## 4. PREVENTION OF ACCIDENTS

(1) *Fire Appliances.*
(2) *Life-Saving Appliances*, p. 1910.
(3) *Load Line*, p. 1942.
(4) *Musters*, p. 1946.
(5) *Safety Convention*, p. 1950.

### (1) FIRE APPLIANCES

# The Merchant Shipping (Fire Appliances) Rules, 1948

## 1948 No. 1009

*Made* - - - - 6*th May*, 1948
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The Minister of Transport in exercise of his powers under Section 427 of the Merchant Shipping Act, 1894, and Sections 4 and 5 of the Merchant Shipping (Safety and Load Line Conventions) Act, 1932, and of all other powers him enabling, hereby makes the following Rules:— 57 & 58 Vict. c. 60. 22 & 23 Geo. 5. c. 9.

*Interpretation and Repeal*

**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) Rules, 1948.

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

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

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

" Approved " means approved by the Minister of Transport.

" Length " as applied to a ship means registered length.

" Tanker " means a ship constructed or adapted for the carriage in bulk of liquid cargoes of an inflammable nature.

9 & 10 Geo. 6. c. 10. 10 & 11 Geo. 6. c. 55.

(3) Notwithstanding anything in these Rules to the contrary, these Rules shall not 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.

52 & 53 Vict. c. 63.

(4) The Interpretation Act, 1889, shall apply to the interpretation of these Rules as it applies to the interpretation of an Act of Parliament.

(5) The Merchant Shipping (Fire Appliances) Rules, 1932(a), the Merchant Shipping (Fire Appliances) Rules, 1940(b), and the Merchant Shipping (Fire Appliances) Rules, 1942(c) are hereby revoked.

*Classification of Ships*

**2.** For the purposes of these Rules ships shall be arranged in the same classes in which ships are arranged for the purposes of the Merchant Shipping (Life-Saving Appliances) Rules, 1948(d) and any reference in these Rules to a ship of any class shall be construed accordingly.

PASSENGER SHIPS

SHIPS OF CLASS I

*Steamships and motor-ships carrying more than 12 passengers on international voyages other than ships of Class II*

PATROLS AND DETECTION

**3.**—(1) An efficient patrol system shall be maintained on every ship of Class I, so that any outbreak of fire may be promptly detected. Manual fire alarms are to be fitted throughout the passenger and crew accommodation to enable the fire patrol to give an alarm immediately to the bridge or fire control station.

(2) On every ship of Class I, an approved fire alarm or fire detecting system shall be provided which will automatically register at one or more points or stations in the ship where it can be most quickly observed by officers and crew, the presence or indication of fire in any part of the ship which is, in the opinion of the Minister of Transport, not accessible to the patrol system.

FIRE EXTINGUISHING APPLIANCES

*Spaces occupied by Passengers and Crew*

**4.**—(1) Every ship of Class I shall be provided with apparatus whereby at least two powerful jets of water can be rapidly and simultaneously brought to bear upon any part of each deck or space occupied by passengers or crew, when the watertight and fire resisting doors are closed.

(2) Every ship of Class I shall be provided with such number of approved portable fluid fire extinguishers as the Minister of Transport may deem sufficient.

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(a) S.R. & O. 1932 (No. 1055) p. 971.
(b) S.R. & O. 1940 (No. 2170) I, p. 533.
(c) S.R. & O. 1942 (No. 102) I, p. 542.
(d) S.I. 1948 (No. 1007) p. 1910 below.

*Cargo Spaces*

**5.**—(1) Every ship of Class I shall be provided with apparatus whereby at least two powerful jets of water can be rapidly and simultaneously directed into any cargo space.

(2) Every ship of Class I of 1,000 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 is carried.

Provided that the Minister of Transport may allow the use of steam in lieu of smothering gas 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.

*Machinery and Bunker Spaces*

**6.**—(1) Every ship of Class I shall be provided with apparatus whereby at least two powerful jets of water can be rapidly and simultaneously directed into any part of the coal bunker spaces, boiler rooms and machinery spaces.

(2) Every ship of Class I fitted with oil fired boilers or internal combustion machinery shall be provided in the machinery and boiler spaces with at least two fire hydrants, one port and one starboard, and hoses for each hydrant complete with couplings and conductors, together with a nozzle suitable for spraying water on oil without undue disturbance of the surface.

**7.**—(1) Every ship of Class I in which the main or auxiliary boilers are oil fired shall, in addition to complying with Rules 4, 5, and 6 be provided 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*) Two approved portable extinguishers constructed to discharge froth, or other approved medium suitable for quenching oil fires, for each firing space in each boiler room and in each of the machinery spaces in which a part of the oil fuel installation is situated.

(*c*) Approved apparatus whereby froth can be rapidly discharged and distributed over the whole of the lower part of every boiler room and of any machinery space in which oil fuel units or settling tanks are situated. The quantity of froth available for discharge shall be sufficient to cover to a depth of 6 inches the whole area of the surface formed by the inner bottom plating, or by the shell plating if there is no double bottom tank, in the largest of these compartments. If the engine and boiler rooms are not entirely separate, and fuel oil can drain from the boiler room bilges into the engine room, the combined engine and boiler rooms shall be considered as one compartment. The apparatus shall be controlled from an easily accessible position or positions which will not be readily cut off from use by an outbreak of fire.

(*d*) One approved extinguisher of at least 30 gallons capacity constructed to discharge froth in the case of ships having one boiler room, and two such extinguishers in the case of ships with more than one boiler room. These extinguishers shall be provided with hoses on reels suitable for reaching any part of the boiler rooms and spaces containing oil fuel units.

(2) All extinguishers and the valves by which they are operated shall be easily accessible and so placed that they will not readilly be cut off from use by an outbreak of fire.

**8.**—(1) Every motor-ship of Class I shall comply with Rules 4, 5 and 6, and shall be provided in each of the machinery spaces with at least one approved extinguisher of at least 10 gallons capacity constructed to discharge froth, and also with one approved 2-gallon extinguisher constructed to discharge froth for each 1,000 B.H.P. of the engines or part thereof, so however that the total number of 2-gallon extinguishers so provided shall not be less than two and need not exceed six.

(2) If in any such ship a donkey boiler is situated in a machinery space, there shall be provided in that space, in place of the 10-gallon extinguisher required by paragraph (1) of this Rule, an approved extinguisher of at least 30 gallons capacity constructed to discharge froth, fitted with suitable hose attachments or other approved means for distributing the froth.

*Pumps*

**9.**—(1) Every ship of Class I of 4,000 tons gross tonnage and upwards shall be provided with at least three fire pumps operated by steam or other motive power, and every such ship of under 4,000 tons gross tonnage with at least two such fire pumps.

(2) Each of such fire pumps shall be capable of delivering such quantity of water as the Minister of Transport may deem sufficient in two powerful jets simultaneously in any part of the ship.

(3) In ships fitted with oil fired boilers or internal combustion machinery the arrangements of the pumps and 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.

*Water Service Pipes and Hydrants*

**10.** Every ship of Class I shall be provided with water service pipes and hydrants to the satisfaction of the Minister of Transport.

*Fire Hoses*

**11.** Every ship of Class I shall be provided with such number of fire hoses as the Minister of Transport may deem sufficient.

*Smoke Helmets and Safety Lamps*

**12.** Every ship of Class I shall carry at least two approved equipments, 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.

*Emergency Appliances*

**13.** Every ship of Class I shall be provided with such outfit of emergency fire appliances as the Minister of Transport may deem sufficient. In every case where electric power is available such outfit shall include a portable electric drilling machine for giving emergency means of access to fires through decks, casings or bulkheads.

SHIPS OF CLASS II

*Steamships and motor-ships carrying more than 12 passengers on short international voyages*

**14.** Every ship of Class II shall be provided with fire extinguishing appliances in accordance with the appropriate requirements of Rules 3 to 13 of these Rules relevant to the type and size of the ship in each case.

SHIPS OF CLASS II (A)

*Home Trade steamships and motor-ships carrying more than 12 passengers on passages or voyages other than international voyages and not being ships carrying passengers in pursuance of such a certificate as is referred to in Classes III to VI inclusive*

**15.** Every ship of Class II (A) shall be provided with fire extinguishing appliances in accordance with the appropriate requirements of Rules 3 (1) and 4 to 13 of these Rules relevant to the type and size of the ship in each case.

SHIPS OF CLASS III

*Steamships and motor-ships carrying passengers in pursuance of a passenger certificate entitled " Passenger Certificate for a Home Trade Passenger Vessel plying on short excursions to sea between 1st April and 31st October inclusive, during daylight and in fine weather "*

*Spaces Occupied by Passengers and Crew*

**16.**—(1) Every ship of Class III shall be provided with apparatus whereby a powerful jet of water can be rapidly brought to bear upon any part of each deck or space occupied by passengers or crew.

(2) Every ship of Class III shall be provided with such number of approved portable fluid fire extinguishers as the Minister of Transport may deem sufficient.

*Cargo Spaces and Store Rooms*

**17.** Every ship of Class III shall be provided with apparatus whereby a powerful jet of water can be rapidly directed into any store room or cargo space.

*Machinery and Bunker Spaces*

**18.**—(1) Every ship of Class III shall be provided with apparatus whereby a powerful jet of water can be rapidly directed into any part of the coal bunker spaces, boiler rooms and machinery spaces.

(2) Every ship of Class III fitted with oil fired boilers or internal combustion machinery shall in addition to complying with the requirements of paragraph (1) of this Rule be provided in the machinery and boiler spaces with at least one fire hydrant and hose complete with couplings and conductor together with a nozzle suitable for spraying water on oil without undue disturbance of the surface.

**19.**—(1) Every ship of Class III in which the boiler or boilers are oil fired shall, in addition to complying with Rules 16, 17 and 18, be provided with:—

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

(*b*) Two approved portable extinguishers constructed to discharge froth, or other approved medium suitable for quenching oil fires, in the boiler room and in each of the machinery spaces in which a part of the oil fuel installation is situated.

(*c*) Approved apparatus whereby froth can be rapidly discharged and distributed over the whole of the lower part of every boiler room and of any machinery space in which oil fuel units or settling tanks are situated. The quantity of froth available for discharge shall be sufficient to cover to a depth of 6 inches the whole area of the surface formed by the inner bottom plating or by the shell plating if there is no double bottom tank,

in the largest of these compartments. If the engine and boiler rooms are not entirely separate, and fuel oil can drain from the boiler room bilges into the engine room, the combined engine and boiler rooms shall be considered as one compartment. The apparatus shall be controlled from an easily accessible position or positions which will not be readily cut off from use by an outbreak of fire.

(*d*) Two approved extinguishers of 10 gallons capacity constructed to discharge froth with hoses suitable for reaching any part of the boiler room and spaces containing oil fuel units.

(2) All extinguishers and the valves by which they are operated shall be easily accessible and so placed that they will not readily be cut off from use by an outbreak of fire.

**20.**—(1) Every motor-ship of Class III propelled by internal combustion engines consuming oil of a flash point of not less than 150° F., shall, in addition to complying with Rules 16, 17 and 18, be provided in each of the machinery spaces with at least one approved 10-gallon extinguisher constructed to discharge froth and also with one approved 2-gallon extinguisher constructed to discharge froth for each 1,000 B.H.P. of the engines or part thereof, so however that the total number of 2-gallon extinguishers so provided shall be not less than two, and need not exceed six.

(2) If in any such ship a donkey boiler is situated in a machinery space, there shall be provided in that space, in place of the 10-gallon extinguisher required by paragraph (1) of this Rule, an extinguisher of 30 gallons capacity, fitted with suitable hose attachments or other approved means for distributing the froth.

*Pumps*

**21.**—(1) Every ship of Class III shall be provided with at least one fire pump of ample capacity operated by steam or other motive power.

(2) Every ship of Class III fitted with oil fired boilers or internal combustion machinery shall be provided with an additional fire pump connected to the water service pipes. Such pump and its source of power shall not be placed in the same compartment with the pump required by paragraph (1) of this Rule, and may be a manual bilge pump of the rotary type of large power, situated on deck in a position away from the engine room. The sea suction valve shall be capable of being controlled from outside the machinery compartment.

*Water Service Pipes, Hydrants and Fire Hoses*

**22.**—(1) Every ship of Class III shall be provided with water service pipes and hydrants to the satisfaction of the Minister of Transport.

(2) Fire hoses shall be provided in such number as the Minister of Transport may deem sufficient.

*Wood Ships of Class III and other Ships of Class III requiring special consideration*

**23.** Wood ships of Class III and ships of Class III in which the flash point of the oil used as fuel is lower than 150°F. shall comply with the requirements of the foregoing Rules with such modifications as the Minister of Transport may deem necessary.

SHIPS OF CLASS IV.

*Steamships and Motor-ships carrying passengers in pursuance of a passenger certificate entitled " Passenger Certificate for a vessel plying in partially smooth water "*

*Spaces occupied by Passengers and Crew*

**24.**—(1) Every ship of Class IV shall be provided with apparatus whereby a powerful jet of water can be rapidly brought to bear upon any part of each deck or space occupied by passengers or crew.

(2) Every ship of Class IV shall be provided with such number of portable fluid fire extinguishers as the Minister of Transport may deem sufficient.

*Cargo Spaces and Store Rooms*

**25.** Every ship of Class IV shall be provided with apparatus whereby a powerful jet of water can be rapidly directed into any store room or cargo space.

*Machinery and Bunker Spaces*

**26.**—(1) Every ship of Class IV shall be provided with apparatus whereby a powerful jet of water can be directed into any part of the coal bunker spaces, boiler rooms and machinery spaces.

(2) Every ship of Class IV fitted with oil fired boilers or internal combustion machinery shall, in addition to complying with Rules 24 and 25, be provided in the machinery and boiler spaces with a fire hydrant and hose complete with couplings and conductor together with a nozzle suitable for spraying water on oil without undue disturbance of the surface.

**27.**—(1) Every ship of Class IV in which the boiler or boilers are oil fired shall in addition to complying with Rules 24 and 25 be provided with:—

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

(*b*) Two approved portable extinguishers constructed to discharge froth, or other approved medium suitable for quenching oil fires, in the boiler room and in each of the machinery spaces in which part of the oil fuel installation is situated.

(*c*) One approved extinguisher of at least 30 gallons capacity constructed to discharge froth, with hoses suitable for reaching any part of the boiler room and spaces containing oil fuel units.

(2) All extinguishers and valves by which they are operated shall be easily accessible and so placed that they will not readily be cut off from use by an outbreak of fire.

**28.** Every decked motor-ship of Class IV propelled by internal combustion engines consuming oil of a flash point of not less than 150°F. shall, in addition to complying with Rules 24 and 25, be provided in each of the machinery spaces with at least one approved 10-gallon extinguisher constructed to discharge froth, and also one approved 2-gallon extinguisher constructed to discharge froth for each 1,000 B.H.P. of the engines or part thereof, so however that the total number of 2-gallon extinguishers so provided shall not be less than two, and need not exceed six.

*Pumps*

**29.**—(1) Every ship of Class IV shall be provided with at least one fire pump of ample capacity operated by steam or other motive power.

(2) Every ship of Class IV fitted with oil fired boilers or internal combustion machinery shall be provided with an additional fire pump connected to the water service pipes. Such pump and its source of power shall not be placed in the same compartment with the pump required by paragraph (1) of this Rule and may be a manual bilge pump of the rotary type of large power, situated on deck in a position away from the engine room. The sea suction valve shall be capable of being controlled from outside the machinery compartment.

*Water Service Pipes, Hydrants and Fire Hoses*

**30.**—(1) Every ship of Class IV shall be provided with water service pipes and hydrants to the satisfaction of the Minister of Transport.

(2) Fire hoses shall be provided in such number as the Minister of Transport may deem sufficient.

*Wood Ships of Class IV and other Ships of Class IV requiring special consideration*

**31.** Wood ships of Class IV and ships of Class IV in which the flash point of the oil used as fuel is lower than 150°F., shall comply with the requirements of the foregoing Rules with such modifications as the Minister of Transport may deem necessary.

SHIPS OF CLASS V

*Steamships and Motor-ships carrying passengers in pursuance of a passenger certificate entitled "Passenger Certificate for a vessel plying in smooth water in estuaries and lakes"*

*Spaces occupied by Passengers and Crew*

**32.**—(1) Every ship of Class V (except open motor-ships) shall be provided with apparatus whereby a powerful jet of water can be rapidly brought to bear upon any part of each deck or space occupied by passengers or crew.

(2) Every ship of Class V (except open motor-ships) shall be provided with such number of approved portable fluid fire extinguishers as the Minister of Transport may deem sufficient.

*Cargo Spaces and Store Rooms*

**33.** Every ship of Class V (except open motor-ships) shall be provided with apparatus whereby a powerful jet of water can be rapidly directed into any store room or cargo space.

*Machinery and Bunker Spaces*

**34.**—(1) Every ship of Class V shall be provided with apparatus whereby a powerful jet of water can be rapidly directed into any part of the coal bunker spaces, boiler rooms and machinery spaces.

(2) Every ship of Class V fitted with oil fired boiler or boilers, or internal combustion machinery shall be provided with a conductor suitable for spraying water on oil without undue disturbance of the surface.

**35.**—(1) Every ship of Class V fitted with oil fired boiler or boilers shall, in addition to complying with Rules 32, 33 and 34, be provided with:—

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

(*b*) Two approved portable extinguishers constructed to discharge froth, or other approved medium suitable for quenching oil fires, in the boiler room and in each of the machinery spaces in which a part of the oil fuel installation is situated.

(*c*) One approved extinguisher of at least 30-gallons capacity constructed to discharge froth, with hoses suitable for reaching any part of the boiler room and spaces containing oil fuel units.

(2) All extinguishers and the valves by which they are operated shall be easily accessible and so placed that they will not readily be cut off from use by an outbreak of fire.

**36.** Every decked motor-ship of Class V propelled by internal combustion engines consuming oil of a flash point of not less than 150° F., shall in addition to complying with the requirements of Rules 32, 33 and 34, be provided in each of the machinery spaces with two approved 2-gallon extinguishers constructed to discharge froth, or, if that space can be rapidly and completely closed, a suitable number of carbon tetrachloride or other approved extinguishers in lieu of such froth extinguishers.

*Pumps*

**37.**—(1) Every ship of Class V (except open motor-ships) shall be provided with at least one fire pump of ample capacity operated by steam or other motive power.

(2) Every ship of Class V fitted with oil fired boiler or boilers, or internal combustion machinery shall be provided with an additional fire pump connected to the water service pipes. Such pump and its source of power shall not be placed in the same compartment with the pump required by paragraph (1) of this Rule, and may be a manual bilge pump of the rotary type of large power, situated on deck in a position away from the engine room. The sea suction valve shall be capable of being controlled from outside the machinery compartment.

*Water Service Pipes and Hydrants*

**38.**—(1) Every ship of Class V (except open motor-ships) shall be provided with water service pipes to the satisfaction of the Minister of Transport.

(2) On every ship of Class V (except open motor-ships) the branch water service pipes and hydrants shall be so placed on each deck that the fire hoses may be easily coupled to them.

**39.**—(1) Every open motor-ship of Class V of over 40 feet in length, and every open motor-ship of Class V of 40 feet in length and under which plies beyond three miles from the starting point, shall be provided with a hand pump.

(2) Every open motor-ship of Class V of over 60 feet in length shall be provided with a power pump connected to the motor in addition to the hand pump referred to above.

(3) Every open motor-ship of Class V shall be provided with fire hose suitable for coupling to the pump discharge.

(4) Every open motor-ship of Class V shall be provided with such number of buckets and balers as the Minister of Transport may deem sufficient and such buckets and balers shall be placed in convenient and accessible positions on the ship so that they will be readily available in case of fire.

(5) Every open motor-ship of Class V shall be provided with a receptacle containing a suitable quantity of sand, sawdust impregnated with soda or other approved dry material, and a scoop for distributing such material.

(6) Every open motor-ship of Class V shall be provided with approved portable carbon tetrachloride and froth type fire extinguishers in accordance with the following scale:—

| Length of Ship in feet | Carbon tetrachloride or equivalent type | Froth type and minimum capacity |
|---|---|---|
| Not exceeding 30 ft. ... ... | 2 | 1 One gallon |
| Exceeding 30 ft. but not exceeding 50 ft. | 2 | 2 One gallon |
| Exceeding 50 ft. but not exceeding 70 ft. | 3 | 2 Two gallons |
| Exceeding 70 ft. ... ... ... | Such number as the Minister of Transport may deem sufficient. | |

*Fire Hoses*

**40.** Every ship of Class V shall be provided with such number of fire hoses as the Minister of Transport may deem sufficient.

WOOD SHIPS OF CLASS V AND OTHER SHIPS OF CLASS V REQUIRING SPECIAL CONSIDERATION

**41.** Wood ships of Class V and ships of Class V in which the flash point of the oil used as fuel is lower than 150° F., shall comply with the requirements of the foregoing Rules with such modifications as the Minister of Transport may deem necessary.

SHIPS OF CLASS V (A)

*Steamships and motor-ships carrying passengers in pursuance of a passenger certificate entitled " Passenger certificate for a vessel plying in smooth water on rivers and canals "*

**42.** Every ship of Class V (A) shall be provided with fire extinguishing appliances in accordance with the appropriate requirements of Rules 32 to 41 of these Rules relevant to the type and size of the ship in each case.

SHIPS OF CLASS VI

*Steam launches and motor-boats carrying passengers in pursuance of a passenger certificate entitled " Passenger Certificate for a vessel plying for short distances to sea, between 1st April and 31st October inclusive, during daylight and in fine weather "*

**43.** Every decked ship of Class VI shall be provided with:—

(*a*) A fire pump hand or power with fire hose, capable of supplying a jet of water for extinguishing fire in any part of the ship.

(*b*) In ships fitted with oil fired boiler or boilers or internal combustion machinery an additional fire pump shall be provided connected to the water service pipes. Such pump and its source of power shall not be placed in the same compartment with the pump required by paragraph (*a*) above and may be a manual bilge pump of the rotary type provided it is of large power and situated on deck in a position away from the engine room. The sea suction valve shall be controlled from outside the machinery compartment. A conductor for use with the fire hose suitable for spraying water on oil without undue disturbance of the surface shall also be provided.

(*c*) Such number of portable fluid fire extinguishers as the Minister of Transport may deem sufficient.

**44.**—(1) Every decked steamship of Class VI fitted with oil fired boiler or boilers shall, in addition to complying with Rules 40 and 42, be provided in the machinery and boiler spaces with:—

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

(*b*) Two approved portable fire extinguishers constructed to discharge froth, or other approved medium suitable for quenching oil fires, in each boiler room and in each of the machinery spaces in which a part of the oil fuel installation is situated.

(*c*) One approved extinguisher of at least 10 gallons capacity constructed to discharge froth, with hose suitable for reaching any part of the boiler room and spaces containing oil fuel units.

(2) All extinguishers and the valves by which they are operated shall be easily accessible and so placed that they will not readily be cut off from use by an outbreak of fire.

**45.** Every decked motor-ship of Class VI propelled by internal combustion engines consuming oil of a flash point not less than 150° F. shall, in addition to complying with Rules 40 and 42, be provided in each of the machinery spaces with at least two approved 2-gallon extinguishers constructed to discharge froth, or, if that space can be rapidly and completely closed, a suitable number of carbon tetrachloride or other approved extinguishers in lieu of such froth extinguishers.

**46.**—(1) Every open ship of Class VI of over 40 feet in length, and every open ship of Class VI of 40 feet in length and under which plies beyond three miles from the starting point, shall be provided with a hand pump.

(2) Every open ship of Class VI of over 60 feet in length shall be provided with a power pump connected to the motor in addition to the hand pump referred to in paragraph (1) of this Rule.

(3) Every open ship of Class VI shall be provided with fire hose suitable for coupling to the pump discharge.

(4) Every open ship of Class VI fitted with oil fired boilers or internal combustion machinery shall be provided with a spray nozzle suitable for spraying water on oil without undue disturbance of the surface for use with the fire hose.

(5) Every open ship of Class VI shall be provided with such number of buckets and balers as the Minister of Transport may deem sufficient and such buckets and balers shall be placed in convenient and accessible positions on the ship so that they will be readily available in case of fire.

**47.** Every open steamship of Class VI fitted with oil fired boilers shall, in addition to complying with Rule 46, be provided with:—

(*a*) Two approved portable fire extinguishers constructed to discharge froth.

(*b*) A receptacle containing a suitable quantity of sand, sawdust impregnated with soda, or other approved dry material, and a scoop for distributing such material.

**48.** Every open motor-ship of Class VI shall in addition to complying with Rule 43 be provided with:—

(*a*) Approved portable carbon tetrachloride and froth type fire extinguishers in accordance with the following scale:—

| Length of Ship in feet | Carbon tetrachloride or equivalent type | Froth type and minimum capacity |
|---|---|---|
| Not exceeding 30 ft. ... ... | 2 | 1 One gallon |
| Exceeding 30 ft. but not exceeding 50 ft. | 2 | 2 One gallon |
| Exceeding 50 ft. but not exceeding 70 ft. | 3 | 2 Two gallons |
| Exceeding 70 ft. ... ... ... | Such number as the Minister of Transport may deem sufficient. | |

(*b*) A receptacle containing a suitable quantity of sand, sawdust impregnated with soda, or other approved dry material, and a scoop for distributing such material.

## Non-Passenger Ships

## Ships of Class VII

*Foreign-going steamships and motor-ships not certified to carry passengers other than ships of Classes VII (A), IX and X*

**49.** Every ship of Class VII 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.

**50.**—(1) Every ship of Class VII 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 of Class VII where electric power is available, except in tankers, 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 of Class VII 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.

**51.** Every ship of Class VII fitted with oil fired boilers or internal combustion machinery shall be provided in the machinery and boiler 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.

**52.** Every ship of Class VII in which oil only is used as fuel for the main or auxiliary boilers shall, in addition to complying with Rules 49 (if applicable), 50 and 51, 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.

**53.** Every steamship of Class VII in which oil and coal are used simultaneously as fuel for the main or auxiliary boilers, shall in addition to complying with Rules 49 (if applicable), 50 and 51, be provided in the boiler and machinery spaces with:—

(*a*) Appliances in accordance with paragraphs (*a*) and (*b*) of Rule 52 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 extinquisher 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.

**54.** Every motor-ship of Class VII shall, in addition to complying with Rules 49 (if applicable), 50 and 51, also comply with Rule 52 (*a*), and with Rule 52 (*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 |

## Ships of Class VII (A)

*Foreign going steamships and motor-ships engaged in the whaling industry*

**55.** Every ship of Class VII (A) shall be provided with fire extinguishing appliances, in accordance with the appropriate requirements of Rules 49 to 54 of these Rules relevant to the type and size of ship in each case.

## Ships of Class VIII

*Home Trade steamships and motor-ships not certified to carry passengers other than ships of Classes IX, IX (A) and X*

**56.** Every ship of Class VIII of 1,000 tons gross tonnage and upwards shall be provided with fire extinguishing appliances in accordance with the appropriate requirements of Rules 50 to 54 of these Rules relevant to the type and size of the ship in each case.

**57.**—(1) Every ship of Class VIII of 500 tons gross tonnage and upwards but of less than 1,000 tons gross tonnage shall be provided with:—

(*a*) Apparatus including one power pump and one fire hose complete with couplings and conductor, whereby a powerful jet of water can be rapidly directed into any part of the ship; a spare 30 feet length of fire hose.

(*b*) Three portable fluid fire extinguishers readily accessible for use in spaces occupied by crew, and passengers if any.

(*c*) A safety lamp and a fireman's hatchet.

(2) Every such ship of Class VIII fitted with oil fired boilers or internal combustion machinery shall, in addition to complying with paragraph (1) of this Rule, be provided in the machinery and boiler spaces with a fire hydrant and fire hose, complete with couplings and a conductor together with a nozzle suitable for spraying water on oil without undue disturbance of the surface.

(3) Every such ship of Class VIII being a steamship in which oil only is used as fuel for the boiler or boilers shall, in addition to complying with paragraphs (1) and (2) of this Rule, be provided in the boiler and machinery space with:—

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

(*b*) For each firing space in each boiler room, and in each machinery space in which part of the boiler oil fuel installation is situated, at least two approved portable extinguishers constructed to discharge froth or other approved medium suitable 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 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.

(4) Every such ship of Class VIII being a steamship in which oil and coal are used simultaneously as fuel for the boiler or boilers shall, in addition to complying with paragraphs (1) and (2) of this Rule, be provided in the boiler and machinery spaces with:—

(*a*) Appliances in accordance with the requirements of sub-paragraphs (*a*) and (*b*) of paragraph (3) of this Rule.

(*b*) If the tank top is effectually sub-divided by longitudinal and transverse vertical plates at each boiler to prevent spread of oil and does not exceed 1,000 square feet in total area, one 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 sub-divided, there shall be provided in substitution for steam to the boiler room means for the 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 with control from an easily accessible position which will not be readily cut off from use by an outbreak of fire.

(5) Every such ship of Class VIII being a motor-ship shall, in addition to complying with paragraphs (1) and (2) of this Rule, be provided in the

machinery spaces with approved portable extinguishers constructed to discharge froth, or other approved medum suitable for quenching oil fires, in accordance with the following scale:

| B.H.P. of Main Engines | Number of Portable Extinguishers |
|---|---|
| Not exceeding 100 ... ... ... ... ... ... | 3 |
| Exceeding 100 but not exceeding 150 ... ... ... | 4 |
| Exceeding 150 but not exceeding 200 ... ... ... | 5 |
| Exceeding 200 but not exceeding 250 ... ... ... | 6 |
| Exceeding 250 ... ... ... ... ... | 7 |

As an alternative, one 10-gallon extinguisher with at least two portable extinguishers of the same description may be carried.

**58.**—(1) Every ship of Class VIII of 150 tons gross tonnage and upwards but of less than 500 tons gross tonnage, shall be provided with:—

(*a*) Apparatus including, in the case of a steamship, one power pump, and in the case of a motor-ship, one fixed pump which need not be a power pump, with fire hose complete with couplings and conductor whereby a sufficient jet of water can be directed into any part of the ship.

(*b*) Four fire buckets and a fireman's hatchet.

(2) Every such ship of Class VIII fitted with oil fired boilers or internal combustion machinery shall, in addition to complying with paragraph (1) of this Rule, be provided with a nozzle for attachment to the hose suitable for spraying water on oil without undue disturbance of the surface.

(3) Every such ship of Class VIII being a steamship in which oil only is used as fuel for the boiler or boilers shall, in addition to complying with paragraphs (1) and (2) of this Rule, be provided in the machinery and boiler space with:—

(*a*) A receptacle containing a suitable quantity of sand, sawdust impregnated with soda, or other approved dry material, and a scoop for distributing such material placed in a readily accessible position.

(*b*) In the boiler room and in any machinery space in which a part of the boiler oil fuel installation is situated, two approved portable fire extinguishers constructed to discharge froth or other approved medium suitable for quenching oil fires.

(*c*) Means for the 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 quantities in the boiler space with control from an easily accessible position which will not be readily cut off from use by an outbreak of fire.

(4) Every such ship of Class VIII being a motor-ship shall, in addition to complying with the requirements of paragraphs (1) and (2) of this Rule, be provided in the machinery space with:—

(*a*) Two approved portable fire extinguishers suitable for quenching oil fires.

(*b*) A receptacle containing a suitable quantity of sand, sawdust impregnated with soda or other approved dry material and a scoop for distributing such material placed in a readily accessible position.

**59.** Every ship of Class VIII being a steamship of less than 150 tons gross tonnage shall be provided with:—

(*a*) Apparatus including one power pump with hose and conductor whereby a powerful jet of water can be directed into any part of the ship, together with a spraying nozzle for use on oil fires in the case of oil fired ships.

(*b*) Three fire buckets and a fireman's hatchet.

**60.**—(1) Every ship of Class VIII being a motor-ship of less than 150 tons gross tonnage shall be provided with:—

(*a*) A pump, hand or power, and one hose, complete with couplings and conductor, whereby a sufficient jet of water can be directed into any part of the ship, together with a spraying nozzle for use on oil fires.

(*b*) Two fire buckets and a fireman's hatchet.

(*c*) Two approved portable fire extinguishers suitable for quenching oil fires.

(*d*) A receptacle containing a suitable quantity of sand, sawdust impregnated with soda, or other approved dry material, and a scoop placed in a readily accessible position in the engine room.

(2) In the case of open motor-ships of less than 150 tons gross tonnage, two fire buckets with lanyards (additional to those required by sub-paragraph (*b*) of this Rule) may be carried in lieu of a pump.

## Ships of Classes IX and IX (A)

*Steam and motor tugs, lighters, dredgers, barges and hoppers*

**61.** Ships of Classes IX and IX (A) shall be provided with fire extinguishing appliances in accordance with the appropriate requirements of Rules 57 to 60 of these Rules relevant to the type and size of the ship in each case.

## Ships of Class X

*Fishing boats within the meaning of Section 370 of the Merchant Shipping Act, 1894*

**62.**—(1) Every ship of Class X which proceeds on voyages outside the Home Trade limits shall be provided with:—

(*a*) Apparatus including a power pump with fire hose complete with couplings and conductor, whereby a powerful jet of water can be directed into any part of the ship.

(*b*) Four fire buckets, two with lanyards.

(2) Every ship of Class X fitted with oil fired boilers or internal combustion machinery which proceeds on voyages outside the Home Trade limits, shall in addition to complying with the requirements of paragraph (1) of this Rule, be provided with a nozzle for attaching to the fire hose suitable for spraying water on oil without undue disturbance of the surface.

(3) Every steamship of Class X fitted with a boiler or boilers which are oil fired which proceeds on voyages outside the Home Trade limits, shall, in addition to complying with the requirements of paragraphs (1) and (2) of this Rule, be provided in the boiler room with:—

(*a*) A receptacle containing at least 6 cubic feet of sand, sawdust impregnated with soda, or other approved dry material, and scoops for distributing the material.

(*b*) Two approved portable fire extinguishers constructed to discharge froth or other approved medium suitable for quenching oil fires.

(*c*) Means for the admission of smothering gas or steam in sufficient quantity with control from an easily accessible position which will not be readily cut off from use by an outbreak of fire.

(4) Every motor-ship of Class X which proceeds on voyages outside the Home Trade limits shall be provided in the machinery space with portable fire extinguishers discharging 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 500 ... ... ... ... ... ... | 2 |
| Exceeding 500 but not exceeding 1,000 ... ... ... | 3 |
| Exceeding 1,000 but not exceeding 2,000 ... ... | 4 |

In the case of motor-ships fitted with oil fired auxiliary boilers the requirements of paragraph (3) of this Rule must also be complied with, except that an approved extinguisher of suitable capacity constructed to discharge froth may be provided in lieu of the means for the admission of smothering gas or steam prescribed in sub-paragraph (*c*) thereof.

**63.**—(1) Every steamship of Class X engaged on voyages within the Home Trade limits shall be provided with:—

(*a*) Apparatus including a power pump with hose and conductor whereby a sufficient jet of water can be directed into any part of the ship.

(*b*) Four buckets, two with lanyards.

(2) Every ship of Class X fitted with oil fired boiler or boilers, and engaged on voyages within the Home Trade limits, shall, in addition to complying with the requirements of paragraph (1) of this Rule, be provided with a nozzle for attaching to the fire hose suitable for spraying water on oil without undue disturbance of the surface.

**64.** Every motor-ship of Class X exceeding 70 feet in length engaged on voyages within the Home Trade limits shall be provided with:—

(*a*) One pump (which need not be a power pump) a fire hose and conductor whereby a sufficient jet of water can be directed into any part of the ship, and a nozzle for attaching to the fire hose suitable for spraying water on oil without undue disturbance of the surface.

(*b*) Three buckets, one with lanyard.

(*c*) Two approved portable fire extinguishers suitable for quenching oil fires.

(*d*) A receptacle containing a suitable quantity of sand, sawdust impregnated with soda, or other approved dry material, and a scoop for distributing the material.

**65.** Every motor-ship of Class X of 70 feet in length and under engaged on voyages within the Home Trade limits shall be provided with:—

(*a*) Two fire buckets with lanyards.

(*b*) Two approved portable fire extinguishers suitable for quenching oil fires.

(*c*) A receptacle containing a suitable quantity of sand, sawdust impregnated with soda, or other approved dry material, and a scoop for distributing such material.

## Ships of Class XI

### *Sailing Ships which proceed to Sea*

**66.**—(1) Every ship of Class XI shall be provided with:—

(*a*) One pump, a fire hose and conductor whereby a sufficient jet of water can be directed into any part of the ship.

(*b*) Four fire buckets, two with lanyards.

(2) Every ship of Class XI which proceeds on voyages outside the Home Trade limits shall, in addition to complying with the requirements of paragraph (1) of this Rule, be provided with 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.

(3) The Minister of Transport may in his discretion relieve a ship to which this rule applies wholly or partially from the provisions of this Rule.

## General

*The following Rules numbered 67 to 77 inclusive, shall apply generally in relation to the provision and employment of the fire extinguishing appliances required, in pursuance of these Rules, to be carried on a ship of any class.*

### *Ready availability of Fire Appliances*

**67.** 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.

### *Pumps*

**68.**—(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.

### *Water Service Pipes*

**69.**—(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.

*Fire Hoses*

**70.**—(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.

*Fire Buckets*

**71.** Where fire buckets are specified they shall be of about two gallons capacity and shall be reserved for the purpose of fire extinguishing. Such buckets shall be painted red and marked " FIRE " and be kept ready for use in readily accessible positions. At least half the number of fire buckets required to be provided shall be fitted with lanyards.

*Portable Fire Extinguishers*

**72.**—(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 motor-ships, one of the extinguishers shall where possible be stowed near the entrance to the motor space.

*Fire Smothering Gas or Steam for Cargo Spaces and Boiler Rooms*

**73.**—(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.

In tankers the arrangements for steaming out cargo tanks shall provide for steam being distributed over the surface of the contents of the tanks.

(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.

*Breathing Apparatus and Smoke Helmets*

**74.**—(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 ten 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 galvanised 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.

*Safety Lamps*

**75.** 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*

**76.** 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*

**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.

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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.

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# 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.