მულტიმოდალური და ინტერმოდალური გადაზიდვები სატრანსპორტო სისტემებში

MULTIMODAL AND INTERMODAL TRANSPORTATION IN TRANSPORT SYSTEMS

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ABSTRACT

The article clarifies the conceptual apparatus for multimodal and intermodal transport. Article considered the difference between them. It is shown that the development of the intermodal system of cargo delivery is associated with the creation of operators of integrated transport systems. The stages of transportation containerization are given and characterized. Presented terminology used in the transport of goods in transport systems. There are international conventions and other legal documents regulating the work of different types of transport. Considered international agreements and rules applicable to the carriage of goods in mixed traffic. Defined tasks for the development of the transport complex of Ukraine. Highlighted priority activities of seaports of Ukraine

Keywords: *transport systems, transport complex., multimodal transports, intermodal transportation, multimodal transport.*

ანოტაცია

სტატიაში დაზუსტებულია ცნობითი აპარატი მულტიმოდალური და ინტერმოდალური გადაზიდვების შესახებ. განხილულია განსხვავება მათ შორის. ნაჩვენებია, რომ ტვირთრების მიწოდების ინტერმოდალური სისტემის განვითარება დაკავშირებულია ინტეგრირებული სატრანსპორტო სისტემის ოპერატორების შექმნასთან. მოყვანილი და დახასიათებულია გადაზიდვების კონტეინერი ზაციის ეტაპები. წარმოდგენილია ტერმინოლოგია, რომელიც გამოიყენება სატრანსპორტო სისტემებში ტვირთების ტრანსპორტირების დროს. მოყვნილია საერთაშორისო კონვენციები და სხვა სამართლებრივი დოკუმენტები, რომლებიც ახდენენ სხვადასხვა სახის ტრანსპორტის საქმიანობის რეგლამენტირებას. განხილულია საერთაშორისო ნშეთანხმებებიდა წესები, რომლებიც გამოიყენება ტვირთების შერეული გადაზიდვების დროს. განსაზღვრულია უკრაინის სატრანსპორტო კომპლექსის განვითარების ამოცანები. გამოყოფილია უკრაინის საზღვაო პორტების საქმიანობის პრიორიტეტული მიმართულებები.

საკვანძო სიტყვები: *სატრანსპორტო სისტემები, სატრანსპორტო კომპლექსი, მულტიმოდალური გადაზიდვები, ინტერმოდალური გადაზიდვები, შერეული გადაზიდვები.*

INTRODUCTION

The globalization of the economy and the development of modern supply chains demanded the creation of a transport product that would combine services of different types of transport in the most efficient and convenient way for shippers and was formed, first of all, based on the interests of the cargo, rather than individual participants in the process of transportation. Such product is multimodal transportation.

The task of accelerating the economic development of Ukraine can only be achieved through the effective use of transport infrastructure and its dynamic development, especially in terms of realizing the potential of our country's membership in the WTO. Problems of efficiency of different types of transport, efficiency of organization of mixed transportation were considered in their works by the following authors: A.M. Kotlubay; V. Shiryaeva; A.L.Drozhzhin [4], Yu.I.Kirilov [6] and others. Issues of the formation of a transport logistics network in Ukraine on the basis of transport and logistics centers were devoted to their work by such scientists: E.L.Limonov [12], O.S. Kaspruk [13], A.G. Kal'pin [14], Sobkevich O., Yemelyanova O. [15] et al.

DATA

The term multimodal transportation, as the transportation of goods by various modes of transport, appeared in the late 1960s. The basis of this transportation was the idea of increasing freight units and transportation using different types of transport.

Multimodal transportation is the transportation of goods by two or more modes of transport.

Before the emergence of modern container equipment, in the 1950s, piggyback was used in the United States, that is, combined with rail transport - carriage of trailers, semi-trailers, trailers (trailers for heavyweight cargoes) or removable bodies on railroad platforms.

The technology of car transportation on a lowered railroad platform is called the "running highway".

Since 1957, the first specialized container vessel "Gaterway City" [1] began to operate on a regular basis, it became obvious that the carriage of finished goods in container equipment significantly reduced the cost of delivering goods from producers to consumers. In 1961 The Technical Committee of the International Organization for Standardization (ISO) has developed standards for containers and now they are the norm that sets the basic parameters and requirements for a system of large-capacity containers. Recommended ISO dimensions and weight of containers are the basis of an international container transport system, which consists not only of containers, but also of ships, railroad platforms and chassis of wagons, transport equipment of gripping mechanisms, as well as container terminals. Information about the containers, its owner, formed the basis of the international container registration system, as well as national and international information systems for tracking them. Universal Containers are in operation weighing 5; 3 and 1.5 t. Dimensions of 5 and 3-ton containers were multiple. The late 1950s and early 1970s were the first stage of containerization. The stage of industrial production of containers of the international standard began, during this period, 270 thousand containers were produced, converted to a 20-foot equivalent. [2]

By the end of 1970, after the completion of the first stage of containerization, the global container fleet was 976,000 in a 20-foot equivalent, and by 1974 it was about 400 thousand TEU, container lines supported the worldwide connection [3]. The second stage of the development of containerization (the beginning of the 1970s and early 1980s) is characterized by a significant increase and production of large-capacity containers, the rapid growth of specialized tonnage and other vehicles. At this time, a large number of specialized container terminals are being built. This process has spread not only to developed countries of Europe and the USA, but also to developing countries of the Pacific region of Asia. New types of container equipment for a wide range of goods are created. A system of marine container consortia is being formed. Containerization includes all types of transport. The process of real integration of different types of transport begins with the delivery of goods from the manufacturer to the consumer "from door to door". In 1982, the world's container fleet was 3.5 million TEU. The development of an intermodal delivery system involves the creation of operators of integrated transport systems (primarily technologically interconnected), within which the goods are transported in standard freight areas (containers and trailers of the ISO standard) in mixed traffic involving different modes of transport, whose work coordinated and interconnected.

EMPIRICAL RESULTS

Intermodal transportation involves not only the widespread introduction of increased standard cargo spaces and the specific process of transportation, but also a fundamentally new technology.

Containers are therefore a key element in intermodal transportation, and vehicles and handling equipment at terminals are the basis for their widespread implementation.

Intermodal transportation is a special case of multimodal transportation. It represents the consistent transport of goods by two or more modes of transport in the same cargo unit or vehicle without overloading the load itself when changing the transport. In a broader sense, the term intermodal transportation is used to describe a transport system that includes:

use of the same unit or cargo unit within the complex transport chain (from door to door) without handling operations. [5].

In the subsystem of intermodal transportation:

- operate not with cargo at all, as in multimodal transport, but only with means of transport and intermodal transport units, in which (or on which) consolidated goods in a certain mass, volume or artificial form;

is used without reloading technology, under which the overload of the cargo itself when changing the mode of transport is not possible. [6].

Combined transportation is a transportation, in which all intermodal and multimodal features are inherent. This is an intermodal transportation of all types of transport, in which much of the European voyage falls on rail, inland waterway, river or sea transport, minimally used road transport in the initial and final segment of the road. [4]

Mixed traffic (more often mixed traffic), depending on the organizational and legal aspects, can be both multimodal and segmented. [4]

In the case of segmented transportation, the tariff rate for transportation is presented separately for each mode of transport.

Depending on the technological features, mixed traffic may be divided into intermodal and combined traffic. A distinctive feature of intermodal transportation is the obligatory participation of both sea and land transport.

Intermodal transportation is connected with the containerization of cargoes, and the client is offered through the intermodal tariff.

METHODOLOGY

International conventions in the field of intermodal and multimodal transport, their ratification and implementation in the practice of national transport.

International treaties are divided into two main groups: covering several modes of transport (sea and air and others) and relate to one type of transport (rail, road and others).

Hague rules (maritime transport). International Convention on the Unification of Certain Provisions of Law Relating to Bills of Lading. Date of adoption: August 25, 1924. Date of entry into force June 2, 1931. Prepared for adoption: International Maritime Committee. World Document.

Summary of rules, provisions, defining the amount of liability of shipowners in the transport of goods by bill of lading.

Hamburg Rules (Maritime Transport). United Nations Convention on the Carriage of Goods by Sea, 1978 Date of adoption: 31 May 1978 Date of entry into force: 1 November 1992. Prepared for adoption: United Nations Commission on International Trade Law - UNCITRAL. World Document.

Agreements and rules of sea freight are established.

Rotterdam Rules (Maritime Transport). United Nations Convention on the Contract for the International Carriage of Goods by Sea, in whole or in part. Date of adoption: 11 December 2008 Date of entry into force: Not yet in force. Prepared for adoption: UN Commission on International Trade Law - UNCITRAL. World Document.

Item - Definition. Establishes the same modern legal regime that regulates the rights and obligations of shippers, carriers and consignees in accordance with the door-to-door cargo transportation agreement, which includes the stage of international maritime cargo transportation.

Warsaw Convention (air transport). Convention on the Unification of Certain Rules Relating to Air Transport. Date of adoption: 12 October 1929. Date of entry into force: February 13, 1933. Prepared for adoption: International Technical Committee of Aviation Experts-Lawyers, which became part of the International Civil Aviation Organization. World Document.

The Convention applies to any international transportation of persons, baggage or cargo, payable by aircraft. The carriage to be performed by several successive carriers shall, from the point of view of the application of this Convention, be considered as a single carriage if it was considered by the parties as one operation, regardless of whether they were executed in the form of one contract or several contracts, and it does not lose its international character solely because one or more contracts must be executed entirely within the territory of the same state.

The Warsaw Convention is the basis of the legal regulation of international air transportation. The agreements supplementing the Warsaw Convention: the Hague Protocol (1955) (an integral part of the Warsaw Convention), the Guatemalan Protocol on the Amendment to the Warsaw Convention (1971), the Guadalajara Convention on the Unification of Certain Rules Relating to International Carriage by Air (1961), the Montreal Protocols (1975), Montreal Airline Temporary Agreement (1966), Maltese Temporary Airline Agreement (1974). These documents constitute the "Warsaw Air Contractual System".

The Hague Protocol (Air Transport). Date of adoption: September 25, 1975. Date of entry into force: June 14, 1998. Prepared for adoption: ICAO. World Document.

A new legal model of modern international air traffic has been developed, which should offset the actual seventy years of the so-called Warsaw air carrier liability system.

Montreal Protocol No. 4 (Air Transport). Date of adoption: September 28, 1955. Date of entry into force on August 1, 1963. Prepared for adoption: ICAO. World Document.

The development of computer technology and the emergence of its use in the registration of transport documents have become one of the reasons for the adoption of September 25, 1975. Montreal Protocol No. 4, which introduced some amendments and supplements to the Warsaw Convention of 1929. (CIM) International Convention on the International Carriage of Goods by Rail (rail transport). Date of adoption: February 7, 1970 Date of entry into force: January 1, 1975 Prepared for adoption: Central Bureau of International Carriage by Rail (Bern). Europe, North Africa, West Asia.

According to COTIF, international rail connections and the admission of railway equipment for use in international traffic are determined by:

"The Uniform Rules to the Agreement on International Carriage of Passengers by Rail (CIV)" (Annex A to the Convention)

"The Uniform Rules for the Contract for the International Carriage of Goods by Rail (CIM)" (Annex B to the Convention)

"Regulation on the International Carriage of Dangerous Goods (RID)" (Annex C to the Convention)

"The Uniform Rules for the Treaties Concerning the Use of Railways in International Railways" (Appendix D to the Convention)

"The only rules for the contract on the use of infrastructure in international rail (CUI)" (Annex E to the Convention)

"Uniform Rules for the Approval of Technical Standards and the Adoption of Uniform Technical Prescriptions for Railway Equipment For Use in International Communications (APTU)" (Annex F to the Convention).

"Uniform Rules for the Approval of Railway Equipment Used in International Telecommunication (ATMF)" (Annex G to the Convention).

Convention on International Carriage by Rail (COTIF) Annex B (CIM) (rail transport). Date of adoption: May 9, 1980. Date of entry into force: May 1, 1985 Prepared for adoption: Central Bureau for International Carriage by Rail (Berne). Europe, North Africa, West Asia.

Agreement Concerning International Freight Forwarding on Railways (SMGS) (rail transport). Date of adoption: November 1, 1951. Date of entry into force: July 1, 1966. Prepared for adoption: Organization of railway cooperation. Eastern Europe, East Asia.

In accordance with the Convention on International Carriage by Rail (COTIF) -Convention relative international rail transport (COTIF) - dated May 9, 1980, which came into force on May 1, 1985, the Intergovernmental Organization for International Carriage by Rail (OTIF) -l'Organisation intergouvernementale pour les transports internationaux ferroviaires (OTIF). OTIF is a legal entity both at the level of public international law and within the framework of the national legal systems of the member states of this organization.

The main goal of OITF is to establish a unified law and order for the transport of passengers, baggage and cargo in the international direct rail link between the member states, as well as to promote the application and development of this rule of law. (COTIF, Article 2, §1).

The only rule of law is the system of uniform (uniform, identical) legal norms in different states.

Convention on the Contract for the International Carriage of Goods by Road (CED) (road transport). Date of adoption: May 19, 1956 Date of entry into force: July 2, 1961. Prepared for adoption: UN Economic Commission for Europe. Europe.

Standardization of conditions governing the international carriage of goods by road, in particular as regards the documents used during such carriage and the carrier's liability.

United Nations Convention on International Combined Transport of Goods (All Transport). Date of adoption: May 24, 1980. It has not yet entered into force. Prepared for adoption: United Nations Conference on Trade and Development (UNCTAD). World Document.

United Nations Convention on the Liability of Operators of Transport Terminals in International Trade. Date of adoption: April 19, 1991. It has not yet entered into force. Prepared for adoption. International Institute for the Unification of Private Law. World Document.

The convention has consolidated the legal status of the operator of mixed transport. It may be any person who has entered into a mixed transportation agreement, acts on his own behalf and is responsible for the execution of the contract. The operator concludes a contract of mixed transportation with the cargo owner. This contract covers the whole process of transportation - from the receipt of cargo by the operator to send it to its delivery to the recipient. According to him, transport operations can be performed both by the operator himself and by the carrier appointed by him. Thus, under a mixed transport contract, the cargo owner is in legal relationships with the operator, and not with a specific carrier.

The Convention focuses on the responsibilities of the mixed carrier operator.

Forwarder-operator of cargo transportation in intermodal communication becomes a general distribution operator (GDO).

GDO becomes the center of the logistics system, which is designed to ensure the response of the production and transport sector to market requirements, forecasting and planning of transportation, tracking of vehicles, containers and the term of delivery of goods, optimization of movement and storage of raw materials, semi-finished products and finished products.

Freight delivery operations are performed by GDO independently, through their subsidiaries and affiliates, or on the basis of a contract with other specialized companies: shipowners; railways; motor transport; aviation; inland

water transport; operators of container terminals; port forwarding companies that deal with customs clearance and clearance of shipping documents; warehousing companies that provide cargo storage and overload.

Draft Convention on the Contract for the Carriage of Goods by Inland Waterway (CEDAW) (inland waterway). Project 1973 Prepared for adoption. International Institute for the Unification of Private Law. UN Economic Commission for Europe. Europe.

The need and desirability of establishing, with the help of a general agreement, some uniform rules concerning the contract for the carriage of goods by inland waterways.

Budapest Convention on the Contract for the Carriage of Inland Waterways (CMNI / CMNI) (inland waterway). Date of adoption: June 22, 2001. Date of entry into force on April 1, 2005. Prepared for adoption: Central Commission for the Navigation of the Rhine, Danube Commission, United Nations Economic Commission for Europe. Europe.

Coherence of legal approaches to inland waterways transport with those covered by the regime of sea transportations. The Convention established the existing practice and extended all provisions regarding the rights and obligations of the shipper to the carrier and the actual carrier. A flexible approach to transport documents is applied. The Convention provides for the possibility of such carriage by the actual carrier. In accordance with its provisions, subject to international carriage of goods by inland waterways, the carrier remains responsible for all carriage in accordance with the provisions of this Convention. In those cases, and to the extent that the carrier and the actual carrier are liable, their liability is solidary. The act also contains regulations on dangerous goods and polluting the environment. A few articles are devoted to transportation documents, their contents and the order of drafting.

Intermodal transportation is not regulated internationally by any single document, but comprehensive agreements and conventions regulate transportation on various types of transport.

CONCLUSION.

Conclusions Tasks for the development of the transport complex of Ukraine: creation of a common market for transport services; adoption of concerted measures to ensure general advantages in the field of transport and implementation of best practices; integration of transport systems of member states into the world transport system; effective use of transit potential of Ukraine; improving the quality of transport services; safety of transport; reduction of the harmful impact of transport on the environment and human health; the formation of a favorable investment climate.

Priorities for the development of the transport complex of Ukraine: formation of a single transport space; creation and development of transport corridors; realization and development of transit potential; coordination of transport infrastructure development; creation of logistics centers and transport organizations providing optimization of transportation processes; creating conditions for attracting and using personnel potential of Ukraine; development of science and innovations in the field of transport.

Development of sea ports of Ukraine. The Administration of Sea Ports of Ukraine (AMPU) allocates for itself five priority directions of activity in 2018: improvement of enterprise management system; creation of conditions and mechanisms for attraction of investments; ensuring equal and competitive conditions for business in seaports; modernization and development of infrastructure at ports and activation of work on improvement of legislation in the transport sector

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