLAND]		FORWARDING AGENT	FMC NO. CRN NO.
NOTIFY PARTY		ALSO NOTIFY - ROUTING & INSTRUCTIONS Keep cargo dry and away from heat.	
VESSEL VOYAGE FLAG SS Neversink 001 US	PLC OF RECEIPT BY PRECARRIER	RELAY POINT	POINT AND COUNTRY OF ORIGIN OF GOODS
	PORT OF LOADING NEW YORK, NY	LOADING PIER Shed 1 Pt Newark	TYPE OF MOVE Breakbulk
PORT OF DISCHARGE SHANGHAI, CHINA	PLACE OF DELIVERY BY ON CARRIER	ORIGINALS TO BE RELEASED AT	

PARTICULARS FURNISHED BY SHIPPER

MARKS & NOS/CONTAINER NO'S	NO.OF PKGS.	DESCRIPTION OF GOODS	WEIGHT	MEASUREMENTS
Cartons 1/15 Freight PrePaid	1	Skid containing 15 cartons 10 ea Quick Assistant Software-6 Diskettes "Smart Software for Exporters" 5 ea Software Kit, For PC's Interlink These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to U.S. Law prohibited. This is a sample B/L generated by the Quick Assistant for Export Documentation Please call EXits, Inc. 8732/899/9030 to order your software.	2450.00 lbs	64.00 CF

FREIGHT CHARGES	RATED AS	PER	RATE	TO BE PREPAID IN U.S. DOLLARS	TO BE COLLECTED IN U.S. DOLLARS	FOREIGN CURRENCY
			TOTALS			

SUBJECT TO SECTION 7 OF CONDITIONS, IF SHIPMENT IS TO BE DELIVERED TO THE CONSIGNEE WITHOUT RECOURSE ON THE CONSIGNOR, THE CONSIGNOR SHALL SIGN THE FOLLOWING STATEMENT; 'THE CARRIER SHALL NOT MAKE DELIVERY OF THIS SHIPMENT WITHOUT PAYMENT OF FREIGHT AND OTHER LAWFUL CHARGES.'

IN WITNESS WHEREOF THE CARRIER BY ITS AGENT HAS SIGNED

SIGNATURE OF CONSIGNOR

RECEIVED THE GOODS OR PACKAGES SHIPPER'S LOAD AND COUNT GOODS HEREINAFTER MENTIONED IN APPARENT GOOD ORDER AND CONDITION UNLESS OTHERWISE INDICATED TO BE RELATED AS HEREIN PROVIDED, THE RECEIPT, CUSTODY, CARRIAGE, DELIVERY, AND TRANSHIPPING OF THE GOODS ARE SUBJECT TO THE TERMS APPEARING ON THE FACE AND BACK HEREOF, AND CARRIER'S TARIFFS ON FILE WITH THE INTERSTATE COMMERCE COMMISSION AND/OR THE FEDERAL MARITIME COMMISSION, WASHINGTON, D.C

LIABILITY LIMITED TO AMOUNT SPCIFIED IN SEC 16 UNLESS INCREASED VALUE DECLARED BY SHIPPER AS SPECIFIED BELOW:

DECLARED VALUE

*APPLICABLE ONLY WHEN USED AS A THROUGH BILL OF LADING AFTER MENTIONED IN APPARENT GOOD ORDER AND CONDITION UNLESS

**INDICATE WHETHER ANY OF THE CARGO IS HAZARDOUS MATERIAL UNDER DOT, IMCO,OR OTHER REGULATIONS AND INDICATE THE CORRECT COMMODITY NUMBER IN DESCRIPTION OF PACKAGES AND GOODS ABOVE.

ORIGINAL BILLS OF LADING ALL OF THE SAME TENOR AND DATE ONE OF WHICH BEING ACCOMPLISHED THE OTHERS TO STAND VOID.

BY_____
CARRIER

BY_____
FOR SHIPPER

DATE_____

Other Types of B/L

Various types of B/L's can be distinguished, such as:

- Liner B/L: the bill issued by a shipping line that usually offers a regular service, with fixed loading dates at particular ports of call.
- Container B/L: for sea transport of containers.
- Sea waybill / Waybill: a non-negotiable receipt with a named person which contains contractual terms. A waybill does not operate as a document of title, but it still performs as that of a receipt and that of evidence of the contract of carriage. A waybill is used when there is no need for a negotiable B/L, e.g. the consignee does not want to resell the goods, or when in-house transfer takes place within large multinational companies.
- Express B/L or Data Freight Receipt: this is electronic information between parties. The outline of the form is identical to the Combined Transport B/L and gives the opportunity to deliver the goods to the receiver, without requesting him/her to present himself/herself as the owner with a signed and dated proof of ownership. This mostly regards transactions between sister companies, which settle accounts by current account and not via documentary bank credits.
- EDI and the electronic B/L: instead of the traditional paper B/L, this B/L is produced and negotiated by electronic means or specifically, via EDI (Electronic Data Interchange). But due to the ambiguity of legal implications of paperless shipping transactions, such as the electronic signature, the EDI or electronic B/L is not yet widely accepted or used in the shipping business. But note, banks have already been applying electronic payments for a longer time and have the necessary infrastructure available to do so. They also have built up vast experience in the fields of EDI.
- Printing of B/L at location: Since the introduction of the electronic B/L is still pending, mainly for legal reasons, some larger carriers such as Maersk have developed intermediate solutions. A shipper is e.g. provided with blank B/L's which can be printed at their location provided the official signature is authorized by the carrier. It remains to be seen whether such a development will prove to be ideal.

Ocean bill of lading

Ocean bill of lading is a traditional expression, referring to a document covering the carriage of goods by sea and not, for example, inland carriage stages (e.g. by road, rail or barge).

Ocean B/L is sometimes called "marine bill of lading". It may be referred to on the front of the bill as a "port to port bill of lading", indicating the general period of responsibility of the carrier.

Clean B/L

A B/L that contains no remark with respect to the condition of the goods is called a clean B/L.

Due to the terms and conditions of the purchase agreement, the buyer is generally under no duty to pay for an unclean B/L. Under payment by documentary credit the UCP (article 32 in the 500 revision) also prescribes that the bill of lading must be clean.

It is therefore clear that the seller/shipper has a great interest in having a clean B/L issued by the carrier, since the buyer will otherwise refuse to pay for the document, or under a documentary credit, the paying banks will refuse to pay against such a document.

FIATA Multimodal Transport Bill of Lading (FIATA FBL)

In contrast to the ocean B/L, if the shipping lines or carriers want to provide an all-round service to their customers they will issue a "multimodal transport B/L", or the so called "combined transport B/L" or "intermodal B/L", under which the carrier assumes contractual responsibilities for the entire period of carriage and not just responsibility for the sea leg. Under a multimodal transport B/L the cargo will be transported by two or more modes of transport.

FIATA Multimodal Transport B/L is such a multimodal B/L developed and recommended by FIATA (International Federation of Freight Forwarders Associations).

Freight forwarders (House) bill of lading

Usually, the B/L is issued by the ship owner or carrier. With the development of the forwarding and logistics business, the service offered by some freight forwarders goes deeper and extends along the entire transport chain. Some big freight forwarding companies go a step further and have developed their own bill of lading, i.e. so called house bill of lading.

Literally the house bill of lading refers to the specific bill personal to a particular operator but in practice, the house bill of lading is reserved for those freight forwarders who do not operate ships themselves, but which

group together cargos from different owners and arrange for these to be sent with an actual carrier.
The freight forwarder issues transport documents to individual cargo owners, and then procures a contract of carriage with a carrier covered by an ocean B/L or intermodal B/L.

Through B/L

The through B/L usually refers to a document recording transport by more than one carrier. This type of bill of lading has been in use since the nineteenth century.
Through B/L is normally used where there is more than one sea carrier, but is sometimes also used where different modes of transport are involved (for example, road, sea, or rail). When the through B/L is used for different modes of transport, it may overlap with a combined transport B/L, or multimodal B/L or intermodal B/L.

Received B/L (Received for shipment)

If the bill of lading is to be issued upon receipt of the cargo, which has not yet been loaded on board the vessel, the carrier will issue a "received for shipment bill of lading" (Received B/L). Therefore a Received B/L is an acknowledgement the carrier makes stating it has received goods from somewhere, e.g. at a container depot. It is different from an "on board" or "shipped" B/L, which shows that the goods have actually been loaded on board the vessel.
Sometimes in the letter of credit it is seen that the banks only accept on board and clean B/L's . In such a case the Received B/L will be insufficient for the shipper to get the payment from the bank.
The Received B/L has come to play a more and more important role where unity transports, particularly container transports and Ro-Ro traffic, dominate the trade. Traditionally the shipped B/L has been the most common.
A Received B/L may be overstamped with the words "shipped on board" along with a date, in order to convert it into a shipped bill.

Mate's receipt

The mate's receipt is drawn up by the carrier or his agent at the request of the owner of the goods. This document is issued after the loading of the goods and serves at that moment as proof of receipt. The carrier will not submit a B/L before this document has been returned.
In practice the mate's receipt is sometimes used when the supplier must supply an FOB.

Then the shipper can only dispose of the goods after having become the owner of the goods by transfer of the mate's receipt (mostly after payment). The shipper returns the mate's receipt to the carrier and then the shipper can give the B/L instructions to the carrier.

Test Questions

1. A bill of lading usually assumes the following functions:

a. A receipt of the carrier acknowledging that he has received the goods, type, quality and quantity as stated
b. Evidence of the contract of carriage between carrier and shipper
c. A document of title, representing the right to claim the delivery of the goods
d. All of the above
(d)

2. Depending on the issuing party, the shipments covered, or the transferability, there are many types of bills of lading. The following groups are all bills of lading except:

a. House bill of lading, through bill of lading
b. Negotiable ("to order") bill of lading, non-negotiable bill of lading, way bill
c. Liner bill of lading, container bill of lading, clean ocean bill of lading
d. Mate's receipt, delivery order
(d)

3. A clean bill of lading is not:

a. A bill of lading that contains no remark with respect to the conditions of the goods loaded on board a vessel
b. Issued by the carrier to the shipper
c. Received for shipment bill of lading, where the carrier acknowledges the receipt of goods which is not yet loaded on board
d. Of much concern to the seller/shipper under a documentary credit
(c)

4. Both the front side and back side of the bill of lading are printed with data and other information. The following descriptions are correct except:

a. The back side has the printing of transport conditions

b. The bill of lading will include the information such as the name of the carrier, shipper, vessel and the receiver

c. The bill of lading will not specify the number of originals

d. Specification of goods will be contained in the bill of lading such as cargo marks, quantity and weight

(c)

5. True or False?

A sea waybill is:

a. Non-negotiable (T)

b. A document of title (F)

c. A bill where the receiving party is named (T)

d. Used when there is no need to sell or resell the goods in transit (T)

2.5.2 Charter Party

Learning objectives
The student should understand the importance of charter parties in charter shipping, and the four types of contracts corresponding to four types of charters.
The student should have knowledge and be able to recognize a few standard forms of charter parties. The student should also be aware that there are other documents used in chartering, and when such documents are used.
The student should understand what general average refers to.

Charter Party

Charter party is the written agreement between the owner and the charterer in tramp shipping. Together with the bill of lading issued under a chartering, the charter party is the most important document governing the commercial and legal relationships between the parties.

The charter party includes all stipulations relating to the carriage or rental agreement between the owner and the charterer. For each type of charter a different charter party is used, namely:

- voyage charter parties
- time charter parties
- bareboat charter parties
- contracts of affreightment.

Charter party standard forms

In the shipping business, charter parties are almost always made out on standard forms. Large shipping companies and shippers may have made their own charter parties as well, which they will normally introduce as a basis for negotiations.

The purpose of standard charter parties is to standardize a number of clauses frequently used by varying parties in different trades, and to help the parties in drafting the contract. They will only need to fill in certain items, such as the names of the parties and the vessels, ports, cargo, data about the ship, laytime, notice time, etc.

BIMCO (Baltic and International Maritime Conference), in Copenhagen, plays an important role in the drafting of standard forms and has produced a large number of approved documents. Below are a few exemplary standard forms produced by BIMCO:

Voyage charter party: Gencon, Welcon, Baltcon, Polcoalvoy, Sovcoalvoy, Scancon, and Nuvoy.
To note, Gencon is intended to be used when there is no suitable special voyage charter form available. Therefore Gencon charter party contains comparatively few standard clauses.

Time charter party: Baltime, Linertime, Gentime.

The standard forms are often gradually revised and amended. It is therefore important to agree and mention which edition of the standard form is to be used.

BALTIME 1939 Example

Below is an example of a standard time charter party developed by BIMCO.

1. Shipbroker	**BIMCO UNIFORM TIME-CHARTER (AS REVISED 2001) CODE NAME: "BALTIME 1939"** PART I
	2. Place and Date of Charter
3. Owners/Place of business	4. Charterers/Place of business
5. Vessel's Name	6. GT/NT
7. Class	8. Indicated brake horse power (bhp)
9. Total tons d.w. (abt.) on summer freeboard	10. Cubic feet grain/bale capacity
11. Permanent bunkers (abt.)	12. Speed capability in knots (abt.) on a consumption in tons (abt.) of
13. Present position	14. Period of hire (Cl. 1)
15. Port of delivery (Cl. 1)	16. Time of delivery (Cl. 1)
17. (a) Trade limits (Cl. 2)	
(b) Cargo exclusions specially agreed	
18. Bunkers on re-delivery (state min. and max. quantity)(Cl. 5)	19. Charter hire (Cl. 6)
20. Hire payment (state currency, method and place of payment; also beneficiary and bank account) (Cl. 6)	
21. Place or range of re-delivery (Cl. 7)	22. Cancelling date (Cl. 21)
23. Dispute resolution (state 22(A), 22(B) or 22(C); if 22(C) agreed Place of Arbitration must be stated) (Cl. 22)	24. Brokerage commission and to whom payable (Cl. 24)
25. Numbers of additional clauses covering special provisions, if agreed	

It is mutually agreed that this Contract shall be performed subject to the conditions contained in this Charter which shall include PART I as well as PART II. In the event of a conflict of conditions, the provisions of PART I shall prevail over those of PART II to the extent of such conflict.

Signature (Owners)	Signature (Charterers)

Printed and sold by Fr. G. Knudtzons Bogtrykkeri A/S, Vallensbaekvej 61, DK-2625 Vallensbaek. Fax: +45 4366 0701

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"BALTIME 1939" Uniform Time-Charter (as revised 2001)

It is agreed between the party mentioned in Box 3 as Owners of the Vessel named in Box 5 of the gross/net tonnage indicated in Box 6, classed as stated in Box 7 and of indicated brake horse power (bhp) as stated in Box 8, carrying about the number of tons deadweight indicated in Box 9 on summer freeboard inclusive of bunkers, stores and provisions, having as per builder's plan a cubic-feet grain/bale capacity as stated in Box 10, exclusive of permanent bunkers, which contain about the number of tons stated in Box 11, and fully loaded capable of steaming about the number of knots indicated in Box 12 in good weather and smooth water on a consumption of about the number of tons fuel oil stated in Box 12, now in position as stated in Box 13 and the party mentioned as Charterers in Box 4, as follows:

1. Period/Port of Delivery/Time of Delivery

The Owners let, and the Charterers hire the Vessel for a period of the number of calendar months indicated in Box 14 from the time (not a Sunday or a legal Holiday unless taken over) the Vessel is delivered and placed at the disposal of the Charterers between 9 a.m. and 6 p.m., or between 9 a.m. and 2 p.m. if on Saturday, at the port stated in Box 15 in such available berth where she can safely lie always afloat, as the Charterers may direct, the Vessel being in every way fitted for ordinary cargo service. The Vessel shall be delivered at the time indicated in Box 16.

2. Trade

The Vessel shall be employed in lawful trades for the carriage of lawful merchandise only between safe ports or places where the Vessel can safely lie always afloat within the limits stated in Box 17. No live stock nor injurious, inflammable or dangerous goods (such as acids, explosives, calcium carbide, ferro silicon, naphtha, motor spirit, tar, or any of their products) shall be shipped.

3. Owners' Obligations

The Owners shall provide and pay for all provisions and wages, for insurance of the Vessel, for all deck and engine-room stores and maintain her in a thoroughly efficient state in hull and machinery during service. The Owners shall provide winchmen from the crew to operate the Vessel's cargo handling gear, unless the crew's employment conditions or local union or port regulations prohibit this, in which case qualified shore-winchmen shall be provided and paid for by the Charterers.

4. Charterers' Obligations

The Charterers shall provide and pay for all fuel oil, port charges, pilotages (whether compulsory or not), canal steersmen, boatage, lights, tug-assistance, consular charges (except those pertaining to the Master, officers and crew), canal, dock and other dues and charges, including any foreign general municipality or state taxes, also all dock, harbour and tonnage dues at the ports of delivery and re-delivery (unless incurred through cargo carried before delivery or after re-delivery), agencies, commissions, also shall arrange and pay for loading, trimming, stowing (including dunnage and shifting boards, excepting any already on board), unloading, weighing, tallying and delivery of cargoes, surveys on hatches, meals supplied to officials and men in their service and all other charges and expenses whatsoever including detention and expenses through quarantine (including cost of fumigation and disinfection). All ropes, slings and special runners actually used for loading and discharging and any special gear, including special ropes and chains required by the custom of the port for mooring shall be for the Charterers' account. The Vessel shall be fitted with winches, derricks, wheels and ordinary runners capable of handling lifts up to 2 tons.

5. Bunkers

The Charterers at port of delivery and the Owners at port of re-delivery shall take over and pay for all fuel oil remaining in the Vessel's bunkers at current price at the respective ports. The Vessel shall be re-delivered with not less than the number of tons and not exceeding the number of tons of fuel oil in the Vessel's bunkers stated in Box 18.

6. Hire

The Charterers shall pay as hire the rate stated in Box 19 per 30 days, commencing in accordance with Clause 1 until her re-delivery to the Owners.

Payment of hire shall be made in cash, in the currency stated in Box 20, without discount, every 30 days, in advance, and in the manner prescribed in Box 20. In default of payment the Owners shall have the right of withdrawing the Vessel from the service of the Charterers, without noting any protest and without interference by any court or any other formality whatsoever and without prejudice to any claim the Owners may otherwise have on the Charterers under the Charter.

7. Re-delivery

The Vessel shall be re-delivered on the expiration of the Charter in the same good order as when delivered to the Charterers (fair wear and tear excepted) at an ice-free port in the Charterers' option at the place or within the range stated in Box 21, between 9 a.m. and 6 p.m., and 9 a.m. and 2 p.m. on Saturday, but the day of re-delivery shall not be a Sunday or legal Holiday.

The Charterers shall give the Owners not less than ten days' notice at which port and on about which day the Vessel will be re-delivered. Should the Vessel be ordered on a voyage by which the Charter period will be exceeded the Charterers shall have the use of the Vessel to enable them to complete the voyage, provided it could be reasonably calculated that the voyage would allow redelivery about the time fixed for the termination of the Charter, but for any time exceeding the termination date the Charterers shall pay the market rate if higher than the rate stipulated herein.

8. Cargo Space

The whole reach and burthen of the Vessel, including lawful deck-capacity shall be at the Charterers' disposal, reserving proper and sufficient space for the Vessel's Master, officers, crew, tackle, apparel, furniture, provisions and stores.

9. Master

The Master shall prosecute all voyages with the utmost despatch and shall render customary assistance with the Vessel's crew. The Master shall be under the orders of the Charterers as regards employment, agency, or other arrangements. The Charterers shall indemnify the Owners against all consequences or liabilities arising from the Master, officers or Agents signing Bills of Lading or other documents or otherwise complying with such orders, as well as from any irregularity in the Vessel's papers or for overcarrying goods. The Owners shall not be responsible for shortage, mixture, marks, nor for number of pieces or packages, nor for damage to or claims on cargo caused by bad stowage or otherwise. If

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the Charterers have reason to be dissatisfied with the conduct of the Master or any officer, the Owners, on receiving particulars of the complaint, promptly to investigate the matter, and, if necessary and practicable, to make a change in the appointments.

10. Directions and Logs
The Charterers shall furnish the Master with all instructions and sailing directions and the Master shall keep full and correct logs accessible to the Charterers or their Agents.

11. Suspension of Hire etc.
(A) In the event of drydocking or other necessary measures to maintain the efficiency of the Vessel, deficiency of men or Owners' stores, breakdown of machinery, damage to hull or other accident, either hindering or preventing the working of the Vessel and continuing for more than twenty-four consecutive hours, no hire shall be paid in respect of any time lost thereby during the period in which the Vessel is unable to perform the service immediately required. Any hire paid in advance shall be adjusted accordingly.
(B) In the event of the Vessel being driven into port or to anchorage through stress of weather, trading to shallow harbours or to rivers or ports with bars or suffering an accident to her cargo, any detention of the Vessel and/or expenses resulting from such detention shall be for the Charterers' account even if such detention and/or expenses, or the cause by reason of which either is incurred, be due to, or be contributed to by, the negligence of the Owners' servants.

12. Responsibility and Exemption
The Owners only shall be responsible for delay in delivery of the Vessel or for delay during the currency of the Charter and for loss or damage to goods onboard, if such delay or loss has been caused by want of due diligence on the part of the Owners or their Manager in making the Vessel seaworthy and fitted for the voyage or any other personal act or omission or default of the Owners or their Manager. The Owners shall not be responsible in any other case nor for damage or delay whatsoever and howsoever caused even if caused by the neglect or default of their servants. The Owners shall not be liable for loss or damage arising or resulting from strikes, lock-outs or stoppage or restraint of labour (including the Master, officers or crew) whether partial or general. The Charterers shall be responsible for loss or damage caused to the Vessel or to the Owners by goods being loaded contrary to the terms of the Charter or by improper or careless bunkering or loading, stowing or discharging of goods or any other improper or negligent act on their part or that of their servants.

13. Advances
The Charterers or their Agents shall advance to the Master, if required, necessary funds for ordinary disbursements for the Vessel's account at any port charging only interest at 6 per cent. p.a., such advances shall be deducted from hire.

14. Excluded Ports
The Vessel shall not be ordered to nor bound to enter:
(A) any place where fever or epidemics are prevalent or to which the Master, officers and crew by law are not bound to follow the Vessel;
(B) any ice-bound place or any place where lights, lightships, marks and buoys are or are likely to be withdrawn by reason of ice on the Vessel's arrival or where there is risk that ordinarily the Vessel will not be able on account of ice to reach the place or to get out after having completed loading or discharging. The Vessel shall not be obliged to force ice. If on account of ice the Master considers it dangerous to remain at the loading or discharging place for fear of the Vessel being frozen in and/or damaged, he has liberty to sail to a convenient open place and await the Charterers' fresh instructions. Unforeseen detention through any of above causes shall be for the Charterers' account.

15. Loss of Vessel
Should the Vessel be lost or missing, hire shall cease from the date when she was lost. If the date of loss cannot be ascertained hire shall be paid from the date the Vessel was last reported until the calculated date of arrival at the destination. Any hire paid in advance shall be adjusted accordingly.

16. Overtime
The Vessel shall work day and night if required. The Charterers shall refund the Owners their outlays for all overtime paid to officers and crew according to the hours and rates stated in the Vessel's articles.

17. Lien
The Owners shall have a lien upon all cargoes and sub-freights belonging to the Time-Charterers and any Bill of Lading freight for all claims under this Charter, and the Charterers shall have a lien on the Vessel for all moneys paid in advance and not earned.

18. Salvage
All salvage and assistance to other vessels shall be for the Owners' and the Charterers' equal benefit after deducting the Master's, officers' and crew's proportion and all legal and other expenses including hire paid under the charter for time lost in the salvage, also repairs of damage and fuel oil consumed. The Charterers shall be bound by all measures taken by the Owners in order to secure payment of salvage and to fix its amount.

19. Sublet
The Charterers shall have the option of subletting the Vessel, giving due notice to the Owners, but the original Charterers shall always remain responsible to the Owners for due performance of the Charter.

20. War ("Conwartime 1993")
(A) For the purpose of this Clause, the words:
(i) "Owners" shall include the shipowners, bareboat charterers, disponent owners, managers or other operators who are charged with the management of the Vessel, and the Master; and
(ii) "War Risks" shall include any war (whether actual or threatened), act of war, civil war, hostilities, revolution, rebellion, civil commotion, warlike operations, the laying of mines (whether actual or reported), acts of piracy, acts of terrorists, acts of hostility or malicious damage, blockades (whether imposed against all vessels or imposed selectively against vessels of certain flags or ownership, or against certain cargoes or crews or otherwise howsoever), by any person, body, terrorist or political group, or the Government of any state whatsoever, which, in the reasonable judgement of the Master and/or the Owners, may be dangerous or are likely to be or to become dangerous to the Vessel, her cargo, crew or other persons on board the Vessel.
(B) The Vessel, unless the written consent of the Owners be first obtained, shall not be ordered to or required to continue to or through, any port, place, area or zone (whether of land or sea), or any waterway or canal, where

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it appears that the Vessel, her cargo, crew or other persons on board the Vessel, in the reasonable judgement of the Master and/or the Owners, may be, or are likely to be, exposed to War Risks. Should the Vessel be within any such place as aforesaid, which only becomes dangerous, or is likely to be or to become dangerous, after her entry into it, she shall be at liberty to leave it.

(C) The Vessel shall not be required to load contraband cargo, or to pass through any blockade, whether such blockade be imposed on all vessels, or is imposed selectively in any way whatsoever against vessels of certain flags or ownership, or against certain cargoes or crews or otherwise howsoever, or to proceed to an area where she shall be subject, or is likely to be subject to a belligerent's right of search and/or confiscation.

(D) (i) The Owners may effect war risks insurance in respect of the Hull and Machinery of the Vessel and their other interests (including, but not limited to, loss of earnings and detention, the crew and their Protection and Indemnity Risks), and the premiums and/or calls therefor shall be for their account.

(ii) If the Underwriters of such insurance should require payment of premiums and/or calls because, pursuant to the Charterers' orders, the Vessel is within, or is due to enter and remain within, any area or areas which are specified by such Underwriters as being subject to additional premiums because of War Risks, then such premiums and/or calls shall be reimbursed by the Charterers to the Owners at the same time as the next payment of hire is due.

(E) If the Owners become liable under the terms of employment to pay to the crew any bonus or additional wages in respect of sailing into an area which is dangerous in the manner defined by the said terms, then such bonus or additional wages shall be reimbursed to the Owners by the Charterers at the same time as the next payment of hire is due.

(F) The Vessel shall have liberty:-

(i) to comply with all orders, directions, recommendations or advice as to departure, arrival, routes, sailing in convoy, ports of call, stoppages, destinations, discharge of cargo, delivery, or in any other way whatsoever, which are given by the Government of the Nation under whose flag the Vessel sails, or other Government to whose laws the Owners are subject, or any other Government, body or group whatsoever acting with the power to compel compliance with their orders or directions;

(ii) to comply with the order, directions or recommendations of any war risks underwriters who have the authority to give the same under the terms of the war risks insurance;

(iii) to comply with the terms of any resolution of the Security Council of the United Nations, any directives of the European Community, the effective orders of any other Supranational body which has the right to issue and give the same, and with national laws aimed at enforcing the same to which the Owners are subject, and to obey the orders and directions of those who are charged with their enforcement;

(iv) to divert and discharge at any other port any cargo or part thereof which may render the Vessel liable to confiscation as a contraband carrier;

(v) to divert and call at any other port to change the crew or any part thereof or other persons on board the Vessel when there is reason to believe that they may be subject to internment, imprisonment or other sanctions.

(G) If in accordance with their rights under the foregoing provisions of this Clause, the Owners shall refuse to proceed to the loading or discharging ports, or any one or more of them, they shall immediately inform the Charterers. No cargo shall be discharged at any alternative port without first giving the Charterers notice of the Owners' intention to do so and requesting them to nominate a safe port for such discharge. Failing such nomination by the Charterers within 48 hours of the receipt of such notice and request, the Owners may discharge the cargo at any safe port of their own choice.

(H) If in compliance with any of the provisions of sub-clauses (B) to (G) of this Clause anything is done or not done, such shall not be deemed a deviation, but shall be considered as due fulfilment of this Charter.

21. Cancelling

Should the Vessel not be delivered by the date indicated in Box 22, the Charterers shall have the option of cancelling. If the Vessel cannot be delivered by the cancelling date, the Charterers, if required, shall declare within 48 hours after receiving notice thereof whether they cancel or will take delivery of the Vessel.

22. Dispute Resolution

*) **(A)** This Charter shall be governed by and construed in accordance with English law and any dispute arising out of or in connection with this Charter shall be referred to arbitration in London in accordance with the Arbitration Act 1996 or any statutory modification or re-enactment thereof save to the extent necessary to give effect to the provisions of this Clause.

The arbitration shall be conducted in accordance with the London Maritime Arbitrators Association (LMAA) Terms current at the time when the arbitration proceedings are commenced.

The reference shall be to three arbitrators. A party wishing to refer a dispute to arbitration shall appoint its arbitrator and send notice of such appointment in writing to the other party requiring the other party to appoint its own arbitrator within 14 calendar days of that notice and stating that it will appoint its arbitrator as sole arbitrator unless the other party appoints its own arbitrator and gives notice that it has done so within the 14 days specified. If the other party does not appoint its own arbitrator and give notice that it has done so within the 14 days specified, the party referring a dispute to arbitration may, without the requirement of any further prior notice to the other party, appoint its arbitrator as sole arbitrator and shall advise the other party accordingly. The award of a sole arbitrator shall be binding on both parties as if he had been appointed by agreement.

Nothing herein shall prevent the parties agreeing in writing to vary these provisions to provide for the appointment of a sole arbitrator.

In cases where neither the claim nor any counterclaim exceeds the sum of US$50,000 (or such other sum as the parties may agree) the arbitration shall be conducted in accordance with the LMAA Small Claims Procedure current at the time when the arbitration proceedings are commenced.

*) **(B)** This Charter shall be governed by and construed in accordance with Title 9 of the United States Code and the Maritime Law of the United States and any dispute arising out of or in connection with this Contract shall be referred to three persons at New York, one to be appointed by each of the parties hereto, and the third by the two so chosen; their decision or that of any two of them shall be final, and for the purposes of enforcing any award, judgement may be entered on an award by any court of competent jurisdiction. The proceedings shall be conducted in accordance with the rules of the Society of Maritime Arbitrators, Inc.

There are also a large number of standard forms that have been modified for specific types of cargo and/or route. Often, the conditions stipulated in these forms have evolved over time as a result of standard practice.

Company Standard Forms

With respect to the tanker market, the charter party forms are dominated by the large oil companies, which have all drafted their own forms. In voyage charters the examples are such as BP-voy, STB-voy, Shellvoy, etc. In time charter forms are as such: BP-time, Mobil-time, and Shelltime.

Other Standard Forms

Some other well-known charter parties used in business practice are listed below. In voyage charters:

- C (ore) 7, for ore shipments
- Baltimore Form C (CBF), for grain shipments from the United States and Canada
- North American Grain Charter Party (Norgrain), also applicable to grain shipments
- American-Welsh (Amwelsh) Tankvessel Voyage Charter Party for tanker shipments

In time charters:

- New York Produce Exchange, drafted by American broker interests (NYPE 93)

Charter Party Terminologies

Deadfreight

When a charterer fails to ship the total amount of cargo as agreed in the charter party, deadfreight is calculated for the part of the cargo that has not been shipped.

Cancelling date

The final date on which the ship must be ready for loading. If not, the charterer has the right to cancel the charter.

Off hire

Interruption of the hire in a time charter for a specific period when the ship cannot be operated. This happens, for example, when there is engine damage, insufficient crew, etc.

In geographical rotation

This stipulation entails that when loading or discharging in various ports in a specific area, for example the Antwerp-Hamburg range, ships must call on these ports in geographic order to avoid detours and therefore extra costs.

Always safely afloat

The ship must be assigned a loading/discharging location which it can reach while loaded and where it can always berth safely afloat.

Free in and out stowed

Abbreviated to **f.i.o.s.**, this entails that the loading, discharging and stowage costs are for risk and account of the shipper/consignee of the cargo and not for the ship(owner),

Berth terms or *liner terms*
Loading and discharging takes place as is usual in liner shipping.

Demurrage
Fixed compensation payable by the charterer to the ship owner, if either the loading or discharging time agreed in the charter party is exceeded.
Despatch money
Compensation payable by the ship owner to the charterer if the charterer does not use all the port days agreed upon in the charter party.
Lay days/cancellation or *lay/can*
The period in which the ship must be ready for loading, as stipulated in the charter party. A ship is, for example, chartered with "lay/can 10/28 June". The charterer is under no obligation to start loading before the 10th of June, while the 28th of June is the final date (cancelling date) on which the ship must be ready for loading.
Lay time
The number of days that as per charter party is allowed for loading and discharging
Reversible lay days
When the allowed port days are different for loading and discharging, then this clause allows days won or lost during loading to be calculated when discharging. Demurrage and despatch money calculations are only done once the cargo has been loaded and discharged.
All purposes
If the lay time clause refers to a number of days as "all purposes", then these days can be used for both loading and discharging.
Custom of the port
The loading or discharging time is calculated *according to what is custom in that port.* This clause usually leads to all sorts of disputes. When a "custom of the port" clause is accepted, the clause must comply with the following conditions:
- the custom of the port must be generally known
- it must be definite
- it must be reasonable
- it may not conflict with the law

Other documents in chartering

1) Bill of Lading

The bills of lading used in tramp shipping are more simplified in contents and execution than those used in liner shipping.

Only basic information, such as load port and discharging port, shipper, consignee, nature and amount of cargo are listed. Apart from that, reference is made to the stipulations of the charter party. These stipulations are binding. The date of the charter party must, however, also be given.

2) Other documents

The bill of lading is a negotiable document and it often happens that during the voyage the cargo changes owner more than once. It can therefore happen that the original bills of lading cannot be presented at the time of discharging the cargo. In such cases, a Letter of Indemnity or in some cases, a (bank) guarantee is used.
When releasing part shipments (e.g. grain shipments), Delivery Orders are used.
There are also other documents related in charter shipping, such as Notice of readiness, Statement of facts, Time sheet, Portlog, and Certificate of delivery, to name a few.

Letter of Indemnity
A "letter of indemnity" is used when the original bills of lading cannot be produced. The last owner of the cargo usually hands the LOI directly to the ship owner or time charterer. The agent seldom receives the LOI. The agent will only allow the cargo to be discharged once approval has been received from the ship owner. The LOI indemnifies the captain for handing over the cargo.
The "letter of indemnity" is used particularly in tanker services.

Delivery Order
A "delivery order" is a document, which is issued on request by the shipping company / agent, against turning in of a complete set of B/L's. So the D/O replaces the original B/L. This means that the conditions mentioned in the B/L are also applicable to the D/O. The reason why one would wish to receive a D/O against turning in the B/L may be that the importer does not want to release the name of the shipper, as mentioned in the B/L.

This information is not mentioned on the D/O. Another reason could be that cargo, which is carried on one B/L, is divided and sold in lots.

Notice of Readiness
The "notice of readiness" is a written notice from, or on behalf of, the captain to the charterer or his agent. Through the "notice of readiness" the captain indicates that his ship is ready for loading/discharging. This notice can be given at any time of night or day and on Sundays and public holidays. The charter party determines between which hours this "notice of readiness" can be accepted and when the laytime starts. A note on the accepted "notice of readiness" often reads: "*time to count as per relevant charter party*".
A ship is ready for loading or discharging when the following conditions have been fullfilled:

- The ship must have arrived at the loading or discharging berth stipulated in the charter party "or as near thereto as she can safely get".
- The ship must be ready to load or discharge without any restrictions. (The holds must be clean and dry and in the case of tankers, the tanks must be clean and dry)

This document enumerates the facts and times regarding the arrival, departure, loading and discharging of a ship. A time sheet is compiled, based on the "statement of facts".

Statement of Facts

The "statement of facts" also mentions any possible delays. This document must be signed by the captain and/or his/her agent as well as the party involved with the cargo and/or his/her agent. The terminal or installation often co-signs as well.

The "statement of facts" contains only facts. No conditions of the charter party are interpreted in this document, although the charter party is referred to often. This document almost never leads to disputes.

Time Sheet

The "time sheet" is a document in which the facts provided in the "statement of facts" are interpreted in terms of the conditions stipulated in the charter party. The allowed laytime and when it starts is determined. The actual laytime used is calculated up to the minute in a detailed layout. The result of the "time sheet" is the number of days, hours and minutes that the ship has been used for, respectively, loading and/or discharging.

This information forms the basis for calculating the "despatch money" or "demurrage", if applicable.

Port Log

A "portlog" contains all the information regarding the total time the ship stayed at port. Apart from this information, as stated in the "statement of facts", the amount of fuel on board at arrival and departure, the amount of fuel and drinking water delivered, the number of tug boats used and the draft of the ship etc. are also listed.

The actual loading and or discharging times are not specified. This has already been specified on the "statement of facts" and the "time sheet".

Certificate of (Re)delivery

When a ship is delivered on a time charter, a "certificate of delivery" is drawn up. This certificate is signed by the captain, the agent on behalf of the owner and the charterer's agent. The following are stated in this document:

- date and time of delivery
  (this can, for example, be the *dropping outward pilot* or *all fast* events.)
- the amount of fuel on board
  (usually measured by an independent bunker surveyor)
- a possible reference to the survey report, compiled by an independent bureau, describing the condition of the ship in detail.

Upon redelivery of the ship a similar "certificate of redelivery" is drawn up.

General average

General average can be described as such an act, where any extraordinary sacrifice or expenditure is voluntarily and reasonably made or incurred in time of peril for the purpose of preserving the property e.g. vessel and other goods, imperilled in the common adventure. The extra cost of the loss is shared by the ship owner and owners of the saved goods.

With General Average there is an emergency situation at which expenses are deliberately incurred to preserve the ship, cargo and crew. Examples of extraordinary expenses are:

- a vessel runs aground or has to call at a port of distress; tug assistance is required
- as a precaution against capsizing deck cargo must be jettisoned
- at a port of distress extra expenses have to be incurred for the stevedore in order to make the vessel seaworthy again
- communication costs and administrative costs resulting from the emergency situation.

In case during a sea voyage an event has taken place involving great risks for ship and cargo, the ship owner may – on the initiative of the captain – declare General Average. Examples of such an event are collision, storm damage with the risk of capsizing, fire or engine failure.

The actions the vessel has taken to reduce the risk must have been completed successfully to declare General Average.

Fire

Settlement of General Average

The costs incurred, i.e. the damage, will be apportioned among the various parties involved in the transport, viz:

- the owner of the vessel
- the cargo-interested parties
- the owners of containers

Before the damage can be apportioned among all cargo-interested parties, several things have to be established, viz

- What (extraordinary) expenses qualify for compensation
- What is the value of the vessel, freight proceeds, containers, cargo and possibly the bunkers, and consequently, how must the expenses be spread pro rata.

For a correct and prompt settlement an *average adjuster* is appointed by the P&I club to make the average adjustment and to settle the General Average. An average adjuster is a sworn expert.

The settlement of a General Average often implies a lot of legal wrangling and may take many years. For the procedure to be followed in cases of General Average international rules apply; the York-Antwerp Rules 1974, which were amended in 1990. In most Bill of Lading conditions these Rules are referred to.

Test Questions:

1. There are many standard charter parties in use in practice. Examples of such standard forms are:

a. Gencon, Baltcon, BP-voy for voyage charter party

b. Baltime, Linertime, NYPE 93 for time charter party

c. (ore) 7, Baltimore Form C (CBF) for voyage charter party

d. All of the above

(d)

2. Statements of charter party as follows are correct except

a. The written agreement between the owner and the charterer in tramp shipping

b. There are standard forms of the charter party devised by international organizations e.g. BIMCO, and by large oil companies in tanker chartering

c. Charter party is the only document in charter shipping

d. Charter party is the most important document in chartering services

(c)

3. There are other documents involved in chartering. Examples are:

a. Letter of indemnity

b. Delivery order

c. Notice of readiness

d. All of the above

(d)

4. True or false?

General average is:

a. The act taken voluntarily in time of peril, with extraordinary sacrifice or expenditure, for the purpose of preserving the vessel and other goods, imperilled in the common adventure (T)

b. The extra cost of the loss due to the general average is shared by the ship owner and owners of the saved goods (T)

c. The extra cost is a reasonable cost, predictable at the beginning of the sea voyage (F)

d. General average can be a precaution against capsizing where deck cargo must be jettisoned (T)

e. General average can be declared by the ship owner at any time, no matter whether the actions taken to reduce the risk are completed or not (F)

2.5.3 Accompanying Documents

Learning objectives
The student should be aware what the other main documents are that are involved in shipping, and be able to explain why and when such documents are to be used in practice.

The most important document governing the relationship between the parties in liner shipping is the bill of lading, and in charter shipping, the charter party together with the bill of lading. But other documents such as mate's receipt, delivery orders and booking notes also play an important role. On top of these, there are documents which may be required by various authorities, such as cargo manifests, invoices, Customs declarations, certificates of origin etc.

Manifest
The manifest is drawn up by the local representative of the line operator. A manifest contains all necessary information, copied from the B/L's, completed with the freights and where the freights are payable. The manifest also mentions the disbursements which should be collected by the carrier on behalf of the shipper / forwarder.
There is a simplified manifest, called loading manifest. On this document the information regarding freight and disbursements is omitted. The loading manifest is only used for administrative purposes by customs, stevedores etc.

Consular Invoice
A consular invoice is a document with detailed statement of goods, certified by a consular official of the importing country, and used by the customs officials to verify the value, quantity and nature of the shipment shipped.
The consular invoice describes the goods shipped, showing information such as the consignor, consignee and value of the shipment. It has spaces for showing marks, numbers, weights, goods value, origin, and a declaration of the accuracy of the contents of the invoice. Often it is in the language of the importing country. It may be required to be on a special form and be subject to the payment of special fees.

Consular invoices are required by certain nations and used to identify goods. Forms can be purchased from the Consul of the importing country, at the point of shipment. Usually other documents, such as a commercial invoice, will also have to be presented to the Consul at the time the consular invoice is legalized.

Customs Invoice

The customs invoice is used in some importing countries for customs purposes. The customs invoice varies in format but they contain essentially the same data as in commercial invoices and packing lists.

The customs invoice is usually available at local customs brokerages or some forwarding companies. If the goods do not fall into a special category such as hazardous goods, the invoice can be prepared by the exporter himself/herself or his/her agent. It is therefore a self-certified document.

Some importing countries may also even require the importer to provide completed customs invoices for customs clearance.

Certificate of Origin

A Certificate of Origin (CO) is a document certifying the country in which the goods are manufactured, i.e. the origin of the shipment. It is used by customs offices to determine the appropriate duties to be assessed on the goods imported and, at times, to determine whether the shipment may be legally imported at all.

The CO may be required because of established treaty arrangements between the countries, varying duty rates, and preferential duty treatment dependent on the shipment's origin. Some nations restrict imports from certain countries; many countries limit the quantity of goods that are allowed to be imported.

In certain cases, the CO may also include information of the specific regional content value, such as the local materials and labor content. The CO may be required even though the commercial invoice already contains the information. The descriptions and amounts on the CO must be consistent with those entered on the invoice.

The certificate of origin is prepared by the shipper or its agent.

Test Questions

1. Which description and which document belong to each other?

A document certifying the country in which the goods are manufactured	Certificate of Origin
A document with detailed statement of goods, certified by a consular official of the importing country	Consular invoice
For customs purposes, the document varies in format but contains essentially the same data as in commercial invoices and packing lists	Customs invoice

2.6 Pricing of Ocean Freight

Learning objectives
The student should understand the basic tariff structure in both liner shipping and charter shipping.
The student should be aware of the terminologies used in calculation of the tariffs.

As a practical rule of thumb the costs of sea transport amount to approx. 10 – 12% of the goods value.

In recent years it can be concluded that the sea transport costs have rather decreased than increased. Some of the reasons are: the influence of many independent services, the increased containerisation which resulted in a larger efficiency, and the implementation of larger vessels.

2.6.1 Pricing in Liner Shipping

Learning objectives
The student should be aware of the three types of conference rates and the basics in freight rate setting in liner shipping.
The student should understand the basic principles and calculation methods of tariffs in container and conventional cargo liner services, and the liner shipping terms that apply.
Apart from the basic sea tariff, the student should be aware of other costs and surcharges, and have knowledge as to when which type of surcharge may apply.
The student should understand the difference between freight forwarder commission and system rebates in liner shipping.
The three functions assumed by bill of lading in liner services, and the information generally contained in a bill of lading.
The student should also understand the different types of bills of lading in practice, and the legal implications associated with each. The student should be able to explain in what circumstances which bills of lading are used, and why.

Basics in calculation of ocean freight

Two basic factors that affect rate fixing in liner shipping are port and distance related factors and cargo related factors. There are three types of conference rates, including commodity rates, class rates, and commodity-class rates. Under the first category, rates are quoted individually for several hundred commodities; under the second category tariff specific commodities are grouped into a limited number of classes. The third category represents tariffs which are a combination of the two others.

Until recently, the liner shipping sector was largely controlled by shipping conferences. The conferences draw up tariffs, scheduling freight rates at which goods will be transported. A conference exists for each major trade route. However, since the mid-1970s many independent carriers (outsiders) have entered the liner shipping sector, and have fixed their rates on the basis of "what the traffic will bear," essentially applying market pricing techniques.

Influences of Available Cargo on Tariffs

When an imbalance in transport occurs, then sometimes special price agreements are closed. This happens for instance when there is too much tonnage for too little cargo. Sometimes containers are accepted at or below the cost price level. The reasons of doing so may be:

- The container is back at the spot where cargo is available;
- Sometimes it is cheaper than transporting empty containers. Full containers may yield additional revenues, such as THC and demurrage. Besides, the containers are returned to the right depot because of the cargo.

LCL Cargo Charge

In container shipping, different charges are applied to "less-than-container-loads" (LCL) and "full-container-loads" (FCL). In the former case, the rates are usually the same as those charged for conventional shipments, i.e. the tariff will be calculated per ton or per m^3 (weight/measurement).

Weight/Measurement "ad valorem" rate

Liner tariff rates for conventional breakbulk (general cargo) are assessed on either cargo weight (tons), or measurement (cubic meters), whichever is higher. The minimum unit is one cubic meter or one ton. Goods measuring less than 40 cubic feet per 1,000 kg are charged on a cargo weight basis and above that measure by the measurement tariff scale.

If goods are of very high value, they are charged irrespective of weight and measurement, but value, i.e. on an ad valorem basis. Ad valorem rate is a percentage of the assessed value of the imported goods - such as 20% ad valorem (adv). There may also be the so-called specific rate. A specific rate is a specified amount per unit of weight or other quantity such as $6.60 per kilogram.

FCL Box Rate

For FCL the carriers will charge the shipper / receiver a lump sum tariff per container per destination (box rate).

- Price calculation per container per port of discharge, instead of per load weight or load volume (box rates).

Multimodal Freight Rate

In case of multimodal transport arrangements by one carrier under a through document, a multimodal freight rate is charged. This rate is the sum of charges in the port of loading, ocean freight rate, charges in the port of discharge, and the road or rail haulage to the final destination.

- Price calculation based on the entire multi modal transport track, door-to-door (point / point traffic or multi modal freight).

Other costs and surcharges

Apart from the basic rate, which is essentially the sea freight tariff, the line operators also charge additional costs such as terminal handling costs, postage costs, etc. Often, the liners in order to protect their profit interests will also apply surcharges to the shipments at sea, without increasing the tariffs. Such surcharges vary depending on the actual situations.

Other Costs

The line operator or his agent will charge additional costs apart from the sea freight tariff, such as terminal handling costs. These are the costs from delivery at the terminal until hooked. If containers are shipped then they will charge container handling charges or THC (Terminal Handling Charges). These costs can vary per destination.

The line operator or his/her agent may also charge an amount for the completion of the B/L and for some administrative activities, such as postage and communication costs.

Terminal Handling Charges (THC): These costs are charged for the receipt and stacking of the full container and vice versa.

Equipment Handover Charges (EHC): These costs arise when a trucker picks up a container (full or empty) and the container must be placed on a chassis. The same counts when a container is returned. When the ship's owner / agent organises the inland track, then these costs are for the account of the vessel. When the forwarder arranges the transport, then he/she must pay these costs, which are also called *Lo / Lo costs*.

LCL costs: These costs arise when a small shipment is received and after storage must be stowed into a container and vice versa.

When a door-to-door transport is arranged in container shipping, the line operator can calculate a lump sum amount for the entire transport. In the EU however, due to the possible conflicts with EU rules, the line conference members still calculate separate tariffs.

Currency Surcharge

Currency surcharge is also often called Currency Adjustment Factor (CAF). This surcharge is applied when the exchange rate of the currency, in which the tariff is calculated, e.g. the US dollar, becomes too low in comparison to the local currency which the ship owner uses in its bookkeeping, and as a consequence the ship owners cash less freight. With the CAF the balance is compensated.

Bunker Surcharge

Bunker surcharge is also called Bunker Adjustment Factor (BAF). This surcharge is applied when the fuel costs are increased so much that this influences the revenues of the ship owner. With BAF the balance is compensated.

Congestion Surcharge

In the event of port congestion, extra cost occurs for the waiting of the cargo and vessel. Surcharge levied in the event of port congestion is called congestion surcharge.

Length Surcharge

Excessive cargo dimensions often cause extra handling fees and a loss of space on board. Length surcharge is the extra fees applied to the published tariffs on cargo with excessive length, in order to compensate the loss of revenue on the carrier.

Like length surcharge, if the cargo is of excessive weight, a heavy lift surcharge is applied to the published tariff.

War Risk Surcharge

For each route of liner service, there might be considerable spreads from the published tariffs, which are usually the average costs. An imminent risk of

war or an existing war will entail the extra war risk insurance. The war risk insurance premium charged by the carrier or shipper is called war risk surcharge.

System rebates on ocean freight

Despite the existence of conferences and because of the increasing role of independent carriers in the liner trades, the rates actually charged vary widely and often deviate substantially from published tariffs.
Carriers offer loyalty bonuses and apply rebates, different from the conference agreements. As a way of customer relationship, formed often when contracts in liner shipping were closed, to which directly a discount (e.g. 9.5%) was granted. If there was no contract, then a certain percentage of postponed discounts were paid once per year.
At present many *service contracts, time volume contracts* and *rate agreements* are used. In such cases it is agreed that a certain volume of cargo will be shipped involving one or more ship owners in return for specially discounted rates offered by the contracted carrier. This must however comply with relevant legislation.

Liner shipping terms

The tariffs in liner shipping generally are based on liner shipping terms, under which the carrier assumes responsibility for loading and discharging expenses, as well as the carriage of the goods by sea.
The most basic liner terms is: from ship's tackle to ship's tackle (hooked till unhooked, or from berth port of loading to berth port of discharge).
Sometimes there are deviations, such as *Liner In / Free Out.* This means that the discharge of the hold until unhooked is not included in the tariff. The receiver will have to pay these discharge costs. This occurs predominantly in ports where the authorities control the loading and discharge operations. Some examples are: Piraeus and Alexandria.

Freight forwarders commission

When the cargo is booked by forwarders the line operator grants them a forwarders commission of 2.5 - 5% of the tariff. The commission is calculated over the net freight.
This is the commission received by the forwarder from the shipping company / agent for the goods to be shipped. It is a compensation for the costs which are made by the forwarder for cargo acquisition. These are costs which are saved by the ship's owner. Forwarders commission is however not always granted. Some line conferences simply do not do it.
When the shipping company / agent has contact with the shipper directly, the forwarders commission may be applied improperly. The shipping company / agent can surpass the forwarder and grant the shipper the commission as a discount on the freight.

NVOCC

The NVOCC generally calculates tariffs in the same way as the line operator. However the NVOCC in most cases offers a house - house concept and therefore charges one tariff for the entire transport. The separate costs for sea transport and land transport are no longer visible.

Consolidators

These carriers charge a certain tariff per ton or per m^3. In most cases this is an all-in tariff until arrival at the terminal of their agent in the port of discharge. Sometimes shippers can be charged with additional costs, such as unloading ex-truck and stowing into container, completion of Bill of Lading etc. Receivers are charged with discharge ex-container and stowage on their truck.

Questions:

1. There are three types of rates applying in liner conference. Such rates can be:

a. Commodity rates
b. Class rates
c. Commodity-class rates
d. All of the above

(d)

2. In container liner shipping, depending on the services the carrier offers to the cargo owners, the carrier may charge the ocean freight based on:

a. Box rate: a lump sum tariff per container per destination (FCL rate)
b. Tariff calculated per ton or per cubic meter of the cargo (weight/measurement) (LCL rate)
c. Price as the sum of charges based on the entire multi modal transport track, door to door
d. Any of the above
(d)

3. Goods charged on an "ad valorem" basis are:
a. Liner tariff rates for conventional breakbulk cargoes assessed on either cargo weight (tons) or measurement (cubic meters), whichever is higher
b. Liner tariff rate changed on basis of the cargo value irrespective of weight and measurement of the cargo
c. "Ad Valorem" rate is applicable to all kinds of cargo, of high or low values
d. "Ad Valorem" rate has minimum value, based either on one cubic meter or one ton
(b)

4. Which type of surcharge and explanation below belong to each other?

A surcharge which is applied if the exchange rate of the freight tariff currency becomes too low, reducing the revenue of the shipping company		Currency surcharge (CAF)
A surcharge intended to compensate the carrier in case of high fuel costs that have affected the carrier's revenue		Bunker surcharge (BAF)
Extra fees applied to the published tariffs in the event of port congestion		Congestion surcharge
A surcharge applied when the cargo is of excessive length		Heavy lift surcharge
A surcharge applied when the cargo is of excessive weight		Heavy lift surcharge
The insurance premium charged by the carrier on shipper in the event of imminent risk of war		War risk surcharge

5. When the cargo is booked by forwarders, the line operator grants the forwarders often a certain amount of money which is calculated over the net freight. This type of money is called:

a. System rebates on ocean freight

b. Forwarder's commission

c. Rice difference calculated on different liner terms

d. Any of the above

(b)

2.6.2 Pricing in Charter Shipping

Learning objectives

The student should be aware of the different factors that influence freight in charter party negotiations.

The student should know the two ways in which to calculate freight in voyage charter.

The student should have knowledge about the calculation of lay days in chartering, and understand the different applications of demurrage and despatch money.

Freight

Freight is the money payable by the charterer as remuneration for carrying the cargo on the named ship, to the owner.

There is no fixed freight in tramp shipping. The freight to be paid by the charterer is determined through negotiation. In general, the calculation of freight is based on:

- the nature and volume of the cargo
- the distance over which the goods are to be carried
- the port costs in the loadport and discharging port
- the fuel prices.

The level of freight charged in tramp shipping is also subject to the supply and demand in the market. When a large number of ships are available and there is little cargo available, the market favours the charterers. In this case the owners will be prepared to accept a low freight. Vice versa, freight will go up if a lot of cargo is being offered, and relatively few ships are available.

In tanker services, the "World scale" is used. This is a base freightage determined by the parties which incorporates the port costs etc. of the most important oil ports. The charter parties therefore often stipulate the World scale instead of a freight figure, e.g. "World scale + 100". The chartering of tankers is a specialised field in the chartering world.

Calculation of voyage charter freight

Freight in voyage charter is often calculated in one of the following ways:

(a) As a lump sum, i.e. a fixed figure regardless of the quantity of cargo actually loaded
The whole sum is payable in full even if the contracted quantity of cargo is not delivered in full.

(b) On a per tonne of cargo basis
This could mean either on taken-in quantity, i.e. at the time of loading, or delivered quantity, i.e. at the termination of the voyage.

Demurrage and despatch money

Demurrage is the fixed compensation payable by the charterer to the ship owner, if either the loading or discharging time agreed in the charter party is exceeded.
The number of days that as per charter party is allowed for loading and discharging by the charterer is called laytime.
Demurrage is liquidated damages. Due to the "penalty" nature of demurrage, it runs continuously from the point when the laytime expires. Laytime exceptions do not interrupt the running of demurrage. There is an expression often used, the "once on demurrage, always on demurrage".

Despatch money is the compensation payable by the ship owner to the charterer if the charterer does not use all the port days agreed upon in the charter party.
Despatch money is in a sense opposite to demurrage. It is reward money paid to a charterer for completing loading/discharging earlier than the expiry of laytime. By custom, the rate for despatch money is one-half the agreed demurrage rate and this may not be specially provided for in the charter party.

TimeSheet

Time sheet is a document in which the facts provided in the "statement of facts" are interpreted according to the conditions as stipulated in the charter party.

The allowed laytime as well as when it starts is determined in the charter party. The laytime actually used is calculated up to the minute in a detailed

layout. The result of the time sheet is the number of days, hours and minutes that the ship has been used for, respectively, loading and/or discharging.
This information forms the basis for calculating the "despatch money" or "demurrage", if applicable.

Statement of facts

This document enumerates the facts and times regarding the arrival, departure, loading and discharging of a ship. A time sheet is compiled, based on the "statement of facts".
The "statement of facts" also mentions any possible delays. This document must be signed by the captain and/or his agent as well as the party involved with the cargo and/or his agent. The terminal or installation often co-signs as well.
The "statement of facts" contains only facts. No conditions of the charter party are interpreted in this document, although the charter party is referred to often. This document almost never leads to disputes.

Questions:

1. True or False?
Freight in voyage charter can be calculated in different ways. Which price can be agreed upon in a voyage charter?

a. A lump sum price (T)
b. A price per cargo tonne (T)
c. A price per day (F)

2. There is no fixed freight in tramp shipping. The freight to be paid by the charterer is determined through negotiation and is subject to different factors. The influencing factors to the freight may be:

a. The nature and volume of the cargo, and the distance over which the goods are to be carried
b. The port costs in the loading port and discharging port, and the fuel prices
c. The general supply and demand in the market
d. All of the above

(d)

3. Which description below of "Demurrage" is incorrect?

a. Demurrage is liquidated damages
b. Demurrage calculation can be interrupted in very few circumstances such as the Laytime exceptions
c. Demurrage is a fixed compensation payable by the charterer to the ship owner
d. Demurrage is usually calculated on a daily basis, running continuously after the agreed time for loading or discharging in the charter party expires

(b)

4. If the charterer does not use all the port days agreed upon in the charter party, the ship owner usually will pay a certain amount of money to the charterer. This payment is called:

a. Despatch money

b. Demurrage money

c. System rebate

d. Broker's fee

(a)

5. True or false?

Time Sheet is:

a. A document that enumerates the facts and times regarding the arrival, departure, loading and discharging of a ship, but without interpreting the conditions as stipulated in the charter party. (F)

b. The result of the time sheet is the number of days, hours and minutes that the ship has used for loading and/or discharging respectively. (T)

c. The time sheet forms the basis for calculating the "despatch money" or "demurrage", if applicable. (T)

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