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MEASURES TO PROTECT THE ENVIRONMENT FROM THE HARMFUL EFFECTS OF MOTOR TRANSPORT

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Abstract
In this article, the problems associated with the high oxidizing activity of the air characteristic of the Aral Bay region are studied. Such conditions lead to accelerated corrosion of car parts, increased maintenance and current maintenance labor and need for spare parts, reduced vehicle life and maintenance intervals, and the consequences have been studied.

Keywords: Car, environment, transport, gasoline, gas, waste gases, cargo.

Introduction

Uzbekistan's integration into the world economy, the expansion of international cargo transportation, the participation of not only cargo carriers, but also private passenger cars and buses, will seriously increase the requirements for environmental safety, economic and other indicators. Certification of our country's cars ensures that they gradually approach European and world standards. This is reflected in the tightening of maintenance and repair [1-7]. When burning any fuel, various combustion emissions are released. These wastes have a great impact on human health and the environment. Factories, factories and transport companies in the city are the main sources of environmental pollution. Car transport is currently considered a source of more environmental pollution than factories and plants [8-11].

The Main Part

3 different sources of environmental pollution can be seen in the use of motor vehicles: exhaust gases, crankcase gases and harmful substances formed as a result of fuel evaporation (from the fuel tank, carburetor, etc.) [12-17]. Exhaust gases make up 65-70% of harmful substances released into the environment as a result of car operation, and crankcase gases make up 20%. The biggest problem that needs to be solved at the moment is to reduce harmful emissions from the use of cars. More than 200 harmful emissions have been found in the gas produced by the combustion of fuel in the car engine. The most harmful of these include carbon monoxide - CO, unburned hydrocarbons - CH, nitrogen oxides - NOx. Many countries have introduced regulations for these wastes [18-23]. The regulation of emissions from fuel combustion in the CIS countries was introduced in 1970 based on the instructions issued by the European Economic Commission of the UN. Waste gases also contain harmless oxygen, carbon dioxide, nitrogen, and sulfur. But nitrogen at high temperature and pressure forms nitrogen oxides, which are very harmful. The amount of harmful products in waste gases is not always the same

for many reasons. It depends on the type of engines, operating mode, level of tuning, engine maintenance and fuel quality. A diesel engine is less harmful than a carbureted engine.

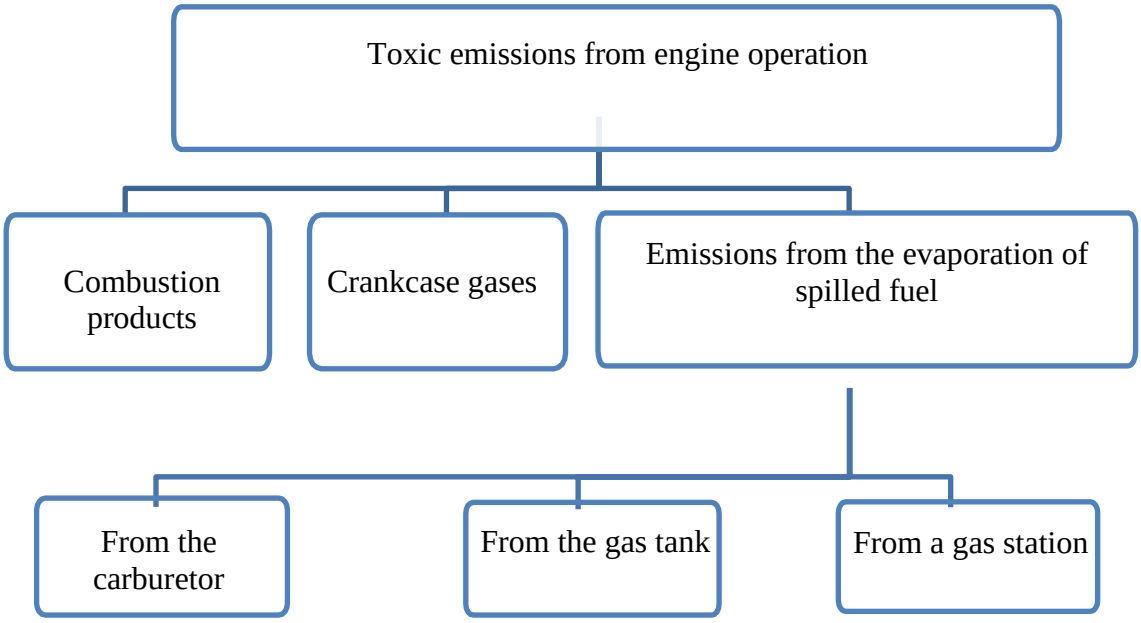

Figure 1. Harmful waste generated as a result of the operation of vehicles.

During the operation of diesel engines, harmful gases such as CO, NOx and CH are released less, but the volume of the body, which contains harmful benzopyrene, is greater. Carburetor engines release lead compounds and diesel engines release barium compounds. These compounds are formed as follows:

– - as a result of adding ethyl alcohol to increase the anti-detonation properties of gasoline (ethyl alcohol contains lead);

– - as a result of adding a special barium anti-smoke substance to reduce the ignition of diesel fuel.

Engine operating conditions play a major role in whether exhaust gases are harmful or harmless. The most CO emissions are produced in the pure engine mode, when the engine is running on an enriched fuel mixture. At the same time, as a result of incorrect installation of the combustion system in carburetor engines, voltage (spark) is transferred to the spark plug earlier or later than normal, which leads to incomplete combustion of the fuel mixture [24-31]. A change in the distance between the switch contacts from the norm also causes a decrease in the voltage in the candles and a weakening of the spark, which also leads to incomplete combustion of the combustible mixture, as a result of which the amount of CO in the combustion products increases. The change in the pre-spraying angle of the combustible mixture of diesel engine injectors and the irregularity of the spray angle (if the angle is low, the fuel spray speed increases and the fuel partially sits on the piston, if the angle is large, the fuel i does not reach all parts of the combustion chamber) leads to deterioration of the combustible mixture and

incomplete combustion of fuel. In these cases, the amount of harmful substances in exhaust gases increases [32-35].

Protection of the environment from the harmful effects of automobile transport is carried out mainly in 2 different directions:

— Improvement of cars and its engine designs;
— Fight against the harmful operation of vehicles in operation.

Improvement of the construction of cars and its engine, improvement of engine operation mode, use of various auxiliary equipment and high-quality fuel, timely and high-quality performance of maintenance and repair work, as well as less harmful gas turbine, external combustion-Stirling engine, is carried out by the production of electric cars, injection engines. The fight against the harmful operation of vehicles in operation consists mainly of limiting the amount of harmful substances emitted by vehicles by the relevant legislation and controlling the compliance with these standards. According to the data of the World Health Organization, 142 million tons of harmful substances are released into the atmosphere in the USA every year, of which 86 million tons are produced as a result of the operation of cars. DAST 16533-70, introduced on January 1, 1971, limits the amount of CO contained in the exhaust gases released as a result of the operation of gasoline engines. DAST 21393-75 limits the emissions of diesel engines, 1980 DAST 16533-70 was replaced by a new state standard 17.2.2.03-77, which also limits the amount of CO in the exhaust gases of gasoline engines.

Conclusion

This applies to trucks, cars and buses running on standard gasoline. According to the new DAST, the amount of CO should not exceed 1.5% for all cars, and the inspection of the content of CO in the exhaust gases, in the capital cities and resorts with a population of more than 300 thousand, and in the capital cities, resorts, when the 2-TX is carried out, maintenance after repair during construction, it is carried out by specialists of motor transport enterprises and employees of RPS. European emissions standards, g/km, NETSD-style estimates for passenger cars are given according to the new European driving cycle, which represents a combination of urban and modified suburban cycles.

According to him, the highest rating index reaches 10 points. The rating takes into account engine power and performance, top speed, fuel consumption, CO_2 emissions, and external noise level.

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