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## GOEWERMENSKENNISGEWING.

C. F. MARAIS,  
Sekretaris van Suidwes-Afrika.

Kantoor van die Administrateur,  
Windhoek.

### DEPARTEMENT VAN VERVOER.

No. R. 193 (Unie).] [12 Februarie 1960.

#### MARINE-AFDELING.

#### REGULASIES OP DIE VOORSIENING VAN REDDINGSUITRUSTING OP SKEPE.

Dit het die Minister van Vervoer behaag om, kragtens  
die bepalings van artikel *driehonderd vyf-en-sestig* van die  
Handelskeepvaartwet, 1951 (Wet No. 57 van 1951), die  
volgende regulasies uit te vaardig.

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## GOVERNMENT NOTICE.

C. F. MARAIS,  
Secretary for South West Africa.

Administrator's Office,  
Windhoek.

### DEPARTMENT OF TRANSPORT.

No. R. 193 (Union).] [12 February 1960.

#### MARINE DIVISION.

#### REGULATIONS GOVERNING THE PROVISION OF LIFE-SAVING EQUIPMENT ON SHIPS.

The Minister of Transport has been pleased, under the  
provisions of section *three hundred and fifty-six* of the  
Merchant Shipping Act, 1951 (Act No. 57 of 1951), to  
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### INLEIDING.

#### 1. TITEL VAN HIERDIE REGULASIES.

Hierdie regulasies word die Regulasies vir Reddingsuitrusting, 1960, genoem.

(OPMERKING.—Die inleidende bepalings van die regulasies omvat Deel I en Deel II. Deel I handel oor reddingsuitrusting en Deel II oor brandtoestelle.)

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### PRELIMINARY.

#### 1. TITLE OF THESE REGULATIONS.

These regulations are called the Life-saving Equipment Regulations, 1960.

(NOTE.—The Preliminary to the regulations covers both Part I and Part II. Part I deals with life-saving appliances and Part II with fire appliances.)



## 2. WOORDBETEKENIS.

In hierdie regulasies beteken die uitdrukking „die Wet” die Handelskeepvaartwet, 1951 (Wet No. 57 van 1951) en, tensy uit die samehang anders blyk, het enige uitdrukking waaraan daar in die Wet ’n betekenis toegeken is, wanneer dit in hierdie regulasies gebruik word, die aldus toegekende betekenis, en beteken—

- „drywende toestelle”, drywende uitrusting, uitgesonderd reddingsboei en reddingsbuis, ontwerp om persone in die water te steun;
- „Klas A-motorreddingsboot”, ’n reddingsboot wat voldoen aan die vereistes van paragraaf (1) van regulasie 22;
- „Klas B-motorreddingsboot”, ’n reddingsboot wat voldoen aan die vereistes van paragraaf (2) van regulasie 22;
- „Klas C-boot”, ’n boot wat voldoen aan die vereistes van die Sesde Bylae;
- „bemanningsruim”, akkommodasie vir die bemanning;
- „oppompbare reddingsvlot”, ’n oppompbare reddingsvlot wat voldoen aan die vereistes van regulasie 25;
- „lengte”, met betrekking tot ’n skip, geregistreerde lengte;
- „reddingsboot”, ’n boot wat voldoen aan die vereistes van die Tweede Bylae;
- „meganisaangedrewe reddingsboot”, ’n reddingsboot, uitgesonderd ’n motorreddingsboot, wat voldoen aan die vereistes van regulasie 23;
- „myl”, ’n seemyl van 6,080 voet;
- „passasiersruim”, ’n ruim voorsien vir die gebruik van passasiers;
- „persoon”, ’n persoon oor die ouderdom van een jaar;
- „draagbare brandblusser”, met betrekking tot ’n koolsuurgasbrandblusser, ’n brandblusser met ’n inhoud van hoogstens 15 pond koolsuurgas, met betrekking tot ’n koolstoftetrachloriedbrandblusser, ’n brandblusser met ’n nominale vloeistofinhoud van een kwart, en met betrekking tot enige ander brandblusser, ’n brandblusser met ’n inhoud van hoogstens 3 gelling en minstens 2 gelling vloeistof;
- „tenkskip”, ’n skip gebou of aangepas vir die massavervoer van vloeistofvrage van ontvlambare aard;
- „ton”, bruto registerton.

[OPMERKING.—Afdeling twee van die Wet sluit die volgende woordbepalings in:—

- „akkommodasie vir die bemanning”, ook slaapkamers, pakkamers, skeepskombuis, eetkamers, sanitêre akkommodasie, hospitale en ruimtes vir ontspanning wat vir gebruik deur of tot voordeel van seelui of leerling-offisiere verskaf word;
- „vissersboot”, ’n skip wat vir gewin ter see visvang, maar dit omvat geen robbevaarder of walvisvaarder nie;
- „internasionale reis”, in verband met skepe wat in ’n land geregistreer is waarop die Veiligheidskonvensie van toepassing is, beteken dit ’n reis vanaf ’n hawe in een land na ’n hawe in ’n ander land waar een van die twee ’n land is waarop die Veiligheidskonvensie van toepassing is; en
- „kort internasionale reis”, ’n internasionale reis waarop ’n skip nie meer as tweehonderd seemyl vanaf ’n hawe waarin die passasiers of bemanning in veiligheid gebring sou kan word, sal wees nie, en waarop die afstand tussen die laaste aanloophawe van die land waarin die reis ’n aanvang geneem het en die uiteindelijke bestemmingshawe, nie meer as seshonderd seemyl sal wees nie;
- „Minister”, die Minister van Vervoer;
- „passassier”, ’n persoon wat op ’n skip vervoer word, behalwe—

- (a) ’n persoon wat in enige hoedanigheid aan boord van die skip in verband met die besigheid van die skip in diens is of bedrywig is;

## 2. INTERPRETATION.

In these regulations the expression “the Act” means the Merchant Shipping Act, 1951 (Act No. 57 of 1951), and unless the context otherwise indicates, any expression used in these regulations to which a meaning has been assigned in the Act, bears the meaning so assigned, and—

- “buoyant apparatus” means flotation equipment, other than lifebuoys and lifejackets, designed to support persons who are in the water;
- “Class A motor lifeboat” means a lifeboat complying with the requirements of paragraph (1) of regulation 22;
- “Class B motor lifeboat” means a lifeboat complying with the requirements of paragraph (2) of regulation 22;
- “Class C boat” means a boat complying with the requirements of the Sixth Schedule;
- “crew space” means crew accommodation;
- “inflatable liferaft” means an inflatable liferaft complying with the requirements of regulation 25;
- “length” in relation to a ship, means registered length;
- “lifeboat” means a boat complying with the requirements of the Second Schedule;
- “mechanically propelled lifeboat” means a lifeboat, other than a motor lifeboat, complying with the requirements of regulation 23;
- “mile” means a nautical mile of 6,080 feet;
- “passenger space” means space provided for the use of passengers;
- “person” means a person over the age of one year;
- “portable fire extinguisher”, in respect of a carbon dioxide fire extinguisher means a fire extinguisher with a capacity of not more than 15 pounds of carbon dioxide, in respect of a carbon tetrachloride fire extinguisher means a fire extinguisher with a nominal fluid capacity of one quart, and in respect of any other fire extinguisher means a fire extinguisher with a capacity of not more than 3 gallons and not less than 2 gallons of fluid;
- “tanker” means a ship constructed or adapted for the carriage in bulk of liquid cargoes of an inflammable nature;
- “tons” means gross register tons.

[NOTE.—Section two of the Act includes the following definitions:—

- “crew accommodation” includes sleeping rooms, store rooms, galleys, mess rooms, sanitary accommodation, hospitals and recreation spaces provided for use by or for the benefit of seamen and apprentice-officers;
- “fishing boat” means any ship engaged in sea fishing for profit, but does not include any sealing boat or whaling boat;
- “international voyage”, when used with reference to ships registered in a country to which the Safety Convention applies, means a voyage from a port in one country to a port in another country either of those countries being a country to which the Safety Convention applies; and “short international voyage” means an international voyage in the course of which a ship is not more than two hundred nautical miles from a port in which the passengers and crew could be placed in safety, and which does not exceed six hundred nautical miles in length between the last port of call in the country in which the voyage begins and the final port of destination;
- “Minister” means the Minister of Transport;
- “passenger” means any person carried in a ship, except—

- (a) a person employed or engaged in any capacity on board the ship on the business of the ship;

(b) 'n persoon wat aan boord van die skip is of ingevolge die verpligting wat hierdie Wet die gesagvoerder opleë om skipbreukelinge, mense in nood of ander persone te vervoer, of vanweë enige omstandigheid wat nóg die gesagvoerder nóg die eienaar nóg die bevrachter (as daar een is) kon voorkom het nie; en

(c) 'n kind wat onder een jaar oud is;

„passasierskip”, 'n skip wat meer as twaalf passasiers vervoer;

„Veiligheidskonvensie”, die Internasionale Konvensie vir die Beveiliging van Menselewens op See wat op die tiende dag van Junie 1948 in London onderteken is, en waarvan 'n vertaling in die Tweede Bylae van hierdie Wet opgeneem is, en enige wysiging daarvan;

„robbevaarder”, 'n skip wat uitsluitend vir robbevangs gebruik word;

„Sekretaris”, die Sekretaris van Vervoer;

„skip,” enige soort vaartuig wat in navigasie gebruik word en nie deur middel van roeispane voortbeweeg word nie;

„walvisvaarder met landbasis”, 'n walvisvaarder wat sy gehele vangs vir verwerking in 'n fabriek wat aan wal in die Unie opgerig is, aflewer.]

### 3. TOEPASSING.

Hierdie regulasies is van toepassing op—

(a) alle skepe geregistreer of gelisensieer in die Unie of wat ingevolge die Wet vereis word om sodanig geregistreer of gelisensieer te wees, waar sodanige skepe ook al mag wees; en

(b) ander skepe terwyl hulle hul in enige hawe van die Unie bevind: Met dien verstande dat hierdie subparagraaf nie van toepassing is op plesierjagte van minder as 25 ton nie.

[OPMERKING.—Die aandag word gevestig op artikel tweehonderd drie-en-veertig van die Wet ingevolge waarvan hierdie bepalings nie van toepassing is op skepe wat nie in die Unie geregistreer is nie indien hulle hul binne die Unie of die Unie se territoriale waters bevind vanweë weers- of enige ander omstandighede wat nóg die gesagvoerders nóg die eienaars nóg die bevrachters (as daar is) kon vermy of voorkom het nie.]

### 4. KLASSIFIKASIE VAN SKEPE.

Die skepe waarop hierdie regulasies van toepassing is, word in die volgende klasse ingedeel:—

#### (a) Passasierskepe.

Klas I.—Passasierskepe wat gebruik word op reise enige waarvan internasionale reise is, uitgesonderd kort internasionale reise.

Klas II.—Passasierskepe, uitgesonderd skepe van Klas I, wat gebruik word op reise enige waarvan kort internasionale reise is.

Klas IIA.—Passasierskepe, uitgesonderd skepe van Klas VI, wat gebruik word op reise van enige aard, uitgesonderd internasionale reise.

Klas III.—Nog nie toegewys nie.

Klas IV.—Nog nie toegewys nie.

Klas V.—Nog nie toegewys nie.

Klas VI.—Passasierskepe wat slegs gebruik word op reise van die volgende soort:—

(a) Reise met hoogstens 250 passasiers aan boord, ter see of in gedeeltelike kalm water, in albei gevalle in gunstige weer, gedurende welke reise die skepe op geen tydstip meer as 15 myl uitgesonderd enige kalm water, van hulle afreisepunt af of meer as 5 myl van die land is nie; of

(b) reise op kalm water.

(b) a person on board the ship either in pursuance of the obligation laid upon the master to carry shipwrecked, distressed or other persons or by reason of any circumstance that neither the master nor the owner nor the charterer (if any) could have prevented; and

(c) a child under one year of age;

“passenger ship” means a ship which carries more than twelve passengers;

“Safety Convention” means the International Convention for the Safety of Life at Sea signed in London on the tenth day of June, 1948, and set out in the Second Schedule hereto, and any amendment thereof;

“sealing boat” means any ship exclusively employed in seal-catching;

“Secretary” means the Secretary for Transport;

“ship” means any kind of vessel used in navigation not propelled by oars;

“shore-based whaling boat” means a whaling boat which delivers the whole of its catch to be processed in a factory established ashore in the Union.]

### 3. APPLICATION.

These regulations shall apply to—

(a) all ships registered or licensed in the Union or which in terms of the Act are required to be so registered or licensed, wherever such ships may be; and

(b) other ships while they are within any port in the Union. Provided that this sub-paragraph shall not apply to pleasure yachts of less than twenty-five tons.

[NOTE.—Attention is invited to section two hundred and fifty-three of the Act in terms of which these provisions shall not apply to ships not registered in the Union if they are within the Union or the territorial waters thereof due to stress of weather or any other circumstances that neither the masters nor the owners nor the charterers (if any) could have prevented or forestalled.]

### 4. CLASSIFICATION OF SHIPS.

The ships to which these regulations apply shall be divided into the following classes:—

#### (a) Passenger Ships.

Class I.—Passenger ships engaged on voyages any of which are international voyages other than short international voyages.

Class II.—Passenger ships, other than ships of Class I, engaged on voyages any of which are short international voyages.

Class IIA.—Passenger ships, other than ships of

Class VI, engaged on voyages of any kind other than international voyages.

Class III.—Not yet allocated.

Class IV.—Not yet allocated.

Class V.—Not yet allocated.

Class VI.—Passenger ships engaged only on voyages of the following descriptions:—

(a) Voyages with not more than 250 passengers on board, to sea or in partially smooth waters, in either case in fine weather, in the course of which voyages the ships are at no time more than 15 miles, exclusive of any smooth waters, from their point of departure nor more than 5 miles from land; or

(b) voyages in smooth waters.



*(b) Skepe, uitgesonderd passasierskepe.*

Klas VII.—Skepe (uitgesonderd skepe van Klas VIIA, IX, X, XI en XII) wat gebruik word op reise enige waarvan internasionale reise is, uitgesonderd kort internasionale reise.

Klas VIIA.—Skepe, uitgesonderd walvisvaarders met 'n landbasis, wat gebruik word in die walvisnywerheid.

Klas VIII.—Skepe (uitgesonderd skepe van Klas X, XI en XII) wat gebruik word op reise tussen Uniehawens of op kort internasionale reise.

Klas IX.—Sleepbote, verbindingsbote, barkasbote, ligters, baggerskepe, trek- en baggerskuite wat gebruik word by Uniehawens en wat kort afstande ter see uitvaar.

Klas IXA.—Sleepbote, verbindingsbote, barkasbote, ligters, baggerskepe, trek- en baggerskuite wat gebruik word by Uniehawens, maar wat nie ter see gaan nie.

Klas X.—Vissersbote, robbevaarders en walisvaarders met 'n landbasis.

Klas XI.—Seilskepe (uitgesonderd skepe van Klas X en XII) wat ter see gaan.

Klas XII.—Plesierjagte.

## DEEL I.—REDDINGSUITRUSTING.

## HOOFSTUK I.—REDDINGSUITRUSTING VIR DIE ONDERSKEIE KLASSE SKEPE.

## 5. SKEPE VAN KLAS I.

(1) Elke Klas I-skip moet, behoudens die bepalings van regulasie 49, in ooreenstemming met die lengte van die skip, toegerus wees met die getal stelle davits genoem in kolom A van die Tabel in die Eerste Bylae: Met dien verstande dat van geen skip vereis word om toegerus te wees met 'n groter getal stelle davits as die getal reddingsbote nodig om die totale getal persone wat die skip gesertifiseer is om te vervoer, op te neem nie.

(2) Aan elke sodanige stel davits moet 'n reddingsboot bevestig wees.

(3) Elke Klas I-skip moet twee bote, bevestig aan davits, aan boord hê—een aan elke kant van die skip—vir gebruik in 'n noodgeval. Hierdie bote moet nie langer as 26 voet wees nie. Hulle kan, vir die toepassing van hierdie regulasie, as reddingsbote beskou word, indien hulle voldoen aan die vereistes van hierdie Deel, wat van toepassing is op reddingsbote, behalwe dat in skepe waar aan die vereistes van paragraaf (11) van regulasie 39 voldoen word deur middel van toestelle wat aan die kante van die reddingsbote aangebring is, daar nie vereis word dat sodanige toestelle aan hierdie twee noodbote aangebring word nie.

(4) Waar die reddingsbote wat aan boord is, ooreenkomstig die voorafgaande bepalings van hierdie regulasie, nie die totale getal persone wat die skip gesertifiseer is om te dra, kan opneem nie, moet, sover doenlik onder dié omstandighede addisionele stelle davits met reddingsbote daaraan bevestig aangebring word, om die tekort in sodanige akkommodasie aan te vul. Indien dit onprakties is om sodanige addisionele stelle davits aan te bring, moet addisionele reddingsbote, voldoende om die genoemde tekort aan te vul, onder elke of enige van die reddingsbote bevestig aan davits, gedra word, maar moet nie onder die twee noodbote wat ooreenkomstig paragraaf (3) aan boord is, gedra word nie.

(5) Die reddingsbote wat ooreenkomstig hierdie regulasie aan boord moet wees, moet minstens 24 voet lank wees.

(6) Waar die getal reddingsbote, wat ooreenkomstig hierdie regulasie aan boord moet wees, 20 of meer is, moet twee sodanige reddingsbote Klas A-motorreddingsbote wees.

(7) Waar die getal reddingsbote, wat ooreenkomstig hierdie regulasie aan boord moet wees, meer as 13, maar minder as 20 is, moet een van sodanige reddingsbote 'n

*(b) Ships other than Passenger Ships.*

Class VII.—Ships (other than ships of Classes VIIA, IX, X, XI and XII) engaged on voyages any of which are international voyages other than short international voyages.

Class VIIA.—Ships engaged in the whaling industry, other than shore-based whaling boats.

Class VIII.—Ships (other than ships of Classes X, XI and XII) engaged on voyages between ports in the Union or on short international voyages.

Class IX.—Tugs, tenders, launches, lighters, dredgers, barges and hoppers which are employed at ports in the Union and proceed for short distances to sea.

Class IXA.—Tugs, tenders, launches, lighters, dredgers, barges and hoppers which are employed at ports in the Union and do not proceed to sea.

Class X.—Fishing boats, sealing boats and shore-based whaling boats.

Class XI.—Sailing ships (other than ships of Classes X and XII) which proceed to sea.

Class XII.—Pleasure yachts.

## PART I.—LIFE-SAVING APPLIANCES.

## CHAPTER I.—LIFESAVING APPLIANCES FOR THE RESPECTIVE CLASSES OF SHIPS.

## 5. SHIPS OF CLASS I.

(1) Every Class I ship shall, subject to the provisions of regulation 49, be fitted in accordance with its length, with the number of sets of davits specified in column A of the Table set out in the First Schedule: Provided that no ship shall be required to be fitted with a number of sets of davits greater than the number of lifeboats required to accommodate the total number of persons the ship is certified to carry.

(2) A lifeboat shall be attached to every such set of davits.

(3) Every Class I ship shall carry two boats attached to davits—one on each side of the ship—for use in an emergency. These boats shall be not more than 26 feet in length. They may be counted as lifeboats for the purposes of this regulation if they comply with the requirements of this Part applying to lifeboats, except that in ships in which the requirements of paragraph (11) of regulation 39 are met by means of appliances fitted to the sides of the lifeboats, such appliances shall not be required to be fitted to these two emergency boats.

(4) Where the lifeboats carried in compliance with the foregoing provisions of this regulation will not accommodate the total number of persons which the ship is certified to carry, additional sets of davits with lifeboats attached shall be fitted as far as is practicable in the circumstances to make up the deficiency in such accommodation. If it is impracticable to fit such additional sets of davits, additional lifeboats, sufficient to make up the said deficiency shall be carried under each or any of the lifeboats attached to davits, but shall not be carried under the two emergency boats carried in compliance with paragraph (3).

(5) The lifeboats carried in compliance with this regulation shall be not less than 24 feet in length.

(6) Where the number of lifeboats carried in compliance with this regulation is 20 or more, two of such lifeboats shall be Class A motor lifeboats.

(7) Where the number of lifeboats carried in compliance with this regulation is more than 13 but less than 20, one of such lifeboats shall be a Class A motor lifeboat

Klas A-motorreddingsboot en 'n tweede van sodanige reddingsbote of 'n Klas A- motorreddingsboot of 'n Klas B-motorreddingsboot of 'n meganiesaangedrewe reddingsboot wees.

(8) Waar die getal reddingsbote wat, ooreenkomstig hierdie regulasie aan boord moet wees 13 of minder is, moet een van sodanige reddingsbote 'n Klas A-motorreddingsboot, of 'n Klas B- motorreddingsboot of 'n meganies aangedrewe reddingsboot wees.

(9) Elke Klas A-motorreddingsboot moet voorsien wees van die uitrusting in regulasie 34 genoem.

(10) Elke Klas I-skip wat nie twee Klas A-motorreddingsbote, voorsien van uitrusting genoem in regulasie 34, aan boord het nie, moet draagbare radiotelegrafiese uitrusting, wat voldoen aan die vereistes van regulasie 44, aan boord hê.

(11) Elke Klas I-skip moet drywende toestelle aan boord hê wat voldoende is om 25 persent van die totale getal persone wat die skip gesertifiseer is om te vervoer, op te neem.

(12) Elke Klas I-skip moet minstens die getal reddingsboeie aan boord hê soos vasgestel ooreenkomstig die volgende tabel:—

| <i>Lengte van skip in voet.</i>      | <i>Minimum getal reddingsboeie.</i> |
|--------------------------------------|-------------------------------------|
| Minder as 200.....                   | 8                                   |
| 200 of meer, maar minder as 400..... | 12                                  |
| 400 of meer, maar minder as 600..... | 18                                  |
| 600 of meer, maar minder as 800..... | 24                                  |
| 800 of meer.....                     | 30                                  |

(OPMERKING.—Die aandag word gevestig op regulasie 29 wat handel oor die getal reddingsboeie wat met selfontbrandende ligte en met lyne toegerus moet word.)

(13) Elke Klas I-skip moet deurgaans voorsien wees van seine wat met elektrisiteit werk en wat vanaf die brug beheer word om passasiers na monsterposte te ontbied.

(14) Elke Klas I-skip moet een reddingsbuis vir elke persoon wat die skip gesertifiseer is om te vervoer, aan boord hê.

(15) Elke Klas I-skip moet 'n lynwerptoestel aan boord hê.

## 6. SKEPE VAN KLAS II.

(1) Elke Klas II-skip moet, behoudens die bepalings van paragraaf (b) en van regulasie 49 en in ooreenstemming met die lengte van die skip, toegerus wees met die getal stelle davits genoem in kolom A van die Tabel in die Eerste Bylae: Met dien verstande dat van geen skip vereis word om toegerus te wees met 'n groter getal stelle davits as die getal reddingsbote nodig om die totale getal persone wat die skip gesertifiseer is om te vervoer, op te neem nie.

(2) 'n Reddingsboot moet aan elke sodanige stel davits bevestig wees en die reddingsbote so bevestig, moet altesaam, behoudens die bepalings van paragraaf (6), minstens die draagvermoë genoem in kolom C van die tabel uiteengesit in die Eerste Bylae, voorsien.

(3) Elke Klas II-skip moet twee bote, bevestig aan davits, aan boord hê—een aan elke kant van die skip—vir gebruik in 'n noodgeval. Hierdie bote moet nie langer as 26 voet wees nie. Hulle kan as reddingsbote beskou word vir die toepassing van hierdie regulasie indien hulle voldoen aan die vereistes van hierdie Deel wat op reddingsbote van toepassing is, behalwe dat in skepe waar aan die vereistes van paragraaf (11) van regulasie 39 voldoen word deur middel van toestelle wat aan die kante van die reddingsbote aangebring is, daar nie vereis word dat sodanige toestelle aan hierdie twee noodbote aangebring word nie.

(4) Waar die reddingsbote, wat ooreenkomstig die vooraangaande bepalings van hierdie regulasie aan boord is, nie die totale getal persone wat die skip gesertifiseer is om te vervoer, kan opneem nie, moet, behoudens die bepalings van paragrafe (5) en (6), sover doenlik onder dié omstandighede, addisionele stelle davits met reddingsbote daaraan bevestig, aangebring word om die tekort in sodanige akkommodasie aan te vul. Indien dit

and a second of such lifeboats shall be either a Class A motor lifeboat or a Class B motor lifeboat or a mechanically propelled lifeboat.

(8) Where the number of lifeboats carried in compliance with this regulation is 13 or less, one of such lifeboats shall be a Class A motor lifeboat, or a Class B motor lifeboat or a mechanically propelled lifeboat.

(9) Every Class A motor lifeboat shall be provided with the equipment specified in regulation 34.

(10) Every Class I ship which does not carry two Class A motor lifeboats provided with the equipment specified in regulation 34, shall carry portable radio-telegraph equipment which shall comply with the requirements of regulation 44.

(11) Every Class I ship shall carry buoyant apparatus sufficient to support 25 per cent of the total number of persons the ship is certified to carry.

(12) Every Class I ship shall carry at least the number of lifebuoys determined in accordance with the following table:—

| <i>Length of Ship in Feet.</i>  | <i>Minimum Number or Lifebuoys.</i> |
|---------------------------------|-------------------------------------|
| Under 200.....                  | 8                                   |
| 200 or over, but under 400..... | 12                                  |
| 400 or over, but under 600..... | 18                                  |
| 600 or over but, under 800..... | 24                                  |
| 800 or over.....                | 30                                  |

(NOTE.—Attention is invited to regulation 29 dealing with the number of lifebuoys which shall be fitted with self-igniting lights and with lines).

(13) Every Class I ship shall be provided throughout with electrically operated signals controlled from the bridge for summoning passengers to muster stations.

(14) Every Class I ship shall carry one lifejacket for each person the ship is certified to carry.

(15) Every Class I ship shall carry a line-throwing appliance.

## 6. SHIPS OF CLASS II.

(1) Every Class II ship shall, subject to the provisions of paragraph (6) and of regulation 49, be fitted, in accordance with its length, with the number of sets of davits specified in column A of the table set out in the First Schedule: Provided that no ship shall be required to be fitted with a number of sets of davits greater than the number of lifeboats required to accommodate the total number of persons which the ship is certified to carry.

(2) A lifeboat shall be attached to every such set of davits and the lifeboats so attached shall, subject to the provisions of paragraph (6), together provide at least the capacity specified in column C of the table set out in the First Schedule.

(3) Every Class II ship shall carry two boats attached to davits—one on each side of the ship—for use in an emergency. These boats shall be not more than 26 feet in length. They may be counted as lifeboats for the purposes of this regulation if they comply with the requirements of this Part applying to lifeboats, except that in ships in which the requirements of paragraph (11) of regulation 39 are met by means of appliances fitted to the sides of the lifeboats, such appliances shall not be required to be fitted to these two emergency boats.

(4) Subject to the provisions of paragraphs (5) and (6), where the lifeboats carried in compliance with the foregoing provisions of this regulation will not accommodate the total number of persons the ship is certified to carry, additional sets of davits with lifeboats attached shall be fitted as far as is practicable in the circumstances to make up the deficiency in such accommodation. If it is imprac-



onprakties is om sodanige addisionele stelle davits aan te bring, moet addisionele reddingsbote, voldoende om die genoemde tekort aan te vul, onder elkeen of enige van die reddingsbote bevestig aan davits, gedra word, maar moet nie onder die twee noodbote wat ooreenkomstig paragraaf (3) aan boord is, gedra word nie.

(5) Indien die Minister die mening toegedaan is dat die drukte van die verkeer dit genoodsaak, kan hy enige Klas II-skip wat, ooreenkomstig die bepalings van Deel III van die Eerste Bylae tot die Regulasies in verband met Konstruksie, 1960, onderverdeel is, toelaat om meer persone te vervoer as wat die reddingsbootinhoud aan boord daardie skip ooreenkomstig paragraaf (2) voorsiening voor maak: Met dien verstande dat—

(a) indien sodanige skip deur die Minister kragtens subartikel (3) van artikel tweehonderd van die Wet toegelaat word om ter see te gaan vanaf 'n hawe in die Unie op 'n internasionale reis waarop die afstand tussen die laaste aanloophawe in die Unie en die uiteindelijke bestemmingshawe hoogstens 1.200 myl is, moet sodanige skip reddingsbote, bevestig aan davits of geberg onder reddingsbote wat aan davits bevestig is, aan boord hê wat akkommodasie vir 75 persent van die persone aan boord kan verskaf; en

(b) oppompbare reddingsvlotte moet in alle gevalle aan boord wees sodat die totale getal reddingsbote tesame met sodanige oppompbare reddingsvlotte voldoende sal wees om die totale getal persone wat die skip gesertifiseer is om te vervoer, op te neem.

(6) Waar die Minister daarvan oortuig is dat dit vir 'n skip wat op 'n kort internasionale reis of op 'n reis wat nie 'n internasionale reis is nie gebruik word, onprakties is om, ooreenkomstig paragraaf (5), oppompbare reddingsvlotte op 'n bevredigende wyse te berg sonder om die getal reddingsbote te verminder, kan hy toelaat dat die getal stelle davits wat deur paragraaf (1) en regulasie 49 vereis word en die getal reddingsbote bevestig aan davits wat deur paragraaf (2) vereis word, verminder word: Met dien verstande dat—

(a) die getal reddingsbote bevestig aan davits altyd minstens twee moet wees waarvan een aan elke kant van die skip gedra moet word; en

(b) die getal reddingsbote en oppompbare reddingsvlotte altyd voldoende moet wees om die totale getal persone wat die skip gesertifiseer is om te vervoer, op te neem.

(7) Die reddingsbote wat ooreenkomstig hierdie regulasie aan boord moet wees, moet minstens 24 voet lank wees.

(8) Waar die getal reddingsbote aan boord ooreenkomstig hierdie regulasie, 20 of meer is, moet twee sodanige reddingsbote Klas A-motorreddingsbote wees.

(9) Waar die getal reddingsbote aan boord ooreenkomstig hierdie regulasie meer as 13 maar minder as 20 is, moet een van sodanige reddingsbote 'n Klas A-motorreddingsboot en 'n tweede of 'n Klas A-motorreddingsboot of 'n Klas B-motorreddingsboot of 'n meganiesaangedrewe reddingsboot wees.

(10) Waar die getal reddingsbote aan boord ooreenkomstig hierdie regulasie, 13 of minder is en die skip toegerus is met minstens die minimum getal stelle davits vasgestel deur kolom B van die tabel in die Eerste Bylae, moet een van sodanige reddingsbote 'n Klas A-motorreddingsboot of 'n Klas B-motorreddingsboot of 'n meganiesaangedrewe reddingsboot wees.

(11) Waar die getal reddingsbote aan boord ooreenkomstig hierdie regulasie, 13 of minder is en die skip ooreenkomstig paragraaf (6) met minder as die minimum getal stelle davits bepaal in kolom B van die tabel in die Eerste Bylae, toegerus is, moet een van sodanige reddingsbote 'n Klas A-motorreddingsboot of 'n Klas B-motorreddingsboot wees en 'n tweede moet of 'n Klas A-motorreddingsboot of 'n Klas B-motorreddingsboot of 'n meganiesaangedrewe reddingsboot wees.

tlicable to fit such additional sets of davits, additional lifeboats sufficient to make up the said deficiency shall be carried under each or any of the lifeboats attached to davits, but shall not be carried under the two emergency boats carried in compliance with paragraph (3).

(5) If the Minister considers that the volume of traffic necessitates it, he may permit any Class II ship, being a ship which is subdivided in accordance with the provisions of Part III of the First Schedule to the Construction Regulations, 1960, to carry persons in excess of the lifeboat capacity provided on board that ship in compliance with paragraph (2): Provided that—

(a) if such ship is permitted by the Minister in terms of sub-section (3) of section two hundred of the Act, to proceed to sea from a port in the Union on an international voyage not exceeding 1,200 miles between the last port of call in the Union and the final port of destination, such a ship shall carry lifeboats attached to davits or stowed under lifeboats attached to davits affording accommodation for 75 per cent of the persons on board; and

(b) in all cases inflatable liferafts shall be carried so that the total number of lifeboats together with such inflatable liferafts shall be sufficient to accommodate the total number of persons which the ship is certified to carry.

(6) Where the Minister is satisfied that it is impracticable in a ship engaged on a short international voyage or on a voyage which is not an international voyage, to stow satisfactorily the inflatable liferafts carried in that ship in pursuance of paragraph (5) without reducing the number of lifeboats, he may permit the number of sets of davits required to be fitted by paragraph (1) and regulation 49, and the number of lifeboats attached to davits required by paragraph (2) to be reduced: Provided that—

(a) the number of lifeboats attached to davits shall never be less than two, of which one shall be carried on each side of the ship; and

(b) the number of lifeboats and inflatable liferafts shall always be sufficient to accommodate the total number of persons which the ship is certified to carry.

(7) The lifeboats carried in compliance with this regulation shall not be less than 24 feet in length.

(8) Where the number of lifeboats carried in compliance with this regulation is 20 or more, two of such lifeboats shall be Class A motor lifeboats.

(9) Where the number of lifeboats carried in compliance with this regulation is more than 13 but less than 20, one of such lifeboats shall be a Class A motor lifeboat and a second shall be either a Class A motor lifeboat or a Class B motor lifeboat or a mechanically propelled lifeboat.

(10) Where the number of lifeboats carried in compliance with this regulation is 13 or less and the ship is fitted with at least the minimum number of sets of davits determined by column B of the table set forth in the First Schedule, one of such lifeboats shall be a Class A motor lifeboat or a Class B motor lifeboat or a mechanically propelled lifeboat.

(11) Where the number of lifeboats carried in compliance with this regulation is 13 or less and the ship is, in accordance with paragraph (6), fitted with fewer than the minimum number of sets of davits determined by column B of the table set forth in the First Schedule, one of such lifeboats shall be a Class A motor lifeboat or a Class B motor lifeboat and a second shall be a Class A motor lifeboat or a Class B motor lifeboat or a mechanically propelled lifeboat.

(12) Elke Klas A-motorreddingsboot moet voorsien wees van die uitrusting genoem in regulasie 34.

(13) Elke Klas II-skip wat nie twee Klas A-motorreddingsbote, voorsien van die uitrusting genoem in regulasie 34, aan boord het nie, moet draagbare radiotelegrafiese uitrusting wat voldoen aan die vereistes van regulasie 44, aan boord hê.

(OPMERKING.—Ingevolge regulasie 54 kan skepe vrygestel word van die voorskrifte van hierdie paragraaf.)

(14) Elke Klas II-skip moet, benewens enige oppompbare reddingsvlotte wat ooreenkomstig paragraaf (5) en (6) aan boord mag wees, oppompbare reddingsvlotte voldoende om 10 persent van die totale getal persone wat in reddingsbote opgeneem kan word, aan boord hê.

(15) Elke Klas II-skip moet minstens die getal reddingsboeie aan boord hê, soos vasgestel ooreenkomstig die volgende tabel:—

| <i>Lengte van skip in voet.</i>      | <i>Minimum getal reddingsboeie.</i> |
|--------------------------------------|-------------------------------------|
| Minder as 200.....                   | 8                                   |
| 200 of meer, maar minder as 400..... | 12                                  |
| 400 of meer, maar minder as 600..... | 18                                  |
| 600 of meer, maar minder as 800..... | 24                                  |
| 800 of meer.....                     | 30                                  |

(OPMERKING.—Die aandag word gevestig op regulasie 29 wat handel oor die getal reddingsboeie wat met selfontbrandende ligte en met lyne toegerus moet word.)

(16) Elke Klas II-skip moet een reddingsbuis vir elke persoon wat die skip gesertifiseer is om te vervoer, aan boord hê.

(17) Elke Klas II-skip moet 'n lynwerptoestel aan boord hê.

#### 7. SKEPE VAN KLAS IIA.

Die bepalinge van regulasie 6 is ook van toepassing op Klas IIA skepe.

#### 8. SKEPE VAN KLAS III.

Nog nie toegewys nie.

#### 9. SKEPE VAN KLAS IV.

Nog nie toegewys nie.

#### 10. SKEPE VAN KLAS V.

Nog nie toegewys nie.

#### 11. SKEPE VAN KLAS VI.

(1) Elke Klas VI-skip van 70 voet of langer moet sodanige bote, oppompbare reddingsvlotte of drywende toestelle aan boord hê as wat, tesame met enige bote wat ooreenkomstig paragraaf (2) aan boord moet wees, voldoende is vir alle persone aan boord die skip.

(2) Elke Klas VI-skip van 70 voet of langer, maar onder 150 voet lank, moet minstens een boot aan boord hê, en elke klas VI-skip van 150 voet of langer moet minstens twee bote aan boord hê.

Die bote moet aan davits bevestig wees.

(3) Indien 'n Klas VI-skip 70 voet of langer, maar onder 150 voet lank is, moet dit minstens vier reddingsboeie aan boord hê, en as dit 150 voet of langer is, moet dit minstens 8 reddingsboeie aan boord hê.

(4) Elke Klas VI-skip moet een reddingsbuis vir elke persoon wat die skip gesertifiseer is om te vervoer, aan boord hê.

(5) Elke Klas VI-skip wat minder as 70 voet lank is en wat nie meer as drie myl van sy afreispunt af vaar nie, moet voorsien wees van oppompbare reddingsvlotte of drywende toestelle wat voldoende is om minstens 40 persent van die totale getal persone wat die skip gesertifiseer is om te vervoer, op te neem, tesame met minstens die getal reddingsboeie as wat vasgestel word in die tabel in paragraaf 7; met dien verstande dat die oppompbare reddingsvlotte of drywende toestelle tesame met die reddingsboeie, in alle gevalle voldoende is om minstens 70 persent van die totale getal persone wat die skip gesertifiseer is om te vervoer, op te neem.

(12) Every Class A motor lifeboat shall be provided with the equipment specified in regulation 34.

(13) Every Class II ship which does not carry two Class A motor lifeboats provided with the equipment specified in regulation 34, shall carry portable radiotelegraph equipment which shall comply with the requirements of regulation 44.

(NOTE.—In terms of regulation 54 ships may be exempted from the requirements of this paragraph.)

(14) Every Class II ship shall carry in addition to any inflatable liferafts that may be carried in compliance with paragraphs (5) and (6), inflatable liferafts sufficient to accommodate 10 per cent of the total number of persons for whom there is accommodation in lifeboats.

(15) Every Class II ship shall carry at least the number of lifebuoys determined in accordance with the following table:—

| <i>Length of Ship in Feet.</i>  | <i>Minimum Number of Lifebuoys.</i> |
|---------------------------------|-------------------------------------|
| Under 200.....                  | 8                                   |
| 200 or over, but under 400..... | 12                                  |
| 400 or over, but under 600..... | 18                                  |
| 600 or over, but under 800..... | 24                                  |
| 800 or over.....                | 30                                  |

(NOTE.—Attention is invited to regulation 29 dealing with the number of lifebuoys which shall be fitted with self-igniting lights and with lines.)

(16) Every Class II ship shall carry one lifejacket for each person the ship is certified to carry.

(17) Every Class II ship shall carry a line-throwing appliance.

#### 7. SHIPS OF CLASS IIA.

The provisions of regulation 6 shall apply also to Class IIA ships.

#### 8. SHIPS OF CLASS III.

Not yet allocated.

#### 9. SHIPS OF CLASS IV.

Not yet allocated.

#### 10. SHIPS OF CLASS V.

Not yet allocated.

#### 11. SHIPS OF CLASS VI.

(1) Every Class VI ship of 70 feet or over in length shall carry such boats, inflatable liferafts or buoyant apparatus as shall be sufficient, together with any boats required to be carried in compliance with paragraph (2), for all persons on board.

(2) Every Class VI ship of 70 feet or over in length but under 150 feet in length shall carry at least one boat, and every Class VI ship of 150 feet or over in length shall carry at least two boats. The boats shall be attached to davits.

(3) If a Class VI ship is 70 feet or over in length but under 150 feet in length it shall carry at least four lifebuoys and if 150 feet or over in length it shall carry at least eight lifebuoys.

(4) Every Class VI ship shall carry one lifejacket for each person the ship is certified to carry.

(5) Every Class VI ship of less than 70 feet in length and plying not more than three miles from its starting point shall be provided with inflatable liferafts or buoyant apparatus sufficient to support at least 40 per cent of the total number of persons which the ship is certified to carry, together with lifebuoys not less in number than that set forth in the table appearing in paragraph (7), provided that the inflatable liferafts or buoyant apparatus, together with the lifebuoys, shall in all cases be sufficient to support at least 70 per cent of the total number of persons which the ship is certified to carry.



(6) Elke Klas VI-skip wat minder as 70 voet lank is en wat meer as drie myl van sy afreispoint vaar, moet voorsien word van oppompbare reddingsvlotte of drywende toestelle voldoende om minstens 60 persent van die totale getal persone wat die skip gesertifiseer is om te vervoer, op te neem, tesame met minstens die getal reddingsboeie voorgeskryf in die tabel in paragraaf (7); met dien verstande dat die oppompbare reddingvlotte of drywende toestelle tesame met die reddingsboeie, in alle gevalle voldoende is om die totale getal persone wat die skip gesertifiseer is om te vervoer, op te neem.

(7) Elke Klas VI-skip waarop paragrawe (5) en (6) van toepassing is, moet minstens die getal reddingsboeie soos in die volgende tabel aangedui, aan boord hê:—

| <i>Lengte van skip in voet.</i>               | <i>Minimum getal reddingsboeie.</i> |
|-----------------------------------------------|-------------------------------------|
| Nie meer as 30 nie.....                       | 2                                   |
| Meer as 30, maar nie meer as 35 voet nie..... | 4                                   |
| Meer as 35, maar nie meer as 40 voet nie..... | 6                                   |
| Meer as 40, maar nie meer as 50 voet nie..... | 8                                   |
| Meer as 50, maar minder as 70 voet.....       | 10                                  |

(8) Vir die toepassing van hierdie regulasie word 'n reddingsboei as voldoende beskou om twee persone op te neem.

(9) Elke Klas VI-skip moet minstens ses drywende rooksignale, wat aan die vereistes van Deel V van die Twaalfde Bylae voldoen, aan boord hê.

(10) Elke Klas VI-skip moet 'n lynwerptoestel aan boord hê.

(OPMERKING.—Die aandag word gevestig op regulasie 29 wat handel oor die getal reddingsboeie wat met selfontbrandende ligte en lyne toegerus moet word.)

## 12. SPEKE VAN KLAS VII.

(1) Elke Klas VII-skip moet aan elke kant reddingsbote aan boord hê van minstens 24 voet lank, bevestig aan davits, en met 'n voldoende totale inhoud om alle persone aan boord op te neem. Ten opsigte van tankskepe van 3,000 ton en meer, moet die getal sodanige reddingsbote aan boord minstens vier wees, waarvan twee agter en twee midskeeps gedra moet word.

(2) In elke Klas VII-skip van 1,600 ton en meer, moet een van die reddingsbote wat ooreenkomstig paragraaf (1) aan boord gehou word, 'n klas A-motorreddingsboot of 'n klas B-motorreddingsboot of 'n meganisaangedrewe reddingsboot wees.

(3) Elke Klas VII-skip moet draagbare radiotelegrafiese uitrusting, wat aan die vereistes van regulasie 44 voldoen, aan boord hê.

(4) Elke Klas VII-skip moet minstens 8 reddingsboeie aan boord hê.

(OPMERKING.—Die aandag word gevestig op regulasie 29 wat handel oor die getal reddingsboeie wat met selfontbrandende ligte en met lyne toegerus moet word.)

(5) Elke Klas VII-skip moet toegerus wees met een reddingsbuis vir elke persoon aan boord.

(6) Elke Klas VII-skip moet 'n lynwerptoestel aan boord hê.

## 13. SPEKE VAN KLAS VIIA.

(1) Behoudens die bepalings van paragraaf (2), is regulasie 12 van toepassing op klas VIIA-skepe.

(2) Elke Klas VIIA-skip wat gebruik word as 'n walvisfabriekskip en elke klas VIIA-skip wat gebruik word vir die vervoer van persone in diens van die walvisnywerheid, moet aan elke kant reddingsbote, bevestig aan davits en met sodanige totale inhoud vervoer om elke lid van die bemanning, werksaam op die skip, op te neem. Daarbenewens moet elke sodanige skip reddingsbote met 'n voldoende totale inhoud aan boord hê om die totale getal addisionele persone wat die skip vervoer, op te neem. Hierdie addisionele reddingsbote moet, waar doenlik, aan davits bevestig wees, en indien hulle nie aan davits bevestig is nie, moet hulle onder reddingsbote bevestig aan davits, geberg word.

(6) Every Class VI ship of less than 70 feet in length and plying more than three miles from its starting point shall be provided with inflatable liferafts or buoyant apparatus sufficient to support at least 60 per cent of the total number of persons which the ship is certified to carry, together with lifebuoys not less in number than that set forth in the table appearing in paragraph (7), provided that the inflatable liferafts or buoyant apparatus together with the lifebuoys, shall in all cases be sufficient to support the total number of persons which the ship is certified to carry.

(7) Every Class VI ship to which paragraphs (5) and (6) apply, shall carry at least the number of lifebuoys indicated by the following table:—

| <i>Length of Ship in Feet.</i> | <i>Minimum Number of Lifebuoys.</i> |
|--------------------------------|-------------------------------------|
| Not over 30.....               | 2                                   |
| Over 30, but not over 35.....  | 4                                   |
| Over 35, but not over 40.....  | 6                                   |
| Over 40, but not over 50.....  | 8                                   |
| Over 50, but under 70.....     | 10                                  |

(8) For the purposes of this regulation, a lifebuoy shall be deemed sufficient to support two persons.

(9) Every Class VI ship shall carry at least six buoyant smoke signals complying with the requirements of Part V of the Twelfth Schedule.

(10) Every Class VI ship shall carry a line-throwing appliance.

(NOTE.—Attention is invited to regulation 29 dealing with the number of lifebuoys which shall be fitted with self-igniting lights and with lines.)

## 12. SHIPS OF CLASS VII.

(1) Every Class VII ship shall carry on each side of the ship lifeboats not less than 24 feet in length, attached to davits, and of sufficient aggregate capacity to accommodate all persons on board. In the case of tankers of 3,000 tons or over, the number of such lifeboats on board shall not be less than four, two of which shall be carried aft and two amidships.

(2) In every Class VII ship of 1,600 tons or over, one of the lifeboats carried in compliance with paragraph (1) shall be a Class A motor lifeboat or a Class B motor lifeboat or a mechanically propelled lifeboat.

(3) Every Class VII ship shall carry portable radio-telegraph equipment which shall comply with the requirements of regulation 44.

(4) Every Class VII ship shall carry at least 8 lifebuoys.

(NOTE.—Attention is invited to regulation 29 dealing with the number of lifebuoys which shall be fitted with self-igniting lights and with lines.)

(5) Every Class VII ship shall carry one lifejacket for each person on board.

(6) Every Class VII ship shall carry a line-throwing appliance.

## 13. SHIPS OF CLASS VIIA.

(1) Subject to the provisions of paragraph (2), regulation 12 shall apply to Class VII A ships.

(2) Every Class VII A ship employed as a whale factory ship and every Class VIIA ship engaged in the carriage of persons employed in the whaling industry shall carry lifeboats attached to davits on each side of the ship of such aggregate capacity as will accommodate every member of the crew engaged to work the ship. In addition, every such ship shall carry lifeboats of an aggregate capacity sufficient to accommodate the total number of additional persons which the ship carries. These additional lifeboats shall, where practicable, be attached to davits, and if not attached to davits they shall be stowed under lifeboats attached to davits.

#### 14. SKEPE VAN KLAS VIII.

(1) Die volgende bepalings is van toepassing op Klas VIII-skepe van 500 ton of meer:—

- (a) Elke skip moet aan elke kant een of meer reddingsbote bevestig aan davits, dra, wat of reddingsbote moet wees van 24 voet of langer met 'n voldoende totale inhoud om die totale getal persone aan boord op te neem, of reddingsbote van minder as 24 voet lank met 'n voldoende totale inhoud om 'n getal persone gelyk aan die totale getal persone aan boord, plus vier, op te neem. Die getal reddingsbote ten opsigte van tankskepe van 3,000 ton of meer, moet altyd minstens vier wees, waarvan twee agter en twee mid-skeeps gedra moet word.
- (b) Elke skip moet oppompbare reddingsvlotte met 'n voldoende totale inhoud aan boord hê om die totale getal persone aan boord op te neem en wat so geberg is dat hulle maklik na die water aan enige kant van die skip oorgeplaas kan word. Skepe met 16 persone of meer aan boord moet minstens twee oppompbare reddingsvlotte aan boord hê.
- (c) In elke skip van 1,600 ton of meer, moet een van die reddingsbote wat ooreenkomstig subparagraaf (a) aan boord moet wees, 'n klas A-motorreddingsboot of 'n klas B-motorreddingsboot of 'n meganisaangedrewe reddingsboot wees.
- (d) Elke skip moet draagbare radiotelegrafiese uitrusting, wat aan die vereistes van regulasie 44 voldoen, aan boord hê.  
(OPMERKING.—Enige skip kan, behoudens die bepalings van regulasie 54, van hierdie vereiste vrygestel word.)
- (e) Elke skip moet minstens 8 reddingsboeie aan boord hê.  
(OPMERKING.—Die aandag word gevestig op regulasie 29 wat handel oor die getal reddingsboeie wat met selfontbrandende ligte en met lyne toegegerus moet word.)
- (f) Elke skip moet toegerus wees met een reddingsbuis vir elke persoon aan boord.
- (g) Elke skip moet 'n lynwerptoestel aan boord hê.

(2) Die volgende bepalings is van toepassing op klas VIII-skepe van minder as 500 ton:—

- (a) Elke skip moet die reddingsbote en oppompbare reddingsvlotte wat by subparagrafe (a) en (b) van paragraaf (1) vereis word, aan boord hê; of
  - (i) 'n reddingsboot of klas C-boot sodanig geplaas dat dit maklik aan enige kant van die skip in die water neergelaat kan word of, indien die skip 'n helling het, aan die kant wat die naaste aan die wateroppervlakte is; en
  - (ii) minstens twee oppompbare reddingsvlotte van voldoende totale inhoud om tweemaal die totale getal persone aan boord op te neem en wat sodanig geplaas is dat hulle maklik aan enige kant van die skip in die water neergelaat kan word.
- (b) Elke skip van 100 voet of langer moet minstens agt reddingsboeie aan boord hê. Indien die skip minder as 100 voet lank is, moet dit minstens een reddingsboei vir elke twee lede van die bemanning aan boord hê, met dien verstande dat die getal reddingsboeie wat sodanig vervoer moet word, nooit meer as 8 hoef te wees nie en in geen geval minder as twee moet wees nie.  
(OPMERKING.—Die aandag word gevestig op regulasie 29 wat handel oor die getal reddingsboeie wat met selfontbrandende ligte en met lyne toegegerus moet word.)
- (c) Elke skip moet toegerus wees met een reddingsbuis vir elke persoon aan boord.
- (d) Elke skip van 50 voet of langer moet 'n lynwerptoestel aan boord hê.

#### 14. SHIPS OF CLASS VIII.

(1) The following provisions shall apply to Class VIII ships of 500 tons or over:—

- (a) Every ship shall carry on each side of the ship one or more lifeboats, attached to davits, which shall either be lifeboats of 24 feet in length or over of sufficient aggregate capacity to accommodate the total number of persons on board, or lifeboats of under 24 feet in length of sufficient aggregate capacity to accommodate a number of persons equal to the total number of persons on board plus four. In the case of tankers of 3,000 tons or over, the number of such lifeboats shall never be less than four, two of which shall be carried aft and two amidships.
- (b) Every ship shall carry inflatable liferafts of sufficient aggregate capacity to accommodate the total number of persons on board and so stowed that they can be readily transferred to the water on either side of the ship. Ships with 16 or more persons on board shall carry at least two inflatable liferafts.
- (c) In every ship of 1,600 tons or over, one of the lifeboats carried in compliance with sub-paragraph (a) shall be a Class A motor lifeboat or a Class B motor lifeboat, or a mechanically propelled lifeboat.
- (d) Every ship shall carry portable radiotelegraph equipment which shall comply with the requirements of regulation 44.  
(NOTE.—Any ship may, under the provisions of regulation 54, be exempted from this requirement.)
- (e) Every ship shall carry at least eight lifebuoys.  
(NOTE.—Attention is invited to regulation 29 dealing with the number of lifebuoys to be fitted with self-igniting lights and with lines.)
- (f) Every ship shall carry one life-jacket for each person on board.
- (g) Every ship shall carry a line-throwing appliance.

(2) The following provisions shall apply to Class VIII ships of under 500 tons:—

- (a) Every ship shall carry the lifeboats and inflatable liferafts required by sub-paragraphs (a) and (b) of paragraph (1); or
  - (i) a lifeboat or Class C boat so stowed that it can readily be placed in the water on either side of the ship or, if the ship has a list, on the side which is lower in the water; and
  - (ii) at least two inflatable liferafts of sufficient aggregate capacity to accommodate twice the total number of persons on board and so stowed that they can readily be transferred to the water on either side of the ship.
- (b) Every ship of 100 feet or over in length shall carry at least eight lifebuoys. If under 100 feet in length, the ship shall carry at least one lifebuoy for each two members of the crew, provided that the number of lifebuoys so carried need never be more than eight and shall in no case be less than two.  
(NOTE.—Attention is invited to regulation 29 dealing with the number of lifebuoys to be fitted with self-igniting lights and with lines.)
- (c) Every ship shall carry one lifejacket for each person on board.
- (d) Every ship of 50 feet or over in length shall carry a line-throwing appliance.



## 15. SKEPE VAN KLAS IX.

(1) Elke Klas IX-skip moet 'n reddingsboot of 'n Klas C-boot, bevestig aan 'n davit of aan davits, aan boord hê.

(2) Elke Klas IX-skip moet oppompbare reddingsvlotte van voldoende inhoud dra om die totale getal persone aan boord op te neem en wat sodanig geplaas is dat hulle maklik aan enige kant van die skip in die water neergelaat kan word.

(3) Elke Klas IX-skip moet minstens twee reddingsboeie aan boord hê.

(OPMERKING.—Die aandag word gevestig op regulasie 29 wat handel oor die getal reddingsboeie wat met selfontbrandende ligte en met lyne toegerus moet word.)

(4) Elke Klas IX-skip moet toegerus wees met een reddingsbuis vir elke persoon aan boord.

## 16. SKEPE VAN KLAS IXA.

(1) Elke Klas IXA-skip moet minstens twee reddingsboeie aan boord hê.

(OPMERKING.—Die aandag word gevestig op regulasie 29 wat handel oor die getal reddingsboeie wat met selfontbrandende ligte en met lyne toegerus moet word.)

(2) Elke Klas IXA-skip moet toegerus wees met een reddingsbuis vir elke persoon aan boord.

## 17. SKEPE VAN KLAS X.

(1) Elke Klas X-skip van 150 voet of langer, moet minstens vier reddingsboeie aan boord hê en—

(a) minstens twee reddingsbote bevestig aan davits en sodanig gerangskik dat daar minstens een reddingsboot aan elke kant van die skip is, en sodat die reddingsbote aan elke kant van die skip voldoende inhoud of totale inhoud het om al die persone aan boord van die skip op te neem; of

(b) 'n Klas C-boot, bevestig aan 'n davit, en minstens twee oppompbare reddingsvlotte met 'n voldoende totale inhoud om dubbel die getal persone aan boord op te neem en wat so geplaas is dat hulle maklik aan enige kant van die skip in die water neergelaat kan word.

(2) Elke Klas X-skip van 75 voet of langer, maar minder as 150 voet lank, moet die volgende aan boord hê:—

(a) 'n Reddingsboot bevestig aan 'n davit, met voldoende inhoud om al die persone aan boord op te neem, en oppompbare reddingsvlotte ooreenkomstig die volgende skaal:—

Skepe met minder as 13 persone aan boord—minstens een oppompbare reddingsvlot,  
skepe met 13 of meer persone aan boord—minstens twee oppompbare reddingsvlotte,

van voldoende totale inhoud om alle persone aan boord op te neem en sodanig geplaas dat hulle maklik aan enige kant van die skip in die water neergelaat kan word; of

(b) 'n Klas C-boot bevestig aan 'n davit; en minstens twee oppompbare reddingsvlotte van voldoende totale inhoud om minstens een en 'n half maal die getal persone aan boord op te neem en sodanig geplaas dat hulle maklik aan enige kant van die skip in die water neergelaat kan word.

Elke Klas X-skip van 100 voet of langer maar minder as 150 voet lank, moet minstens vier reddingsboeie aan boord hê, en elke Klas X-skip van 75 voet of langer maar minder as 100 voet lank, moet minstens twee reddingsboeie aan boord hê.

(3) Elke Klas X-skip van 40 voet of langer maar minder as 75 voet lank, moet die volgende aan boord hê:—

(a) Oppompbare reddingsvlotte met 'n voldoende totale inhoud om al die persone aan boord van die skip op te neem, en wat so geplaas is dat hulle maklik aan enige kant van die skip in die water neergelaat kan word; of

## 15. SHIPS OF CLASS IX.

(1) Every Class IX ship shall carry a lifeboat, or a Class C boat attached to a davit or davits.

(2) Every Class IX ship shall carry inflatable liferafts of sufficient capacity to accommodate the total number of persons on board, and so stowed that they can readily be transferred to the water on either side of the ship.

(3) Every Class IX ship shall carry at least two life-buoys.

(NOTE.—Attention is invited to regulation 29 dealing with the number of lifebuoys which shall be fitted with self-igniting lights and with lines.)

(4) Every Class IX ship shall carry one lifejacket for each person on board.

## 16. SHIPS OF CLASS IXA.

(1) Every Class IXA ship shall carry at least two life-buoys.

(NOTE.—Attention is invited to regulation 29 dealing with the number of lifebuoys which shall be fitted with self-igniting lights and with lines.)

(2) Every Class IXA ship shall carry one lifejacket for each person on board.

## 17. SHIPS OF CLASS X.

(1) Every Class X ship of 150 feet or over in length shall carry at least four lifebuoys and—

(a) at least two lifeboats attached to davits, so arranged that there is at least one lifeboat on each side of the ship, the lifeboats on each side of the ship being of sufficient capacity or aggregate capacity to accommodate all persons on board the ship; or

(b) a Class C boat attached to a davit; and at least two inflatable liferafts of sufficient aggregate capacity to accommodate twice the number of persons on board and so stowed that they can readily be transferred to the water on either side of the ship.

(2) Every Class X ship of 75 feet or over in length but under 150 feet in length shall carry—

(a) a lifeboat of sufficient capacity to accommodate all persons on board, attached to a davit; and inflatable liferafts on the following scale:—

Ships with less than 13 persons on board—at least one inflatable liferaft;

Ships with 13 or more persons on board—at least two inflatable liferafts;

of sufficient aggregate capacity to accommodate all persons on board and so stowed that they can readily be transferred to the water on either side of the ship; or

(b) a Class C boat attached to a davit; and at least two inflatable liferafts of sufficient aggregate capacity to accommodate not less than one-and-a-half times the number of persons on board and so stowed that they can readily be transferred to the water on either side of the ship.

Every Class X ship of 100 feet or over in length but under 150 feet in length, shall carry at least four life-buoys, and every Class X ship of 75 feet or over in length but under 100 feet in length, shall carry at least two life-buoys.

(3) Every Class X ship of 40 feet or over in length but under 75 feet in length, shall carry—

(a) inflatable liferafts of sufficient aggregate capacity to accommodate all the persons on board the ship, so stowed that they can readily be transferred to the water on either side of the ship; or

- (b) drywende toestelle met 'n voldoende totale inhoud om al die persone aan boord van die skip te steun en wat so geplaas is dat die toestelle maklik aan enige kant van die skip in die water neergelaat kan word, tesame met 'n boot wat so geplaas is dat dit maklik in die water neergelaat kan word.

Elke Klas X-skip waarop hierdie paragraaf van toepassing is, moet minstens twee reddingsboeie aan boord hê.

(4) Elke Klas X-skip van korter as 40 voet moet twee reddingsboeie aan boord hê.

(5) Elke Klas X-skip moet toegerus wees met een reddingsbuis vir elke persoon aan boord.

(6) Elke Klas X-skip van 50 voet of langer moet 'n lynwerptoestel aan boord hê.

(OPMERKING.—Die aandag word gevestig op regulasie 29 wat handel oor die getal reddingsboeie wat met selfontbrandende ligte en met lyne toegerus moet word.)

#### 18. SKEPE VAN KLAS XI.

(1) Elke Klas XI-skip moet een of meer reddingsbote bevestig aan davits, of bote, aan boord hê, wat 'n voldoende totale inhoud het om al die persone aan boord op te neem.

(2) Elke Klas XI-skip moet minstens vier reddingsboeie aan boord hê.

(OPMERKING.—Die aandag word gevestig op regulasie 29 wat handel oor die getal reddingsboeie wat met selfontbrandende ligte en met lyne toegerus moet word.)

(3) Elke Klas XI-skip moet toegerus wees met een reddingsbuis vir elke persoon aan boord.

(4) Elke Klas XI-skip van 50 voet of langer moet 'n lynwerptoestel aan boord hê.

#### 19. SKEPE VAN KLAS XII.

(1) Elke Klas XII-skip van 70 voet of langer moet 'n boot of bote aan boord hê, met 'n voldoende totale inhoud om alle persone aan boord op te neem. Sodanige boot of bote moet sodanig geplaas word dat hulle maklik aan enige kant van die skip in die water neergelaat kan word, en tensy hulle reddingsbote is, moet die skip oppompbare reddingsvlotte of drywende toestelle aan boord hê wat voldoende is vir al die persone aan boord.

(2) Elke Klas XII-skip van korter as 70 voet moet oppompbare reddingsvlotte of drywende toestelle aan boord hê wat voldoende is vir al die persone aan boord: Met dien verstande dat oppompbare reddingsvlotte of drywende toestelle vervang kan word deur reddingsboeie op die grondslag van een reddingsboei vir elke twee persone aan boord.

(3) Elke Klas XII-skip moet minstens twee reddingsboeie aan boord hê.

(OPMERKING.—Die aandag word gevestig op regulasie 29 wat handel oor die getal reddingsboeie wat met selfontbrandende ligte en met lyne toegerus moet word.)

(4) Elke Klas XII-skip moet toegerus wees met een reddingsbuis vir elke persoon aan boord.

### HOOFSTUK II.—VEREISTES VIR REDDINGSUITRUSTING.

#### 20. ALGEMENE VEREISTES VIR REDDINGSBOTE.

Reddingsbote moet aan die vereistes van die Tweede Bylae voldoen.

#### 21. DRAAGVERMOË VAN REDDINGSBOTE.

(1) Behoudens die bepalings van paragrafe (2) en (3) moet die getal persone wat 'n reddingsboot geskik geag word om op te neem, gelyk wees aan die grootste heelgetal wat verkry word deur die inhoud van die boot in kubieke voet, vasgestel ooreenkomstig die bepalings van die Derde Bylae, deur 10 te deel.

- (b) buoyant apparatus of sufficient aggregate capacity to support all the persons on board the ship and so stowed that the apparatus can readily be transferred to the water on either side of the ship together with a boat so stowed that it can readily be placed in the water.

Every Class X ship to which this paragraph applies shall carry at least two lifebuoys.

(4) Every Class X ship under 40 feet in length shall carry two lifebuoys.

(5) Every Class X ship shall carry one lifejacket for each person on board.

(6) Every Class X ship of 50 feet or over in length shall carry a line-throwing appliance.

(NOTE.—Attention is invited to regulation 29 dealing with the number of lifebuoys which shall be fitted with self-igniting lights and with lines.)

#### 18. SHIPS OF CLASS XI.

(1) Every Class XI ship shall carry one or more lifeboats attached to davits, or boats, of sufficient aggregate capacity to accommodate all persons on board.

(2) Every Class XI ship shall carry at least four lifebuoys.

(NOTE.—Attention is invited to regulation 29 dealing with the number of lifebuoys which shall be fitted with self-igniting lights and with lines.)

(3) Every Class XI ship shall carry one lifejacket for each person on board.

(4) Every Class XI ship of 50 feet or over in length shall carry a line-throwing appliance.

#### 19. SHIPS OF CLASS XII.

(1) Every Class XII ship of 70 feet or over in length shall carry a boat or boats of sufficient aggregate capacity to accommodate all persons on board. Such boat or boats shall be so stowed that they can readily be placed in the water on either side of the ship, and unless they are lifeboats, the ship shall carry inflatable liferafts or buoyant apparatus sufficient for all persons on board.

(2) Every Class XII ship of under 70 feet in length shall carry inflatable liferafts or buoyant apparatus sufficient for all persons on board: Provided that lifebuoys may be substituted for inflatable liferafts or buoyant apparatus on the basis of one lifebuoy for each two persons on board.

(3) Every Class XII ship shall carry at least two lifebuoys.

(NOTE.—Attention is invited to regulation 29 dealing with the number of lifebuoys which shall be fitted with self-igniting lights and with lines.)

(4) Every Class XII ship shall carry one lifejacket for each person on board.

### CHAPTER II.—REQUIREMENTS FOR LIFE-SAVING APPLIANCES.

#### 20. GENERAL REQUIREMENTS FOR LIFEBOATS.

Lifeboats shall comply with the requirements of the Second Schedule.

#### 21. CARRYING CAPACITY OF LIFEBOATS.

(1) Subject to the provisions of paragraphs (2) and (3), the number of persons which a lifeboat shall be deemed fit to accommodate shall be equal to the greatest whole number obtained by dividing by ten the capacity of the boat in cubic feet, determined in accordance with the provisions of the Third Schedule.



(2) Die getal persone wat 'n reddingsboot geskik geag word om op te neem, moet nie die getal volwasse persone oorskry nie wat reddingsbuis dra en vir wie daar behoorlike sitplek op sodanige manier ingerig is, dat dié persone, wanneer hulle sit, geensins die gebruik van die roeispane bemoeilik nie.

(3) Geen reddingsboot moet geskik geag word om meer as 60 persone op te neem nie tensy—

- (a) dit 'n motorreddingsboot of 'n meganiesaaangedrewe reddingsboot is; en
- (b) dit toegerus is met middels om persone in die water in staat te stel om in die reddingsboot te klim.

## 22. MOTORREDDINGSBOTE.

(1) Behoudens die bepalinge van paragraaf (3), moet elke Klas A-motorreddingsboot, benewens dat dit voldoen aan die vereistes van die Tweede Bylae, aan die volgende vereistes voldoen:—

- (a) Dit moet toegerus wees met 'n kompressieontstekingsenjien wat aan die vereistes van Deel I van die Vierde Bylae voldoen;
- (b) dit moet voorsien wees van voldoende brandstof om dit vir 24 uur onafgebroke te laat werk;
- (c) dit moet in staat wees om agteruit te kan vaar; en
- (d) dit moet in staat wees om wanneer die reddingsboot die volle getal persone en volledige toerusting aan boord het, teen 'n spoed van minstens ses knope in kalm water vorentoe te vaar.

(2) Elke Klas B-motorreddingsboot moet, benewens dat dit voldoen aan die vereistes van die Tweede Bylae ook aan die volgende vereistes voldoen:—

- (a) Dit moet toegerus wees met 'n binnebrandenjien wat aan die vereistes van Deel II van die Vierde Bylae moet voldoen;
- (b) dit moet met voldoende brandstof voorsien wees;
- (c) dit moet in staat wees om agteruit te kan vaar; en
- (d) dit moet in staat wees om wanneer die reddingsboot die volle getal persone en volledige toerusting aan boord het, teen 'n spoed van minstens vier knope in kalm water vorentoe te vaar.

(3) Waar hierdie Deel vereis dat of 'n Klas A-motorreddingsboot of 'n Klas B-reddingsboot of 'n meganiesaaangedrewe reddingsboot aan boord moet wees en 'n Klas A-motorreddingsboot onder hierdie omstandighede voorsien word, moet die brandstofvoorraad van daardie reddingsboot alleenlik aan die vereistes van subparagraaf (b) van paragraaf (2) voldoen.

## 23. MEGANIESAANGEDREWE REDDINGSBOTE.

Meganiesaaangedrewe reddingsbote moet, benewens dat dit voldoen aan die vereistes van die Tweede Bylae, toegerus word met masjinerie wat voldoen aan die vereistes van die Vyfde Bylae.

## 24. KLAS C-BOTE.

Klas C-bote moet aan die vereistes van die Sesde Bylae voldoen.

## 25. OPPOMPBAARE REDDINGSVLOTTE.

(1) Oppompbare reddingsvlotte moet aan die vereistes van die Sewende Bylae voldoen.

(2) Die getal persone wat 'n oppompbare reddingsvlot geskik geag word om op te neem, moet gelyk wees aan—

- (a) die grootste heelgetal verkry deur die inhoud, gemeet in kubieke voet, van die drywende hoofbuis wanneer opgepomp (wat vir die toepassing hiervan nog die boë, nog die dwarsbankie of dwarsbankies, indien daarmee toegerus, insluit) deur 3·4 te deel; of
- (b) die grootste heelgetal verkry deur die oppervlakte in vierkante voet van die vloer van die reddingsvlot, wanneer opgepomp, deur 4 te deel (wat vir hierdie doel die dwarsbankie of dwarsbankies, indien daarmee toegerus, insluit), watter getal ookal die kleinste is.

(2) The number of persons which a lifeboat is deemed fit to accommodate shall not exceed the number of adult persons wearing lifejackets for which there is proper seating accommodation arranged in such a way that the persons when seated do not interfere in any way with the use of the oars.

(3) No lifeboat shall be deemed fit to accommodate more than 60 persons unless—

- (a) it is a motor lifeboat or a mechanically propelled lifeboat; and
- (b) it is fitted with means to enable persons in the water to climb into the lifeboat.

## 22. MOTOR LIFEBOATS.

(1) Subject to the provisions of paragraph (3), every Class A motor lifeboat shall, in addition to complying with the requirements of the Second Schedule, comply with the following requirements:—

- (a) It shall be fitted with a compression ignition engine which shall comply with the requirements of Part I of the Fourth Schedule;
- (b) it shall be provided with fuel sufficient for 24 hours continuous operation;
- (c) it shall be capable of going astern; and
- (d) it shall be capable of going ahead at a speed of at least six knots in smooth water when the lifeboat is loaded with its full complement of persons and equipment.

(2) Every Class B motor lifeboat shall, in addition to complying with the requirements of the Second Schedule, comply with the following requirements:—

- (a) It shall be fitted with an internal combustion engine which shall comply with the requirements of Part II of the Fourth Schedule;
- (b) it shall be adequately provided with fuel;
- (c) it shall be capable of going astern; and
- (d) it shall be capable of going ahead at a speed of at least four knots in smooth water when the lifeboat is loaded with its full complement of persons and equipment.

(3) Where this Part requires that either a Class A motor lifeboat or a Class B motor lifeboat or a mechanically propelled lifeboat shall be carried and a Class A motor lifeboat is in these circumstances provided, the fuel supply of that lifeboat shall be required to comply only with the requirements of sub-paragraph (b) of paragraph (2).

## 23. MECHANICALLY PROPELLED LIFEBOATS.

Mechanically propelled lifeboats shall, in addition to complying with the requirements of the Second Schedule, be fitted with machinery which shall comply with the requirements of the Fifth Schedule.

## 24. CLASS C BOATS.

Class C boats shall comply with the requirements of the Sixth Schedule.

## 25. INFLATABLE LIFERAFTS.

(1) Inflatable liferafts shall comply with the requirements of the Seventh Schedule.

(2) The number of persons which an inflatable liferaft shall be deemed fit to accommodate shall be equal to—

- (a) the greatest whole number obtained by dividing by 3·4 the volume, measured in cubic feet, of the main buoyancy tubes (which for this purpose shall include neither the arches nor the thwart or thwarts if fitted) when inflated; or
- (b) the greatest whole number obtained by dividing by 4 the area, measured in square feet, of the floor (which for this purpose may include the thwart or thwarts if fitted) of the liferaft when inflated, whichever number shall be the less.

## 26. DRYWENDE TOESTELLE.

(1) Drywende toestelle moet aan die vereistes van die Agste Bylae voldoen.

(2) Die getal persone wat drywende toestelle geskik geag word om te steun, moet gelyk wees aan—

(a) die grootste heelgetal verkry deur die getal pondes yster wat die toestel in staat is om in vars water met sy gryplyne te steun, deur 32 te deel; of

(b) die grootste heelgetal voet in die omtrek van die toestel,

watter getal ookal die kleinste is.

## 27. DIE MERK VAN REDDINGSBOTE, KLAS C-BOTE, OPPOMP-BARE REDDINGSVLOTTE EN DRYWENDE TOESTELLE.

(1) Die afmetings van 'n reddingsboot of Klas C-boot en die getal persone wat 'n reddingsboot geskik is om op te neem, moet in duidelike blywende letters daarop aangeteken word. Die naam van die skip waaraan die reddingsboot of Klas C-boot behoort, moet op die boeë geveerf word.

(2) Die getal persone wat 'n oppompbare reddingsvlot geskik is om op te neem, en die getal persone wat drywende toestelle geskik is om te steun, moet in duidelike blywende letters op die reddingsvlot of toestel, na gelang van die geval, aangebring word en in die geval van 'n oppompbare reddingsvlot, op die ransel of ander houer waarin die reddingsvlot wanneer dit nie in gebruik is nie, gehou word.

## 28. REDDINGSBOEIE.

Reddingsboeie moet aan die vereistes van die Negende Bylae voldoen.

### 29. REDDINGSBOEILIGTE EN -LYNE.

(1) In elke Klas I-, II- en IIA-skip moet minstens die helfte van die totale getal reddingsboeie aan boord en onder geen omstandighede minder as ses nie, voorsien wees van selfontbrandende ligte.

(2) In elke Klas VII- en VIIA-skip en in elke Klas VIII-skip van 500 ton of meer, moet minstens die helfte van die getal reddingsboeie aan boord voorsien wees van selfontbrandende ligte.

(3) In elke Klas VI-skip uitgesonderd 'n skip wat slegs gebruik word op dagreise, in elke Klas VIII-skip van minder as 500 ton en in elke Klas IX-, IXA-, X- en XI-skip moet minstens die helfte van die totale getal reddingsboeie aan boord, en onder geen omstandighede minder as twee nie, voorsien wees van selfontbrandende ligte. 'n Reddingsboei sodanig voorsien, moet aan elke kant van die skip vervoer word.

(4) In elke Klas XII-skip moet een van die reddingsboeie aan boord voorsien wees van 'n selfontbrandende lig.

(5) Die selfontbrandende ligte wat deur hierdie regulasie vereis word, moet van sodanige konstruksie wees, dat hulle nie in water geblus kan word nie.

Ligte voorsien op reddingsboeie wat aan boord tenkskepe is, moet elektries werk.

(6) In elke skip moet een reddingsboei aan elke kant van die skip met 'n lyn van minstens 15 vame lank toegerus wees.

## 30. REDDINGSBUISE.

(1) Elke reddingsbuis wat in die Unie voorsien word om aan boord van enige skip ooreenkomstig hierdie Deel gehou te word, moet aan die vereistes van die Tiende Bylae voldoen.

(2) Elke reddingsbuis wat in 'n land, uitgesonderd in die Unie voorsien word om aan boord 'n Suid-Afrikaanse skip ooreenkomstig hierdie Deel gehou te word, moet of aan die vereistes van die Tiende Bylae voldoen of in ooreenstemming wees met die regulasies van krag in sodanige ander land.

(3) Elke reddingsbuis aan boord enige skip moet, indien dit aan die vereistes van krag in die land waarin dit uitgereik is voldoen, vir die doel van hierdie Deel aangeneem word vir solank as wat sodanige reddingsbuis in goeie toestand is.

## 26. BUOYANT APPARATUS.

(1) Buoyant apparatus shall comply with the requirements of the Eighth Schedule.

(2) The number of persons which buoyant apparatus shall be deemed fit to support shall be equal to—

(a) the greatest whole number obtained by dividing by 32 the number of pounds of iron which the apparatus is capable of supporting from its grab lines in fresh water; or

(b) the greatest whole number of feet in the perimeter of the apparatus,

whichever number shall be the less.

## 27. MARKING OF LIFEBOATS, CLASS C BOATS, INFLATABLE LIFERAFTS, AND BUOYANT APPARATUS.

(1) The dimensions of a lifeboat or Class C boat and the number of persons which a lifeboat is fit to accommodate shall be clearly marked on it in permanent characters. The name of the ship to which the lifeboat or Class C boat belongs shall be painted on the bows.

(2) The number of persons which an inflatable liferaft is fit to accommodate, and the number of persons which buoyant apparatus is fit to support, shall be clearly marked in permanent characters on the liferaft or apparatus as the case may be and in the case of an inflatable liferaft on the valise or other container in which the liferaft is contained when not in use.

## 28. LIFEBOUYS.

Lifebuoys shall comply with the requirements of the Ninth Schedule.

### 29. LIFEBOUY LIGHTS AND LINES.

(1) In every Class I, II and IIA ship, not less than half the total number of lifebuoys carried and in no case less than six, shall be provided with self-igniting lights.

(2) In every Class VII and VIIA ship, and in every Class VIII ship of 500 tons or over, at least half the number of lifebuoys carried shall be provided with self-igniting lights.

(3) In every Class VI ship except a ship which is engaged in daylight voyages only, in every Class VIII ship of less than 500 tons, and in every Class IX, IXA, X and XI ship, not less than half the total number of lifebuoys carried and in no case less than two shall be provided with self-igniting lights. A lifebuoy so provided shall be carried on each side of the ship.

(4) In every Class XII ship, one of the lifebuoys carried shall be provided with a self-igniting light.

(5) The self-igniting lights required by this regulation shall be of such construction that they cannot be extinguished in water. Lights provided on lifebuoys carried on tankers shall be electrically operated.

(6) In every ship, one lifebuoy on each side of the ship shall be fitted with a line at least 15 fathoms in length.

## 30. LIFEJACKETS.

(1) Every lifejacket supplied in the Union for carriage on board any ship in compliance with this Part, shall comply with the requirements of the Tenth Schedule.

(2) Every lifejacket supplied in a country other than the Union for carriage on board a South African ship in compliance with this Part, shall either comply with the requirements of the Tenth Schedule or be in accordance with the regulations in force in that other country.

(3) Every lifejacket on board any ship shall, if it complies with the requirements in force in the country in which it was issued, be accepted for the purposes of this Part for as long as such lifejacket is in a safe and sound condition.



## 31. LYNWERPTOESTELLE.

Lynwerptoestelle moet aan die vereistes van die Elfde Bylae voldoen.

### HOOFSTUK III.—VOORSIENING VAN UITRUSTING EN RANTSOENE IN REDDINGSBOTE, BOTE EN OPPOMPBARE REDDINGSVLOTTE.

#### 32. UITRUSTING VIR REDDINGSBOTE EN BOTE (UITGESONDERD KLAS C-BOTE).

(1) Behoudens die bepalings van paragrawe (5) en (6), moet die uitrusting van elke reddingsboot aan boord 'n Klas I-, II-, IIA-, VII-, VIIA-, VIII- of X-skip en die uitrusting van elke reddingsboot of boot aan boord 'n Klas XI-skip, die volgende wees:—

- (a) Een roeispaan per roeibank, twee orige roeispane en 'n stuurspaan, 'n anderhalf stel roeimikke wat deur middel van 'n taliereep of ketting aan die reddingsboot of boot bevestig is; 'n boothaak;
- (b) twee proppe vir elke propgat (uitgesonderd waar behoorlike outomatiese kleppe aangebring is) wat deur middel van toue of kettings aan die reddingsboot of boot bevestig is; 'n hoosvat en twee emmers;
- (c) 'n roer wat aan die reddingsboot of boot bevestig is en 'n helmstok;
- (d) 'n reddingslyn wat buite-om die reddingsboot of boot vasgestrop is;
- (e) 'n geskikte toesluitkissie vir die opberging van klein uitrustingsartikels;
- (f) twee handbyle, een aan elke end van die reddingsboot of boot;
- (g) 'n lamp met genoeg olie vir 12 uur;
- (h) 'n waterdigte kas wat twee dose vuurhoutjies bevat wat nie maklik deur wind geblus word nie;
- (i) 'n mas of maste met gegalvaniseerde draadstutte, asook oranjekleurige seile wat vir identifikasiedoeleindes, met die eerste en laaste letter van die naam van die skip waaraan die reddingsboot of boot behoort, gemerk is;
- (j) 'n kompas in 'n komphuis wat aan die vereistes van Deel I van die Twaalfde Bylae voldoen;
- (k) 'n dryfanker wat aan die vereistes van Deel II van die Twaalfde Bylae voldoen;
- (l) twee vanglyne wat lank en groot genoeg is. Die een moet met strop en knewel aan die voorend van die reddingsboot of boot bevestig wees, sodat dit vrygelaat kan word, en die ander moet stewig aan die voorstewe van die reddingsboot of boot bevestig word en vir gebruik gereed wees;
- (m) 'n vaatjie wat een gelling plantaardige olie, visolie of dierlike olie bevat. Daar moet voorsiening voor gemaak word dat die olie maklik op die water uitgestort kan word, en dit moet sodanig ingerig wees dat dit aan die dryfanker vasgemaak kan word;
- (n) twee valskermnoodsiniale wat aan die vereistes van Deel III van die Twaalfde Bylae voldoen, en ses handsinjalaakkels wat aan die vereistes van Deel IV van daardie Bylae voldoen;
- (o) twee drywende rooksiniale wat aan die vereistes van Deel V van die Twaalfde Bylae voldoen;
- (p) middels in die vorm van kinkiele of kielrelings, asook gryplyne wat van dolboord na dolboord onder die kiel bevestig is, om persone in staat te stel om aan die reddingsboot vas te klou ingeval dit omkeer;
- (q) 'n eerstehulpuitrusting wat aan die vereistes van Deel VI van die Twaalfde Bylae voldoen;
- (r) 'n elektriese flitslig wat geskik is vir die gee van morseseine, asook twee reserwebatterye en twee reserwelampies;
- (s) 'n spieël om seine gedurende die dag mee te gee;

## 31. LINE-THROWING APPLIANCES.

Line-throwing appliances shall comply with the requirements of the Eleventh Schedule.

### CHAPTER III.—PROVISION OF EQUIPMENT AND RATIONS IN LIFEBOATS, BOATS AND INFLATABLE LIFERAFTS.

#### 32. EQUIPMENT FOR LIFEBOATS AND BOATS (OTHER THAN CLASS C BOATS).

(1) Subject to the provisions of paragraphs (5) and (6), the equipment of every lifeboat carried in a Class I, II, IIA, VII, VIIA, VIII or X ship, and the equipment of every lifeboat or boat carried in a Class XI ship, shall be as follows:—

- (a) A single banked complement of oars, two spare oars and a steering oar; one set and a half of crutches, attached to the lifeboat or boat by lanyard or chain; a boat hook;
- (b) two plugs for each plughole (except where proper automatic valves are fitted) attached to the lifeboat or boat by lanyards or chains; a bailer and two buckets;
- (c) a rudder attached to the lifeboat or boat, and a tiller;
- (d) a lifeline becketed round the outside of the lifeboat or boat;
- (e) a locker suitable for the stowage of small items of equipment;
- (f) two hatchets, one at each end of the lifeboat or boat;
- (g) a lamp, with oil sufficient for twelve hours;
- (h) a watertight box containing two boxes of matches not readily extinguished by wind;
- (i) a mast, or masts with galvanised wire stays together with orange coloured sails which shall be marked for identification purposes with the first and last letter of the name of the ship to which the lifeboat or boat belongs;
- (j) a compass in a binnacle complying with the requirements of Part I of the Twelfth Schedule;
- (k) a sea anchor complying with the requirements of Part II of the Twelfth Schedule;
- (l) two painters of sufficient length and size. One shall be secured to the forward end of the lifeboat or boat with strop and toggle so that it can be released, and the other shall be firmly secured to the stem of the lifeboat or boat and be ready for use;
- (m) a vessel containing one gallon of vegetable, fish or animal oil. A means shall be provided to enable the oil to be easily distributed on the water, and shall be so arranged that it can be attached to the sea anchor;
- (n) two parachute distress signals complying with the requirements of Part III of the Twelfth Schedule, and six hand flares complying with the requirements of Part IV of that Schedule;
- (o) two buoyant smoke signals complying with the requirements of Part V of the Twelfth Schedule;
- (p) means to enable persons to cling to the lifeboat if upturned in the form of bilge keels or keel rails, together with grab lines secured from gunwale to gunwale under the keel;
- (q) a first-aid outfit complying with the requirements of Part VI of the Twelfth Schedule;
- (r) an electric torch suitable for morse-signalling, together with two spare sets of batteries and two spare bulbs;
- (s) a daylight signalling mirror;

- (t) 'n groot knipmes wat voorsien is van 'n bliksnier wat met 'n koord aan die reddingsboot of boot bevestig gehou moet word;
- (u) twee ligte drywende werplyne; en
- (v) 'n handpomp wat aan die vereistes van Deel VII van die Twaalfde Bylae voldoen.

(2) Die uitrusting van elke reddingsboot of boot aan boord 'n Klas VI- en IX-skip moet, behoudens die bepalinge van subparagraaf (i), soos volg wees:—

- (a) Een roeispaan per roeibank en 'n stuurspaan; een stel roeimikke wat deur middel van 'n taliereep of ketting aan die reddingsboot of boot bevestig is; 'n boothaak;
- (b) twee proppe vir elke propgat;
- (c) 'n roer wat aan die reddingsboot of boot bevestig is en 'n helmstok;
- (d) 'n reddingslyn wat buite-om die reddingsboot of boot vasgestrop is;
- (e) 'n vanglyn wat lank en groot genoeg is;
- (f) 'n hoosvat;
- (g) 'n handbyl;
- (h) 'n dryfanker wat aan die vereistes van Deel II van die Twaalfde Bylae voldoen; en
- (i) ses handsinjaalfakkels wat aan die vereistes van Deel IV van die Twaalfde Bylae voldoen. Hierdie subparagraaf is slegs van toepassing op bote of skepe van Klas VI.

(3) Die uitrusting van elke boot aan boord 'n Klas X-skip van 40 voet of langer maar korter as 75 voet, moet soos volg wees:—

- (a) Minstens drie roerspane en roeimikke;
- (b) 'n vanglyn wat lank en groot genoeg is;
- (c) 'n hoosvat;
- (d) 'n handbyl; en
- (e) ses handsinjaalfakkels wat aan die vereistes van Deel IV van die Twaalfde Bylae voldoen.

(4) Die uitrusting van elke reddingsboot of boot aan boord Klas XII-skepe moet soos volg wees:—

- (a) Vier roeispane met roeimikke; 'n boothaak;
- (b) twee proppe vir elke propgat;
- (c) 'n roer wat aan die reddingsboot of boot bevestig is en 'n helmstok;
- (d) 'n reddingslyn wat buite-om die reddingsboot of boot vasgestrop is;
- (e) 'n vanglyn;
- (f) 'n emmer en 'n hoosvat;
- (g) 'n dryfanker wat aan die vereistes van Deel II van die Twaalfde Bylae voldoen;
- (h) ses handsinjaalfakkels wat aan die vereistes van Deel IV van die Twaalfde Bylae voldoen; en
- (i) 'n elektriese flitslig wat geskik is vir die gee van morseseine asook twee reserwebatterye en twee reserwelampies.

(5) Vir geen motorreddingsboot of meganiesaaangedrewe reddingsboot word dit vereis dat dit 'n mas of seile of meer as die helfte van die getal roeispane aan boord moet hê nie. Elke sodanige reddingsboot moet twee boothake aan boord hê.

(6) Elke motorreddingsboot moet twee draagbare brandblussers wat in staat is om skuim uit te spuit of 'n ander stof geskik om oliebrande te blus, 'n houer wat 'n voldoende hoeveelheid sand bevat en 'n skepgraaf vir die verspreiding van sand, aan boord hê.

### 33. RANTSOENE VIR REDDINGSBOTE EN BOTE (UITGESONDERD KLAS C-BOTE).

(1) Elke reddingsboot of boot (uitgesonderd 'n Klas C-boot) aan boord 'n skip, uitgesonderd 'n Klas VI-skip, 'n Klas IX-skip of 'n Klas X-skip van 40 voet of langer maar korter as 75 voet, moet voorsien word van minstens die rantsoene voorgeskryf in die volgende skaal, vir elke persoon wat dit geskik is om op te neem:—

- (a) 3 kwarte vars water; die hoeveelheid moet sover dit prakties is, vermeerder word;
- (b) 16 onse beskuitjies;

- (t) a jack-knife fitted with a tin opener, to be kept attached to the lifeboat or boat with a lanyard;
- (u) two light bouyant heaving lines; and
- (v) a manual pump complying with the requirements of Part VII of the Twelfth Schedule.

(2) The equipment of every lifeboat or boat carried in a Class VI or IX ship shall, subject to the provisions of sub-paragraph (i), be as follows:—

- (a) A single banked complement of oars and a steering oar; one set of crutches attached to the lifeboat or boat by lanyard or chain; a boat hook;
- (b) two plugs for each plug hole;
- (c) a rudder attached to the lifeboat or boat, and a tiller;
- (d) a lifeline becketed round the outside of the lifeboat or boat;
- (e) a painter of sufficient length and size;
- (f) a bailer;
- (g) a hatchet;
- (h) a sea anchor complying with the requirements of Part II of the Twelfth Schedule; and
- (i) six hand flares complying with the requirements of Part IV of the Twelfth Schedule. This sub-paragraph applies to boats on ships of Class VII only.

(3) The equipment of every boat carried in a Class X ship of 40 feet or over in length but under 75 feet in length, shall be as follows:—

- (a) At least three oars and crutches;
- (b) a painter of sufficient length and size;
- (c) a bailer;
- (d) a hatchet; and
- (e) six hand flares complying with the requirements of Part IV of the Twelfth Schedule.

(4) The equipment of every lifeboat or boat carried in Class XII ships shall be as follows:—

- (a) Four oars, with crutches; a boat hook;
- (b) two plugs for each plug hole;
- (c) a rudder attached to the lifeboat or boat, and a tiller;
- (d) a lifeline becketed round the outside of the lifeboat or boat;
- (e) a painter;
- (f) a bucket and a bailer;
- (g) a sea anchor complying with the requirements of Part II of the Twelfth Schedule;
- (h) six hand flares complying with the requirements of Part IV of the Twelfth Schedule; and
- (i) an electric torch suitable for morse-signalling, together with two spare sets of batteries and two spare bulbs.

(5) No motor lifeboat or mechanically propelled lifeboat shall be required to carry a mast or sails nor more than half the complement of oars. Every such lifeboat shall carry two boat hooks.

(6) Every motor lifeboat shall carry two portable fire extinguishers capable of discharging froth, or other substance suitable for quenching oil fires, a receptacle containing a sufficient quantity of sand and a scoop for distributing the sand.

### 33. RATIONS FOR LIFEBOATS AND BOATS (OTHER THAN CLASS C BOATS).

(1) Every lifeboat or boat (except a Class C boat) carried in a ship, except in a Class VI ship, a Class IX ship or a Class X ship of 40 feet or over in length but under 75 feet in length, shall be provided with at least the rations specified in the following scale for each person whom it is fit to accommodate:—

- (a) 3 quarts of fresh water, the quantity to be increased as far as is practicable;
- (b) 16 ounces of biscuits;



- (c) 16 onse horssuiker; en
- (d) 16 onse soet gekondenseerde melk van eerste graad-kwaliteit.

(2) Die water moet in geskikte houers in die reddingsboot of boot gehou word en daar moet minstens een skepper wat met 'n koord aan die houer bevestig is voorsien word, sowel as drie roesvrye drinkbekers (een gegradeer in  $\frac{1}{2}$ , 1 en 2 onse). Die water moet dikwels vervang word om te verseker dat dit altyd skoon en drinkbaar is.

(3) Al die voorgeskrewe voedsel moet in geskikte waterdigte houers waarop die inhoud aangedui is, verpak word.

#### 34. SPESIALE UITRUSTING VIR SEKERE KLAS A-MOTOR-REDDINGSBOTE.

(1) Klas A-motorreddingsbote wat ooreenkomstig regulasie 5 of 6 aan boord is, moet van die volgende uitrusting voorsien word:—

- (a) Radiotelegrafiese uitrusting wat moet voldoen aan die bepalings van paragraaf (2);
- (b) 'n dinamo aangebring aan die masjien van 'n motorreddingsboot wat geskik is vir die herlaai van al die batterye in die reddingsboot; en
- (c) 'n soeklig wat 'n gloeilamp van minstens 80 watt insluit sowel as 'n doeltreffende reflektor en 'n kragbron wat 'n voorwerp van 'n ligte kleur met 'n wydte van sowat 60 voet op 'n afstand van 200 tree vir 'n totale tydperk van ses uur doeltreffend sal verlig. Die soeklig moet in staat wees om minstens drie uur aaneen te werk.

(2) Radiotelegrafiese uitrusting wat ooreenkomstig subparagraaf (a) van paragraaf (1) voorsien word, moet, benewens om te voldoen aan sodanige vereistes van die Handelskeepvaart-radioregulasies wat daarop betrekking het, ook aan die volgende vereistes voldoen:

- (a) Dit moet aangebring word in 'n kajuit wat groot genoeg is om sowel die uitrusting as die persoon wat dit gebruik, te bevat;
- (b) maatreëls moet sodanig wees dat die doeltreffende werking van die sender en die ontvanger nie belemmer word deur die masjien van die motorreddingsboot terwyl laasgenoemde in werking is nie, hetsy 'n battery gelaai word of nie; en
- (c) die radiotelegrafiese battery moet nie gebruik word om 'n masjiensansitmotor of 'n ontstekingsstelsel van krag te voorsien nie.

#### 35. UITRUSTING EN RANTSOENE VIR KLAS C-BOTE.

(1) Behoudens die bepalings van paragraaf (2), moet die uitrusting en rantsoene waarvan elke Klas C-boot voorsien moet word, soos volg wees:—

- (a) Vier roeispane per roeibank en twee orige roeispane; ses roeimikke wat deur middel van 'n taliereep of ketting aan die boot bevestig is; 'n boothaak;
- (b) twee proppe vir elke propgat (uitgesonderd waar behoorlike outomatiese kleppe aangebring is) wat deur middel van toue of kettings aan die boot bevestig is; 'n hoosvat en 'n emmer;
- (c) 'n roer wat aan die boot bevestig is en 'n helmstok;
- (d) 'n reddingslyn wat buite-om die boot vasgestrop is;
- (e) 'n toesluitkissie vir die opberging van klein uitrustingsartikels;
- (f) 'n handbyl;
- (g) 'n lamp met genoeg olie vir 12 uur;
- (h) 'n waterdigte kas wat twee dose vuurhoutjies bevat wat nie maklik deur wind geblus kan word nie;
- (i) 'n kompas in 'n komphuis wat voldoen aan die vereistes van Deel I van die Twaalfde Bylae;
- (j) 'n dryfanker wat voldoen aan die vereistes van Deel II van die Twaalfde Bylae;
- (k) twee vanglyne wat lank en groot genoeg is. Die een moet met strop en knewel aan die voorend van die boot bevestig word sodat dit vrygelaat kan word, en die ander moet stewig aan die voorstewe van die boot bevestig word en vir gebruik gereed wees;

- (c) 16 ounces of barley sugar; and
- (d) 16 ounces of sweetened condensed milk of first quality.

(2) The water shall be kept in the lifeboat or boat in suitable containers, and there shall be provided at least one dipper which shall be attached to the container by a lanyard, and three rust-proof drinking vessels (one graduated in  $\frac{1}{2}$ , 1 and 2 ounces). The water shall be frequently changed so as to ensure that it is always clean and fit for drinking.

(3) All the foods prescribed shall be packed in suitable watertight containers, labelled to indicate the contents.

#### 34. SPECIAL EQUIPMENT FOR CERTAIN CLASS A MOTOR LIFEBOATS.

(1) Class A motor lifeboats carried in compliance with regulation 5 or 6 shall be provided with the following equipment:—

- (a) Radiotelegraph equipment, which shall comply with the provisions of paragraph (2);
- (b) a dynamo fitted to the motor lifeboat engine and capable of recharging all batteries in the lifeboat; and
- (c) a searchlight which shall include a lamp of at least 80 watts, an efficient reflector, and a source of power which will give effective illumination of a light-coloured object having a width of about 60 feet at a distance of 200 yards for a total period of six hours. The searchlight shall be capable of working for at least three hours continuously.

(2) Radiotelegraph equipment carried in compliance with sub-paragraph (a) of paragraph (1), in addition to complying with such of the requirements of the Merchant Shipping Radio Regulations as apply thereto, shall comply with the following requirements:—

- (a) it shall be installed in a cabin large enough to accommodate both the apparatus and the person using it;
- (b) the arrangements shall be such that the efficient operation of the transmitter and receiver shall not be interfered with by the motor lifeboat engine, whether a battery is on charge or not; and
- (c) the radiotelegraph battery shall not be used to supply power to any engine-starting motor or ignition system.

#### 35. EQUIPMENT AND RATIONS FOR CLASS C BOATS.

(1) Subject to the provisions of paragraph (2), the equipment and rations provided in every Class C boat shall be as follows:—

- (a) a single banked complement of four oars and two spare oars; six crutches, attached to the boat by lanyards or chains; a boat hook;
- (b) two plugs for each plug hole (except where proper automatic valves are fitted) attached to the boat by lanyards or chains; a bailer and a bucket;
- (c) a rudder attached to the boat, and a tiller;
- (d) a lifeline becketed round the outside of the boat;
- (e) a locker suitable for the stowage of small items of equipment;
- (f) a hatchet;
- (g) a lamp, with oil sufficient for twelve hours;
- (h) a watertight box containing two boxes of matches not readily extinguished by wind;
- (i) a compass in a binnacle complying with the requirements of Part I of the Twelfth Schedule;
- (j) a sea anchor complying with the requirements of Part II of the Twelfth Schedule;
- (k) two painters of sufficient length and size. One shall be secured to the forward end of the boat with strop and toggle so that it can be released, and the other shall be firmly secured to the stem of the boat and be ready for use;

- (l) twee valskermnoodsinjale wat aan die vereistes van Deel III van die Twaalfde Bylae voldoen, en ses handsinjaalfakkels wat aan die vereistes van Deel IV van die Twaalfde Bylae voldoen;
- (m) twee drywende rooksinjale wat aan die vereistes van Deel V van die Twaalfde Bylae voldoen;
- (n) middels in die vorm van kimkiele en kielrelings om persone in staat te stel om aan die boot vas te klou ingeval dit omkeer;
- (o) 'n elektriese flitslig wat geskik is vir die gee van morseseine asook twee reserwebatterye en twee reserwelampies;
- (p) 'n groot knipmes wat voorsien is van 'n bliksteker wat met 'n koord aan die boot bevestig gehou moet word;
- (q) twee ligte drywende werplyne; en
- (r) twee gelling vars water wat in die boot in 'n geskikte houer gehou moet word en wat dikwels vervang moet word om te verseker dat dit altyd skoon en drinkbaar is; 'n skepper wat met 'n toutjie aan die houer bevestig moet wees; en 'n roesvrye drinkbeker gegradeer in  $\frac{1}{2}$ , 1 en 2 onse.

(2) Daar word nie van 'n Klas C-boot aan boord 'n Klas IX-skip vereis om die uitrusting en rantsone genoem in subparagraaf (1) aan boord te hê nie, maar wel die uitrusting in paragraaf (2) van regulasie 32 genoem.

### 36. BEVESTIGING VAN UITRUSTING EN RANTSOENE IN REDDINGSBOTE EN BOTE.

(1) Al die uitrusting waarmee 'n reddingsboot of boot uitgerus word en wat nie in 'n toesluitkissie gebêre word nie, moet, met uitsondering van die boothaak, wat vir weghoudoeleindes vry gehou moet word, binne in die reddingsboot of boot ligweg vasgesjor word. Die sjorring moet op so 'n wyse geskied dat die uitrusting veilig sal wees en dat dit nie die gebruik van die hyshake, indien daar is, sal belemmer of die vinnig laai van, of die onmiddellike toegang tot die reddingsboot of boot sal verhoinder nie.

(2) Al die rantsone waarmee 'n reddingsboot of boot uitgerus word, moet in waterdigte tenks wat stewig aan die reddingsboot of boot bevestig is, geberg word.

### 37. UITRUSTING EN RANTSOENE VIR OPPOMPBARE REDDINGSVLOTTE.

(1) Behoudens die bepalings van paragraaf (2), moet die uitrusting en rantsone waarvan elke oppompbare reddingsvlot voorsien word, soos volg wees:—

- (a) Twee dryfankers, een permanent aan die reddingsvlot bevestig en een reserwe—een met lyn;
- (b) vir reddingsvlotte wat nie geskik is om meer as twaalf persone op te neem nie: een hoosvat, een spons en een veiligheidsmes; vir reddingsvlotte wat geskik is om dertien persone of meer, maar nie meer as vyf-en-twintig persone op te neem nie: twee hoosvate, twee sponse, en twee veiligheidsmesse; vir reddingsvlotte wat geskik is om ses-en-twintig of meer persone op te neem: drie hoosvate, drie sponse en twee veiligheidsmesse;
- (c) een byvulpomp of blaasbalk;
- (d) een hersteluitrusting wat geskik is om lekke in die drywende afdelings te herstel;
- (e) een reddingskyf bevestig aan minstens 100 voet lyn;
- (f) twee roeispane;
- (g) twee valskermnoodsinjale wat aan die vereistes van Deel III van die Twaalfde Bylae voldoen;
- (h) ses handsinjaalfakkels wat aan die vereistes van Deel IV van die Twaalfde Bylae voldoen;
- (i) een waterdigte elektriese flitslig geskik vir die gee van morseseine en een reserwestel batterye en een reserwegloeilampie in 'n waterdigte houer;
- (j) een spieël om seine gedurende die dag te gee en een seinfluitjie;
- (k) een vislyn en ses hoeke;

- (l) two parachute distress signals complying with the requirements of Part III of the Twelfth Schedule, and six hand flares complying with the requirements of Part IV of the Twelfth Schedule;
- (m) two buoyant smoke signals complying with the requirements of Part V of the Twelfth Schedule;
- (n) means to enable persons to cling to the boat if up-turned, in the form of bilge keels or keel rails;
- (o) an electric torch suitable for morse-signalling, together with two spare sets of batteries and two spare bulbs;
- (p) a jack-knife fitted with a tin-opener to be kept attached to the boat with a lanyard;
- (q) two light buoyant heaving lines; and
- (r) two gallons of fresh water, which shall be kept in the boat in a suitable container and frequently changed so as to ensure that it is always clean and fit for drinking; a dipper, which shall be attached to the container by a lanyard; and a rustproof drinking vessel, graduated in  $\frac{1}{2}$ , 1 and 2 ounces.

(2) A Class C boat carried in a Class IX ship shall not be required to carry the equipment and rations specified in paragraph (1), but shall carry the equipment specified in paragraph (2) of regulation 32.

### 36. SECURITY OF EQUIPMENT AND RATIONS IN LIFEBOATS AND BOATS.

(1) All items of equipment provided in a lifeboat or boat which are not kept in the locker shall, with the exception of the boat hook which shall be kept free for fending-off purposes, be lightly lashed within the lifeboat or boat. The lashing shall be carried out in such a manner as to ensure the security of the equipment and so as not to interfere with the lifting hooks, if fitted, or to prevent ready loading of, or impede ready entry into, the lifeboat or boat.

(2) All the rations provided in a lifeboat or boat shall be stowed in watertight tanks, which shall be firmly secured to the lifeboat or boat.

### 37. EQUIPMENT AND RATIONS FOR INFLATABLE LIFERAFTS.

(1) Subject to the provisions of paragraph (2), the equipment and rations provided in every inflatable liferaft shall be as follows:—

- (a) Two sea anchors, one permanently attached to the liferaft and one spare with line;
- (b) for liferafts which are fit to accommodate not more than twelve persons: one bailer, one sponge, and one safety-knife; for liferafts which are fit to accommodate thirteen persons or more but not more than twenty-five persons: two bailers, two sponges, and two safety-knives; for liferafts which are fit to accommodate twenty-six persons or more: three bailers, three sponges, and two safety-knives;
- (c) one topping-up pump or bellows;
- (d) one repair kit capable of repairing punctures in the buoyancy compartments;
- (e) one rescue quoit attached to at least 100 feet of line;
- (f) two paddles;
- (g) two parachute distress signals complying with the requirements of Part III of the Twelfth Schedule;
- (h) six hand flares complying with the requirements of Part IV of the Twelfth Schedule;
- (i) one waterproof electric torch suitable for morse-signalling, together with one spare set of batteries and one spare bulb in a waterproof container;
- (j) one daylight-signalling mirror and one signalling whistle;
- (k) one fishing line and six hooks;



- (l) 12 onse geskikte nie-dorswekkende voedsel van minstens 2,200 kalorieë per pondgewig en 6 onse borsuiker of ander gelykwaardige lekkers vir elke persoon wat die reddingsvlot geskik is om op te neem;
  - (m) drie roesvrye eenpondhouers vars water vir elke persoon wat die reddingsvlot geskik is om op te neem, waarvan een houer per persoon vervang kan word met 'n geskikte ontsoutingsapparaat wat in staat is om gelyke hoeveelheid vars water voort te bring;
  - (n) een roesvrye drinkbeker gegradeer in  $\frac{1}{2}$ , 1 en 2 onse;
  - (o) drie veiligheidsbliknysers;
  - (p) ses seesiektablette vir elke persoon wat die reddingsvlot geskik is om op te neem;
  - (q) 'n eerstehulpuitrusting wat aan die vereistes van Deel VIII van die Twaalfde Bylae voldoen;
  - (r) instruksies oor hoe om aan die lewe te bly in 'n reddingsvlot wat in albei amptelike tale van die Unie van Suid-Afrika gedruk is.
- (2) Dit word nie vereis dat reddingsvlotte wat ooreenkomstig regulasies 11 en 15 en paragraaf (3) van regulasie 17 (dit is, op Klasse VI- en IX-skepe, en op Klas X-skepe van 40 voet of langer is maar korter as 75 voet is) aan boord is, met die uitrusting in subparagrafe (g), (i), (k), (l), (m), (n), (o), (p) en (q) van paragraaf (1) voorsien moet word nie.

#### HOOFTUK IV.—PLASING VAN REDDINGS-UITRUSTING.

##### 38. ALGEMENE BEPALINGS MET BETREKKING TOT PLASING.

Elke reddingsboot, boot, oppompbare reddingsvlot en onderdeel van drywende toestelle moet sodanig ingerig wees dat dit nie die werking van ander reddingsbote, bote, oppompbare reddingsvlotte of drywende toestelle kan belemmer nie.

##### 39. PLASING EN HANTERING VAN REDDINGSBOTE EN BOTE.

- (1) Reddingsbote en ander bote moet sodanig geplaas word dat—
  - (a) hulle veilig en so vinnig moontlik te water gelaat kan word;
  - (b) hulle op generlei wyse die ordelike verkeer van die persone aan boord by die inskepposte of hul inskeping sal belemmer nie.
- (2) Reddingsbote en bote bevestig aan davits uitgesonderd meganiesbeheerde enkelarmdavits en reddingsbote onder reddingsbote wat aan davits bevestig is, moet sodanig ingerig wees dat hulle selfs onder ongunstige omstandighede van helling en stuurlas te water gelaat kan word en so 'n groot getal persone as moontlik daarin ingeskep kan word.
- (3) Reddingsbote en bote bevestig aan meganiesbeheerde enkelarmdavits moet sodanig geplaas word dat hulle maklik aan enige kant van die skip in die water geplaas kan word, of, indien die skip 'n helling het, aan die kant wat die laagste in die water is: Met dien verstande dat hierdie paragraaf nie van toepassing is op reddingsbote of bote wat ingerig is op Klas IX-skepe van minder as 500 ton en korter as 150 voet, indien sodanige reddingsbote of bote bevestig is aan meganiesbeheerde enkelarmdavits nie.
- (4) In passasierskepe moet nie meer as een reddingsboot deur 'n enkele stel davits bedien word nie: Met dien verstande dat in enige skip waarin hierdie reëling nie prakties toepasbaar is nie, die reddingsbote, behoudens enige ander bepalings van hierdie Deel wat betrekking het op plasing, een bo die ander geplaas kan word, of, indien die Minister of Sekretaris na gelang van die geval, in die geval van enige skip en behoudens sodanige voorwaardes wat hy kan voorskryf dit toelaat, mag die een binne in die ander geplaas word.

- (l) 12 ounces of a suitable non-thirst-provoking food providing at least 2,200 calories per pound weight and 6 ounces of barley sugar or other equally suitable sweets for each person whom the liferaft is fit to accommodate;
  - (m) three one-pound rustproof containers of fresh water for each person whom the liferaft is fit to accommodate, of which one container per person may be replaced by a suitable de-salting apparatus capable of producing an equal amount of fresh water;
  - (n) one rust-proof drinking vessel, graduated in  $\frac{1}{2}$ , 1 and 2 ounces;
  - (o) three safety tin-openers;
  - (p) six seasickness tablets for each person whom the liferaft is fit to accommodate;
  - (q) a first-aid outfit complying with the requirements of Part VIII of the Twelfth Schedule; and
  - (r) instructions printed in both official languages of the Union on how to survive in the liferaft.
- (2) Inflatable liferafts carried in compliance with regulations 11 and 15 and paragraph (3) of regulation 17 (that is in Classes VI and IX ships, and in Class X ships of 40 feet or over in length but under 75 feet in length) shall not be required to be provided with the equipment specified in sub-paragraphs (g), (i), (k), (l), (m), (n), (o), (p) and (q) of paragraph (1).

#### CHAPTER IV.—STOWAGE OF LIFE-SAVING APPLIANCES.

##### 38. GENERAL PROVISIONS RELATING TO STOWAGE.

The arrangement of each lifeboat, boat, inflatable liferaft, and article of buoyant apparatus shall be such that it will not interfere with the operation of other lifeboats, boats, inflatable liferafts, or buoyant apparatus.

##### 39. STOWAGE AND HANDLING OF LIFEBOATS AND BOATS.

- (1) Lifeboats and other boats shall be so stowed that—
  - (a) they can be put into the water safely and in the shortest possible time;
  - (b) they will not impede in any way the marshalling of the persons on board at the launching stations, or their embarkation.
- (2) Lifeboats and boats attached to davits, other than mechanically controlled single-arm davits, and lifeboats stowed under lifeboats attached to davits shall be so arranged that even under unfavourable conditions of list and trim they can be launched and as large a number of persons as possible can be embarked in them.
- (3) Lifeboats and boats attached to mechanically controlled single-arm davits shall be so stowed that they can readily be placed in the water on either side of the ship, or, if the ship has a list, on the side which is lower in the water: Provided that this paragraph shall not apply to lifeboats or boats fitted in Class IX ships of under 500 tons and of less than 150 feet in length, if such lifeboats or boats are attached to mechanically controlled single-arm davits.
- (4) In passenger ships not more than one lifeboat shall be served by a single set of davits: Provided that, in any ship in which this arrangement is impracticable, the lifeboats may, subject to any other provisions of this Part relating to stowage, be stowed one above the other, or if the Minister or Secretary, as the case may be, permits in the case of any ship and subject to such conditions as he may impose, they may be fitted one within another.

(5) Indien 'n reddingsboot in 'n passasiërskip onder 'n ander reddingsboot geplaas word, moet daar verwyderbare stutte of ander uitrustings voorsien word om te verseker dat die gewig van die boonste reddingsboot nie meer as wat nodig is deur die onderste reddingsboot ondersteun word nie.

(6) Die plasing van reddingsbote op meer as een dek word slegs toegelaat op voorwaarde dat behoorlike maatreëls getref word om te verhoed dat reddingsbote op 'n laer dek nie deur die wat op 'n dek daarbo geplaas is, versper word nie.

(7) Reddingsbote mag nie op die boë van 'n skip geplaas word nie.

(8) Davits moet op geskikte wyse op die skip aangebring word.

(9) Davits, sloepstakels, blokke en alle ander tuig wat ooreenkomstig hierdie regulasie of die Dertiende Bylae voorsien is, moet aan die bepalings van daardie Bylae voldoen.

(10) (a) Op Klas I-, II-, IIA-, VII-, VIIA-, VIII-, IX en X-skepe met 'n lengte van meer as 150 voet en op Klas VIII en IX-skepe van 500 ton of meer moet die davits van die volgende tipes wees:—

(i) Vertikale draaibare of swaartekragtipe vir die bediening van reddingsbote wat hoogstens 4 ton weeg wanneer hulle sonder passasiers te water gelaat word;

(ii) swaartekragtipe vir die hantering van reddingsbote wat meer as 4 ton weeg wanneer hulle sonder passasiers te water gelaat word:

Met dien verstande dat hierdie paragraaf nie van toepassing is op Klas VIII- of X-skepe wat ooreenkomstig subparagraaf (a) (i) van paragraaf (2) van regulasie 14 of subparagraaf (b) van paragraaf (1) van regulasie 17 'n reddingsboot of Klas C-boot aan boord het nie, of op Klas IX-skepe wat 'n reddingsboot of Klas C-boot aan boord het wat aan 'n meganies beheerde enkelarmdavit bevestig is sodat dit aan beide kante van die skip, of, indien die skip 'n helling het aan die kant wat die laagste in die water is, te water gelaat kan word.

(b) Op Klas X-skepe wat 'n reddingsboot ooreenkomstig subparagraaf (a) van paragraaf (2) van regulasie 17 of 'n Klas C-boot ooreenkomstig subparagraaf (b) van paragraaf (1) of subparagraaf (b) van paragraaf (2) van die genoemde regulasie aan boord het, moet die davits van meganiesbeheerde enkelarmtipe wees.

(11) Op skepe (uitgesonderd dié skepe waar die reddingsboot aan 'n meganiesbeheerde enkelarmdavit bevestig is) waarop die bootdek meer as 15 voet bokant die laslyn is wat die diepste onderdompeling aantoon wat die skip volgens die Laslynregulasies toegelaat is, moet maatreëls getref word om die tewaterlating van reddingsbote teen 'n ongunstige helling te vergemaklik.

(12) (a) Op Klas I-, II-, VII-, VIIA- en VIII-skepe waarop davits aangebring is, en in skepe waarop meganiesbeheerde enkelarmdavits aangebring is, moet die reddingsbote of bote deur middel van metaaltakels en windasse bedien word: Met dien verstande dat die Minister of Sekretaris, na gelang van dié geval, kan toelaat dat ander soorte takels aan 'n noodboot aangebring kan word ooreenkomstig paragraaf (3) van regulasie 5 of paragraaf (3) van regulasie 6, en op skepe waar, met inagneming van die hoogte van die bootdek bo die kleinste diepgang in soutwater of van ander omstandighede, hy oortuig is dat sodanige takels toereikend is.

(b) Op Klas IIA- en IX-skepe moet metaaltakels tesame met windasse aangebring word vir die hantering van volgelaaide reddingsbote wat meer as vier ton weeg.

(13) Op skepe, uitgesonderd dié skepe waarop die reddingsboot of boot aan 'n meganiesbeheerde enkelarmdavit bevestig is, moet twee reddingslyne aan die middel-leier tussen die davits van alle reddingsbote aangebring word, en die takels en reddingslyne moet lank genoeg wees om die water te bereik wanneer die skip op sy kleinste diepgang in soutwater is en aan die een of die ander kant 'n hellingshoek van 15 grade het. Die onderste

(5) If in a passenger ship, a lifeboat is stowed underneath another lifeboat, there shall be provided removable supports or other appliances to secure that the weight of the upper lifeboat is not unduly supported by the lifeboat underneath it.

(6) Lifeboats may only be stowed on more than one deck on condition that proper measures are taken to prevent lifeboats on a lower deck being fouled by those stowed on a deck above.

(7) Lifeboats shall not be placed in the bows of the ship.

(8) Davits shall be suitably placed in the ship.

(9) Davits, falls, blocks, and all other gear provided in accordance with this regulation or the Thirteenth Schedule, shall comply with the provisions of that Schedule.

(10) (a) In Classes I, II, IIA, VII, VIIA, VIII, IX and X ships of over 150 feet in length, and in Classes VIII and IX ships of 500 tons or over, the davits shall be of the following types:—

(i) luffing or gravity type for operating lifeboats weighing not more than four tons in their turning out condition;

(ii) gravity type for operating lifeboats weighing more than four tons in their turning out condition:

Provided that this paragraph shall not apply to Class VIII or X ships which carry either a lifeboat or Class C boat in accordance with sub-paragraph (a) (i) of paragraph (2) of regulation 14 or sub-paragraph (b) of paragraph (1) of regulation 17 or to Class IX ships which carry a lifeboat or Class C boat attached to a mechanically controlled single-arm davit so that it can be placed in the water on either side of the ship, or, if the ship has a list, on the side which is lower in the water.

(b) In Class X ships which carry a lifeboat in accordance with sub-paragraph (a) of paragraph (2) of regulation 17, or a Class C boat in accordance with sub-paragraph (b) of paragraph (1) or sub-paragraph (b) of paragraph (2) of the said regulation, the davit shall be of the mechanically controlled single-arm type.

(11) In ships (other than those ships in which the lifeboat is attached to a mechanically controlled single-arm davit) in which the boat deck is more than 15 feet above the load line indicating the deepest submersion of the ship permitted by the Load Line Regulations, arrangements shall be made to facilitate launching the lifeboats against an adverse list.

(12) (a) In Classes I, II, VII, VIIA and VIII ships, which are fitted with davits, and in ships fitted with mechanically controlled single-arm davits, the lifeboats or boats shall be served by wire rope falls and by winches: Provided that the Minister or Secretary, as the case may be, may allow other types of falls to be fitted to an emergency boat in compliance with paragraph (3) of regulation 5 or paragraph (3) of regulation 6, and in ships where, having regard to the height of the boat deck above the lightest sea-going draught or to other circumstances, he is satisfied that such other falls are adequate.

(b) In Classes IIA and IX ships, wire rope falls together with winches, shall be fitted for operating lifeboats weighing more than four tons in fully loaded condition.

(13) In ships other than those ships in which the lifeboat or boat is attached to a mechanically controlled single-arm davit, two life lines shall be fitted to the davit spans of all lifeboats and the falls and life lines shall be long enough to reach the water with the ship at her lightest sea-going draught and listed to 15 degrees either



takelblokke moet toegerus wees met 'n geskikte ring of lang skakel sodat dit aan die slingerhake gehak kan word, tensy daar 'n ontkoppeling sinrigting wat aan die vereistes van die Veertiende Bylae voldoen, aangebring is.

(14) Die takels vir reddingsbote en bote wat aan davits bevestig is, moet gereed wees vir gebruik en maatreëls moet getref word om die reddingsbote of bote vinnig van die takels los te maak. Die punte waar die reddingsbote of bote aan die takels bevestig is, moet so geleë wees dat die reddingsbote of bote maklik vry van die davits af geswaai kan word.

(15) Waar meer as een reddingsboot deur middel van dieselfde stel davits bedien word, moet afsonderlike takels vir die bediening van elke reddingsboot verskaf word, tensy die takels uit metaal vervaardig is. Die inrigtings wat gebruik word, moet van so 'n aard wees dat die reddingbote vinnig en om die beurt neergelaat kan word. Wanneer kraginrigtings vir die ophaal van die takels aangebring is, moet daar ook voldoende inrigtings wat met die hand gewerk kan word, voorsien word.

#### 40. PLASING VAN OPPOMPBAARE REDDINGSVLOTTE, DRYWENDE TOESTELLE, REDDINGSBOEIE EN REDDINGSBUISE.

(1) Oppompbare reddingsvlotte en drywende toestelle moet so geplaas word dat hulle ten alle tye geskik vir gebruik is en veilig en vinnig selfs onder ongunstige omstandighede van die helling en stuurilas te water gelaat kan word.

(2) Reddingsboeie moet só geplaas word, dat hulle geredelik vir alle persone aan boord bekombaar is, en op so 'n wyse dat hulle vinnig losgemaak kan word.

(3) Reddingsbui se moet so geplaas word dat hulle geredelik vir alle persone aan boord bekombaar is. Die plek waar hulle te vind is, moet duidelik en permanent aangedui word.

(4) Waar doenlik, moet elke seevarende skip wat met 'n brug uitgerus is, 'n reddingsboei met 'n selfontbrandende lig aan elke kant van die navigasiebrug bevestig of aangrensend hê en wel op so 'n wyse dat hulle onmiddellik losgemaak kan word en nie aan die kante van die skip raak wanneer hulle ingegooi word nie. Die manier van losmaak moet nie die ophang van die reddingsboei meebring nie.

### HOOFSTUK V.—DIVERSE BEPALINGS.

#### 41. INSKEPING IN REDDINGSBOTE.

(1) Op elke skip wat reddingsbote aan boord het, moet maatreëls getref word om vinnige en ordelike inskeping in die reddingsbote moontlik te maak.

(2) Op elke skip moet maatreëls getref word om die passasiers en bemanning te waarsku wanneer die skip op die punt staan om verlaat te word.

(3) Op elke Klas I-, II-, IIA-, VII-, VIIA-, VIII en XI-skip moet een leer by elke stel davits beskikbaar wees. Die leer moet lank genoeg wees om die waterlyn te bereik wanneer die skip op die kleinste diepgang in soutwater is en aan die een of ander kant 'n hellingshoek van 15 grade het.

(4) Elke Klas I-, II-, IIA-, VII-, VIIA- en VIII-skip moet voorsien wees van middels buite die masjienkamer waardeur die stort van water in die reddingsbote verhoed kan word.

#### 42. BEMANNING VAN REDDINGSBOTE.

(1) Op elke Klas I-, II- en IIA-skip moet 'n dekkoffisier of gediplomeerde reddingsbootman in bevel van elke reddingsboot geplaas word en daar moet ook 'n tweede bevelvoerder benoem word. Die persoon in bevel moet 'n lys van die reddingsbootbemanning hê en moet toesien dat die persone onder sy bevel met hulle onderskeie pligte vertrou is.

way. Lower fall blocks shall be fitted with a suitable ring or long link for attaching to the sling hooks, unless disengaging gear complying with the requirements of the Fourteenth Schedule is fitted.

(14) Lifeboats and boats attached to davits shall have the falls ready for service, and means shall be provided for speedily detaching the lifeboats or boats from the falls. The points of attachment of the lifeboats or boats to the falls shall be so situated as to ensure that the lifeboats or boats can be easily swung clear of the davits.

(15) Where more than one lifeboat is served by the same set of davits, separate falls shall be provided to serve each lifeboat, unless the falls are of wire rope. The appliances used shall be such as to ensure lowering the boats rapidly and in turn. Where power appliances are fitted for the recovery of the falls, efficient hand gear shall also be provided.

#### 40. STOWAGE OF INFLATABLE LIFERAFTS, BUOYANT APPARATUS, LIFEBOUYS, AND LIFEJACKETS.

(1) Inflatable liferafts and buoyant apparatus shall be so stowed that they are at all times fit for use and can be put into the water safely and rapidly even under unfavourable conditions of list and trim.

(2) Lifebuoys shall be so stowed as to be readily accessible to all persons on board, and in such a way that they can be rapidly cast loose.

(3) Lifejackets shall be so stowed as to be readily accessible to all persons on board. Their position shall be clearly and permanently indicated.

(4) Where practicable, every sea-going ship fitted with a bridge shall carry a lifebuoy with a self-igniting light attached on or adjoining each side of the navigating bridge in such a manner that they can be released instantaneously so as to drop clear of the ship's side. The method of release shall not involve lifting the lifebuoy.

### CHAPTER V.—MISCELLANEOUS PROVISIONS.

#### 41. EMBARKATION INTO LIFEBOATS.

(1) In every ship which carries lifeboats, arrangements shall be made to ensure that it is possible to effect embarkation into lifeboats rapidly and in good order.

(2) In every ship arrangements shall be made for warning the passengers and crew when the ship is about to be abandoned.

(3) In every Class I, II, IIA, VII, VIIA, VIII and XI ship, one ladder shall be carried at each set of davits. The ladder shall be of sufficient length to reach the water line with the ship at her lightest sea-going draught and listed to 15 degrees either way.

(4) Every Class I, II, IIA, VII, VIIA and VIII ship shall be provided with means situated outside the engine room whereby any discharge of water into the lifeboats can be prevented.

#### 42. MANNING OF LIFEBOATS.

(1) In every Class I, II and IIA ship a deck officer or certificated lifeboatman shall be placed in charge of each lifeboat and a second in command shall also be nominated. The person in charge shall have a list of the lifeboat's crew, and shall see that the men placed under his orders are acquainted with their several duties.

(2) Op elke Klas I-, II- en IIA-skip moet 'n man wat in staat is om met die radiotelegraaf- en soekliguitrusting te werk, aan elke reddingsboot wat hierdie uitrusting aan boord het, toegewys word.

(3) Op elke Klas I-, II-, IIA-, VII-, VIIA- en VIII-skip moet 'n man wat in staat is om die motor te bedien aan elke motorreddingsboot toegewys word.

#### 43. GEDIPLOMEERDE REDDINGSBOOTLUI.

(1) Die bemanning van elke Klas I-, II- en IIA-skip moet vir elke reddingsboot wat op 'n sodanige skip aan boord is, 'n getal gediplomeerde reddingsbootlui hê wat nie minder is as die getalle wat in die onderstaande tabel aangegee word nie:—

| <i>Voorgeskrewe bemanning van reddingsboot.</i> | <i>Minimum getal gediplomeerde reddingsbootlui.</i> |
|-------------------------------------------------|-----------------------------------------------------|
| Minder as 41 persone.....                       | 2                                                   |
| Van 41 tot 61 persone.....                      | 3                                                   |
| Van 62 tot 85 persone.....                      | 4                                                   |
| Meer as 85 persone.....                         | 5                                                   |

(2) Vir die doel van hierdie regulasie beteken—

- (a) „gediplomeerde reddingsbootman”, enige lid van die bemanning wat in besit is van 'n bevoegdheidsertifikaat as reddingsbootman wat ooreenkomstig die bevoegdheidsertifikaatregulasies uitgereik is; en
- (b) „voorgeskrewe bemanning”, die getal persone wat 'n reddingsboot ooreenkomstig hierdie Deel as geskik geag word om op te neem.

#### 44. DRAAGBARE RADIOTELEGRAFIESE UITRUSTING.

Die draagbare radiotelegrafiese uitrusting wat ooreenkomstig paragraaf (10) van regulasie 5, paragraaf (13) van regulasie 6, paragraaf (3) van regulasie 12, of subparagraaf (d) van paragraaf (1) van regulasie 14, aan boord moet wees, moet aan die vereistes van die Handelskeepvaart-radioregulasies wat daarop van toepassing is, voldoen en moet in die kaartkamer van die skip of enige ander geskikte plek gehou word gereed om in geval van nood na die reddingsboot geneem te word.

#### 45. ELEKTRIESE VERLICHTING.

(1) Op elke Klas I-, II- en IIA-skip moet 'n elektriese verligtingstelsel dwarsdeur die skip voorsien word en veral op dekke waarop reddingsbote geberg word. Op elke sodanige skip moet ook voorsiening gemaak word vir die elektriese verligting van die tewaterlatingstuig en van die reddingsbote terwyl hulle te water gelaat word en ook onmiddellik daarna. Die verligting moet vanaf die skip se hoofkraginstallasie bedien word en so ingerig wees dat krag deur die noodkragbron, genoem in regulasie 38 van die Regulasies in verband met Konstruksie, voorsien kan word.

(2) Op elke Klas I-, II- en IIA-skip moet die uitgang uit elke hoofafdeling wat deur passasiers of bemanning geëkkupeer word, voortdurend deur middel van 'n elektriese noodlamp verlig word, wat vanaf die skip se hoofkraginstallasie verskaf word en so ingerig wees dat krag vanaf die noodkragbron, wat in regulasie 38 van die Regulasies in verband met Konstruksie genoem word, voorsien kan word.

(3) Op Klas VII-, VIIA- en VIII-skepe, en op Klas X-skepe van 75 voet of langer, moet middels aangebring word vir die elektriese verligting van die tewaterlatings-tuig en reddingsbote of ander bote terwyl hulle te water gelaat word.

#### 46. NOODSEINE VAN SKEPE.

(1) Elke Klas I-, II-, IIA-, VII-, VIIA- en VIII-skip en elke Klas X- en XI-skip van 50 voet of langer, moet voorsien wees van minstens 12 valskermnoodvuurpylsin-jale wat aan die voorskrifte van die Vyftiende Bylae vol-doen.

(2) In every Class I, II and IIA ship, a man capable of working the radiotelegraph and searchlight equipment shall be assigned to each lifeboat carrying such equip-ment.

(3) In every Class I, II, IIA VII, VIIA and VIII ship a man capable of working the motor shall be assigned to each motor lifeboat.

#### 43. CERTIFICATED LIFEBOATMEN.

(1) The crew of every Class I, II and IIA ship shall include, for each lifeboat carried on such ship, a number of certificated lifeboatmen not less than that specified in the following table:—

| <i>Prescribed Complement of Lifeboat.</i> | <i>Minimum Number of Certificated Lifeboatmen.</i> |
|-------------------------------------------|----------------------------------------------------|
| Less than 41 persons.....                 | 2                                                  |
| From 41 to 61 persons.....                | 3                                                  |
| From 62 to 85 persons.....                | 4                                                  |
| More than 85 persons.....                 | 5                                                  |

(2) For the purpose of this regulation—

- (a) “certificated lifeboatman” means any member of the crew who holds a certificate of qualification as lifeboatman issued in accordance with the certi-ficates of qualification regulations; and
- (b) “prescribed complement” means the number of persons which a lifeboat is in accordance with this Part deemed fit to carry.

#### 44. PORTABLE RADIOTELEGRAPH EQUIPMENT.

The portable radiotelegraph equipment required to be carried by paragraph (10) of regulation 5, paragraph (13) of regulation 6, paragraph (3) of regulation 12, or sub-paragraph (d) of paragraph (1) of regulation 14, shall comply with such of the requirements of the Merchant Shipping Radio Regulations as apply thereto, and shall be kept in the chart room of the ship or other suitable place ready to be moved into the lifeboat in case of emergency.

#### 45. ELECTRIC LIGHTING.

(1) In every Class I, II and IIA ship, an electric lighting system shall be provided throughout the ship and in particular upon the decks on which the lifeboats are stowed. Provision shall also be made in every such ship for the electric lighting of the launching gear and of the lifeboats in process of and immediately after being launched. The lighting shall be operated from the ship's main generating plant and so arranged that power may be supplied from the emergency source of power referred to in regulation 38 of the Construction Regulations.

(2) In every Class I, II and IIA ship, the exit from every main compartment occupied by passengers or crew shall be continuously lighted by an emergency electric lamp, operated from the ship's main generating plant and so arranged that power may be supplied from the emergency source of power referred to in regulation 38 of the Construction Regulations.

(3) In Classes VII, VIIA and VIII ships, and in Class X ships of 75 feet or over in length, means shall be provided for the electric lighting of the launching gear and lifeboats or other boats during the process of launching.

#### 46. SHIPS DISTRESS SIGNALS.

(1) Every Class I, II, IIA, VII, VIIA and VIII ship and every Class X and XI ship of 50 feet in length or over, shall be provided with not less than 12 parachute distress rocket signals which shall comply with the require-ments of the Fifteenth Schedule.



(2) Elke Klas X- en XI-skip van korter as 50 voet en elke Klas IX- en XII-skip moet voorsien wees van minstens 12 vuurwerknoodsinjale wat of valskeermnoodvuurpysiniale is van sodanige tipe dat hulle aan die voorskryfte van die Vyftiende Bylae voldoen, of rooi handsinjaalfakkels wat vyf rooi sterre tot 'n hoogte van minstens 150 voet in die lug kan instuur.

(3) Alle vuurwerknoodsinjale moet in 'n waterdigte houer verpak wees en moet duidelik en onuitwisbaar gemerk wees om hulle doel aan te dui.

## HOOFTSTUK VI.—GELYKWAARDIGHEDE, VERGUNNING EN VRYSTELLINGS.

### 47. OUTORITEIT VAN MINISTER EN SEKRETARIS.

(1) Enige gelykwaardigheid, vergunning of vrystelling wat volgens hierdie Deel geoorloof is, kan as volg toegelaat, gemaak of toegestaan word:—

(a) Deur die Minister ten opsigte van die volgende skepe:—

(i) Passasierskepe wat op internasionale reise of vir enige spesiale passasiersvervoer gebruik word; en

(ii) skepe, uitgesonderd passasierskepe, van 500 ton of swaarder, wat op internasionale reise gebruik word;

(b) deur die Sekretaris ten opsigte van die volgende skepe:—

(i) Passasierskepe wat nie op internasionale reise gebruik word nie;

(ii) skepe, uitgesonderd passasierskepe, van minder as 500 ton, wat op internasionale reise gebruik word; en

(iii) skepe, uitgesonderd passasierskepe, wat nie op internasionale reise gebruik word nie.

(2) Die Minister of Sekretaris, na gelang van die geval moet, wanneer hy kragtens die bepalinge van paragraaf (1) handel, sodanige voorwaardes wat hy nodig ag, opleë.

### 48. GELYKWAARDIGHEDE.

Waar hierdie Deel vereis dat besondere uitrusting, toestel of apparaat of 'n tipe daarvan, op 'n skip aangebring of aan boord moet wees, of dat enige besondere voorsiening gemaak moet word, kan die Minister of Sekretaris, na gelang van die geval, toelaat dat enige ander uitrusting, toestel of apparaat of 'n tipe daarvan aangebring of aan boord moet wees, of dat enige ander voorsiening in daardie skip gemaak word, indien hy oortuig is dat sodanige ander uitrusting, toestel of apparaat of 'n tipe daarvan, of ander voorsiening, minstens net so doeltreffend is as wat hierdie Deel vereis.

### 49. VERGUNNING BETREFFENDE DAVITS.

As dit op versoek van die eienaar van die skip vir die Minister of Sekretaris na gelang van die geval, mag voorkom dat dit ondoenlik of onredelik is om op daardie skip die getal stelle davits wat deur hierdie Deel vereis word, aan te bring, kan hy toelaat dat op daardie skip een of meer stelle davits minder aangebring word, behoudens sodanige voorwaardes, indien enige, wat hy nodig mag ag: Met dien verstande dat in die geval van Klas I-, II- en IIA-skepe, die getal stelle davits, behoudens die bepalinge van paragraaf (6) van regulasie 6, onder geen omstandighede minder sal wees as die minimum getal wat in Kolom B van die tabel in die Eerste Bylae, vasgestel is nie.

### 50. VERGUNNING BETREFFENDE DIE AKKOMMODASIE WAT DEUR REDDINGSBOTE EN DRYWENDE TOESTELLE VOORSIEN WORD.

Indien 'n Klas I skip ooreenkomstig haar veiligheidsertifikaat toegelaat word om tussen gespesifiseerde hawens of plekke in die buiteland 'n groter getal passasiers te vervoer as wat toegelaat word wanneer 'n skip vanaf die Unie ter

(2) Every Class X and XI ship of less than 50 feet in length, and every Class IX and XII ship shall be provided with not less than 12 pyrotechnic distress signals which shall be either parachute distress rocket signals of a type which complies with the requirements of the Fifteenth Schedule or red hand flares capable of emitting five red stars into the air to a height of not less than 150 feet.

(3) All pyrotechnic distress signals shall be packed in a watertight container and shall be clearly and indelibly labelled to indicate their purpose.

## CHAPTER VI.—EQUIVALENTS, CONCESSIONS AND EXEMPTIONS.

### 47. AUTHORITY OF MINISTER AND SECRETARY.

(1) Any equivalent, concession or exemption which is permissible under this Part, may be allowed, made or granted as follows:—

(a) By the Minister in respect of the following ships:—

(i) Passenger ships engaged on international voyages or on any special passenger trade; and

(ii) ships, other than passenger ships, of 500 tons or upwards, engaged on international voyages;

(b) by the Secretary in respect of the following ships:—

(i) Passenger ships which do not engage on international voyages;

(ii) ships, other than passenger ships, of less than 500 tons, engaged on international voyages; and

(iii) ships, other than passenger ships, which do not engage on international voyages.

(2) The Minister or the Secretary as the case may be, shall when acting in accordance with the provisions of paragraph (1), impose such conditions as he may deem necessary.

### 48. EQUIVALENTS.

Where this Part requires that a particular fitting, appliance or apparatus, or type thereof, shall be fitted or carried in a ship, or that any particular provisions shall be made, the Minister or Secretary as the case may be, may allow any other fitting, appliance, apparatus, or type thereof, to be fitted or carried, or any other provision to be made in that ship if he is satisfied that such other fitting, appliance or apparatus, or type thereof, or provision, is at least as effective as that required by this Part.

### 49. CONCESSION REGARDING DAVITS.

If it appears to the Minister or Secretary as the case may be, on the application of the owner of any ship, that it is not practicable or reasonable to fit in that ship the number of sets of davits required by this Part, he may allow one or more sets of davits to be dispensed with in that ship subject to such conditions, if any, as he thinks fit: Provided that, in the case of Classes I, II and IIA ships, the number of sets of davits shall, subject to the provisions of paragraph (6) of regulation 6, in no case be less than the minimum number determined by Column B of the table set forth in the First Schedule.

### 50. CONCESSION REGARDING THE ACCOMMODATION PROVIDED BY LIFEBOATS AND BUOYANT APPARATUS.

If a Class I ship is permitted by the terms of her safety certificate to carry, between specified ports or places abroad, a number of passengers in addition to the number allowed when the ship is proceeding to sea from the

see gaan, mag die Minister, behoudens sodanige voorwaardes wat hy nodig mag ag, wysigings van die bepalinge van paragrafe (4) en (11) van regulasie 5 (wat onderskeidelik op reddingsbote en drywende toestelle betrekking het) toelaat met betrekking tot die gedeelte van die reis tussen sodanige gespesifiseerde hawens of plekke:

Met dien verstande dat waar sulke wysigings toegelaat word, die totale getal reddingsbote aan boord tesame minstens die ruimte, soos uiteengesit in Kolom C van die tabel in die Eerste Bylae, moet voorsien; die totale getal reddingsbote, tesame met sodanige drywende toestelle aan boord, moet altyd voldoende wees vir die totale getal persone wat die skip gesertifiseer is om te vervoer, en daarbenewens moet daar ook drywende toestelle aan boord wees, wat voldoende sal wees om 10 persent van daardie getal persone te steun.

**51. VRYSTELLING TEN OPSIGTE VAN 'N SKIP WAT ONDER BUITENGEWONE OMSTANDIGHED E 'N ENKELE INTERNASIONALE SEEREIS ONDERNEEM.**

Die Minister of Sekretaris, na gelang van die geval, kan enige skip wat nie gewoonlik op internasionale reise gebruik word nie, maar wat onder buitengewone omstandighede 'n enkele internasionale reis moet onderneem, van enige vereistes van hierdie Deel vrystel, mits dit voldoen aan veiligheidsvereistes wat na sy mening voldoende is vir die reis wat deur die skip onderneem moet word.

**52. VERGUNNING BETREFFENDE DIE GROOTTE VAN REDDINGSBOTE OF BOTE.**

Indien dit onprakties of onredelik vir 'n skip sou wees om 'n reddingsboot of boot van die minimum lengte wat deur hierdie Deel voorgeskryf is, aan boord te hê, kan die Minister of Sekretaris, na gelang van die geval, toelaat dat 'n kleiner reddingsboot of boot op daardie skip aan boord mag wees.

**53. VRYSTELLING TEN OPSIGTE VAN 'N SKIP WAT GEBOU IS VOOR DIE INWERKINGTREDING VAN HIERDIE DEEL.**

Die Minister of Sekretaris, na gelang van die geval, kan enige skip wat gebou is voor die inwerkingtreding van hierdie Deel, behoudens sodanige voorwaardes wat hy nodig ag, van enige vereistes van hierdie Deel vrystel, indien hy daarvan oortuig is dat voldoening aan daardie vereiste vir daardie skip of onprakties of onredelik is.

**54. VRYSTELLING TEN OPSIGTE VAN DRAAGBARE RADIOTELEGRAFIESE UITRUSTING.**

Die Minister of Sekretaris, na gelang van die geval, kan enige Klas II of IIA skip van die vereistes van paragraaf (13) van regulasie 6 gelees met regulasie 7, of enige Klas VIII-skip van die vereistes van subparagraaf (d) van paragraaf (1) van regulasie 14 vrystel, indien die skip op reise van sodanige korte duur gebruik word dat draagbare radiotelegrafiese uitrusting na sy mening onnodig is.

**DEEL II.—BRANDTOESTELLE.**

**HOOFTUK I.—SKEPE VAN KLAS I.**

**55. RONDEDIENS, ALARM- EN OPSPORINGSTELSLS.**

(1) Op elke Klas I skip moet 'n doeltreffende rondediens in stand gehou word sodat enige uitbreek van brand onmiddellik ontdek kan word. Brandalarmtoestelle wat met die hand bedien word, moet dwarsdeur die passasiers- en bemanningsruime aangebring word om diegene wat rondediens doen in staat te stel om onmiddellik by die brug of brandbeheerpos die alarm te gee.

(2) Op elke Klas I skip moet 'n outomatiese brandalarm- of brandopsporingstelsel voorsien word wat in staat sal wees om op een of meer plekke waar dit die gouste deur die gesagvoerder en bemanning opgemerk kan word, 'n aanduiding te gee van die aanwesigheid en die plek van die brand in enige deel van die skip wat nie vir die rondediens toeganklik is nie.

(OPMERKING.—Die aandag word gevestig op regulasie 103 waarkragtens 'n skip van die voorskrifte van hierdie paragraaf vrygestel mag word.)

Union, the Minister may, subject to such conditions as he thinks fit, allow as regards the part of the voyage between such specified ports or places, modifications of the provisions of paragraphs (4) and (11) of regulation 5 (which relate respectively to lifeboats and buoyant apparatus): Provided that where such modifications are allowed, the total number of lifeboats carried shall together provide at least the capacity specified in Column C of the table set forth in the First Schedule, the total number of lifeboats together with such buoyant apparatus as is carried shall be always sufficient for the total number of persons which the ship is certified to carry and in addition buoyant apparatus shall be carried sufficient to support 10 per cent of that number of persons.

**51. EXEMPTION IN RESPECT OF A SHIP WHICH IN EXCEPTIONAL CIRCUMSTANCES UNDERTAKES A SINGLE INTERNATIONAL VOYAGE.**

The Minister or Secretary as the case may be, may exempt any ship not normally engaged on international voyages but which, in exceptional circumstances, is required to undertake a single international voyage, from any of the requirements of this Part provided that it complies with safety requirements which in his opinion are adequate for the voyage which is to be undertaken by the ship.

**52. CONCESSION REGARDING THE SIZE OF LIFEBOATS OR BOATS.**

If it is impracticable or unreasonable for a ship to carry a lifeboat or boat of the minimum length prescribed by this Part, the Minister or Secretary as the case may be, may allow a smaller lifeboat or boat to be carried by that ship.

**53. EXEMPTION IN RESPECT OF A SHIP CONSTRUCTED BEFORE THE COMING INTO FORCE OF THIS PART.**

The Minister or Secretary as the case may be, may, on such conditions as he thinks fit, exempt any ship constructed before the coming into operation of this Part, from any of the requirements of this Part, if he is satisfied that compliance with that requirement is either impracticable or unreasonable in the case of that ship.

**54. EXEMPTION IN RESPECT OF PORTABLE RADIOTELEGRAPH EQUIPMENT.**

The Minister or Secretary as the case may be, may exempt any Class II or IIA ship from the requirements of paragraph (13) of regulation 6 read with regulation 7, or any Class VIII ship from the requirements of sub-paragraph (d) of paragraph (1) of regulation 14, if the ship is engaged on voyages of such duration that in his opinion portable radiotelegraph equipment is unnecessary.

**PART II.—FIRE APPLIANCES.**

**CHAPTER I.—SHIPS OF CLASS I.**

**55. FIRE PATROL, ALARM AND DETECTION SYSTEMS.**

(1) In every Class I ship an efficient patrol system shall be maintained so that any outbreak of fire may be promptly detected. Manual fire alarms shall be fitted throughout the passenger spaces and crew spaces which will enable the fire patrol to give an alarm immediately to the bridge or fire control station.

(2) In every Class I ship an automatic fire alarm or fire detection system shall be provided which will be capable of indicating, at one or more points in the ship so as to come rapidly to the notice of the master and crew, the presence and position of fire in any part of the ship which is inaccessible to the fire patrol.

(NOTE.—Attention is invited to regulation 103 in terms of which a ship may be exempted from the requirements of this paragraph.)



## 56. PASSASIER- EN BEMANNINGSRUIME.

Elke Klas I skip moet uitgerus word met toestelle waar- deur minstens twee kragtige strale water vinnig en gelyk- tydig gerig kan word op enige deel van die passasiers- of bemanningsruime wanneer al die waterdigte deure en alle deure in die beskotte, opgerig ooreenkomstig paragaraaf (2) van regulasie 45 van die Regulasies in verband met Konstruksie, gesluit is. Daarbenewens moet daar op elke dek in elkeen van hierdie ruime ten minste twee draag- bare vloeistofbrandblussers voorsien word. As passasiers in geïsoleerde ruime bokant die beskotdek vervoer word, moet daar in sulke ruime minstens een so 'n blusser aan elke kant van die skip wees.

## 57. VRAGRUIME EN PAKKAMERS.

(1) Elke Klas I-skip moet voorsien word van toestelle deur middel waarvan minstens twee kragtige strale water vinnig en gelyktydig op enige vragruim of pakkamer gerig kan word.

(2) Elke Klas I skip van 1,000 ton of groter moet voor- sien word van toestelle deur middel waarvan brandsmoor- gas vinnig deur middel van 'n permanente pyleidingstelsel gevoer kan word na enige afdeling ingerig vir die vervoer van vrag. Die volume vrye gas moet minstens gelyk wees aan 30 persent van die bruto-volume van die grootste ruim in die skip wat doeltreffend geïsoleer kan word: Met dien verstande dat stoom in plaas van brandsmoor- gas gebruik kan word op enige skip waarop beskikbare ketels is wat 1 lb. stoom per uur vir elke 12 kubieke voet van die bruto volume van die grootste ruim in die skip, kan verdamp.

(OPMERKING.—Die aandag word gevestig op regulasie 104 waarkragtens 'n skip van die voorskrifte van hierdie paragaraaf vrygestel mag word.)

## 58. MASJIE- EN BUNKERRUIME: ALGEMEEN.

Elke Klas I skip moet voorsien word van toestelle deur middel waarvan minstens twee kragtige strale water vinnig en gelyktydig op enige deel van die koolbunker- ruime, indien enige, en die masjienruimte gerig kan word.

## 59. MASJIE- EN BUNKERRUIME: SKEPE UITGERUS MET HOOF- OF HULPKETELS WAT MET OLIE GESTOOK WORD.

(1) Elke Klas I-skip moet in die masjienruime voor- sien word van—

- (a) minstens twee brandkrane, een aan die bakboord- en een aan die stuurboordkant; en
- (b) vir elke brandkraan, 'n brandslang met 'n straal- pyp wat geskik is vir die spuit van water op olie.

(2) In elke stookruim van elke Klas I-skip, moet 'n houer voorsien word wat minstens 10 kubieke voet sand, of ander droë materiaal bevat wat geskik is om olie- brande te blus. Skepgrawe waarmee die inhoud van die houters versprei kan word, moet voorsien word.

(3) In elke stookruim op elke Klas I-skip en in elke afdeling waarin die hele of 'n gedeelte van die brandstof- olie-installasie is, moet minstens twee draagbare brand- blussers voorsien word wat in staat is om skuim of 'n ander bestanddeel wat geskik is vir die blus van olie- brande, uit te laat.

(4) 'n Skuimininstallasie, wat voldoen aan die vereistes soos uiteengesit in die Sestiende Bylae moet in elke Klas I-skip voorsien word, deur middel waarvan skuim vinnig oor elke ketelkamer en oor enige ruimte waarin die hele of gedeelte van die brandstof olie-installasie geleë is, uit- geëel en versprei kan word. Die skuim wat vir uitlating beskikbaar is, moet voldoende wees om die grootste enkele oppervlakte waaroor oliebrandstof in die geval van lekkasie kan versprei, tot op 'n diepte van 6 duim te bedek. Indien die masjien- en ketelkamer nie deur 'n beskot van mekaar geskei is nie en die brandstofolie van- af die ketelkamer tot in die masjienkamer kan deurlek, moet die masjien- en ketelkamers vir die toepassing van hierdie paragaraaf as een oppervlakte beskou word.

## 56. PASSENGER AND CREW SPACES.

Every Class I ship shall be provided with appliances whereby at least two powerful jets of water can be rapidly and simultaneously directed upon any part of the passenger spaces and crew spaces when all watertight doors and all doors in the bulkheads constructed in com- pliance with paragraph (2) of regulation 45 of the Con- struction Regulations are closed. In addition, on each deck in each of these spaces there shall be provided at least two portable fluid fire extinguishers. When pas- sengers are carried in enclosed spaces above the bulkhead deck there shall be at least one such extinguisher on each side of the ship in such spaces.

## 57. CARGO SPACES AND STORE ROOMS.

(1) Every Class I ship shall be provided with appliances whereby at least two powerful jets of water can be rapidly and simultaneously directed into any cargo space or store room.

(2) Every Class I ship of 1,000 tons or over shall be provided with appliances whereby fire-smothering gas can be rapidly conveyed by a permanent piping system into any compartment appropriated for the carriage of cargo. The volume of free gas shall be at least equal to 30 per cent of the gross volume of the largest hold in the ship which is capable of being effectively closed: Provided that steam may be substituted for fire-smothering gas in any ship in which there are available boilers capable of evaporating 1 lb. of steam per hour for each 12 cubic feet of the gross volume of the largest hold in the ship.

(NOTE.—Attention is invited to regulation 104 in terms of which a ship may be exempted from the requirements of this paragraph.)

## 58. MACHINERY AND BUNKER SPACES: GENERAL.

Every Class I ship shall be provided with appliances whereby at least two powerful jets of water can be rapidly and simultaneously directed into any part of the coal bunker spaces, if any, and the machinery spaces.

## 59. MACHINERY SPACES: SHIPS FITTED WITH MAIN OR AUXILIARY OIL-FIRED BOILERS.

(1) Every Class I ship shall be provided in the machinery spaces with—

- (a) at least two fire hydrants, one on the port side and one on the starboard side, and
- (b) for each fire hydrant, a fire hose with a nozzle suit- able for spraying water on oil.

(2) In each firing space of every Class I ship a recep- tacle shall be provided which shall contain at least 10 cubic feet of sand, or other dry material suitable for quenching oil fires. Scoops shall be provided for dis- tributing the contents of the receptacle.

(3) In each firing space in every Class I ship and in each compartment which contains the whole or part of the oil fuel installation, at least two portable fire extin- guishers shall be provided which shall be capable of discharging froth or some other substance suitable for quenching oil fires.

(4) A froth installation, complying with the requirements specified in the Sixteenth Schedule, shall be provided in every Class I ship whereby froth can be rapidly discharged and distributed over each boiler room, and over any space which contains the whole or part of the oil fuel installa- tion. The froth available for discharge shall be sufficient in quantity to cover to a depth of 6 inches the largest single area over which oil fuel may spread in the event of leakage. If the engine room and boiler room are not separated from each other by a bulkhead and fuel oil may drain from the boiler room into the engine room bilges, the engine room and boiler room shall, for the purpose of this paragraph, be regarded as a single area.

Die skuimininstallasie moet vanaf 'n maklik toeganklike plek wat nie gereedelik deur die uitbreek van brand geïsoleer sal word nie, beheer kan word.

(OPMERKING.—Die aandag word gevestig op regulasie 105 waarkragtens 'n skip van die voorskrifte van hierdie paragraaf vrygestel mag word.)

(5) Daar moet een skuimbrandblusser met 'n inhoud van minstens 30 gellings voorsien word in elke Klas I-skip met een ketelkamer en twee sulke blussers in elke sodanige skip met meer as een ketelkamer. Elke sodanige blusser moet voorsien word van brandslange op haspels wat geskik is om enige deel van die ketelkamer en van ruimte waarin die hele of 'n gedeelte van die oliebrandstofinstallasies geleë is, te bereik. 'n Koolsuurgasbrandblusser met 'n inhoud van minstens 100 lb. kan in plaas van sodanige skuimbrandblusser voorsien word.

#### 60. MASJENKAMERS: MOTORSKEPE.

Elke Klas I-skip wat deur binnebrandmasjinerie aangedryf word, moet in die afdeling wat daardie masjinerie bevat, voorsien word van ten minste—

- (a) twee brandkrane, een aan die bakboord- en een aan die stuurboordkant;
- (b) vir elke brandkraan, 'n brandslang met 'n straalpyp geskik vir die spuit van water op olie;
- (c) een skuimbrandblusser met 'n inhoud van minstens 30 gellings of 'n koolsuurgasbrandblusser met 'n inhoud van minstens 100 lb. sodanig egter dat op 'n skip waar, ooreenkomstig paragraaf (5) van regulasie 59, brandblussers in 'n ketelkamer voorsien is, die blusser wat deur hierdie subparagraaf vereis word nie 'n groter inhoud hoef te hê as 10 gellings in die geval van 'n skuimbrandblusser of 35 lb. in die geval van 'n koolsuurgasbrandblusser nie; en
- (d) een draagbare skuimbrandblusser vir elke 1,000 remperdekrag van die genoemde masjinerie of gedeelte daarvan, maar in geen geval minder as 2 sulke blussers nie: Met dien verstande dat nie meer as 6 sodanige blussers in een afdeling vereis sal word nie.

#### 61. BRANDPOMPE.

(1) Elke Klas I-skip van 4,000 ton of groter moet voorsien wees van minstens drie brandpompe wat deur middel van krag aangedryf word, en elke Klas I-skip van minder as 4,000 ton van minstens 2 sulke brandpompe.

(2) In elke Klas I-skip wat uitgerus is met hoof- of hulpketels wat met olie gestook word of met binnebrandmasjinerie aangedryf word, moet die waterpype, pompe en die kragbronne deur middel waarvan hulle aangedryf word van so 'n aard wees dat 'n brand in die een of ander afdeling nie al die brandpompe buite werking sal stel nie.

#### 62. WATERPYPE, BRANDKRANE EN BRANDSLANGE.

Elke Klas I-skip moet voorsien word van waterpype en brandkrane. Die middellyn van die waterpype moet voldoende wees om 'n toereikende watervoorraad vir die gelyktydige gebruik van minstens twee brandslange en die spuit van twee kragtige strale water daaruit te verseker. Die getal en plekke van die brandkrane, moet sodanig wees dat minstens twee sulke strale water op enige deel van die skip gerig kan word deur middel van twee brandslange waarvan nie een langer as 60 voet is nie; elke straal moet van 'n afsonderlike brandkraan voorsien word. Minstens een brandslang moet vir elke brandkraan voorsien word.

#### 63. UITRUSTING VIR BRANDWEERMANNE.

(1) Elke Klas I-skip moet van minstens twee uitrustings vir brandweermanne voorsien word: Met dien verstande dat 'n skip wat langer as 200 voet is, voorsien moet word van 'n addisionele uitrusting vir elke bykomende 100 voet of gedeelte van 100 voet van sy lengte.

- (2) Elke brandweermansuitrusting moet bestaan uit—
  - (a) 'n veiligheidslamp;
  - (b) 'n brandbyl; en
  - (c) (i) 'n asemhalingstoestel; of (ii) 'n rookhelm; of (iii) 'n rookmasker wat onderskeidelik aan die vereistes soos uiteengesit in die Sewentiende Bylae, voldoen.

The froth installation shall be capable of being controlled from an easily accessible position which is not likely to be cut off in the event of fire.

(NOTE.—Attention is invited to regulation 105 in terms of which a ship may be exempted from the requirements of this paragraph.)

(5) One froth fire extinguisher of at least 30 gallons capacity shall be provided in every Class I ship with one boiler room, and two such extinguishers shall be provided in every such ship with more than one boiler room. Every such extinguisher shall be provided with a reel of hose capable of reaching every part of the boiler room and of any space which contains the whole or part of the oil fuel installation. A carbon dioxide fire extinguisher of at least 100 lb. capacity may be provided in lieu of such froth fire extinguisher.

#### 60. ENGINE ROOMS: MOTOR SHIPS.

Every Class I ship propelled by internal combustion machinery shall be provided in the compartment containing that machinery with at least—

- (a) two fire hydrants, one on the port side and one on the starboard side;
- (b) for each fire hydrant, a fire hose with a nozzle suitable for spraying water on oil;
- (c) one froth fire extinguisher of at least 30 gallons capacity or a carbon dioxide fire extinguisher of at least 100 lb. capacity, so however that in a ship in which fire extinguishers are provided in a boiler room in accordance with paragraph (5) of regulation 59, the extinguisher required by this subparagraph shall not be required to exceed 10 gallons in capacity in the case of a froth fire extinguisher, or 35 lb. in the case of a carbon dioxide fire extinguisher; and
- (d) one portable froth fire extinguisher for each 1,000 brake horse power of the said machinery or fraction thereof, but in no event less than 2 such extinguishers; Provided that not more than 6 such extinguishers shall be required in any one compartment.

#### 61. FIRE PUMPS.

(1) Every Class I ship of 4,000 tons or over shall be provided with at least 3 fire pumps operated by power, and every Class I ship of under 4,000 tons with at least 2 such fire pumps.

(2) In every Class I ship fitted with main or auxiliary oil-fired boilers or internal combustion propelling machinery, the arrangements of sea connections, pumps and the sources of power for operating them shall be such as will ensure that a fire in any one compartment will not put all the fire pumps out of action.

#### 62. WATER PIPES, HYDRANTS AND FIRE HOSES.

Every Class I ship shall be provided with water pipes and hydrants. The diameter of the water pipes shall be sufficient to enable an adequate supply of water to be provided for the simultaneous operation of at least two fire hoses and for the projection thereby of two powerful jets of water. The number and position of the hydrants shall be such that at least two such jets may be directed into any part of the ship by means of two fire hoses each not exceeding 60 feet in length, each jet being supplied from a separate hydrant. At least one fire hose shall be provided for each hydrant.

#### 63. FIREMEN'S OUTFITS.

(1) Every Class I ship shall be provided with at least two firemen's outfits: Provided that a ship which exceeds 200 feet in length shall be provided with one additional outfit for every extra 100 feet or part of 100 feet of its length.

- (2) Every fireman's outfit shall consist of—
  - (a) a safety lamp;
  - (b) a fireman's axe; and
  - (c) (i) a breathing apparatus; or (ii) a smoke helmet; or (iii) a smoke mask,
 complying with the requirements respectively specified in the Seventeenth Schedule.



(3) Twee brandweermansuitrustings moet rookhelms wat van die luggyp-tipe is, bevat.

(4) Brandweermansuitrustings moet op plekke wat ver van mekaar geleë is, gehou word.

#### 64. DRAAGBARE BOORMASJIE.

Elke Klas I-skip moet voorsien word van 'n draagbare elektriese boormasjien, wat dien as 'n noodmiddel om deur dekke, omhulsels of beskotte toegang tot brande te verkry.

### HOOFSTUK II.—SKEPE VAN KLAS II EN IIA.

#### 65. SKEPE VAN KLAS II.

Regulasies 55 tot en met 64 is ook van toepassing op Klas II-skepe.

#### 66. SKEPE VAN KLAS IIA.

Paragraaf (1) van regulasie 55 en regulasies 56 tot en met 64 is ook van toepassing op Klas IIA-skepe.

### HOOFSTUK III.—SKEPE VAN KLAS III, IV EN V.

#### 67. SKEPE VAN KLAS III.

Nog nie toegewys nie.

#### 68. SKEPE VAN KLAS IV.

Nog nie toegewys nie.

#### 69. SKEPE VAN KLAS V.

Nog nie toegewys nie.

### HOOFSTUK IV.—SKEPE VAN KLAS VI.

#### 70. WATERPYPE, BRANDKRANE EN BRANDSLANGE.

Elke Klas VI-skip, volledig gedek, moet voorsien word van waterpype en brandkrane. Die middellyn van die brandblusleidings moet voldoende wees om 'n toereikende watervoorraad vir gebruik van minstens een brandslang en die spuit van 'n kragtige straal water te kan voorsien. Die getal en plek van die brandkrane moet sodanig wees dat minstens een so 'n straal op enige deel van die skip gerig kan word deur middel van 'n brandslang wat nie langer as 60 voet is nie. Minstens een brandslang moet vir elke brandkraan voorsien word.

#### 71. DRAAGBARE BRANDBLUSSERS.

Elke Klas VI-skip, volledig gedek, moet voorsien word van minstens twee draagbare vloeistofbrandblussers vir elk van die passasiers- en bemanningsruime.

#### 72. MASJIE RUIME: SKEPE TOEGERUS MET HOOF- OF HULPKETELS WAT MET OLIE GESTOOK WORD.

(1) Elke Klas VI-skip, volledig gedek, moet in die masjienruime voorsien word van minstens—

- een brandkraan en brandslang met 'n straalspyl wat geskik is vir die spuit van water op olie;
- 'n houër wat 'n voldoende hoeveelheid sand of ander droë materiaal bevat wat geskik is om oliebrande te blus;
- 'n skepgraaf vir die verspreiding van die inhoud van die houër;
- twee draagbare brandblussers wat skuim\* of 'n ander bestanddeel wat geskik is om oliebrande te blus, uitspuit.

(2) Elke Klas VI-skip, volledig gedek, moet in die masjienruime voorsien word van 'n skuimbrandblusser met 'n inhoud van minstens 30 gelling. Die blusser moet voorsien wees van brandslange wat elke deel van die ketelkamer en enige ruim wat 'n gedeelte van die oliebrandstofinstallasie bevat, kan bereik. 'n Koalsuurgas-brandblusser met 'n inhoud van minstens 100 lb. kan in plaas van 'n skuimbrandblusser van 30 gelling inhoud voorsien word.

(3) Two firemen's outfits shall contain smoke helmets of the air hose type.

(4) Firemen's outfits shall be kept in widely separated places.

#### 64. PORTABLE DRILLING MACHINE.

Every Class I ship shall be provided with a portable electric drilling machine to provide emergency means of access to fires through decks, casings or bulkheads.

### CHAPTER II.—SHIPS OF CLASSES II AND IIA.

#### 65. SHIPS OF CLASS II.

Regulations 55 to 64, inclusive, shall apply also to Class II ships.

#### 66. SHIPS OF CLASS IIA.

Paragraph (1) of regulation 55 and regulations 56 to 64 inclusive shall apply also to Class IIA ships.

### CHAPTER III.—SHIPS OF CLASSES III, IV AND V.

#### 67. SHIPS OF CLASS III.

Not yet allocated.

#### 68. SHIPS OF CLASS IV.

Not yet allocated.

#### 69. SHIPS OF CLASS V.

Not yet allocated.

### CHAPTER IV.—SHIPS OF CLASS VI.

#### 70. WATER PIPES, HYDRANTS AND FIRE HOSES.

Every fully-decked Class VI ship shall be provided with water pipes and hydrants. The diameter of the water service pipes shall be sufficient to enable an adequate supply of water to be provided for the operation of at least one fire hose and the projection thereby of a powerful jet of water. The number and position of the fire hydrants shall be such that at least one such jet may be directed into any part of the ship by means of a fire hose not exceeding 60 feet in length. At least one fire hose shall be provided for each hydrant.

#### 71. PORTABLE FIRE EXTINGUISHERS.

Every fully-decked Class VI ship shall be provided with at least two portable fluid fire extinguishers for each of the passenger and crew spaces.

#### 72. MACHINERY SPACES: SHIPS FITTED WITH MAIN OR AUXILLIARY OIL-FIRED BOILERS.

(1) Every fully-decked Class VI ship shall be provided in the machinery spaces with at least—

- one fire hydrant and fire hose with a nozzle suitable for spraying water on oil;
- a receptacle containing an adequate quantity of sand or other dry material suitable for quenching oil fires;
- a scoop for distributing the contents of the receptacle;
- two portable fire extinguishers capable of discharging froth or some other substance suitable for quenching oil fires.

(2) Every fully-decked Class VI ship shall be provided in the machinery spaces with a froth fire extinguisher of at least 30 gallons capacity. The extinguisher shall be provided with fire hoses capable of reaching every part of the boiler room and any space which contains a part of the oil fuel system. A carbon dioxide fire extinguisher of at least 100 lb. capacity may be provided in lieu of a froth fire extinguisher of 30 gallons capacity.

### 73. MASJENKAMER: MOTORSKEPE.

Elke Klas VI-skip, volledig gedek, wat toegerus is met binnebrandmasjinerie moet in die masjienafdeling voorsien word van minstens—

- een brandkraan en brandslang met 'n straalspyp wat geskik is om water op olie te spuit;
- een skuimbrandblusser met 'n inhoud van minstens 10 gelling of een koolsuurgasbrandblusser met 'n inhoud van minstens 35 lb.;
- een draagbare skuimbrandblusser vir elke 1.000 remperdekrag van die masjinerie of gedeelte daarvan, maar in geen geval minder as 2 sulke blussers nie: Met dien verstande dat in geen skip meer as 6 sulke blussers vereis moet word nie.

### 74. BRANDPOMPE.

(1) Elke Klas VI-skip volledig gedek, moet voorsien wees van minstens een brandpomp wat deur middel van krag aangedryf word.

(2) Elke Klas VI-skip, volledig gedek, moet voorsien wees van 'n addisionele brandpomp wat nie vereis word om deur krag aangedryf te word nie en wat permanent aan die watertype, wat in regulasie 70 genoem word, vasgeheg is. Sodanige pomp, en die kragbron daarvan, indien daar een is, moet in 'n ander afdeling, verwyder van dié wat die pomp genoem in paragraaf (1) bevat, geleë wees. Indien 'n handpomp ooreenkomstig hierdie paragraaf voorsien word, moet dit 'n draaipomp wees. 'n Seesuijklep wat vanaf die masjienruim beheer kan word, moet voorsien word.

### 75. MOTORSKEPE: NIE VOLLEDIG GEDEK NIE.

Elke Klas VI-skip wat nie volledig gedek is nie, en wat deur middel van binnebrandmasjinerie aangedryf word, moet voorsien word van minstens—

- twee brandemmers;
- 'n handpomp met 'n slang en straalspyp geskik vir die spuit van water op olie;
- 'n houer wat 'n voldoende hoeveelheid sand of ander droë materiaal bevat wat geskik is vir die blus van oliebrande, en 'n skepgraaf vir die verspreiding van die inhoud van die houer; en
- skuimbrandblussers en brandblussers wat koolstoftetrachloried of 'n ander bestanddeel geskik vir die blus van oliebrande kan uitspuit, volgens die volgende tabel:—

| Lengte van skip.                                       | Skuimbrand-blussers. |                                  | Getal blussers wat koolstoftetrachloried of ander bestanddeel geskik vir blus van oliebrande, uitspuit. |
|--------------------------------------------------------|----------------------|----------------------------------|---------------------------------------------------------------------------------------------------------|
|                                                        | Getal.               | Minimum inhoud van elke blusser. |                                                                                                         |
| Nie langer as 30 voet nie.....                         | 1                    | 2 gellings                       | 2                                                                                                       |
| Langer as 30 voet, maar nie langer as 50 voet nie..... | 2                    | 2 gellings                       | 2                                                                                                       |
| Langer as 50 voet..                                    | 2                    | 2 gellings                       | 3                                                                                                       |

## HOOFSTUK V.—SKEPE VAN KLAS VII.

### 76. VRAGRUIME.

Elke Klas VII-skip van 2.000 ton of groter moet voorsien word van toestelle deur middel waarvan brandsmoorgas vinnig deur middel van 'n permanente pypleidingstelsel gevoer kan word na enige afdeling ingerig vir die vervoer van vrag. Die volume vrye gas beskikbaar, moet minstens gelyk wees aan 30 persent van die bruto volume van die grootste ruim in die skip wat doeltreffend gesluit kan word: Met dien verstande dat—

- stoom in die plek van brandsmoorgas gebruik kan word op enige skip waar ketels beskikbaar is wat 1 lb. stoom per uur verdamp vir elke 12 kubieke voet van die bruto volume van die grootste ruim in die skip;

### 73. ENGINE ROOM: MOTOR SHIPS.

Every fully-decked Class VI ship fitted with internal combustion propelling machinery shall be provided in the machinery compartment with at least—

- one fire hydrant and fire hose with a nozzle suitable for spraying water on oil;
- one froth fire extinguisher of at least 10 gallons capacity or one carbon dioxide fire extinguisher of at least 35 lb. capacity;
- one portable froth fire extinguisher for each 1000 brake horse power of the machinery or fraction thereof, but in no event less than 2 such extinguishers: Provided that not more than 6 such extinguishers shall be required in any ship.

### 74. FIRE PUMPS.

(1) Every fully-decked Class VI ship shall be provided with at least one fire pump operated by power.

(2) Every fully-decked Class VI ship shall be provided with an additional fire pump which shall not be required to be operated by power and which shall be permanently connected to the water pipes referred to in regulation 70. Such pump, and its source of power, if any, shall be situated in a different compartment remote from that containing the pump referred to in paragraph (1). If a hand pump is provided in compliance with this paragraph, it shall be of the rotary type. A sea suction valve shall be provided which shall be capable of being controlled from the machinery space.

### 75. MOTOR SHIPS: NOT FULLY-DECKED.

Every Class VI ship which is not fully-decked and is propelled by internal combustion machinery shall be provided with at least—

- two fire buckets;
- a hand pump with a hose and a nozzle suitable for spraying water on oil;
- a receptacle containing an adequate quantity of sand or other dry material suitable for quenching oil fires, and a scoop for distributing the contents of the receptacle; and
- froth fire extinguishers and fire extinguishers capable of discharging carbon tetrachloride or some other substance suitable for quenching oil fires in accordance with the following table:—

| Length of the Ship.                     | Froth Fire Extinguishers. |                                        | Number of extinguishers discharging carbon tetrachloride or other substance suitable for quenching oil fires. |
|-----------------------------------------|---------------------------|----------------------------------------|---------------------------------------------------------------------------------------------------------------|
|                                         | No.                       | Minimum Capacity of each Extinguisher. |                                                                                                               |
| Not over 30 feet...                     | 1                         | 2 gallons                              | 2                                                                                                             |
| Over 30 feet, but not over 50 feet..... | 2                         | 2 gallons                              | 2                                                                                                             |
| Over 50 feet.....                       | 2                         | 2 gallons                              | 3                                                                                                             |

## CHAPTER V.—SHIPS OF CLASS VII.

### 76. CARGO SPACES.

Every Class VII ship of 2,000 tons or over shall be provided with appliances whereby fire-smothering gas can be rapidly conveyed by a permanent piping system into any compartment appropriated for the carriage of cargo. The volume of free gas available shall be at least equal to 30 per cent of the gross volume of the largest hold in the ship which is capable of being effectively closed: Provided that—

- steam may be substituted for fire-smothering gas in any ship in which there are available boilers capable of evaporating 1 lb. of steam per hour for each 12 cubic feet of the gross volume of the largest hold in the ship;



- (b) in die vragruime van enige tenkskip 'n skuiminstallasie, wat aan die vereistes van die Sestiende Bylae voldoen, gebruik mag word in die plek van 'n stelsel vir die oorbring van brandsmoorgas.

(OPMERKING.—Die aandag word gevestig op regulasie 106 waarkragtens 'n skip van die voorskrifte van hierdie regulasie vrygestel kan word.)

#### 77. BRANDSLANGE EN POMPE.

(1) Elke Klas VII-skip van 1,000 ton of groter moet voorsien word van toestelle deur middel waarvan minstens twee kragtige strale water vinnig en gelyktydig op enige deel van die skip gerig kan word. Sulke toestelle moet minstens twee brandslange met 'n totale lengte wat gelykstaan aan 'n halwe lengte van die skip, tesame met twee pompe wat deur krag aangedryf word, insluit.

(2) Elke Klas VII-skip van onder 1,000 ton moet voorsien word van toestelle deur middel waarvan minstens een kragtige straal water vinnig op enige deel van die skip gerig kan word. Sulke toestelle moet minstens een brandslang met 'n totale lengte gelykstaande aan een-derde van die skip se lengte, tesame met twee pompe wat deur krag aangedryf word, insluit.

(3) Indien, op enige Klas VII-skip wat toegerus is met hoof- of hulpketels wat met olie gestook word of deur middel van binnebrandmasjinerie aangedryf word, 'n brand in enige afdeling al die brandpompe wat in die skip voorsien is buite werking kan stel, moet alternatiewe middele vir die blus van die brand voorsien wees.

#### 78. DRAAGBARE BRANDBLUSSERS.

Elke Klas VII-skip moet voorsien word van 'n voldoende getal draagbare brandblussers om te verseker dat minstens een so 'n blusser geredelik beskikbaar sal wees vir gebruik in elke afdeling van die bemanningsruime en passasiersruime, indien daar is. Die getal sodanige blussers moet, op 'n skip van 1,000 ton of groter, minstens vyf wees en minstens drie op 'n skip van onder 1,000 ton.

#### 79. UITRUSTING VIR BRANDWEERMANNE.

(1) Elke Klas VII-skip van 4,000 ton of groter moet voorsien word van minstens 2 brandweermans-uitrustings wat bestaan uit—

- (a) 'n veiligheidslamp;
- (b) 'n brandbyl;
- (c) (i) 'n asemhalingstoestel; of (ii) 'n rookhelm; of (iii) 'n rookmasker wat onderskeidelik voldoen aan die vereistes soos uiteengesit in die Sewentiende Bylae.

Twee van die uitrustings moet rookhelms wat van die lugpyp-tipe is, bevat.

Die uitrustings moet op plekke wat ver van mekaar geleë is, gehou word.

(2) Elke klas VII-skip van onder 4,000 ton moet voorsien word van minstens een brandweermansuitrusting wat 'n rookhelm van die lugpyp-tipe bevat.

#### 80. DRAAGBARE BOORMASJIE.

Elke Klas VII-skip waarop elektriese energie beskikbaar is, uitgesonderd 'n tenkskip, moet voorsien word van 'n draagbare elektriese boormasjien as 'n noodmiddel om deur dekke, omhulsels en beskotte toegang tot brande te verkry.

#### 81. MASJIE RUIME: SKEPE TOEGERUS MET HOOF- OF HULP-KETELS WAT MET OLIE GESTOOK WORD.

(1) Elke Klas VII-skip moet in die masjienruime voorsien word van—

- (a) minstens twee brandkrane, een aan die bakboord- en een aan die stuurboordkant; en
- (b) vir elke brandkraan 'n brandslang met 'n straalpyp wat geskik is vir die spuit van water op olie.

(2) In elke stookruim op elke Klas VII-skip, moet 'n houer voorsien word wat minstens 10 kubieke voet sand of ander droë materiaal bevat wat geskik is vir die blus van oliebrande. Skepgrawe moet voorsien word vir die verspreiding van die iaheid van die houer.

- (b) in the cargo spaces of any tanker a froth installation, complying with the Sixteenth Schedule, may be substituted for a system for conveying fire-smothering gas.

(NOTE.—Attention is invited to regulation 106 in terms of which a ship may be exempted from the requirements of this regulation.)

#### 77. FIRE HOSES AND PUMPS.

(1) Every Class VII ship of 1,000 tons or over shall be provided with appliances whereby at least two powerful jets of water can be rapidly and simultaneously directed into any part of the ship. Such appliances shall include at least two fire hoses of a total length equivalent to half the length of the ship, together with two pumps operated by power.

(2) Every Class VII ship of under 1,000 tons shall be provided with appliances whereby at least one powerful jet of water can be rapidly directed into any part of the ship. Such appliances shall include at least one fire hose of a total length equivalent to one-third of the length of the ship, together with two pumps operated by power.

(3) If, in any Class VII ship, fitted with main or auxiliary oil-fired boilers or with internal combustion propelling machinery, a fire in any one compartment might put out of action every fire pump provided in the ship, alternative means for extinguishing the fire shall be provided.

#### 78. PORTABLE FIRE EXTINGUISHERS.

Every Class VII ship shall be provided with a sufficient number of portable fire extinguishers to ensure that at least one such extinguisher will be readily available for use in every compartment of the crew spaces and passenger spaces, if any. The number of such extinguishers shall not be less than five in a ship of 1,000 tons or over and not less than three in a ship of under 1,000 tons.

#### 79. FIREMEN'S OUTFITS.

(1) Every Class VII ship of 4,000 tons or over shall be provided with at least two firemen's outfits each consisting of—

- (a) a safety lamp;
- (b) a fireman's axe;
- (c) (i) a breathing apparatus; or (ii) a smoke helmet; or (iii) a smoke mask, complying with the requirements respectively specified in the Seventeenth Schedule.

Two of the outfits shall contain smoke helmets of the air hose type.

The outfits shall be kept in widely separated places.

(2) Every Class VII ship of under 4,000 tons, shall be provided with at least one fireman's outfit one of which shall contain a smoke helmet of the air hose type.

#### 80. PORTABLE DRILLING MACHINE.

Every Class VII ship on which a supply of electrical energy is available, other than a tanker, shall be provided with a portable electric drilling machine to provide emergency means of access to fires through decks, casings or bulkheads.

#### 81. MACHINERY SPACES.—SHIPS FITTED WITH MAIN OR AUXILIARY OIL-FIRED BOILERS.

(1) Every Class VII ship shall be provided in the machinery spaces with—

- (a) at least two fire hydrants, one on the port side and one on the starboard side; and
- (b) for each fire hydrant, a fire hose with a nozzle suitable for spraying water on oil.

(2) In each firing space of every Class VII ship, a receptacle shall be provided which shall contain at least 10 cubic feet of sand, or other dry material suitable for quenching oil fires. Scoops shall be provided for distributing the contents of the receptacle.

(3) In elke stookruim op elke Klas VII-skip en in elke afdeling daarin wat die hele of 'n gedeelte van die brandstofolie-installasie bevat, moet minstens twee draagbare brandblussers voorsien word wat in staat sal wees om skuim of 'n ander bestanddeel wat geskik is vir die blus van oliebrande, uit te spuit. Daarbenewens—

- (a) moet een brandblusser met 'n inhoud van minstens 10 gelling wat skuim of 'n ander bestanddeel, geskik vir die blus van 'n oliebrand, kan uitspuit, of 'n koolsuurgasbrandblusser met 'n inhoud van minstens 35 lb. in elke ketelkamer voorsien word as die getal branders daarin vyf of meer is; of
- (b) as die getal branders in 'n ketelkamer minder as vyf is, moet een skuimbrandblusser met 'n inhoud van minstens twee gelling vir elke brander daarin voorsien word.

4. Elke Klas VII-skip moet voorsien word van 'n Skuiminstallasie wat voldoen aan die voorskrifte van die Sestiende Bylae, deur middel waarvan skuim vinnig oor elke ketelkamer en oor enige ruim wat die hele of 'n gedeelte van die brandstofinstallasie bevat, uitgelaat en versprei kan word. Die skuim beskikbaar vir uitlating moet voldoende wees om die grootste enkele oppervlakte waarvoor oliebrandstof in die geval van lekkasie moontlik kan versprei, tot op 'n diepte van ses duim te bedek. Indien die masjien- en ketelkamers nie deur 'n beskot van mekaar geskei is nie en oliebrandstof vanaf die ketelkamer na die masjienkamer kan lek, moet die masjiën- en ketelkamers vir die toepassing van hierdie paragraaf as een oppervlakte beskou word. Die skuiminstallasie moet beheer kan word vanaf 'n maklik toeganklike plek wat nie gereedelik deur die uitbreek van brand afgesny kan word nie.

[OPMERKING.—Die aandag word gevestig op paragraaf (1) van regulasie 107 waarkragtens 'n skip van die vereistes van hierdie paragraaf, vrygestel mag word.]

#### 82. MASJENKAMERS: MOTORSKEPE.

Op elke Klas VII-skip wat toegerus is met binnebrand-masjinerie moet die volgende brandtoestelle in die afdeling waarin die masjinerie geleë is, voorsien word:—

- (a) Minstens twee brandkrane, een aan die bakboord- en een aan die stuurboordkant;
- (b) vir elke sodanige brandkraan, 'n brandslang met 'n straalpyp geskik vir die spuit van water op olie;
- (c) twee skuimbrandblussers, elkeen met 'n minimum inhoud van 10 gelling, of twee koolsuurgasbrandblussers elkeen met 'n inhoud van minstens 35 lb.: Met dien verstande dat net een so 'n blusser vereis word op enige skip wat ooreenkomstig paragraaf (3) van Regulasie 81 van 'n skuimbrandblusser van minstens 10 gelling inhoud of 'n koolsuurgasbrandblusser van minstens 35 lb. inhoud voorsien is; en
- (d) draagbare brandblussers wat skuim of 'n ander bestanddeel geskik vir die blus van oliebrande kan uitlaat ooreenkomstig die volgende tabel:—

| <i>Remperdekrag van hoofmasjiene.</i>  | <i>Getal draagbare brandblussers.</i> |
|----------------------------------------|---------------------------------------|
| Nie meer as 1,000.....                 | 2                                     |
| Meer as 1,000, maar nie oor 2,000..... | 3                                     |
| Meer as 2,000, maar nie oor 3,000..... | 4                                     |
| Meer as 3,000, maar nie oor 4,000..... | 5                                     |
| Meer as 4,000.....                     | 6                                     |

### HOOFSTUK VI.—SKEPE VAN KLAS VIIA.

#### 83. VEREISTES.

Regulasies 76 tot en met 82 is ook van toepassing op Klas VIIA-skepe.

### HOOFSTUK VII.—SKEPE VAN KLAS VIII.

#### 84. SKEPE VAN 1,000 TON OF GROTER.

Regulasies 77 tot en met 82 is ook van toepassing op Klas VIII-skepe van 1,000 ton of groter.

(3) In each firing space in every Class VII ship and in each compartment therein containing the whole or part of the oil fuel installation, at least two portable fire extinguishers shall be provided which shall be capable of discharging froth or some other substance suitable for quenching an oil fire. In addition—

- (a) one fire extinguisher of at least 10 gallons capacity capable of discharging froth or some other substance suitable for quenching an oil fire, or a carbon dioxide fire extinguisher of at least 35 lb. capacity, shall be provided in each boiler room if the number of burners therein is five or more; or
- (b) if the number of burners in a boiler room is less than five, there shall be provided therein one froth fire extinguisher of at least 2 gallons capacity for each burner.

(4) Every Class VII ship shall be provided with a froth installation, complying with the requirements specified in the Sixteenth Schedule, whereby froth can be rapidly discharged and distributed over each boiler room, and over any space which contains the whole or part of the fuel installation. The froth available for discharge shall be sufficient in quantity to cover to a depth of 6 inches the largest single area over which oil fuel may spread in the event of leakage. If the engine room and boiler room are not separated from each other by a bulkhead and fuel oil may drain from the boiler room into the engine room bilges, the engine room and boiler room shall, for the purpose of this paragraph, be regarded as a single area. The froth installation shall be capable of being controlled from a readily accessible position which is not likely to be cut off in the event of fire.

[NOTE.—Attention is invited to paragraph (1) of regulation 107 in terms of which a ship may be exempted from the requirements of this paragraph.]

#### 82. ENGINE ROOMS: MOTOR SHIPS.

In every Class VII ship fitted with internal combustion propelling machinery, the following fire appliances shall be provided in the compartment containing that machinery:—

- (a) At least two fire hydrants, one on the port side and one on the starboard side;
- (b) for each such hydrant, a fire hose with a nozzle suitable for spraying water on oil;
- (c) two froth fire extinguishers each of at least 10 gallons capacity, or two carbon dioxide fire extinguishers each of at least 35 lb. capacity: Provided that only one such extinguisher shall be required in any ship in which a froth fire extinguisher of at least 10 gallons capacity or a carbon dioxide fire extinguisher of at least 35 lb. capacity is provided in compliance with paragraph (3) of regulation 81; and
- (d) portable fire extinguishers, capable of discharging froth or some other substance suitable for quenching oil fires, in accordance with the following table:—

| <i>Brake Horse Power of Main Engines.</i> | <i>Number of Portable Fire Extinguishers.</i> |
|-------------------------------------------|-----------------------------------------------|
| Not over 1,000.....                       | 2                                             |
| Over 1,000, but not over 2,000.....       | 3                                             |
| Over 2,000, but not over 3,000.....       | 4                                             |
| Over 3,000, but not over 4,000.....       | 5                                             |
| Over 4,000.....                           | 6                                             |

### CHAPTER VI.—SHIPS OF CLASS VIIA.

#### 83. REQUIREMENTS.

Regulations 76 to 82, inclusive, shall apply also to Class VIIA ships.

### CHAPTER VII.—SHIPS OF CLASS VIII.

#### 84. SHIPS OF 1,000 TONS OR OVER.

Regulations 77 to 82, inclusive, shall apply also to Class VIII ships of 1,000 tons or over.



## 85. SKEPE VAN 500 TON OF GROTER, MAAR ONDER 1,000 TON.

(1) Elke Klas VIII-skip van 500 ton of groter maar onder 1,000 ton, moet van minstens die volgende voorsien word:—

- (a) een pomp wat deur krag aangedryf word, en een brandslang deur middel waarvan 'n kragtige straal water vinnig op enige deel van die skip gerig kan word, asook 'n bykomende brandslang van 30 voet;
- (b) drie draagbare brandblussers maklik toeganklik vir gebruik in die bemannings- en passasiersruime, indien enige; en
- (c) 'n brandweermansuitrusting bestaande uit 'n veiligheidslamp, 'n brandbyl, en (i) 'n asemhalingstoestel; of (ii) 'n rookhelm; of (iii) 'n rookmasker, wat onderskeidelik voldoen aan die voorskrifte van die Sewentiende Bylae.

(2) Elke Klas VIII-skip van 500 ton of groter, maar onder 1,000 ton wat uitgerus is met hoof- of hulpketels wat met olie gestook word of deur binnebrandmasjinerie aangedryf word, moet in die masjienruime voorsien word van 'n brandkraan en 'n brandslang met 'n straalsyp wat geskik is vir die spuit van water op olie.

(3) Elke Klas VIII-skip van 500 ton of groter maar onder 1,000 ton wat uitgerus is met ketels wat met olie gestook word, moet—

- (a) in elke ketelkamer voorsien word van 'n houer wat 'n voldoende hoeveelheid sand of ander droë materiaal geskik vir die blus van oliebrande bevat, asook 'n skepgraaf vir die verspreiding van die inhoud van die houer;
- (b) in elke stookruim en in elke afdeling daarin wat die hele of 'n gedeelte van die brandstofolie-installasie bevat, voorsien word van minstens twee draagbare brandblussers wat in staat is om skuim of 'n ander bestanddeel geskik vir die blus van oliebrande uit te laat. Daarbenewens—
  - (i) moet een blusser met 'n inhoud van minstens 10 gelling wat skuim of 'n ander bestanddeel geskik vir die blus van 'n oliebrand kan uitlaai, of 'n koolsuurgasbrandblusser met 'n inhoud van minstens 35 lb., in elke ketelkamer voorsien word as die getal branders daarin vyf of meer is; of
  - (ii) as die getal branders in 'n ketelkamer minder as vyf is, moet een skuimblusser met 'n inhoud van minstens 2 gelling vir elke brander daarin voorsien word.

(4) Elke Klas VIII-skip van 500 ton of groter maar onder 1,000 ton wat uitgerus is met ketels wat met olie gestook word, moet voorsien word van—

'n skuimininstallasie wat aan die voorskrifte van die Sestiende Bylae voldoen, deur middel waarvan skuim vinnig oor elke ketelkamer, en oor enige ruim waarin die hele of 'n gedeelte van die brandstofinstallasie geleë is, uitgelaat en versprei kan word. Die skuim wat vir uitlating beskikbaar is, moet voldoende wees om die grootste enkele oppervlakte waaroor oliebrandstof in die geval van 'n lekkasie moontlik kan versprei, tot op 'n diepte van 6 duim te bedek. Indien die masjien- en ketelkamers nie deur 'n beskot van mekaar geskei is nie en oliebrandstof vanaf die ketelkamer na die masjienruim kan lek, moet die masjienkamer en ketelkamer, vir die toepassing van hierdie paragraaf, as een oppervlakte beskou word. Die skuimininstallasie moet beheer kan word vanaf 'n maklik toeganklike plek wat nie geredelik deur die uitbreek van brand afgesny kan word nie.

[OPMERKING.—Die aandag word gevestig op paragraaf (1) van regulasie 107 waarkragtens 'n skip van die vereistes van hierdie paragraaf vrygestel kan word.]

(5) Elke Klas VIII-skip van 500 ton of groter maar onder 1,000 ton wat uitgerus is met binnebrandmasjinerie, moet in die masjienruime voorsien word van draagbare

## 85. SHIPS OF 500 TONS OR OVER BUT UNDER 1,000 TONS.

(1) Every Class VIII ship of 500 tons or over but under 1,000 tons, shall be provided with at least—

- (a) one pump operated by power, and one fire hose whereby a powerful jet of water can be rapidly directed into any part of the ship, together with a spare fire hose 30 feet in length;
- (b) three portable fire extinguishers readily accessible for use in the crew spaces and passenger spaces if any; and
- (c) a fireman's outfit consisting of a safety lamp, a fireman's axe, and (i) a breathing apparatus; or (ii) a smoke helmet; or (iii) a smoke mask, complying with the requirements respectively specified in the Seventeenth Schedule.

(2) Every Class VIII ship of 500 tons or over but under 1,000 tons, fitted with main or auxiliary oil-fired boilers or internal combustion propelled machinery, shall be provided in the machinery spaces with a hydrant and a fire hose with a nozzle suitable for spraying water on oil.

(3) Every Class VIII ship of 500 tons or over but under 1,000 tons, fitted with oil-fired boilers shall—

- (a) in each boiler room be provided with a receptacle containing an adequate quantity of sand, or other dry material suitable for quenching oil fires, together with a scoop for distributing the contents of the receptacle;
- (b) in each firing space and in each compartment therein containing the whole or part of the oil fuel installation, be provided with at least two portable fire extinguishers which shall be capable of discharging froth or some other substance suitable for quenching an oil fire. In addition—
  - (i) one extinguisher of at least 10 gallons capacity capable of discharging froth or some other substance suitable for quenching an oil fire, or a carbon dioxide fire extinguisher of at least 35 lb. capacity, shall be provided in each boiler room if the number of burners therein is five or more; or
  - (ii) if the number of burners in a boiler room is less than five, there shall be provided therein one froth fire extinguisher of at least 2 gallons capacity for each burner.

(4) Every Class VIII ship of 500 tons or over but under 1,000 tons, fitted with oil-fired boilers shall be provided with—

a froth installation, complying with the requirements specified in the Sixteenth Schedule, whereby froth can be rapidly discharged and distributed over each boiler room, and over any space which contains the whole or part of the fuel installation. The froth available for discharge shall be sufficient in quantity to cover to a depth of 6 inches the largest single area over which oil fuel may spread in the event of leakage. If the engine room and boiler room are not separated from each other by a bulkhead and fuel oil may drain from the boiler room into the engine room bilges, the engine room and boiler room shall, for the purpose of this paragraph, be regarded as a single area. The froth installation shall be capable of being controlled from a readily accessible position which is not likely to be cut off in the event of fire.

[NOTE.—Attention is invited to paragraph (1) of regulation 107 in terms of which a ship may be exempted from the requirements of this paragraph.]

(5) Every Class VIII ship of 500 tons or over but under 1,000 tons, fitted with internal combustion propelling machinery, shall be provided in the machinery spaces with

brandblussers wat in staat is om skuim of 'n ander bestanddeel wat geskik is vir die blus van oliebrande, uit te laat en wel ooreenkomstig die volgende tabel:—

| Remperdekrag van hoofmasjiene.     | Getal draagbare brandblussers. |
|------------------------------------|--------------------------------|
| Nie meer as 100.....               | 3                              |
| Meer as 100, maar nie oor 150..... | 4                              |
| Meer as 150, maar nie oor 200..... | 5                              |
| Meer as 200, maar nie oor 250..... | 6                              |
| Meer as 250.....                   | 7                              |

Met dien verstande dat vir die getal draagbare brandblussers genoem in bostaande tabel, twee sodanige blussers soos genoem in die vooraangaande bepaling, in die plek daarvan gestel kan word, en of—

- (a) een skuimbrandblusser met 'n inhoud van minstens 10 gellings; of
- (b) een koolsuurgasbrandblusser met 'n inhoud van minstens 35 lb.

#### 86. SKEPE VAN 150 TON OF GROTER MAAR ONDER 500 TON.

(1) Elke Klas VIII-skip van 150 ton of groter maar onder 500 ton, moet voorsien word van minstens—

- (a) een pomp wat deur krag aangedryf word en een brandslang deur middel waarvan 'n kragtige straal water vinnig op enige deel van die skip gerig kan word;
- (b) vier brandemmers en 'n brandbyl.

(2) Elke Klas VIII-skip van 150 ton of groter maar onder 500 ton wat toegerus is met hoof- of hulpketels wat met olie gestook word of deur binnebrandmasjinerie aangedryf word, moet voorsien word van 'n straalpyp geskik vir die spuit van water op olie deur middel van die brandslang genoem in subparagraaf (a) van paragraaf (1).

(3) Elke Klas VIII-skip van 150 ton of groter maar onder 500 ton, wat toegerus is met hoof- en hulpketels wat met olie gestook word, moet—

- (a) in die masjienruim voorsien word van 'n houer wat 'n voldoende hoeveelheid sand of ander droë materiaal geskik vir die blus van oliebrande, bevat asook 'n skepgraaf vir die verspreiding van die inhoud van die houer; en
- (b) in die ketelkamer en in elke afdeling waarin die hele of 'n gedeelte van die brandstofolie-installasie geleë is, voorsien word van ten minste twee draagbare brandblussers wat in staat is om skuim of 'n ander bestanddeel geskik vir die blus van oliebrande, uit te laat.

(4) Elke Klas VIII-skip van 150 ton of groter maar onder 500 ton wat toegerus is met hoof- of hulpketels wat met olie gestook word, moet voorsien word van—

'n skuimininstallasie wat aan die voorskrifte uiteengesit in die Sestiende Bylae, voldoen, deur middel waarvan skuim oor elke ketelkamer en oor enige ruim waarin die hele of 'n gedeelte van die brandstofinstallasie geleë is, vinnig gelaat en versprei kan word. Die skuim beskikbaar vir die uitlating moet voldoende wees om die grootste enkele oppervlakte waarvoor oliebrandstof in die geval van lekkasie kan versprei, tot op 'n diepte van 6 duim te bedek. Indien die masjien- en ketelkamers nie deur 'n beskot van mekaar geskei is nie en die oliebrandstof vanaf die ketelkamer na die masjienruim kan deurlek, moet die masjienkamer en ketelkamer vir die toepassing van hierdie paragraaf as een oppervlakte beskou word. Die skuimininstallasie moet beheer kan word vanaf 'n maklik toeganklike plek wat nie gereedelik deur die uitbreek van brand afgesny kan word nie.

[OPMERKING.—Die aandag word gevestig op paragraaf (2) van regulasie 107 waarkragtens 'n skip van die vereistes van hierdie paragraaf vrygestel kan word.]

(5) Elke Klas VIII-skip van 150 ton of groter maar onder 500 ton, wat toegerus is met binnebrandmasjinerie, moet in die masjienkamer voorsien word van—

- (a) 'n houer wat 'n voldoende hoeveelheid sand of ander droë materiaal geskik vir die blus van oliebrande, bevat;

portable fire extinguishers capable of discharging froth or some other substance suitable for quenching oil fires in accordance with the following table:—

| Brake Horse Power of Main Engines. | Number of Portable Fire Extinguishers. |
|------------------------------------|----------------------------------------|
| Not over 100.....                  | 3                                      |
| Over 100, but not over 150.....    | 4                                      |
| Over 150, but not over 200.....    | 5                                      |
| Over 200, but not over 250.....    | 6                                      |
| Over 250.....                      | 7                                      |

Provided that, for the number of portable fire extinguishers set forth in the foregoing table, there may be substituted two such extinguishers as are referred to in the foregoing provision, and either—

- (a) one froth fire extinguisher of at least 10 gallons capacity; or
- (b) one carbon dioxide fire extinguisher of at least 35 lb. capacity.

#### 86. SHIPS OF 150 TONS OR OVER BUT UNDER 500 TONS.

(1) Every Class VIII ship of 150 tons or over but under 500 tons, shall be provided with at least—

- (a) one pump operated by power and one fire hose whereby a powerful jet of water can be rapidly directed into any part of the ship;
- (b) four fire buckets and a fireman's axe.

(2) Every Class VIII ship of 150 tons or over but under 500 tons, fitted with main or auxiliary oilfired boilers or internal combustion propelling machinery, shall be provided with a nozzle suitable for spraying water on oil by means of the fire hose referred to in sub-paragraph (a) of paragraph (1).

(3) Every Class VIII ship of 150 tons or over but under 500 tons, fitted with main or auxiliary oilfired boilers shall—

- (a) in the machinery space be provided with a receptacle containing an adequate quantity of sand, or other dry material suitable for quenching oil fires, together with a scoop for distributing the contents of the receptacle; and
- (b) in the boiler room and in each compartment which contains the whole or part of the oil fuel installation, be provided with at least two portable fire extinguishers capable of discharging froth or some other substance suitable for quenching oil fires.

(4) Every Class VIII ship of 150 tons or over but under 500 tons, fitted with main or auxiliary oilfired boilers shall be provided with—

a froth installation, complying with the requirements specified in the Sixteenth Schedule, whereby froth can be rapidly discharged and distributed over each boiler room, and over any space which contains the whole or part of the fuel installation. The froth available for discharge shall be sufficient in quantity to cover to a depth of 6 inches the largest single area over which fuel oil may spread in the event of leakage. If the engine room and boiler room are not separated from each other by a bulkhead and fuel oil may drain from the boiler room into the engine room bilges, the engine room and boiler room shall, for the purpose of this paragraph, be regarded as a single area. The froth installation shall be capable of being controlled from a readily accessible position which is not likely to be cut off in the event of fire.

[NOTE.—Attention is invited to paragraph (2) of regulation 107 in terms of which a ship may be exempted from the requirements of this paragraph.]

(5) Every Class VIII ship of 150 tons or over but under 500 tons, fitted with internal combustion propelling machinery, shall be provided in the engine room with—

- (a) a receptacle containing an adequate quantity of sand, or other dry material suitable for quenching oil fires;



- (b) 'n skepgraaf vir die verspreiding van die inhoud van die houer; en .
- (c) minstens twee draagbare brandblussers wat in staat is om skuim of 'n ander bestanddeel geskik vir die blus van oliebrande uit te laat.

## 87. SKEPE VAN ONDER 150 TON.

(1) Elke Klas VIII-skip van onder 150 ton, moet voorsien word van—

- (a) 'n pomp en 'n brandslang deur middel waarvan 'n kragtige straal water vinnig op enige deel van die skip gerig kan word; en
- (b) minstens drie brandemmers en 'n brandbyl:

Met dien verstande dat in oop skepe wat toegerus is met binnebrandmasjinerie, twee brandemmers wat aan koorde vas is in die plek gestel kan word van 'n pomp en brandslang. Sulke emmers moet bykomend wees tot die emmers in subparagraaf (b) genoem.

(2) Elke Klas VIII-skip van minder as 150 ton wat toegerus is met hoof- of hulpketels wat met olie gestook word of deur binnebrandmasjinerie aangedryf word, moet voorsien word van—

- (a) 'n houer wat 'n voldoende hoeveelheid sand of ander droë materiaal geskik vir die blus van oliebrande bevat;
- (b) 'n skepgraaf vir die verspreiding van die inhoud van die houer;
- (c) as die skip voorsien is van 'n brandslang, 'n straalpyp geskik vir die spuit van water op olie deur middel van daardie pyp;
- (d) ten minste twee draagbare brandblussers wat in staat is om skuim of 'n ander bestanddeel geskik vir die blus van oliebrande, uit te spuit.

## HOOFSTUK VIII.—SKEPE VAN KLAS IX EN IXA.

## 88. VEREISTES.

Regulasies 84 tot en met 87 is ook van toepassing op Klas IX en IXA-skepe.

(OPMERKING.—Die aandag word gevestig op regulasie 108 waarkragtens enige skip van die vereistes van hierdie Deel vrygestel kan word.)

## HOOFSTUK IX.—SKEPE VAN KLAS X.

## 89. VEREISTES.

(1) Elke Klas X-skip moet voorsien wees van—

- (a) een pomp wat deur middel van krag aangedryf word en een brandslang deur middel waarvan 'n kragtige straal water vinnig op enige deel van die skip gerig mag word: Met dien verstande dat 'n handpomp in plaas van 'n kragpomp gebruik kan word op skepe van korter as 70 voet en in skepe wat hoofsaaklik deur seile voortgedryf word; en
- (b) brandemmers ooreenkomstig die volgende tabel:—

| <i>Lengte van skip in voet.</i> | <i>Minimum getal emmers.</i>           |
|---------------------------------|----------------------------------------|
| 50 en onder.....                | 2, waarvan een aan 'n koord geheg is.  |
| Oor 50, maar nie oor 70..       | 3, waarvan twee aan 'n koord geheg is. |
| Oor 70.....                     | 4, waarvan twee aan 'n koord geheg is. |

(2) Elke Klas X-skip wat toegerus is met ketels wat met olie gestook word en elke Klas X-skip met 'n dek, wat deur binnebrandmasjinerie aangedryf word, moet voorsien word van 'n straalpyp geskik vir die spuit van water op olie deur middel van die brandslang genoem in subparagraaf (a) van paragraaf (1).

(3) Elke Klas X-skip wat toegerus is met hoof- of hulpketels wat met olie gestook word, moet in die ketelkamer voorsien word van—

- (a) 'n houer wat 'n voldoende hoeveelheid sand of ander droë materiaal geskik vir die blus van oliebrande bevat;

(b) a scoop for distributing the contents of the receptacle; and

(c) at least two portable fire extinguishers capable of discharging froth or some other substance suitable for quenching oil fires.

## 87. SHIPS OF UNDER 150 TONS.

(1) Every Class VIII ship of under 150 tons shall be provided with—

- (a) one pump and one fire hose whereby a powerful jet of water can be rapidly directed into any part of the ship; and
- (b) at least three fire buckets and a fireman's axe: Provided that in open ships fitted with internal combustion propelling machinery two fire buckets with lanyards attached may be substituted for a pump and a fire hose. Such buckets shall be additional to the buckets referred to in sub-paragraph (b).

(2) Every Class VIII ship of under 150 tons fitted with main or auxiliary oil-fired boilers or with internal combustion propelling machinery, shall be provided with—

- (a) a receptacle containing an adequate quantity of sand, or other dry material suitable for quenching oil fires;
- (b) a scoop for distributing the contents of the receptacle;
- (c) if the ship is provided with a fire hose, a nozzle suitable for spraying water on oil by means of that hose;
- (d) at least two portable fire extinguishers capable of discharging froth or some other substance suitable for quenching oil fires.

## CHAPTER VIII.—SHIPS OF CLASSES IX AND IXA.

## 88. REQUIREMENTS.

Regulations 84 to 87 inclusive shall apply also to Classes IX and IXA ships.

(NOTE.—Attention is invited to regulation 108 in terms of which a ship may be exempted from the requirements of this Part.)

## CHAPTER IX.—SHIPS OF CLASS X.

## 89. REQUIREMENTS.

(1) Every Class X ship shall be provided with—

- (a) one pump operated by power and one fire hose whereby a powerful jet of water can rapidly be directed into any part of the ship: Provided that a hand pump may be substituted for a power pump in ships of under 70 feet in length and in ships in which sails are the main means of propulsion; and
- (b) fire buckets in accordance with the following table:—

| <i>Length of Ship in Feet.</i> | <i>Minimum Number of Buckets.</i>               |
|--------------------------------|-------------------------------------------------|
| 50 and under.....              | 2, one of which shall be fitted with a lanyard. |
| Over 50, but not over 70..     | 3, two of which shall be fitted with lanyards.  |
| Over 70.....                   | 4, two of which shall be fitted with lanyards.  |

(2) Every Class X ship fitted with oil-fired boilers and every decked Class X ship fitted with internal combustion propelling machinery shall be provided with a nozzle suitable for spraying water on oil by means of the fire hose referred to in sub-paragraph (a) of paragraph (1).

(3) Every Class X ship fitted with main or auxiliary oil-fired boilers shall be provided in the boiler room with—

- (a) a receptacle containing an adequate quantity of sand, or other dry material suitable for quenching oil fires;

- (b) 'n skepgraaf vir die verspreiding van die inhoud van die houer;
- (c) minstens twee draagbare brandblussers wat in staat is om skuim of 'n ander bestanddeel geskik vir die blus van oliebrande, uit te laat.
- (4) Elke Klas X-skip wat toegerus is met hoof- of hulpketels wat met olie gestook word, moet voorsien word van—

'n skuimininstallasie wat aan die voorskrifte van die Sestiende Bylae voldoen, deur middel waarvan skuim vinnig oor elke ketelkamer en oor enige ruim waarin die hele of 'n gedeelte van die brandstofinstallasie geleë is, uitgelaat en versprei kan word. Die skuim beskikbaar vir uitlating moet voldoende in hoeveelheid wees om die grootste enkele oppervlakte waarvoor oliebrandstof in die geval van lekkasie kan versprei tot op 'n diepte van 6 duim te bedek. Indien die masjien- en ketelkamers nie deur 'n beskot van mekaar geskei is nie en oliebrandstof van die ketelkamer na die masjienruim kan deurlek, moet die masjienkamer en ketelkamer vir die toepassing van hierdie paragraaf as een oppervlakte beskou word. Die skuimininstallasie moet beheer kan word vanaf 'n maklik toeganklike plek wat nie gereedelik deur die uitbreek van brand afgesny kan word nie.

- (5) Elke Klas X-skip wat aangedryf word deur binnebrandmasjinerie, moet in die masjienruim voorsien word van draagbare brandblussers wat in staat is om skuim of 'n ander bestanddeel geskik vir die blus van oliebrande uit te spuit. Die getal sodanige blussers moet ooreenkomstig die volgende tabel wees:—

| Remperdekrag van hoofmasjiene.     | Getal blussers. |
|------------------------------------|-----------------|
| Nie oor 500.....                   | 2               |
| Oor 500, maar nie oor 1,000.....   | 3               |
| Oor 1,000, maar nie oor 2,000..... | 4               |

[OPMERKING.—Die aandag word gevestig op paragraaf (2) van regulasie 107 en regulasie 108, waarkragtens 'n skip van hierdie vereistes vrygestel kan word.]

## HOOFSTUK X.—SKEPE VAN KLAS XI EN XII.

### 90. SKEPE VAN KLAS XI.

Elke Klas XI-skip moet voorsien wees van—

- (a) een pomp en een brandslang deur middel waarvan 'n kragtige straal water vinnig op enige deel van die skip gerig kan word;
- (b) voldoende draagbare brandblussers om te verseker dat ten minste een beskikbaar is vir onmiddellike gebruik in elk van die afdelings van die bemanningsruime en passasiersruime, indien daar is;
- (c) brandemmers ooreenkomstig die volgende tabel:—

| Lengte van skip in voet.  | Minimum getal emmers.                  |
|---------------------------|----------------------------------------|
| 50 of onder.....          | 2, waarvan een aan 'n koord geheg is.  |
| Oor 50, maar nie oor 70.. | 3, waarvan twee aan 'n koord geheg is. |
| Oor 70.....               | 4, waarvan twee aan 'n koord geheg is. |

### 91. SKEPE VAN KLAS XII.

- (1) Elke Klas XII-skip van 70 voet of langer moet voorsien word van 'n pomp en 'n brandslang deur middel waarvan 'n kragtige straal water vinnig op enige deel van die skip gerig mag word.

- (2) Elke Klas XII-skip moet voorsien word van brandemmers ooreenkomstig die volgende tabel:—

| Lengte van skip in voet.  | Minimum getal emmers.                  |
|---------------------------|----------------------------------------|
| 50 en onder.....          | 2, waarvan een aan 'n koord geheg is.  |
| Oor 50, maar nie oor 70.. | 3, waarvan twee aan 'n koord geheg is. |
| Oor 70.....               | 4, waarvan twee aan 'n koord geheg is. |

- (3) Elke Klas XII-skip van 70 voet of langer wat aangedryf word deur binnebrandmasjinerie moet toegerus word met 'n straalpyp wat geskik is vir die spuit van water op olie deur middel van die brandslang genoem in paragraaf (1).

- (b) a scoop for distributing the contents of the receptacle;

- (c) at least two portable fire extinguishers capable of discharging froth or some other substance suitable for quenching oil fires.

- (4) Every Class X ship fitted with main or auxiliary oil-fired boilers shall be provided with—

a froth installation, complying with the requirements specified in the Sixteenth Schedule, whereby froth can be rapidly discharged and distributed over each boiler room, and over any space which contains the whole or part of the fuel installation. The froth available for discharge shall be sufficient in quantity to cover to a depth of 6 inches the largest single area over which oil fuel may spread in the event of leakage. If the engine room and boiler room are not separated from each other by a bulkhead and fuel oil may drain from the boiler room into the engine room bilges, the engine room and boiler room shall, for the purpose of this paragraph, be regarded as a single area. The froth installation shall be capable of being controlled from a readily accessible position which is not likely to be cut off in the event of fire.

- (5) Every Class X ship fitted with internal combustion propelling machinery shall be provided in the machinery space with portable fire extinguishers capable of discharging froth or some other substance suitable for quenching oil fires. The number of such extinguishers shall be in accordance with the following table:—

| Brake Horse Power of Main Engines.  | Number of Extinguishers. |
|-------------------------------------|--------------------------|
| Not over 500.....                   | 2                        |
| Over 500, but not over 1,000.....   | 3                        |
| Over 1,000, but not over 2,000..... | 4                        |

[NOTE.—Attention is invited to paragraph (2) of regulation 107 and to regulation 108, in terms of which a ship may be exempted from these requirements.]

## CHAPTER X.—SHIPS OF CLASSES XI AND XII.

### 90. SHIPS OF CLASS XI.

Every Class XI ship shall be provided with—

- (a) one pump and one fire hose whereby a powerful jet of water can be rapidly directed into any part of the ship;
- (b) sufficient portable fire extinguishers to ensure that at least one is available for immediate use in each compartment of the crew spaces and of the passenger spaces, if any;
- (c) fire buckets in accordance with the following table:—

| Length of Ship in Feet.     | Minimum Number of Buckets.                      |
|-----------------------------|-------------------------------------------------|
| 50 or under.....            | 2, one of which shall be fitted with a lanyard. |
| Over 50, but not over 70... | 3, two of which shall be fitted with lanyards.  |
| Over 70.....                | 4, two of which shall be fitted with lanyards.  |

### 91. SHIPS OF CLASS XII.

- (1) Every Class XII ship of 70 feet or over in length shall be provided with a pump and a fire hose whereby a powerful jet of water can rapidly be directed into any part of the ship.

- (2) Every Class XII ship shall be provided with fire buckets in accordance with the following table:—

| Length of Ship in Feet.      | Minimum Number of Buckets.                      |
|------------------------------|-------------------------------------------------|
| 50 or under.....             | 2, one of which shall be fitted with a lanyard. |
| Over 50, but not over 70.... | 3, two of which shall be fitted with lanyards.  |
| Over 70.....                 | 4, two of which shall be fitted with lanyards.  |

- (3) Every Class XII ship of 70 feet or over in length and fitted with internal combustion propelling machinery shall be provided with a nozzle suitable for spraying water on oil by means of the fire hose referred to in paragraph (1).



(4) Elke Klas XII-skip wat aangedryf word deur binnebrandmasjinerie moet voorsien word van draagbare brandblussers wat in staat is om skuim of ander bestanddeel geskik vir die blus van oliebrande uit te laat. Die getal sodanige blussers moet ooreenkomstig die volgende tabel wees:—

| <i>Remperdekrag van hoofmasjiene.</i> | <i>Getal blussers.</i> |
|---------------------------------------|------------------------|
| Nie oor 500.....                      | 2                      |
| Oor 500.....                          | 3                      |

(5) Elke Klas XII-skip waarin seile die enigste dryfkrag is, moet minstens twee draagbare brandblussers aan boord hê.

(OPMERKING.—Die aandag word gevestig op regulasie 108 waarkragtens 'n skip van hierdie vereistes vrygestel kan word.)

## HOOFSTUK XI.—ALGEMENE VEREISTES BETREFFENDE BRANDTOESTELLE.

### 92. KRAGPOMPE.

(1) Elke pomp wat deur hierdie Deel vereis word om deur middel van krag aangedryf te word, moet deur middels anders as die skip se hoofmasjiene, aangedryf word en moet nie gebruik word om olie te pomp nie.

(2) Elke pomp wat deur krag aangedryf word, moet in staat wees om 'n spuitafstand van minstens veertig voet by elke straalpyp, uitgesonderd 'n sproeistraalpyp te lewer wanneer hulle gebruik word met enige van die brandslange en straalpype wat ooreenkomstig hierdie Deel voorsien is.

(3) Ontlaskleppe moet, wanneer nodig, voorsien word ten opsigte van elke pomp wat deur krag aangedryf word en moet so geleë wees en gereguleer word dat hulle 'n te hoë druk in enige deel van die waterpype wat deur die pompe bedien word, verhoed.

(4) Op elke skip wat ooreenkomstig hierdie Deel voorsien moet word van pompe wat deur krag aangedryf word, moet die totale pompvermoë van die pompe wat ooreenkomstig hierdie voorskrif voorsien is, nie minder wees as twee-derdes van die totale pompvermoë van die lenspompe wat in die skip voorsiening voor gemaak is nie.

### 93. WATERPYPE EN BRANDKRANE.

(1) Alle waterpype en brandkrane wat ooreenkomstig hierdie Deel voorsien is, moet so geplaas word dat brandslange maklik aan hulle gekoppel kan word. Op skepe waarop dekvrug vervoer kan word, moet die brandkrane so geleë wees dat die dekvrug nie die toegang daartoe sal belemmer nie, en die waterpype beskerm sal wees van beskadiging deur die vrug.

(2) Waterpype moet nie van gegote yster gemaak wees nie, en wanneer van yster of staal gemaak, moet dit gegalaniseerd wees.

(3) Krane of kleppe moet aan die waterpype aangebring word en moet so ingerig wees dat enige brandslange wat daaraan gekoppel is, verwyder kan word terwyl die brandpompe in gebruik is.

### 94. BRANDSLANGE, STRAALPYPE, ENS.

(1) Brandslange wat ooreenkomstig hierdie Deel voorsien is, moet nie langer as 60 voet wees nie en moet van leer, naatlose hennep, diggeweefde vlasseldoek, of ander geskikte materiaal gemaak wees en moet voorsien wees van koppelings, leidings en ander nodige onderdele en van 'n gewone straalpyp met minstens 'n  $\frac{1}{2}$  duim-deursnee benewens enige sproeistraalpyp wat deur hierdie Deel vereis word.

(2) Elke brandslang wat ooreenkomstig hierdie Deel voorsien is, asook die gereedskap en onderdele wat nodig is vir die gebruik daarvan moet op 'n opvallende plek naby die brandkrane of verbindings waarmee hulle bedoel is om gebruik te word, gehou word.

(3) Behalwe op Klas VI-skepe, gedeeltelik gedek, en op Klas X en XII-skepe moet brandslange wat ooreenkomstig hierdie Deel voorsien is, vir geen ander doel behalwe die blus van brand of die toets van brandtoestelle gebruik word nie.

(4) Every Class VII ship fitted with internal combustion propelling machinery shall be provided with portable fire extinguishers capable of discharging froth or some other substance suitable for quenching oil fires. The number of such extinguishers shall be in accordance with the following table:—

| <i>Brake Horse Power of Main Engines.</i> | <i>Number of Extinguishers.</i> |
|-------------------------------------------|---------------------------------|
| Not over 500.....                         | 2                               |
| Over 500.....                             | 3                               |

(5) Every Class XII ship in which sails are the only means of propulsion shall carry not less than two portable fire extinguishers.

(NOTE.—Attention is invited to regulation 108 in terms of which a ship may be exempted from these requirements.)

## CHAPTER XI.—GENERAL REQUIREMENTS REGARDING FIRE APPLIANCES.

### 92. POWER PUMPS.

(1) Every pump required by this Part to be operated by power shall be operated by a means other than the ship's main engines, and shall not be used for pumping oil.

(2) Every pump operated by power shall be capable of producing a throw of at least forty feet at every nozzle, other than a spray nozzle, when used with any of the fire hoses and nozzles provided in compliance with this Part.

(3) Escape valves shall, whenever necessary, be provided in connection with every pump operated by power and shall be so placed and adjusted as to prevent excessive pressure in any part of the water pipes served by the pump.

(4) In every ship required by this Part to be provided with pumps operated by power, the total pumping capacity of the pumps provided in compliance with that requirement shall not be less than two-thirds of the total pumping capacity of the bilge pumps provided in the ship.

### 93. WATER PIPES AND HYDRANTS.

(1) All water pipes and fire hydrants provided in compliance with this Part shall be so placed that fire hoses may easily be coupled to them. In ships which may carry deck cargo, the hydrants shall be so placed that the deck cargo will not hinder access to them, and the water pipes shall be protected from damage by the cargo.

(2) Water pipes shall not be made of cast iron, and if made of iron or steel shall be galvanised.

(3) Cocks or valves shall be fitted to the water pipes and shall be so arranged that any fire hoses coupled thereto may be removed while fire pumps are in operation.

### 94. FIRE HOSES, NOZZLES, ETC.

(1) Fire hoses provided in compliance with this Part shall not exceed 60 feet in length and shall be made of leather, seamless hemp, closely woven flax canvas, or other suitable material and shall be provided with couplings, conductors and other necessary fittings, and with a plain nozzle of not less than  $\frac{1}{2}$  inch diameter in addition to any spray-nozzle required by this Part.

(2) Every fire hose provided in compliance with this Part, together with the tools and fittings necessary for its use, shall be kept in a conspicuous position near the water hydrants or connections with which it is intended to be used.

(3) Except in partially decked Class VI ships and in Classes X and XII ships, fire hoses provided in compliance with this Part shall not be used for any purpose other than extinguishing fire or testing with fire appliances.

### 95. BRANDEMMERS.

(1) Elke brandemmer wat ooreenkomstig hierdie Deel voorsien is, moet rooi geverf wees en moet helder en permanent op 'n wyse gemerk word om te wys dat dit bedoel is vir gebruik in geval van brand; dit wil sê met die Engelse woord „Fire” en die Afrikaanse woord „Vuur”. Elke sodanige emmer moet met water of sand gevul gehou word.

(2) Minstens die helfte van die brandemmers wat ooreenkomstig hierdie Deel voorsien is, moet toegerus wees met koorde wat lank genoeg is om die emmers in staat te stel om uit die see vol gemaak te word.

(3) Brandemmers wat ooreenkomstig hierdie Deel voorsien is, moet vir geen ander doel as die blus van vuur gebruik word nie.

### 95. BRANDBLUSSERS.

(1) Brandblussers wat ooreenkomstig hierdie Deel voorsien is, moet gebou wees in ooreenstemming met die onderskeidelike Bylaes genoem in die tweede kolom van die volgende tabel:—

| Soort blusser.                               | Bylae.             |
|----------------------------------------------|--------------------|
| Nie-draagbare skuim.....                     | Agtiende.          |
| Draagbare of nie-draagbare koolsuurgas-..... | Negentiende.       |
| Draagbare koolstoftetrachloried .....        | Twintigste.        |
| Enige ander soort draagbare blusser.....     | Een-en-twintigste. |

(2) Nie meer as twee soorte draagbare brandblussers moet in die passasiers- en bemanningsruime van enige skip voorsien word nie.

(3) 'n Reserwelading moet voorsien word vir elke draagbare brandblusser wat ooreenkomstig hierdie Deel voorsien is.

(4) Brandblussers waarin die blusmiddel vir brand onder druk gehou word, moet nie vir gebruik in passasiers- en bemanningsruime voorsien word nie.

(5) Vir die toepassing van hierdie Deel, moet die inhoudsvermoë van enige brandblusser, uitgesonderd 'n koolsuurgasbrandblusser, geneem word as die grootste volume van die oplossing wat dit kan bevat wanneer voldoende lugruimte gelaat is om doeltreffende werking van die blusser te verseker.

(6) Vir die toepassing van hierdie Deel, moet die inhoudsvermoë van 'n koolsuurgasbrandblusser geneem word as die swaarste gewig koolsuurgas wat dit in 'n tropiese klimaat sonder gevaar van ontploffing kan hou.

(7) Elke brandblusser wat ooreenkomstig hierdie Deel voorsien word, moet te alle tye ten volle gevul wees.

### 97. SMOORGAS- OF STOOMINSTALLASIES.

(1) Elke pypleidingstelsel wat in 'n skip voorsien is vir die oorbring van smoorgas of stoom, moet in staat wees om beheer te kan word met kleppe of krane wat gesluit kan word en wat vanaf die dek maklik toeganklik sal wees. Hierdie krane of kleppe moet duidelik en permanent gemerk wees om aan te dui watter afdelings hulle bedien. Elke pypleidingstelsel wat 'n afdeling bedien waartoe passasiers toegang mag hê, moet toegerus wees met 'n addisionele kraan of klep wat gesluit kan word.

(2) Die pypleiding moet so ingerig wees dat dit die smoorgas of stoom op die doeltreffendste wyse versprei. Waar nodig vir daardie doel, moet minstens twee pype in die vragruime voorsien word, een in die voorste gedeelte van die ruim en die ander in die agterste gedeelte. Behalwe in tankskepe en skepe wat gebruik word vir die vervoer van steenkool, moet pype vir die oorbring van stoom toegerus wees met uitlaatenings so laag as moontlik in die ruim wat hulle bedien.

(3) Op tankskepe moet die pypleidingstelsel sodanig ingerig wees dat die stoom of brandsmoorgas oor die oppervlakte van die vrag versprei kan word.

(4) Wanneer koolsuurgas verskaf word as blusmiddel wat deur middel van 'n pypleidingstelsel in die ketelkamer uitgespuut word, moet die stelsel voldoen aan die bepalings van die Twee-en-twintigste Bylae en die hoeveelheid gas beskikbaar moet voldoende wees om ooreen te kom met 'n minimum volume vrye gas wat gelyk is aan 30 persent van die bruto volume van die grootste ketelkamer gemeet tot by die bodeel van die ketels.

### 95. FIRE BUCKETS.

(1) Every fire bucket provided in compliance with this Part shall be painted red and shall be clearly and permanently marked in such a way as to show it is intended for use in case of fire; that is with the English word “FIRE” and with the Afrikaans word “Vuur”. Every such bucket shall be kept filled with sand or water.

(2) At least half the number of fire buckets provided in compliance with this Part, shall be fitted with lanyards of sufficient length to enable the buckets to be filled from the sea.

(3) Fire buckets provided in compliance with this Part shall not be used for any purpose other than extinguishing fire.

### 96. FIRE EXTINGUISHERS.

(1) Fire extinguishers provided in compliance with this Part shall be constructed in accordance with the Schedules respectively specified in the second column of the following table:—

| Type of Extinguisher.                        | Schedule.     |
|----------------------------------------------|---------------|
| Non-portable froth.....                      | Eighteenth.   |
| Portable or non-portable carbon dioxide..... | Nineteenth.   |
| Portable carbon tetrachloride .....          | Twentieth.    |
| Any other type of portable extinguisher..... | Twenty-first. |

(2) Not more than two types of portable fire extinguishers shall be provided in the passenger and crew spaces of any ship.

(3) A spare charge shall be provided for every portable fire extinguisher provided in compliance with this Part.

(4) Fire extinguishers in which the substance for extinguishing fire is stored under pressure shall not be provided for use in passenger spaces or crew spaces.

(5) For the purposes of this Part the capacity of any fire extinguisher other than a carbon dioxide fire extinguisher shall be taken to be the greatest volume of solution which it can contain when sufficient air space is left to ensure the proper operation of the extinguisher.

(6) For the purposes of this Part the capacity of a carbon dioxide fire extinguisher shall be taken to be the greatest weight of carbon dioxide which it can, without danger of exploding, contain in a tropical climate.

(7) Every fire extinguisher provided in compliance with this Part shall at all times be kept fully charged.

### 97. SMOTHERING-GAS OR STEAM INSTALLATIONS.

(1) Every piping system provided in a ship for conveying smothering-gas or steam, shall be capable of being controlled by valves or cocks which shall be capable of being locked and shall be readily accessible from the deck. Such cocks or valves shall be clearly and permanently marked to indicate the compartments which they serve. Every piping system which serves a compartment to which passengers may have access, shall be fitted with an additional cock or valve capable of being locked.

(2) The piping shall be so arranged as to distribute the smothering-gas or steam in an efficient manner. Where necessary for that purpose at least two pipes shall be provided in cargo spaces one in the forward part of the space and the other in the after part. Except in tankers and ships used for the conveyance of coal, pipes for conveying steam shall be fitted with outlets as low as practicable in the space which they serve.

(3) In tankers, the piping system shall be so arranged that the steam or fire smothering-gas will be distributed over the surface of the cargo.

(4) When carbon dioxide is provided as an extinguishing medium discharged into boiler rooms by a piping system, the system shall comply with the provisions of the Twenty-second Schedule and 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 boiler room measured to the top of the boilers.



Indien die masjien- en ketelkamers nie deur 'n beskot van mekaar geskei is nie en brandstofolie vanaf die ketelkamer na die masjienruim kan deurlek, moet die masjien- en ketelkamers gesamentlik, vir die toepassing van hierdie paragraaf, as een oppervlakte beskou word.

(5) Vir die doel van die vasstelling van die hoeveelheid vloeibare koolsuurgas wat nodig is om die volume smoor-gas op te lewer, moet dit geag word dat 1 lb. vloeibare koolsuurgas 9 kubieke voet gas oplewer.

(6) Middels moet voorsien word om hoorbare waarskuwing te gee wanneer koolsuurgas na enige werkruimte vrygelaat gaan word.

### 93. AFSKAKELING VAN WAAIERS EN SLUITING VAN OPENINGS.

Middels moet op elke skip voorsien word vir die vinnige afskakeling van waaiers en sluiting van alle openings wat lug kan toelaat tot ruimtes waarin 'n pyp-leidingstelsel vir die uitspuiting van smoorgas, stoom of skuim aangebring is. Die middels vir die afskakeling van waaiers moet buite sulke ruimtes geleë wees.

### 99. VEILIGHEIDSLAMPE.

Elke veiligheidslamp wat ooreenkomstig hierdie Deel voorsien is, moet met 'n elektriese battery werk en moet in staat wees om vir 'n tydperk van minstens drie uur te brand.

### 100. PLASING VAN BEWEEGBARE BRANDTOESTELLE.

Alle beweegbare brandtoestelle uitgesonderd brandweermansuitrustings, wat ooreenkomstig hierdie Deel voorsien is, moet so geberg word dat dit maklik toeganklik is vanaf die ruimtes waar hulle gebruik moet word, en veral brandblussers moet na aan die ingange van die ruimtes waar hulle gebruik moet word, geplaas word.

## HOOFTUK XII.—GELYKWAARDIGHEDE EN VRYSTELLINGS.

### 101. OUTORITEIT VAN MINISTER EN SEKRETARIS.

(1) Enige gelykwaardigheid of vrystelling wat kragtens hierdie Deel geoorloof is, kan soos volg toegelaat of toegestaan word:—

(a) deur die Minister ten opsigte van die volgende skepe—

- (i) passasiersskepe wat op internasionale reise of vir spesiale passasiersvervoer gebruik word; en
- (ii) skepe, uitgesonderd passasiersskepe, van 500 ton of groter wat op internasionale reise gebruik word;

(b) deur die Sekretaris ten opsigte van die volgende skepe—

- (i) passasiersskepe wat nie op internasionale reise gebruik word nie;
- (ii) skepe, uitgesonderd passasiersskepe, van minder as 500 ton wat op internasionale reise gebruik word; en
- (iii) skepe, uitgesonderd passasiersskepe, wat nie op internasionale reise gebruik word nie.

(2) Die Minister of Sekretaris na gelang van die geval, moet, wanneer hy ooreenkomstig die bepalings van paragraaf (1) handel, sodanige voorwaardes wat hy nodig mag ag, opleë.

### 102. GELYKWAARDIGHEDE.

Waar hierdie Deel vereis dat 'n besondere uitrusting, toestel of apparaat of 'n tipe daarvan aangebring of aan boord 'n skip gehou moet word, of dat enige besondere voorsiening gemaak moet word, kan die Minister of Sekretaris, na gelang van die geval, toelaat dat enige ander uitrusting, toestel of apparaat of 'n tipe daarvan aangebring of aan boord gehou word, of dat enige ander voorsiening in daardie skip gemaak word, indien hy oortuig is dat sodanige ander uitrusting, toestel of apparaat of 'n tipe daarvan, of voorsiening minstens net so doeltreffend is as wat hierdie Deel verlang.

If the engine and boiler rooms are not separated by a bulkhead and fuel oil may drain from the boiler room into the engine room bilges, the combined engine and boiler rooms shall, for the purposes of this paragraph, be regarded as a single area.

(5) For the purpose of determining the quantity of liquified carbon dioxide required to produce the volume of of smothering-gas, 1 lb. of liquified carbon dioxide shall be deemed to produce 9 cubic feet of gas.

(6) Means shall be provided for giving audible warning when carbon dioxide is about to be released into any working space.

### 98. STOPPING OF FANS AND CLOSING OF OPENINGS.

In every ship means shall be provided for rapidly stopping all fans and closing all openings which might admit air to spaces provided with a piping system for the discharge of smothering-gas, steam or froth. The means for stopping the fans shall be situated outside such spaces.

### 99. SAFETY LAMPS.

Every safety lamp provided in compliance with this Part shall be operated by an electric battery and be capable of burning for a period of at least three hours.

### 100. STOWAGE OF MOVEABLE FIRE APPLIANCES.

All moveable fire appliances, other than firemen's outfit's, provided in compliance with this Part shall be stowed where they will be readily accessible from the spaces in which they are intended to be used, and, in particular, fire extinguishers shall be stowed near the entrances to the spaces in which they are intended to be used.

## CHAPTER XII.—EQUIVALENTS AND EXEMPTIONS.

### 101. AUTHORITY OF MINISTER AND SECRETARY.

(1) Any equivalent or exemption which is permissible under this Part, may be allowed or granted as follows:—

(a) By the Minister in respect of the following ships:—

- (i) Passenger ships engaged on international voyages or on any special passenger trade; and
- (ii) ships, other than passenger ships, of 500 tons and upwards, engaged on international voyages;

(b) by the Secretary in respect of the following ships:—

- (i) Passenger ships which do not engage on international voyages;
- (ii) ships, other than passenger ships, of less than 500 tons, engaged on international voyages; and
- (iii) ships, other than passenger ships, which do not engage on international voyages.

(2) The Minister or the Secretary as the case may be, shall when acting in accordance with the provisions of paragraph (1), impose such conditions as he may deem necessary.

### 102. EQUIVALENTS.

Where this Part requires that a particular fitting, appliance or apparatus, or type thereof, shall be fitted or carried in a ship, or that any particular provision shall be made, the Minister or the Secretary as the case may be may allow any other fitting, appliance or apparatus, or type thereof, to be fitted or carried, or any other provision to be made in that ship if he is satisfied that that other fitting, appliance or apparatus, or type thereof, or provision, is at least as effective as that required by this Part.

**103. VRYSTELLING VAN SKEPE TEN OPSIGTE VAN BRAND-ALARM- OF BRANDOPSPORINGSTELSEL.**

Die Minister kan enige Klas I of II skip van die voorskrifte van paragraaf (2) van regulasie 55, gelees met regulasie 65, vrystel, indien hy oortuig is dat die reise wat die skip onderneem van sodanige korte duur is dat voldoening aan die bogemelde voorskrifte onredelik sal wees.

**104. VRYSTELLING VAN PASSASIEERSKEPE TEN OPSIGTE VAN TOESTELLE VIR BRANDSMOORGAS.**

Die Minister of Sekretaris, na gelang van die geval, kan enige Klas I, II of IIA skip vrystel van die voorskrifte van paragraaf (2) van regulasie 57, gelees met regulasies 65 en 66, as hy oortuig is dat die reise wat die skip onderneem van sodanige korte duur is dat voldoening aan die bogemelde voorskrifte onredelik sal wees.

**105. VRYSTELLING VAN PASSASIEERSKEPE TEN OPSIGTE VAN SKUIMINSTALLASIES.**

Die Minister of Sekretaris, na gelang van die geval, kan enige Klas I, II of IIA skip vrystel van die voorskrifte van paragraaf (4) van regulasie 59, gelees met regulasies 65 en 66, as hy oortuig is dat die ketelkamer en die ruimtes wat die brandstofolie-installasie bevat, voldoende deur 'n permanente pypleidingstelsel vir die uitspuiting van smoorgas of water onder 'n hoë druk, beskerm word.

**106. VRYSTELLING VAN SKEPE, UITGESONDERD PASSASIEERSKEPE, TEN OPSIGTE VAN TOESTELLE VIR BRANDSMOORGAS.**

Die Minister of Sekretaris, na gelang van die geval, kan enige Klas VII of VIIA-skip, uitgesonderd 'n tenkskip, van die voorskrifte van regulasie 76, gelees met regulasie 83, vrystel indien hy oortuig is dat—

- (a) die ruime daarin voorsien is van staalluikdeksels en doeltreffende afsluiting vir alle ventilators en ander openinge wat na die ruime lei; of
- (b) die skip gebou is en uitsluitlik gebruik word vir die vervoer van erts of steenkool; of
- (c) om nakoming van die voorskrifte van die bogemelde regulasie te vereis, dit onredelik sou wees as gevolg van die korte duur van die reise waarop die skip gebruik word.

**107. VRYSTELLING VAN SKEPE, UITGESONDERD PASSASIEERSKEPE, TEN OPSIGTE VAN SKUIMINSTALLASIES.**

(1) Die Minister of Sekretaris, na gelang van die geval, kan enige Klas VII, VIIA, VIII, IX of IXA-skip van die voorskrifte van paragraaf (4) van regulasie 81, gelees met regulasies 83, 84 en 88, en enige Klas VIII of IX of IXA-skip van 500 ton of groter, maar onder 1,000 ton, van die voorskrifte van paragraaf (4) van regulasie 85, gelees met regulasie 88, vrystel: Indien hy oortuig is dat die ketelkamer en die ruimtes wat die brandstofolie-installasie bevat voldoende beskerm word deur 'n permanente pypleidingstelsel vir die uitspuiting van smoorgas, stoom of water onder 'n hoë druk. Indien hierdie permanente pypleidingstelsel stoom uitspuit, en die skip slegs toegerus is met waterpypketels, moet boonop ook nog 'n skuimbrandblusser met 'n inhoud van minstens 30 gelling of 'n koolsuurgasbrandblusser met 'n inhoud van minstens 100 lb. voorsien word.

(2) Die Minister of Sekretaris, na gelang van die geval, kan enige Klas VIII, IX of IXA-skip van 150 ton of groter maar onder 500 ton vrystel van die voorskrifte van paragraaf (4) van regulasie 86, gelees met regulasie 88, en enige Klas X-skip, van die voorskrifte van paragraaf (4) van regulasie 89: Indien hy oortuig is dat die ketelkamer en die ruimtes wat die oliebrandstof-installasie bevat, voldoende beskerm word deur 'n permanente pypleidingstelsel vir die uitspuiting van smoorgas, stoom of water onder 'n hoë druk.

**108. ALGEMENE VRYSTELLING VAN SEKERE SKEPE.**

Die Sekretaris kan enige Klas IX, IXA, X of XII skip van enige van die voorskrifte van hierdie Deel vrystel as hy van mening is dat nakoming daarvan onredelik sou wees.

**103. EXEMPTION OF SHIPS IN RESPECT OF FIRE ALARM OR FIRE DETECTION SYSTEM.**

The Minister may exempt any Class I or II ship from the requirements of paragraph (2) of regulation 55 read with regulation 65, if he is satisfied that the voyages on which the ship is engaged are of such short duration that compliance with the aforesaid requirements would be unreasonable.

**104. EXEMPTION OF PASSENGER SHIPS IN RESPECT OF APPLIANCES FOR FIRE-SMOTHERING GAS.**

The Minister or Secretary as the case may be, may exempt any Class I, II or IIA ship from the requirements of paragraph (2) of regulation 57 read with regulations 65 and 66, if he is satisfied that the voyages on which the ship is engaged are of such short duration that compliance with the aforesaid requirements would be unreasonable.

**105. EXEMPTION OF PASSENGER SHIPS IN RESPECT OF FROTH INSTALLATIONS.**

The Minister or Secretary as the case may be, may exempt any Class I, II or IIA ship from the requirements of paragraph (4) of regulation 59 read with regulations 65 and 66, if he is satisfied that the boiler room and the spaces containing the oil fuel installation are adequately protected by a permanent piping system for the discharge of smothering-gas, or water at high pressure.

**106. EXEMPTION OF SHIPS, OTHER THAN PASSENGER SHIPS, IN RESPECT OF APPLIANCES FOR FIRE-SMOTHERING GAS.**

The Minister or Secretary as the case may be, may exempt any Class VII or VIIA ship, other than a tanker, from the requirements of regulation 76 read with regulation 83, if he is satisfied that—

- (a) the holds therein are provided with steel hatch covers and effective means of closing all ventilators and other openings leading to the holds; or
- (b) the ship is constructed for, and employed solely in, the carriage of ore or coal; or
- (c) to require compliance with the requirements of the aforementioned regulation would be unreasonable on account of the short duration of the voyages on which the ship is engaged.

**107. EXEMPTION OF SHIPS, OTHER THAN PASSENGER SHIPS, IN RESPECT OF FROTH INSTALLATIONS.**

(1) The Minister or Secretary as the case may be, may exempt any Class VII, VIIA, VIII, IX or IXA ship from the requirements of paragraph (4) of regulation 81 read with regulations 83, 84 and 88, and any Class VIII or IX or IXA ship of 500 tons or over but under 1,000 tons from the requirements of paragraph (4) of regulation 85 read with regulation 88: If he is satisfied that the boiler room and the spaces containing the oil fuel installation are adequately protected by a permanent piping system for the discharge of smothering-gas, steam or water at high pressure. If this permanent piping system discharges steam and the ship is fitted only with water-tube boilers, a froth fire extinguisher of at least 30 gallons or a carbon dioxide fire extinguisher of at least 100 lb. capacity shall be supplied in addition.

(2) The Minister or Secretary as the case may be, may exempt any Class VIII, IX or IXA ship of 150 tons or over but under 500 tons from the requirements of paragraph (4) of regulation 86 read with regulation 88, and any Class X ship from the requirements of paragraph (4) of regulation 89: If he is satisfied that the boiler room and the spaces containing the oil fuel installation are adequately protected by a permanent piping system for the discharge of smothering-gas, steam or water at high pressure.

**108. GENERAL EXEMPTION OF CERTAIN SHIPS.**

The Secretary may exempt any Class IX, IXA, X or XII ship from any of the requirements of this Part if he considers that compliance therewith would be unreasonable.



# 109. VRYSTELLING VAN SKEPE WAT GEBOU IS VOOR DIE INWERKINGTREDING VAN HIERDIE DEEL.

Die Minister of Sekretaris, na gelang van die geval, kan op sodanige voorwaardes wat hy geskik ag, enige skip wat gebou is voor die inwerkingtreding van hierdie Deel, van enige van die voorskrifte van hierdie Deel vrystel indien hy daarvan oortuig is dat daardie voorskrif of onprakties of onredelik is in die geval van daardie skip.

## EERSTE BYLAE. (Regulasies 5, 6, 49 en 50.)

Tabel wat die minimum getal stelle davits wat voorsien moet word en die minimum kubieke inhoud van reddingsbote in Klas I, II en IIA-skepe aandui:—

| Lengte van skip (voet).  | (A)<br>Minimum<br>getal stelle<br>davits. | (B)<br>Kleiner<br>getal stelle<br>davits by<br>uitsondering<br>gemagtig. | (C)<br>Minimum<br>inhoud van<br>reddingsbote<br>in kubieke<br>voet. |
|--------------------------|-------------------------------------------|--------------------------------------------------------------------------|---------------------------------------------------------------------|
| Minder as 120.....       | 2                                         | 2                                                                        | 400                                                                 |
| 120 en minder as 140.... | 2                                         | 2                                                                        | 650                                                                 |
| 140 en minder as 160.... | 2                                         | 2                                                                        | 900                                                                 |
| 160 en minder as 175.... | 3                                         | 3                                                                        | 1,150                                                               |
| 175 en minder as 190.... | 3                                         | 3                                                                        | 1,350                                                               |
| 190 en minder as 205.... | 4                                         | 4                                                                        | 1,550                                                               |
| 205 en minder as 220.... | 4                                         | 4                                                                        | 1,750                                                               |
| 220 en minder as 230.... | 5                                         | 4                                                                        | 1,850                                                               |
| 230 en minder as 245.... | 5                                         | 4                                                                        | 2,150                                                               |
| 245 en minder as 255.... | 6                                         | 5                                                                        | 2,400                                                               |
| 255 en minder as 270.... | 6                                         | 5                                                                        | 2,700                                                               |
| 270 en minder as 285.... | 7                                         | 5                                                                        | 3,000                                                               |
| 285 en minder as 300.... | 7                                         | 5                                                                        | 3,300                                                               |
| 300 en minder as 315.... | 8                                         | 6                                                                        | 3,600                                                               |
| 315 en minder as 330.... | 8                                         | 6                                                                        | 3,900                                                               |
| 330 en minder as 350.... | 9                                         | 7                                                                        | 4,300                                                               |
| 350 en minder as 370.... | 9                                         | 7                                                                        | 4,750                                                               |
| 370 en minder as 390.... | 10                                        | 7                                                                        | 5,150                                                               |
| 390 en minder as 410.... | 10                                        | 7                                                                        | 5,550                                                               |
| 410 en minder as 435.... | 12                                        | 9                                                                        | 6,050                                                               |
| 435 en minder as 460.... | 12                                        | 9                                                                        | 6,550                                                               |
| 460 en minder as 490.... | 14                                        | 10                                                                       | 7,150                                                               |
| 490 en minder as 520.... | 14                                        | 10                                                                       | 7,800                                                               |
| 520 en minder as 550.... | 16                                        | 12                                                                       | 8,400                                                               |
| 550 en minder as 580.... | 16                                        | 12                                                                       | —                                                                   |
| 580 en minder as 610.... | 18                                        | 13                                                                       | —                                                                   |
| 610 en minder as 640.... | 18                                        | 13                                                                       | —                                                                   |
| 640 en minder as 670.... | 20                                        | 14                                                                       | —                                                                   |
| 670 en minder as 700.... | 20                                        | 14                                                                       | —                                                                   |
| 700 en minder as 730.... | 22                                        | 15                                                                       | —                                                                   |
| 730 en minder as 760.... | 22                                        | 15                                                                       | —                                                                   |
| 760 en minder as 790.... | 24                                        | 17                                                                       | —                                                                   |
| 790 en minder as 820.... | 24                                        | 17                                                                       | —                                                                   |
| 820 en minder as 855.... | 26                                        | 18                                                                       | —                                                                   |
| 855 en minder as 890.... | 26                                        | 18                                                                       | —                                                                   |
| 890 en minder as 925.... | 28                                        | 19                                                                       | —                                                                   |
| 925 en minder as 960.... | 28                                        | 19                                                                       | —                                                                   |
| 960 en minder as 995.... | 30                                        | 20                                                                       | —                                                                   |
| 995 en minder as 1,030.. | 30                                        | 20                                                                       | —                                                                   |

## TWEEDE BYLAE. (Regulasie 20.)

### VEREISTES VIR REDDINGSBOTE.

- (1) Elke reddingsboot moet 'n oop boot wees, gebou met stewige kante.
- (2) Die reddingsboot moet so 'n vorm en sulke afmetings hê, dat dit voldoende stabiliteit ter see en voldoende vryboord sal hê wanneer dit die volle getal persone en volledige uitrusting aan boord het. Dit moet behoorlik gebou wees vir die doeleindes waarvoor dit bedoel is en moet sterk genoeg wees om veilig te water gelaat kan word wanneer dit met die volle getal persone en volledige uitrusting belas is.
- (3) Geen reddingsboot moet korter as 16 voet wees nie.
- (4) Geen reddingsboot, wanneer volgelaaai met persone (bereken teen 165 pond per persoon) en uitrusting, moet meer as 20 ton weeg nie.
- (5) In elke reddingsboot moet alle dwarsbanke en sybanke so laag doenlik in die reddingsboot aangebring wees, en die buikdenningplanke moet so aangebring word dat die dwarsbanke hoogstens 2 voet 9 duim bo hulle is.

# 109. EXEMPTION OF SHIPS CONSTRUCTED BEFORE THE COMING INTO FORCE OF THIS PART.

The Minister or Secretary as the case may be, may on such conditions as he thinks fit, exempt any ship constructed before the coming into operation of this Part from any of the requirements of this Part if he is satisfied that that requirement is either impracticable or unreasonable in the case of that ship.

## FIRST SCHEDULE. (Regulations 5, 6, 49 and 50.)

Table showing the minimum numbers of sets of davits to be provided and the minimum cubic capacity of lifeboats in ships of Class I, II and IIA.

| Length of Ship (feet).   | (A)<br>Minimum<br>Number of<br>Sets of<br>Davits. | (B)<br>Smaller<br>Number of<br>Sets of<br>Davits<br>authorised<br>exceptionally. | (C)<br>Minimum<br>Capacity of<br>Lifeboats<br>in Cubic<br>Feet. |
|--------------------------|---------------------------------------------------|----------------------------------------------------------------------------------|-----------------------------------------------------------------|
| Under 120.....           | 2                                                 | 2                                                                                | 400                                                             |
| 120 and under 140.....   | 2                                                 | 2                                                                                | 650                                                             |
| 140 and under 160.....   | 2                                                 | 2                                                                                | 900                                                             |
| 160 and under 175.....   | 3                                                 | 3                                                                                | 1,150                                                           |
| 175 and under 190.....   | 3                                                 | 3                                                                                | 1,350                                                           |
| 190 and under 205.....   | 4                                                 | 4                                                                                | 1,550                                                           |
| 205 and under 220.....   | 4                                                 | 4                                                                                | 1,750                                                           |
| 220 and under 230.....   | 5                                                 | 4                                                                                | 1,850                                                           |
| 230 and under 245.....   | 5                                                 | 4                                                                                | 2,150                                                           |
| 245 and under 255.....   | 6                                                 | 5                                                                                | 2,400                                                           |
| 255 and under 270.....   | 6                                                 | 5                                                                                | 2,700                                                           |
| 270 and under 285.....   | 7                                                 | 5                                                                                | 3,000                                                           |
| 285 and under 300.....   | 7                                                 | 5                                                                                | 3,300                                                           |
| 300 and under 315.....   | 8                                                 | 6                                                                                | 3,600                                                           |
| 315 and under 330.....   | 8                                                 | 6                                                                                | 3,900                                                           |
| 330 and under 350.....   | 9                                                 | 7                                                                                | 4,300                                                           |
| 350 and under 370.....   | 9                                                 | 7                                                                                | 4,750                                                           |
| 370 and under 390.....   | 10                                                | 7                                                                                | 5,150                                                           |
| 390 and under 410.....   | 10                                                | 7                                                                                | 5,550                                                           |
| 410 and under 435.....   | 12                                                | 9                                                                                | 6,050                                                           |
| 435 and under 460.....   | 12                                                | 9                                                                                | 6,550                                                           |
| 460 and under 490.....   | 14                                                | 10                                                                               | 7,150                                                           |
| 490 and under 520.....   | 14                                                | 10                                                                               | 7,800                                                           |
| 520 and under 550.....   | 16                                                | 12                                                                               | 8,400                                                           |
| 550 and under 580.....   | 16                                                | 12                                                                               | —                                                               |
| 580 and under 610.....   | 18                                                | 13                                                                               | —                                                               |
| 610 and under 640.....   | 18                                                | 13                                                                               | —                                                               |
| 640 and under 670.....   | 20                                                | 14                                                                               | —                                                               |
| 670 and under 700.....   | 20                                                | 14                                                                               | —                                                               |
| 700 and under 730.....   | 22                                                | 15                                                                               | —                                                               |
| 730 and under 760.....   | 22                                                | 15                                                                               | —                                                               |
| 760 and under 790.....   | 24                                                | 17                                                                               | —                                                               |
| 790 and under 820.....   | 24                                                | 17                                                                               | —                                                               |
| 820 and under 855.....   | 26                                                | 18                                                                               | —                                                               |
| 855 and under 890.....   | 26                                                | 18                                                                               | —                                                               |
| 890 and under 925.....   | 28                                                | 19                                                                               | —                                                               |
| 925 and under 960.....   | 28                                                | 19                                                                               | —                                                               |
| 960 and under 995.....   | 30                                                | 20                                                                               | —                                                               |
| 995 and under 1,030..... | 30                                                | 20                                                                               | —                                                               |

## SECOND SCHEDULE. (Regulation 20.)

### REQUIREMENTS FOR LIFEBOATS.

- (1) Every lifeboat shall be an open boat constructed with rigid sides.
- (2) The lifeboat shall be of such form and proportions that it shall have ample stability in a seaway, and sufficient freeboard when loaded with its full complement of persons and equipment. It shall be properly constructed for the purposes for which it is intended and shall be of sufficient strength to permit its being safely lowered into the water when loaded with a full complement of persons and equipment.
- (3) No lifeboat shall be less than 16 feet in length.
- (4) No lifeboat, when fully laden with persons (calculated at 165 pounds per person) and equipment, shall weigh more than 20 tons.
- (5) In every lifeboat, all thwart and side seats shall be fitted as low in the lifeboat as practicable, and bottom boards shall be fitted so that the thwarts shall not be more than 2 feet 9 inches above them.

(6) Elke reddingsboot moet 'n gemiddelde seeg hê wat minstens gelyk is aan 4 persent van sy lengte.

(7) Elke reddingsboot moet met inwendige dryfmiddels toegerus wees, wat sodanig geplaas is dat dit stabiliteit verseker wanneer die reddingsboot onder ongunstige weersomstandighede vol-gelaai is.

(8) Die inwendige dryfmiddels moet bestaan uit lugkaste gebou van koper of muntzmetaal van minstens 18 onse per vierkante voet, of van ander ewe geskikte materiaal.

(9) Die totale volume van die inwendige dryfmiddels in 'n houtreddingsboot moet minstens gelyk wees aan een-tiende, van die kubieke inhoud van die reddingsboot.

(10) Die dryfvermoë van 'n reddingsboot wat van enige materiaal, uitgesonderd hout, gemaak is, moet nie minder wees as dié wat vir 'n reddingsboot van dieselfde kubieke inhoud vereis word nie, en die volume van die inwendige dryfmiddels moet dienoreenkomstig vermeerder word.

(11) Die volume van die inwendige dryfmiddels van 'n motorreddingsboot moet minstens gelyk wees aan dié van die dryfmiddels wat ingevolge Deel I van hierdie regulasies vereis sou word, indien die reddingsboot nie 'n motorreddingsboot was nie, en moet bo daardie volume vermeerder word, in dié mate wat so-danige vermeerdering nodig is, om te vergoed vir die verskil tus-sen (a) die gewig van die motor en sy toebehore en enige uitrus-tung waarmee die reddingsboot ooreenkomstig regulasie 34 voor-sien mag wees, en (b) die gewig van die addisionele persone wat die reddingsboot kon opneem indien die motor en sy toe-behore en enige uitrusting waarvan die reddingsboot, ooreenkom-stig regulasie 34 voorsien mag wees, verwyder sou word.

Die volume van die inwendige dryfmiddels van 'n meganies-aangedrewe reddingsboot moet insgelyks vermeerder word om vir die gewig van die skroefinrigting te vergoed.

(12) In die geval van reddingsbote wat 100 of meer persone kan opneem, moet die volume van die dryfmiddels tot so 'n mate bo die volume wat in paragraaf (11) vereis word, ver-meerder word dat die seewaardigheid van die reddingsboot ver-seker is.

#### DERDE BYLAE. (Regulasie 21.)

##### BEREKENING VAN KUBIEKE INHOUD VAN REDDINGSBOTE.

(1) Behoudens die bepalings van paragraaf (4) moet die kubieke inhoud van 'n reddingsboot gemeet word in kubieke voet en moet dit bepaal word volgens die reël van Stirling (Simpson), dit wil sê, deur middel van die volgende formule:—

$$\text{Kubieke inhoud} = \frac{L}{12} (4A + 2B + 4C) \text{ waarby } L \text{ die lengte}$$

van die reddingsboot in voet vanaf die binnekant van die hout- of metaalhuid aan die voorstewe tot die ooreenkom-stige punt op die agter stewe aandui; in die geval van 'n reddingsboot met 'n plat agterstewe, word die lengte gemeet tot die binnekant van die spieël; en A, B, C, onderskeidelik die oppervlaktes aandui van die dwarsdeursnee op 'n kwart van die lengte voor midskeeps en 'n kwart van die lengte agter wat ooreenkom met die drie punte wat verkry word deur L in vier gelyke dele te verdeel (die oppervlaktes wat ooreenstem met die twee ente van die reddingsboot word as onbeduidend beskou).

Die oppervlaktes A, B, C moet beskou word as in vierkante voet aangegee deur agtereenvolgens die volgende formule op elk van die drie dwarsdeursnee toe te pas:—

$$\text{Oppervlakte} = \frac{h}{12} (a + 4b + 2c + 4d + e), \text{ waarby } h \text{ die holte}$$

in voet aandui, gemeet in voet van die binnekant van die hout- of metaalhuid vanaf die kiel tot op die hoogte van die dolboord, of, in sekere gevalle tot op 'n laer hoogte, soos hierna bepaal; en a, b, c, d, e, gee die horisontale breedtes van die reddingsboot, binnekant die hout- of metaalhuid, aan gemeet in voet op die boonste en onderste punte van die holte en op die drie punte wat verkry word deur h in vier gelyke dele te verdeel (a en e is die breedtes aan die uiteinde en c dié in die middel van h).

Die inhoud van 'n reddingsboot met 'n plat agterstewe moet bereken word asof die reddingsboot 'n gepunte agterstewe het.

(2) Indien die seeg van die dolboord, gemeet op die twee punte wat geleë is op 'n kwart van die lengte van die reddingsboot vanaf die uiteindes, 1 persent van die lengte van die reddingsboot oorskry, moet die holte wat gebruik word by die berekening van die oppervlakte van die dwarsdeursnee a of c beskou word as die holte midskeeps plus 1 persent van die lengte van die reddingsboot.

(3) Indien die holte van die reddingsboot midskeeps 45 per-sent van die breedte oorskry, moet die holte wat gebruik word by die berekening van die oppervlakte van die midskeeps deursnee B, beskou word as gelyk aan 45 persent van die breedte, en die holte wat gebruik word by die berekening van die oppervlaktes van die deursnee a en c, geleë op 'n kwart van die lengte, word verkry deur die laasgenoemde syfer te vermeerder met 'n syfer wat gelyk is aan 1 persent van die lengte van die reddingsboot: Met dien verstande dat die holtes wat gebruik word, by die berekening in geen geval die werklike holtes op hierdie punte mag oorskry nie.

(6) Every lifeboat shall have a mean sheer at least equal to four per cent of its length.

(7) Every lifeboat shall be fitted with internal buoyancy appliances, which shall be so placed as to secure stability when the lifeboat is fully laden under adverse weather conditions.

(8) The internal buoyancy appliances shall consist of air cases constructed of copper or muntz metal of not less than 18 ounces to the superficial foot, or of other equally suitable material.

(9) The total volume of the internal buoyancy appliances in a wooden lifeboat shall be at least equal to one-tenth of the cubic capacity of the lifeboat.

(10) The buoyancy of a lifeboat which is made of any material other than wood, shall be not less than that required for a wooden lifeboat of the same cubic capacity, and the volume of the internal buoyancy appliances shall be increased accordingly.

(11) The volume of the internal buoyancy appliances of a motor lifeboat shall be at least equal to that of the buoyancy appliances which would be required under Part I of these regulations if the lifeboat were not a motor lifeboat and shall be increased above that volume to the extent that such increase is necessary to compensate for the difference between (a) the weight of the motor and its accessories and any equipment with which the lifeboat may be provided in compliance with regulation 34, and (b) the weight of the additional persons which the lifeboat could accom-modate if the motor and its accessories and any equipment with which the lifeboat may be provided in compliance with regulation 34 were removed.

The volume of the internal buoyancy appliances of a mechani-cally propelled lifeboat shall similarly be increased to compen-sate for the weight of the propelling gear.

(12) In the case of lifeboats which accommodate 100 or more persons, the volume of the buoyancy appliances shall be increased beyond the volume required by paragraph (11) to such extent as will ensure the seaworthiness of the lifeboat.

#### THIRD SCHEDULE. (Regulation 21.)

##### CALCULATION OF CUBIC CAPACITY OF LIFEBOATS.

(1) Subject to the provisions of paragraph (4), the cubic capacity of a lifeboat shall be measured in cubic feet and shall be determined by Stirling's (Simpson's) Rule, that is to say, by the following formula:—

$$\text{Cubic capacity} = \frac{L}{12} (4A + 2B + 4C) \text{ where } L \text{ denotes the}$$

length of the lifeboat in feet from the inside of the planking or plating at the stem to the corresponding point at the stern post; in the case of a lifeboat with a square stern, the length is measured to the inside of the transom; and A, B, C denote respectively the areas of the cross-sections at the quarter length forward, amidships, and the quarter length aft, which correspond to the three points obtained by dividing L into four equal parts (the areas corresponding to the two ends of the lifeboat shall be considered negligible).

The areas A, B, C shall be deemed to be given in square feet by the successive application of the following formula to each of the three cross-sections:—

$$\text{Area} = \frac{h}{12} (a + 4b + 2c + 4d + e), \text{ where } h \text{ denotes the depth}$$

measured in feet inside the planking or plating from the keel to the level of the gunwale, or, in certain cases, to a lower level, as determined hereafter; and a, b, c, d, e denote the horizontal breadths of the lifeboat measured in feet inside the planking or plating at the upper and lower points of the depth and at the three points obtained by dividing h into four equal parts (a and e being the breadths at the extreme points, and c at the middle point of h).

The capacity of a square sterned lifeboat shall be calculated as if the lifeboat had a pointed stern.

(2) If the sheer of the gunwale, measured at the two points situated at a quarter of the length of the lifeboat from the ends, exceeds 1 per cent of the length of the lifeboat, the depth employed in calculating the area of the cross-section A or C shall be deemed to be the depth amidships plus 1 per cent of the length of the lifeboat.

(3) If the depth of the lifeboat amidships exceeds 45 per cent of the breadth, the depth employed in calculating the area of the amidship cross-section B shall be deemed to be equal to 45 per cent of the breadth, and the depth employed in calculating the areas of the quarter length sections A and C is obtained by increasing this last figure by an amount equal to 1 per cent of the length of the lifeboat: Provided that in no case shall the depths employed in the calculation exceed the actual depths at these points.



(4) Behalwe as die eienaar van die reddingsboot vereis dat die bieke inhoud deur juiste meting vasgestel moet word, kan onderstel word dat die kubieke inhoud van 'n reddingsboot in standaard vorm die produk van die lengte, die breedte en diepte vermenigvuldig met 0.6 is. Die afmetings moet op volgende wyse gemeet word:—

**Lengte**—Van die snypunt van die buitekant van die huid en die voorstewe na die ooreenkomstige punt op die agterstewe of, in die geval van bote met 'n plat agterstewe, tot die agterkant van die spieël.

**Breedte**—Van die buitekant van die huid op die punt waar die breedte van die boot die grootste is.

**Holte**—Midskeeps, aan die binnekant van die huid, vanaf die kiel tot die hoogte van die dolboord, maar die holte wat gebruik word by die berekening van die kubieke inhoud mag in geen geval 45 persent van die breedte oorskry nie.

(5) Die kubieke inhoud van 'n motorreddingsboot word verkry die bruto inhoud, deur aftrekking van 'n volume wat gelyk aan die wat deur die motor en sy toebehore en enige uitrusting waarmee die reddingsboot, ooreenkomstig regulasie 34 uitrus mag wees, in beslag geneem word.

#### VIERDE BYLAE.

(Regulasie 22.)

#### MASJINERIE VAN MOTORREDDINGSBOTE.

##### DEEL I.

##### KLAS A.—MOTORREDDINGSBOTE.

(1) Die motor moet in staat wees om maklik te vat in koue water en om betroubaar te loop onder temperatuuruiterses.

(2) Die motor moet behoorlik funksioneer onder toestande van minstens 10 grade helling en 10 grade trim. Sirkulasiewatertempe moet outomaties wees.

(3) Die motor en sy toebehore, met inbegrip van die brandstoftank, pype en uitrusting, moet doeltreffend beskerm word om skade te voorkom deur werking onder omstandighede wat waarskynlik tydens swaar weer op see kan ontstaan, te verseker.

(4) In 'n houtreddingsboot moet 'n metaalbak onder die motor gebring word.

(5) Die brandstoftank moet stewig gebou en veilig, met 'n metaalbak onder, in posisie bevestig wees en moet met geskikte - en aftapinrigtings uitgerus wees. In geen deel van die tank sy verbindings moet gebruik gemaak word van sagte soldeer vir stewigheid nie, en staaltanks moet gegalvaniseer of met metaal uitwendig oorgeblaas wees. Die tank en sy verbindings moet in staat wees om 'n hidroliese druk, gelyk aan 'n stoomdruk van minstens 15 voet te weerstaan.

(6) Die motor moet bedek wees met en die omhulsel moet van al wees of moet vuurvas wees.

(7) Die motor- en brandstoftankruime moet doeltreffend ventileer wees.

(8) Die asinrigting en ander bewegende dele moet waar nodig beskut word om persone in die reddingsboot teen besering te beskerm.

##### DEEL II.

##### KLAS B—MOTORREDDINGSBOTE.

(1) Die motor moet in staat wees om maklik te vat in koue water en om betroubaar te loop onder temperatuuruiterses.

(2) Die motor moet behoorlik funksioneer onder toestande van minstens 10 grade helling en 10 grade trim. Sirkulasiewatertempe moet outomaties wees.

(3) Die motor en sy toebehore, met inbegrip van die brandstoftank, pype en uitrusting, moet doeltreffend beskerm word om skade te voorkom deur werking onder omstandighede wat waarskynlik gedurende swaar weer op see kan ontstaan, te verseker.

(4) In 'n houtreddingsboot moet 'n metaalbak onder die enjin gebring word.

(5) Die magneto, vergasser en luginlaat van enige elektriese ontstekingsmasjien, wat in 'n reddingsboot geïnstalleer is, moet hoog moontlik geplaas wees. Indien 'n elektriese ontstekingsmasjien nie in 'n waterdige omhulsel ingebou is nie, moet voorsiening gemaak word om die magneto, vonkproppe en ander elektriese ontstekingsuitrusting teen die see te beskerm.

(6) Die brandstoftank moet stewig gebou en veilig, met 'n metaalbak onder, in posisie bevestig wees en moet met geskikte - en aftapinrigtings toegerus wees. In geen deel van die tank sy verbindings moet van sagte soldeer gebruik gemaak word nie, en staaltanks moet gegalvaniseer of met metaal uitwendig oorgeblaas wees. Die tank en sy verbindings moet in staat wees om hidroliese druk, gelyk aan 'n stoomdruk van minstens 15 voet, te weerstaan.

(7) Die masjien moet bedek wees en die omhulsel moet van al wees of moet vuurvas wees.

(8) Die motor- en brandstoftankruime moet doeltreffend geventileer wees.

(9) Die asinrigting en ander bewegende dele waar nodig beskut word om persone in die reddingsboot teen besering te beskerm.

(4) Unless the owner of the lifeboat requires the cubic capacity to be determined by exact measurement, the cubic capacity of a lifeboat of standard form may be assumed to be the product of the length, the breadth and the depth multiplied by 0.6. The dimensions shall be measured in the following manner:—

**Length**—From the intersection of the outside of the planking with the stem to the corresponding point at the stern post, or in the case of a square sterned lifeboat, to the after side of the transom.

**Breadth**—From the outside of the planking at the point where the breadth of the lifeboat is greatest.

**Depth**—Amidships inside the planking from the keel to the level of the gunwale, but the depth used in calculating the cubic capacity may not in any case exceed 45 per cent of the breadth.

(5) The cubic capacity of a motor lifeboat shall be obtained from the gross capacity by deducting a volume equal to that occupied by the motor and its accessories, and any equipment with which the lifeboat may be provided in compliance with regulation 34.

#### FOURTH SCHEDULE.

(Regulation 22.)

#### MACHINERY OF MOTOR LIFEBOATS.

##### PART I.

##### CLASS A MOTOR LIFEBOATS.

(1) The engine shall be capable of being started readily in cold weather and of running reliably under conditions of extremes of temperature.

(2) The engine shall operate properly under conditions of at least 10 degrees list and 10 degrees trim. Circulating water pumps shall be self-priming.

(3) The engine and its accessories, including the fuel tank, pipes and fittings, shall be adequately protected to ensure reliable operation under conditions likely to arise at sea during heavy weather.

(4) In a wooden lifeboat a metal tray shall be fitted under the engine.

(5) The fuel tank shall be substantially constructed, securely fixed in position with a metal tray underneath, and fitted with suitable filling and relief arrangements. No part of the tank or its connections shall depend on soft solder for tightness, and tanks made of steel shall be galvanised or metal sprayed externally. The tank and its connections shall be capable of withstanding hydraulic pressure corresponding to a head of at least 15 feet.

(6) The engine shall be covered in and the casing shall be of steel or be fireproofed.

(7) The engine and fuel tank spaces shall be efficiently ventilated.

(8) The shafting and other moving parts shall be fenced where necessary to protect the persons in the lifeboat from injury.

##### PART II.

##### CLASS B MOTOR LIFEBOATS.

(1) The engine shall be capable of being started readily in cold weather and of running reliably under conditions of extremes of temperature.

(2) The engine shall operate properly under conditions of at least 10 degrees list and 10 degrees trim. Circulating water pumps shall be self-priming.

(3) The engine and its accessories, including the fuel tank, pipes and fittings, shall be adequately protected to ensure reliable operation under conditions likely to arise at sea during heavy weather.

(4) In a wooden lifeboat, a metal tray shall be fitted under the engine.

(5) The magneto, carburettor and air inlet of any electric ignition engine installed in the lifeboat shall be placed as high as possible. If an electric ignition engine is not fitted in a water-tight casing, provision shall be made to protect the magneto, sparking plugs and other electric ignition fittings from the sea.

(6) The fuel tank shall be substantially constructed, securely fixed in position with a metal tray underneath, and fitted with suitable filling and relief arrangements. No part of the tank or its connections shall depend on soft solder for tightness, and tanks made of steel shall be galvanised or metal sprayed externally. The tank and its connections shall be capable of withstanding hydraulic pressure corresponding to a head of at least 15 feet.

(7) The engine shall be covered in and the casing shall be of steel or be fireproofed.

(8) The engine and fuel tank spaces shall be efficiently ventilated.

(9) The shafting and other moving parts shall be fenced where necessary to protect the persons in the lifeboat from injury.

VYFDE BYLAE.  
(Regulasie 23.)

MASJINERIE VAN MEGANIESAANGEDREWE REDDINGSBOTE.

- (1) Die skroefinrigting moet sodanig ingerig wees dat dit vinnig en maklik in gereedheid gebring kan word vir diens en dat dit nie die vinnige inskeping van persone in die reddingsboot belemmer nie.
- (2) Indien die skroefinrigting met die hand bedien word, moet dit deur ongehoefde persone bedien kan word en moet dit bedien kan word wanneer die reddingsboot oorstroom is.
- (3) Die skroefinrigting moet nie verstelling nodig hê om deur persone van verskillende lengtes bedien te word nie. Dit moet die reddingsboot, gedeeltelik of ten volle gelaai, doeltreffend kan aandryf.
- (4) Die skroefinrigting moet sterk genoeg gebou wees en moet op 'n doeltreffende wyse aan die reddingsboot aangebring word.
- (5) Die skroefinrigting moet sterk genoeg wees om die reddingsboot, wanneer gelaai met die gewone uitrusting en 'n verspreide gewig wat gelyk is aan die volle getal persone wat dit geskik is om op te neem, teen 'n spoed vooruit van 3.5 knope in kalm water oor 'n afstand van  $\frac{1}{4}$  myl, aan te dryf.
- (6) Die skroefinrigting moet die reddingsboot vooruit en agteruit kan aandryf.

SEKSTE BYLAE.  
(Regulasie 24.)

VEREISTES VIR KLAS C-BOTE.

- (1) 'n Klas C-boot moet 'n oop boot wees, gebou met stewige kante.
- (2) Die boot moet so 'n vorm en sulke afmetings hê, dat dit voldoende stabiliteit ter see en voldoende vryboord sal hê wanneer dit die grootste getal persone waarvoor sitplek voorsien is en die volledige uitrusting aan boord het.
- (3) Die lengte van die boot moet wees minstens—  
18 voet vir 'n skip van 150 voet of langer;  
17 voet vir 'n skip van 115 voet of langer, maar minder as 150 voet;  
16 voet vir 'n skip van 75 voet of langer, maar minder as 115 voet.
- (4) Alle dwars- en sybanke moet so laag doenlik in die boot aangebring word, en buikdenningplanke moet aangebring word.
- (5) Die boot moet 'n plat agterstewê hê en moet 'n gemiddelde seeg hê wat minstens gelyk is aan 5 persent van sy lengte.
- (6) Die boot moet toegerus wees met inwendige dryfmiddels wat so geplaas is dat dit stabiliteit verleen wanneer die boot onder slegte weersomstandighede volgelaai is.
- (7) Die inwendige dryfmiddels moet bestaan uit of lugkaste gebou van koper of muntmetaal van minstens 18 onse per vierkante voet, of ander ewe geskikte materiaal.
- (8) Die totale volume van die inwendige dryfmiddels in 'n Klas C-houtboot, moet minstens gelyk wees aan sewe en 'n half persent van die kubieke inhoud van die boot, wat ooreenkomstig paragraaf (4) van die Derde Bylae, bepaal moet word.
- (9) Die dryfvermoë van 'n Klas C-boot, wat van enige materiaal uitgesonderd hout, gemaak is, moet minstens gelyk wees aan die dryfvermoë wat vereis word vir 'n Klas C-houtboot van dieselfde kubieke inhoud, en die volume van die inwendige dryfmiddels moet dienooreenkomstig vermeerder word.
- (10) Die minimum getal persone waarvoor sitplek voorsien moet word, moet gelyk wees aan die grootste getal verkry deur die kubieke inhoud van die boot in kubieke voet met dertien en een derde te deel.

SEWENDE BYLAE.  
(Regulasie 25.)

VEREISTES VIR OPPOMPBAAR REDDINGSVLOTTE.

- (1) Elke oppompbare reddingsvlot moet sodanig gebou wees dat, wanneer dit ten volle opgepomp en drywend is met die bedekking na boontoe, dit stabiel is ter see.
- (2) Die reddingsvlot moet sodanig gebou wees dat, indien dit in die water afgegooi word vanaf 'n hoogte van 60 voet, nóg die reddingsvlot nóg die uitrusting beskadig sal word.
- (3) Die reddingsvlot moet uitgerus wees met 'n bedekking wat die insittendes teen besering as gevolg van blootstelling kan beskerm, en middels moet voorsien word om reënwater op te vang. Die bokant van die bedekking moet toegerus wees met 'n lamp wat sy krag ontleen aan 'n segeaktiveerde sel.
- (4) Die vloer van die reddingsvlot moet waterdig wees en moet doeltreffend geïsoleer kan word teen koue, of—  
(a) deur middel van een of meer kompartemente wat die insittendes kan oppomp indien hulle dit verkies, of wat outomaties opgeblaas, maar wat afgeblaas kan word en, indien nodig, weer deur die insittendes opgepomp kan word; of  
(b) deur ander ewe doeltreffende middels wat nie afhanklik is van oppomping nie.
- (5) Die reddingsvlot moet in 'n ransel of ander houer gehou word, wat sodanig gemaak is dat dit strawwe gebruik kan weerstaan onder omstandighede wat op see teëgekom word.

FIFTH SCHEDULE.  
(Regulation 23.)

MACHINERY OF MECHANICALLY PROPELLED LIFEBOATS.

- (1) The propelling gear shall be so arranged that it can be rapidly and easily made ready for service and will not interfere with the rapid embarkation of persons in the lifeboat.
- (2) If the propelling gear is manually operated, it shall be capable of being operated by persons untrained in its use and shall be capable of being operated when the lifeboat is flooded.
- (3) The propelling gear shall not require adjustment to enable it to be worked by persons of different stature. It shall be effective in propelling the lifeboat partially or fully loaded.
- (4) The propelling gear shall be substantially constructed and fitted to the lifeboat in an efficient manner.
- (5) The propelling gear shall be of sufficient power to enable the lifeboat, when loaded with the usual equipment and a distributed weight equal to the full number of persons which it is fit to carry, to be propelled at a speed ahead of 3.5 knots in smooth water over a distance of  $\frac{1}{4}$  mile.
- (6) The propelling gear shall be capable of propelling the lifeboat ahead and astern.

SIXTH SCHEDULE.  
(Regulation 24.)

REQUIREMENTS FOR CLASS C BOATS.

- (1) Every Class C boat shall be an open boat constructed with rigid sides.
- (2) The boat shall be of such form and proportions that it shall have ample stability in a seaway and sufficient freeboard when loaded with the greatest number of persons for whom seating is provided and with its full equipment.
- (3) The length of the boat shall be at least—  
18 feet for a ship whose length is 150 feet or over;  
17 feet for a ship whose length is 115 feet or over but less than 150 feet;  
16 feet for a ship whose length is 75 feet or over but less than 115 feet.
- (4) All thwart and side seats in the boat shall be fitted as low in the boat as practicable and bottom boards shall be fitted.
- (5) The boat shall be square-sterned and shall have a mean sheer at least equal to 5 per cent of its length.
- (6) The boat shall be fitted with internal buoyancy appliances which shall be so placed as to secure stability when the boat is fully laden under adverse weather conditions.
- (7) The internal buoyancy appliances shall consist either of air cases constructed of copper or muntz metal of not less than 18 ounces to the superficial foot, or of other equally suitable material.
- (8) The total volume of the internal buoyancy appliances in a wooden Class C boat shall be at least equal to seven and one-half per cent of the cubic capacity of the boat which shall be determined in accordance with paragraph (4) of the Third Schedule.
- (9) The buoyancy of a Class C boat which is made of any material other than wood, shall be not less than that required for a wooden Class C boat of the same cubic capacity, and the volume of the internal buoyancy appliances shall be increased accordingly.
- (10) The minimum number of persons for whom seating shall be provided shall be equal to the greatest number obtained by dividing by thirteen and one-third the cubic capacity of the boat in cubic feet.

SEVENTH SCHEDULE.  
(Regulation 25.)

REQUIREMENTS FOR INFLATABLE LIFERAFTS.

- (1) Every inflatable liferaft shall be so constructed that, when fully inflated and floating with the cover uppermost, it shall be stable in a seaway.
- (2) The liferaft shall be so constructed that if it is dropped into the water from a height of 60 feet, neither the liferaft nor its equipment will be damaged.
- (3) The liferaft shall be fitted with a cover which shall be capable of protecting the occupants against injury from exposure, and means shall be provided for collecting rain. The top of the cover shall be fitted with a lamp which derives its luminosity from a sea-activated cell.
- (4) The floor of the liferaft shall be waterproof and shall be capable of being sufficiently insulated against cold either—  
(a) by means of one or more compartments which the occupants can inflate if they so desire, or which inflate automatically but can be deflated and, if necessary, re-inflated by the occupants; or  
(b) by other equally efficient means not dependent on inflation.
- (5) The liferaft shall be contained in a valise or other container so constructed as to be capable of withstanding hard wear under conditions met with at sea.



(6) Die reddingsvlot moet met 'n geskikte gas opgeblaas word en die opblasing moet outomaties geskied of deur aan 'n lyn te trek of deur 'n ander soortgelyke eenvoudige en doeltreffende manier.

(7) Die reddingsvlot moet uitgerus word met 'n vanglyn en moet 'n lyn hê wat stewig rondom aan die buitekant vasgestrop is.

(8) Die reddingsvlot moet, indien dit in 'n omgekeerde posisie opblaas, maklik reg gedraai kan word.

(9) Die reddingsvlot moet toegerus mees met doeltreffende middels om persone, wat hulle in die water bevind, in staat te stel om aan boord te klim.

(10) Die dryfvermoë van die reddingsvlot moet sodanig ingerig wees om te verseker, deur 'n skeiding in twee afsonderlike afdelings elk waarvan in staat is om die getal persone wat die reddingsboot in staat is om op te neem, bo water te hou, of op 'n ander ewe doeltreffende manier dat daar 'n redelike dryfvermoë bly voortbestaan indien die vlot beskadig is of slegs gedeeltelik opblaas.

(11) Die totale gewig van die reddingsvlot, sy ransel of ander houër en sy uitrusting, moet hoogstens 400 pond weeg.

#### AGTSTE BYLAE. (Regulasie 26.)

##### VEREISTES VIR DRYWENDE TOESTELLE.

(1) Drywende toestelle moet sodanig gebou wees dat, wanneer dit aan boord van die skip en in die water aan die weer blootgestel is, dit sy vorm en eienskappe behou. Dit moet sodanig gebou wees dat dit nie verstelling voor gebruik vereis nie.

(2) Drywende toestelle moet in staat wees om 'n valtoets, die hoogte waarvan gelyk is aan dié van die dek waarop dit geberg is bo die skip se ledige laslyn, te weerstaan maar onder geen omstandighede moet dit minder as die volgende wees nie:—

Toestelle aan boord Klas I skepe ... 60 voet.  
Toestelle aan boord Klas II en IIA skepe ... 35 voet.

(3) Drywende toestelle moet doeltreffend en stewig wees, watter kant ookal bo drywe. Dit moet in staat wees om 'n ystergewig van 15 lb. per voetslengte wat langs enige kant van die toestel aan die gryplyne hang, in vars water te steun (onderworpe aan 'n minimum van 64 lb.) sonder om enige deel van die boonste oppervlakte van die toestel onder te dompel.

(4) Die lugkaste of gelykwaardige dryfmiddels moet so na as moontlik aan die kante van die toestelle geplaas word, en die dryfvermoë moet nie van oppomping afhanklik wees nie. Indien die dryfvermoë deur metaallugkaste voorsien word, moet sodanige lugkaste van koper, muntsmetaal of 'n ander duursame materiaal wees, en moet hoogstens 4 voet lank wees. Indien die lugkaste langer as 2 voet 6 duim lank of breed is, moet dit doeltreffend deur afdelings of stutte verstewig word. Die lugkaste moet nie deurboor word vir die aanhegting van houtafdelings of stutte nie. Dit moet beskerm word teen skade deur houtomhulsels of skermas wat behoorlik aangebring is en moet beveilig word teen beweging binne in die omhulsel. Geen ysterwerk moet met metaallugkaste in aanraking gebring word nie.

(5) Die raamwerk van die drywende toestel moet van loofhout vervaardig wees, maar die houtomhulsel of skerm kan van naaldhout wees. Die hoeke moet sodanig vasgemaak word, dat bevestiging aan kopsvlakhout verry kan word. Die binnekant van die toestel moet goed geventileer wees. Daar moet geen uitsteeksels aan die toestel wees wat dit kan verhoed om maklik oor die skipreling te gly ten tye van tewaterlating nie.

(6) Gryplyne moet op so 'n wyse rondom die toestel aangebring wees, om 'n getal ewe groot lusse, wat ooreenstem met die getal persone wat die toestel geskik is om op te neem, te voorsien. Elke lus moet 'n kurk- of 'n ligte houtdoppele hê en die lengte van die lus wanneer dit nat is, moet minstens 6 duim en hoogstens 8 duim wees.

Twee rye gryplyne moet aangebring word aan toestelle wat oral 'n diepte van 12 duim oorskry, waarvan een effens onder die bopunt van die lugkaste en die ander effens bokant die onderpunt van die lugkaste en so na doenlik aan die kante van die lugkaste bevestig is. Een ry gryplyne kan langs die middelste holtelyn van 'n toestel wat oral 'n diepte van 12 duim of minder het, bevestig word. Die gryplyne moet van tou van minstens 1½ duim in omtrek wees. Hulle kan aan die toestel bevestig word deur hulle deur gate in die raamwerk te steek en deur hulle in mekaar te vleg om beweging te voorkom, of hulle kan aan die toestel deur middel van smeyster of deur staal verbindings bevestig word. Ongeag die metode wat gebruik word, moet die bevestiging sterk genoeg wees om toe te laat dat die toestel deur die gryplyne opgelig kan word.

(7) 'n Drywende toestel moet toegerus wees met 'n vanglyn.

(8) Drywende toestelle moet nie 400 pond in gewig oorskry nie, tensy geskikte middels voorsien word om dit in staat te stel om te water gelaat te word sonder om met die hand opgelig te word. Indien die gewig van die toestel 400 pond oorskry, moet geskikte handvatsele of sporte vir hierdie doel aangebring word.

(9) Drywende toestelle aan boord Klas I skepe moet minstens 3 voet 6 duim breed wees.

(6) The liferaft shall be inflated by a suitable gas and the inflation shall take place automatically either on the pulling of a line or by some other equally simple and efficient method.

(7) The liferaft shall be fitted with a painter and shall have a line securely becketted round the outside.

(8) The liferaft shall be capable of being readily righted if it inflates in an inverted position.

(9) The liferaft shall be fitted with efficient means to enable persons in the water to climb on board.

(10) The buoyancy of the liferaft shall be so arranged as to ensure by a division into two separate compartments each capable of supporting out of the water the number of persons which the liferaft is fit to accommodate, or by some other equally efficient means, that there is a reasonable margin of buoyancy if the raft is damaged or partially fails to inflate.

(11) The total weight of the liferaft, its valise or other container and its equipment shall not exceed 400 pounds.

#### EIGHTH SCHEDULE. (Regulation 26.)

##### REQUIREMENTS FOR BUOYANT APPARATUS.

(1) Buoyant apparatus shall be of such construction that it retains its shape and properties when exposed to the weather on board ship and when in the water. It shall be constructed so as not to require adjustment prior to use.

(2) Buoyant apparatus shall be capable of withstanding a drop test, the height of which shall be equivalent to that of the deck on which it is stowed above the ship's light water line, but in no case less than the following:—

Apparatus carried in Class I ships ... 60 feet.  
Apparatus carried in Classes II and IIA ships ... 35 feet.

(3) Buoyant apparatus shall be effective and stable when floating either way up. It shall be capable of supporting a weight of iron, suspended in fresh water from the grab lines, of 15 lb. per foot of length along any edge (subject to a minimum of 64 pounds) without immersing any part of the upper surface of the apparatus.

(4) The air cases or equivalent buoyancy shall be placed as near as possible to the sides of the apparatus, and such buoyancy shall not be dependent upon inflation. If the buoyancy is provided by metal air cases, such air cases shall be of copper, muntz metal or other durable material, and not more than 4 feet in length. If the air cases are more than 2 feet 6 inches in length or breadth they shall be efficiently stiffened by divisions or stays. The air cases shall not be pierced for the attachment of wood divisions or stays. They shall be protected from damage by properly fitted wood casing or sparring and be secured against movement within the casing. No iron work shall be placed in contact with metal air cases.

(5) The framework of buoyant apparatus shall be of hardwood, but the wood casing or sparring may be of softwood. The method of securing the corners shall be such as to avoid fastenings into end grain timber. The interior of the apparatus shall be well ventilated. There shall be no projections from the apparatus which would prevent it from sliding easily over a ship's rail during launching.

(6) Grab lines shall be fitted all round the apparatus in such a manner as to provide a number of equal loops corresponding to the number of persons which the apparatus is fit to support. Each loop shall have a cork or light wood float and the depth of the loop when wet shall not be less than 6 inches and not more than 8 inches.

On apparatus exceeding 12 inches in overall depth two rows of grab lines shall be fitted, one having its points of attachment a little below the top of the air cases and the other a little above the bottom of the air cases and as close to the sides of the air cases as is practicable. On apparatus of 12 inches or less in overall depth one row of grab lines may be attached along the line of the middle of the depth.

The grab lines shall be of rope of not less than 1½ inches in circumference. They may be attached to the apparatus by being passed through holes in the framing and being interlaced to prevent movement, or they may be attached to the apparatus by means of wrought iron or steel fastenings. Whichever method is adopted the attachment shall be strong enough to permit the apparatus being lifted by the grab lines.

(7) Buoyant apparatus shall be fitted with a painter.

(8) Buoyant apparatus shall not exceed 400 pounds in weight unless suitable means are provided to enable it to be launched without lifting by hand. If the weight of the apparatus exceeds 300 pounds, suitable handles or rungs shall be fitted for this purpose.

(9) Buoyant apparatus carried in Class I ships shall not be less than 3 feet 6 inches in breadth.

NEENDE BYLAE.

(Regulasie 28.)

VEREISTES VIR REDDINGSBOEI.

(1) Elke reddingsboei moet van kurk, reëlmatig gevorm en goed vasgeprop, vervaardig wees, of van ander ewe doeltreffende drywende materiaal, en moet minstens 24 uur in vars water met 32 pond yster daaraan vasgemaak, kan drywe.

(2) Die drywende materiaal moet met goeie gehalte materiaal bedek wees wat met 'n draad van minstens No. 25A-koordsterkte gewerk is.

(3) Die reddingsboei moet nie met riete, kurkafval, los kurk-korrels of 'n ander los korrelrige stof gevul wees nie en die dryfvermoë daarvan moet nie van lugkompartemente, wat opgepomp moet word, afhanklik wees nie.

(4) Die binnedeursnee van die reddingsboei moet 18 duim en die buitedeursnee 30 duim wees. Die hoofspil van die afdeling moet 6 duim lank wees. Die hulpspil van die afdeling moet 4 duim lank wees.

(5) Die voltooide reddingsboei moet 'n goeie verflaag hê.

(6) Die reddingsboei moet toegerus wees met gryplyne van goeie kwaliteit knoopvrye lyn wat goed vasgewerk of vasgeklem is aan die bedekking en wat daarbenewens uitgerus is met bande wat tweemaal so dik as die bedekkende materiaal en 3 duim wyd is, rondom die afdeling van die reddingsboei, by vier punte wat met gelyke afstande van mekaar verwyder is en wat vier lusse van lyn, elk minstens 2 voet 4 duim lank, voorsien.

(7) Die gewig van die reddingsboei moet nie 13 pond 8 onse oorskry nie.

TIENDE BYLAE.

(Regulasie 30.)

VEREISTES VIR REDDINGSBUISE.

(1) Elke reddingsbuis moet aan die liggaam aangebring kan word en moet omkeerbaar wees sodat, indien dit agterstevoor of onderstebo gedra word, dit aan die vereistes van subparagraaf (a), (b) en (c) van paragraaf (3) voldoen.

(2) Elke reddingsbuis moet vir sowel volwassenes as kinders geskik wees.

(3) Die verspreiding van dryfvermoë in die reddingsbuis moet sodanig wees om te verseker dat, indien dit deur 'n persoon in die water gedra word, dit aan die volgende voorwaardes voldoen:—

(a) Wanneer die draer bewegingloos is, moet sy liggaam so na aan vertikaal as moontlik gehou word;

(b) wanneer die draer bewegingloos is, moet sy kop bo water gehou word; en

(c) die kop moet sodanig ondersteun word dat, indien die draer bewusteloos raak, die kop nie vorentoe kan val en die gesig ondergedompel word nie.

(4) Die dryfvermoë van die reddingsbuis moet nie verkry word deur middel van lugge vulde afdelings nie.

(5) Die dryfvermoë moet deur kurk, kapok of ander ewe doeltreffende drywende materiaal voorsien word.

(6) Elke reddingsbuis moet, in ooreenstemming met die Suid-Afrikaanse Buro van Standaarde se spesifikasie, No. 402 van 1953, soos gewysig, vervaardig wees.

(7) Elke reddingsbuis moet onuitwisbaar met die naam en adres van die vervaardiger (of 'n geskikte handelsmerk), die soort reddingsbuis en die goedkeuringsmerke van die Suid-Afrikaanse Buro van Standaarde en die Departement van Vervoer, in albei amptelike tale van die Unie, gemerk word.

ELFDE BYLAE.

(Regulasie 31.)

VEREISTES VIR LYNWERPTOESTELLE.

(1) Elke lynwerptoestel sluit 4 vuurpyle en 4 lyne, elk van 'n  $\frac{1}{4}$  duim in omtrek en van geskikte lengte, en 'n breekbelasting van minstens 250 pond, in.

(2) Elke lynwerptoestel moet in staat wees om die lyn op so 'n manier te werp dat die laterale defleksie van die lyn aan elke kant van die rigting waarin afgevuur, hoogstens 10 persent van die lengte van die vlug van die vuurpyl is.

(3) Die lyne en vuurpyle, met middels om hulle te ontsteek, moet in 'n waterdige kas gehou word.

(4) Elke lynwerptoestel aan boord Klas I, II, IIA, VI, VII, VIIA skepe, en Klas VIII, X en XI skepe van 75 voet of langer, moet in staat wees om in kalm weer, 'n lyn van  $\frac{1}{4}$ -duim in omtrek 'n minimum afstand van 250 jaarts te kan uitgooi.

(5) Elke lynwerptoestel aan boord Klas VIII, X en XI skepe, van 50 voet of langer, maar minder as 75 voet lank, moet in staat wees om in kalm weer 'n lyn van  $\frac{1}{4}$ -duim in omtrek 'n minimum afstand van 200 jaarts te kan uitgooi.

NINTH SCHEDULE.

(Regulation 28.)

REQUIREMENTS FOR LIFEBOUYS.

(1) Every lifebuoy shall be constructed of cork, evenly formed and securely plugged, or other equally efficient buoyant material, and shall be capable of floating in fresh water for at least 24 hours with 32 pounds of iron suspended from it.

(2) The buoyant material shall be covered with good quality material, the sewing of which shall be carried out with thread of not less strength than No. 25A cord.

(3) The lifebuoy shall not be filled with resins, cork shavings, granulated cork or any other loose granulated material, and its buoyancy shall not depend upon air compartments requiring inflation.

(4) The inside diameter of the lifebuoy shall be 18 inches and the outside diameter 30 inches. The major axis of the section shall be 6 inches. The minor axis of the section shall be 4 inches.

(5) The completed lifebuoy shall be well coated with paint.

(6) The lifebuoy shall be fitted with grab lines which shall be of good quality unkinkable line, well secured to the cover by sewing or seizing, and, in addition, by bands of a double thickness of the covering material 3 inches wide around the section of the lifebuoy at four equidistant points, providing four loops of line each not less than 2 feet 4 inches long.

(7) The weight of the lifebuoy shall not exceed 13 pounds 8 ounces.

TENTH SCHEDULE.

(Regulation 30.)

REQUIREMENTS FOR LIFEJACKETS.

(1) Every lifejacket shall be capable of being fitted on the body and shall be reversible, so that if it is worn back-to-front or inside out, it will satisfy the requirements of sub-paragraphs (a), (b) and (c) of paragraph (3).

(2) Every lifejacket shall be suitable for both children and adults.

(3) The distribution of buoyancy in the lifejacket shall be such as to ensure that when worn by a person in the water it will comply with the following conditions:—

(a) When the wearer is inert, the position of the body shall be as near the vertical as possible;

(b) when the wearer is inert, his head shall be kept clear of the water; and

(c) the head shall be so supported that if the wearer becomes unconscious, it cannot fall forward and the face become submerged.

(4) The buoyancy of the lifejacket shall not depend on air compartments.

(5) The buoyancy shall be provided by cork, kapok, or other equally efficient buoyant material.

(6) Every lifejacket shall be manufactured in accordance with the South African Bureau of Standards specification No. 402 of 1953 as amended.

(7) Every lifejacket shall be marked indelibly in both official languages of the Union with the name and address of the manufacturer (or some suitable trade mark), with the type of the lifejacket, and with the marks of approval of the South African Bureau of Standards and Department of Transport.

ELEVENTH SCHEDULE.

(Regulation 31.)

REQUIREMENTS FOR LINE-THROWING APPLIANCES.

(1) Every line-throwing appliance shall include 4 rockets and 4 lines, each line being  $\frac{1}{4}$  inch in circumference and of suitable length, and having a breaking strain of not less than 250 pounds.

(2) Every line-throwing appliance shall be capable of throwing the line in such a manner that the lateral deflection of the line on either side of the direction of firing does not exceed 10 per cent of length of flight of the rocket.

(3) The lines and rockets, with means of igniting them, shall be kept in a watertight case.

(4) Every line-throwing appliance carried in ships of Classes I, II, IIA, VI, VII, VIIA ships and in Classes VIII, X and XI ships of 75 feet or over in length, shall be capable of throwing a line  $\frac{1}{4}$  inch in circumference a minimum distance of 250 yards in calm weather.

(5) Every line-throwing appliance carried in Classes VIII, X and XI ships of 50 feet or over in length but under 75 feet in length, shall be capable of throwing a line  $\frac{1}{4}$  inch in circumference a minimum distance of 200 yards in calm weather.



**TWAALFDE BYLAE.**  
(Regulasies 32, 35 en 37.)

**SPESIFIKASIES VAN UITRUSTING VIR REDDINGSBOTE,  
BOTE EN OPPOMPBAARE REDDINGSVLOTTE.**

**DEEL I.**

**KOMPASSE VIR REDDINGSBOTE, KLAS C-BOTE EN ANDER BOTE.**

(1) Elke kompas moet van die vloeistoftipe wees. Die vloeistof wat gebruik word, moet 'n mengsel van bedryfsbrandspiritus en water, met 'n soortlike gewig van 0.93 by 60° F. wees. Dit moet helder wees sonder afsaksel-, troebelheids-, en onsuiverheidsgebreke. Die kompas moet doeltreffend funksioneer oor 'n temperatuurbestek van -10° F. tot +120° F.

(2) Die magneet moet voldoende rigkrag besit. In die Verenigde Koninkryk moet 'n periode van 18 tot 22 sekondes na 'n defleksie van 40 grade by 'n temperatuur van ongeveer 60° F. geag word om te voldoen aan hierdie vereiste. Vir die toepassing van hierdie paragraaf is 'n „periode“ die tyd wat 'n kaart neem om 'n volkome omwenteling te maak na 'n defleksie van 40 grade, 'n swaai verby die rusposisie, en weer terug tot die voltooiing van die swaai aan die kant waarna dit oorspronklik afgewyk het.

(3) Oor 'n temperatuurbestek van -10° F. tot +120° F., moet die kaartstelsel, wanneer onder die kompasvloeistof gedompel, op die spil met 'n gewig van tussen 4 en 10 gram rus.

(4) Die kaart moet minstens 4 duim in deursnee wees en daar moet minstens 'n ruimte van 'n ½ duim tussen die kaart en die kompasbak wees. Dit moet in halfstreke afgemerk word en die agt hoofstreke moet duidelik gemerk wees. Die kaart moet verlig wees.

(5) Die middelpunt moet van saffier of 'n soortgelyke harde juweel vervaardig wees en moet van die dobber verwyderbaar wees.

(6) Die spil moet van iridium of 'n ander soortgelyke geskikte harde materiaal vervaardig wees.

(7) Die maatreëls wat getref word om voorsiening te maak vir die uitsetting en sametrekking van die vloeistof, moet die kompas in staat stel om 'n temperatuurswisseling van -10° F. tot +120° F. te weerstaan sonder lekkasie, die vorming van lugblasies of ander gebreke.

(8) Die bak moet voldoende met gewig belas en behoorlik in die kompasbeuel gebalanseer wees om 'n voor- en agter- en dwarskeepse werking toe te laat. Die kompasbeuels moet in dieselfde horisontale vlak wees as die steunpunt van die kompaskaart, en die buiteste beuelnaalde moet agter en voor geplaas wees. Die kompasbak moet in 'n komphuis of kas van nie-magnetiese materiaal geplaas wees en die stuurstreep of streek moet verlig wees. Die kaartstelsel moet vry kan beweeg wanneer die kompasbak 10 grade skuins staan.

(9) Die rigting van die stuurstreep of streek vanaf die middelpunt van die kompaskaart, moet in dieselfde vertikale vlak as die buiteste beuelas of ander voorste of agterste stellyne lê. Die kumulatiewe effek van kaart-, spil-, rigtings- en ander soortgelyke foute, en van onnoukeurige rigtingsbepaling van die stuurstreep, moet sodanig wees dat die rigting, soos gelees op die kompaskaart teenoor die stuurstreep, in die onversteurde magnetiese veld van die aarde nie meer as 3 grade van die magnetiese rigting van die buiteste beuelas of ander voorste of agterste stellyne vir enige rigting van laasgenoemde verskil nie.

(10) Die minimum dikte van die metaal wat gebruik word vir die maak van 'n kompas, is soos volg:—

|            |           |
|------------|-----------|
| Kompasbak  | 21 S.D.M. |
| Kompashuis | 24 S.D.M. |
| Lamp       | 24 S.D.M. |

Die kompasbak moet so doeltreffend versterk wees dat beuelnaalde aangebring kan word. Die kompashuisdop moet gesaamsmee of met 'n draaibank in die voetstuk gevestig word en rondom vasgesoldeer word.

Die beuelring moet van skeepsgeelkoper of ander stewige nie-magnetiese metaal van ½ duim by ½ duim gemaak wees. Beuelnaalde moet van skeepsgeelkoper of ander harde nie-magnetiese materiaal van ½ duim in deursnee gemaak wees; die beuelnaalde en die laers waarin hulle funksioneer, moet heeltemal glad wees.

(11) Die verf aan die binnekant van die kompasbak moet geen tekens van afskilfering toon nie.

(12) Die materiaal en die afwerking moet deurgaans goed wees en die kompas moet sodanig wees dat dit sy doeltreffendheid onder seevaarttoestande sal behou.

(13) Die kompasbak moet met die vervaardiger se naam of 'n ander identifikasiemerk gegraveer of gestempel wees.

**DEEL II.**

**DRYFANKERS VIR REDDINGSBOTE, KLAS C-BOTE EN ANDER BOTE.**

(1) Elke dryfanker moet voldoen aan die volgende vereistes:—

(a) Dit moet van eerste graadse vlassel No. 1 of ander geskikte materiaal vervaardig wees.

**TWELFTH SCHEDULE.**  
(Regulations 32, 35 and 37.)

**SPECIFICATIONS OF EQUIPMENT FOR LIFEBOATS,  
BOATS AND INFLATABLE LIFERAFTS.**

**PART I.**

**COMPASSES FOR LIFEBOATS, CLASS C BOATS, AND OTHER BOATS.**

(1) Every compass shall be of the liquid type. The liquid used shall be a mixture of industrial methylated spirit and water, specific gravity 0.93 at 60° F. It shall be clear, free from sediment, cloudiness and dirt defects. The compass shall function efficiently over a temperature range -10° F. to +120° F.

(2) The magnet shall have ample directive force. In the United Kingdom a period of 18 to 22 seconds after a deflection of 40 degrees at a temperature of about 60° F. shall be deemed to comply with this requirement. For the purposes of this paragraph a "period" is the time taken by a complete oscillation of the card after a deflection of 40 degrees, a swing past the position of rest, and back again to the completion of its swing on the side to which it was originally deflected.

(3) Over a range of -10° F. to +120° F. the card system when immersed in the compass liquid shall rest on the pivot with a weight between 4 and 10 grammes.

(4) The card shall be not less than 4 inches in diameter and shall have a clearance from the bowl of at least ¼ inch. It shall be marked to half points, the eight principal points being distinctively marked. The card shall be luminised.

(5) The centre shall be of sapphire or equally hard jewel, and shall be removable from the float.

(6) The pivot shall be of iridium or equally suitable hard material.

(7) The arrangements made to allow for the expansion and contraction of the liquid shall enable the compass to withstand a temperature range of -10° F. to +120° F. without leakage, formation of bubbles or other defects.

(8) The bowl shall be adequately weighted and properly poised in the gimbals which shall give a fore and aft and thwartship action. The gimbaling shall be in the same horizontal plane as the point of suspension of the card and the outer gimbal pins shall be placed fore and aft. The bowl shall be placed in a binnacle or box of non-magnetic material and the lubber line or point shall be luminised. The card system shall remain free when the bowl is tilted by 10 degrees.

(9) The direction of the lubber line or point from the centre of the card shall lie in the same vertical plane as the outer gimbal axis or other fore and aft datum line. The cumulative effect of card, pivot, directional and other similar errors, and of inaccurate positioning of the lubber's point, shall be such that in the undisturbed earth's field the direction as read on the card against the lubber's point shall not differ by more than 3 degrees from the magnetic direction of the outer gimbal axis or other fore and aft datum line for any direction of the latter.

(10) The minimum thickness of the metal used in the construction of the compass shall be as follows:—

|              |           |
|--------------|-----------|
| Compass bowl | 21 S.W.G. |
| Binnacle     | 24 S.W.G. |
| Lamp         | 24 S.W.G. |

The compass bowl shall be efficiently stiffened to take gimbal pins. The binnacle shell shall be swaged or spun into the base ring and soldered all round.

The gimbal ring shall be of naval brass or other rigid non-magnetic metal ½ inch by ½ inch. Gimbal pins shall be of naval brass or other hard non-magnetic material of ½ inch diameter; both they and the bearings in which they engage shall be perfectly smooth.

(11) The paint inside the bowl shall show no sign of blistering.

(12) The materials and workmanship shall be good throughout and the compass shall be such as will remain efficient under sea-going conditions.

(13) The bowl of the compass shall be engraved or stamped with the maker's name or other identification mark.

**PART II.**

**SEA ANCHORS FOR LIFEBOATS, CLASS C BOATS AND OTHER BOATS.**

(1) Every sea anchor shall comply with the following requirements:—

(a) It shall be constructed of No. 1 best flax canvas, or other suitable material.

- (b) Die seilgedeelte moet stewig aanmekaar gewerk wees en die soom moet met lyktou van 1½ duim vasgewerk wees; die toue moet dan 'n toom vorm met 'n oogring vasgevang aan die verbindingskant, en die toue moet uitgestrek en vasgevang word in teerseilomboorde lus om die verbinding vir die kantellyn te vorm.
- (c) 'n Sleepkabel moet aan die dryfanker bevestig wees deur middel van 'n ankersluiting wat groot genoeg is om die oogring te bevat.
- (d) Die lengte van die sleepkabel moet drie maal die lengte van die reddingsboot of boot wees.
- (e) 'n Kantellyn wat twee vame langer is as die sleepkabel, moet voorsien word.

(2) 'n Ronde dryfanker moet by die mond met 'n gegalvaniseerde ysterring voorsien wees. Enige ander soort dryfanker moet oor die mond met gegalvaniseerde ysterspanners en met 'n asspanner aan die boonste rand voorsien wees.

(3) Die grootte van dryfankers moet soos volg wees:—

(a) Vir reddingsbote langer as 30 voet—

nie-sirkelvormige voubare dryfankers: mond 30 duim, boonste rand, 27 duim, onderste rand, 27 duim, aan elke kant;  
oppervlakte van mond, 770 vierkante duim;  
lengte van seilsak: 4 voet 6 duim;  
sleepkabel: 3 duim in omtrek;  
kantellyn: 2 duim in omtrek;

(b) vir reddingsbote langer as 22 voet, maar hoogstens 30 voet lank—

ronde dryfankers: mond, 27 duim deursnee;  
Nie-sirkelvormige voubare dryfankers: mond, 24 duim elke kant;  
lengte van seilsak: 4 voet;  
sleepkabel: 3 duim in omtrek;  
kantellyn: 2 duim in omtrek;

(c) vir reddingsbote van korter as 22 voet, Klas C-bote en ander bote—

Ronde dryfankers: mond, 24 duim deursnee;  
nie-sirkelvormige voubare dryfankers: mond, 21½ duim elke kant;  
lengte van seilsak: 3 voet 6 duim;  
sleepkabel: 2½ duim in omtrek;  
kantellyn: 1½ duim in omtrek.

### DEEL III.

#### VALSKERMNOODVUURPYLSINJALE VIR REDDINGSBOTE, KLAS C-BOTE, ANDER BOTE EN OPPOMPARE REDDINGSVLOTTE.

(1) 'n Valskermnoodvuurpylsinjal moet bestaan uit 'n enkele helder rooi ster wat deur middel van 'n vuurpyl tot die vereiste hoogte opgeskiet word, en wat brand terwyl dit val; die snelheid waarteen dit val word deur middel van 'n klein valskerm teen 15 voet per sekonde gekontroleer. Dit moet toegerus wees met 'n selfonderhoudende selfontbrandingsinrigting wat so ontwerp is dat dit van die vashouplek sonder hulp van buite bedien kan word en sodat die vuurpyl vanaf die reddingsboot, boot of oppompbare reddingsvlot afgevuur kan word sonder om die insittendes te beseer.

(2) Wanneer die vuurpyl ongeveer vertikaal afgevuur word, moet die ster en valskerm by of voor die hoogtepunt van die vuurpylbaan teen 'n minimum hoogte van 600 voet uitgeskiet word. Die vuurpyl moet ook in staat wees om te funksioneer indien dit met 'n hoek van 45 grade met die horisontale vlak afgevuur word.

(3) Die ster moet vir minstens 30 sekondes met 'n minimum helderheid van 10.000 kerskrag brand. Dit moet minstens 'n hoogte van 150 voet bo seespieël bereik voordat dit uitbrand.

(4) Die grootte van die valskerm moet sodanig wees dat dit die vereiste kontrole oor die valsnelheid van die brandende ster kan uitoefen. Dit moet aan die ster bevestig word deur middel van 'n buigsame vuurvaste tuig.

(5) Die vuurpyl moet waterdig wees en moet bevredigend kan werk nadat dit vir een minuut onder water is.

(6) Alle onderdele, samestellings en bestanddele moet van sodanige aard en kwaliteit wees dat dit die vuurpyl in staat kan stel om onder goeie gemiddelde bergingstoestande sy bruikbaarheid vir 'n tydperk van minstens twee jaar te behou.

(7) Die vuurpyl moet in 'n houer wat doeltreffend verseël is, verpak word. Indien van metaal gemaak, moet die houer goed vertin en met lakvernis geverf wees of andersins voldoende teen korrosie beskerm wees.

(8) Die datum waarop die vuurpyl gevul is, moet onuitwisbaar op die vuurpyl en op die houer gestempel wees.

(9) Duidelike en noukeurige gebruiksaanwysings moet in albei amptelike tale van die Unie onuitwisbaar op die vuurpyl gedruk wees.

(b) The canvas part shall be strongly sewn together and be roped at the seams with 1½ inch bolt rope; the ropes then being formed into a bridle with a thimble seized in the connecting end, and the ropes extended and seized into a parcelled loop to form the attachment for the tripping line.

(c) A hawser shall be attached to the sea anchor by means of a shackle of suitable size to take the thimble.

(d) The length of the hawser shall be three times the length of the lifeboat or boat.

(e) A tripping line two fathoms longer than the hawser shall be provided.

(2) A circular sea anchor shall be fitted at the mouth with a galvanised iron hoop. Any other type of sea anchor shall be fitted with galvanised iron spreaders across the mouth and with an ash spreader at the upper edge.

(3) The size of sea anchors shall be as follows:—

(a) For lifeboats over 30 feet in length—

non-circular folding sea anchors: mouth 30 inches upper edge, 27 inches lower edge, 27 inches each side;  
area of mouth: 770 square inches;  
length of canvas bag: 4 feet 6 inches;  
hawser: 3 inches in circumference;  
tripping line: 2 inches in circumference;

(b) for lifeboats over 22 feet in length, but not over 30 feet in length—

Circular sea anchors: Mouth 27 inches diameter;  
non-circular folding sea anchors: Mouth 24 inches each side;  
length of canvas bag: 4 feet;  
hawser: 3 inches in circumference;  
tripping line: 2 inches in circumference;

(c) for lifeboats not over 22 feet in length, Class C boats, and other boats—

circular sea anchors: Mouth 24 inches diameter;  
non-circular folding sea anchors: Mouth 21½ inches each side;  
length of canvas bag: 3 feet 6 inches;  
hawser: 2½ inches in circumference;  
tripping line: 1½ inches in circumference.

### PART III.

#### PARACHUTE DISTRESS ROCKET SIGNALS FOR LIFEBOATS, CLASS C BOATS, OTHER BOATS, AND INFLATABLE LIFERAFTS.

(1) Every parachute distress rocket signal shall consist of a single bright red star which is projected to the required height by means of a rocket, and which burns while falling, its rate of fall being controlled by means of a small parachute to 15 feet per second. It shall be fitted with a self-contained means of ignition, so designed as to operate from the hand-held position without external aid, and such as to enable the rocket to be discharged from a lifeboat, boat, or inflatable liferaft without harm to the occupants.

(2) When the rocket is fired approximately vertically, the star and parachute shall be ejected at or before the top of the trajectory, at a minimum height of 600 feet. The rocket shall also be capable of functioning when fired at an angle of 45 degrees to the horizontal.

(3) The star shall burn with a minimum luminosity of 10.000 candle power for not less than 30 seconds. It shall burn out at a height of not less than 150 feet from the sea level.

(4) The parachute shall be of such a size as to provide the required control of the rate of fall of the burning star. It shall be attached to the star by means of a flexible fireproof harness.

(5) The rocket shall be waterproofed and capable of satisfactory functioning after immersion in water for one minute.

(6) All components, compositions and ingredients, shall be of such a character and of such a quality as to enable the rocket to maintain its serviceability under good average storage conditions for a period of at least two years.

(7) The rocket shall be packed in a container which shall be effectively sealed. If made of metal, the container shall be well tinned and lacquered or otherwise adequately protected against corrosion.

(8) The date on which the rocket is filled shall be stamped indelibly on the rocket and on the container.

(9) Clear and concise directions for use in both official languages of the Union shall be printed indelibly on the rocket.



## DEEL IV.

## HANDNOODSINJAALFAKKELS VIR REDDINGSBOTE, KLAS C-BOTE, ANDER BOTE EN OPPOMPBAAR REDDINGSVLOTTE.

- (1) Elke handnoodsinjaalfakkel moet toegerus wees met 'n self-onderhoudende selfontbrandingsinrigting wat so ontwerp is dat dit vanaf die vashouposisie sonder hulp van buite bedien kan word en dat die sinjaal vanaf 'n reddingsboot, of oppompbare reddingsvlot vertoon kan word sonder om die insittendes te beseer.
- (2) Waar 'n oppompbare reddingsvlot met 'n sinjaal uitgerus is, moet die sinjaal so saamgestel wees, dat wanneer dit afgevuur word, geen brandende samestelling daarvan afval wat die reddingsvlot kan beskadig nie.
- (3) Die sinjaal moet in staat wees om 'n rooi lig van 'n minimum ligsterkte van 15.000 kerskrag vir minstens 55 sekondes uit te straal.
- (4) Die sinjaal moet waterdig wees en moet bevredigend kan werk nadat dit vir een minuut onder water was.
- (5) Alle onderdele, samestellings en bestanddele moet van sodanige aard en kwaliteit wees dat dit gelykmatig kan brand en dat dit die sinjaal in staat kan stel om onder goeie gemiddelde bergingstoestande vir 'n tydperk van minstens twee jaar die bruikbaarheid daarvan te behou.
- (6) Die datum waarop die sinjaal gevul is, moet onuitwisbaar daarop gestempel wees.
- (7) Duidelike en noukeurige gebruiksaanwysings moet in albei amptelike tale van die Unie, onuitwisbaar op die sinjaal gedruk wees.

## DEEL V.

## DRYWENDE ROOKSINJALE VIR REDDINGSBOTE, KLAS C-BOTE EN ANDER BOTE.

- (1) Elke drywende rooksinjaal moet met 'n selfonderhoudende selfontbrandingsinrigting uitgerus wees.
- (2) Die sinjaal moet, terwyl dit op die water dryf, in staat wees om 'n digte massa oranje- of rooiblaie rook vir 'n tydperk van minstens twee minute en hoogstens vier minute af te gee. Die gewig van die samestelling wat die sinjaal bevat, moet minstens 20 onse weeg.
- (3) Die sinjaal moet waterdig wees en moet bevredigend kan werk nadat dit vir een minuut onder water was.
- (4) Alle onderdele, samestellings en bestanddele moet van sodanige aard en kwaliteit wees dat dit gelykmatig kan brand en dat dit die sinjaal in staat kan stel om onder goeie gemiddelde bergingstoestande vir 'n tydperk van minstens twee jaar sy bruikbaarheid te behou.
- (5) Die datum waarop die sinjaal gevul is, moet onuitwisbaar daarop gestempel wees.
- (6) Duidelike en noukeurige gebruiksaanwysings moet in albei amptelike tale onuitwisbaar op die sinjaal gedruk wees.

## DEEL VI.

## EERSTEHULPUITRUSTING VIR REDDINGSBOTE EN BOTE (UITGESONDERD KLAS C-BOTE).

- (1) Die inhoud van elke eersthulpuitrusting waarvan 'n reddingsboot of boot voorsien moet word, moet voldoen aan die standaarde en vereistes van die lopende uitgawe van die British Pharmacopoeia, die British Pharmaceutical Codex of die National Formulary, waar sodanige standaarde en vereistes van toepassing is, en moet die volgende insluit:—

| Artikel.                                                                                                                                                                                                                              | Hoeveelheid. |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| (a) Bybringmiddels (ses gegeurde ammoniakpakkies).....                                                                                                                                                                                | 1 blik.      |
| (b) Saamgestelde kodefientablette (Tab. Codeine Co.)                                                                                                                                                                                  | 25 tablette. |
| (c) Ses morfiënampulspute wat 'n oplossing bevat van of 'n morfiënout wat gelykstaande is aan watervrye morfiën ½ gr. in 1 c.c. of Papaveretum B.P.C. ½ gr. in 1 c.c. bv. „Omnopon”—in skroefdoopmetaaldrom, met gebruiksaanwysings.. | 1 drom.      |
| (d) Standaardverbande, No. 14, middelslag B.P.C., 6 duim by 4 duim.....                                                                                                                                                               | 2            |
| (e) Standaardverbande, No. 15, groot B.P.C., 8 duim by 6 duim.....                                                                                                                                                                    | 2            |
| (f) Elastiekhegverbande, 2 duim by 3 duim-pakkies van drie.....                                                                                                                                                                       | 2 pakkies.   |
| (g) Swagtels, driekantig, geïllustreerd, minstens 38 duim sykant, basis 54 duim.....                                                                                                                                                  | 5            |
| (h) Gaas, wit, absorbeer-, saamgepers, 36 duim by 2½ jaart.....                                                                                                                                                                       | 3            |
| (i) Rolswagtel, saamgepers, 2½ duim by 4 jaart....                                                                                                                                                                                    | 4            |
| (j) Swagtel, ongebleekte linne, 6 duim by 6 jaart...                                                                                                                                                                                  | 1            |
| (k) Watte, saamgepers, 4 ons-pakkie.....                                                                                                                                                                                              | 1 pakkie.    |
| (l) Sagte paraffien, 1 ons-buis.....                                                                                                                                                                                                  | 1 buis.      |
| (m) Haakspelde, koper-geplateer, 2 duim.....                                                                                                                                                                                          | 6            |
| (n) Skêre, 4 duim, een skerp- en een stom punt, van roesvrye en vlek-vrye staal.....                                                                                                                                                  | 1            |
| (o) Energiëtablette (10 mg. amfetamiensulfaat)....                                                                                                                                                                                    | 60 tablette. |
| (p) Silikajel.....                                                                                                                                                                                                                    | 1 kapsule.   |
| (q) Aanwysings in albei amptelike tale van die Unie op linne of waterdigte papier gedruk.                                                                                                                                             |              |

## PART IV.

## HAND-HELD DISTRESS FLARE SIGNALS FOR LIFEBOATS, CLASS C BOATS, OTHER BOATS, AND INFLATABLE LIFERAFTS

- (1) Every hand-held distress flare signal shall be fitted with a self-contained means of ignition so designed as to operate from hand-held position without external aid and such as to enable the flare to be displayed from a lifeboat, boat, or inflatable liferaft without harm to the occupants.
- (2) Where the flare is carried in an inflatable liferaft, it shall be so constructed that, when the flare is fired, no burning composition will fall from the flare which might cause damage to the liferaft.
- (3) The flare shall be capable of emitting a red light of a minimum luminosity of 15.000 candle power for not less than 55 seconds.
- (4) The flare shall be waterproofed and capable of satisfactorily functioning after immersion in water for one minute.
- (5) All components, composition and ingredients, shall be of such a character and of such a quality as to burn evenly and as to enable the flare to maintain its serviceability under good average storage conditions for a period of at least two years.
- (6) The flare shall be stamped indelibly with the date on which it is filled.
- (7) Clear and concise directions for use in both official languages of the Union shall be printed indelibly on the flare.

## PART V.

## BUOYANT SMOKE SIGNALS FOR LIFEBOATS, CLASS C BOATS, AND OTHER BOATS.

- (1) Every buoyant smoke signal shall be fitted with a self-contained means of ignition.
- (2) The signal shall be capable, while floating on the water, of emitting a dense volume of orange-coloured smoke for a period of not less than two minutes and not more than four minutes. The weight of the composition contained in the signal shall be at least 20 ounces.
- (3) The signal shall be waterproofed and capable of satisfactorily functioning after immersion in water for one minute.
- (4) All components, composition and ingredients, shall be of such a character and of such a quality as to burn evenly and as to enable the signal to maintain its serviceability under good average storage conditions for a period of at least two years.
- (5) The signal shall be stamped indelibly with the date on which it is filled.
- (6) Clear and concise directions for use in both official languages of the Union shall be printed indelibly on the signal.

## PART VI.

## FIRST-AID OUTFITS FOR LIFEBOATS AND BOATS (OTHER THAN CLASS C BOATS).

- (1) The contents of every first-aid outfit provided in a lifeboat or boat shall comply with the standards and requirements of the current issue of the British Pharmacopoeia, the British Pharmaceutical Codex or the National Formulary, where such standards and requirements are applicable, and shall include the following:—

| Article.                                                                                                                                                                                                                                      | Quantity.   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| (a) Collapse Revivers (six capsules of Fragrant Ammonia).....                                                                                                                                                                                 | 1 tin.      |
| (b) Compound Codeine Tablets (Tab. Codeine Co.)                                                                                                                                                                                               | 25 tablets. |
| (c) Six Morphine Ampoule Syringes, containing a solution of either a morphine salt equivalent to Anhydrous Morphine ½ gr. in 1 c.c. or Papaveretum B.P.C. ½ gr. in 1 c.c., e.g. „Omnopon”—in screw capped metal drum with directions for use. | 1 drum.     |
| (d) Standard Dressings No. 14, Medium B.P.C., 6 inches by 4 inches.....                                                                                                                                                                       | 2           |
| (e) Standard Dressings, No. 15, Large, B.P.C., 8 inches by 6 inches.....                                                                                                                                                                      | 2           |
| (f) Elastic Adhesive Dressing, 2 inches by 3 inches—packets of three.....                                                                                                                                                                     | 2 packets.  |
| (g) Bandages, triangular, illustrated, not less than 38 inch side, 54 inch base.....                                                                                                                                                          | 5           |
| (h) Gauze, white, absorbent, compressed, 36 inches by 2½ yards.....                                                                                                                                                                           | 3           |
| (i) Roller bandage, compressed, 2½ inches by 4 yards.....                                                                                                                                                                                     | 4           |
| (j) Bandage, unbleached Calico, 6 inches by 6 yards.                                                                                                                                                                                          | 1           |
| (k) Cotton wool, compressed, 4 oz. packet.....                                                                                                                                                                                                | 1 packet.   |
| (l) Soft paraffin, 1 oz. tube.....                                                                                                                                                                                                            | 1 tube.     |
| (m) Safety pins, brass plated, 2 inches.....                                                                                                                                                                                                  | 6           |
| (n) Scissors, 4 inches, one sharp, one blunt point, of rustless and stainless steel.....                                                                                                                                                      | 1           |
| (o) Energy tablets (10 mg. amphetamine sulphate)...                                                                                                                                                                                           | 60 tablets. |
| (p) Silica Gel.....                                                                                                                                                                                                                           | 1 capsule.  |
| (q) Instructions in both official languages of the Union printed on linen or waterproof paper.                                                                                                                                                |             |

(2) Die eerstehulpuitrusting moet verpak wees in 'n houer wat moet voldoen aan die volgende vereistes:—

- (a) Dit moet duursaam, vogdig en doeltreffend verseël wees. Dit moet ook verseël wees met 'n toestel om aan te dui dat die inhoud ongeskonde is.
- (b) Dit moet verpak wees in 'n kamer waarvan atmosferiese vogtigheid so ver moontlik verwyder is.
- (c) Waar die houer van metaal gemaak is, moet dit vertin en met lakvernis gevef wees en 'n handvatsel aan die deksel moet aangebring word.
- (d) 'n Genommerde lys van die inhoud moet aan die buitekant van die houer verstrek word.

## DEEL VII.

### HANDPOMPE VIR REDDINGSBOTE EN BOTE (UITGESONDERD KLAS C-BOTE).

Elke reddingsboothandpomp moet voldoen aan die volgende vereistes:—

- (1) Die inhoud, wanneer gewerk teen hoogstens 60 dubbele hale per minuut, teen 4 voet suigstoomdruk, moet minstens die volgende wees:—
  - (a) Sewe gelling per minuut in reddingsbote van 24 voet of langer.
  - (b) Vyf gelling per minuut in reddingsbote van korter as 24 voet.
- (2) Die pomp moet outomatic wees in sy gewone droë toestand (uitgesonderd binnesmering of ander hulpmiddels) wanneer gewerk teen 'n suigstoomdruk van minstens 4 voet.
- (3) Alle dele van die pomp moet van roesvrye materiaal waarop seewater geen invloed het nie vervaardig wees.
- (4) Die binnekant van die pomp, met inbegrip van kleppe, moet maklik bereikbaar wees vir skoonmaak in die geval van nood, en die toegangsbedekking moet maklik verwyder kan word sonder om 'n skroefsleutel of 'n ander spesiale werktuig te gebruik.
- (5) Die pompvertakkings moet geskik wees om te gebruik met rubberpypverbindinge met 'n binnediameter van 1½ duim. die metaaldeelte van die bedieningshandvatsel moet toepaslik met materiaal, uitgesonderd hout, oorgetrek wees om die hande van die bediener te beskerm wanneer die pomp in uiterste koue gebruik word. Die spil van die pakkingdrukstuk moet van die veerbelaste afsluitingsring-tipe wees.

## DEEL VIII.

### EERSTEHULPUITRUSTING VIR OPPOMPBAARE REDDINGSVLOTTE.

Die inhoud van elke eerstehulpuitrusting wat vir 'n oppompbare reddingsvlot voorsien word, moet voldoen aan die standarde en vereistes van die jongste uitgawe van die British Pharmacopoeia, die British Pharmaceutical Codex, of die National Formulary waar sodanige vereistes toepaslik is, en moet die volgende insluit:—

| Artikel.                                                                                                                                                                                                                                                             | Hoeveelheid. |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| (a) Standaardverband, No. 14, medium B.P.C., 6 duim by 4 duim.....                                                                                                                                                                                                   | 4            |
| (b) Standaardverband No. 15, groot B.P.C., 8 duim by 6 duim.....                                                                                                                                                                                                     | 4            |
| (c) Verbande, driehoekig, geïllustreer, met minstens 'n 38 duim kant en 'n 54 duim basis.....                                                                                                                                                                        | 4            |
| (d) Los geweefde verband (B.P.C.), 3 duim by 4 jaarts.....                                                                                                                                                                                                           | 10           |
| (e) Antiseptiese brand- of wondsal, centrimide B.P., 0.5 persent, w/w. 50 g(r)-buis.....                                                                                                                                                                             | 2            |
| (f) Skerre, 4 duim, een skerp, een stom punt, van roesvrye en vleklose staal.....                                                                                                                                                                                    | 1            |
| (g) Ses morfiënapulspuite wat 'n oplossing bevat van of 'n morfiënout, gelykstaande aan water-vrye morfiën ½ gr. in 1 c.c. of Papaveretum B.P.C. ½ gr. in 1 c.c. bv. „Omnopon”—in metaaldromme met 'n deksel wat aangeskroef kan word en met gebruiksaanwysings..... | 1 drom.      |
| (h) Aanwysings in albei amptelike tale van die Unie op linne of waterdigte papier gedruk.                                                                                                                                                                            |              |

(2) Die eerstehulpuitrusting moet in 'n duursame, vogdigte en doeltreffend verseëde houer verpak wees. 'n Genommerde lys van die inhoud moet aan die buitekant van die houer aangebring wees.

(2) The first-aid outfit shall be packed in a container which shall comply with the following requirements:—

- (a) It shall be durable, damp-proof, and effectively sealed. It shall also be sealed with a device to indicate that the contents are intact.
- (b) It shall be packed in a room from which atmospheric moisture has been removed as far as possible.
- (c) Where the container is made of metal, it shall be well tinned and lacquered, and a handle shall be fitted to the lid.
- (d) An itemised list of the contents shall be given on the outside of the container.

## PART VII.

### MANUAL PUMPS FOR LIFEBOATS AND BOATS (OTHER THAN CLASS C BOATS).

Every lifeboat manual pump shall comply with the following requirements:—

- (1) The capacity when operated at not more than 60 double strokes per minute, at 4 feet suction head, shall be not less than—
  - (a) 7 gallons per minute in lifeboats of 24 feet in length or over;
  - (b) 5 gallons per minute in lifeboats of under 24 feet in length.
- (2) In its normal dry state (excluding internal grease or other assistance) the pump shall be readily selfpriming when operated at a suction head of not less than 4 feet.
- (3) All parts of the pump shall be of non-corrodible material unaffected by sea water.
- (4) The interior of the pump, including valves, shall be readily accessible for emergency cleaning, and the cover for access shall be capable of being easily removed without the use of a spanner or other special tool.
- (5) The pump branches shall be suitable for use with 1½ inch bore rubber hose connections. The metal part of the operating handle shall be suitably sheathed by material other than wood so as to protect the hands of the operator when the pump is used in extreme cold. The spindle gland shall be of the spring loaded seal ring type.

## PART VIII.

### FIRST-AID OUTFITS FOR INFLATABLE LIFERAFTS.

(1) The contents of every first-aid outfit provided in an inflatable liferaft shall comply with the standards and requirements of the current issue of the British Pharmacopoeia, the British Pharmaceutical Codex, or the National Formulary, where such standards are applicable, and shall include the following:—

| Article.                                                                                                                                                                                                                                            | Quantity. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| (a) Standard dressings, No. 14, medium B.P.C., 6 inches by 4 inches.....                                                                                                                                                                            | 4         |
| (b) Standard dressings, No. 15, large, B.P.C., 8 inches by 6 inches.....                                                                                                                                                                            | 4         |
| (c) Bandages, triangular, illustrated, not less than 38 inch side, 54 inch base.....                                                                                                                                                                | 4         |
| (d) Open wove bandages (B.P.C.), 3 inches by 4 yards.....                                                                                                                                                                                           | 10        |
| (e) Antiseptic burn or wound cream, Cetrimide B.P., 0.5 per cent w/w. 50 gm. tube.....                                                                                                                                                              | 2         |
| (f) Scissors, 4 inches, one sharp, one blunt point, of rustless and stainless steel.....                                                                                                                                                            | 1         |
| (g) Six Morphine Ampoule Syringes, containing a solution of either a morphine salt, equivalent to Anhydrous Morphine, ½ gr. in 1 c.c. or Papaveretum B.P.C. ½ gr. in 1 c.c., e.g. „Omnopon”—in screw capped metal drum with directions for use..... | 1 drum.   |
| (h) Instructions in both official languages of the Union printed on linen or waterproof paper                                                                                                                                                       |           |

(2) The first-aid outfit shall be packed in a container which shall be durable, damp-proof and effectively sealed. An itemized list of the contents shall be given on the outside of the container.



## DERTIENDE BYLAE.

[Regulasie 39 (9).]

## DAVITS EN REDDINGSBOOT-TEWATERLATINGSSTUIG.

## DEEL I.

## BOU.

(1) *Definisie van „werkbelasting“*.—Die uitdrukking „werkbelasting“ beteken in hierdie Deel—

(a) met betrekking tot davits waarop subparagraaf (a) van paragraaf (2) van toepassing is, die som van die gewig van die reddingsboot, die uitrusting, die blokke en takels en die maksimum getal persone wat die reddingsboot geskik geag word om op te neem, as die gewig van elke persoon op 165 geneem word, met dien verstande egter dat as twee reddingsbote deur middel van dieselfde stel davits bedien word die werkbelasting met betrekking tot hierdie davits die maksimum wag waarmee hulle te eniger tyd belas kan word, moet wees;

(b) met betrekking tot davits waarop subparagraaf (b) of (c) van paragraaf (2) van toepassing is, die som van die gewig van die reddingsboot of boot, die uitrusting, die blokke en takels, en tewaterlatingsbemanning bestaande uit 2 lede en die gewig van elke lid word as 165 lb. geneem.

(2) *Sterkte*.—(a) Op Klas I, II, IIA, VII, VIIA, VIII, X en XI skepe, moet die davits, takels, blokke en alle ander tuig so sterk wees dat die reddingsbote met die volle getal persone en uitrusting veilig te water gelaat kan word wanneer die skip aan die een of ander kant 'n hellingshoek van 15 grade het: Met dien verstande dat hierdie paragraaf nie van toepassing sal wees op davits waaraan Klas C-bote bevestig is nie of op meganiesbeheerde enkelarmdavits wat ooreenkomstig Deel I van hierdie regulasies aangebring is nie.

(b) Op skepe wat reddingsbote of bote aan boord het wat aan meganiesbeheerde enkelarmdavits bevestig is, moet die davits, takels, blokke en alle ander tuig so sterk wees en die bedieningsinrigting moet soveel krag hê dat die reddingsbote of bote wanneer hulle volledig toegerus en beman is met 'n tewaterlatingsbemanning van twee lede veilig te water gelaat kan word aan die kant wat die diepste in die water is wanneer die skip 'n hellingshoek van 25 grade het.

(c) Op Klas IX skepe en op skepe waarop davits of tewaterlatingsuitrusting, wat nie deur Deel I van hierdie regulasies vereis word nie, vir reddingsbote of bote, voorsien word, moet sodanige davits of uitrusting so sterk wees dat die reddingsbote of bote wanneer hulle volledig toegerus en beman is met 'n tewaterlatingsbemanning van twee lede, veilig te water gelaat kan word.

(3) *Swaartekragdavits*.—(a) In die geval van swaartekragdavits bestaande uit arms geplaas op rollers wat pas op en beweeg langs vaste hellende spore, moet die spore, wanneer die skip regop is, hel teen 'n hoek van minstens 30 grade horisontaal.

(b) Ander soorte swaartekragdavits moet so ontwerp wees dat, wanneer die skip aan die een of ander kant 'n hellingshoek van 25 grade het, daar gedurende die beweging van die davit van die binneboord- na die buiteboordposisie 'n vaste tewaterlatingsmoment is.

(c) Waar swaartekragdavits uitgerus is met inrigtings vir die ophaal van reddingsbote deur middel van krag, moet outomatiese uitskakelaars aangebring en ingerig word om in werking te tree voordat die davits teen die stuipters raak ten einde oorspanning van die metaaltakels of davits te vermy.

(4) *Vertikale draaibare davits*.—Die bedieningsinrigting van vertikale draaibare davits moet toereikende krag besit om te verseker dat die reddingsbote wanneer hulle volledig toegerus en beman is met die tewaterlatingsbemanning, maar nie met ander persone aan boord nie, teen 'n hellingshoek van minstens 15 grade te water gelaat kan word.

(5) *Radiale davits*.—Waar radiale davits voorsien word, moet hulle toegerus word met middels om te verhoed dat hulle uit hul sokke geruk word.

(6) *Spanning*.—(a) In die geval van davits, uitgesonderd meganiesbeheerde enkelarmdavits, moet die ontwerpspanning aan die davitarms, wanneer dit met 'n maksimum belasting en helling-toestande in werking is, 'n toereikende veiligheidsfaktor bied met inagneming van die gehalte van die materiaal gebruik, die metode van konstruksie en die beweeglike aard van die belasting waaraan die davits onderhewig is.

(b) In die geval van meganiesbeheerde enkelarmdavits, moet die ontwerpspanning aan die davits wanneer dit met die maksimum belasting en gunstige hellingtoestande in werking is, 'n toereikende veiligheidsfaktor bied, met inagneming van die gehalte van die materiaal gebruik, die metode van konstruksie en die beweeglike aard van die belasting waaraan die davit onderhewig is.

(7) *Statische belastingstoets*.—In die geval van alle davits wat gemaak is van gietstaal, smeestaal of ander materiaal wat deur middel van 'n swaisproses gefabriseer word, moet elke davit met sy arm ten volle uitgestrek in staat wees om 'n statiese belastings-toets van minstens 2.2 maal daardie gedeelte van die werkbelasting wat deur die arm gedra word, te weerstaan.

## THIRTEENTH SCHEDULE.

[Regulation 39 (9).]

## DAVITS AND LIFEBOAT LAUNCHING GEAR.

## PART I.

## CONSTRUCTION.

(1) *Definition of „Working Load“*.—In this Part the expression “working load” means—

(a) in relation to davits to which sub-paragraph (a) of paragraph (2) applies, the sum of the weight of the lifeboat, the equipment, the blocks and falls, and the maximum number of persons which the lifeboat is deemed fit to carry, the weight of each person being taken to be 165 pounds, provided however, that if two lifeboats are served by the same set of davits, the working load in relation to these davits shall be the maximum load that may be imposed on them at any time;

(b) in relation to davits to which sub-paragraph (b) or (c) of paragraph (2) applies, the sum of the weight of the lifeboat or boat, the equipment, the blocks and falls, and a launching crew consisting of two members, the weight of each member being taken to be 165 pounds.

(2) *Strength*.—(a) In Classes I, II, IIA, VII, VIIA, VIII, X and XI ships, the davits, falls, blocks, and all other gear shall be of such strength that the lifeboats can be safely lowered when fully loaded with persons and equipment with the ship listed to 15 degrees either way: Provided that this paragraph shall not apply to davits to which Class C boats are attached or to mechanically controlled single-arm davits fitted in accordance with Part I of these regulations.

(b) In ships which carry lifeboats or boats attached to mechanically controlled single-arm davits, the davits, falls, blocks, and all other gear shall be of such strength and the operating gear shall be of such power that the lifeboats or boats when fully equipped and manned with a launching crew of two members can be safely lowered on the side which is lower in the water with the ship listed to 25 degrees.

(c) In Class IX ships and in ships in which davits or launching appliances not required by Part I of these regulations are provided for lifeboats or boats, such davits or appliances shall be of such strength that the lifeboats when fully equipped and manned with a launching crew of two members can be safely lowered.

(3) *Gravity Davits*.—(a) In the case of gravity type davits comprising arms mounted on rollers which engage with and travel down fixed inclined trackways, the trackways shall be inclined at an angle of not less than 30 degrees to the horizontal when the ship is upright.

(b) Gravity davits of other types shall be so designed that there is a positive turning out moment during the whole of the davit travel from the inboard to the outboard position when the ship is listed up to 25 degrees either way.

(c) Where gravity type davits are fitted with means for recovering the lifeboats by power, automatic cut-outs shall be fitted and arranged to operate before the davits come against the stops in order to avoid overstressing the wire rope falls or davits.

(4) *Luffing Davits*.—The operating gear of luffing type davits shall be of sufficient power to ensure that the lifeboats fully equipped and manned with the launching crew, but not loaded with other persons, can be turned out against a list of at least 15 degrees.

(5) *Radial Davits*.—Where radial davits are provided they shall be fitted with means to prevent them from being jerked from their sockets.

(6) *Stresses*.—(a) In the case of davits other than mechanically controlled single-arm davits, the designed stress on the davits arms, when operating under maximum load and conditions of list, shall afford an adequate factor of safety, having regard to the quality of the material used, the method of construction and the live nature of the load to which the davits are subjected.

(b) In the case of mechanically controlled single-arm davits, the designed stress on the davit when operating under maximum load and conditions of favourable list, shall afford an adequate factor of safety having regard to the quality of the material used, the method of construction, and the live nature of the load to which the davit is subjected.

(7) *Static Load Test*.—In the case of all davits made of cast steel, or of wrought steel or other material fabricated by a welding process, each davit with its arm at full outreach shall be capable of withstanding a static load test of not less than 2.2 times that part of the working load supported by the arm.

(8) *Bevestigings by die davitkop.*—Die bevestigings by die davitkop waaraan die blokke hang moet 'n proefbelastingstoets van minstens 2½ maal die belasting aan die bevestigings kan weerstaan.

(9) *Blokke.*—(a) Reddingsboot- en bootblokke moet, met inagneming van die werkbelasting op die davits, van voldoende sterkte wees.

(b) In die geval van metaalblokke moet die materiaal wat gebruik word van smeebare kwaliteit en voldoende sterkte wees. Geen gedeelte van die tuig wat vir die dra van die gewig van 'n reddingsboot of boot bedoel is, moet van gietmetaal gebou wees nie, tensy die Minister of Sekretaris dit in die geval van enige skip toelaat. Elke metaalblok moet in staat wees om 'n proefbelastingstoets van minstens 2½ maal die belasting op die blok, te weerstaan. Wanneer koordtoue gebruik word moet daar voldoende speelruimte tussen die wange van die blokke wees. Die wydte tussen die wange van die blokke moet 'n halfduim breër wees as die deursnee van nuwe koordtoue as daardie tou 3½ duim in omtrek is, en in verhouding minder as die omtrek van die toue kleiner is.

(10) *Draadtoue.*—(a) Die breektrekbelasting van elke draadtou wat gebruik word om reddingsbote of bote te water te laat, moet minstens ses maal die belasting aan die draadtou wees.

(b) Draadtoue moet stewig aan die tol van die windas bevestig wees, en die bevestigingspunte van die drade en ander dele waaraan die reddingsboot hang, moet in staat wees om 'n proefbelasting van minstens 2½ maal die belasting aan sulke bevestigings en ander dele te weerstaan.

(c) Waar draadsplytting gebruik is, moet dit in staat wees om 'n proeftoets van minstens 2½ maal die belasting op die splytting, te weerstaan tensy proefsplyttings van elke grootte draad, wanneer dit vir die breek getoets word, 'n veiligheidsfaktor van minstens 5 by die splytting gee.

(11) *Windasse.*—(a) In die geval van davits, uitgesonderd meganiesebeheerde enkelarmdavits, moet die wentolle ingerig wees om die twee takels afsonderlik te hou en hulle in staat te stel om teen dieselfde snelheid uit te palm. Die leidings van die draadtoue moet sodanig wees dat hulle gelyk oor die tolle opdraai en leiblokke moet ingerig wees om 'n afwykingshoek of voorloophoek van hoogstens vyf grade vir groeftolle en drie grade vir 'n ongegroepte tolle te gee. In die geval van meganiesebeheerde enkelarmdavits, moet die leiding van die metaaltakel sodanig wees dat die takel gelyk oor die tol opdraai.

(b) Die remme van reddingsboot- en bootwindasse moet van kragtige bou wees en volkome beheer en beperking van spoed bied wanneer die bote te water gelaat word. Die handrem moet so opgestel wees dat d't gewoonweg op die „Aan“-posisie is en terugkeer na die „Aan“-posisie wanneer die kontrolehaandvat sel nie gewerk word nie. Die gewig op die remhefboom moet voldoende wees om die rem doeltreffend te werk sonder enige addisionele druk. Die remtoestel moet inrigtings insluit vir die outomatiese beheer van die snelheid van die tewaterlating, om te verseker dat die reddingsboot of boot vinnig te water gelaat kan word sonder om 'n tewaterlatingsnelheid wat verenigbaar is met veiligheid, te oorskry. Vir hierdie doel, moet die outomatiese rem gestel word om 'n tewaterlatingsnelheid van die reddingsboot van tussen 60 en 120 voet per minuut te gee. Die handremmeganisme van reddingsbootwindasse moet palratinrigting insluit. Waar prakties moet die reminrigting sodanig gelei wees dat dit die man wat met die windas werk in staat stel om die reddingsboot of boot gedurende die hele proses van die tewaterlating in die oog te hou.

(c) Wanneer meer as een reddingsboot deur dieselfde draadtakels bedien word, moet die windasse uitgerus word met 'n snelomstelhandinrigting om die takels in staat te stel om vinnig opgehaal te word. Wanneer die laer blokke aangebring is, moet hulle kantelvas wees, en, waar nodig, moet voorsiening gemaak word om te verhoed dat die takels inmekaarvleg.

(12) *Koordtoutakels.*—(a) Koordtoue wat vir takels gebruik word, moet duursaam, sonder kinkels, diggedraai en buigsaam wees. Hulle moet in staat wees om onder enige omstandighede vrylik deur 'n opening ⅜ dm groter as die nominale diameter van die tou te gaan.

(b) Die breekbelasting van koordtoue moet minstens die volgende wees:—

| Grootte van tou.                | Breekbelasting.<br>Ton. |
|---------------------------------|-------------------------|
| 3½ duim.....                    | 6                       |
| 3½ duim.....                    | 5.25                    |
| 3½ duim.....                    | 4.5                     |
| 3 duim.....                     | 3.85                    |
| 2½ duim.....                    | 3.25                    |
| 2½ duim.....                    | 2.7                     |
| 2½ duim (gewone kwaliteit)..... | 2.2                     |

(c) Koordtoue van dunner as 2½ duim moet nie vir reddingsboottakels gebruik word nie. Opwenkatrolle of tou-oprolkaste moet vir die takels voorsien word.

(d) Waar koordtoutakels gebruik word om twee reddingsbote te bedien, wat die een bo die ander geplaas en onder een stel davits is, moet 'n aparte stel blokke en takels vir elke reddingsboot voorsien word. Die takels vir die eerste reddingsboot wat te

(8) *Attachments at the Davit Head.*—The attachments at the davit head from which the blocks are suspended shall be capable of withstanding a proof load test of not less than 2½ times the load on the attachments.

(9) *Blocks.*—(a) Lifeboat and boat blocks shall be of ample strength having regard to the working load upon the davits.

(b) In the case of metal blocks, the material used shall be of ductile quality and adequate strength. No part of gear intended to bear the weight of a lifeboat or boat shall be constructed of cast metal unless the Minister or Secretary shall so allow in the case of any ship. Each metal block shall be capable of withstanding a proof load test of not less than 2½ times the load on the block. There shall be ample clearance between the cheeks of blocks in which cordage rope is used. The width between the cheeks shall be half an inch greater than the diameter of new cordage ropes when those ropes are 3½ inches in circumference, and less in proportion in the circumference of the ropes when they are smaller.

(10) *Wire Ropes.*—(a) The breaking tensile load of each wire rope used for lowering lifeboats or boats shall be not less than six times the load on the wire rope.

(b) Wire ropes shall be securely attached to the drum of the winch, and the end attachments of the wires and other parts from which the lifeboat is to be suspended shall be capable of withstanding a proof load of not less than 2½ times the load on such attachments and other parts.

(c) Where wire splices are used, they shall be capable of withstanding a proof test of not less than 2½ times the load on the splice unless sample splices of each size of wire, when tested to destruction, give a factor of safety at the splice of not less than 5.

(11) *Winches.*—(a) In the case of davits other than mechanically controlled single-arm davits, winch drums shall be arranged to keep the two falls separate and to enable them to pay out at the same rate. The leads of wire ropes shall be such that they will wind evenly on the drums and lead blocks shall be arranged to give a fleet angle or angle of lead of not more than five degrees for grooved drums and three degrees for ungrooved drums. In the case of mechanically controlled single-arm davits, the lead of the wire rope fall shall be such that the fall winds evenly on the drum.

(b) The brakes of lifeboat and boat winches shall be of robust construction and afford complete control and limitation of speed in the operation of lowering. The hand brake shall be so arranged that it is normally in the "ON" position and returns to the "ON" position when the control handle is not being operated. The weight on the brake lever shall be sufficient to operate the brake effectively without additional pressure. The brake gear shall include means for automatically controlling the speed of lowering to ensure that the lifeboat or boat is lowered expeditiously without exceeding a rate of lowering consistent with safety. For this purpose, the automatic brake shall be set to give a speed of lowering of the lifeboat of between 60 and 120 feet per minute. Ratchet gear shall be incorporated in the hand brake mechanism of lifeboat winches. Where practicable the brake gear shall be so situated as to enable the man operating the winch to have the lifeboat or boat under observation during the whole process of its being launched into the water.

(c) When more than one lifeboat is served by the same wire falls, the winches shall be fitted with quick return hand gear to enable the falls to be rapidly recovered, the lower blocks, when fitted, shall be non-toppling, and, where necessary, provision shall be made to prevent the falls from cabling.

(12) *Cordage Rope Falls.*—(a) Cordage ropes used for falls shall be durable, unkinkable, firm laid, and pliable. They shall be able to pass freely under any conditions through a hole ⅜ inch larger than the nominal diameter of the rope.

(b) The breaking loads of cordage ropes shall be not less than:—

| Size of Rope.                       | Breaking Load.<br>Tons. |
|-------------------------------------|-------------------------|
| 3½ inches.....                      | 6                       |
| 3½ inches.....                      | 5.25                    |
| 3½ inches.....                      | 4.5                     |
| 3 inches.....                       | 3.85                    |
| 2½ inches.....                      | 3.25                    |
| 2½ inches.....                      | 2.7                     |
| 2½ inches ("ordinary quality")..... | 2.2                     |

(c) Cordage ropes of less than 2½ inches shall not be used for lifeboat falls. Winding reels or flaking boxes for the falls shall be provided.

(d) Where cordage rope falls are used to serve two lifeboats stowed one above another under one pair of davits, a separate set of blocks and falls shall be provided for each lifeboat. The falls for the first lifeboat to be launched shall be attached to the



water gelaat moet word, moet aan die davits sowel as aan die reddingsboot gereed vir gebruik bevestig wees. Die takels vir die tweede reddingsboot wat te water gelaat moet word, moet in posisie gehou word en aan die davits bevestig wees, maar nie noodwendig aan die reddingsboot nie; met dien verstande dat die laer blokke aan geskikte ringboute op die dek of aan stroppe aan die davit verbind is of andersins op so 'n manier ingerig is dat die takels nie die tewaterlating van die eerste reddingsboot sal belemmer nie en dat hulle onmiddellik beskikbaar sal wees vir bevestiging aan die tweede reddingsboot.

(13) *Houtblokke vir koordoutakels.*—Houtblokke vir reddingsbote van standaardafmetings moet soos volg wees:—

| Lengte van boot nie groter nie as— | Davits in Klas I, II, III, VII, VIIA, VIII, X en XI skepe. |             |                        | Davits in Klas VI skepe. |             |                        |
|------------------------------------|------------------------------------------------------------|-------------|------------------------|--------------------------|-------------|------------------------|
|                                    | Blok.                                                      | Takelstel.* | Grootte van koord-tou. | Blok.                    | Takelstel.* | Grootte van koord-tou. |
|                                    | Voet.                                                      | Duim.       | Duim.                  | Duim.                    |             | Duim.                  |
| 30.....                            | 13                                                         | T & T       | 3½                     | 12                       | T & T       | 3½                     |
| 29.....                            | 13                                                         | T & T       | 3½                     | 12                       | T & T       | 3½                     |
| 28.....                            | 13                                                         | T & T       | 3½                     | 12                       | T & T       | 3½                     |
| 27.....                            | 12                                                         | T & T       | 3½                     | 11                       | T & T       | 3                      |
| 26.....                            | 12                                                         | T & T       | 3½                     | 11                       | T & D       | 3                      |
| 25.....                            | 12                                                         | T & T       | 3½                     | 11                       | T & D       | 3                      |
| 24.....                            | 11                                                         | T & T       | 3                      | 10                       | T & D       | 2½                     |
| 23.....                            | 11                                                         | T & D       | 3                      | 10                       | T & D       | 2½                     |
| 22.....                            | 10                                                         | T & D       | 2½                     | 9                        | D & D       | 2½                     |
| 21.....                            | 10                                                         | T & D       | 2½                     | 9                        | D & D       | 2½†                    |
| 20.....                            | 9                                                          | D & D       | 2½                     | 9                        | D & D       | 2½†                    |
| 19.....                            | 9                                                          | D & D       | 2½                     | 8                        | D & S       | 2½†                    |
| 18.....                            | 9                                                          | D & D       | 2½†                    | 8                        | D & S       | 2½†                    |
| 17.....                            | 8                                                          | D & D       | 2½†                    | 8                        | D & S       | 2½†                    |
| 16.....                            | 8                                                          | D & D       | 2½†                    | 8                        | D & S       | 2½†                    |

\* T = drieoudig. S = enkel. D = dubbel.  
† Gewone kwaliteit breekbelasting, 2-2 ton.

(14) *Bolders.*—Gesikhte bolders of ander ewe gesikhte toestelle vir die tewaterlating van reddingsbote moet voorsien word in alle gevalle waar koordoutakels gebruik word. Vir reddingsbote wat nie langer as 20 voet is nie, kan horingklosse wat aan davits bevestig is i.p.v. bolders aangebring word. Vir reddingsbote langer as 20 voet maar nie langer as 25 voet nie, kan 'n dubbele bolder aan elke davit vasgeheg word. Vir reddingsbote van langer as 25 voet, moet kruisbolders op die dek aangebring word, en in die geval van reddingsbote wat nie langer as 27 voet is nie, moet die horisontale arms minstens 5 duim in deursnee wees en lank genoeg om minstens vier slae van die dikste tou wat gebruik kan word, te neem. In die geval van reddingsbote wat langer as 27 voet is, moet die arms 6 duim in deursnee wees en minstens 6 duim in lengte van die kant van die kolom. Breë lippe of flense moet aan die uiteindes van die arms voorsien word om te verhoed dat die takel afspring. Touleiers moet aangebring en ingerig word om te verseker dat die reddingsboot nie gelig word gedurende die uitswaaiproses nie.

DEEL II.

TEWATERLATINGSTOETSE.

(1) Elke stel davits waarop subparagraaf (a) van paragraaf (2) van Deel I van toepassing is, en waar aangebring, die reddingsbootwindasse, met inbegrip van sowel hulle hand- as outomatiese remme, moet in staat wees om die volgende toets te deurmaan: As hoogstens een reddingsboot aan die davits hang wanneer dit in die buiteboordposisie is, moet die reddingsboot by elke stel davits vanaf die uitskepingsdek in die water neergelaat word, gelaat met die gewone uitrusting en 'n verspreide gewig gelykstaande aan die volle getal persone wat dit geskik is om op te neem, plus 10 persent van die totale belasting, met inbegrip van blokke en takels; as twee reddingsbote aan die davits hang wanneer dit in die buiteboordposisie is, moet die swaarder reddingsboot, belas soos hierbo beskryf, vanaf die inskepingsdek in die water neergelaat word, terwyl die ander reddingsboot, met sy blokke en takels en belas met die gewone uitrusting plus 10 persent van die gewig van die reddingsboot, uitrusting, blokke en takels aan die davits hang. Windasremme wat aan die weer blootgestel is, moet in staat wees om die bostaande toets met 'n net vernoppervlakte te deurmaan.

(2) In die geval van davits waarop subparagraaf (b) of (c) van paragraaf (2) van Deel I van toepassing is, moet die reddingsboot of boot te water gelaat word met die gewone uitrusting en 'n verspreide gewig gelykstaande aan die gewig van 'n tewaterlatingsbemanning van twee lede, elk met 'n gewig van 165 pond, plus tien persent van die totale werkbelasting.

davits and to the lifeboat ready for service. The falls for the second lifeboat to be launched shall be kept in position attached to the davits, but not necessarily attached to the lifeboat, provided that the lower blocks are taken to suitable ringbolts on deck or to strops on the davit or are otherwise arranged in such a manner that the falls will not interfere with the launching of the first lifeboat and will be immediately available for attachment to the second lifeboat.

(13) *Wood Blocks for Cordage Rope Falls.*—Wood blocks for lifeboats of standard proportions shall be as follows:—

| Length of Boat not over. | Davits in Classes I, II, III, VII, VIIA, VIII, X and XI Ships. |                     |                       | Davits in Class VI Ships. |                     |                       |
|--------------------------|----------------------------------------------------------------|---------------------|-----------------------|---------------------------|---------------------|-----------------------|
|                          | Block.                                                         | Purchase of Falls.* | Size of Cordage Rope. | Block.                    | Purchase of Falls.* | Size of Cordage Rope. |
|                          | Feet.                                                          | Inches.             | Inches.               | Inches.                   |                     | Inches.               |
| 30.....                  | 13                                                             | T & T               | 3½                    | 12                        | T & T               | 3½                    |
| 29.....                  | 13                                                             | T & T               | 3½                    | 12                        | T & T               | 3½                    |
| 28.....                  | 13                                                             | T & T               | 3½                    | 12                        | T & T               | 3½                    |
| 27.....                  | 12                                                             | T & T               | 3½                    | 11                        | T & T               | 3                     |
| 26.....                  | 12                                                             | T & T               | 3½                    | 11                        | T & D               | 3                     |
| 25.....                  | 12                                                             | T & T               | 3½                    | 11                        | T & D               | 3                     |
| 24.....                  | 11                                                             | T & T               | 3                     | 10                        | T & D               | 2½                    |
| 23.....                  | 11                                                             | T & D               | 3                     | 10                        | T & D               | 2½                    |
| 22.....                  | 10                                                             | T & D               | 2½                    | 9                         | D & D               | 2½                    |
| 21.....                  | 10                                                             | T & D               | 2½                    | 9                         | D & D               | 2½†                   |
| 20.....                  | 9                                                              | D & D               | 2½                    | 9                         | D & D               | 2½†                   |
| 19.....                  | 9                                                              | D & D               | 2½                    | 8                         | D & S               | 2½†                   |
| 18.....                  | 9                                                              | D & D               | 2½†                   | 8                         | D & S               | 2½†                   |
| 17.....                  | 8                                                              | D & D               | 2½†                   | 8                         | D & S               | 2½†                   |
| 16.....                  | 8                                                              | D & D               | 2½†                   | 8                         | D & S               | 2½†                   |

\* T = Triple. D = Double. S = Single.  
† Ordinary quality breaking load, 2-2 tons.

(14) *Bollards.*—Suitable bollards or other equally effective appliances for lowering lifeboats shall be provided in all cases where cordage rope falls are used. For lifeboats not exceeding 20 feet in length, horn cleats attached to the davits may be fitted in lieu of bollards. For lifeboats over 20 feet but not exceeding 25 feet in length, a double bollard may be fixed to each davit. For lifeboats over 25 feet in length, bollards of the cruciform type shall be attached to the deck, and in the case of lifeboats not over 27 feet in length the horizontal arms shall be not less than 5 inches in diameter, and sufficiently long to take at least four turns of the largest rope with which they will be used. In the case of lifeboats over 27 feet in length the arms shall be 6 inches in diameter, and not less than 6 inches in length from the side of the column. Ample lips or flanges shall be provided at the ends of the arms to prevent the fall from jumping off. Fairleads shall be fitted and be arranged so as to ensure that the lifeboat is not lifted during the process of swinging out.

PART II.

LOWERING TESTS.

(1) Each pair of davits to which sub-paragraph (a) of paragraph (2) of Part I applies and, where fitted, the lifeboat winches including their hand and automatic brakes, shall be capable of withstanding the following tests: If not more than one lifeboat is suspended from the davits when in the outboard position the lifeboat at each set of davits shall be lowered from the embarkation deck into the water loaded with the usual equipment and a distributed weight equal to the full number of persons which it is fit to accommodate plus 10 per cent of the total load, including blocks and falls; if two lifeboats are suspended from the davits when in the outboard position, the heavier lifeboat loaded as indicated above shall be lowered from the embarkation deck into the water while the other lifeboat, with its blocks and falls and loaded with the usual equipment, plus 10 per cent of the weight of the lifeboat, equipment, blocks and falls is suspended from the davits. Winch brakes exposed to the weather shall be capable of withstanding the foregoing test with the breaking surface wetted.

(2) In the case of davits to which sub-paragraph (b) or (c) of paragraph (2) of Part I applies, the lifeboat or boat shall be lowered into the water with the usual equipment and a distributed weight equal to the weight of a launching crew of two members, each weighing 165 pounds, plus ten per cent of the total working load.

VEERTIENDE BYLAE.  
[Regulasie 39 (13).]

REDDINGSBOOTONTKOPPELINGSINRICHTING.

- (1) Die ontkoppelingsinrigting van reddingsbote moet ingerig wees om te verseker dat beide kante van die reddingsboot gelyktydig losgehaak kan word.
- (2) Die middels om die uithaak te bewerkstellig moet agter op die skip geplaas word.
- (3) Die inrigting moet van so 'n aard wees dat dit die uithaak van die reddingsboot slegs toelaat wanneer dit drywend is.
- (4) Die inrigting moet van so 'n aard wees dat dit die uithaak toelaat al is daar 'n sleepelasting aan die skakel of takels.
- (5) Die hake moet geskik wees vir onmiddellike uithaking met die hand.
- (6) Die punt waar die haak aan die oog, ring of skakel van die blok bevestig is, moet nie laer wees as wanneer gewone vaste hake aangebring is nie.
- (7) Die inrigting en meganisme om die uithaak te bewerkstellig moet so opgerig en gerangskik wees om die veiligheid van die reddingsboot te verseker, onafhanklik van enige veiligheidspeene.
- (8) Die middels om die uithaak te bewerkstellig moet geskied deur die inhaal of die los laat van 'n lyn, of deur die gebruik van 'n hefboom. As uithaking deur die trek van 'n lyn bewerkstellig word, moet die lyn behoorlik beskut wees. Stawe of ander verbindings tussen hake moet ook beskut wees wanneer dit nodig mag wees vir die veiligheid of die doeltreffende werking van die inrigting of vir die beskerming van persone teen besering.
- Touciere moet behoorlik gerangskik wees om te voorkom dat die lyne klem of knak en moet stewig aan vaste dele van die reddingsbote bevestig wees. Waar nodig vir doeltreffendheid, moet kettings by die lyne aangebring wees.
- (9) Sodanige dele van die inrigting wat andersins sal vassit as gevolg van roes of wegvreting, moet van roesvrye materiaal gemaak wees.
- (10) Geen gedeelte van die inrigting wat die gewig van die reddingsboot dra, moet van gietmetaal gemaak wees nie.
- (11) Die kortstukke en gedeeltes van alle dele wat die gewig van die reddingsboot dra, moet so ontwerp wees dat dit breeksterkte verskaf in verhouding met 'n belasting van minstens 2½ maal die gewig van die swaarste belaste reddingsboot waarin die inrigting aangebring moet word.

VEERTIENDE BYLAE.  
(Regulasie 46.)

SKEPE SE VALSKERMNODVUURPYLSINJALE.

- (1) Elke skeeps-valskeermnoodvuurpylsinjal moet bestaan uit 'n enkele helder rooi ster wat deur middel van 'n vuurpyl tot op die vereiste hoogte geskiet word, en wat brand terwyl dit val; die snelheid waarteen dit afkom, word deur middel van 'n valskeerm op 15 voet per sekonde gekontroleer.
- (2) As die vuurpyl ongeveer vertikaal afgevuur word, moet die ster en valskeerm op of voor die hoogtepunt van die vuurpylbaan, teen 'n minimum hoogte van 750 voet, uitgewerp word. Die vuurpyl moet ook in staat wees om te kan funksioneer indien afgevuur met 'n hoek van 45 grade horisontaal.
- (3) Die ster moet vir minstens veertig sekondes teen 'n minimum helderheid van 25,000 kerskrag brand. Dit moet op 'n hoogte van minstens 150 bo seespieël uitbrand.
- (4) Die grootte van die valskeerm moet sodanig wees dat dit die vereiste beheer oor die snelheid van die val van die brandende ster kan uitoefen. Dit moet deur middel van 'n buigsame vuur-vaste tuig aan die ster bevestig wees.
- (5) Die vuurpyl kan deur middel van enige geskikte metode onthand. As van uitwendige ontsteking deur middel van 'n veiligheidslont gebruik gemaak word, moet die buitenste end van die veiligheidslont bedek word met 'n metaalbeslagring gelaai met vuurhoutjekomposisie en 'n afsonderlike slagpen moet behoorlik aan elke vuurpyl bevestig wees.
- (6) Die vuurhoutjekomposisie, die slagpenkomposisie, die beslagring en die gehele uitwendige oppervlakte van die vuurpyl moet waterdig wees.
- (7) Die vuurpyl moet waterdig wees en moet bevredigend kan werk nadat dit vir een minuut onder water is.
- (8) Alle onderdele, komposisies en bestanddele moet van sodanige aard en kwaliteit wees dat dit die vuurpyl in staat stel om onder goeie gemiddelde bergingstoestande sy bruikbaarheid vir 'n tydperk van minstens 2 jaar te behou.
- (9) Die vuurpyl moet in 'n houer verpak wees wat duursaam, vogdig en doeltreffend verskël is. Indien van metaal gemaak, moet die houer goed vertin en met lakvernis geverf wees of andersins voldoende teen korrosie beskerm wees.
- (10) Die datum waarop die vuurpyl gevul is, moet onuitwisbaar op die vuurpyl en houer gestempel wees.
- (11) Duidelike en noukeurige gebruiksaanwysings moet in albei amptelike tale van die Unie, onuitwisbaar op die vuurpyl gedruk wees.

FOURTEENTH SCHEDULE.  
[Regulation 39 (13).]

LIFEBOAT DISENGAGING GEARS.

- (1) Lifeboat disengaging gears shall be so arranged as to ensure simultaneous release of both ends of the lifeboat.
- (2) The means of effecting release shall be placed aft.
- (3) The gear shall be of a type which will permit the release of the lifeboat only when it is waterborne.
- (4) The gear shall be of a type which will permit release should there be a towing strain on the link or falls.
- (5) The hooks shall be suitable for instant unhooking by hand.
- (6) The point of attachment of the hook to the eye, ring, or link of the block shall not be lower than when ordinary fixed hooks are fitted.
- (7) The gear and mechanism for effecting release shall be so constructed and arranged as to ensure the safety of the lifeboat independently of any safety pins.
- (8) The means for effecting release shall be by hauling on or letting go a line, or by using a lever. If release is effected by a pull upon a line, the line shall be properly cased in. Rods or other connections between hooks shall also be cased in whenever this is necessary for the safety or the efficient action of the gear or for the protection of persons from injury.
- The fairleads shall be properly arranged to prevent the lines from jamming or nipping, and shall be strongly attached to permanent parts of the lifeboat. The lines shall be fitted with chains where necessary for efficiency.
- (9) Such parts of the gear as would otherwise be likely to be set fast by rust or corrosion shall be made of non-corrodible metal.
- (10) No part of the gear taking the weight of the lifeboat shall be made of cast metal.
- (11) The scantlings and proportions of all parts which support the weight of the lifeboat shall be designed to provide breaking strength proportionate to a load of at least 2½ times the weight of the heaviest loaded lifeboat in which the gear is intended to be fitted.

FIFTEENTH SCHEDULE.  
(Regulation 46.)

SHIPS' PARACHUTE DISTRESS ROCKET SIGNALS.

- (1) Every ships' parachute distress rocket signal shall consist of a single bright red star which is projected to the required height by means of a rocket, and which burns while falling, its rate of fall being controlled by means of a parachute to 15 feet per second.
- (2) When the rocket is fired approximately vertically, the star and parachute shall be ejected at or before the top of the trajectory, at a minimum height of 750 feet. The rocket shall also be capable of functioning when fired at an angle of 45 degrees to the horizontal.
- (3) The star shall burn with a minimum luminosity of 25,000 candle power for not less than forty seconds. It shall burn out at a height of not less than 150 feet from the sea level.
- (4) The parachute shall be of such size as to provide the required control of the rate of fall of the burning star. It shall be attached to the star by means of a flexible fireproof harness.
- (5) The rocket may be ignited by any suitable method. If external ignition by means of a safety fuse is employed, the outer end of the safety fuse shall be covered with a metal ferrule primed with match composition and a separate striker shall be suitable attached to each rocket.
- (6) The match composition, the striker composition, the ferrule, and the whole of the external surface of the rocket shall be water-proofed.
- (7) The rocket shall be water-proofed and capable of satisfactory functioning after immersion in water for one minute.
- (8) All components, compositions and ingredients, shall be of such a character and of such a quality as to enable the rocket to maintain its serviceability under good average storage conditions for a period of at least two years.
- (9) The rocket shall be packed in a container which shall be durable, damp-proof, and effectively sealed. If made of metal, the container shall be well tinned and lacquered, or otherwise adequately protected against corrosion.
- (10) The date on which the rocket is filled shall be stamped indelibly on the rocket and on the container.
- (11) Clear and concise directions for use in both official languages of the Union shall be printed indelibly on the rocket.



## SESTIENDE BYLAE.

(Regulasies 59, 76, 81, 85, 86 en 89.)

## SKUIMBRANDBLUSSINGSINSTALLASIES.

- (1) Elke skuimbrandblussingsinstallasie van die swaartekrag tipe, moet voorsien word van—
- (a) houe vir die skuimvormende oplossing, wat so geplaas word dat brand in die ruimte, wat bedoel is om beskerm te word, nie die doeltreffende werking van die installasie sal belemmer nie;
  - (b) uitlaatkleppe vir die houe, wat so ingerig dat die oplossings gelyktydig en in die regte verhouding deur die werking van 'n kontrolewiel of kontrolchandvatsel uit die houe vrygelaat word, in al twee gevalle so geplaas dat dit nie ontoeganklik gemaak word deur 'n brand in die ruimte wat bedoel is om beskerm te word nie;
  - (c) middels vir die omroer en monsterneming van die skuimvormende oplossings en vir die toets van die uitsetting-skaal daarvan.
- (2) In elke skuimbrandblussingsinstallasie wat ononderbroke skuim voortbring, moet die skuimvormende toestel, pompe en kragbron van die pompe, sowel as al die beheertoestelle en ander toebehore nodig vir doeltreffende werking so ingerig word dat 'n brand in die ruimte wat bedoel is om beskerm te word nie die doeltreffende werking van die installasie sal belemmer nie.
- (3) Elke skuimbrandblussingsinstallasie van die swaartekrag tipe of wat ononderbroke skuim voortbring, moet voorsien word van 'n stelsel van verspreidingspype, so ingerig dat dit moontlik is om die skuim doeltreffend te versprei. Voorsiening moet gemaak word om versperring van pype of hulle uitlaatenings deur water of andersins, te voorkom en om dit moontlik te maak dat die doeltreffendheid van die pype maklik getoets kan word. Die pype moet nie deur 'n verkoelingsruimte gelei word nie tensy hulle geïsoleer is en voorsiening gemaak is om hulle leeg te tap.
- (4) Instruksies moet in duidelike en vaste letters op die uitrusting of in 'n posisie langsaaan aangebring word.

## SEWENTIENDE BYLAE.

(Regulasies 63, 79 en 85.)

## ASEMHALINGSTOESTELLE, ROOKHELMES EN ROOKMASKERS.

- (1) Elke asemhalingsstoestel moet selfonderhoudend wees. Middels moet voorsien word om die draer te waarsku dat enige reagerende chemikalieë wat 'n deel vorm van die toestel op die punt staan om uitgeput te raak.
- (2) Elke rookhelm of rookmasker moet voorsien wees van 'n slang vir die voorsiening van lug van die buite-atmosfeer. Die slang moet van die nie-verbare tipe wees en moet lank genoeg wees om toe te laat dat die inlaant op die dek of elders anders in suiver lug is, terwyl die draer van die helm of masker in enige deel van die vragruim, bemanningsruim of passasiersruim, indien daar is, verkeer. As die slang langer as 90 voet is, moet 'n pomp of blaasbalk, wat geskik moet wees om lug deur die slang te pomp, voorsien word.
- Doeltreffende koppelings moet voorsien word as twee of meer lengtes van slange aanmeekaar gelas word om die bogenoemde ruime te bereik. Die inlaant van die slang moet in posisie vasgemaak kan word en so beskerm word om seker te maak dat die lugvoorsiening nie belemmer kan word nie.
- (3) Die volgende toerusting moet voorsien word vir gebruik met die asemhalingsstoestel, rookhelm, of rookmasker:—
- (a) 'n Reddings- en seinlyn minstens 10 voet langer as wat nodig is om vanaf die dek of elders in suiver lug na enige deel van die vragruim, bemanningsruim of passasiersruim, indien daar is, te reik; die lyn moet van heenep-bedeekte draadtoe, tenminste 1½ duim in omtrek, gemaak wees; die draad wat in die toe vervat is, moet 'n breeksterkte van minstens 1 ton hê en moet van koper of gegalvaniseerde staal wees; met dien verstande dat, in enige tenkship, in plaas daarvan, toe sonder draad, maar wat 'n breeksterkte van minstens 1 ton het, gebruik kan word;
  - (b) 'n verstelbare veiligheids gordel of tuig waaraan bogenoemde lyn stewig bevestig is;
  - (c) middels om die oë en gesig van die draer teen rook te beskerm.
- (4) Die asemhalingsstoestel, rookhelm of rookmasker moet elk duidelik en permanent met die naam van die vervaardiger of verkoper en die jaar waarin hulle vervaardig is, gemerk wees. Gebruiksaanwysings moet in duidelike en vaste letters op die genoemde uitrusting aangebring wees.

## AGTIENDE BYLAE.

(Regulasie 96.)

## NIE-DRAAGBARE SKUIMBRANDBLUSSERS.

- (1) Elke skuimbrandblusser, uitgesonderd 'n draagbare blusser, moet so ontwerp en gebou wees dat die binnekant van die blusser ondersoek kan word.

## SIXTEENTH SCHEDULE.

(Regulations 59, 76, 81, 85, 86 and 89.)

## FROTH FIRE EXTINGUISHING INSTALLATIONS.

- (1) Every froth fire extinguishing installation of the gravity type shall be provided with—
- (a) containers for the froth-forming solution, so placed that a fire in the space intended to be protected will not interfere with the effective working of the installation;
  - (b) outlet valves for the containers, so arranged that the solutions will be released from the containers simultaneously and in proper proportions by the operation of a control-wheel or control-handle, in either case so placed as not to be rendered inaccessible by a fire in the space intended to be protected;
  - (c) means for agitating and sampling the froth-forming solutions and for testing the expansion rates thereof.
- (2) In every froth fire extinguishing installation of the continuous-generator type, the froth-forming apparatus, pumps and source of power for the pumps, together with all controlling devices and other accessories necessary for efficient operation, shall be so arranged that a fire in the space intended to be protected will not prevent the efficient working of the installation.
- (3) Every froth fire extinguishing installation of the gravity or continuous-generator type shall be provided with a system of distribution pipes so arranged as to enable the froth to be effectively distributed. Provision shall be made to prevent the obstruction of the pipes or their outlets by water or otherwise, and to enable the efficiency of the pipes to be readily tested. The pipes shall not be led through any refrigerated space unless they are insulated and provision is made for draining them.
- (4) Instructions in clear and permanent lettering shall be affixed to the equipment or in a position adjacent thereto.

## SEVENTEENTH SCHEDULE.

(Regulations 63, 79 and 85.)

## BREATHING APPARATUS, SMOKE HELMETS AND SMOKE MASKS.

- (1) Every breathing apparatus shall be self-contained. Means shall be provided for warning the wearer that any reacting chemicals forming part of the apparatus are about to be exhausted.
- (2) Every smoke helmet or smoke mask shall be provided with a hose for the supply of air from the outside atmosphere. The hose shall be of a non-collapsing type and shall be sufficient in length to enable the inlet end to be on deck or elsewhere in clean air while the wearer of the helmet or mask is in any part of the cargo space, crew space or passenger space, if any. If the hose is more than 90 feet in length a pump or bellows shall be provided which shall be suitable for pumping air through the hose. Efficient couplings shall be provided if two or more lengths of hose are joined in order to reach the aforesaid spaces. The inlet end of the hose shall be capable of being secured in position and shall be so protected as to ensure that the supply of air cannot be obstructed.
- (3) The following equipment shall be provided for use with the breathing apparatus, smoke helmet, or smoke mask:—
- (a) A life-and-signalling-line at least 10 feet longer than is required to reach from the deck or elsewhere in clean air to any part of the cargo space, crew space or passenger space, if any; the line shall be made of hemp-covered wire rope at least 1½ inches in circumference; the wire incorporated in the rope shall have a breaking strength of not less than 1 ton and shall be made of copper or galvanised steel; provided that, in any tanker, rope made without wire, but having a breaking strength of not less than 1 ton, may be carried in lieu;
  - (b) an adjustable safety belt or harness to which the aforesaid line shall be securely attached;
  - (c) means of protecting the eyes and face of the wearer against smoke.
- (4) The breathing apparatus, smoke helmet or smoke mask shall each be clearly and permanently marked with the name of the maker or vendor and the year in which they were manufactured. Operating instructions in clear and permanent lettering shall be affixed to the said equipment.

## EIGHTEENTH SCHEDULE.

(Regulation 96.)

## NON-FORTABLE FROTH FIRE EXTINGUISHERS.

- (1) Every froth fire extinguisher, other than a portable fire extinguisher, shall be so designed and constructed that the interior of the extinguisher can be examined.

(2) Die romp van die blusser moet silindries wees met uiteindes wat na buite geïens is, sonder teenflense, tot 'n straal wat nie groter is as die omtrek van die romp nie. Die romp en uiteindes moet van plaatstaal gemaak wees wat aan die binnekant vertin of met lood uitgevoer is, en elke gedeelte van die blusser moet, waar nodig, teen korrosie beskerm wees.

(3) Die romp van die blusser moet gesweis of vasgeklank wees. Alle vasgeklankte nate moet gesoldeer wees.

(4) Die romp moet van 'n opening vir die insteek van 'n binnehouer voorsien wees. Die opening moet toegerus wees met 'n dekplaat van geskutmetaal of ander geskikte materiaal, met 'n deurlopende skroefdraad en deur die kant daarvan moet veiligheidsopenings of gleuwe voorsien word, sodat wanneer die dekplaat verwyder word, enige gasdruk wat in die houer gebly het, geleidelik vrygelaat word indien die opening waardeur dit uitgespuut moet word, verstopt is. Die dekplaatverbinding moet van suurvaste rubber, gesmeerde leer of ander geskikte materiaal gemaak wees.

(5) Indien die blusser van 'n binnehouer voorsien is, moet sodanige houer voldoende gestut word.

(6) 'n Versterkte uitlaatslang moet voorsien word asook 'n straalspyp waarvan die spuitafstand sodanig is dat wanneer die blusser bedien word, die skuim op 'n afstand van 45 voet vir 'n tydperk van minstens 100 sekondes in die geval van 'n blusser met 'n inhoud van 30 gellings of meer gespuut kan word, en 'n afstand van 35 voet vir 'n tydperk van minstens 90 sekondes in die geval van 'n blusser met 'n inhoud van minder as 30 gelling.

(7) Die lading en die lugruimte bokant die stand van die oplossing in die romp moet so gereguleer wees dat die maksimum druk in die blusser, wanneer dit in werking gestel word met alle uitlaatenings gesluit, nie meer is as 280 lb. per vierkante duim nie met die oplossing op 'n temperatuur van 100° F. (37.8° C.).

(8) Die blusser moet in staat wees om vir 'n tydperk van vyf minute 'n inwendige druk van 1½ maal die druk in die blusser wanneer dit in werking gestel is met alle uitlaatenings gesluit, te weerstaan en in geen geval minder as 350 lb. nie.

(9) Die blusser moet buiteop duidelik en permanent gemerk wees met—

- die naam van die vervaardiger of verkoper van die blusser;
- die inhoudsvermoë van die blusser;
- die stand van die oplossing, wanneer die blusser tot sy werkinhoudsvermoë gevul is;
- die druk waaronder die blusser getoets was;
- instruksies in albei amptelike tale van die Unie vir die bediening van die blusser; en
- die jaar waarin die blusser vervaardig is.

# NEGENTIENDE BYLAE. (Regulasie 96.)

## DRAAGBARE OF NIE-DRAAGBARE KOOLSUURGASBRANDBLUSSERS.

(1) Elke koolsuurgasbrandblusser moet voorsien word van silinders wat gebou is ooreenkomstig spesifikasies wat van tyd tot tyd deur die Sekretaris goedgekeur is.

(OPMERKING.—Tot op datum het die Sekretaris die volgende spesifikasies goedgekeur:—

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(2) Elke silinder moet voorsien wees van 'n binne ontladingsbuis en 'n klep om die gas vry te laat.

(3) Die blusser moet voorsien wees van 'n uitlaatslang wat versterk is om sodoende 'n druk van minstens 1,800 lb. per vierkante duim te weerstaan as die nodige koppelings aangebring is. Die boring van die uitlaatslang moet nie kleiner wees as die onderskeie groottes wat in die volgende tabel uiteengesit word nie.

| Inhoudsvermoë van blusser. | Minimum boring van uitlaatslang. |
|----------------------------|----------------------------------|
| 10 lb.....                 | $\frac{1}{4}$ duim.              |
| 35 lb.....                 | $\frac{3}{8}$ duim.              |
| 100 lb.....                | $\frac{1}{2}$ duim.              |

Die uitlaatslang moet voorsien wees van 'n boring wat geïsoleer is en so ontwerp dat dit die snelheid van gas wat uitgelaat word, sal verminder.

(4) Die blusser moet by enige temperatuur vanaf 50° F. (10° C.) tot en met 70° F. (21.1° C.) gas teen sodanige snelheid vrylaat dat koolsuurgas in gewig gelykstaande aan  $\frac{1}{3}$  van die inhoudsvermoë van die houer, uitgelaat word in die onderskeie tydperke wat in die volgende tabel uiteengesit word:—

| Inhoudsvermoë van blusser. | Tydperk.     |
|----------------------------|--------------|
| 10 lb.....                 | 20 sekondes. |
| 35 lb.....                 | 35 sekondes. |
| 100 lb.....                | 70 sekondes. |

(5) Die blusser moet buiteop duidelik en permanent gemerk wees met—

- die naam van die vervaardiger of verkoper van die blusser;
- instruksies in albei amptelike tale van die Unie vir die bediening van die blusser;

(2) The body of the extinguisher shall be cylindrical with ends which shall be dished outwards, without reverse flanging, to a radius not exceeding the diameter of the body. The body and ends shall be made of sheet steel which shall be tinned or lead-coated internally, and every part of the extinguisher shall, where necessary, be protected against corrosion.

(3) The body of the extinguisher shall be welded or riveted. All riveted joints shall be soldered.

(4) The body shall be provided with an opening for the introduction of an inner container. The opening shall be fitted with a cap of gunmetal or other suitable material, screwed with a continuous thread, through the side of which safety holes or slots shall be provided so that when the cap is being removed any pressure of gas remaining in the container may be released gradually should the discharge opening be choked. The cap joint shall be made with acid-resisting rubber, greased leather, or other suitable material.

(5) If the extinguisher is provided with an inner container, such container shall be adequately supported.

(6) A reinforced discharge hose shall be provided, together with a nozzle, the area of which shall be such that, when the extinguisher is operated, the froth is projected a distance of 45 feet for a period of not less than 100 seconds, in the case of an extinguisher of 30 gallons capacity or over, and a distance of 35 feet for a period of not less than 90 seconds in the case of an extinguisher of under 30 gallons capacity.

(7) The charge and the air space above the level of the solution in the body shall be so regulated that the maximum pressure in the extinguisher when put into action, with all outlets closed, does not exceed 280 lb. per square inch with the solution at a temperature of 100° F. (38.8° C.).

(8) The extinguisher shall be capable of withstanding for a period of 5 minutes an internal pressure of 1½ times the pressure in the extinguisher when put into action with all outlets closed, and in no event of less than 350 lb.

(9) The outside of the extinguisher shall be clearly and permanently marked with—

- the name of the maker or vendor of the extinguisher;
- the capacity of the extinguisher;
- the level of the solution, when the extinguisher is filled to its working capacity;
- the pressure under which the extinguisher was tested;
- instructions in both official languages of the Union for operating the extinguisher; and
- the year in which the extinguisher was manufactured.

# NINETEENTH SCHEDULE. (Regulation 96.)

## PORTABLE OR NON-PORTABLE CARBON DIOXIDE FIRE EXTINGUISHERS.

(1) Every carbon dioxide fire extinguisher shall be provided with cylinders constructed in accordance with specifications approved by the Secretary from time to time.

(NOTE.—To date the Secretary has approved of the following specifications:—

South African Bureau of Standards specification S.A.B.S. 50. British Standard specifications Nos. 401, 1287 and 1288.)

(2) Each cylinder shall be provided with an internal discharge tube, and a valve to release the gas.

(3) The extinguisher shall be provided with a discharge hose which shall be reinforced so as to withstand a pressure of at least 1,800 lb. per square inch when the necessary couplings are fitted. The bore of the discharge hose shall not be less than the sizes respectively set forth in the following table:—

| Capacity of Extinguisher. | Minimum Bore of Discharge Hose. |
|---------------------------|---------------------------------|
| 10 lb.....                | $\frac{1}{4}$ inch.             |
| 35 lb.....                | $\frac{3}{8}$ inch.             |
| 100 lb.....               | $\frac{1}{2}$ inch.             |

The discharge hose shall be provided with a horn which shall be insulated and of a design which will reduce the velocity of the gas discharged.

(4) At any temperature between 50° F. (10° C.) and 70° F. (21.1° C.) inclusive, the extinguisher shall discharge gas at such a rate that carbon dioxide equal in weight to  $\frac{1}{3}$  of the capacity of the container will be discharged in the periods respectively set forth in the following table:—

| Capacity of Extinguisher. | Period.     |
|---------------------------|-------------|
| 10 lb.....                | 20 seconds. |
| 35 lb.....                | 35 seconds. |
| 100 lb.....               | 70 seconds. |

(5) The outside of the extinguisher shall be clearly and permanently marked with—

- the name of the maker or vendor of the extinguisher;
- instructions in both official languages of the Union for operating the extinguisher;



- (c) merke wat die onderskeie gewig van die blusser sal aantoon wanneer hy leeg of vol is; en
- (d) die jaar waarin die blusser vervaardig is.

### TWINTIGSTE BYLAE. (Regulasie 96.)

#### DRAAGBARE KOOLSTOFTETRACHLORIED-BRANDBLUSSERS.

- (1) Elke koolstoftetrachloried-brandblusser moet 'n nominale vloeistofinhoudsvermoë van een-kwart hê.
- (2) Die romp van die brandblusser moet silindries wees en van koper of geelkoper vervaardig wees, in albei gevalle met 'n dikte van minstens No. 22 L.S.G. Alle binnetoebehoere moet van koper, geelkoper, brons of lood gemaak wees en alle voegwasters moet van materiaal gemaak wees wat koolstoftetrachloried kan weerstaan.
- (3) Voorsiening moet gemaak word om die tetrachloried in die blusser teen die atmosfeer te verseël om verdamping van koolstoftetrachloried te voorkom wanneer die blusser nie in gebruik is nie.
- (4) Die blusser moet van 'n handpomp voorsien wees wat self-onderhoudend en dubbelwerkend is. Die suierafsluiting moet bestaan uit materiaal wat koolstoftetrachloried kan weerstaan. Die blusser moet in staat wees om al die koolstoftetrachloried wat dit bevat behoorlik uit te laat, in watter posisie dit ookal gehou word, en om daardie vloeistof oor 'n afstand van 20 voet oor 'n gehele tydperk van een minuut te spuit.
- (5) Die koolstoftetrachloried wat vir gebruik met die blusser voorsien word, moet van 'n suiwerheidsstandaard wees wat van tyd tot tyd deur die Sekretaris goedgekeur word.
- (OPMERKING.—Tot op datum het die Sekretaris 'n suiwerheidsstandaard van minstens dié wat in die Britse Standaard-spesifikasie No. 575 gespesifiseer is, goedgekeur.)
- (6) Die blusser moet buiteop duidelik en permanent gemerk word met—
  - (a) die naam van die vervaardiger of verkoper van die blusser;
  - (b) die inhoudsvermoë van die blusser;
  - (c) instruksies in albei amptelike tale van die Unie vir die bediening van die blusser;
  - (d) die jaar waarin die blusser vervaardig is; en
  - (e) 'n kennisgewing dat indien die blusser gebruik word om 'n brand in 'n geïsoleerde ruimte te blus, gevaarlike gasse afgegee word en dit nie ingesam mag word nie.

### EEN-EN-TWINTIGSTE BYLAE. (Regulasie 96.)

#### DRAAGBARE BRANDBLUSSERS (UITGESONDERD KOOLSUURGAS- EN KOOLSTOFTETRACHLORIED-BRANDBLUSSERS).

- (1) Elke draagbare brandblusser, uitgesonderd 'n koolsuurgas- of koolstoftetrachloried-brandblusser, moet 'n inhoudsvermoë van minstens twee gelling en hoogstens drie gelling hê.
- (2) Die romp van elke draagbare blusser moet silindries wees met komvormige ente of keëlvormig met die groter end komvormig. Die komvorming moet na die buitekant wees sonder teenflense, tot 'n straal wat nie groter is as die middellyn van die romp nie. Indien die blusser vertikaal staan, moet 'n metaal-versterking stewig aan die romp bevestig wees.
- (3) Die romp en die uiteindes van die blusser moet van plaatstaal of koper gemaak wees, in albei gevalle aan die binnekant vertin of met lood uitgevoer, en elke gedeelte van die blusser moet, waar nodig, teen korrosie beskerm wees.
- (4) Indien die romp van plaatstaal gemaak is, moet dit solied getrokke, gesweis of geklink wees. Alle klinknaelgate moet geboor wees en alle klinklaste moet gesoldeer word.
- (5) Indien die romp van koper gemaak is, moet dit solied getrokke of geklink wees. Alle klinknaelgate moet gesoldeer of sweisgesoldeer wees.
- (6) Die romp moet voorsien wees van 'n opening vir die in-steek van 'n binnehouer. Die opening moet minstens 3 duim in deursnee wees en toegerus met 'n dekplaat van geskutmetaal waarvan die skroefgedeelte ongeveer ¼ duim diep is met 'n deurlopende skroefdraad en deur die kant daarvan moet veiligheids-openings of gleuwe voorsien word sodat wanneer die dekplaat verwyder word, enige gasdruk wat in die houer behoue gebly het, geleidelik vrygelaat sal word indien die opening waar hulle uitgegaan moet word, verstopt is. Die dekplaatverbinding moet van suurvaste rubber, gesmeerde leer of ander geskikte materiaal gemaak wees en moet nie dikker as ¼ duim wees nie. Enige houer wat glasbottels bevat, moet verwyder kan word, om die skoonmaak en inspeksie van die binnekant van die blusser te vergemaklik. Enige beveiliging wat aan 'n suier aangebring is, moet van die oop- of hoktype wees. Die romp moet 'n binne-druk van 350 lb. per vierkante duim vir vyf minute lank kan weerstaan.
- (7) Blussers wat vloeistof bevat, moet voorsien wees van 'n toestel wat, wanneer die blusser nie in gebruik is nie, die vloeistof sal verhoed om in die uitlaatluis te styg as gevolg van die styging van die temperatuur van die atmosfeer. Die uitlaatluis of opening

- (c) markings which will indicate the respective weights of the extinguisher when empty and when filled; and
- (d) the year in which the extinguisher was manufactured.

### TWENTIETH SCHEDULE. (Regulation 96.)

#### PORTABLE CARBON TETRACHLORIDE FIRE EXTINGUISHERS.

- (1) Every carbon tetrachloride fire extinguisher shall be of a nominal fluid capacity of one quart.
- (2) The body of the extinguisher shall be cylindrical and shall be constructed of copper or brass, in either case of a thickness not less than No. 22 L.S.G. All internal fittings of the extinguisher shall be made of copper, brass, bronze or lead, and all joint washers shall be made of material which will resist carbon tetrachloride.
- (3) Provision shall be made by which the carbon tetrachloride in the extinguisher can be sealed off from the atmosphere when the extinguisher is not in use, so as to prevent evaporation of the carbon tetrachloride.
- (4) The extinguisher shall be provided with a hand pump which shall be self-contained and double-acting. The plunger-packing shall consist of material which will resist carbon tetrachloride. The extinguisher shall be capable of discharging substantially the whole of the carbon tetrachloride which it contains, whatever the position in which it is held, and of projecting that fluid for a distance of 20 feet throughout a period of one minute.
- (5) The carbon tetrachloride provided for use with the extinguisher shall be of a standard of purity approved by the Secretary from time to time.
- (NOTE.—To date the Secretary has approved of a standard of purity not less than that specified in British Standard Specification No. 575.)
- (6) The outside of the extinguisher shall be clearly and permanently marked with—
  - (a) the name of the maker or vendor of the extinguisher;
  - (b) the capacity of the extinguisher;
  - (c) instructions in both official languages of the Union for operating the extinguisher;
  - (d) the year in which the extinguisher was manufactured; and
  - (e) a notice indicating that if the extinguisher is used for extinguishing fire in a confined space dangerous fumes will be given off and must not be inhaled.

### TWENTY FIRST SCHEDULE. (Regulation 96.)

#### PORTABLE FIRE EXTINGUISHERS (OTHER THAN CARBON DIOXIDE AND CARBON TETRACHLORIDE FIRE EXTINGUISHERS).

- (1) Every portable fire extinguisher, other than a carbon dioxide or carbon tetrachloride fire extinguisher, shall be of a capacity of not less than two gallons and not more than three gallons.
- (2) The body of every portable extinguisher shall be cylindrical with dished ends or conical with the larger end dished. The dishing shall be outwards, without reverse flanging, to a radius not exceeding the diameter of the body. If the extinguisher stands vertically a metal support shall be securely attached to the body.
- (3) The body and ends of the extinguisher shall be made of sheet steel or copper, in either case tinned or lead-covered internally, and every part of the extinguisher shall, where necessary, be protected against corrosion.
- (4) If the body is made of sheet steel it shall be solid drawn, welded or riveted. All rivet holes shall be drilled, and all riveted joints shall be soldered.
- (5) If the body is made of copper it shall be solid drawn or riveted. All rivet holes shall be drilled and all riveted joints shall be soldered or brazed.
- (6) The body shall be provided with an opening for the introduction of an inner container. The opening shall not be less than 3 inches in diameter and shall be fitted with a gun-metal cap, the screwed part of which shall be approximately ¼ inch deep and shall be screwed with a continuous thread through the side of which safety holes or slots shall be provided so that when the cap is being removed any pressure of gas remaining in the container will be released gradually, should the discharge opening be choked. The cap joint shall be made with acid-resisting rubber, greased leather, or other suitable material, and shall not exceed ¼ inch in thickness. Any cage for holding glass bottles shall be removable, so as to facilitate the cleaning and inspection of the interior of the extinguisher. Any protector fitted to a plunger shall be of the open or cage type. The body shall be capable of withstanding an internal pressure of 350 lb. per square inch for five minutes.
- (7) Extinguishers containing fluid shall be provided with a device which will, when the extinguisher is not in use, prevent the fluid from rising in the discharge tube in consequence of a rise in the temperature of the atmosphere. The discharge tube

in sulke blussers moet toegerus wees met 'n siffie. Enige uitlaatbuis aan die binnekant moet lank genoeg wees om al die vloeistof in die blusser behoorlik uit te laat. Geen kranes of kleppe moet aangebring wees om die uitlating van die vloeistof te stuit nie.

(8) Die blusser moet in staat wees om die vloeistof vir 'n tydperk van een minuut 20 voet ver te spuit.

(9) Die blusser moet voorsien wees van vaste handvatsels wat dit sal moontlik maak om dit maklik te vervoer en te gebruik.

(10) Die uitlaatbuis of -opening moet voorsien wees van 'n skroefverbinding wat toetsing sal vergemaklik.

(11) Die lading en die lugruimte bo die stand van die vloeistof in die romp, moet so gereguleer wees dat, indien die blusser in werking gestel word met al sy uitlaatenings gesluit, die inwendige druk nie hoër sal wees as 200 lb. per vierkante duim nie met die temperatuur van die vloeistof op 100° F. (37.8° C.).

(12) Die blusser moet buiteop duidelik en permanent gemerk wees met—

- (a) die naam van die vervaardiger of verkoper van die blusser;
- (b) die inhoudsvermoë van die blusser;
- (c) die stand van die vloeistof wanneer die blusser tot sy werk-inhoudsvermoë gevul is;
- (d) 'n sertifikaat van die vervaardiger dat die blusser met 'n hidroliese druk van 350 lb. per vierkante duim getoets is;
- (e) instruksies in albei amptelike tale van die Unie vir bediening van die blusser; en
- (f) die jaar waarin die blusser vervaardig is.

#### TWEE-EN-TWINTIGSTE BYLAE. (Regulasie 97.)

##### KOOLSTOFDIOKSIEDSMOORGASINSTALLASIES.

(1) Die gas wat in vragruime en in ketel- en masjienkamer-ruime as brandsmoormiddel gebruik word, moet nie giftig, verdovend of van die korrosietipe wees nie. Gasse wat in vloeistof vorm gebruik word, moet, wanneer dit oor die ruimte waarvoor dit verskaf is, uitgelaat word, in 'n gasagtige vorm wees.

(OPMERKING.—Koolstofdioksied is 'n doeltreffende brandsmoormiddel wat aan hierdie vereistes voldoen, en is op die oomblik die enigste gas wat deur die Sekretaris goedgekeur word.)

(2) Gassilinders moet ooreenkomstig die spesifikasies wat van tyd tot tyd deur die Sekretaris goedgekeur word, vervaardig wees.

(OPMERKING.—Tot op datum het die Sekretaris die volgende spesifikasies goedgekeur:—

- Suid-Afrikaanse Buro van Standaarde-spesifikasie S.A.B.S. 50.
- Britse Standaardspesifikasies Nos. 401, 1287 en 1288.)

Elke silinder moet toegerus wees met 'n veiligheidskyf en gestempel om die gewig aan te toon wanneer dit leeg is en die gewig van die gas wat dit kan bevat. Die gewig van die gas moet nie meer wees as dié wat vir tropiese toestande toegelaat word nie, wat in die geval van koolstofdioksied twee-derdes van 'n pond is vir elke pond van die waterinhoudsvermoë van die silinder. Veiligheidskyfies wat aan koolstofdioksiedsilinders aangebring is, moet van 'n soort wees wat gewaarborg is om by 'n druk tussen 2,600 en 2,850 pond per vierkante duim oop te gaan. Die inrigtings moet die gas toelaat om vrylik uit die silinder te ontsnap wanneer die veiligheidskyfie gebreek is, maar terugslagkleppe moet voorsien word in die uitlaatsels sodat enige silinder afgesluit kan word sonder dat dit die gebruik van ander silinders in die stelsel beïnvloed en om te verhoed dat gas in die atmosfeer vrygelaat word wanneer die stelsel in werking gestel word om 'n brand te smoor.

(3) Die gassilinders moet in 'n bevredigende posisie wat toeganklik, droog, goed verlig en geventileer is en waar niemand deur lekkasie in gevaar gestel kan word nie, vasmak wees. Die silinders moet nie aan korrosie of aan 'n temperatuur hoër as 140° F. (60° C.) blootgestel word nie. Geskikte voorsiening moet gemaak word sodat die silinders van tyd tot tyd geweeg kan word om die gewig van die inhoud te toets.

(4) Die uitlating moet van die vloeistof-inhoud van die silinders gehandhaaf word, en 'n geskikte soliede getrokke pyp moet vir hierdie doel aan die binnekant aangebring word. Anders moet die silinders in die hangposisie geberg word. Silinders met binnepype vir brandsmoorinstallasies moet maklik onderskei kan word van dié wat aangebring is vir verkoelingsdoeleindes wat nie 'n binnepyp het nie.

(5) Waar gassilinders in meer as een ruimte oopgelaat kan word, moet die uitlaatype aan 'n toeganklike distribusiekas verbind wees wat duidelik gemerk is om elke ruimte waarna verbinding gemaak kan word, aan te dui. Die verspreidingskleppe moet vinnig oopgaan om drukdaling as gevolg van smoring en gevolglike bevriesing te voorkom. Voorsiening moet gemaak word om die moontlikheid te voorkom dat gas per ongeluk vrygestel word wanneer 'n koolstofdioksiedstelsel aan boord van 'n skip geïnstalleer word en om te waak teen die agtelose of kwaadwillige gebruik van die bedieningshandvatsels nadat die stelsel geïnstalleer is. Die vrylaatinrigtings moet aandui of 'n silinder in werking was.

or opening in such extinguishers shall be fitted with a strainer. Any internal discharge tubes shall be of sufficient length to discharge substantially the whole of the fluid in the extinguisher. No cocks or valves shall be fitted for stopping the discharge of the fluid.

(8) The extinguisher shall be capable of projecting fluid for a distance of 20 feet during a period of one minute.

(9) The extinguisher shall be provided with fixed handles which will enable it to be readily transported and used.

(10) The discharge tube or opening shall be provided with a screwed connection which will facilitate testing.

(11) The charge and the air space above the level of the fluid in the body shall be so regulated that, if the extinguisher is put into action with all outlets closed, the internal pressure will not exceed 200 lb. per square inch when the fluid is at a temperature of 100° F. (37.8° C.).

(12) The outside of the extinguisher shall be clearly and permanently marked with—

- (a) the name of the maker or vendor of the extinguisher;
- (b) the capacity of the extinguisher;
- (c) the level of the fluid, when the extinguisher is filled to its working capacity;
- (d) a certificate by the maker that the extinguisher has been tested by hydraulic pressure to 350 lb. per square inch;
- (e) instructions in both official languages of the Union for operating the extinguisher; and
- (f) the year in which the extinguisher was manufactured.

#### TWENTY SECOND SCHEDULE. (Regulation 97.)

##### CARBON DIOXIDE SMOTHERING-GAS INSTALLATIONS.

(1) The gas used as a fire smothering agent in cargo spaces and in boiler and machinery spaces shall not be of the poisonous, anaesthetic or corrosive type. Gases carried in liquid form shall, when discharged in the space for which they are provided, be in gaseous form.

(NOTE.—Carbon dioxide is an effective fire smothering medium which fulfils these conditions, and is at present the only gas approved by the Secretary.)

(2) Gas cylinders shall be constructed in accordance with the specifications approved by the Secretary from time to time.

(NOTE.—To date the Secretary has approved the following specifications:—

- South African Bureau of Standards specification S.A.B.S. 50.
- British Standard Specifications Nos. 401, 1287 and 1288.)

Each cylinder shall be fitted with a safety disc and be stamped to show its weight when empty and the weight of the gas it may contain. The weight of gas shall not exceed that allowed for tropical conditions, which, in the case of carbon dioxide, is two-thirds of a pound for each pound of water capacity of the cylinder.

Safety discs fitted to carbon dioxide cylinders shall be of a type guaranteed to burst at a pressure between 2,600 and 2,850 pounds per square inch. The arrangements shall permit the free escape of gas from a cylinder when the safety disc is ruptured, but non-return valves shall be provided in the discharge system to allow any cylinder to be disconnected without affecting the use of the other cylinders in the system and to prevent discharge to the atmosphere when the system is put into operation to smother a fire.

(3) The gas cylinders shall be secured in a satisfactory position which shall be accessible, dry, well lighted and well ventilated and where there shall be no risk to anybody from leakage. The cylinders shall not be exposed to corrosion or subjected to a temperature exceeding 140° F. (60° C.). Suitable provision shall be made to enable the cylinders to be weighed periodically to check the weight of the contents.

(4) The discharge shall be maintained from the liquid contents of the cylinders, and a suitable internal solid drawn pipe shall be fitted for this purpose. Otherwise the cylinders shall be stowed in the inverted position. Cylinders with internal pipes for fire smothering installations shall be readily distinguishable from those fitted for refrigeration purposes which do not have an internal pipe.

(5) Where gas cylinders can be discharged into more than one space, the discharge pipes shall be connected to an accessible distribution chest clearly marked to indicate each space to which connection can be made. The distribution valves shall be of the quick opening type to avoid wire drawing and consequent freezing. Provision shall be made to avoid the possibility of gas being accidentally released when a carbon dioxide system is being installed on board ship and to guard against the inadvertent or malicious use of the operating handles after the system has been installed. The release arrangements shall give an indication if a cylinder has been discharged.



(6) Pypstelsels moet permanent van aard en so ingerig wees dat smoorgas doeltreffend oor elke ruimte wat beskerm moet word, versprei word.

Die inrigtings moet voorsiening maak vir die uitlating uit een silinder teen 'n snelheid van minstens 50 lb. in een minuut, en die verspreidingspype moet 'n binnedeursnee van minstens  $\frac{1}{2}$  duim hê. Kort lengtes van dubbele eindpype moet 'n deursnee van minstens  $\frac{1}{2}$  duim hê. Die pype van die silinders na die ruimtes wat bedien moet word, moet solied getrokke en, indien van staal, gegalvaniseer wees. Die verspreidingsverdeelpype en die pype tussen die silinders en die verspreidingsverdeelpype moet deur die vervaardigers of verskaffers gewaarborg word om bevredigend aan 'n druk van ten minste 1,800 lb. per vierkante duim getoets te gewees het. Die vervaardigers of verskaffers moet waarborg dat 'n gedeelte, minstens 10 persent, van die pype van die verspreidingsverdeelpype na die ruimtes wat beskerm moet word bevredigend aan 'n hidrouliese druk van minstens 1,800 lb. per vierkante duim getoets is.

Voorsiening moet gemaak word om water en ander verontreinigings weg te hou van die pype en uitlaatopenings. Die pype moet nie deur verkoelingsruime gelei word nie, tensy voorsiening gemaak is om hulle te isoleer en leeg te tap.

Wanneer vuilsvangers of vangafappers in verband met rook- en brandsmoorgasinstallasies in isolasie van geïsoleerde ruimte ingebod word, is dit wenslik dat verwyderbare panele vir toegang tot die toebehore voorsien word; in elke geval moet die posisies van die toebehore deur geskikte kennisgewingsborde aangedui word.

(7) Die verbindings van gaspype moet van geskikte skroefverbindinge, keelverbindinge of flense wees. Die pype moet nie deur blootgestelde skroefdrade verswak word of met sterkkoppe uitgerus wees nie. Indien verbindingsmateriaal gebruik word, moet dit so dun as moontlik wees.

Na installasie moet die lasse van al die pype getoets word, of deur die pype of met smoorgas of met druklug te vul tot 'n druk van ongeveer 100 pond per vierkante duim met al die uitlaatopenings gesluit. Nadat die druktoets voltooi is, moet daar seker gemaak word dat alle proppe en blinde flense van die verspreidingsstelsel verwyder is en dat alle pype oop en reg verbind is volgens die aanwysings op die distribusieklepkas.

(8) Instruksies vir die bediening van die installasie moet naby die distribusiebeheerklappe en ook naby die gascilinders vertoon word.

(OPMERKING.—Op skepe, wat toegerus is met ketels wat met olie gestook word of met binnebrandmasjinerie, wat 'n smoorgasinstallasie vir die vragruime het, is dit wenslik dat die smoorgas ook in die ketel- en masjienkamerruime vir gebruik beskikbaar moet wees, of hierdie ruimte deur skuim of smoorgas beskerm word aldan nie.)

Waar koolstofdoksied vir gebruik in beide vragruime en in die kamers van die ketels wat met olie gestook word, voorsien word, hoef die hoeveelheid gas nie meer te wees as dié wat vir die grootste afdeling nodig is nie.)

(6) Pipe systems shall be of a permanent character and arranged so that the smothering gas is effectively distributed in each space to be protected.

The arrangements shall provide for the discharge from a single cylinder at a rate not less than 50 lb. in one minute and the distribution pipes shall be not less than  $\frac{1}{2}$  inch in internal diameter. Short lengths of dual terminal pipes shall be not less than  $\frac{1}{2}$  inch diameter. The pipes from the cylinders to the spaces to be served shall be solid drawn, and, if of steel, they shall be galvanised. The distribution manifolds and the pipes between the cylinders and the distribution manifolds shall be guaranteed by the makers or suppliers to have been satisfactorily tested to a pressure of at least 1,800 lb. per square inch. The makers or suppliers shall guarantee that a proportion, not less than 10 per cent, of the pipes from the distribution manifolds to the spaces to be protected have been satisfactorily tested to a hydraulic pressure of at least 1,800 lb. per square inch.

Provision shall be made to keep the pipes and outlets clear of water and obstructions. The pipes shall not be led through refrigerated spaces unless special provision is made for insulating and draining them.

When dirt fittings or drain traps in connection with smoke detecting and fire smothering gas installations are embedded in insulation of insulated spaces, it is desirable that removable panels should be provided for access to the fittings; in any case, the positions of the fittings shall be indicated by suitable notice plates.

(7) The joints of gas pipes shall be made by suitable barrel couplings, cone connections or flanges. The pipes shall not be weakened by exposed screw threads or fitted with running couplings. If jointing material is used it shall be as thin as practicable.

After installation, the joints of all pipes shall be tested, either by a discharge of the smothering gas into the pipes or with compressed air, to a pressure of about 100 pounds per square inch with the discharge openings closed. After the pressure tests have been completed, it shall be ensured that all plugs and blank flanges have been removed from the distribution system and that all pipes are clear and correctly connected according to the marking on the distribution valve chest.

(8) Instructions for operating the installation shall be displayed near the distribution control valves and also near the gas cylinders.

(NOTE.—In ships fitted with oil-fired boilers or internal combustion machinery which have a smothering-gas installation for the cargo spaces, it is desirable that the smothering-gas should also be available for use in the boiler and machinery spaces whether or not these spaces are protected by froth or smothering stream. Where carbon dioxide is provided for use both on cargo holds and oil-fired boiler rooms, the quantity of gas need not exceed that required for the largest compartment.)

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