Exemptions

77. The Minister of Transport may, on such conditions as he thinks fit, exempt

(*a*) any ship of Classes I and II constructed before the 1st July, 1931, or

(*b*) any ship of any other of the Classes to which these Rules apply constructed before the coming into operation of these Rules,

from any of the requirements of these Rules if he is satisfied that that requirement is either impracticable or unreasonable in the case of that ship.

Given under the Official Seal of the Minister of Transport this sixth day of May, 1948.

(L.S.) *Alfred Barnes,*
The Minister of Transport.

EXPLANATORY NOTE

(*This Note is not part of the Rules, but is intended to indicate their general purport.*)

These Rules consolidate with amendments the Merchant Shipping (Fire Appliances) Rules, 1932, the Merchant Shipping (Fire Appliances) Rules, 1940, and the Merchant Shipping (Fire Appliances) Rules, 1942.

The principal changes are:—

(1) The re-classification of ships which makes classification uniform for the purposes of:—

(*a*) the Merchant Shipping (Life-Saving Appliances) Rules, 1948,

(*b*) the Merchant Shipping (Fire Appliances) Rules, 1948,

(*c*) the Merchant Shipping (Musters) Rules, 1948.

(2) The application of the Rules to fishing vessels (Class X) to which the former Rules did not apply.

The Merchant Shipping (Fire Appliances) (No. 2) Rules, 1948

1948 No. 1010

Made - - - - -	*6th May*, 1948
Laid before Parliament	*13th May*, 1948
Coming into Operation	*20th May*, 1948

57 & 58 Vict. c. 60. 22 & 23 Geo. 5. c. 9.

The Minister of Transport in exercise of his powers under Section 427 of the Merchant Shipping Act, 1894, and Section 5 of the Merchant Shipping (Safety and Load Line Conventions) Act, 1932, and of all other powers him enabling hereby makes the following Rules:—

1.—(1) These Rules shall come into operation on the 20th day of May, 1948, and may be cited as the Merchant Shipping (Fire Appliances) (No. 2) Rules, 1948.

(2) In these Rules unless the context otherwise requires the following expressions have the meaning hereby respectively assigned to them, that is to say:—

"Approved" means approved by the Minister of Transport.

"Motor-ship" means a ship propelled by internal combustion engines.

"Steamship" means any ship propelled by mechanical power, other than a motor-ship.

(3) The Interpretation Act, 1889, shall apply to the interpretation of these Rules as it applies to the interpretation of an Act of Parliament. 52 & 53 Vict. c. 63.

2. These Rules shall apply to ships in respect of which a certificate issued by the competent authority under Regulation 47BB of the Defence (General) Regulations, 1939, as having effect by virtue of the Supplies and Services (Transitional Powers) Act, 1945, as extended by the Supplies and Services (Extended Purposes) Act, 1947, is in force. 9 & 10 Geo. 6. c. 10. 10 & 11 Geo. 6. c. 55.

3. Every ship to which these Rules apply of 2,000 tons gross tonnage and upwards shall be provided with apparatus whereby fire smothering gas sufficient to give a minimum volume of free gas equal to 30 per cent. of the gross volume of the largest hold in the ship can be promptly conveyed by a permanent piping system into any compartment in which cargo may be carried, provided that in steamships and in motor-ships which have available a boiler or boilers having an evaporation of not less than 1 lb. of steam per hour for each 12 cubic feet of the gross volume of the largest hold in the ship, steam may be provided as an alternative to gas.

4.—(1) Every ship to which these Rules apply shall be provided with:—

(*a*) Two power pumps each capable of providing a full supply of water to the fire hoses, together with apparatus whereby at least two powerful jets of water can be rapidly and simultaneously directed into any part of the ship. Such apparatus shall include two fire hoses, each complete with couplings and conductor and a spare 30 feet length of fire hose. Provided that in ships of less than 2,000 tons gross tonnage apparatus for only one powerful jet of water need be provided, together with one fire hose complete with coupling and conductor; also a spare 30 feet length of fire hose complete with coupling and conductor which shall be kept in a different part of the ship.

(*b*) Sufficient portable fluid fire extinguishers to ensure that at least one is available for immediate use in each space occupied by crew, and passengers, if any, and in any case a minimum of three such extinguishers.

(*c*) At least two approved outfits, each consisting of a breathing apparatus or smoke helmet, safety lamp and fireman's hatchet, which shall be kept ready for use in widely separated places, provided that in ships of less than 4,000 tons gross tonnage only one such outfit need be carried.

(2) In every ship to which these Rules apply where electric power is available the emergency appliances shall include a portable electric drilling machine for giving emergency means of access to fires through decks, casings or bulkheads.

(3) In every ship to which these Rules apply fitted with oil fired boilers or internal combustion machinery, the arrangement of the pumps and the sources of power for operating them must be such as to ensure that a fire in any one compartment will not put all the fire pumps out of action.

5. Every ship to which these Rules apply fitted with oil fired boilers or internal combustion machinery shall be provided in the boiler rooms and machinery spaces with at least two fire hydrants, one port and one starboard, and for each hydrant a hose complete with coupling and conductor, together with a nozzle suitable for spraying water on oil without undue disturbance of the surface.

6. Every ship to which these Rules apply in which oil only is used as fuel for the main or auxiliary boilers shall, in addition to complying with Rules 3 (if applicable), 4 and 5, be provided in the boiler and machinery spaces with:—

(*a*) A receptacle containing at least 10 cubic feet of sand, sawdust impregnated with soda, or other approved dry material in each firing space, and scoops for distributing such material.

(*b*) For each firing space in each boiler room, and in each machinery space in which a part of the boiler oil fuel installation is situated, at least two approved portable extinguishers constructed to discharge froth or other approved medium for quenching oil fires. In addition to these, one or more extinguishers of the same description with a total capacity of 2 gallons (or its equivalent) for each burner, provided that the total capacity of the additional extinguishers need not exceed 10 gallons for any one firing space.

(*c*) Means for admission and distribution of froth rapidly over the whole area of the boiler room to a depth of 6 inches or fire smothering gas or steam in sufficient quantity in the boiler space with control from an easily accessible position or positions which will not be readily cut off from use by an outbreak of fire.

7. Every steamship to which these Rules apply in which oil and coal are used simultaneously as fuel for the main or auxiliary boilers shall, in addition to complying with Rules 3 (if applicable), 4 and 5, be provided in the boiler and machinery spaces with:—

(*a*) Appliances in accordance with paragraphs (*a*) and (*b*) of Rule 6 of these Rules.

(*b*) If the tank top is effectually subdivided by vertical longitudinal and transverse plates at each boiler to prevent spread of oil, and does not exceed 1,000 square feet in total area, one approved extinguisher of at least 30 gallons capacity constructed to discharge froth, complete with hose. If the area of the tank top exceeds 1,000 square feet, the capacity of the extinguisher or extinguishers shall not be less than 60 gallons. In each case means shall be provided for the admission of steam to the boiler room.

If the tank top is not subdivided, there shall be provided in substitution for steam to the boiler room means for admission and distribution of froth rapidly over the whole area of the boiler room to a depth of 6 inches or fire smothering gas in sufficient quantity in the boiler space or spaces with control from an easily accessible position or positions which will not be readily cut off from use by an outbreak of fire.

8. Every motor-ship to which these Rules apply shall, in addition to complying with Rules 3 (if applicable), 4 and 5, also comply with Rule 6 (*a*) and with Rule 6 (*b*) and (*c*) (if applicable), and be provided in the machinery spaces with:—

(*a*) One approved extinguisher of at least 10 gallons capacity constructed to discharge froth.

(*b*) Approved portable extinguishers constructed to discharge froth or other approved medium suitable for quenching oil fires, in accordance with the following scale :—

B.H.P. of Main Engines	*Number of Portable Extinguishers*
Not exceeding 1,000	2
Exceeding 1,000 but not exceeding 2,000 ...	3
Exceeding 2,000 but not exceeding 3,000 ...	4
Exceeding 3,000 but not exceeding 4,000 ...	5
Exceeding 4,000	6

9. All fire extinguishing apparatus and appliances shall be kept in working order and available for immediate use before the ship leaves port and at all times during the voyage.

10.—(1) Power fire pumps shall be independent of the main engines and each shall be capable of delivering the requisite jets of water in any part of the ship as these Rules may require and in such quantity as the Minister of Transport may deem sufficient. Sanitary, ballast, bilge or general service pumps may be accepted as fire pumps if they comply with the provisions of these Rules.

(2) Effective escape valves shall be provided in connection with all power fire pumps. These valves shall be so placed and adjusted as to prevent excessive pressure in any part of the fire main system.

(3) Fire pumps not specifically required by these Rules to be power pumps may be of the manual type, capable of delivering a sufficient jet of water in any part of the ship.

11.—(1) Water service pipes shall be made of wrought material and if of iron or steel shall be galvanised.

(2) The diameter of such pipes shall be sufficient to enable adequate water to be supplied to the fire hose, or to both fire hoses when two are required to be provided for simultaneous operation.

(3) The pipes and hydrants shall be so placed that the fire hoses may be easily coupled to them. In vessels where deck cargo may be carried the positions of the hydrants shall be such that they are always readily accessible, and the pipes shall be arranged as far as practicable to avoid risk of damage by such cargo.

(4) Cocks or valves shall be fitted in such positions on the pipes that any of the fire hoses may be removed while the fire pumps are at work.

12.—(1) Fire hoses shall be of leather, seamless hemp, flax canvas of first-class quality or other approved material and sufficient in length to project a jet of water to any of the spaces in which they may be required to be used and shall be provided with the necessary fittings.

(2) Hoses specified in the Rules as " hose complete with couplings and conductor " shall, together with the necessary coupling wrenches and goose-neck connections, be kept ready for use in conspicuous positions near the water-service hydrants or connections. Such fire hoses shall be used only for the purpose of extinguishing fires or testing

the fire extinguishing apparatus at fire drills and surveys. Where hoses are not specified as "fire hose" they shall always be available, but may be used also for other purposes.

Portable Fire Extinguishers

13.—(1) Portable fire extinguishers shall be of an approved fluid type, except when supplied as an alternative to extinguishers discharging froth for use on oil fires as required by these Rules for motor engine rooms and oil fired boiler rooms. The capacity of the extinguishers shall be not more than three gallons and shall be not less than two gallons.

(2) The portable fire extinguishers provided (other than those supplied in boiler rooms, etc., specially for use in connection with oil fuel fires), shall not be of more than two types.

(3) A spare charge shall be provided for each portable fire extinguisher.

(4) Extinguishers in which the medium is stored under pressure shall not be provided for use in passenger or crew accommodation.

(5) Fire extinguishers shall be tested at intervals not exceeding four years. Fluid extinguishers under inspection shall be emptied of their contents and examined and a trial of one shall be made. Fluid extinguishers discharging froth shall be kept in as cool a place as possible.

(6) Fire extinguishers shall where possible be stowed near the entrance to the space in which they are intended to be used. In small motorships one of the extinguishers shall where possible be stowed near the entrance to the motor space.

14.—(1) Where provision is made for the injection of gas or steam into the cargo spaces or boiler rooms for fire extinguishing purposes, the necessary pipes for conveying the gas or steam shall be provided with controlling valves or cocks which shall be readily accessible from the deck in any circumstances and so marked as to indicate clearly the respective compartments to which the pipes lead. Suitable provision shall be made for locking these valves or cocks so as to prevent inadvertent admission of the gas or steam to any compartment. If any pipe is led to a space to which passengers may have access, it shall be furnished with an additional stop valve or cock also capable of being locked.

(2) Piping shall be arranged so as to provide effective distribution of the fire smothering gas or steam and in large holds where steam is used there shall be two pipes, one at the forward part and one at the after part led well down in the space.

(3) When carbon dioxide is supplied as the extinguishing medium in holds the quantity of gas available shall be sufficient to give a minimum volume of free gas equal to 30 per cent. of the gross volume of the largest hold in the ship.

When carbon dioxide is supplied as an extinguishing medium for boiler rooms the weight of gas carried shall be sufficient to give a gas saturation of 30 per cent. of the gross volume of the largest boiler room measured to the top of the boilers.

(4) When steam is the extinguishing medium in holds, the boiler or boilers available for supplying steam shall have an evaporation of at least 1 lb. of steam per hour for each 12 cubic feet of the cubic capacity of the largest cargo compartment in the ship.

(5) Means shall be provided for closing all doorways, ventilators and other openings to spaces in which fire smothering gas or steam can be used as a fire extinguishing medium.

15.—(1) A breathing apparatus or smoke helmet shall be of an approved type and shall be equipped with a life and signalling line at least 10 feet longer than the total length of air hose required under paragraph (2) of this Rule. The life line shall be efficiently attached to a strong leather or canvas harness to be worn by the wearer of the helmet when the latter is in use and shall be made of hemp-covered wire rope of about 1¼ inches circumference. The wire incorporated in the rope shall have a breaking strain of approximately one ton and shall be either galvanized steel or copper.

(2) Where smoke helmets or masks fitted for air hoses are provided the length of air hose supplied shall be sufficient to enable the wearer to go into any part of the holds or machinery spaces from a position on the open deck well clear of hatch or doorway, so as to avoid smoke being supplied to the wearer.

16. The safety lamp provided shall be of a type approved by the Mines Department of the Ministry of Fuel and Power for use in mines and shall have a minimum burning period of three hours. Where a tanker is required by these Rules to carry a safety lamp, such lamp shall be of the electric battery type.

Alternative Appliances

17. Where any special appliance, apparatus, extinguishing medium or arrangement is referred to in these Rules, the Minister of Transport may approve any alternative appliance, apparatus, medium or arrangement if he is satisfied that it is not less effective than that prescribed in these Rules.

Exemptions

18. The Minister of Transport or any surveyor of ships or other person duly authorised by the Minister of Transport may exempt, subject to such conditions as he thinks fit to impose, any ship, for the period of any voyage or voyages, from compliance with any requirement of these Rules, if he is satisfied that the requirement is either impracticable or unreasonable having regard to all the circumstances of the case.

Given under the Official Seal of the Minister of Transport this sixth day of May, 1948.

(L.S.) *Alfred Barnes,*
The Minister of Transport.

EXPLANATORY NOTE

(*This Note is not part of the Rules, but is intended to indicate their general purport.*)

These Rules make provisions for the carriage of fire extinguishing appliances on board ships which carry passengers by virtue only of a certificate issued by the competent authority under Regulation 47BB of the Defence (General) Regulations.