УДК 656.073.238

Radziuk A., Ladutska N. Rules of Cargo Marking

Belarusian National Technical University Minsk, Belarus

All cargoes accepted for transportation must have a marking, which is the same for all types of transport. Marking is information displayed in the form of inscriptions, signs or symbols used to identify cargo during transportation, loading and unloading, and storage.

Transport marking is a marking that informs the recipient, consignor and the way the packaged product is handled during its transportation and storage. Transport marking shall contain handling marks, main, additional and informative inscriptions.

The main inscriptions shall contain: full or conventional name of consignee registered in accordance with established procedure; name of destination point with indication of station or port of transshipment, if necessary; the number of cargo places in the party and sequential number of places within the party shall be indicated by fraction: in numerator - sequential number of places in the party; in denominator - number of places in the party [2].

Additional inscriptions must contain: full or conventional name of the consignor registered in accordance with the established procedure; name of the point of departure indicating the railway station of departure and the abbreviated name of the road of departure; inscriptions of transport organizations (inscriptions content and order of application are established by the rules of transport ministries).

Information inscriptions must contain: gross and net weight of the cargo in kilograms; dimensions of the cargo in centimeters (length, width and height or diameter and height).

The overall dimensions are not indicated, if none of the overall dimensions does not exceed 1 m when transporting cargo in open rolling stock, 1.2 m in open wagons and 0.7 m when transporting by air [2].

The main functions of marking are informational; identifying; emotional; motivational.

According to the purpose classification, marking is divided into: consumer marking; consignment marking; transport marking; special marking.

Marking rules are determined by GOST 14192-96, which is an interstate standard of the CIS countries.

Transport marking is placed in a certain order on one of the side surfaces of the packaging, on the end surface or in clearly visible places.

Handling marks are images indicating the way the cargo is handled. Manipulating signs shall comply with GOST 51474-99.

Signs are applied directly to the container or packaging, labels or labels on each cargo place in the upper left corner on the two adjacent walls of the container and packaging.

Depending on the size and shape of the packaging, the overall dimensions of the handling mark must be 100; 150 or 200 mm.

Warning inscriptions shall be used on the marking in those cases where the way of handling the goods cannot be expressed by manipulation marks alone.

The method of application of the marking shall ensure its preservation throughout the transportation process. Marking can be made directly on the container (cargo without packaging) or on a separate plate (tag), securely attached to the cargo [1].

The importance of marking increases when transporting dangerous goods. Marking of dangerous goods in the Republic of Belarus is regulated respectively by national and international acts and agreements. Among them are such as GOST 19433-88, European Agreement on International Carriage of Dangerous

Goods by Road, Appendix "Regulations for the Transportation of Dangerous Goods" to the Agreement on International Goods Transport by Rail (SMGS) and others.

All marking inscriptions must be clearly visible and legible, must withstand the effects of any weather conditions without significant deterioration in quality.

Marking on cargo units intended for carriage by sea transport must be made in such a way that the information contained therein remains legible after the cargo unit has been in sea water for three months.

Marking of dangerous goods includes: danger labels; UN number of the dangerous cargo; shipping name; warning signs; identification number of the danger; number of the emergency card (when transported by rail); classification code.

Marking on the package and (or) the vehicle must contain: hazard sign; transport name of the cargo; UN number; classification code.

Marking on the container must contain: hazard sign; UN number; hazard identification number; emergency card number (when transported by rail) [3].

Over the past twenty years in the countries of the world community have developed certain trends related to environmental protection. Environmental labeling is intended to help make an informed "ecological" choice.

Ecolabeling is one of the types of environmental declaration that characterizes the degree of environmental impact of a product or service at all stages of its life cycle.

Since the beginning of the development of the international standards ISO 14000 series under ISO/TC 207, environmental labelling issues are handled by a separate subcommittee, whose activities resulted in the publication of the following standards:

ISO 14021:1999 "Environmental labels and announcements. Self-Declared Environmental Requirements" (Environmental Labeling Type II);

PMS ISO 14024 "Environmental Labels and Declarations. Environmental Labels Type I. Principles and Procedures";

ISO 14025:2000 "Environmental Labels and Declarations. Type III Environmental Labeling. Basic Principles and Procedures".

Ecolabels that exist today and are used in international practice can be divided into three main types: by the way of expression of necessary information; by the way of declaration; by the subject matter [4].

For the marking of goods that are dangerous to the environment, the sign "Dangerous to the Environment" and a special sign for the designation of substances that are dangerous to marine flora and fauna in transport by waterways are used.

References:

- 1. Горев, А.Э. Грузовые перевозки : учебник для студ. учреждений высш. проф. образования / А.Э. Горев. Изд. 6-е, перераб. М.: Издательский центр «Академия», 2013. 304 с.
- 2. Стандартизация в упаковке и маркировке товаров и грузов: лабораторный практикум для студентов / сост.: Т.Ф. Балабанова, О.В. Балабанова. Минск : БНТУ, 2019. 122 с.
- 3. Сысунович, Н. С. Маркировка опасных грузов / Н. С. Сысунович; науч. рук. В. С. Холупов // НИРС-2015: материалы 71-й студенческой научно-технической конференции / Белорусский национальный технический университет, Автотракторный факультет. Минск: БНТУ, 2015. С. 101.
- 4. Курпеева, Л.В. Экологическая маркировка для производителя и потребителя / Л.В. Купреева // Новости. Стандартизация и сертификация. Минск: БелГИСС, 2002. №3. С. 52-56.