

REGIONAL ROAD TRANSPORT SYSTEM: VEHICLES CLASSIFICATION AND CURRENT TRAFFIC MANAGEMENT PROBLEMS

Vinnitsia National Technical University

Анотація

У статті розглянуто класифікацію транспортних засобів за розміром, стилем, кількістю дверей та цільовим призначенням. Проаналізовано актуальні проблеми організації дорожнього руху, підкреслено позитивний та негативний вплив збільшення руху на регіональних дорогах.

Ключові слова: *автомобільно-транспортна система, рух, транспортні засоби.*

Abstract

The article considers vehicle classification by size, style, number of doors and intended use. Current traffic management problems are analyzed, positive and negative impact of the increasing traffic in regional roads is emphasized.

Key words: *road transport system, traffic, means of transport.*

Introduction

Roadways are a crucial means of transport in Ukraine. They provide people and vehicles to commute a wide range of locations and help them to reach their destination. Road transport is the process of transporting goods or people from one destination to the other.

Basics

Vehicles of motor transport include cars, road trains, trailers and semi-trailers intended for performance of transport and non-transport works: transportation of goods, passengers and special equipment for the production of various operations. General purpose rolling stock is used to perform various transport, specialized - only for certain transport, special - to perform various non-transport works. Passenger rolling stock is designed to transport people, for example cars and buses.

General purpose cars are of closed and open bodies. Specialized cars are designed for transportation of passengers of certain categories. These are ambulance cars, taxi, etc.

Special cars are used to perform non-transport works. They are produced on the basis of car chassis and are equipped with special devices, equipment and under. Special cars include laboratory, research, police, etc.

Buses are used for mass transportation of passengers. By general purpose they can be classified as city, suburban and intercity buses. Specialized vehicles are ambulances, tourist and school buses.

Buses have car and hood bodies and usually are performed on the basis of truck units. Wide minibuses produced at the base became widespread cars.

Freight rolling stock is used to transport various goods species. It includes trucks, tractors, road trains, trailers and semi-trailers.

Trucks can be of general purpose, specialized and special.

General purpose trucks are designed for transportation of all types of cargo, except liquid (without packaging). They have cargo bodies in the form of onboard platforms.

Specialized trucks are used to transport goods only certain species. They have custom bodies for such transportation and are equipped with special devices and devices for loading and unloading.

Road trains consist of tractors, trailers and semi-trailers. Road trains are divided into trailer, saddle and loose.

A trailer is a truck and one or more trailers, truck - truck - tractor and semi-trailer, the front of which is mounted on the tractor.

Dismantling trains consist of a truck and a trailer - dissolution, equipped with support beams (conics) for mounting long-dimensional loads (logs, pipes, high-grade metal, etc.).

Nowadays road transport is increasing. The situation is typical to Vinnytsia region. In January – April 2021, freight turnover of transport enterprises amounted to 7735.9 million tkm, or 84.1% from January – April 2020. Volumes of commercial transportation of goods by road of the region (including transportation by individuals entrepreneurs) for January – April 2021 amounted to 1615.4 thousand tons and compared to January – April 2020, increased by 15.2%. Freight turnover increased by 13.5% and amounted to 337.5 million tons. Passenger motor transport of the region (including transportation performed by natural persons-entrepreneurs) for January (April 2021 15.0 million passengers were transported, passenger turnover amounted to 239.7 million passenger-km. Volumes of transported passengers and passenger turnover against the volumes of January – April 2020 decreased by 9.4% and 32.4%, respectively.

	2020	2021
Freight turnover , million tkm	6500	7735,9
Volumes of commercial transportation , thousand tons	1373	1615,4
Passenger turnover, million passenger-km	316	239,7
Million passengers	16,35	15

Table 1

Economic growth depends on increasing the capacity and rationality of transport. But the infrastructure and operation of transport have a great impact on the land and transport is the largest energy consumer, making transport sustainability a major problem.

Positive effect reveals passenger transport as an important part of tourism and recreational industry. People conduct business due to cheaper transportation. Too much regional infrastructure and too much traffic in city have negative environmental impact, confirmed by public health and sociology statistics.

Conclusion

The development of new technologies and new business models is transforming our vehicles. The road transport efficiency should be improved. Current trends in automotive industry represent an opportunity to move towards a transport system that is more efficient, safer, less polluting and more accessible.

REFERENCES

1. Вступ до фаху. Транспортні технології (автомобільний транспорт) : навчальний посібник / В. В. Біліченко, В. П. Кужель, А. А. Кашканов, С. О. Романюк. – [2-ге вид. перероб. і доп.]. – Вінниця : ВНТУ, 2019. – 121 с.

2. Яцківський Я.Ю. Загальний курс транспорту: навчальний посібник / Я.Ю. Яцківський, Д.В. Зеркалов. — [Кн. 1.] — К.: Аріс-тей, 2007. — 544 с.

3. М.І. Міщенко. Загальний курс транспорту: навчальний посібник./ [М.І. Міщенко, А.В. Хімченко, І.Ф. Вороніна, Ф.М. Судак] — — Донецьк: Норд-прес, 2010. — 323 с.

Рудницька Тетяна Григорівна – старший викладач кафедри іноземних мов, Вінницький національний технічний університет, e-mail: rudnytska@vntu.edu.ua

Rudnytska Tetiana Hryhorivna – an Assistant Professor of Foreign Languages Department, Vinnytsia National Technical University, e-mail: rudnytska@vntu.edu.ua

Олексієнко Руслан Богданович – студент групи ІТТ-20б, факультету машинобудування та транспорту, кафедра автомобілів та транспортного менеджменту, Вінницький національний технічний університет, e-mail: ruslanoleksienko1@gmail.com

Oleksienko Ruslan Bogdanovich - student of group ІТТ-20b, Faculty of Mechanical Engineering and Transport, Department of Automobiles and Transport Management, Vinnytsia National Technical University, e-mail: ruslanoleksienko1@gmail.com