
ИСТОРИЯ РАЗВИТИЯ ТАНКЕРНОГО ФЛОТА

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Аннотация

Танкеры являются одними из самых распространенных судов морского транспортного флота. Особенно в последнее время, когда транспортировка нефти и нефтепродуктов морским путем является наиболее выгодной и удобной. В настоящее время одним из путей развития мирового судостроения является создание средних танкеров, оснащенных дизельной силовой установкой. Это связано с хорошими характеристиками дизелей по сравнению с другими типами силовых установок. К таким показателям относятся: более экономичный расход топлива, простота обслуживания, ремонта, использование дешевого топлива.

В то же время строительство танкеров ставит ряд проблем, в том числе задачу сохранения груза и снижения стоимости его перевозки. В связи с этим в данном проекте разрабатывается система инертного газа, которая служит для защиты нефтепродуктов от взрывов и самовозгорания.

Ключевые слова: флот, оборудовать, нефть, перевозить, расход, перевозка, вместимость.

HISTORY OF TANKER FLEET DEVELOPMENT

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ABSTRACT

Tankers are among the most common vessels of the marine transport fleet. Especially recently, when the transportation of oil and petroleum products by sea is the most profitable and convenient. Currently, one of the ways to develop world shipbuilding is the creation of medium tankers equipped with a diesel power plant. This is due to the good performance of diesel engines compared to other types of power plants. These indicators include: more economical fuel consumption, ease of maintenance, repair, the use of cheap fuels.

At the same time, the construction of tankers poses a number of problems, including the task of preserving cargo and reducing the cost of its transportation. In this regard, an inert gas system is being developed in this project, which serves to protect petroleum products from explosions and spontaneous combustion.

Keywords: fleet, equip, petroleum, transport, consumption, carry, capacity.

In the 19th century, there was a problem of oil transportation between countries and within the countries themselves.

In the early 60s of the XIX century, oil was actively extracted in the Baku area, in the Caspian Sea, in Austro-Hungarian Galicia and – in Pennsylvania, on the other side of the Atlantic. It was the sea route of oil delivery that turned out to be preferable to transporting it across the continent; it was more reliable, faster and cheaper than any other [3]. So the first transportation was carried out by pouring oil into drum. There was also a problem that different countries had their own standards of containers for oil transportation and only in 1866, a meeting of Pennsylvania oil producers agreed that the base value would be a barrel, a drum with a capacity of 42 gallons (159 liters), due to the popularity of this container. However, transportation in drums did not seem particularly convenient to the carriers themselves: the containers were heavy, took up too much space and were inconvenient to move. But, as stated above, the drums were heavy, expensive, inconvenient to move, irrevocable and perishable. Therefore, the idea of pouring oil directly into the hold of ships, followed by unloading it using pumps at the destination port was very promising.

The first to do this were the Artemyev brothers, Nikolai and Dmitry, who converted the sailing yacht "Alexander" to export oil from Baku to Astrakhan [2]. So "Alexander" made 8 voyages despite the fact that ships carrying oil in drums could make no more than 6 "walkers", if only because pumping oil with pumps was faster than loading and unloading barrels. "Alexander", as a result, turned out to be even more cost-effective in operation, because it was carrying "clean" cargo, not containers, plus they saved a lot on the cost of drums and they were also able to deliver cargo without losses, and the calculations of losses then were minus 20% due to breaking and leakage of drums [6]. Another plus is that all the other ships carrying oil in drums went back without cargo, since all the places on the ship were occupied by an empty drum, while the Artemievs' bulk vessels managed to take the return cargo.

Following the example of the Artemyev brothers, in 1876, the Nobel brothers commissioned the Zoroaster tanker in Sweden. It is from this vessel that the history of the world tanker fleet begins.

Zoroaster worked on oil (later on fuel oil) and transported 15,000 pounds (242 tons) of oil from Baku to Tsaritsyn and Astrakhan. Other tankers were built for this miracle of technology, and after 7 years more than 30 tankers were sailing along the Volga [1].

In 1885, in the same Sweden, for the same Nobel brothers, the first sea tanker, "Svet", was launched, intended for the export of Baku oil through the Black Sea. Already the following year, in 1886, an ocean-going oil-loading steamer Glückauf, capable of transporting more than 3,000 tons of oil, was being built in England. It took only three years for the Glückauf-class vessels to become 50 - all of them worked on transatlantic routes, transporting North American oil to European ports [4].

Already at the beginning of the twentieth century, the vast majority of tankers were equipped with a diesel engine, the most modern at that time. A real race is underway to build tankers of greater and greater capacity, and ships with a deadweight of more than 10 thousand tons no longer look like "monsters". The First World War emphasized the importance of oil and the role of tankers in its delivery, it also greatly reduced the tanker fleet. Which, however, was quickly restored and greatly increased in number, dimensions, increased in speed of movement, acquired all the technical innovations characteristic of its time – but all this, of course, did not save tankers from huge losses during World War II. By the way, tankers are almost the only type of

vessels, except for military ones, the construction of which not only did not stop, but also did not decrease during the war.

After the war, the whole world was already sitting on the "oil needle", the need for petroleum products grew almost exponentially, and along with the growth of this need, the tanker fleet also grew [5]. In 1950, the volume of oil consumption was already twice the volume of consumption during the war, and by 1970 it had grown another five times from 1950. Only in the USA, after the war, 525 T2 tankers were built (the project was developed for the needs of the Second World War) with a deadweight of 16,500 tons, but all of them were unable to meet the growing needs.

The growth of transportation needs was also affected by the fact that new technologies were taking over the world – it turned out that it was more profitable to transport crude oil and process it locally than to transport petroleum products. In addition, in the second half of the twentieth century, the United States, and after it all other countries, are moving to a policy of providing so-called strategic oil reserves within the country. For these tasks, the capabilities of tankers are also growing rapidly (the larger the tanker, the lower the cost of transportation) – from the "standard" 16,500 tons during the war to 331800 tons (Universe Ireland) in 1968.

Nevertheless, the same economic crisis and the widespread nationalization of oil industries around the world leads to the construction of supertankers – vessels carrying more than 2 million barrels (318 thousand tons) belong to this category. The largest vessel in history was the tanker Knock Nevis, capable of transporting 564,753 tons of oil. The length of this vessel was more than half a kilometer. This monster was inaccessible not only to any of the channels in the world, but also to many straits, since its draft (25 meters) did not allow it to pass, for example, the English Channel.

Based on the above, we can say that the development of the tanker fleet was gradual. From small ships to huge tankers. The main thing is that the development of the tanker fleet has left a huge mark on the world economy.

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