

COMPARATIVE ANALYSIS OF THE CONTRACTS FOR MARITIME TRANSPORT SERVICES. CHAIN OF CHARTER PARTIES

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Abstract. A basic principle in Law is the freedom of contract. Particularly, in Private Shipping Law, contractual parties may agree on all lawful terms and conditions which are most appropriate for the performance of the carriage. During the years of maritime trade practice, different types of contracts has been created, as well as systems of Chain Charter Parities have been adopted, through all of which the relations between maritime traders were settled. All this has contributed to maritime commercial practices for the carriage to be carried out not only by the shipowners, but also by other maritime traders with the appropriate authority and competence.

Keywords: maritime transport; charter party; liner bill of lading; voyage charter; time charter; bareboat charte; shipowners; disponent owners; carriers; charterers; commercial management; risks

Introduction

Nowadays, one of the most used contracts in the maritime scenario is the so-called charter party contract. (Zárate 2009) More than half of the world's shipping fleet is under a charter in one form or another. (Chen et al. 2021) Therefore, the interpretation of these obligations, rights, duties, liabilities, risks, earnings, costs, and profits between the contracted parties, namely, the shipowner and the charterer, as well as the understanding of charterparty terms, is considered of critical importance in chartering practice. (Plomaritou 2014)

Freight rate negotiations are a major factor in the maritime industry. In addition, the economic environment in which the shipping industry operates is characterized by high cyclicity, volatility, and unpredictability. The market has a high-risk profile. (Plomaritou et al. 2016) As an example, a ship can be chartered for \$ 20,000 a day on Monday, and on Friday the same type can be chartered for \$ 30,000 a day. If we set ourselves the task not to determine the values of the variables, but why they change, we can see that the model is dynamic, because supply and demand are determined separately, and the connecting link is the freight rate negotiations. The

main task of the functioning market mechanism is not to determine freight rates, but to monitor the demand and supply of maritime services in a complex world in which shipping exists. In this article, we will look at how market participants can control the supply process.

Contracts of carriage

The most important documents governing the commercial and legal relationships between the parties in international sea transport are the bill of lading and the charter party. (Voudouris et al. 2020) The charter party is a legal contract of employing a vessel between the shipowner and the charterer. In shipping matters, charter parties and bills of lading are highly important documents since they allocate risks, obligations, rights, earnings, costs, and profits between the contracted parties, namely the shipowner (or carrier) and the charterer (or shipper). (Plomaritou et al. 2019)

Generally, the contracts for carriage of goods by sea are between carriers and shippers for the transportation of the contracted cargo by chartered vessel. There are two types of trip/voyage charters used in liners shipping and tramp shipping.

- Liner Bills of Lading are used in liner shipping for carriage of finished industrial goods.

- Voyage charter parties are used in tramp shipping for carriage of bulk and general cargoes, also for transportation of wet cargoes like all kind of oil, petroleum products, chemicals, and liquefied natural and petroleum gas, etc.

The contractual parties are:

- Contractor – the executor of the contract of carriage by sea or river vessel may be a shipowner (registered owner) or a sea carrier (disponent owner in private English Law) or a river carrier (carrier in EU Law).

- Contracting Authority – the contracting authority for the contract of carriage is the shipper in liner trade or tramp shipping - charterer or the end-charterer as per English law, if there is a chain of tenants (for example, registered owner - bareboat charterer - time charterer – voyage charterer).

The Contracts for hire of a vessel for a certain period of time are two types:

- Time-Charter Party – The Shipowners charter out the vessels with the crew for a certain period.

- Bareboat Charter Party – The Shipowners charter out the vessels without crew for a certain period.

The lessor is the registered shipowner who leases the ship on bareboat charter or time-charter. A lessor can also be a bareboat charterer, who subcontracts the vessel on time-charter. A lessor may be a time-charterer who subcontracts the ship or part of it on a time-charter to another sub time-charterer.

A tenant under a lease agreement can be a bareboat charterer, time-charterer, and sub time-charterer.

According to the conditions of transport, there are two types of contracts:

– Contracts for carriage by sea in tramp shipping sector - voyage charter (voyage charter party) for the carriage of cargo between two or more ports, also for the transport of large quantities of goods on consecutive trips or several ships (Contract of affreightment).

Usual conditions of transport in the tramp shipping sector: Free In Out Stowed and/or Trimmed - the ship is loaded and unloaded free of charge for the carrier.

– Liner Shipping Contracts – Liner Bill of Lading – with incorporated terms and conditions in the Liner Bill of Lading, preceded by the relevant Booking Note, which is a reservation of space and place for a specific cargo.

Usual conditions of transport in Liner Shipping Sector: Liner In / Liner Out - loading and unloading of the ship is on account of the carrier.

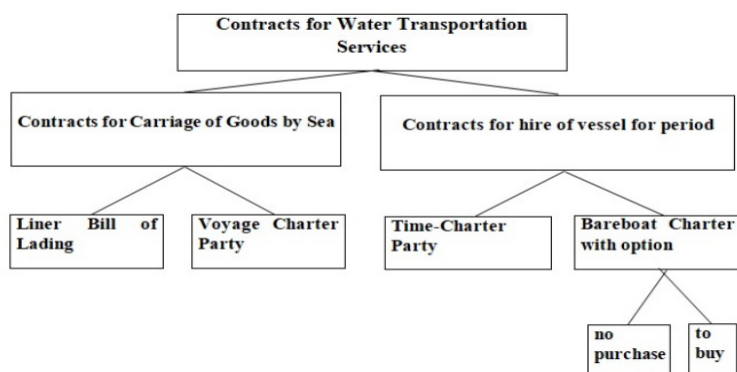


Figure 1. Structure of contracts for shipping services.

For each data situation, several approaches can be applied, each with its own assumptions and shortcomings. With the present analysis of the charter parties and liner trade contracts (Tables 1 to 17), however, we expect to shed some light on the mechanics that articulate this particular form of contract as a genre and on the interactions that take place between the dramatis personae that integrate it (Llopis 2014).

Table 1. Type of contract

Bareboat C/P	Time C/P	Voyage C/P	Liner Trade Contracts
Contract for hire of a ship for period without crew, so called Bareboat Charter or Demise Charter.	Contract for hire of a ship for period with crew, so called Time-Charter.	Contract for voyage carriage	Liner transport contract, with all terms and conditions incorporated in the Liner Bill of Lading - used in traditional liner shipping.

Table 2. Subject of the contract

Bareboat C/P	Time C/P	Voyage C/P	Liner Trade Contracts
Hiring a ship for a certain period (usually a long period of 5-10 years), with or without a purchase option.	Hiring of a ship with crew for a period, for transportation of cargo to the lessee.	Carriage of goods by sea or inland waterways.	Carriage of goods between ports on the line maintained by the Shipowner (registered shipowner according to the ship's Certificate of Registry)

Table 3. Application of the contract

Bareboat C/P	Time C/P	Voyage C/P	Liner Trade Contracts
Usually used as a tool for deferred payment when buying a newly built ship; It is also used by investors in the shipping business who do not directly engage in maritime transport activities.	The ship is chartered for transportation of own cargoes and other charterer cargoes for commercial purposes. It is common practice in liner shipping for combined transport of intermodal units, liner operators of containers, trucks, and railway wagons, to hire on Time-Charter vessels to provide the seaway of the transport of their intermodal units. Another broad application of these contracts is the time-chartering of vessels by trading companies that transport raw materials for their production or goods that they trade on the international market. This type of contract is also used by speculators who hire Time Chartered vessels in a weak market, expecting the market to improve, and aiming to trade the ships on the spot market by transporting cargoes from the market.	Used in tramp navigation for transport of a specific cargo between two or more ports on the basis of a single voyage. It is possible to have an additional partial load of a second charterer. A variant of this charter is the contract for a large amount of cargo (Contract of Affreightment), which is transported in several shipments for a certain period, which can be performed by one ship on consecutive voyages, or with several ships. The contracts for a large quantity, which are transported in several shipments for a certain period, are used in the provision of water transport under annual commercial contracts, for the supply of raw materials for a given production.	Used in Liner Shipping.

Table 4. Lessor under the contract

Bareboat C/P	Time C/P	Voyage C/P	Liner Trade Contracts
Shipowner (registered shipowner according to the ship's Certificate or Registry).	Shipowner (registered shipowner according to the ship's Certificate or Registry). The Lessor may also be the Charterer of the ship under the previous charter of charter chain if the ship previously has been chartered out without or with a crew.	Shipowner (registered shipowner according to the ship's Certificate of Registry). The Contractor (so called Carrier) also may be the Charterer of the ship under the previous charter of the charter chain if the ship previously has been chartered out without or with a crew (Bareboat Charter and Time-Charter).	Shipowner (registered shipowner according to the ship's Certificate of Registry). It can also be the Charterer of the ship under the previous charter of the charter chain if the ship previously has been chartered out on Time-Charter or Bareboat Charter.

Table 5. Lessee (tenant) under the contract

Bareboat C/P	Time C/P	Voyage C/P	Liner Trade Contracts
The lessee under the Bareboat Charter is called Bareboat Charterer - undertaking company to which full control, management and responsibility for the ship is transferred, with the right to operate the ship and use her earning capacity.	The tenant under the contract for hiring the ship with crew is the so-called Time-Charterer.	Called Charterers who are trading companies and owners of goods for transport by sea; forwarding companies, who are engaged in the complete transportation of goods belonging to other charterers, with several modes of transport; brokers-speculators trading in freight.	Direct shippers (traders and exporters), mainly with small numbers and tonnage of cargo.

Table 6. Contract Carrier

Bareboat C/P	Time C/P	Voyage C/P	Liner Trade Contracts
The Bareboat Charterer under a contract (Bareboat Charter) for hire of a ship without a crew.	The shipowner (the registered shipowner according to the ship's Certificate of Registry). The Carrier also can be the Charterer of the ship on the previous charter of the chain of charters if the ship previously has been chartered without crew or with a crew.	The shipowner (the registered shipowner according to the ship's Certificate of Registry). The Carrier may also be the Charterer of the ship under the previous charter of charter chain if the ship previously has been chartered without or with a crew (Bareboat Charter and Time-Charter).	The shipowner (the registered shipowner according to the ship's Certificate of Registry). It can also be the Charterer of the ship under the previous charter of the charter chain if the ship previously has been chartered out on Time-Charter or Bareboat Charter.

Table 7. Carrier according to the transport documents (Bill of Lading)

Bareboat C/P	Time C/P	Voyage C/P	Liner Trade Contracts
The lessee (Bareboat Charterer) under the Contract for hire of a ship without crew.	The Shipowner and the Tenant (Time Charterer) as agreed in the charter who will appear as carrier on the transport documents (Bill of Lading).	The shipowner (the registered shipowner according to the ship's Certificate of Registry). The Carrier can also be the Charterer of the ship on the previous charter of the charter chain if the ship previously has been chartered out on Time-Charter or Bareboat Charter.	The shipowner (the registered shipowner according to the ship's Certificate of Registry) when are transporting cargo of a direct shipper in traditional liner shipping or the multimodal transport operator (MTO), which has a multimodal transport contract with the shippers and issues a transport document for the whole transport by sea and land route of the cargo. In these cases, the Shipowner is a subcontractor of the Multimodal Transport Operator (MTO), with whom they have the relevant contract, which may be a Time Charter or a Voyage Charter.

Table 8. Capital costs of the ship at the expense of:

Bareboat C/P	Time C/P	Voyage C/P	Liner Trade Contracts
The Shipowner or the Charterer under a Contract for hire of a ship without a crew (Bareboat Charter), if the Contract has an option for purchase and respectively the price of the ship is included in the leasing. If the contract has no purchase option, then the capital costs are at the expense of the Shipowner.	The shipowner (registered shipowner according to the ship's Certificate of Registry). The capital costs may also be borne by the Charterer of the ship under the previous charter chain if the ship previously has been chartered without a crew (Bareboat Charter with option for purchase).	The shipowner (registered shipowner according to the ship's Certificate of Registry). The capital costs should also be for the Charterer of the vessel under the previous charter of the charter chain if the vessel previously has been chartered on Time-Charter or Bareboat Charter.	The shipowner (registered shipowner according to the ship's Certificate of Registry). They can also be for the Charterer of the ship on the previous charter of the chain of charters if the ship previously has been chartered out on Bareboat Charter with option to purchase the vessel.

Table 9. Technical operation and fixed costs at the expense of:

Bareboat C/P	Time C/P	Voyage C/P	Liner Trade Contracts
The lessee (Bareboat Charterer) under a contract for hiring of a ship without crew (Bareboat Charter).	The shipowner (registered shipowner according to the ship's Certificate of Registry) or also may be the Charterer of the ship under the previous charter of the charter chain if the ship has previously been chartered out without a crew (Bareboat Charter).	The shipowner (registered shipowner according to the ship's Certificate of Registry), also may be the Charterer of the ship under the previous charter of charter chain if the ship previously has been chartered out on Time-Charter or Bareboat Charter.	The shipowner (registered shipowner according to the ship's Certificate of Registry). It also may be for the Charterer of the ship under the previous charter of charter chain if the ship previously has been chartered on Bareboat Charter.

Table 10. Commercial operation and voyages at the expense of:

Bareboat C/P	Time C/P	Voyage C/P	Liner Trade Contracts
The lessee (Bareboat Charterer) under a contract for hiring a ship without a crew (Bareboat Charter).	The charterer under the Contract for hire of the ship with crew (Time charterer).	The shipowner (registered shipowner according to the ship's Certificate of Registry), also may be the Charterer of the ship under the previous charter of charter chain if the ship previously has been chartered out on Time-Charter or Bareboat Charter.	The shipowner (registered shipowner according to the ship's Certificate of Registry). It also may be for the Charterer of the ship under the previous charter of charter chain if the ship previously has been chartered on Time-Charter or Bareboat Charter.

Table 11. Loading and unloading of the ship and costs at the expense of:

Bareboat C/P	Time C/P	Voyage C/P	Liner Trade Contracts
The lessee (Bareboat Charterer) under a contract for hiring of a ship without crew (Bareboat Charter).	The charterer under the Contract for hiring of the ship with crew (Time charterer)	The carriage in Tramp shipping is usually on FIO terms and the costs are respectively at the expense of the Shipper (Charterer)	Contracted Carrier - Shipowner (registered shipowner according to the ship's Certificate of Registry) or Multimodal Transport Operator (MTO).

Table 12. Insurance of the ship H&M at the expense of:

Bareboat C/P	Time C/P	Voyage C/P	Liner Trade Contracts
The Bareboat Charterer under a contract for hiring a ship without a crew (Bareboat Charter), but the policy is issued in favor of the shipowner. But, when the charter agreement has the option to purchase the ship, then the insurance policy is issued in favor of the Shipowner and the Lessee (Bareboat Charter).	The shipowner (registered shipowner according to the ship's Certificate of Registry) or also may be the Charterer of the ship under the previous charter of the chain of charters if the ship previously has been chartered out without a crew (Bareboat Charter).	The shipowner (registered shipowner according to the ship's Certificate of Registry), also may be for the Charterer of the ship under the previous charter of charter chain if the ship previously has been chartered out on Time-Charter or Bareboat Charter.	The shipowner (registered shipowner according to the ship's Certificate of Registry). It also can be the Charterer of the ship on the previous charter of the charter chain if the ship previously has been chartered Bareboat Charter.

Table 13. P & I Club at the expense of:

Bareboat C/P	Time C/P	Voyage C/P	Liner Trade Contracts
The Bareboat Charterer under a contract for Bareboat Charter.	The shipowner (registered shipowner according to the ship's Certificate of Registry) or also may be the Charterer of the ship under the previous charter chain if the ship previously has been chartered out without crew, also the Charterer (Time charter) if it is agreed to be carriers on transport documents.	The shipowner (registered shipowner according to the ship's Certificate of Registry), also may be for the Charterer of the ship under the previous charter of charter chain if the ship previously has been chartered out on Time-Charter or Bareboat Charter.	The shipowner (registered shipowner according to the ship's Certificate of Registry), also the Multimodal Transport Operator (MTO) if they have issued the transport document for the goods.

Table 14. Adverse meteorological conditions at the expense of:

Bareboat C/P	Time C/P	Voyage C/P	Liner Trade Contracts
The Bareboat Charterer under a contract for hiring a ship without a crew (Bareboat	The charterer under the Contract for hire of the ship with crew (Time-	The shipowner (registered shipowner according to the ship's Certificate of Registry), also may be for the Charterer of the ship under the previous charter of	The party responsible for commercial operation.

Charter), who are responsible for the commercial operation of the ship.	charter) – who is responsible for the commercial operation of the ship.	charter chain if the ship previously has been chartered out on Time-Charter or Bareboat Charter who are the responsible party for commercial operation.	
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Table 15. Delay of the ship due to technical accidents and overconsumption of fuel at the expense of:

Bareboat C/P	Time C/P	Voyage C/P	Liner Trade Contracts
The Bareboat Charter under the Contract for hire of a ship without crew (Bareboat Charter), who are responsible for the technical operation of the ship.	The shipowner (registered shipowner according to the ship's Certificate of Registry) or also may be the Charterer of the ship under the previous charter of the charter chain, if the ship previously was chartered out without crew – who are responsible for the technical operation of the ship	The shipowner (registered shipowner according to the ship's Certificate of Registry), also may be for the Charterer of the ship under the previous charter of the charter chain if the ship previously chartered out on Time-Charter or Bareboat Charter who are the party responsible for technical operation.	The party responsible for the technical operation.

Table 16. Market risk for:

Bareboat C/P	Time C/P	Voyage C/P	Liner Trade Contracts
The Bareboat Charterer under a contract for hiring a ship without a crew (Bareboat Charter), who are responsible for the commercial operation of the ship.	The charterer under the Contract for hire of the ship with crew (Time-charter) – who is responsible for the commercial operation of the ship.	The shipowner (registered shipowner according to the ship's Certificate of Registry), also may be for the Charterer of the ship under the previous charter of charter chain if the ship previously has been chartered out on Time-Charter or Bareboat Charter who are the party responsible for commercial operation.	The shipowner (the registered shipowner according to the ship's Certificate of Registry) or the Multimodal Transport Operator (MTO) if the ship is on their Time Charter.

Table 17. Special notes

Bareboat C/P	Time C/P	Voyage C/P	Liner Trade Contracts
The ownership and possession of the ship belongs to the Shipowner, but the ship is held, controlled, and operated by the charterer, i.e. the shipowner is not responsible for the ship.	Ownership and possession belongs to the Shipowner. The tenants (Time-Charterers) operate the ship only commercially and exploit it earning capacity.	The ownership and possession of the ship belongs to the Shipowner (the registered shipowner according to the ship's Certificate of Registry). The ship is under the full control of the Shipowner - the party responsible for technical and commercial operation. If there is previous Charter of Charter chain than the Charterer under the previous Time-Charter or Bareboat Charter, they will be responsible for the ship.	The ownership and possession of the ship belongs to the Shipowner. The ship sails on a schedule in a pre-announced line. The shipowner - the party responsible for commercial operation - books cargo, for which it issues a Booking Note. The contract of carriage is formed upon acceptance of the cargo by the liner agent, who issues a Bill of Lading or a Bill of Lading with the general conditions of carriage incorporated in it. If the ship is sailing on a Time Charter with the Multimodal Transport Operator (MTO), then the latter undertake to book cargo for their intermodal transport unit.

Table 18. Structure and distribution of costs

Type of the charter	Liner Bill of Lading		Voyage Charter		Time-Charter		Bareboat Charter		Bareboat Charter with Sale	
	Shipowners	Charterers	S	C	S	C	S	C	S	C
On account of	Shipowners	Charterers	S	C	S	C	S	C	S	C
Load & disch exp.	X			X		X		X		X
Voyage exp.	X		X			X		X		X
Running costs	X		X		X			X		X
Capital exp.	X		X		X		X			X

Distribution of ship costs for different types of contracts for the carriage of goods by sea and charter of ships with or without crew (with and without the option to purchase the ship) are shown in Table 18. As can be seen from Table 18, the cost of the transport service, which is negotiated in the different types of contracts used in merchant shipping, is different. In this regard, the prices of different contracts for the carriage of cargo and the hire of ships are different.

The commercial activity in water transport has a long history, complex character, and many traditions that have been created over the centuries. In principle, for the implementation of a transport service (transport), cargo and a ship are needed, as well as an assignor (a user of the transport service who pays the freight) and a contractor (carrier) who undertakes the obligation to transport the goods. For greater convenience and flexibility in trade, the practice has expanded the concepts of carrier and user of the transport service, also called the charterer, who is not always identified with the shipowner and shipper. The practice has required, where necessary, the obligations of shipowners regarding the operation of their ships to be transferred by contract to other persons, who are normally specialized maritime trading companies and merchants of goods traded by sea. In this regard, commercial activity in water transport is regulated by two categories of contracts – contracts for the hire of ships and contracts for the carriage of goods, also called charters. In the transport of one product, there can be only one active charter or more charters, forming the so-called Charter Party Chain. In cases where there is a chain of charters, then the shipowner concludes a charter with a tenant (so-called head charterer), who in turn concludes another charter with another tenant (sub-charterer).

Theoretically, there is no limit to the number of charters in the chain, i.e. there may be more than one sub-charterer. The last tenant (end-charterer) is the one who is the actual shipper and pays the freight for the transport.

Conclusions

A charterparty is a legal contract of chartering (employing) a vessel. It is a crucial shipping document since it allocates obligations, rights, duties, liabilities, earnings, risks, costs, and profits between the shipowner and the charterer. (Plomaritou 2014)

As the maritime industry embraces the digital age, computer science engineers are enabling important new capabilities, such as improved modeling, simulation, optimization, and automation, including machine learning. (Chen et al. 2021) The improvement and wider application of new technologies in every aspect of life have a significant impact on the development of maritime transport. The shipping industry has not yet adopted blockchain technology, but it should be borne in mind that it could be very useful in terms of organizing, tracking, and coordinating business transactions involving many parties.

One of the possibilities that can be fulfilled by blockchain technology is “smart contracts” – contracts in the form of a computer program, executed independently in a blockchain and automatically implementing the rules and conditions of each agreement between the parties, turning them into a standard part of the software without the possibility of change by the parties.

It is now possible to draw a conclusion that shortly many industries and businesses will face the reality of applying modern IT-based new management mechanisms that radically change the existing business models. (Molodchik, Dimitrakiev 2018; Molodchik et al. 2018) For this to happen, however, the most important aspects arising from charters in the main types of the charter must be mastered.

REFERENCES

- Chen, H., Ballou, P., 2021. *Art and Science of Ship Voyage Optimization: A Critical Review*. Available from: https://www.researchgate.net/publication/349289736_Art_and_Science_of_Ship_Voyage_Optimization_A_Critical_Review. Last accessed: Apr 29, 2021.
- Llopis, M. 2014. *Contractual commitment, or obligation? The linguistic interactions in Charter Parties*. Available from: <https://www.researchgate.net/publication/271833021>
- Molodchik, A., Dimitrakiev, D., 2018. Digital Platforms as Factor Transforming Management Models in Businesses and Industries. International Conference Information Technologies in Business and Industry, 2018 IOP Publishing IOP Conf. Series: *Journal of Physics: Conf. Series* 1015 042040, doi:10.1088/1742-6596/1015/4/042040
- Molodchik, A., Krutova, A., Eloho, I. & Dimitrakiev, D., 2018. Models of platform economy. In: *Proceedings of 11th International Conference Actual economy: local solutions for global challenges ACE-2018*, 20– 23 [21.03-24.03.2018].
- Plomaritou, E., 2014. A Review of Shipowner's & Charterer's Obligations in Various Types of Charter. *Journal of Shipping and Ocean Engineering* **4**, 307 – 321.
- Plomaritou, E., Nikolaidis, E., 2016. Commercial Risks Arising from Chartering Vessels. *Journal of Shipping and Ocean Engineering* **6**, 261-268. doi: 10.17265/2159-5879/2016.05.001
- Plomaritou, E., Voudouris, I., 2019. The Relationships of Bill of Lading, Charter party and Other Transport Documents. *Journal of Economics, Management and Trade* **24**(6), 1-8, Article no.JEMT.51423. ISSN: 2456-9216.
- Voudouris, I., Plomaritou, E., 2020. Documents of the Shipping Transport: Historical Origins, Legal Validity & Commercial Practice. *Journal of Shipping and Ocean Engineering* **10**, 47 – 56. Doi: 10.17265/2159-5879/2020.02.005
- Zarate J., 2009. Risk of delay in charterparties: like a ping-pong game? *REVIST@e – Mercatoria* **8**(1).

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