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INLAND TRANSPORT COMMITTEE

Working Group on Inland Water Transport

Working Party on the Standardization of Technical and Safety Requirements in Inland Navigation (nineteenth session, 14-16 March 2000, agenda item 4)

HARMONIZATION OF THE REQUIREMENTS CONCERNING ANCHORS FOR INLAND NAVIGATION VESSELS

Transmitted by the Governments of Lithuania, Romania and the Russian Federation

Note: At its seventeenth session, the Working Party agreed that it would be useful to collect information on actual anchor requirements for vessels other than self-propelled cargo vessels (covered by resolution No. 36, TRANS/SC.3/104/Add.3) and on the basis of this information and using also relevant CCNR and draft EC provisions to try to develop, with the help of a volunteer delegation, minimum pan-European anchor requirements for the following types of vessels: (i) passenger vessels: (ii) pushers: (iii) self-propelled pusher vessels; and (iv) pushed barges. Governments were invited to complete the tables set out in annex 2 to TRANS/SC.3/WP.3/35, reflecting the existing national requirements in their countries as far as the equipment of the above four types of inland navigation vessels was concerned (TRANS/SC.3/WP.3/35, paras. 13 and 14).

Reproduced below is the information received from Governments.

LITHUANIA

Table 1: Passenger vessels

| Displacement | Dimensions | | height of super- structure above and weight (calculated accented above) to national requirements | | lated according | Length of chain of bow/stern anchors | Additional observations: Main region (zone) of operation of the vessel, etc. | | |
|--------------|--------------|--------------|---|------------------|------------------|--|---|------------------------------------|--|
| | | | | waterline | bow anchors | stern anchors | | | |
| D | L <u>*</u> / | B <u>*</u> / | d <u>*</u> / | H_{M} | M_{B} | M_S | 1 | | |
| (t) | (m) | (m) | (m) | (m) | (kg) | (kg) | (m) | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
| 200 | 40 | 6 | 1.2 | 6.0 | 2 x100, Matrosov | - | 2x75 | River Nemunas, Kaunas-Jurbarkas | |
| 200 | 40 | 6 | 1.5 | 6.0 | 2 x100, Matrosov | - | 2x75 | River Nemunas, Klaipeda-Kaunas | |

Tables 2: Pushers

| Power of engine | Designed maximum carrying capacity of convoy pushed | Number, type and weight of stern anchors calculated according to national requirements | Length of chain of stern anchors | Additional observations: Main region (zone) of operation, vessels for carrying light voluminous cargo, etc. |
|-----------------|---|--|----------------------------------|--|
| P | CC | M_{S} | 1 | |
| (kW) | (t) | (kg) | (m) | |
| 1 | 2 | 3 | 4 | 5 |
| 600 | 1000 | 2x150, Matrosov | 2x100 | River Nemunas, Kurshskiy Zaliv (construction material, coal, timber, containers) |

 $\underline{\underline{*}}$ / L - Length, B - Beam and d - Draught of vessels

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Table 3: Self-propelled pusher vessels

| Power of engine | Designed maximum carrying capacity of convoy pushed | (calculated acco | e and weight ording to national nents) of | Length of chain of bow/stern anchors | Additional observations: Main region (zone) of operation, vessels for carrying light voluminous cargo, etc. | |
|-----------------|---|------------------------|---|--|--|--|
| | | bow anchors | stern anchors | | | |
| P (kW) | CC (t) | M _S (kg) | M _S (kg) | 1 (m) | | |
| 1 | 2 | 3 | 4 | 5 | 6 | |
| 220 | 300+600=900 | 2x125, Matrosov | 1x1,250 (four arms anchor) | 50+75/25 | River Nemunas, Kurshskiy Zaliv (construction material, coal, timber) | |

Table 4: Pushed barges

| D | Dimensions | | Carrying capacity Number, type and weight of bow anchors calculated according to national requirements | | Length of chain of bow anchors | Additional observations: Main region (zone) of operation, vessels for carrying light voluminous cargo, etc. |
|---------------------|---------------------|---------------------|--|---|--------------------------------|---|
| L <u>*</u> / (m) | B <u>*</u> / (m) | d <u>*</u> / (m) | CC (t) | $egin{aligned} M_{ m B} \ (ext{kg}) \end{aligned}$ | 1 (m) | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 72 | 12 | 1.1 | 600 | 2x200, Matrosov | 75/100 | River Nemunas, Jurbarkas-Kaunas (construction material, coal, timber, containers) |
| 72 | 12 | 1.5 | 1050 | 2x200, Matrosov | 75/100 | Klaipeda-Kaunas |

ROMANIA

Table 1: Passenger vessels

| Displacement | Dimensions | | s | Mean height of superstructure above waterline | Number, type and weight (calculated according to national requirements) of | | Length of chain of bow/stern anchors | Additional observations: Main region (zone) of operation of the vessel, etc. |
|--------------|--------------|--------------|--------------|---|--|---------------|--|--|
| | | | | | bow anchors | stern anchors | | |
| D | L <u>*</u> / | B <u>*</u> / | d <u>*</u> / | ${ m H_M}$ | M_{B} | M_{S} | 1 | |
| (t) | (m) | (m) | (m) | (m) | (kg) | (kg) | (m) | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 14 | 14.2 | 4.1 | 0.4 | 3.1 | 2X75, Hall | - | 2x30/- | Danube, 30 passengers |
| 60 | 24.0 | 4.8 | 1.2 | 3.0 | 2X150, Speck | - | 2x30/- | Danube, 25 passengers |
| 59 | 25.1 | 5.1 | 0.8 | 3.1 | 2X150, Hall | - | 2x50/- | Danube, 60 passengers |
| 61 | 24.0 | 4.5 | 1.5 | 3.4 | 2X150, Hall | - | 2x50/- | Danube, 120 passengers |
| 85 | 27.7 | 6.3 | 1.0 | 3.6 | 2X175, Hall | - | 2x50/- | Danube, 90 passengers |
| 226 | 45.2 | 7.1 | 1.5 | 4.2 | 2X200, Hall | - | 1x50+1x75/- | Danube, 150 passengers |
| 472 | 61.4 | 11.3 | 1.8 | 6.6 | 2X350, Hall | - | 1x50+1x75/- | Danube, 300 passengers |

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Tables 2: Pushers

| | | | | Tables 2. Tablels |
|-----------------|---|--|----------------------------------|--|
| Power of engine | Designed maximum carrying capacity of convoy pushed | Number, type and weight of stern anchors calculated according to national requirements | Length of chain of stern anchors | Additional observations: Main region (zone) of operation, vessels for carrying light voluminous cargo, etc. |
| P | CC | M_S | 1 | |
| (kW) | (t) | (kg) | (m) | |
| 1 | 2 | 3 | 4 | 5 |
| 2x220 | 2000 | 2x200, Hall | 2x75 | Danube, max. 6 km/h |
| 2x295 | 3000 | 2x400, Hall | 2x100 | A |
| 2x310 | 3000 | 2x500, Speck | 2x75 | A |
| 2x600 | 6000 | 2x900, Hall | 2x75 | A |
| 2x655 | 6000 | 2x650, Hall | 2x75 | A |
| 2x880 | 9000 | 2x930, Hall | 2x75 | A |
| 2x925 | 9000 | 2x2100, Speck | 2x100 | A |
| 2x1000 | 9000 | 2x1750, Speck | 2x75 | A |
| 2x1325 | 12000 | 2x1500, Speck | 2x82.5 | A |
| 2x1765 | 18000 | 2x1320, Hall | 2x75 | |

Table 3: Self-propelled pusher vessels

| Power of engine | Designed maximum carrying capacity of convoy pushed | | weight (calculated nal requirements) of | Length of chain of bow/stern | Additional observations: Main region (zone) of operation, |
|-----------------|---|---------------------|---|---|--|
| | bow anchors stern anchors | | anchors | vessels for carrying light voluminous cargo, etc. | |
| P (kW) | CC (t) | M _S (kg) | M _S (kg) | l (m) | |
| 1 | 2 | 3 | 4 | 5 | 6 |
| 2x650 | 4000 | 2x700, Speck | 2x1000, Speck | 2x100/2x75 | Danube, max. 6 km/h |

Table 4: Pushed barges

| D | imensio | | | Length of chain of bow anchors | Additional observations: Main region (zone) of operation, vessels for carrying light voluminous cargo, etc. | |
|----------------------|----------------------|---------------------|----------------------|--|---|-------------------------------|
| L <u>*</u> / (m) | B <u>*</u> / (m) | d <u>*</u> / (m) | CC (t) | $egin{array}{c} M_{B} \ (kg) \end{array}$ | 1 (m) | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 61.4 71.0 | 11.0 11.0 | 2.0 1.8 2.5 | 1000 1000 | 1x1920, Hall 2x600, Hall | 1x75 2x75 | Danube, max. 6 km/h A A |
| 70.2 71.0 70.3 | 11.0 11.0 11.0 | 2.3 2.4 2.5 | 1300 1500 1500 | 1x2000, Hall 1x1000, Hall 1x1980, Hall | 1x120 1x110 1x120 | A A |
| 76.5 76.2 76.5 | 11.0 11.0 11.0 | 2.7 3.0 3.1 | 1700 2000 2000 | 1x1250, Hall 1x1920, Hall 1x1920, Hall | 1x100 1x100 1x100 | A A |
| 86.3 | 11.0 | 2.9 | 2000 | 1x1740, Hall | 1x100 | A A |

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| I | 89.0 | 11.0 | 3.8 | 3000 | 1x2100, Hall | 1x100 | |
|---|------|------|-----|------|--------------|-------|--|
| | | | | | | | |

RUSSIAN FEDERATION

Table 1: Passenger vessels

| Displacement | D | imensio | ons | Mean height of super- structure above waterline | Number, type and weight (calculated according to national requirements) of bow anchors stern anchors | | Length of chain of bow/stern anchors | Additional observations: Main region (zone) of operation of the vessel, etc. |
|--------------|---------------------|---------------------|---------------------|--|--|---------------------------------------|--|--|
| D (t) | L <u>*</u> / (m) | B <u>*</u> / (m) | d <u>*</u> / (m) | H _M (m) | M _B (kg) | M _S (kg) | l (m) | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 3850 | 129 | 16 | 2.85 | 13.8 | 2x1575 of enhanced holding power | 1x855 of enhanced holding power | 175 and 150/125 | Navigational zone 1 (AM@basin) |
| 1390 | 90.2 | 13.5 | 1.66 | 11 | 2x1000, Hall | 1x500, Hall | 125 and 100/75 | Navigational zone 2 (AO@basin) |
| 35.0 | 24.3 | 3.96 | 0.68 | 5.2 | 2x35, Matrosov, of enhanced holding power | - | 60, steal anchor line | Navigational zone 3 (AP@basin) |

Tables 2: Pushers

| Power of engine | Designed maximum carrying capacity of convoy pushed | Number, type and weight of stern anchors calculated according to national requirements | Length of chain of stern anchors | Additional observations: Main region (zone) of operation, vessels for carrying light voluminous cargo, etc. |
|-----------------|---|--|----------------------------------|--|
| P (kW) | CC (t) | M _s (kg) | 1 (m) | |
| 1 | 2 | 3 | 4 | 5 |

| 810 | 9000 | 1x1750, Hall | 300, steal anchor line | Navigational zone 2 (@O@ basin) |
|------|-------|-----------------|------------------------|---------------------------------|
| 1765 | 15000 | 2x1250, Hall | 125 | Navigational zone 2 (@O@basin) |
| 220 | 2000 | 1x125, Matrosov | 120, steal anchor line | Navigational zone 3 (@P@basin) |

Table 3: Self-propelled pusher vessels

| Power of engine | Designed maximum carrying capacity of convoy pushed | Number, type and according to nation | weight (calculated nal requirements) of | Length of chain of bow/stern | Additional observations: Main region (zone) of operation, |
|-----------------|---|--------------------------------------|---|------------------------------|--|
| | | bow anchors | stern anchors | anchors | vessels for carrying light voluminous cargo, etc. |
| P (kW) | CC (t) | M _S (kg) | M _S (kg) | 1 (m) | |
| 1 | 2 | 3 | 4 | 5 | 6 |
| 2x331=662 | 2000 | 1x1500 and 1x1250, Hall | 1x1000, Hall | 175 and 175/75 | Navigational zone 1 (AM@basin) |
| 2x880=1760 | 11400 | 2x1750, Hall | 2x1250, Hall | 155 and 155/75 | Navigational zone 2 (@O@basin) |
| 165.5 | 300 | 1x150, Matrosov | 1x100, Matrosov | 75/75, steal anchor line | Navigational zone 3 (AP@basin) |

Table 4: Pushed barges

| | | | | | | able 1. Tubiled barges |
|---------------------|---------------------|---------------------|-------------------|--|--------------------------------|---|
| D | imension | ns | Carrying capacity | Number, type and weight of bow anchors calculated according to national requirements | Length of chain of bow anchors | Additional observations: Main region (zone) of operation, vessels for carrying light voluminous cargo, etc. |
| L <u>*</u> / (m) | B <u>*</u> / (m) | d <u>*</u> / (m) | CC (t) | M _B (kg) | l (m) | |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------|------|------|------|--------------|-------------|---------------------------------|
| 85.7 | 16.5 | 2.55 | 2500 | 2x1000, Hall | 150 and 150 | Navigational zone 1 (AM@basin) |
| 113 | 16.5 | 3.48 | 5000 | 2x1250, Hall | 100 and 100 | Navigational zone 2 (AO@basin) |
| 91.0 | 15.5 | 2.6 | 2000 | 2x800, Hall | 102 and 77 | Navigational zone 3 (AP@ basin) |