

RESOLUTION A.183(VI) adopted on 28 October 1969  
RECOMMENDATION ON FIRE SAFETY MEASURES FOR HYDROFOIL BOATS

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RECOMMENDATION ON FIRE SAFETY MEASURES  
FOR HYDROFOIL BOATS

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THE ASSEMBLY,

NOTING Article 16(i) of the IMCO Convention concerning the functions of the Assembly,

RECOGNIZING that constructional features of novel types of craft are such as to render the application of all requirements of Chapter II of the International Convention for the Safety of Life at Sea, 1960, unreasonable or impracticable,

DESIRING to establish specific provisions for fire protection, detection and extinction applicable to such types of craft,

HAVING CONSIDERED the Recommendation on Fire Safety Measures for Hydrofoil Boats adopted by the Maritime Safety Committee at its nineteenth session which is designed to provide hydrofoil boats a level of safety equivalent to structural fire protection and extinction requirements contained in Parts C to H of Chapter II of the said Convention,

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ADOPTS the Recommendation on Fire Safety Measures for Hydrofoil Boats, the text of which is set out in the Annex to this Resolution,

INVITES all Governments concerned to take steps to give effect to the Recommendation as soon as possible.

#### ANNEX

#### RECOMMENDATION ON FIRE SAFETY MEASURES FOR HYDROFOIL BOATS

##### Application

1. This Recommendation is intended to apply only to new hydrofoil boats:

- (i) carrying more than 12 but not more than 200 passengers; and
- (ii) operating within a distance of not more than 50 miles from a port of refuge.

2. The Administration should decide the extent to which the requirements of this Recommendation are reasonable for hydrofoil boats of less than 12 metres in length carrying not more than 36 passengers and what further requirements are necessary for hydrofoil boats not covered by the above limitations.

##### Structural fire protection

3. The hull of the boat should be constructed of approved incombustible materials having adequate structural properties.

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4. (a) The following structures should be constructed of steel or other equivalent material, capable of preventing the passage of smoke and flame for 30 minutes and insulated so as to comply with the temperature rise limitations given in Regulation 94(c)(i)(4) of Chapter II of the 1960 Safety Convention for 30 minutes of the standard fire test:

- (i) bulkheads separating accommodation spaces and escape routes from machinery spaces;
- (ii) decks separating liferaft embarkation stations from spaces having a fire risk, the crown of machinery spaces, and decks of control stations; and
- (iii) side shell plating in way of machinery spaces from at least 20 centimetres below the displacement waterline to the crown of the machinery space.

(b) Where the structures referred to in (a) above are of aluminium alloy, the insulation of structural components should be such that the temperature of the structural core does not rise more than 200°C above the ambient temperature during the first 30 minutes of the standard fire test.

(c) The insulation required for boundaries of the machinery spaces should, if these boundaries are of aluminium alloy, be fitted on the inside of the machinery spaces. Whenever insulation is fitted within the machinery spaces, the surfaces of such insulation should be impervious to oil fuel and oil fuel vapours.

(d) The above requirements for fire protection are based on the premise that the evacuation time of passengers to embark survival craft is of the order of seven minutes and that the location and number of the means of escape are adequate.



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5. Fuel oil tanks should not be contiguous with accommodation spaces. The air space between the tank and the boundary of the accommodation space should be adequately ventilated.
6. All thermal and acoustic insulation should be of approved incombustible material. The Administration should consider any smoke or toxic gases which could be evolved from such materials, in order to reduce hazards to occupants of the space.
7. Bulkheads, linings and ceilings should be of incombustible materials and the exposed surfaces of these should have low flame-spread characteristics.
8. The requirements of Regulation 94(q) of Chapter II of the 1960 Safety Convention should be applied to furniture and furnishings and, additionally, such items should be of restricted smoke hazard.
9. When combustible materials are installed to provide buoyancy, those materials should not be installed in spaces containing exposed electrical cables, other sources of ignition, or piping for inflammable liquids.

Fuel tanks and oil fuel

10. It is recommended that fuel tanks should not be located in or contiguous to machinery spaces, but where they are so located they should be made of steel or other equivalent material.
11. Wherever the fuel tanks are situated, valves or cocks, capable of being rapidly closed from a safe position outside the machinery space, should be fitted in such a position as to shut off the flow of oil to any pipe which could release fuel to the machinery spaces in the event of fire or mechanical damage.

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12. Pipes conveying inflammable liquids should be of steel or of such other material considered by the Administration to be satisfactory in respect of strength and fire integrity. The use of flexible pipes should be kept to a minimum and such pipes should be approved by the Administration.

13. No oil fuel having a flash point of less than 43°C should be used. The Administration should be satisfied with the adequacy of the ventilation of the machinery spaces and with other safety measures having regard to the flash point of the fuel being used.

#### Ventilation system

14. Ventilation trunks serving machinery spaces should be fitted with means of closing them from a safe position outside the machinery space. Ventilation fans serving machinery spaces should be fitted with a shut-off control capable of being operated from a safe position outside the machinery space.

15. Ducts for ventilation of machinery spaces should not in general pass through accommodation spaces, and ducts for ventilation of accommodation spaces should not in general pass through machinery spaces. The Administration may permit relaxations from these requirements, provided that the ducts have fire integrity and insulation value as required by paragraph 4(a) above, or automatic fire dampers are fitted close to the boundaries penetrated.

#### Fire detecting and extinguishing equipment

16. An approved fire detection system should be installed in the machinery space to indicate automatically the presence or indication of fire at a position where it will be immediately observed by a responsible officer.



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17. Machinery spaces should be protected by an approved CO<sub>2</sub> total flooding fire extinguishing system or by an equivalent system approved by the Administration. The system should be capable of being operated from a safe position outside the machinery space. Means should be provided for automatically giving audible warning of the release of CO<sub>2</sub>.

18. There should be provided a main power-operated fire pump, which should be independent of another pump which can be used for bilge pumping. This pump may be driven by the main engine, provided the engine concerned can be quickly disconnected from the propeller shaft. Where the machinery space is not attended at all times the necessary controls for providing water should be operable from a safe position outside that space.

19. One emergency fire pump should be installed outside the machinery space. This may be the same pump as the emergency bilge pump, if such is required. The capacity of this pump should be to the satisfaction of the Administration.

20. Fire hydrants and hoses should be provided. Hoses should be provided with dual purpose nozzles.

21. Portable fire extinguishers should be provided in the machinery and accommodation spaces as appropriate.

#### Means of escape

22. The location, number and arrangement of the means of escape should be to the satisfaction of the Administration. In general, there should be at least two means of escape arranged so as to minimize the possibility of one incident blocking both means of escape. Attention should be given to the assumptions made in paragraph 4(d).

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Electrical installations

23. Electrical installations should be to the satisfaction of the Administration. It is recommended that an earth return system should not be used, and any storage batteries should be situated in a separate, well-ventilated compartment.

Miscellaneous

24. The locations of the "safe position outside the machinery spaces" referred to in paragraphs 11, 14, 17 and 18 should as far as is possible be in close proximity to each other and easily accessible from the indicating position referred to in paragraph 16.

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