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INLAND TRANSPORT COMMITTEE

Working Party on Inland Water Transport

Working Party on the Standardization of
Technical and Safety Requirements in
Inland Navigation
(Twenty-third session, 19-21 March 2002,
agenda item 4)

HARMONIZATION OF THE REQUIREMENTS CONCERNING ANCHORS FOR INLAND NAVIGATION VESSELS

Submitted by the Governments of the Russian Federation and Ukraine

Note: At its twenty-first session, the Working Party took note of the comments by the delegation of Ukraine and the Chairman of the Working Party concerning the general concept for the anchor equipment of vessels other than self-propelled cargo vessels (TRANS/SC.3/WP.3/2001/10 and Add.1) and invited Governments and river commissions to state whether in their opinion, these documents could serve as a basis for future work on this question. Replies received from the Governments of the Russian Federation and Ukraine are reproduced below by the secretariat.

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GENERAL CONCEPT FOR ANCHOR EQUIPMENT REQUIREMENTS FOR PASSENGER VESSELS, PUSHERS, SELF-PROPELLED PUSHER VESSELS AND PUSHED BARGES

RUSSIAN FEDERATION

1. UN/ECE document TRANS/SC.3/WP.3/2001/10/Add.1 submitted by the Chairman of the Working Party, which sets out the general concept for the anchor requirements for various types of vessels, may serve as a basis for future work. Experts from the Russian Federation have concluded, however, that formula (1) for the passenger vessels referred to in the above-mentioned document should be written without brackets; the use of brackets yields extremely high and quite unrealistic values. The results of the calculations applying the formulae proposed by the Chairman (without brackets in the case of formula (1) for passenger vessels), as compared with the anchor equipment of vessels in the Russian Federation, are shown in tables 1-4 below.

2. We propose that at the twenty-third session the Working Party should begin an article-by-article discussion of the document submitted by the Chairman.

UKRAINE

3. Having reviewed the ideas in documents TRANS/SC.3/WP.3/2001/10 and Add.1 concerning the concept for the anchor requirements of vessels other than self-propelled cargo vessels, we are of the opinion that these documents could serve as a basis for future work in this field.

Table 1

Passenger vessels

Name (type of vessel)	Displace-ment	Dimensions			Mean height above water-line	Number, type and weight of anchors calculated according to national regulations		Length of chain of bow/ stern anchors	Main region (zone) of navigation	C_1**	Calculated aggregate mass of bow anchors
	D (t)	L (m)	B (m)	d*	H (m)	M_B (kg)	M_S (kg)	L (m)			M_1 (kg)
1	2	3	4	5	6	7	8	9	10	11	12
Dmitry Furmanov	3 850	129	16	2.85	13.8	2 x 1 575 with increased holding power	1 x 855 with increased holding power	175, 150/125	Navigational zone 1 ("M" basin)	65	3 660
Oktyabrskaya revolyutsiya	1 390	90.2	13.5	1.66	11	2 x 1 000, Hall	1 x 500, Hall	125, 100/75	Navigational zone 2 ("O" basin)	65	1 590
Moskvich	35.0	24.3	3.96	0.68	5.2	2 x 35 with increased holding power	-	60, steel anchor cable	Navigational zone 3 ("R" basin)	35	116

* L - Length, B - Beam and d - Draught of vessels.

** The empirical factor C_1 is taken to be the same as for self-propelled cargo vessels, but it varies with full displacement rather than carrying capacity and reflects the dimensions of the vessel.

Table 2

Pushers

Name (type of vessel)	Power	Designed maximum carrying capacity of convoy pushed	Number, type and weight of stern anchors calculated according to national regulations	Length of chain of stern anchors	Main region (zone) of navigation	C_2	Calculated aggregate mass of bow anchors
	P(кВт)	CC(t)	M_S (kg)	L (m)			M_2 (kg)
1	2	3	4	5	6	7	8
Arkus	810	5 000	2 x 675, Hall	200, steel anchor cable	Navigational zone 2 (“O” basin)	20	1 227
OT	1 765	15 000	2 x 1 250, Hall	125	Navigational zone 2 (“O” basin)	30	2 340
BTM	220	1 000	1 x 125 with increased holding power	120, steel anchor cable	Navigational zone 3 (“R” basin)	30	237

Table 3

Pushed barges

Name (type of vessel)	Dimensions			Carrying capacity of the convoy	Number, type and weight of bow anchors calculated according to national regulations*	Length of chain of bow anchors	Main region (zone) of navigation	C_2	Calculated aggregate mass of bow anchors**
	L (m)	B (m)	d (m)	CC (t)	M_B (kg)	L (m)			M_1 (kg)
1	2	3	4	5	6	7	8	9	10
1681	85.7	16.5	2.55	2 x 2 500	2 x 1 000, Hall	150 и 150	Navigational zone 1 (“M” basin)	30	1 740
81300	113	16.5	3.48	2 x 5 000	2 x 1 250, Hall	100 и 100	Navigational zone 2 (“O” basin)	30	2 210
P165	91.0	15.5	2.6	2 x 2 000	2 x 800, Hall	102 и 77	Navigational zone 3 (“R” basin)	25	1 450

* The anchor equipment of the head and centre pushed barges is identical in view of their potential inter-changeability.

** The calculation has been performed as for head pushed barges in accordance with paragraphs 9 and 13 of document TRANS/SC.3/WP.3/2001/10/Add.1.

Table 4

Self-propelled cargo pusher vessels

Name (type of vessel)	Power of engine	Designed maximum carrying capacity of convoy pushed	Number, type and weight of anchors calculated according to national regulations		Length of chain of bow/stern anchors	Main region (zone) of navigation	C_3	Calculated aggregate mass of vessel's bower anchors
	P(кВт)	CC(t)	M_S (kg)	M_S (kg)	1 (m)			M_2 (kg)
1	2	3	4	5	6	7	8	9
Olenek	2 x 331	2 000	1 x 1 500 1 x 1 250, Hall	1 x 1 000, Hall	175 и 175/75	Navigational zone 1 ("M" basin)	90	2 685
Volzhsky	2 x 880	11 400	2 x 1 750, Hall	2 x 1 250, Hall	155 и 155/75	Navigational zone 2 ("O" basin)	105	6 050
Melkosidyashchy	166.5	300	1 x 150 with increased holding power	1 x 100 with increased holding power	75/75, steel anchor cable	Navigational zone 3 ("R" basin)	65	320