



Carriage Depot for the Maintenance of Passenger Cars Vchd-2

Tolaniddin Ramziddinovich Nurmukhamedov

Doctor of Technical Sciences, Professor of the Department "Information Systems and Technologies in Transport" Tashkent State Transport University

Annotation: The carriage depot for servicing passenger cars of JSC "Uztemiryulyulovchi" is considered. The main structural units of the car depot, which includes several departments, are marked. The stages of repair and equipment work of mobile units after their arrival at the depot are given.

Keywords: car depot, repair, equipment, flight, preparation stages, local, long-distance, following.

Date of Submission: 29-10-2022

Date of Acceptance: 30-11-2022

An important role in improving the transportation process belongs to the carriage industry, which combines wagons and the material and technical base for their repair. Studies have shown that the fixed assets of this economy make up a fifth of the fixed assets of railway transport. The necessary material and technical base of the wagon economy has been created.

The passenger car depot VCHD-2 is a structural subdivision of JSC "Uztemiryulyulovchi", carries out technical and technological work with passenger cars, is the only depot in the republic that prepares passenger cars for flight. The mobile units that have entered the car depot undergo repair and equipment work, which is carried out because of a daily plan drawn up taking into account the current train schedule, the timely formation of trains and the technological process of work.

The main structural unit of a car depot is a production site, which may include several departments.

By the nature of production, all sections and departments of the depot are divided into main, auxiliary and servicing.

In the main sections, the operations of the production process for the repair of wagons and their components are carried out. According to the specialization of the depot, the main sections include:

- car assembly with external washing and cleaning departments, preparation of cars for repair, repair and assembly and painting (or without it);
- trolley with a fleet of trolleys;
- wheeled with a fleet of wheelsets;
- roller with disassembly, repair, assembly and assembly compartments;
- repair and assembly.
- repair of electrical equipment with compartments of electrical machines, electrical equipment, batteries, radio equipment and instrumentation (instrumentation);

- repair of refrigeration equipment and air conditioning units (VHF).

The repair and assembly section includes the following departments: locksmith and assembly, repair of hydraulic vibration dampers, locksmith and lock, carpentry and wallpaper, repair of heating, water supply and ventilation systems, repair of boilers, toilets, mirror, polymer products and rubber parts, metallization, electroplating, repair of gear-cardan drives.

Auxiliary sites and departments produce products used for production at the main sites. These include: mechanical repair, repair of electric power equipment depot, tool, storage depot, etc.

The maintenance includes a repair and economic site that provides the operation of a compressor station, transformer substation, water supply and sewerage networks, transport and storage facilities, maintenance and repair of workwear, maintenance of buildings and structures of the depot.

After the arrival of the train from the flight to the depot, they first of all enter the specialized path, which is called among the workers as the 16th path.



On this way, the train goes through body washing, collection of bed and wagon linen (sheets, pillowcases, towels, mattress covers, curtains, curtains, etc.). Tea utensils are transferred for cleaning and washing. It should be noted that with the wagons in this way, their internal disinfection and sanitary treatment are carried out.

The next stage is the washing of the body, with the help of washing and cleaning units, and then the train is sent to equipment work, i.e. to supply the wagons with water and coal. After passing all the stages, the train is sent to the repair path. Maintenance is carried out on this way, i.e. inspection of auto-braking equipment, running gear, internal equipment, cleaning and disinfection treatment is carried out. At the end of all work, according to the formation plan, passenger trains are sent to the Tashkent-Yuzhny departure station or to the Tashkent-Tsentralny station. On average, about 7-8 trains are processed per day.

During the repair of wagons, the old air conditioning system designed for 54 volts will be replaced with a 110-volt one, thereby increasing the cooling of wagons by 15-25%. It should be noted that, unfortunately, in some cars, the cooling system is not structurally provided.

The process of forming a train for departure takes into account the class of trains, which is determined by the length of the route: trains passing 1000 or more kilometers are considered long-distance trains; trains following a route of less than 1000 kilometers are local. In long-distance trains, there are cars, compartments and reserved seats in the composition of the SV.

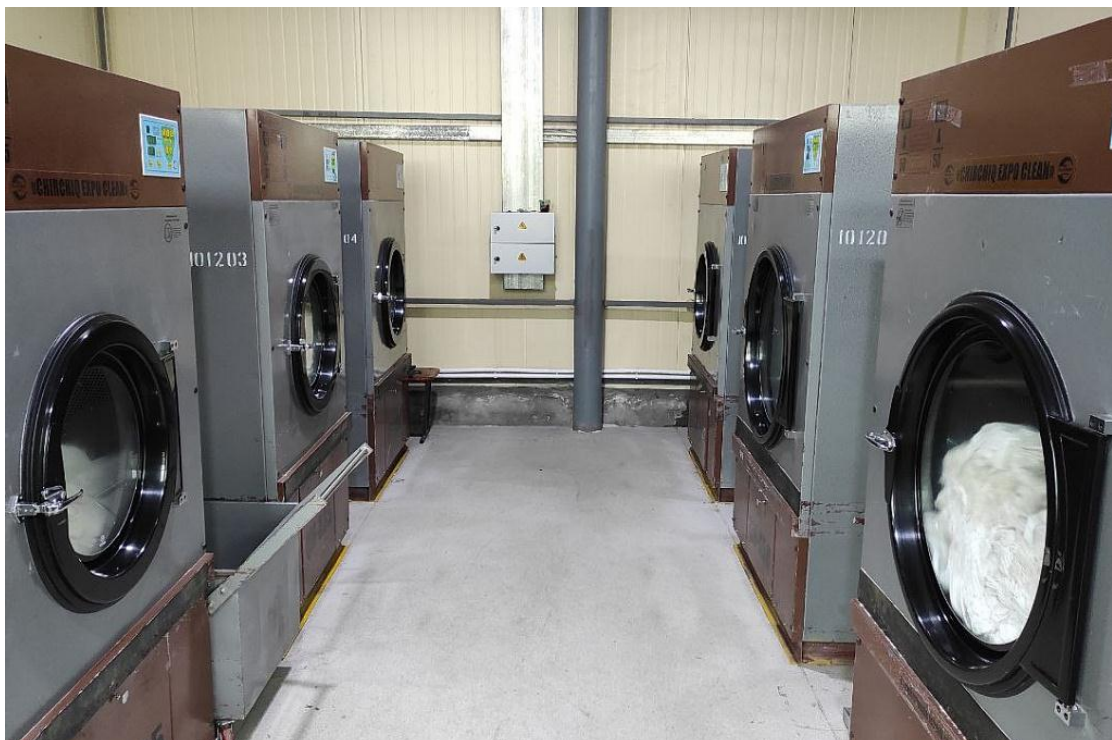




There are only seats on trains traveling less than 1000 kilometers.

A passenger car with a mileage of 150 thousand km is sent for maintenance (TO-3), during which (approximately every 6 months) a check is carried out on the serviceability of spare parts and components of the car. Every 300 thousand km of mileage, depot repairs of passenger cars are carried out. The average life of the car, according to the standards, is 41 years. Currently, about 300 passenger cars in operation, as well as cars that are in the process of repair, are under the jurisdiction of JSC "Uztemiryulyulovchi".

Used bed and wagon linen is unloaded to the laundry shop, sent for de-treatment or mechanical and chemical cleaning.



Previously, laundry was sent to the private sector providing this type of service for washing and processing. The new laundry room has washing machines that provide laundry with a load of laundry from 30 to 100 kg. There is also a machine for dry cleaning of laundry. The depot also has a workshop for sewing bedding, wagon linen and certain types of uniforms for railway workers.

A specialized training car, which is equipped with all the necessary visual aids for conducting technical training sessions, for professional development of specialists, as well as for conducting practical classes with young specialists.

There are differences in the preparation of international and local passenger trains: the requirements for international passenger trains differ from local ones, especially recently. According to the new standards, bio toilets are required to be installed in long-distance passenger trains.

This issue is being resolved by JSC "Tashkent Plant for the Construction and repair of passenger cars", which, on the basis of contracts, carries out depot and overhaul of cars with the installation of a bio-toilet in international trains.



Conclusion

The characteristics of the passenger car depot and the car assembly site are considered, the depot's operating mode is established and the working time fund is determined, the site program is determined, the necessary equipment is selected, the site size, the number of employees are determined and the staffing table is drawn up, the labor plan and the operating cost plan are calculated, the cost of production is determined. The issues of occupational health and safety are considered.

Literatures:

1. V.I. Gridyushko, V.P. Bugaev, N.E. Krivoruchko. Wagon economy. -M.: Transport, 1988.
2. V.D. Bykov "Technology of repair of wagons". -M.: Transport, 2000.
3. <https://infopedia.su/15x14d6b.html>
4. https://www.railway.uz/ru/informatsionnaya_sluzhba/novosti/27352/