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## Economic Commission for Europe

### Inland Transport Committee

#### Working Party on Inland Water Transport

##### Working Party on the Standardization of Technical and Safety Requirements in Inland Navigation

###### Sixty-second session

Geneva, 15–17 February 2023

Item 6 (c) of the provisional agenda

##### Standardization of Technical and Safety Requirements in Inland Navigation

## Ship-Borne Barges (Resolution No. 15)

### Note by the secretariat\*

#### I. Mandate

1. This document is submitted in line with the proposed Programme Budget for 2023, part V, Regional cooperation for development, section 20, Economic Development in Europe, Programme 17, Economic Development in Europe (A/77/6 (Sect. 20), table 20.6).
2. At its sixty-first session, the Working Party on the Standardization of Technical and Safety Requirements in Inland Navigation (SC.3/WP.3) discussed possible updating of resolution No. 15 “Ship-Borne Barges” and asked the secretariat to collect information on the fleet of this type of craft (ECE/TRANS/SC.3/WP.3/122, paragraph 56).
3. SC.3/WP.3 may wish to continue discussion on the status and possible updating of resolution No. 15 based on the information given below.

#### II. Background Information

4. Resolution No. 15 was adopted by the Working Party on Inland Water Transport (SC.3) on 27 November 1974 at its eighteenth session (TRANS/SC3/83, paragraph 41), based on the draft prepared at the second ad hoc meeting on problems relating to transport by ship-borne barge. The purpose was to facilitate the development of transportation by shipborne barges on European inland waterways, harmonize conditions and measures applied to this type of craft with other means of water transport using such installations and ensure their proper registration. Resolution No. 15 is contained in the Compendium of Resolutions of the Principal Working Party on Inland Water Transport issued in 1993 (TRANS/SC.3/131).

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\* The present report was submitted after the deadline in order to reflect the most recent information.

5. The beginning of the 1970s was marked by the development of barge carrying ships that had certain advantages in terms of the transfer of cargo from inland sites to seagoing ships via inland waterways and transport of cargo to inland ports. The use of shipborne barges allowed to simplify cargo handling operations, reduce labour and energy costs and enhance the efficiency of the waterborne transportation. The adoption of resolution No. 15 was facilitated by the growing number of this type of craft on European inland waterways and the need for standardizing rules and procedures of member States for the temporary entry of foreign shipborne barges. Furthermore, it was supported by the work of the International Organization for Standardization (ISO) on developing standards for the main dimensions of shipborne barges. At the same time, the Inter-Governmental Maritime Consultative Organization (IMCO) was working on (a) safety standards for shipborne barges in the Sub-Committee on Ship Design and Equipment, and (b) facilitation measures pertaining to transport operations with shipborne barges in the Facilitation Committee.

6. This type of craft consists of medium-sized barges, classified by ISO into series 1, 2, 3 and 4 with the maximum deadweight of 370, 847, 1,070 and 194 tonnes respectively. Barge carriers have two main systems of loading and unloading barges: lighter aboard ship (LASH) ships use the vertical trans-shipment system by means of a gantry crane, and the Seabee (Seabarge) ships use the horizontal trans-shipment system by an elevator. Other examples are: BaCo (Barge-Container) liner, Danube-Sea barge carrier, Bacat (Barge-Catamaran), Trimariner, Capricorn and others. The International Sava River Basin Commission has included this type of craft in the Manual on the Sava River Navigation issued in 2018.<sup>1</sup>

7. With the development of containerization in the merchant shipping, barge carriers could no longer compete with container ships in terms of the economic feasibility, and have a limited use. The last systems that remained operational were: (a) a transatlantic LASH line for paper transport, (b) the fleet of LASH vessels flying the Russian and Ukrainian flags between Antwerp (Belgium), the Black Sea and the Far East and (c) an Africa West Coast line. Many of the ships have been sold, converted or decommissioned. However, shipborne barges are used in some countries in Asia, Europe and North America for the delivery of goods and for port operations.<sup>2</sup>

### III. Definition, Standardization and Statistics

8. The definition of a shipborne barge (shipborne lighter) is given in the following resolutions of SC.3:

- European Code for Inland Waterways (CEVNI), revision 6, defines the shipborne barge as a pushed barge designed to be carried on-board seagoing vessels and to navigate on inland waterways
- Annex to resolution No. 61, revision 2, defines the shipborne lighter as a lighter built to be carried aboard sea-going ships and to navigate on inland waterways.

9. Provisions for shipborne barges are contained in CEVNI, article 6.21 “Convoys”, and chapter 10 “Equipment” of the annex to resolution No. 61. This type of craft is also mentioned in the regulations of river commissions and the European Committee for drawing up Standards in the field of Inland Navigation:

- Police Regulations for the Navigation of the Rhine: Article 8.03 containing provisions for pushed convoys that include shipborne barges, and the list of categories of vessels and convoys in Annex 12
- Basic Rules of Navigation on the Danube, Article 6.21 “Convoys”

<sup>1</sup> [www.savacommission.org/UserDocsImages/05\\_documents\\_publications/navigation/eng/manual\\_on\\_the\\_sava\\_river\\_navigation.pdf](http://www.savacommission.org/UserDocsImages/05_documents_publications/navigation/eng/manual_on_the_sava_river_navigation.pdf).

<sup>2</sup> See, for example, [www.gov.wales/sites/default/files/statistics-and-research/2019-11/sea-transport-2018-624.pdf](http://www.gov.wales/sites/default/files/statistics-and-research/2019-11/sea-transport-2018-624.pdf), <https://iopscience.iop.org/article/10.1088/1755-1315/649/1/012049/pdf>.

- European Standard laying down Technical Requirements for Inland Navigation vessels: Article 13.01 “Anchor equipment” and Article 21.02 “Craft suitable for being pushed”.
10. In 1979–1990, ISO developed the following standards for the main series of shipborne barges:
- ISO 4175:1979, Shipbuilding – Shipborne barges, series 1 – Main dimensions
  - ISO 6765:1985, Shipbuilding – Shipborne barges, series 3 – Main dimensions
  - ISO 6766:1984, Shipbuilding – Shipborne barges, series 4 – Main dimensions
  - ISO 7222:1985, Shipbuilding – Shipborne barges, series 2 – Main dimensions
  - ISO 9382:1990 Shipborne barges, all series – Classification and main requirements.
11. Standard ISO 9382:1990 was last reviewed and confirmed in 2018. It specifies the dimensions, displacement and maximum deadweight of shipborne barges of series 1, 2, 3 and 4, designed to carry general cargo. In annex I, additional data is given for barges of each series, designed to carry specialized cargoes such as bulk liquids or refrigerated cargo.
12. In the fifth edition of the Glossary for transport statistics,<sup>3</sup> LASH and Seabee barges are included in the category of dry cargo seagoing barges. However, neither the Statistical Database of the Economic Commission for Europe<sup>4</sup> nor the Eurostat database<sup>5</sup> contain a separate data on the number and the carrying capacity of this type of craft.
13. The statistical yearbook of the Danube Commission<sup>6</sup> (beginning from 2011) does not contain data on the number of shipborne barges on the Danube, and the available information shows that this type of craft is no longer in regular operation in the Danube region. Currently, this type of craft is not registered in the Register Books of the Russian Classification Society, the Russian Register and the Shipping Register of Ukraine.

#### IV. Current Status of Resolution No. 15 and Next Steps

14. According to the data of 2019, resolution No. 15 was applied by: Austria (in part), Bulgaria, Hungary, Italy, Luxembourg, Netherlands, Serbia, Slovakia, Ukraine and United States of America.<sup>7</sup>
15. Resolution No. 15 does not duplicate or contradict provisions of other resolutions of SC.3 and would not have an impact to the potential development of this transport mode. SC.3/WP.3 may therefore wish to:
- Recommend SC.3 to confirm the status of resolution No. 15 as valid
  - Update its provisions in terms of the applied terminology, if SC.3/WP.3 deems it necessary
  - Consider possible harmonization with the Convention on the Registration of Inland Navigation Vessels.

<sup>3</sup> [https://unece.org/sites/default/files/2021-12/Glossary\\_for\\_Transport\\_Statistics\\_EN\\_FINAL\\_WEB2\\_1.pdf](https://unece.org/sites/default/files/2021-12/Glossary_for_Transport_Statistics_EN_FINAL_WEB2_1.pdf).

<sup>4</sup> [https://w3.unece.org/PXWeb2015/pxweb/en/STAT/STAT\\_\\_40-TRTRANS\\_\\_08-TRINLVES](https://w3.unece.org/PXWeb2015/pxweb/en/STAT/STAT__40-TRTRANS__08-TRINLVES).

<sup>5</sup> <https://ec.europa.eu/eurostat/data/database>.

<sup>6</sup> [www.danubecommission.org/dc/en/danube-navigation/danube-navigation-statistics](http://www.danubecommission.org/dc/en/danube-navigation/danube-navigation-statistics).

<sup>7</sup> ECE/TRANS/SC.3/2019/20.