

20B-8 SPECIFIC REQUIREMENTS APPLICABLE TO PUSHED RIVER-SEA NAVIGATION CONVOYS

20B-8.1 PUSHED CONVOYS

20B-8.1 Definitions

- .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.
- .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.
- .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.
- .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 common 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 pushed convoys with a built-in thrust coupling device mutual transverse displacement of the craft shall be restricted in order to prevent contact between their hull structures at heeling and waves.

20B-8.2.4 For a coupling with restricted flexibility the coupling devices shall meet the following requirements in addition to 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 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 its navigation zone specified in 20B-1.1.1 as well as requirements of 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 20B-6.2.

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

20B-8.4 BARGE

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