

## **ECONOMIC ASSESSMENT OF COMMERCIAL CONDITIONS FOR TANKER VOYAGE CHARTER PARTY**

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*The article represents an analysis and proposals for improvement of «Intertankvoy-76» and «Asbatankvoy 1977» voyage charters commercial conditions for transportation of petroleum products. Also the problems of harmonizing the «Asbatankvoy 1977» tanker voyage charter conditions, including changing terms in favor of shipowner are considered and addendum is drafted as well.*

**Keywords:** proforma charter party, voyage charter, charterer, Asbatankvoy 1977, ship-owner, Intertankvoy-76, addendum.

Wide spreading of different private pro formas is a peculiar feature of the tanker tonnage market. Every large oil company, regularly chartering a large number of vessels, develops and seeks to use its own contract pro forma.

Major Tanker Voyage Charter Parties can be divided into groups on various grounds, but the most acceptable dividing principle is convenience for owners and the reliability of their interests' protection. So, there are 4 groups of main tanker voyage charter parties:

1. Parties based on the 'London form';
2. Charter parties developed by charter companies e.g. SHELLVOY, BEEPEEVOY;
3. Charter parties worked out by the associations of shipowners e.g. VEGOILVOY, WARSHIPOILVOY;

4. Charter parties designed for small and medium charterers e.g. «Asbatankvoy 1977» and «Intertankvoy-76».

In 1976 an international organization “INTERTANKO” developed a new voyage tanker charter party «Intertankvoy-76”. It is oriented for small and medium-sized charterers and intended to replace the obsolete ‘London form’. The main features of the «Intertankvoy-76» charter party are:

- Modern, so-called “American” structure. The first variable part of the charter party contains 14 line-numbered items of the contract. The second one is constant and includes 33 line-numbered articles.

- During charter conditions developing process the current practice of crude oil transport and transshipment, e.g. cargo heating, vessels handling at remote piers and floating buoys, use of large vessels, the international rules on the prevention of marine pollution, etc. is taken to account.

- Commercial traffic conditions count the interests of both the shipowners and charterers.

Intertankvoy-76 is approved by the most representative international advisory organizations such as BIMCO, FONASBA. However, it should be noted that usage of this charter-party is very limited, because the oil companies prefer to charter tonnage based on their private forms. More often Asbatankvoy 1977 form is used, which is developed by the Association of Ship Brokers and Agents (USA).

In JSC “Russian Inspectors and Marine Surveyors Corporation” (RIMSCO) the “Asbatankvoy” form is used for transportation of petroleum products. That’s why we will think over the example of that voyage charter party form conditions of cargo transportation.

Let’s consider how the tanker voyage charter-parties Asbatankvoy 1977 and Intertankvoy-76 help to resolve issues of the responsibilities allocation, charter payment procedure, lay time records, etc. as well as their similarities and differences.

After analyzing all the differences in both charter forms, we can conclude that the Asbatankvoy 1977 document is more adapted to the modern conditions of petroleum products transportation. This is achieved by excluding or adding some of the articles such as “general cargo” and “clause of the oil spill”, replacing obsolete terms and old definitions of clauses by the new ones. Moreover it reflects the specific

conditions and technical aspects of oil transshipment such as “hoses: mooring to marine terminals”, “cargo vapor pressure limit”, “the point of ignition”, “fumigation”.

In practice, a number of articles of the charter party have significant impact on the amount of net profit and can significantly change the effectiveness of the actual voyage.

Effective rate of charter, i.e. amount of money that a shipowner actually receives for transportation of one ton of cargo to specified distance is more or less different from that one indicated in the charter. The extent of this difference is completely dependent on the content of the main articles of the specific charter. The high rate does not indicate the high effectiveness of a voyage, because a number of charter clauses can significantly reduce the amount of net profit and, therefore, efficiency.

Charter rate, representing the market price of production at the same time is a concentrated assessment of commercial conditions of transportation. The charter rate is determined by charter market situation, the relevant terms of the charter and the agreement of the parties. In each case we have to solve the problem - whether the proposed charter rate, which is given in accordance with the charter market situation, corresponds to the conditions of the proposed charter.

To solve this problem it is necessary to single out the charter paragraphs which have the largest impact on the amount of net profit of a vessel and determine the nature of this influence. It is not true that the effective charter rate obtained after counting all the deductions arising from the paragraphs of the charter always corresponds with a current average market rate. And it is not accidental that charters often contain a special clause that the parties undertake to maintain the secrecy of the contract conditions and the corresponding charter rate.

The effect of various paragraphs and clauses of the charter on the vessel revenue will be different. Some paras charge the shipowner for certain expenses depending on the charter price, amount of transported cargo, specified percentage of agency fees, etc. Others increase voyage time and thus reduce the amount of possible profit. The third paras expose a shipowner to risk of incurring larger or smaller losses. Influence of some paragraphs of a charter can be easily expressed mathematically and in value terms. The influence of the other paras

depends on many different factors such as specific voyage conditions i.e. direction of voyage, type and quantity of cargo, ports of call. Mathematical processing in this case is difficult.

From the perspective of this article it is necessary to consider all conditions of voyage charter, related to the owner's revenue growth.

Let's analyze the clause "Freight Payment" where it is indicated that "... payment of freight shall be made by Charterer in cash without discounts upon delivery of the cargo to the discharge port." Any delay of freight payment from the cargo loading completion date is not desirable for the ship-owner, because risks of charter loss in case of freight or vessel loss, and risks of partial freight loss in case of freight currency devaluation or charterers bankruptcy significantly increase, as well as freight payment after cargo discharge completion impedes usage of lien on cargo for necessary payments. In this case a compromise can be found if the Charterer will pay 50% of the freight before cargo discharge commencement and the rest of the freight amount will be paid after the full delivery of the goods.

In the clause "Laytime" it is stated that "... if the ship is not ready for loading till 1600 hours on the cancelling day, the charterer will have the option to cancel this charter by delivering such notice within 24 hours after the date of cancelling." In such conditions the shipowners should deliver a ship in the port of loading and only after that expect the Charterer's decision to terminate the charter party or keep it in force. A compromise here can be "...if the ship, despite of shipowner's diligence is delayed beyond the date of cancelling, then he should specify the new date of the vessel readiness and the Charterer should give an answer within 24 hours whether he intended to exercise his right of cancelling".

In the clause "Overtime" it is stated that "overtime is paid by the Shipowner" but this statement is not profitable to the shipowner and in this case a compromise is when "overtime is paid by the Charterer."

Addendum. Additional clauses to the tank voyage charter party "Asbatankvoy 1977".

It is necessary to include the clause "Payable amount of cargo". If cargo measurement guidance from the owner or consignee is absent, the amount of loading cargo is recorded and the shipowner has to take the risk of cargo shortage in case it exceeds the rate of natural loss. This

condition is not profitable to the shipowner. In this case it is convenient to include an option that “the delivered cargo amount at the discharge port is determined by the vessel onboard measurements. If there is a difference between the shipowner and consignee measurements, the cargo insurance covers all consignee losses. The amount of the premium is 1% of the cost of goods.”

Let’s add a clause entitled “Heating of cargo.” Additional costs for cargo heating will be determined by duration and temperature of heating, initial freight temperature, ambient temperature and the cost of fuel for heating. When heating the risks of cargo damage and losses increase. The charterers should exempt the shipowners from this risk or compensate the shipowner the risk assumption. In this case, it would be convenient to add a condition “If the charterer requires cargo heating, the shipowners should exercise due diligence to maintain the desired cargo temperature specified in Part 1. The charterer should release shipowner from the risk of cargo damage while heating or compensate the shipowner the risk assumption.”

Also we suppose to add the clause “Lighterage”. In proformas lighterage cost is laid on the charterers and the elapsed time is considered as laytime, so let’s add a condition “lightering is conducted at the expense and risk of the charterer.”

Harmonization of the conditions of the tanker voyage charter party «Asbatankvoy 1977” when conditions are changed in favor of the shipowner is given in Table 1.

The analysis of voyage charter practice in JSC “RIMSCO” as the shipowner has led to some amendments done to certain clauses. Now we need to justify the proposed conditions and estimate its cost-effectiveness.

To improve the work of JSC “RIMSCO” tanker fleet we have to calculate the cost-effectiveness of measures to improve the commercial environment of the tanker voyage charter party during transportation of petroleum products. This profitability will be determined in comparison with the base cost of transportation. The calculated data are summarized in Table 2.

$$R_p^{base} = 6\,967\,049 \text{ USD}$$
$$\Delta R_p = \Delta R_1 + \Delta R_2 + \Delta R_3 + \Delta R_4 + \Delta R_5 \quad (1)$$

Table 1 - Harmonization of charter conditions

Charter clauses	Charter wording	Proposed charter conditions
Freight Payment	"...payment of freight shall be made by Charterer in cash without discounts upon delivery of the cargo to the discharge port."	The Charterer will pay 50% of the freight before cargo discharge commencement and the rest of the freight amount will be paid after the full delivery of the goods.
Laytime	"...if the ship is not ready for loading till 1600 hours on the cancelling day, the charterer will have the option to cancel this charter by delivering such notice within 24 hours after the date of cancelling."	"... if the ship, despite of shipowner's diligence is delayed beyond the date of cancelling, then he should specify the new date of the vessel readiness and the Charterer should give an answer within 24 hours whether he intended to exercise his right of cancelling."
Overtime	"Overtime is paid by the Shipowner"	"Overtime is paid by the Charterer."
<b>Addendum</b>		
Proposed charter conditions		
Payable amount of cargo	"The delivered cargo amount at the discharge port is determined by the vessel onboard measurements. If there is a difference between the shipowner and consignee measurements, the cargo insurance covers all consignee losses. The amount of the premium is 1% of the cost of goods."	
Cargo heating	"If the charterer requires cargo heating, the shipowners should exercise due diligence to maintain the desired cargo temperature specified in Part 1. The charterer should release shipowner from the risk of cargo damage while heating or compensate the shipowner the risk assumption."	
Lighterage	"Lightering is conducted at the expense and risk of the charterer."	

where  $\Delta R_1$  - change of shipowner expenses, in case of the charter clause "freight payment" amendment;  $\Delta R_2$  - change of shipowner expenses, in case of the charter clause "overtime" amendment;  $\Delta R_3$  - change of shipowner expenses, in case of extra clause "payable amount of cargo" in the charter;  $\Delta R_4$  - change of shipowner expenses, in case of extra clause "cargo heating" in the charter;  $\Delta R_5$  - change of owner expenses, in case of extra clause "lighterage" in the charter.

$$\Delta R_1 = S_{port} = 2\,252 \text{ USD},$$

where  $S_{port}$  - cost of keeping a ship in a port, USD per day;

$$\Delta R_2 = R_{overtime} = 950 \text{ USD},$$

where  $R_{overtime}$  - cost of overtime work, USD per day;

$$\Delta R_3 = Q_{cgo} * S_{cgo} * S_{insur} \quad (2)$$

$$\Delta R_3 = 4\,900 * 550 * 0.01 = 26\,950 \text{ USD}$$

where  $Q_{cgo}$  - the amount of cargo,  $S_{cgo}$  - cost of cargo,  $S_{insur}$  - the amount of the insurance premium, which is 1% of the cargo cost;

$$\Delta R_4 = Q_{cgo} * S_{cgo} * S_{insur}$$

$$\Delta R_4 = 4\,900 * 550 * 0.001 = 2\,695 \text{ USD}$$

where  $Q_{cgo}$  - the amount of cargo,

$S_{cgo}$  - cost of cargo,

$S_{insur}$  - the amount of compensation for the ship owner's consent to assume the risk of cargo damage, which is 0.1% of the cargo cost;

$$\Delta R_5 = R_{light} = 2\,530 \text{ USD},$$

where  $R_{light}$  - the cost of lighterage.

$$\Delta R_p = (2\,252 + 950 + 26\,950 + 2\,695 + 2\,530) * 23 * 5 = 4\,068\,355 \text{ USD}.$$

The probability of shipowner expenses reductions to the proposed charter conditions is 30%.

$$\Delta R_p = 4\,068\,355 * 0,3 = 1\,222\,506.5 \text{ USD}.$$

$$R_p^{prop} = R_p^{base} - \Delta R_p^{prop} \quad (3)$$

$$R_p^{prop} = 6\,967\,049 - 1\,222\,506,5 = 5\,744\,542.5 \text{ USD}.$$

$$S_t^{base} = 24.5 \text{ USD}$$

$$S_t^{prop} = \frac{\sum R_\delta^{prop}}{\sum Q} \quad (4)$$

$$S_t^{prop} = \frac{5744542.5}{284790} = 20.2 \text{ USD}.$$

Thus, the economic effect of the voyage charter amendments is:

$$E = (S_{base.} - S_{prop}) \cdot \sum Q \quad (5)$$

$$E = (24.5 - 20.2) \cdot 284790 = 1224597$$

Estimated figures are summarized in Table 2.

Analyzing data in Table 2 we can say that as a result of improving the conditions of a voyage charter for chartering cargo vessels the

Table 2 - Comparative analysis of the effectiveness

Indexes (per year)	Versions	
	Base	Proposed (project)
1. Revenues, USD	7 284 006	7 284 006
2. Expenditures, USD	6 967 049	5 744 542.5
3. Financial result, USD	316957	1 539 463.5
4. Profitability, %	4.6	26.8
5. Prime cost, USD per ton	24.5	20.2
6. Economic effect, USD	-	1 224 597

transportation cost of 1 ton of cargo will be reduced from 24.5 USD per ton to 20.2 USD per ton. Thus, at constant income of JSC “RIMSCO” the company’s profit as a result of implementation of improved voyage charter conditions will be 1 539 463.5 USD as well as the economic effect of this measure – 1 224 597 USD.

## REFERENCES

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