

RESTRICTED

TRANS/SC.3/WP.3/R.38/Add.1
22 December 1993

ENGLISH
Original: FRENCH

INLAND TRANSPORT COMMITTEE

Principal Working Party on Inland
Water Transport

Working Party on the Standardization
of Technical and Safety Requirements
in Inland Navigation
(Seventh session, 22-24 February 1994,
agenda item 8)

MINIMUM MANNING REQUIREMENTS FOR INLAND NAVIGATION VESSELS

Addendum 1

Transmitted by the Government of Germany

1. The number and qualifications of crews on inland navigation vessels are specified in chapter 14 of the Rhine Vessel Inspection Regulations or in chapter 13 of the Inland Navigation Vessel Inspection Regulations.
2. Chapter 13 of the Inland Navigation Vessel Inspection Regulations is attached; for chapter 14 of the Rhine Vessel Inspection Regulations see document TRANS/SC.3/WP.3/R.25 of 25 February 1993.
3. In view of the basic differences between the two sets of regulations, a revision of the minimum manning requirements contained in chapter 13 of the Inland Navigation Vessel Inspection Regulations is in progress with a view to standardization and harmonization.

The distribution of documents of the Inland Transport Committee and its subsidiary bodies is limited. They are distributed only to Governments, to specialized agencies and to governmental and non-governmental organizations which take part in the work of the Committee and of its subsidiary bodies, and should not be given to newspapers or periodicals.

CHAPTER 13

CREWS

Article 112

General

(1) Crew requirements for vessels under way - except for vessels navigating on the Rhine or the Danube - shall be governed, according to the choice made by the owner, boatmaster or transporter, either by the provisions of articles 113 to 123 of the present Regulations, or the provisions of chapter 14 of the Rhine Vessel Inspection Regulations. The mandatory crew so defined shall be mentioned by the Inspection Commission in the inspection certificate, in the ferry certificate or in the crew certificate (annex 7). Inclusion in more than one of these documents shall be permissible.

(2) For navigation on the Rhine, the crew shall conform to the requirements of chapter 14 of the Rhine Vessel Inspection Regulations.

(3) For navigation on the Danube, the crews of passenger vessels shall conform, notwithstanding article 119, to the requirements of the regulations concerning the special equipment and crews of passenger vessels on the Danube federal waterway. The crews of other inland navigation vessels shall be determined by the Inspection Commission, notwithstanding articles 113 to 118, 120 and 121, so that the safety of the persons on board and safety of navigation are not jeopardized.

(4) For navigation beyond the demarcation between the river and sea sectors, the Office for sailors' accident insurance shall determine the number and composition of the crew in accordance with safety requirements. This crew shall be mentioned in the official certificate referred to in article 5, paragraph 5.

(5) Crew members shall be able to carry out their duties on board in conditions such as to preclude over-exertion.

(6) For the purposes of the operation of the vessel, any crew member may be called on, if necessary, to perform tasks other than those forming part of his normal duties.

(7) The person responsible for supervising and caring for children under 10 years of age continuously on board may not be a member of the crew.

(8) Pregnant and recently delivered women may not be members of the crew for at least 14 weeks, of which not less than 6 weeks shall be prior to and 8 weeks subsequent to the delivery.

Article 113

Definitions

(1) In this chapter

1. "Steersman" means a member of the deck crew who has had not less than two years' experience of inland navigation as an able crewman or engine-minder;
2. "Engine-minder" means a member of the deck crew who, in addition to a basic knowledge of engines, has had at least one year's experience as an able crewman and at least one year on board motorized seagoing or inland navigation vessels;
3. "Able crewman" means a member of the deck crew who has passed an examination on completion of training at a professional boatmasters' school, or, since the age of 14, has spent not less than three years at sea or on inland waterways as part of a deck crew, including at least six months on inland waterways; after the age of 20, sailing time is multiplied by two for calculating length of service, with the exception of the six months' experience on inland waterways;
4. "Ship's boy" means a member of the deck crew not less than 15 years of age who is no longer subject to compulsory education and can produce evidence of a regular apprentice's contract;
5. "Engineer" means a member of the engine-room crew of at least 18 years of age with the necessary knowledge of engine operation;
6. "Stoker" means a member of the engine-room crew of at least 18 years of age;
7. "Raftsman" means a person of at least 18 years of age with knowledge of sailing rafts;
8. "Assistant ferryman" means a member of a ferry crew of not less than 17 years of age who, from the age of 14, has for not less than two years been a member of a ferry crew, or of the deck crew on an inland navigation or a sea-going vessel;
9. "Ferry boy" means a member of a ferry crew of not less than 15 years of age.

(2) The boatmaster shall carry on board the document certifying that any ship's boy who is a member of the crew holds a regular apprentice's contract and can produce it when so requested by the competent officials of the Rivers and Navigation Directorate, the Rivers and Navigation Office or the River Police. A ship's boy not serving the compulsory navigation period, who should be part of the crew, may be replaced by a member of the deck crew of not less than 17 years of age.

Article 114

Operating modes

(1) The Inspection Commission shall determine the crew according to the operating mode.

(2) A distinction shall be made between the following operating modes:

- A: daytime navigation for a maximum of
16 hours
- B: short-duration semi-continuous navigation
for not more than 18 hours per 24-hour
period
- C: semi-continuous navigation for not more
than 20 hours
- D: continuous navigation for not more
than 24 hours

When there is a change of crew during the voyage, only the hours during which the crew in question is on board are counted unless this crew continues the voyage on another vessel. In the event of a change of crew, the owner or the transporter shall keep a document testifying to the fact, separate from the ship's log, concerning the hours on duty of all crew members, to be kept for not less than six months after the last entry.

Article 115

Hours on duty and rest periods

(1) No member of the prescribed crew may be on duty for more than 16 consecutive hours.

(2) Subject to the special requirements of paragraph 4 below, each 24-hour period, calculated from the end of each rest period, shall include not less than eight hours of uninterrupted rest. If a member of the prescribed crew has been employed in loading or unloading, his hours on duty during sailing time in the same 24-hour period shall be reduced by the hours of duty performed on that occasion. The time during which a member of the prescribed crew must be available for getting under way or for loading or unloading activities shall also be counted as working time. However, as regards the requirements of the first sentence of this paragraph, in exceptional cases, due to loading and unloading activities, it is sufficient for a 48-hour period counted from the end of a period of uninterrupted rest of not less than 8 hours to include 16 hours of rest, including 8 hours of uninterrupted rest. The exceptions provided for in the conventions concerning wages, with regard to navigation for 12 or 14 hours, shall remain valid.

(3) Boatmasters shall keep a ship's log on board all vessels, except for the vessels of the authorities, vessels without crews, sports craft and floating equipment.

The following entries shall be made daily in the ship's log:

operating mode;

crew and

for each crew member, the hours on duty during navigation.

The following entries shall be made immediately in the ship's log:

daily, the place and time of the start and finish of the voyage;

for each crew member, the hours of work referred to in the second and third sentences of paragraph 2 above;

changes during the voyage.

Each ship's log, the pages of which are numbered, shall be given a serial number. The ship's log shall be kept on board for a further six months after the last entry.

(4) For operating modes B, C and D (art. 114, para. 2) the conditions of the first sentence of paragraph 2 shall be considered to have been met when the crew prescribed for these operating modes by articles 116 to 121 is on board from the start of the voyage. In such cases, proof of the hours on duty during navigation as described in paragraph 3 above shall be required for boatmasters only and not for other crew members. The hours of work referred to in the first sentence of paragraph 2 above shall still be entered for each crew member.

(5) For operating mode A, the rest time referred to in the first sentence of paragraph 2 above shall be between 8 p.m. and 6 a.m. For operating mode B, the rest time shall be between 10 p.m. and 5 a.m. For operating mode C, the rest time shall be between 11 p.m. and 3 a.m.

Article 116

Crews of vessels not equipped with mechanical means of propulsion

(1) If, in the case of a vessel not equipped with mechanical means of propulsion, with the exception of a ferry, the following conditions are met:

1. It is possible for one person to operate the rudder without special effort, even at the maximum authorized draught;
2. Vessels of a length greater than 40 m are equipped with a two-way sound link between the wheelhouse and the bow of the vessel;

3. The stripping pumps and the desk swabbing pumps are motorized on vessels of more than 350 deadweight tonnes;
4. The bow anchor winch on vessels of more than 350 deadweight tonnes and the stern anchor winch on vessels of more than 750 deadweight tonnes are motorized;
5. Vessels of more than 1,000 deadweight tonnes are equipped with transoms which may be slid or turned sideways, unless similar equipment exists, for example, sliding panels,

The crew shall comprise:

Operating mode
(art. 114, para. 2)

Group	Deadweight	Crew	A	B	C	D
1	15 to 250 t inclusive	boatmasters able crewmen ship's boys	1 - 1	2 - 1	2 1 -	2 1 -
2	250 to 500 t inclusive	boatmasters able crewmen ship's boys	1 - 1	2 - 1	2 1 -	2 1 -
3	500 to 750 t inclusive	boatmasters able crewmen ship's boys	1 1 -	2 1 -	2 1 -	2 1 -
4	750 to 1,400 t inclusive	boatmasters able crewmen ship's boys	1 1 1	2 1 1	2 2 -	2 2 1
5	over 1,400 t	boatmasters able crewmen ship's boys	1 2 -	2 2 -	2 2 1	2 3 -

(2) If one or more of the conditions referred to in paragraph 1 above are not met, the crew for which provision is made in that paragraph shall be increased, for all operating modes, by a ship's boy for groups 1 to 4 and by an able crewman for group 5.

(3) In group 2, ship's boys shall have at least two years' experience of navigation and be not less than 17 years of age.

(4) In groups 1 to 3, able crewmen shall be not less than 18 years of age, unless they have passed the professional boatmasters' school examination on completion of training.

(5) Barges, with the exception of pushed tankers, of a deadweight not exceeding 350 t, navigating on the Elbe downstream from the upper limit of the port of Hamburg (k.p. 607.50) and its tributaries, on the Trave, the Eider and Kiel bay as far as Laboe, may have the boatmaster as sole crew for operating mode A.

(6) On sectors of rivers not more than 20 km long, for ordinary dumb barges with a deadweight not exceeding 150 t, providing shuttle services in operating mode A, the following conditions, which shall not be entered in the inspection certificate, shall apply:

(a) Only the boatmaster shall be required;

(b) For two dumb barges coupled side by side and attached to the tug, a single boatmaster shall be sufficient for the two dumb barges;

(c) Dumb barges coupled side by side to the tug shall not need a crew.

On request, it shall be permissible for ordinary dumb barges of a deadweight not exceeding 500 t, sailing between the railway bridge at Bremen and the ports of Mittelsbüren and not covered by the definitions of the first sentence above, to have the boatmaster as sole crew in operating mode A.

(7) On request, the Inspection Commission may permit ordinary dumb barges of a deadweight not exceeding 350 t and performing shuttle services in operating mode A on sectors of rivers of a length not exceeding 20 km, to have the boatmaster as sole crew. This permission must be kept on board.

Article 117

Crews of ordinary self-propelled barges and self-propelled tankers

(1) If, in the case of an ordinary self-propelled barge or for a self-propelled tanker, the following conditions are met:

1. It is possible for one person to operate the rudder without special effort even at the maximum authorized draught;

2. It is possible to initiate the visual and sound signals of the self-propelled barge when under way from the wheelhouse;

3. Self-propelled barges of a length greater than 40 m are equipped with a two-way sound link between the wheelhouse and the bow of the vessel;

4. The propelling machinery can be controlled from the wheelhouse;

5. For the monitoring of the propelling engines, alarm signals, installed in the wheelhouse, are set off for critical levels:

of the temperature of the cooling water and of the pressure of the lubricating oil for the main engines and transmission gear;

of the oil pressure or air pressure of the propelling engine or propeller reversing mechanism;

6. The alarm signals referred to in 1 above may be aural or visual. They shall be so constructed that they are in working order when the engines are operating and attract the boatmaster's attention under any conditions;

7. The mechanical equipment is laid out in such a way that routine maintenance work when under way may be interrupted at any time;

8. The stripping pumps and the deck swabbing pumps are motorized on self-propelled barges of a deadweight of more than 350 t;

9. The bow-anchor winches of self-propelled barges of a deadweight of more than 350 t and the stern anchor winches of self-propelled barges of a length of more than 86 m are motorized;

10. The towing winches for self-propelled barges of groups 2 and 4 are motorized and can be operated by one person;

11. The self-propelled barges of group 4 are equipped with transoms which may be slid or turned sideways, unless equivalent equipment such as sliding panels exists;

The crew shall comprise:

Operating mode
(art. 114, para. 2)

Group	Deadweight	Crew	A	B	C	D
1	15 to 500 t inclusive	boatmasters able crewmen ship's boys	1 - 1	2 - 1	2 1 -	2 1 -
2	500 to 750 t inclusive	boatmasters able crewmen ship's boys	1 1 -	2 1 -	2 2 -	2 3 -
3	750 to 1 000 t inclusive	boatmasters able crewmen ship's boys	1 1 1	1 1 1	2 2 -	2 3 -
4	1 000 to 1 350 t inclusive	boatmasters steersmen able crewmen ship's boys	1 - 1 1	1 - 1 1	2 - 2 1	2 - 3 -
5	more than 1 350 t	boatmasters steersmen able crewmen ship's boys	1 1 1 -	2 1 1 -	2 1 2 -	2 1 2 1

(2) Ship's boys on self-propelled barges of group 1 with a deadweight of more than 300 t as well as on board self-propelled barges of group 4, must have not less than two years' experience in navigation and be not less than 17 years of age.

(3) On self-propelled barges with a capacity greater than 589 kW (800 hp), an able crewman shall be replaced by an engine-minder.

(4) On self-propelled barges of a capacity of up to 589 kW (800 hp), one crew member shall be familiar with the operation and supervision of the engines and another crew member shall be sufficiently familiar with engine operation to be able to start or stop the engine.

(5) If one or more of the conditions referred to in paragraph 1 above is not met, the crew provided for in this paragraph shall be increased for all operating modes by a ship's boy for groups 1 to 3, and by an able crewman for groups 4 and 5.

(6) When the engine is used only for minor movements in harbours and loading and unloading areas or to improve the manoeuvrability of the vessel within a towed convoy, the vessel shall be considered, from the point of view of the mandatory crew, as a vessel without a propelling engine. This restriction of its use shall be entered in the inspection certificate.

(7) If an ordinary self-propelled barge or a self-propelled tanker tows more than one vessel, the prescribed crew for the self-propelled vessel shall be increased in all groups and for all operating modes, as follows:

for two or three towed vessels, by one ship's boy;

for four or more towed vessels, by one able crewman.

However, if an ordinary self-propelled barge or a self-propelled tanker tows downstream not more than two light vessels not equipped with mechanical means of propulsion and coupled side by side, the prescribed crew shall not be increased. When an ordinary self-propelled barge or a self-propelled tanker serves as an auxiliary tug, using a single towing cable, the prescribed crew shall not be increased.

(8) For navigation on the Elbe and its tributaries, the Inspection Commission may, on request, give permission for vessels of not more than 120 t deadweight not to carry a ship's boy if, in operating mode A:

1. The boatmaster is physically and mentally capable of assuming the additional responsibility; and

2. If the vessel:

(a) is under way only by day,

(b) is not carrying explosive or flammable goods, and

(c) is used only for short-haul transport. On the lower Elbe, the term "short-haul transport" means transport from the port of Hamburg downstream to the line between Freiburg/Elbe and the mouth of the Stör.

Article 118

Tug crews

(1) If for a tug, except for a pusher-tug, the following conditions are met:

1. The propelling engines can be controlled from the wheelhouse;

2. For the monitoring of the propelling engines, alarm signals, installed in the wheelhouse, are set off for critical levels:

of the temperature of the cooling water and pressure of the oil for the lubrication of the main engines and transmission gear;

of the oil pressure or air pressure of the propelling engine- or propeller-reversing mechanism;

3. The alarm signals referred to in 2 above may be aural or visual. They shall be so constructed that they are in working order when the engines are operating and attract the boatmaster's attention under any conditions;

4. The towing winches and the anchors of a normal weight greater than 300 kg are motorized;

5. The towing winches may be operated by one person;

The crew shall comprise:

Operating mode
(art. 114, para. 2)

Group	Capacity	Crew	A	B	C	D
1	up to 147.2 kW inclusive (200 hp)	boatmasters able crewmen ship's boys engineers engine-minders	1 1 1 - -	2 1 - - -	2 - - - 1	2 1 - - 1
2	between 147.2 kW (200 hp) and 294.4 kW inclusive (400 hp)	boatmasters able crewmen ship's boys engineers engine-minders	1 - - - 1	2 - - - 1	2 - 1 - 1	2 1 - - 1
3	between 294.4 kW (400 hp) and 441.6 kW inclusive (600 hp)	boatmasters able crewmen ship's boys engineers engine-minders	1 1 - - 1	1 1 - - 1	2 2 1 1 -	2 2 1 1 -
4	more than 441.6 kW (500 hp)	boatmasters able crewmen ship's boys engineers engine-minders	1 2 - 1 -	2 2 - 1 -	2 2 - 1 1	2 2 - 1 1

If one or more of the conditions set out in the first sentence above is not met, the crew provided for in this paragraph shall be increased by one engine-minder.

(2) If, for a pusher-tug, the following conditions are met:

1. The propelling engine can be controlled from the wheelhouse;
2. The alarm signals for all critical levels for monitoring the propelling engines can be controlled from the wheelhouse, from the engine-room and from the deck;
3. All the alarm signals referred to in 2 above are aural and visual. They shall be so constructed that they are in working order when the engines are operating and attract the attention of the steersman under any conditions;
4. The towing winches and anchors of a normal weight greater than 300 kg are motorized;
5. The towing winches may be controlled by one person from the wheelhouse or from the deck;

The crew shall comprise:

1 boatmaster

1 able crewman and

1 engine-minder.

If one or more of the conditions mentioned in the first sentence above is not met, the crew shall be increased by one able crewman; in this case, the engine-minder must be replaced by an engineer.

Article 119

Crews of passenger vessels

(1) If, in the case of passenger vessels, the following conditions are met:

1. It is possible for one person to operate the rudder without excessive effort, even at the maximum authorized draught;
2. The sound and visual signals from a vessel under way may be operated from the wheelhouse;
3. The vessels of groups 3 to 7 of the following table are equipped with a two-way sound link between the wheelhouse and the bow of the vessel, as well as a loudspeaker system enabling the boatmaster to give instructions to the passengers;
4. The propelling machinery can be controlled from the wheelhouse;
5. For the monitoring of the propelling engines, alarm signals, installed in the wheelhouse, are set off for critical levels:

of the temperature of the cooling water and the pressure of the oil for lubricating the main engines and transmission gear;

of the oil or air pressure of the propelling-engine or propeller reversing mechanism;
6. The alarm signals mentioned in 5 above may be visual or aural. They shall be so constructed that they are in working order when the engines are operating and attract the boatmaster's attention under any conditions;
7. The mechanical installations are laid out in such a way that routine maintenance work during navigation may be interrupted at any time;
8. The stripping pumps and the deck swabbing pumps are motorized;
9. The bow anchor winch of vessels of groups 4 to 7 of the table below is motorized;

10. Winches are used to handle the anchors;

The crew shall comprise:

Operating mode
(art. 114, para. 2)

Group	No. of passengers permitted	Crew	A	B	C	D
1	Up to 76 inclusive	boatmasters able crewmen ship's boys engineers engine-minders	1 1 - - -	2 1 - - -	2 1 1 - -	2 2 - - -
2	76 to 300 inclusive	boatmasters able crewmen ship's boys engineers engine-minders	1 - - - 1	2 - - - 1	2 - 1 - 1	2 1 - - 1
3	301 to 400 inclusive	boatmasters able crewmen ship's boys engineers engine-minders	1 - 1 - 1	2 - 1 - 1	2 1 - - 1	2 2 - 1 -
4	401 to 700 inclusive	boatmasters steersmen able crewmen ship's boys engineers engine-minders	1 1 1 - - -	2 1 1 - - -	2 1 1 - - 1	2 1 1 - 1 -
5	701 to 1,100 inclusive	boatmasters steersmen able crewmen ship's boys engineers engine-minders	1 1 1 1 - -	2 1 1 1 - -	2 1 1 - - 1	2 1 1 - 1 1
6	1,101 to 1,600 inclusive	boatmasters steersmen able crewmen ship's boys engineers engine-minders	1 1 2 - - -	2 1 2 - - -	2 1 2 - - 1	2 1 2 - 1 -
7	over 1,600	boatmasters steersmen able crewmen ship's boys engineers engine-minders	1 1 3 - - -	2 1 3 - - -	2 1 3 - - 1	2 1 3 - 1 2

(2) An engine-minder may be replaced by an engineer when at least one able crewman is part of the crew.

(3) For vessels with a maximum permitted number of passengers greater than 500 in operating mode A navigating on the Elbe downstream from the upstream limit of the port of Hamburg and on the Weser downstream from the railway bridge at Bremen, the steersman or an able crewman shall in addition to the boatmaster hold the boatmaster's certificate prescribed for the voyage to be made.

(4) If one or more of the conditions set out in paragraph 1 above is not met, the crew provided for shall be increased, for all operating modes, by one ship's boy for groups 1 to 3 and one able crewman for groups 4 to 7.

(5) For vessels navigating on the Lahn with a maximum permitted number of passengers of up to 250, the crew shall be reduced by one able crewman if:

1. Fewer than 20 passengers are on board;
2. The water level on the Kalkofen gauge does not exceed 200 cm; and
3. The vessel does not pass through a lock; when there are no passengers on board, passage through locks is permissible.

The Inspection Commission shall enter the permissible reduction of the crew in the case described above in the inspection certificate.

Article 120

Other vessels

The Inspection Commission shall determine for vessels not covered by articles 116 to 119 (e.g. ferries, floating equipment), according to their dimensions, form of construction and equipment, what crews must be on board during navigation.

Article 121

Derogations

(1) For vessels without mechanical means of propulsion, ordinary self-propelled barges and self-propelled tankers not fitted with mechanical means for handling heavy anchors and tow-lines for docking and for landing passengers, the deadweight of which is greater than 750 t, the crew shall be increased, when in addition to the boatmaster it includes only able crewmen, by one ship's boy for operating mode A and by one able crewman for operating modes B, C and D; when for operating mode A, a ship's boy is already part of the crew, he shall be replaced by an able crewman.

(2) The Inspection Commission may specify a larger crew for all vessels if it becomes apparent that, by virtue of the dimensions, method of construction, equipment and intended use of the vessel, the crew provided for in articles 116 to 119 would not be adequate under all circumstances for the safe operation of the vessel.

(3) For tugs intended, according to the inspection certificate or the certificate of navigability, only for navigation in harbours or roadsteads, or over short sectors, the Inspection Commission may specify another crew if the circumstances so require or permit.

Article 122

Special authorization

(1) On request, the Inspection Commission may, for operating mode A, reduce the crew of a vessel, by means of a special written authorization, by one person other than the boatmaster for a voyage to the place of destination, when the boatmaster can provide evidence that it was impossible for him to complete the crew and when, in addition to the boatmaster, an able crewman is on board the vessel.

(2) On board a vessel whose crew consists of more than a boatmaster and an able crewman, the crew may be reduced by a ship's boy if the latter is attending a professional boatmasters' school and a certificate to that effect is on board. This reduction will be permitted for an uninterrupted period which may not exceed three calendar months per year.

Article 123

Additional provisions

(1) When the number of steersmen, able crewmen and engine-minders in the crew is equal to or exceeds two persons, an able crewman may be replaced by two ship's boys. This replacement is not permitted in operating modes B, C and D. The crew may not include more than two ship's boys. Two ship's boys may be replaced by an able crewman if the crew also includes at least one able crewman or an engine-minder.

(2) If the crew of a vessel comprises more than six members, whatever the operating mode, no member of the crew may be made responsible for routine galley work.

(3) If for unforeseen reasons (e.g. illness, accident, order by an authority) a maximum of one member of the prescribed crew is not on board during the voyage, vessels may nevertheless continue to the first point of loading or unloading - passenger vessels to the day's terminus - if a holder of a boatmaster's licence valid for the distance to be covered and another member of the prescribed crew are on board.
