Amendments to Chapter 20B, “Special provisions applicable to river-sea navigation vessels”

Note by the Group of Volunteer Experts on Resolution No. 61

I. Mandate

1. At its fifty-third session, the Working Party on Inland Water Transport (SC.3), asked the Group of Volunteer Experts on Resolution No. 61, “Recommendations on Harmonized Europe-Wide Technical Requirements for Inland Navigation Vessels” (ECE/TRANS/SC.3/172/Rev.1) to consider possible ways for elaborating specific requirements to sea-river vessels (ECE/TRANS/SC.3/174, para. 33).

2. The proposal on a draft Chapter 20 B on special provisions applicable to river-sea navigation vessels, prepared by the Group of Volunteer Experts and finalized at the thirty-ninth session of the Working Party on the Standardization of Technical and Safety Requirements in Inland Navigation (SC.3/WP.3) (ECE/TRANS/SC.3/WP.3/78, para. 28), was approved by the fifty-fifth session of SC.3 (ECE/TRANS/SC.3/191, para. 35). The new chapter was issued as part of the first amendment to the first revised edition of Resolution No. 61 (ECE/TRANS/SC.3/172/Rev.1/Amend.1).

3. At its fifth meeting in Budapest from 6 to 9 September 2011, continuing their work on the requirements applicable to river-sea navigation vessels, the Group of Volunteer Experts prepared the draft proposal on a new section 20B-8, “Specific requirements applicable to the vessels forming the pushed river-sea navigation convoys”, presented below.
4. The Working Party may wish to consider the proposal and issue further instructions to the Group of the Volunteer Experts or the secretariat.

II. Draft new section 20B-8, “Specific requirements applicable to the vessels forming the pushed river-sea navigation convoys”

20B-8.1 Definitions

20B-8.1.1 Pushed convoy with built-in thrust coupling device means a convoy where a pusher enters the aft cut-out of a barge for a certain length and is being connected with the barge in this point.

20B-8.1.2 Pushed convoy with transom thrust coupling device means a convoy where the barge aft end has no cut-outs for the pusher and a pusher has a pushing device being a part of the coupling device.

20B-8.1.3 Fixed coupling means a coupling type where the pusher and the barge form a common structural unit preventing any mutual displacements of both vessels.

20B-8.1.4 A coupling with restricted flexibility means a coupling type allowing mutual displacement of the pusher and the barge with one or two degrees of freedom (pitching or pitching and heaving modes).

20B-8.2 Design requirements

20B-8.2.1 For reasons of seaworthiness and for strength calculations, a convoy is considered as a single floating object.

20B-8.2.2 Common loads occurred between the two structures shall be taken by the system of contact surfaces of their hull structures. In case of a fixed coupling, the coupling shall be fixed by at least one power-driven locking device.

20B-8.2.3 For a coupling with restricted flexibility the coupling devices shall meet the following requirements in addition to section 16-1.2 (excluding subparagraph (ii)):

(i) the coupling device shall ensure coupling and uncoupling of the craft from a local control station or from the wheelhouse;

(ii) the coupling device shall ensure uncoupling of the craft at the wave height corresponding to the navigation zone according to section 20B-1.1.1 in case of flooding on any one compartment of the barge or the pusher and at permanent list up to 15°;

(iii) the coupling device shall ensure uncoupling of the craft exposed to wind and waves at working loads;

(iv) for hydraulically driven systems, the drive shall be mechanically fixed in the closed position with remote indication at the control station.

20B-8.3 Vessels used for pushing

20B-8.3.1 Vessels used for pushing shall meet the requirements for craft according to their navigation zone specified in section 20B-1.1.1 as well as requirements of section 16-1.1.

20B-8.3.2 In case of coupling with restricted flexibility the pusher shall be suitable also for towing.

20B-8.3.3 Anchor equipment of the pusher shall correspond to the equipment number according to section 20B-6.2.
20B-8.3.4 Mooring equipment of the pusher shall correspond to the equipment number according to section 20B-6.3.

20B-8.4 Barge

20B-8.4.1 A barge shall meet the requirements of section 16-2 as well as sections 20B-3, 20B-4, 20B-5, 20B-6.2 and 20B-6.3.

20B-8.4.2 At longitudinal strength calculations of the barge, the length between the fore and the aft perpendiculars shall be taken as the length between the fore perpendicular of the barge and the aft perpendicular of the pusher.