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Analysis of Automobile Mufflers

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Annotation. Silencers and cleaning methods in the exhaust system of automobile engines are analyzed. The processes of liquid, thermal and catalytic decontamination of exhaust gases have been tested. The efficiency of the design of the catalytic converter has been determined and it has been established that the closer it is located to the combustion chamber, the more efficient it will work.

Key words: Silencer, exhaust gases, exhaust system, noise, internal combustion engine, converter, fuel, liquid neutralization, thermal neutralization, catalytic neutralization.

The "cooler" is a system designed to release waste gases, where the noise level is directly reduced. Each model has its own constructive features of the processed gas extraction system. Currently, the functions of the cooler are not limited to lowering the noise level. They also perform important functions such as preventing toxic gases from entering the car lounge, reducing environmental pollution by toxic components of internal combustion engines (IYOD) emission gases. To reduce the toxicity of ION gases, there are the following main areas[1-3]:

- improving the methods of influe the work process of transportation engines in order to reduce the toxicity of waste gases;
- improving methods and tools for reducing the toxicity of waste gases in the processed gas emissions system [4,5].

The first route is the methods of influe the working process of engines, where the effects of operational factors, taking into account the type of fuel used, quality and additives, maintaining good technical condition, adjusting the fuel combustion process contains. combined methods of reducing the toxicity of the engine, waste gases, and waste gases.

The second route should include widely used cleaning methods based on the transmission of waste gases through various devices in their processed gas emission system. These devices differ according to the manner in which waste gases are affected by harmful components, so-called filters, and devices that actively affect harmful substances known as neutralizers. In neutralizers, incomplete combustion of incomplete combustion products occurs, chemical changes in harmful components of waste gases, etc., resulting in a negative impact on human health and the environment Non-pointing substances are produced [6,7].

The following cleaning methods are common in vehicles: liquid deconflection (picture 1), neutralization and thermocaalitic cleaning methods based on thermal methods after burning [8,9].

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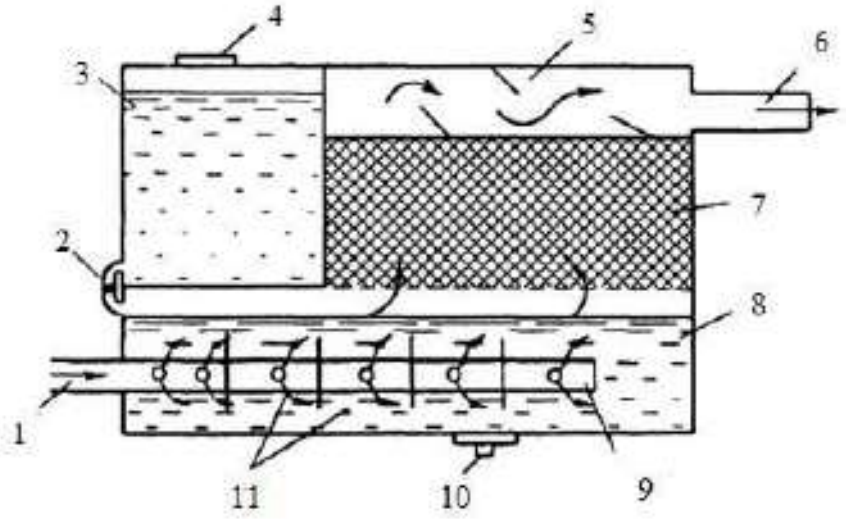
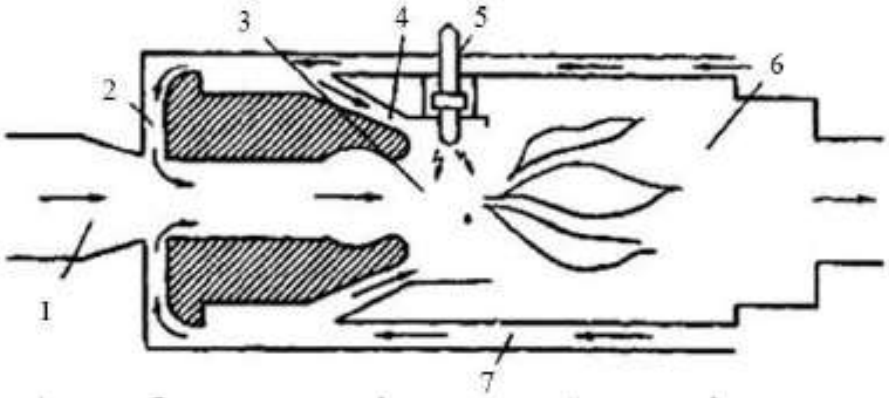


Picture 1. Liquid neutralization scheme of waste gases in an ink engine D. 1 gas entrance; 2nd circular valve; filling 3 containers with 45 l of water; filling the 4th neck; 5th water detectors; 6th gas output; 7th metal sheets; main look at 8-55 l Collector 9; 10th shed cover; sections 11.

Historically, liquid devices are the first neutralizers used in transportation vehicles. Ssleep neutralizers are the most common in the mining industry. They were used to partially destroy waste gases in underground self-driving vehicles. The waste gases pass through an aqueous solution of water or chemical reagents, part of the toxic substances contained in it are mechanically caught in the liquid and lowered in the form of a sediment, part dissolved and part chemically attached to other substances. At the same time, waste gases are cooled [10].

Thermal neutralization devices are designed to fuel products that are not fully combustion in the operation of internal combustion engines at high temperatures. The resulting embryo was allowed to develop in nutrients and then inserted into her womb, where it implanted. . In this way, the amount of carbon oxide CO, aldehyde C_mH_n and other combustible toxic substances is reduced. However, this method cannot poison toxic nitrogen oxides NO x especially in diesel internal combustion engines [11-13].



Picture 2. Carbourat-shaped dvigat hand-to-hand emissions gases o t ash convertori scheme. 1st waste gases; 2nd main air; 3rd burner; 4th secondary air; 6th camera; 7 heat exchanger.

The intermolecular force fromall these filaments is supported with the roots of the wheat that to uproat them before harvest would result in a loss ofwheat. Ka talizatorlars in the form of ceramic supplements are more commonly used because they are cheaper, but their moosetligi and, accordingly, their sensitivity to shock loads tufmonthly At long muddttheir performance can be chimma troq [14,15].

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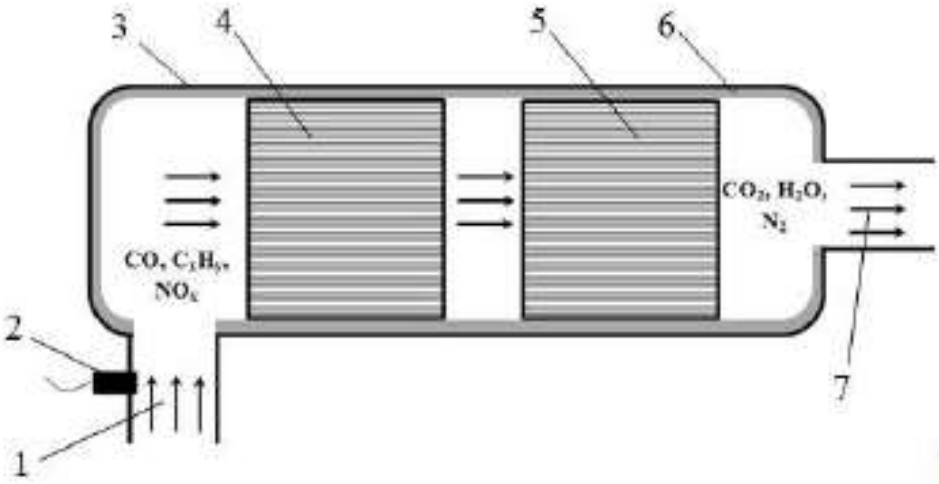
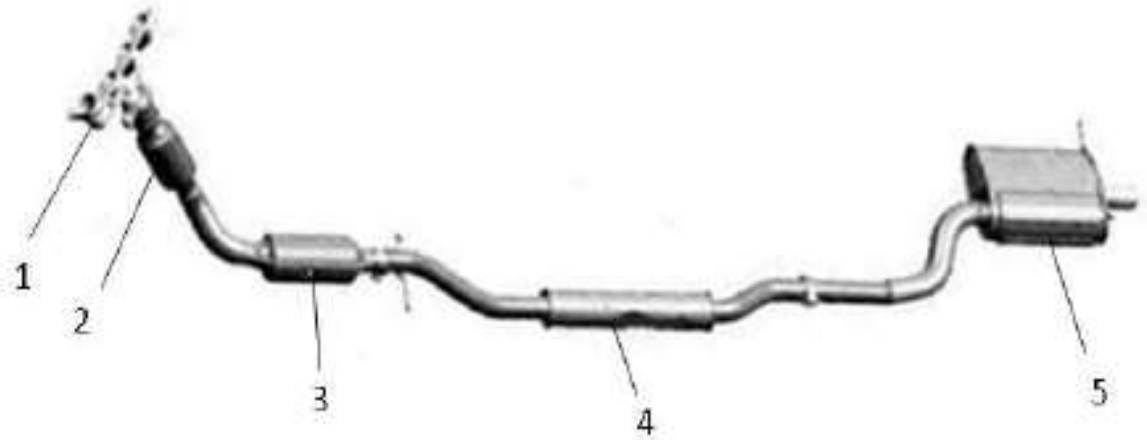


3- rasm. Benzinli dvigatelning chihundredi gazlarini hasalitoik neytralizatordan o'tish sxemasi. 1- chihundredi gas; 2- hundred gazlar tarchibini o'lchash uchun datchik; 3-zanglamaynigan qobiq; 4, 5- there isalitogo to the keramiclamli subs t rat;
6-yumshoq izolyator; 7- neytrallangan gaz



4- rasm. Katalitik neytralizatorlar (katalizatorlar) sxemasi. 1- kollektor; 2- katalizator; 3- ikkinchi katalizator; 4-rezonator; 5- so'ndirgich.

An exampleof a diagram of ka t alitik neutralizers is painted bald in Figure 4 [16]. Because the effectiveness of katalitik neytralash processes depends on the efficiency of the neutralizerto heat the work harorat iga, katalit in modern av t cars The ik neutralizer is located as close as possible to the output collector or collector himself. The closer katalitik neutralizer is to the combustion camera, the hotter it is until the work harorati and the tashqi t is better preserved than the effects and the sharp harorat change.

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