

## LABOR SAFETY IN THE MAINTENANCE OF GAS BALLOON EQUIPMENT

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### ABSTRACT

*In this article, the human factor in the maintenance of gas cylinder equipment operating on compressed and liquefied gas is covered by the technology frustration.*

**Keywords:** *Equipment with gas cylinders, cars, gas cylinders, engine, equipment failure, repair system.*

### АННОТАЦИЯ

*В этой статье рассматривается техника безопасности человеческого фактора при обслуживании газобаллонного оборудования, работающего на сжатом и сжиженном газе.*

**Ключевые слова:** *Газобаллонное оборудование, автомобили, газобаллон, двигатель, техника безопасности, система ремонта.*

### INTRODUCTION

Maintenance of gas equipment intended for liquefied and compressed gases has much in common. Servicing gas devices of cars with a pressure of 20 MPa in the cylinder, operating on compressed gas, is somewhat more complicated. The maintenance of gas balloon equipment can be carried out by qualified locksmiths who have undergone special training and have a certificate.

The main malfunctions. They primarily depend on the violation of the hermeticity of the system and the leakage of gas. The fact that the Reducer is not hermetic to the valve of the Uzel and combinations of body details - is one of the main malfunctions of the high pressure reducer. A sharp drop in pressure at the output of the reducer when the Drossel zaslonkas are opened indicates that the filter is contaminated.

The main malfunctions of a low - pressure gas reducer are the release of gas through the valves when the engine is not running, as well as the complete or insufficient transmission of gas.

The features of the maintenance of cars equipped with gas cylinder equipment of cars with gas cylinder equipment are as follows:

– if the methods of heat exposure of the car or its constituent parts are used, for example, open-fire works related to welding work, drying of the car in drying chambers, etc., the following works are performed:

- 1) gases are expelled from the gas cylinder and sent;
- 2) residual gases trapped in engine and gas equipment parts are excluded;
- 3) cylinders are ventilated with neutral gas (mainly with nitrogen);
- 4) all sentences are closed;

5) after the completion of the repair work, the gas instruments will be fully checked.

- when carrying out the repair and maintenance of automotive electrical equipment, the following are performed:

- 1) all sentences in the balloon are closed;
- 2) residual gases in the engine are released;

3) bonnet I the back part of which the loads are placed is reached so that the lid is opened and there is no smell of gas.

#### **LITERATURE TAXLIL AND METHODOLOGY**

Currently, 4 generations of gas cylinder equipment are used in world light and cargo and other types of specialized cars. In all types of cars, gas cylinders are installed in the safe place of the car. Gas cylinder equipment operates on liquefied and compressed gases. Equipment operating on compressed gases is widely used in trucks and buses because it is heavy compared to equipment operating on liquefied gas (mainly a gas cylinder).

Parts that are relevant for gas cylinder equipment are a gas cylinder, a multiclapan, a high - pressure gas trunk, an ejected fuel injection device; gas solenoid valve-filter; reducer-chopper; dosator; gas-air mixer; gasoline solenoid valve; —gas-gasolinell additive.

Workers working for repair and maintenance are allowed to work only after familiarization with the Special Technical Safety.

When serving gas balloon equipment, special poster sheets tablecloths will definitely hang. The ignition system must definitely be disconnected. Parts of the supply system are carried out in workplaces equipped with special ventilation, separated from the car.

Engine ignition should be carried out mainly on the starter, only in some cases with the help of a drive lever. In order to prevent damage to the hand paws, it is necessary to hold the handle in such a way that all the paws of the right hand are located

on one side of the handle. Rotation of the elbow shaft is carried out only from the bottom up, while rotation in a circle is prohibited.

### **RESULT**

In cases where gas leaks are observed, engine ignition is prohibited. To carry out Adjustment work on the running engine, a special post should be allocated, which is equipped in such a way as to suck out the gases used. If there is gas under pressure in the Rings and pipes of the gas unit in cars with gas cylinders, then it is also forbidden to harden its details and carry out other repair work.

It is forbidden to leave empty containers from fuel or lubricants in car maintenance and repair rooms. Spilled fuel or oil should be quickly cleaned using sand or a cannon. After the end of the work, the used wiping materials must be collected and placed in a special container. Maintenance and repair work on the equipment of the supply system removed from the car is carried out in a Workshop (Workshop). The details of the supply system should be provided in the wash tub, in verstaks intended for disassembly-Assembly, adjustment and inspection of tools, as well as ventilation-suction cups in the sharpening machine.

### **DISCUSSION**

In order for the gas cylinder to be driven from the fitting and fasten it, the probabilities of the gas outlet from the gas cylinder high-pressure reducer and methods of its elimination, so that the gas flow in the gas pipes does not form plugs, it is necessary to operate filters and control the appearance of a gas smell under the hood and

A practical approach to the gas balloon equipment system is completed by determining its structure and the faults encountered in it and eliminating them.

Analysis of the result obtained. The application of gas cylinder equipment in cars, the principles of their structure and operation, maintenance of equipment should be considered from the point of view of the necessary and complex work.

The student must know the application of equipment, its components, the principle of operation, the failures that occur, the work that is constantly monitored, the failures that occur in the system and the methods of their elimination

Pre-soldering and Tinning cleaning of the details should be carried out in workplaces with local vents. Before repairing fuel tanks and containers freed from combustible liquids, it is necessary to wash with hot water, steam with hot steam and wash in caustic soda, and dry with hot air. Soldering and welding work should be carried out in the case when the plugs are opened. The Flare is extinguished in a stream of fire extinguisher, sand or spilled water. Cold water is poured over them so that the pressure in the gas cylinders does not increase.

Hot water or a water joint can be used to relieve the hydrates formed in the system. The use of open flame retardant methods in yogurt is prohibited.

### CONCLUSION

Now let's move on to solving the given Research situations by widely attracting students with access to Sunday information. After that, it can be assumed that the main problems posed in the lesson were solved.

The most profound and solid is the knowledge acquired by students in the process of active independent activity, which is based on the widespread implementation of the method of research, problematic and programmed teaching in the educational process, various manifestations of students' individual work.

By mastering the topic, the reader will gain understanding and knowledge about its importance in the national economy, the main problems that need to be implemented in the future, as well as factors that ensure the reliable operation of equipment.

It was noted that it is important to comply with the rules of disaffection when providing technical services to gas equipment installed on cars. Soldering and welding work should be carried out in the case when the plugs are opened. The Flare is extinguished in a stream of fire extinguisher, sand or spilled water. Cold water is poured over them so that the pressure in the gas cylinders does not increase.

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