

THE VEHICLE CLASSIFICATION OF THE CONSTRUCTION INDUSTRY

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This article describes the vehicle classification, designed for the enterprises that produce building materials. The practical applicability is reflected not only in the ordering of transport equipment company, but also in the regulation of the fundamental approaches to the calculation of enterprise machines.

We can often hear at the industrial enterprises about various branches of such problems as simple technique or lack of it. This may be due to various causes. The simplest and most common of them is the wrong definition of the required number of machines and equipment.

Currently in production plants it is necessary to calculate the amount of funds that are designed for loading and unloading and transportation of goods and people operations. Such a calculation can not be made quickly without a clear delineation of the main groups of transport and handling equipment. This is due to the fact that when determining the number of machines required in most cases, such as performance index, which is calculated analogously to certain types of machinery. In other words, you need to develop a detailed classification of all the company vehicles and for each group to choose a convenient calculation formula.

It was decided to establish the classification of hoisting and transport means for the enterprises for manufacture of building materials.

Belarusian construction materials industry is about 6% of the total industrial production of the country. Belarus takes a strong position in the regional market of building materials. This industry is characterized by significant depreciation of fixed assets (60%), as well as a high level of material and energy intensity of production [1].

Already at the first stage of development, we can run into quite a big problem is the lack of a legislative framework in the field of transport and handling equipment. Most of the machinery do not have a clear identity as a particular category, there is no unambiguous definition.

This article describes the classification, designed for enterprises that produce building materials based on the classification of S.A Shiryayev for loading and unloading mechanisms. During the work on the classification of significant changes were made to its structure. In the development of standards and the laws in the field of transport were taken into account.

- 1) There is a need to share vehicles and mechanisms into 2 main groups (fig. 1):
1. The lifting and conveying machinery (lifting and transport means);
2. Vehicles.

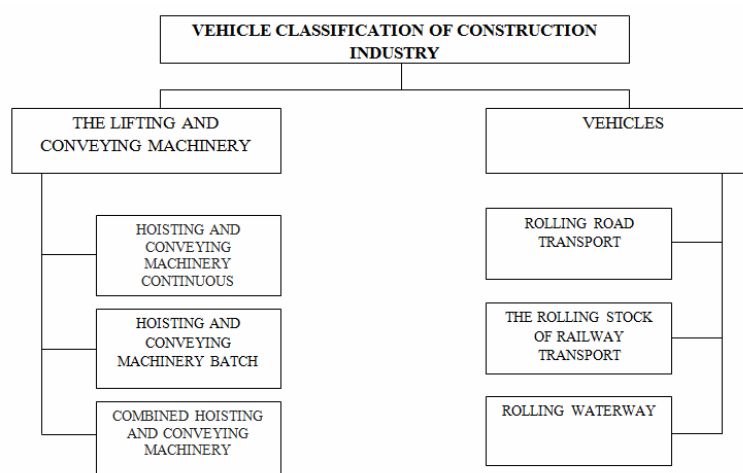


Fig. 1. Vehicle classification of construction industry

A common mistake is to identify vehicles and transporting machines. In this connection it is necessary to draw attention to the fact that the vehicles are mainly used for cargo delivery to the construction or production site, and often - over long distances, and transporting the machine perform the movement of goods within the construction or production site at short distances. [2]

It is also due to the significant differences between the two groups of funds in many respects.

2) An aid group that originally was present in the classification had to be disregarded. Their number is directly related to the presence of certain fixed assets.

3) The Group "Hoisting and conveying machinery" was divided according to the classification by Shiryayev S.A without any changes because among the many criteria, the criterion of "the principle of action" allows the most obvious and clearly demarcate hoisting equipment, which further affects the fundamental approach in calculating the amount (fig. 1).

Thus, when calculating the amount of equipment sub-group "Hoisting and conveying machinery batch" at the basis of the calculations is finding the time spent in a single machine cycle during the operation.

4) In connection with the specifics of each mode of transport, the group "Transportation" was divided into 3 subgroups (fig. 1):

1. Rolling road transport;
2. The rolling stock of railway transport;
3. Rolling waterway.

These subgroups are further subdivided in accordance with the existing classifications, standards and laws.

The existing classification standards and laws as the Republic of Belarus and the Russian Federation were reviewed. As a result of discussion and comparison of optimal positions specific tools and machinery were chosen.

For example, a subgroup of "Rolling road transport" used Belarus traffic rules.

5) The group of "Hoisting and conveying machinery batch" was classified as "Earthmovers" in accordance with the principle of separation of vehicles and transporting machines.

The need for the allocation of such a subgroup is justified by the special functions (earthworks), which can be carried out as belonging to its machines.

A certain lack of classification is that it does not take into account many different criteria (the direction of the movement of goods, the functional purpose, a kind of processed goods, etc.). The absence of a specific method of construction can also be considered a disadvantage.

The advantages of this classification are its expansion and completeness: it not only consists of systematic groups of materials handling equipment, the majority of the classifications, but also includes the vehicles that are no less involved in the process of movement of goods and people.

Practical applicability is reflected not only in the ordering of transport equipment company, but also in the regulation of the fundamental approaches to the calculation of enterprise machines.

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