## **EQUIPMENT FOR CLEANING AND WASHING WORKS**

## Parapanov A., recipient of higher education "Bachelor" degree

Dmytro Motornyi Tavria State Agrotechnological University, Zaporizhzhia, Ukraine

Cleaning and washing equipment is divided into equipment for cleaning and sanitary treatment of the car body, equipment for washing cars, equipment for blowing and drying cars after washing, in addition, auxiliary equipment is used designed for regenerating used water under production conditions [1].

Equipment for the mechanization of cleaning work and sanitary treatment of the car body. To remove dust and debris from the body of a bus and a passenger car, from the cab and from the platform of a truck, electric vacuum cleaners and dust suction units of stationary, mobile or portable (manual) type are used. To clean the interiors of passenger cars, buses, truck bodies and special vans, vacuum cleaners with electric motors with a power of 0.3...7 kW, respectively, are used.

Car washing equipment is divided into general and special.

The general category includes platforms and various types of ditches (lateral and inter-track narrow type, wide with a track bridge), overpasses and lifts. The posts are separated by a waterproof partition. The doorway can have a flexible curtain for automatic fencing of the washing chamber after the vehicle enters and exits.

Special equipment is divided depending on the washing method and the type of car. Washing can be manual (hose), mechanized, automated and combined.

Manual hose washing equipment for cars. Equipment for hose washing consists of a system of pipes through which water is supplied under pressure of 0.2...0.4 MPa, with hoses with fire nozzles attached to them. Installations for manual washing can be mobile or stationary.

Mobile washing equipment is an installation designed for washing cars from a hose with a high-pressure fan jet.



**Fig. 1. Mobile washing unit for jet washing:** 1 - washing gun; 2 - canister with detergent composition

The mobile washing unit is made in the form of a trolley with a handle, on which a 4-cylinder plunger pump, a hose with one washing gun 1 for regulating the water supply and the shape of the stream, and a canister 2 for washing liquid and polishing compound are mounted [2,3].

Stationary washing equipment is an installation for hose washing, consisting of a casing, inside of which there is a water tank and a high-pressure water pump, distribution hoses equipped with washing guns with adjustable spray nozzles.

## References.

- 1. Журавель Д.П. Технічний сервіс в АПК: навчально-методичний посібник до самостійної роботи / Ю.Г. Сорваніді, Д.П. Журавель, А.М. Бондар, О. Ю. Новік. Мелітополь: Видавничо-поліграфічний центр «Люкс», 2021. 157 с.
- 2. Журавель Д.П. Технічний сервіс мехатронних систем: навчально-методичний посібник до самостійної роботи / А.М. Бондар, Д.П. Журавель, О. Ю. Новік, К.Г. Петренко, О.В. В'юник. Мелітополь: Видавничо-поліграфічний центр «Люкс», 2021. 140 с.
- 3. Журавель Д.П. Триботехніка: посібник до лабораторно-пратичних робіт / Д.П.Журавель, О.Ю. Новік, А.М. Бондар, К.Г. Петренко. Мелітополь: Видавничо-поліграфічний центр «Люкс», 2019. 136 с.

Research supervisor: Bondar A., Ph.D., sin. teacher