BUITENGEWONE *EXTRAORDINARY*

STAATSKOERANT
VAN DIE REPUBLIEK VAN SUID-AFRIKA

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GOVERNMENT GAZETTE

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DEPARTEMENT VAN VERVOER.

No. R. 141.] [2 Februarie 1968.

REGULASIES BETREFFENDE REDDINGS-UITRUSTING, 1968.

Die Minister van Vervoer het, kragtens die bepalings van artikel 356 van die Handelskeepvaartwet, 1951 (Wet No. 57 van 1951), soos gewysig, die Regulasies vir Reddingsuitrusting, 1960, soos afgekondig by Goewermentskennisgewing No. R. 193 van 12 Februarie 1960, herroep en kragtens genoemde artikel die regulasies in bygaande bylae vervat, uitgevaardig met ingang, in beide gevalle, vanaf 13 Maart 1968.

BYLAE.

INHOUDSOPGAWE VAN REGULASIES.

GOVERNMENT NOTICE.

DEPARTMENT OF TRANSPORT.

No. R. 141.] [2 February 1968.

LIFE-SAVING EQUIPMENT REGULATIONS, 1968.

The Minister of Transport has, under the provisions of section 356 of the Merchant Shipping Act, 1951 (Act No. 57 of 1951), as amended, repealed the Life-Saving Equipment Regulations, 1960, promulgated by Government Notice No. R. 193 dated 12 February 1960 and has, in terms of the said section, made the regulations contained in the Schedule hereto, with effect in each case from 13 March 1968.

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INLEIDING.

1. *Titel van hierdie Regulasies.*

Hierdie regulasies word die Regulasies betreffende Reddingsuitrusting, 1968, genoem.

2. *Uitleg.**

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—

„ akkommodasieruimte " passasiersruimtes, gange, latrines, kajuite, kantore, bemanningsruimtes, winkels, geïsoleerde spense en sluitkaste, en soortgelyke ruimtes;

*Vir die toepassing van hierdie regulasies het die Minister die volgende amptenare as „ bevoegde beamptes " in die Republiek aangewys:—

Te Kaapstad, Durban, Port Elizabeth, Walvisbaai en Saldanhabaai: Die Eerstebeampte van die Marine-afdeling;

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PRELIMINARY.

1. *Title of these Regulations.*

These regulations are called the Life-saving Equipment Regulations, 1968.

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—

" accommodation space " means passenger spaces, corridors, lavatories, cabins, offices, crew spaces, shops, isolated pantries and lockers and similar spaces;

* For the purposes of these regulations, the Minister has designated the following officers as " proper officers " in the Republic:—

At Cape Town, Durban, Port Elizabeth, Walvis Bay and Saldanha Bay: The Principal Officer of the Marine Division.

At East London, Mossel Bay, Port Nolloth and Luderitz: The Shipping Master.

skip wat gebruik word vir die vervoer van persone in diens van die walvisnywerheid of die visverwerkings- of visinmaaknywerheid.

Klas VIII.—'n Skip (uitgesonderd 'n skip van klas X, XI of XII) wat gebruik word op reise tussen hawens in die Republiek of op kort internasionale reise.

Klas IX.—'n Sleepboot, verbindingsboot, barkasboot, ligter, baggerskip, trek- of baggerskuit wat diens doen by 'n hawe in die Republiek en wat hoogstens 10 myl vanaf die ingang tot so 'n hawe ter see uitvaar.

Klas IXA.—'n Sleepboot, verbindingsboot, barkasboot, ligter, baggerskip, trek- of baggerskuit wat by 'n hawe in die Republiek diens doen en nie ter see uitvaar nie.

Klas X.—'n Vissersboot, robbevaarder of walvisvaarder; of 'n vaartuig wat gebruik of besit word vir visvangs vir geldelike voordeel of beloning waarop artikel 68 (1) (*a*) van die Wet van toepassing is.

Klas XI.—'n Seilskip (uitgesonderd 'n skip van klas X of XII) wat ter see uitvaar.

Klas XII.—'n Plesierjag van 25 ton of meer.

(2) Vir die toepassing van hierdie regulasie sluit „ reis " 'n ekskursie in.

DEEL I.—REDDINGSTOESTELLE.

HOOFSTUK I.—REDDINGSTOESTELLE VIR DIE ONDERSKEIE KLASSE VAARTUIE.

5. *Skepe van Klas I.*

(1) Elke klas-I-skip moet die volgende aan boord hê—

(*a*) aan elke kant van die skip, reddingsbote met 'n voldoende gesamentlike draagvermoë om een helfte van die totale getal persone wat die skip gesertifiseer is om te vervoer, op te neem; of

(*b*) reddingsbote en reddingsvlotte wat tesame 'n voldoende gesamentlike draagvermoë het om die totale getal persone wat die skip gesertifiseer is om te vervoer, op te neem: Met dien verstande dat daar nooit minder reddingsbote aan elke kant van die skip mag wees as wat voldoende is om 37½ persent van die totale getal persone wat die skip gesertifiseer is om te vervoer, op te neem nie; met dien verstande voorts dat, in die geval van 'n skip waarvan die kiel gelê is voor die inwerkingtreding van hierdie deel, hierdie bepalings alleen van toepassing sal wees indien die totale getal persone aan boord nie vergroot word as gevolg van die feit dat daar reddingsvlotte aan boord is nie.

(2) Op elke klas-I-skip moet twee van die reddingsbote wat ooreenkomstig subregulasie (1) vereis word, in gereedheid gehou word, een aan elke kant van die skip, vir onmiddellike gebruik in 'n noodgeval terwyl die skip ter see is. Hierdie reddingsbote mag nie langer as 28 voet wees nie en elkeen van hulle kan 'n motorreddingsboot wees en kan in berekening gebring word vir die doel om aan subregulasie (3) te voldoen.

Nieteenstaande die bepalings van regulasie 38 (13), word daar nie vereis dat skaatse of ander geskikte toestelle aan sodanige reddingsbote bevestig word nie.

(3) Elke klas-I-skip moet aan elke kant van die skip minstens een motorreddingsboot aan boord hê: Met dien verstande dat slegs een motorreddingsboot vereis word op 'n skip wat gesertifiseer is om hoogstens 30 persone te vervoer.

(4) (*a*) Op elke klas-I-skip wat gesertifiseer is om 1,500 of meer persone te vervoer, moet elkeen van die motorreddingsbote wat ooreenkomstig subregulasie (3) aan boord gehou moet word, toegerus wees met die uitrusting in regulasie 34 (1) genoem, en op elke klas-I-skip wat gesertifiseer is om meer as 199 maar minder as 1,500

engaged in the carriage of persons employed in the whaling industry or the fish processing or canning industry.

Class VIII.—A ship (other than a ship of class X, XI or XII) engaged on voyages between ports in the Republic or on short international voyages.

Class IX.—A tug, tender, launch, lighter, dredger, barge or hopper which is employed at a port in the Republic and proceeds to sea for not more than 10 miles from the entrance to such port.

Class IXA.—A tug, tender, launch, lighter, dredger, barge or hopper which is employed at a port in the Republic and does not proceed to sea.

Class X.—A fishing boat, sealing boat or whaling boat; or a vessel which is employed or owned for the purpose of fishing for financial gain or reward to which section 68 (1) (*a*) of the Act applies.

Class XI.—A sailing ship (other than a ship of class X or XII) which proceeds to sea.

Class XII.—A pleasure yacht of 25 tons or over.

(2) For the purposes of this regulation, a " voyage " includes an excursion.

PART I.—LIFE-SAVING APPLIANCES.

CHAPTER I.—LIFE-SAVING APPLIANCES FOR THE RESPECTIVE CLASSES OF VESSELS.

5. *Ships of Class I.*

(1) Every class I ship shall carry—

(*a*) on each side of the ship lifeboats of sufficient aggregate capacity to accommodate one half of the total number of persons which the ship is certified to carry; or

(*b*) lifeboats and liferafts together providing sufficient aggregate capacity to accommodate the total number of persons which the ship is certified to carry, provided that there shall never be less than sufficient lifeboats on each side of the ship to accommodate 37½ per cent of the total number of persons which the ship is certified to carry, and provided that in the case of any ship the keel of which was laid before the coming into operation of this Part, these provisions shall apply only if the total number of persons on board is not increased as a result of the provision of liferafts.

(2) On every class I ship, two of the lifeboats required by subregulation (1) shall be kept ready, one on each side of the ship, for immediate use in an emergency while the ship is at sea. These lifeboats shall be not more than 28 feet in length and each of them may be a motor lifeboat and may be counted for the purpose of compliance with subregulation (3).

Notwithstanding the provisions of regulation 38 (13), skates or other suitable appliances are not required to be fitted to these lifeboats.

(3) Every class I ship shall carry on each side of the ship at least one motor lifeboat: Provided that in a ship which is certified to carry not more than 30 persons, only one motor lifeboat shall be required.

(4) (*a*) In every class I ship which is certified to carry 1,500 persons or more, each of the motor lifeboats carried in compliance with subregulation (3) shall be provided with the equipment specified in regulation 34 (1), and in every class I ship which is certified to carry more than 199

persone te vervoer, moet minstens een van die motorreddingsbote wat ooreenkomstig subregulasie (3) aan boord moet wees, met dergelike uitrusting toegerus wees.

(*b*) Elke motorreddingsboot wat ooreenkomstig hierdie regulasie aan boord gehou moet word, moet toegerus wees met die uitrusting in regulasie 34 (2) genoem.

(5) Elke klas-I-skip wat nie aan elke kant van die skip 'n motorreddingsboot dra wat toegerus is met die uitrusting in regulasie 34 (1) genoem nie, moet draagbare radio-uitrusting aan boord hê wat aan die vereistes van regulasie 43 voldoen.

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

(7) Op elke klas-I-skip moet elke reddingsboot bevestig wees aan 'n afsonderlike stel davits van die swaartekragtipe, maar davits van die radiale tipe kan aangebring word vir die bediening van reddingsbote wat hoogstens 2¼ ton weeg wanneer hulle volledig uitgerus en beman is.

(8) Die reddingsvlotte wat ooreenkomstig subregulasie (1) (*b*) aan boord moet wees, moet met tewaterlatingstoestelle bedien word. Daar mag nooit minder as een sodanige toestel aan elke kant van die skip wees nie, en die verskil in die getal toestelle wat aan elke kant aangebring word, moet hoogstens een wees.

(9) Elke klas-I-skip moet reddingsvlotte aan boord hê wat nie deur tewaterlatingstoestelle bedien hoef te word nie, en waarvan die draagvermoë voldoende is om 25 persent van die totale getal persone wat die skip gesertifiseer is om te vervoer, op te neem, tesame met drywende toestelle vir 3 persent van daardie getal: Met dien verstande dat—

(*a*) indien reddingsvlotte ook ooreenkomstig subregulasie (1) (*b*) aan boord gehou word, alle sodanige reddingsvlotte van 'n tipe moet wees wat te water gelaat kan word deur middel van toestelle ooreenkomstig subregulasie (8) aangebring; en

(*b*) 'n skip met 'n indelingsfaktor van 0.33 of kleiner in plaas van reddingsvlotte vir 25 persent van die totale getal persone wat die skip gesertifiseer is om te vervoer en drywende toestelle vir 3 persent van daardie getal, drywende toestelle vir 25 persent van daardie getal aan boord mag hou.

(10) Elke klas-I-skip moet minstens die getal reddingsboeie aan boord hê wat in onderstaande tabel aangedui word:—

Lengte van skip in voet.	*Minimum getal reddingsboeie.*
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

(11) (*a*) Elke klas-I-skip moet toegerus wees met een reddingsbuis vir elke persoon aan boord van die skip.

(*b*) Benewens reddingsbuise wat ooreenkomstig paragraaf (*a*) aan boord moet wees, moet elke klas-I-skip toegerus wees met reddingsbuise vir minstens 5 persent van die getal persone wat die skip gesertifiseer is om te vervoer. Dergelike reddingsbuise moet geskik wees vir persone wat 70 pond of meer weeg en moet op die dek geberg word op 'n geskikte plek wat duidelik gemerk moet wees.

(12) 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 subregulasie (7) en van regulasie 48, en in ooreenstemming met die lengte van die skip, toegerus wees met die

but less than 1,500 persons at least one of the motor lifeboats carried in compliance with subregulation (3) shall be provided with such equipment.

(*b*) Every motor lifeboat carried in compliance with this regulation shall be provided with the equipment specified in regulation 34 (2).

(5) Every class I ship which does not carry on each side of the ship a motor lifeboat provided with the equipment specified in regulation 34 (1), shall carry portable radio equipment which shall comply with the requirements of regulation 43.

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

(7) In every class I ship, each lifeboat shall be attached to a separate set of davits which shall be of the gravity type, except that luffing type davits may be fitted for operating lifeboats weighing not more than 2¼ tons in their turning out condition.

(8) The liferafts carried in compliance with subregulation (1) (*b*), shall be served by launching appliances. There shall never be less than one such appliance on each side of the ship, and the difference in the number of appliances fitted on each side shall not exceed one.

(9) Every class I ship shall carry liferafts, which need not be served by launching appliances, of sufficient capacity to accommodate 25 per cent of the total number of persons the ship is certified to carry, together with buoyant apparatus for 3 per cent of that number: Provided that—

(*a*) if liferafts are also carried in compliance with subregulation (1) (*b*), all liferafts carried shall be of a type capable of being launched by the appliances fitted in compliance with subregulation (8); and

(*b*) a ship which has a factor of subdivision of 0·33 or less may carry, in lieu of liferafts for 25 per cent of the total number of persons which the ship is certified to carry and buoyant apparatus for 3 per cent of that number, buoyant apparatus for 25 per cent of that number.

(10) Every class I ship shall carry at least the number of lifebuoys indicated in the following table:—

Length of ship in feet.	*Minimum number of lifebuoys.*
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

(11) (*a*) Every class I ship shall carry one lifejacket for every person on board the ship.

(*b*) In addition to lifejackets carried in compliance with paragraph (*a*), every class I ship shall carry lifejackets for at least 5 per cent of the number of persons which the ship is certified to carry. Such lifejackets shall be suitable for persons weighing 70 lb or more, and shall be stowed on deck in a suitable place which shall be conspicuously marked.

(12) 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 subregulation (7) and of regulation 48, be fitted, in accordance with its length, with the number of sets of

(13) Elke klas-II-skip moet minstens die getal reddingsboeie aan boord hê wat in onderstaande tabel aangedui word:—

Lengte van skip in voet.	*Minimum getal reddingsboeie.*
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

(14) (*a*) Elke klas-II-skip moet toegerus wees met een reddingsbuis vir elke persoon aan boord van die skip.

(*b*) Benewens reddingsbuise wat ooreenkomstig paragraaf (*a*) aan boord moet wees, moet elke klas-II-skip toegerus wees met reddingsbuise vir minstens 5 persent van die getal persone wat die skip gesertifiseer is om te vervoer. Dergelike reddingsbuise moet geskik wees vir persone wat 70 pond of meer weeg en moet op dek geberg word op 'n geskikte plek wat duidelik gemerk moet wees.

(15) Elke klas-II-skip moet 'n lynwerptoestel aan boord hê.

7. *Skepe van Klas IIA.*

Die bepalings van regulasie 6 is ook van toepassing op skepe van klas IIA.

8. *Skepe van Klas III.*

Nog nie toegewys nie.

9. *Skepe van Klas IV.*

Nog nie toegewys nie.

10. *Skepe van Klas V.*

(1) Op elke klas-V-skip moet reddingsvlotte gehou word met 'n voldoende draagvermoë om al die persone aan boord van die skip te kan opneem.

(2) Elke klas-V-skip moet minstens 8 reddingsboeie aan boord hê.

(3) Elke klas-V-skip moet toegerus wees met een reddingsbuis vir elke persoon aan boord van die skip.

(4) Elke klas-V-skip moet 'n lynwerptoestel aan boord hê.

11. *Skepe van Klas VI.*

(1) Elke klas-VI-skip van 70 voet of langer moet oor sodanige bote, reddingsvlotte of drywende toestelle beskik as wat tesame met die bote wat ooreenkomstig subregulasie (2) aan boord moet wees, voldoende akkommodasie vir alle persone aan boord van die skip kan verskaf.

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

(3) Elke boot wat ooreenkomstig hierdie regulasie aan boord gehou moet word, moet aan afsonderlike davits bevestig wees.

(4) Elke klas-VI-skip wat 70 voet of langer maar korter as 150 voet is, moet minstens vier reddingsboeie aan boord hê en elke klas-VI-skip van 150 voet of langer minstens 8 reddingsboeie.

(5) Elke klas-VI-skip wat korter as 70 voet is en wat nie meer as drie myl van sy afreispunt af vaar nie, moet beskik oor 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 in die tabel in subregulasie (8) voorgeskryf: Met dien verstande dat die reddingsvlotte of drywende toestelle, tesame met die reddingsboeie, in alle gevalle voldoende moet wees om minstens 70 persent van die totale getal persone wat die skip gesertifiseer is om te vervoer, te onderskraag.

(13) Every class II ship shall carry at least the number of lifebuoys indicated in the following table:—

Length of ship in feet.	*Minimum number of lifebuoys.*
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

(14) (*a*) Every class II ship shall carry one lifejacket for every person on board the ship.

(*b*) In addition to lifejackets carried in compliance with paragraph (*a*), every class II ship shall carry lifejackets for at least 5 per cent of the number of persons which the ship is certified to carry. Such lifejackets shall be suitable for persons weighing 70 lb or more, and shall be stowed on deck in a suitable place which shall be conspicuously marked.

(15) Every class II ship shall carry a line-throwing appliance.

7. *Ships of Class IIA.*

The provisions of regulation 6 shall apply also to a class IIA ship.

8. *Ships of Class III.*

Not yet allocated.

9. *Ships of Class IV.*

Not yet allocated.

10. *Ships of Class V.*

(1) Every class V ship shall carry liferafts of sufficient capacity to accommodate all persons on board the ship.

(2) Every class V ship shall carry at least 8 lifebuoys.

(3) Every class V ship shall carry 1 lifejacket for every person on board the ship.

(4) Every class V ship shall carry a line-throwing appliance.

11. *Ships of Class VI.*

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

(2) Every class VI ship of 70 feet or over in length but of less than 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.

(3) Every boat carried in accordance with this regulation shall be attached to separate davits.

(4) Every class VI ship of 70 feet or over in length, but of less than 150 feet in length, shall carry at least 4 lifebuoys, and every class VI ship of 150 feet or over in length shall carry at least 8 lifebuoys.

(5) Every class VI ship of less than 70 feet in length and plying not more than 3 miles from its starting point, shall be provided with 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 subregulation (8), provided that the 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 korter as 70 voet is en wat meer as drie myl van sy afreispunt af vaar, moet beskik oor reddingsvlotte of drywende toestelle wat voldoende is 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 in die tabel in subregulasie (8) voorgeskryf: Met dien verstande dat die reddingsvlotte of drywende toestelle, tesame met die reddingsboeie, in alle gevalle voldoende moet wees om die totale getal persone wat die skip gesertifiseer is om te vervoer, te onderskraag.

(7) Elke klas-VI-skip moet toegerus wees met een reddingsbuis vir elke persoon aan boord van die skip.

(8) Elke klas-VI-skip waarop subregulasies (5) en (6) van toepassing is, moet minstens die getal reddingsboeie aan boord hê wat in onderstaande tabel aangedui word:

Lengte van skip in voet.	*Minimum getal reddingsboeie.*
Nie meer as 30 nie.....	2
Meer as 30, maar nie meer as 35 nie.....	4
Meer as 35, maar nie meer as 40 nie.....	6
Meer as 40, maar nie meer as 50 nie.....	8
Meer as 50, maar minder as 70.....	10

(9) Vir die toepassing van hierdie regulasie word daar beskou dat 'n reddingsboei twee persone kan onderskraag.

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

12. *Skepe van Klas VII.*

(1) Op elke klas-VII-skip van 500 ton of meer moet daar aan elke kant van die skip minstens een reddingsboot wees met 'n voldoende totale draagvermoë om alle persone aan boord van die skip op te neem.

(2) Op elke klas-VII-skip van 1,600 ton of meer moet die reddingsbote minstens 24 voet lank wees.

(3) Elke klas-VII-skip van 500 ton of meer, uitgesonderd 'n tenkskip van 1,600 ton of meer, moet minstens een reddingsvlot aan boord hê met 'n voldoende totale draagvermoë om minstens die helfte van die totale getal persone aan boord van die skip op te neem.

(4) Elke klas-VII-skip van minder as 500 ton moet een van die volgende aan boord hê:—

(*a*) Die reddingsbote in subregulasie (1) voorgeskryf vir 'n skip van 500 ton of meer, en minstens een reddingsvlot met 'n voldoende totale draagvermoë om al die persone aan boord van die skip op te neem. Sodanige skip met 16 of meer persone aan boord, moet oor minstens twee reddingsvlotte beskik; of

(*b*) 'n reddingsboot of klas-C-boot wat aan die een kant van die skip te water gelaat moet kan word, en minstens twee reddingsvlotte met 'n voldoende totale draagvermoë om dubbel die totale getal persone aan boord van die skip op te neem.

(5) Elke klas-VII-skip wat 'n tenkskip van 3,000 ton of meer is, moet aan elke kant van die skip oor minstens twee reddingsbote beskik met 'n totale draagvermoë wat voldoende is om alle persone aan boord van die skip op te neem. Twee reddingsbote moet agter en twee moet midskeeps gedra word, maar alle reddingsbote op 'n tenkskip sonder 'n midskeepse bobou moet agter gedra word: Met dien verstande dat, indien dit in die geval van 'n tenkskip sonder 'n midskeepse bobou ondoenlik is om vier reddingsbote agter te dra, die Owerheid in die plek daarvan kan toelaat dat daar op so 'n skip agter, aan elke kant, slegs een reddingsboot gedra word, en in so 'n geval is die volgende bepalings van toepassing:—

(*a*) Elke reddingsboot mag hoogstens 26 voet lank wees;

(6) Every class VI ship of less than 70 feet in length and plying more than 3 miles from its starting point, shall be provided with 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 subregulation (8), provided that the 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 shall carry one lifejacket for every person on board the ship.

(8) Every class VI ship to which subregulations (5) and (6) apply, shall carry at least the number of lifebuoys indicated in the following table:—

Length of ship in feet.	*Minimum number of lifebuoys.*
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

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

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

12. *Ships of Class VII.*

(1) Every class VII ship of 500 tons or over shall carry on each side of the ship one or more lifeboats of sufficient aggregate capacity to accommodate all persons on board the ship.

(2) In every class VII ship of 1,600 tons or over, the lifeboats shall be not less than 24 feet in length.

(3) Every class VII ship of 500 tons or over, other than a tanker of 1,600 tons or over, shall carry one or more liferafts of sufficient aggregate capacity to accommodate at least half the total number of persons on board the ship.

(4) Every class VII ship of less than 500 tons, shall carry either—

(*a*) the lifeboats prescribed in subregulation (1) for a ship of 500 tons or over and one or more liferafts of sufficient aggregate capacity to accommodate all persons on board the ship. Such a ship with 16 persons or more on board, shall carry at least 2 liferafts; or

(*b*) a lifeboat or class C boat which shall be capable of being launched on one side of the ship, and at least 2 liferafts of sufficient aggregate capacity to accommodate twice the total number of persons on board the ship.

(5) Every class VII ship being a tanker of 3,000 tons or over, shall carry on each side of the ship at least 2 lifeboats of sufficient aggregate capacity to accommodate the total number of persons on board the ship. Two lifeboats shall be carried aft and 2 amidships, except that in a tanker which has no amidships superstructure all lifeboats shall be carried aft: Provided that, if in the case of a tanker with no amidships superstructure, it is impracticable to carry 4 lifeboats aft, the Authority may permit instead the carriage aft of 1 lifeboat on each side of the ship, and in such a case the following provisions shall apply:—

(*a*) Each lifeboat shall not exceed 26 feet in length;

16. *Skepe van Klas IXA.*

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

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

17. *Vaartuie van Klas X.*

(1) Elke klas-X-skip van 150 voet of langer moet die volgende aan boord hê:—

(*a*) Minstens twee reddingsbote aan davits bevestig en sodanig ingerig dat daar minstens een reddingsboot aan elke kant van die skip is, en die reddingsbote aan elke kant van die skip moet 'n voldoende inhoud of totale draagvermoë hê om al die persone aan boord van die skip op te neem;

(*b*) minstens twee reddingsbote, aan davits bevestig en sodanig ingerig dat daar aan elke kant van die skip voldoende reddingsbootakkommodasie is vir 37½ persent van die getal persone aan boord van die skip, en reddingsvlotte wat 125 persent van die getal persone aan boord van die skip kan opneem; of

(*c*) 'n Klas-C-boot, bevestig aan 'n davit of davits, wat aan een kant van die skip te water gelaat moet kan word, en minstens twee reddingsvlotte met 'n voldoende totale draagvermoë om dubbel die getal 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.

(2) Elke klas-X-skip wat 75 voet of langer maar korter as 150 voet is, moet die volgende aan boord hê:—

(*a*) Die reddingsbote wat ooreenkomstig subregulasie (1) (*a*) vereis word;

(*b*) 'n reddingsboot, bevestig aan davits, wat aan een kant van die skip te water gelaat kan word en wat 'n voldoende draagvermoë het om al die persone aan boord van die skip op te neem, en reddingsvlotte volgens die volgende skaal:—

'n Skip met minder as 16 persone aan boord—minstens een reddingsvlot;

'n skip met 16 of meer persone aan boord—minstens twee reddingsvlotte,

wat 'n voldoende totale draagvermoë het om al die persone aan boord van die skip op te neem en sodanig geplaas is dat hulle maklik aan enige kant van die skip in die water neergelaat kan word;

(*c*) 'n Klas-C-boot, aan 'n davit of davits bevestig, wat aan een kant van die skip te water gelaat kan word, en minstens twee reddingsvlotte met 'n voldoende totale draagvermoë om minstens een en 'n half maal die getal persone aan boord van die skip op te neem, en wat sodanig geplaas is dat hulle maklik aan enige kant van die skip in die water neergelaat kan word; of

(*d*) minstens twee reddingsvlotte met 'n voldoende totale draagvermoë om minstens dubbel die getal persone aan boord van die skip op te neem, en wat sodanig geplaas is dat hulle maklik aan enige kant van die skip in die water neergelaat kan word.

(3) Op elke klas-X-skip wat reddingsbote aan boord het, moet die davits van die swaartekragtipe wees, maar davits vir die bediening van 'n reddingsboot wat hoogstens 2¼ ton weeg wanneer hy volledig uitgerus en beman is, kan van die radiale tipe wees. Op elke klas-X-skip wat 'n klas-C-boot aan boord het, moet die davits van die radiale of enkelarmtipe wees.

(4) Elke klas-X-skip wat 50 voet lank of langer maar korter as 75 voet is, moet die volgende aan boord hê:—

(*a*) Reddingsvlotte met 'n voldoende totale draagvermoë om al die persone aan boord van die skip op

16. *Ships of Class IXA.*

(1) Every class IXA ship shall carry at least 2 lifebuoys.

(2) Every class IXA ship shall carry 1 lifejacket for every person on board the ship.

17. *Vessels of Class X.*

(1) Every class X ship of 150 feet or over in length shall carry—

(*a*) at least 2 lifeboats attached to davits, so arranged that there is at least 1 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;

(*b*) at least 2 lifeboats attached to davits, so arranged that the lifeboat accommodation on each side of the ship is sufficient for 37½ per cent of the number of persons on board the ship, and liferafts to accommodate 125 per cent of the number of persons on board the ship; or

(*c*) a class C boat which shall be capable of being launched on one side of the ship attached to a davit or davits, and at least 2 liferafts of sufficient aggregate capacity to accommodate twice the number of persons on board the ship 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 of less than 150 feet in length shall carry—

(*a*) the lifeboats required by subregulation (1) (*a*);

(*b*) a lifeboat which shall be capable of being launched on one side of the ship of sufficient capacity to accommodate all the persons on board the ship, attached to davits, and liferafts on the following scale:—

A ship with less than 16 persons on board—at least 1 liferaft;

a ship with 16 or more persons on board—at least 2 liferafts;

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

(*c*) a class C boat which shall be capable of being launched on one side of the ship attached to a davit or davits, and at least 2 liferafts of sufficient aggregate capacity to accommodate not less than one and a half times the number of persons on board the ship, and so stowed that they can readily be transferred to the water on either side of the ship; or

(*d*) at least 2 liferafts of sufficient aggregate capacity to accommodate not less than twice the number of persons on board the ship, and so stowed that they can readily be transferred to the water on either side of the ship.

(3) In every class X ship which carries lifeboats, the davits shall be of the gravity type except that davits which serve a lifeboat weighing not more than 2¼ tons in the turning out condition may be of the luffing type. In every class X ship which carries a class C boat, the davits shall be of the luffing or single-arm type.

(4) Every class X ship of 50 feet or over in length but of less than 75 feet in length, shall carry—

(*a*) liferafts of sufficient aggregate capacity to accommodate all the persons on board the ship, so stowed

te neem, en wat sodanig geplaas is dat hulle maklik aan enige kant van die skip in die water neergelaat kan word; of

(*b*) drywende toestelle met 'n voldoende totale draagvermoë om al die persone aan boord van die skip te onderskraag en wat sodanig geplaas is dat hulle maklik aan enige kant van die skip in die water neergelaat kan word, tesame met 'n boot wat sodanig geplaas is dat hy maklik in die water neergelaat kan word.

(5) Elke klas-X-skip wat volledig of gedeeltelik gedek en korter as 50 voet is, moet aan boord beskik oor reddingsvlotte, drywende toestelle, reddingsboeie, of rubberbootjies, of enige verbinding daarvan, met voldoende draagvermoë om al die persone aan boord van die skip te onderskraag.

Vir die toepassing van hierdie subregulasie word geag dat een reddingsboei of rubberbootjie geskik is om twee persone te onderskraag.

(6) Elke klas-X-skip wat 'n walvisvaarder is, moet draagbare radio-uitrusting aan boord hê wat aan die vereistes van regulasie 43 voldoen.

(7) Elke klas-X-skip wat volledig of gedeeltelik gedek is, moet minstens die getal reddingsboeie aan boord hê wat in die volgende tabel aangedui word:—

Lengte van skip in voet.	*Minimum getal reddingsboeie.*
Nie meer as 40 nie.....	2
Meer as 40 maar nie meer as 75 nie.....	3
Meer as 75 maar nie meer as 100 nie.....	4
Meer as 100.....	6

(8) Elke klas-X-vaartuig wat 'n skiboot of rubberbootjie is en wat by of vanaf 'n hawe in die Republiek of vanaf enige ander plek op die kus van die Republiek werk, moet toegerus wees met 'n geskikte see-anker en kantellyn, 'n nylon- of poliëtileentou 300 voet lank en van geskikte sterkte met 'n anker van 15 pond, 'n skepper, 'n emmer, roeispane, 'n vanglyn van voldoende lengte en grootte, 'n geskikte uitrusting van gereedskap en onderdele en 'n waterdigte elektriese flitslig (2 selle).

(9) Elke klas-X-vaartuig moet toegerus wees met een reddingsbuis vir elke persoon aan boord van die vaartuig.

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

18. *Skepe van Klas XI.*

(1) Elke klas-XI-skip moet een van die volgende aan boord hê:—

(*a*) Ministens twee reddingsbote, aan davits bevestig wat sodanig ingerig is dat daar minstens een reddingsboot aan elke kant van die skip is, en die reddingsbote aan elke kant van die skip moet 'n voldoende gesamentlike draagvermoë hê om een helfte van die totale getal persone aan boord van die skip op te neem, tesame met reddingsvlotte volgens die volgende skaal:—

'n Skip met minder as 16 persone aan boord—minstens een reddingsvlot;

'n skip met 16 of meer persone aan boord—minstens twee reddingsvlotte,

met 'n voldoende gesamentlike draagvermoë om al die persone aan boord van die skip op te neem; of

(*b*) 'n reddingsboot of klas-C-boot, aan 'n davit of davits bevestig, wat aan een kant van die skip te water gelaat kan word, en minstens twee reddingsvlotte met 'n voldoende gesamentlike draagvermoë om dubbel die totale getal persone aan boord van die skip op te neem.

(2) Reddingsvlotte wat ooreenkomstig subregulasie (1) aan boord gehou word, moet so geplaas wees dat hulle maklik aan enige kant van die skip in die water neergelaat kan word.

that they can readily be transferred to the water on either side of the ship; or

(*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.

(5) Every class X ship being a wholly or partially decked ship of less than 50 feet in length, shall carry liferafts, buoyant apparatus, lifebuoys, or dinghies, or any combination of these, sufficient to support all persons on board the ship.

For the purpose of this subregulation, 1 lifebuoy or dinghy shall be deemed fit to support 2 persons.

(6) Every class X ship, being a whaling boat, shall carry portable radio equipment which shall comply with the requirements of regulation 43.

(7) Every class X ship, being a wholly or partially decked ship, shall carry at least the number of lifebuoys indicated in the following table:—

Length of ship in feet.	*Minimum number of lifebuoys.*
Not over 40.....	2
Over 40 but not over 75.....	3
Over 75 but not over 100.....	4
Over 100.....	6

(8) Every class X vessel being a ski-boat or dinghy which operates at or from a port in or from anywhere else on the coast of the Republic, shall be provided with a suitable sea anchor and tripping line, 300 feet of nylon or polyethylene rope of adequate strength with a 15 lb anchor, a bailer, a bucket, oars, a painter of sufficient length and size, a suitable kit of tools and spare parts and a waterproof electric torch (2 cells).

(9) Every class X vessel shall carry 1 lifejacket for every person on board the vessel.

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

18. *Ships of Class XI.*

(1) Every class XI ship shall carry either—

(*a*) at least 2 lifeboats, attached to davits, so arranged that there is at least 1 lifeboat on each side of the ship, the lifeboats on each side of the ship being of sufficient aggregate capacity to accommodate one half of the total number of persons on board the ship, and literafts on the following scale: —

A ship with less than 16 persons on board—at least 1 liferaft;

a ship with 16 or more persons on board—at least 2 liferafts,

of sufficient aggregate capacity to accommodate the total number of persons on board the ship; or

(*b*) a lifeboat or class C boat which shall be capable of being launched on one side of the ship, attached to a davit or davits, and at least 2 liferafts of sufficient aggregate capacity to accommodate twice the total number of persons on board the ship.

(2) Liferafts carried in accordance with subregulation (1), shall be so stowed that they can be readily transferred to the water on either side of the ship.

(2) Die getal persone wat 'n reddingsvlot wat aan die vereistes van deel I van bylae 7 voldoen, geskik geag word om op te neem, moet duidelik met blywende letters aangedui word op die reddingsvlot en op die ransel of ander houer waarin die vlot gehou word wanneer hy nie in gebruik is nie. 'n Reeksnommer en die naam van die fabrikant moet ook op elke sodanige reddingsvlot aangebring word.

(3) Op elke reddingsvlot wat aan die vereistes van deel II van bylae 7 voldoen, moet die naam van die skip aan boord waarvan hy gehou word, die naam van die hawe waar die skip geregistreer of gelisensieer is en die getal persone wat hy geskik geag word om op te neem, aangedui word.

(4) Die getal persone wat drywende toestelle geskik geag word om te onderskraag, moet duidelik met blywende letters daarop aangedui word.

28. *Reddingsboeie.*

Elke reddingsboei moet aan die vereistes van bylae 9 voldoen.

29. *Ligte en Lyne van Reddingsboeie en Drywende Toestelle.*

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

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

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

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

(5) Op elke klas-X-skip moet elke drywende toestel van 'n selfontbrandende lig voorsien wees.

(6) Die selfontbrandende ligte wat by hierdie regulasie voorgeskryf word, moet van so 'n aard wees dat hulle nie deur water uitgedoof kan word nie. Hulle moet in staat wees om vir minstens 45 minute te brand en moet 'n ligsterkte van minstens 3.5 lumens hê.

(7) Die selfontbrandende ligte bevestig aan reddingsboeie aan boord tenkskepe moet van 'n elektriese batterytipe wees.

(8) Minstens 2 van die reddingsboeie wat ooreenkomstig subregulasies (1) en (2) van selfontbrandende ligte voorsien moet wees, minstens een van die reddingsboeie wat ooreenkomstig subregulasie (3) van selfontbrandende ligte voorsien moet wees, en die reddingsboei wat ooreenkomstig subregulasie (4) 'n selfontbrandende lig moet hê, moet toegerus wees met 'n self-aktiverende rooksein wat in staat is om vir minstens 15 minute rook van 'n hoogs sigbare kleur voort te bring.

(9) Een van die reddingsboeie wat ooreenkomstig subregulasies (1) en (2) van selfontbrandende ligte en ooreenkomstig subregulasie (8) van self-aktiverende rookseine voorsien moet wees, moet aan elke kant van die navigasiebrug gedra word, en hulle moet so geplaas wees dat hulle vinnig losgehaak kan word.

(2) The number of persons which a liferaft which complies with part I of annex 7 is deemed fit to accommodate, shall be clearly marked in permanent characters on the liferaft and on the valise or other container in which the liferaft is contained when not in use. Every such liferaft shall also bear a serial number and the manufacturer's name.

(3) Every liferaft which complies with part II of annex 7, shall be marked with the name of the ship in which it is carried, with the name of the port where the ship is registered or licensed and with the number of persons it is deemed fit to accommodate.

(4) The number of persons which buoyant apparatus is deemed fit to support, shall be clearly marked on it in permanent characters.

28. *Lifebuoys.*

Every lifebuoy shall comply with the requirements of annex 9.

29. *Lifebuoy and Buoyant Apparatus Lights and Lines.*

(1) In every class I, II or IIA ship, not less than half the total number of lifebuoys carried and in no case less than 6, shall be provided with self-igniting lights.

(2) In every class VII or 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 V or 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 or XI ship, not less than half the total number of lifebuoys carried and in no case less than 2 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, 1 of the lifebuoys carried shall be provided with a self-igniting light.

(5) In every class X ship, each buoyant apparatus shall be provided with a self-igniting light.

(6) The self-igniting lights required by this regulation, shall be such that they cannot be extinguished in water. They shall be capable of burning for not less than 45 minutes and shall have a luminosity of not less than 3·5 lumens.

(7) The self-igniting lights attached to lifebuoys carried in tankers, shall be of an electric battery type.

(8) Not less than 2 of the lifebuoys required by subregulations (1) and (2) to be provided with self-igniting lights, not less than 1 of the lifebuoys required by subregulation (3) to be provided with self-igniting lights and the lifebuoy which is required by subregulation (4) to be provided with a self-igniting light, shall be provided with a self-activating smoke signal capable of producing smoke of a highly visible colour for at least 15 minutes.

(9) One of the lifebuoys required by subregulations (1) and (2) to be provided with self-igniting lights and with self-activating smoke signals by subregulation (8), shall be carried on each side of the navigating bridge and so fitted as to be capable of quick release.

Die reddingsboeie wat dienooreenkomstig aan boord gehou word en ander reddingsboeie in posisies waar die ontsteking van 'n selfontbrandende lig van die gewig van die reddingsboei afhanklik is, moet minstens 9½ pond elk weeg.

(10) Op elke skip moet 1 reddingsboei aan elke kant van die skip toegerus wees met 'n drywende reddingslyn van minstens 15 vame.

30. *Reddingsbuise.*

(1) Behoudens die bepalings van subregulasies (2) en (3), moet elke reddingsbuis wat in die Republiek verskaf word om aan boord van enige vaartuig ingevolge hierdie deel gehou te word, voldoen aan die vereistes van deel I van bylae 10 indien hy bedoel is vir 'n persoon wat 70 pond of meer weeg, en aan die vereistes van deel II van genoemde bylae indien hy bedoel is vir 'n persoon wat minder as 70 pond weeg.

(2) Elke reddingsbuis wat in 'n ander land behalwe die Republiek verskaf word om aan boord van enige vaartuig ingevolge hierdie deel gehou te word, moet òf aan die betrokke deel van bylae 10 voldoen òf in ooreenstemming wees met die regulasies wat in sodanige ander land van krag is: Met dien verstande dat die Regering van so 'n land 'n Kontrakterende Regering is kragtens die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1960.

(3) Indien 'n reddingsbuis aan boord van 'n vaartuig voldoen aan die voorskrifte wat geld in die land waar so 'n reddingsbuis uitgereik is, en die Regering van daardie land 'n Kontrakterende Regering is kragtens die Internasionale Konvensie vir die Beveiliging van Menselewens op See, 1960, moet so 'n reddingsbuis vir die toepassing van hierdie deel goedgekeur word solank hy in 'n veilige en bevredigende toestand verkeer.

31. *Lynwerptoestelle.*

Elke lynwerptoestel moet aan die vereistes van bylae 11 voldoen.

HOOFSTUK III.—VERSKAFFING VAN UITRUSTING EN RANTSOENE IN REDDINGSBOTE, KLAS-C-BOTE, BOTE EN REDDINGSVLOTTE.

32. *Uitrusting vir Reddingsbote, Klas-C-Bote en Bote.*

(1) Behoudens die bepalings van subregulasies (2), (3) en (4), moet die uitrusting van elke reddingsboot aan boord van 'n skip die volgende wees:—

(*a*) Een drywende roeispaan per roeibank, twee orige drywende roespane en 'n drywende stuurspaan, anderhalf stel roeimikke wat deur middel van 'n koord of ketting aan die reddingsboot bevestig is: 'n bootshaak;

(*b*) vir elke propgat twee proppe (behalwe waar behoorlike outomatiese kleppe aangebring is) wat deur middel van koorde of kettings aan die reddingsboot bevestig is; 'n skepper en twee emmers;

(*c*) 'n roer wat aan die reddingsboot bevestig is en 'n roerpen;

(*d*) 'n reddingslyn wat buite-om die reddingsboot vasgestrop is; middels in die vorm van kimkiele of kielrelings, asook gryplyne wat aan die dolboord onder die kiel bevestig is, om persone in staat te stel om aan die reddingsboot vas te klou ingeval hy omkeer;

(*e*) 'n geskikte toesluitkissie, duidelik as sodanig gemerk vir die opberging van klein uitrustingsartikels;

(*f*) twee handbyle, een aan elke end van die reddingsboot;

(*g*) 'n lamp met genoeg olie vir 12 uur;

(*h*) 'n waterdigte kas wat twee dosies vuurhoutjies bevat wat nie maklik deur wind doodgewaai word nie;

The lifebuoys so carried and other lifebuoys in positions where the release of a self-igniting light depends upon the weight of the lifebuoy, shall each weigh not less than 9½ lb.

(10) In every ship, 1 lifebuoy on each side of the ship shall be fitted with a buoyant life line at least 15 fathoms in length.

30. *Lifejackets.*

(1) Subject to the provisions of subregulations (2) and (3), every lifejacket supplied in the Republic for carriage on board any vessel in compliance with this part shall, if it is intended for a person weighing 70 lb or more, comply with the requirements of part I of annex 10, and if it is intended for a person weighing less than 70 lb, comply with the requirements of part II of the said annex.

(2) Every lifejacket supplied in a country other than the Republic for carriage on board any vessel in compliance with this part, shall either comply with the relative part of annex 10 or be in accordance with the regulations in force in that other country: Provided that the Government of such country is a contracting Government to the International Convention for the Safety of Life at Sea, 1960.

(3) Every lifejacket on board any vessel shall, if it complies with the requirements in force in the country in which it was issued being a country the Government of which is a contracting Government to the International Convention for the Safety of Life at Sea, 1960, be accepted for the purposes of this part for as long as such lifejacket is in a safe and sound condition.

31. *Line-throwing Appliances.*

Every line-throwing appliance shall comply with the requirements of annex 11.

CHAPTER III.—PROVISION OF EQUIPMENT AND RATIONS IN LIFEBOATS, CLASS C BOATS, BOATS AND LIFERAFTS.

32. *Equipment for Lifeboats, Class C Boats and Boats.*

(1) Subject to the provisions of subregulations (2), (3) and (4), the equipment of every lifeboat carried in a ship shall be as follows: —

(*a*) A single banked complement of buoyant oars, 2 spare buoyant oars, and a buoyant steering oar; 1 set and a half of crutches, attached to the lifeboat by lanyard or chain; a boat hook;

(*b*) two plugs for each plughole (except where proper automatic valves are fitted) attached to the lifeboat by lanyards or chains; a bailer and 2 buckets;

(*c*) a rudder attached to the lifeboat, and a tiller;

(*d*) a lifeline becketed round the outside of the lifeboat; 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 to the gunwale under the keel;

(*e*) a locker conspicuously marked as such, suitable for the stowage of small items of equipment;

(*f*) two hatchets, 1 at each end of the lifeboat;

(*g*) a lamp, with oil sufficient for 12 hours;

(*h*) a watertight box containing 2 boxes of matches not readily extinguished by wind;

4 pinte (2 liters) van 'n skepding voorsien moet word nie. Die water moet dikwels vervang word om te verseker dat dit altyd skoon en drinkbaar is. Houers moet gemerk word om hul inhoud aan te dui.

(*c*) Al die voorgeskrewe voedsel moet verpak word in geskikte waterdigte houers waarop die inhoud met etikette aangedui word.

(2) 'n Klas-C-boot of 'n reddingsboot wat as alternatief vir 'n klas-C-boot aan boord gehou word, moet voorsien word van minstens twee gellings varswater in 'n geskikte houer, tesame met 'n skepding en drinkbeker.

34. *Spesiale Uitrusting vir sekere Motorreddingsbote.*

(1) Op elke klas-I- of klas-VIIA-skip moet die motorreddingsbote wat aan regulasie 5 (4) (*a*) of 13 (4) (*a*) moet voldoen, oor die volgende uitrusting beskik:—

(*a*) Radio-uitrusting wat aan die vereistes van die Handelskeepvaart-radioregulasies, 1968, moet voldoen en daarbenewens ook aan die volgende bepalings:—

(i) Dit moet geïnstalleer word in 'n kajuit wat groot genoeg is om sowel die uitrusting as die persoon wat dit gebruik, te huisves;

(ii) die reëlings moet sodanig wees dat die doeltreffende werking van die sender en die ontvanger nie belemmer sal word deur steurings van die motorreddingsboot se enjin nie ongeag of 'n battery gelaai word of nie; en

(iii) die radiobattery mag nie gebruik word om 'n enjinaansitmotor of 'n ontstekingstelsel van krag te voorsien nie;

(*b*) 'n dinamo wat aangebring is aan die enjin van die motorreddingsboot en wat in staat is om al die batterye van die reddingsboot te herlaai.

(2) Op elke skip van klas I, II of VIIA moet die motorreddingsbote wat aan die voorskrifte van regulasie 5 (4) (*b*), 6 (4) of 13 (4) (*b*) moet voldoen, toegerus wees met 'n soeklig wat 'n lamp van minstens 80 watt en 'n doeltreffende reflektor moet insluit asook 'n kragbron wat 'n voorwerp van 'n ligte kleur en 'n breedte van sowat 60 voet op 'n afstand van 200 tree altesaam ses uur lank doeltreffend sal verlig. Die soeklig moet in staat wees om minstens drie uur aaneen te werk.

35. *Bevestiging van Uitrusting en Rantsoene in Reddingsbote, Klas-C-Bote en Bote.*

(1) Al die uitrustingsitems vir 'n reddingsboot, klas-C-boot of boot, behalwe die bootshaak wat vir wegkeerdoeleindes los gehou moet word, moet paslik binne die reddingsboot, klas-C-boot of boot bevestig word. Enige vasbindwerk moet op so 'n wyse geskied dat die veiligheid van die uitrusting verseker word en die gebruik van die hyshake, indien daar is, nie belemmer of vinnige inskeping bemoeilik sal word nie. Alle sodanige uitrustingsitems moet so klein en so lig as moontlik wees en moet in geskikte en kompakte vorm verpak wees.

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

(3) Die tenks vir die berging van die voedsel- en waterrantsoene moet duidelik gemerk word „ voedsel " of „ water ", wat ook al van toepassing mag wees.

36. *Uitrusting en Rantsoene vir Reddingsvlotte.*

(1) Behoudens die bepalings van subregulasie (2), moet die uitrusting en rantsoene waarmee elke reddingsvlot aanboord van 'n skip toegerus moet wees, uit die volgende bestaan:—

(*a*) Een drywende reddingsgooiring aan 'n drywende lyn van minstens 100 voet;

required to be provided with a dipper. The water shall be frequently changed so as to ensure that it is always clean and fit for drinking. Containers shall be marked to indicate their capacity.

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

(2) A class C boat or a lifeboat carried as alternative to a class C boat, shall be provided with at least 2 gallons of fresh water in a suitable container together with a dipper and drinking vessel.

34. *Special Equipment for Certain Motor Lifeboats.*

(1) In every class I or VIIA ship, the motor lifeboats which are required to comply with regulation 5 (4) (*a*) or 13 (4) (*a*), shall be provided with the following equipment:—

(*a*) Radio equipment which shall comply with the requirements of the Merchant Shipping Radio Regulations, 1968, and in addition the following provisions shall apply thereto:—

(i) It shall be installed in a cabin large enough to accommodate both the apparatus and the person using it;

(ii) the arrangements shall be such that the efficient operation of the transmitter and receiver shall not be impaired through interference from the engine of the motor lifeboat whether a battery is on charge or not; and

(iii) the radio battery shall not be used to supply power to any engine starting motor or ignition system;

(*b*) a dynamo fitted to the engine of the motor lifeboat and capable of recharging all batteries in the lifeboat.

(2) In every class I, II or VIIA ship, the motor lifeboats which are required to comply with regulation 5 (4) (*b*), 6 (4) or 13 (4) (*b*), shall be provided with 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 6 hours. The searchlight shall be capable of working for at least 3 hours continuously.

35. *Security of Equipment and Rations in Lifeboats, Class C Boats and Boats.*

(1) All items of equipment provided in a lifeboat, class C boat or boat, with the exception of the boat hook which shall be kept free for fending off purposes, shall be suitably secured within the lifeboat, class C boat or boat. Any 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 embarkation. All items of such equipment shall be as small and as light in weight as possible and shall be packed in suitable and compact form.

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

(3) The tanks for the food and water ration shall be conspicuously marked " food " or " water " whichever is appropriate.

36. *Equipment and Rations for Liferafts.*

(1) Subject to the provisions of subregulation (2), the equipment and rations provided in every liferaft carried in a ship shall be as follows:—

(*a*) One buoyant rescue quoit, attached to at least 100 feet of buoyant line;

(*b*) vir reddingsvlotte wat nie geskik is om meer as twaalf persone op te neem nie: een veiligheidsmes en een skepper; vir reddingsvlotte wat geskik is om dertien of meer persone op te neem: twee veiligheidsmesse en twee skeppers;

(*c*) twee sponse;

(*d*) twee see-ankers, waarvan een blywend aan die reddingsvlot bevestig en een 'n reserwe-anker met lyn moet wees;

(*e*) twee skepspane;

(*f*) een hersteluitrusting wat geskik is om lekke in die dryfafdelings te herstel, tensy die reddingsvlot aan die vereistes van deel II van bylae 7 voldoen;

(*g*) een byvullingspomp of blaasbalk, tensy die reddingsvlot aan die vereistes van deel II van bylae 7 voldoen;

(*h*) drie veiligheidsbliksnyers;

(*i*) een eerstehulpuitrusting wat aan die vereistes van deel VIII van bylae 12 voldoen;

(*j*) een roesvrye drinkbeker, gegradeer in ½, 1 en 2 onse;

(*k*) een waterdigte elektriese flitslig wat geskik is vir die gee van morseseine, tesame met een reserwestel batterye en een reserwegloeilampie, in 'n waterdigte houer;

(*l*) een spieël om seine gedurende die dag mee te gee en een fluitjie om seine mee te gee;

(*m*) twee valskermnoodvuurpylseine wat aan die vereistes van deel III van bylae 12 voldoen;

(*n*) ses handnoodfakkelseine wat aan die vereistes van deel IV van bylae 12 voldoen;

(*o*) een vislyn en ses hoeke;

(*p*) vir elke persoon wat die reddingsvlot geskik geag word om op te neem, 12 onse geskikte voedsel wat nie dors veroorsaak nie en wat minstens 2,200 kalorieë per pond gewig verskaf, en 6 onse garssuiker of ander lekkers wat net so geskik is;

(*q*) waterdigte houers wat 3 pinte (of 1½ liters) varswater bevat vir elke persoon wat die reddingsvlot geskik geag word om op te neem, waarvan een pint (of ½ liter) per persoon vervang kan word deur 'n geskikte ontsoutingstoestel wat ewe veel varswater kan lewer;

(*r*) vir elke persoon wat die reddingsvlot geskik geag word om op te neem, ses tablette teen seesiekte;

(*s*) voorskrifte, in albei die amptelike landstale van die Republiek gedruk, oor hoe om in die reddingsvlot aan die lewe te bly; en

(*t*) een eksemplaar van die geïllustreerde tabel van reddingseine in bylae 13 vermeld.

(2) Daar word nie vereis dat reddingsvlotte aan boord van 'n skip van klas V, VI of IX toegerus moet wees met die uitrusting in subregulasie (1) (*h*), (*i*), (*j*), (*k*), (*m*), (*o*), (*p*), (*q*), (*r*) en (*t*) genoem nie.

HOOFSTUK IV.—PLASING EN HANTERING VAN REDDINGSTOESTELLE.

37. *Algemene Bepalings met Betrekking tot die Plasing en Hantering van Reddingstoestelle.*

(1) Elke reddingsboot, klas-C-boot of boot, reddingsvlot of onderdeel van drywende toestelle moet sodanig geplaas wees dat hy nie die werking van ander reddingstoestelle kan belemmer of die stiptelike hantering van dergelike toestelle of die ordelike verkeer van die persone aan boord by die tewaterlatingsposte of hul inskeping op enige wyse sal bemoeilik nie.

(2) Reddingsbote, klas-C-bote of bote, reddingsvlotte en drywende toestelle moet sodanig geplaas word dat hulle almal veilig en so vinnig moontlik te water gelaat kan word, en die totale tyd vir die tewaterlating van dergelike reddingsuitrusting moet hoogstens 30 minute in beslag neem in die geval van—

(*a*) 'n skip van klas I, II, of IIA; en

(*b*) for liferafts which are fit to accommodate not more than 12 persons: 1 safety knife and 1 bailer; for liferafts which are fit to accommodate 13 persons or more: 2 safety knives and 2 bailers;

(*c*) two sponges;

(*d*) two sea anchors, one permanently attached to the liferaft and 1 spare with line;

(*e*) two paddles;

(*f*) one repair outfit capable of repairing punctures in buoyancy compartments, unless the liferaft complies with the requirements of part II of annex 7;

(*g*) one topping-up pump or bellows, unless the liferaft complies with part II of annex 7;

(*h*) three safety tin openers;

(*i*) a first-aid outfit complying with the requirements of part VIII of annex 12;

(*j*) one rust-proof drinking vessel, graduated in ½, 1 and 2 ounces;

(*k*) one waterproof electric torch suitable for morse-signalling together with 1 spare set of batteries and 1 spare bulb in a waterproof container;

(*l*) one daylight signalling mirror and 1 signalling whistle;

(*m*) two parachute distress rocket signals complying with the requirements of part III of annex 12;

(*n*) six hand-held distress flare signals complying with the requirements of part IV of annex 12;

(*o*) one fishing line and 6 hooks;

(*p*) twelve ounces of 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 the liferaft is deemed fit to accommodate;

(*q*) watertight receptacles containing 3 pints (or 1½ litres) of fresh water for each person the liferaft is deemed fit to accommodate, of which 1 pint (or ½ litre) per person may be replaced by a suitable de-salting apparatus capable of producing an equal amount of fresh water;

(*r*) six anti-seasickness tablets for each person whom the liferaft is deemed fit to accommodate;

(*s*) instructions printed in both official languages of the Republic on how to survive in the liferaft; and

(*t*) a copy of an illustrated table of life-saving signals referred to in annex 13.

(2) Liferafts carried on a class V, VI or IX ship shall not be required to be provided with the equipment specified in subregulation (1) (*h*), (*i*), (*j*), (*k*), (*m*), (*o*), (*p*), (*q*), (*r*) and (*t*).

CHAPTER IV.—STOWAGE AND HANDLING OF LIFE-SAVING APPLIANCES.

37. *General Provisions Relating to the Stowage and Handling of Life-saving Appliances.*

(1) The arrangement of each lifeboat, class C boat or boat, liferaft and article of buoyant apparatus, shall be such that it will not interfere with the operation of other life-saving appliances or impede in any way their prompt handling or the marshalling of persons at the launching stations or their embarkation.

(2) Lifeboats, class C boats or boats, liferafts and buoyant apparatus shall be so stowed that they can all be launched safely in the shortest possible time, and the overall launching period shall not exceed 30 minutes in the case of—

(*a*) a class I, II or IIA ship; and

van middels om die bevestiging van die onderste loperblokke aan die ophaalinrigtings van die boot wanneer die boot in ongunstige weersomstandighede uit die see opgehaal word, te vergemaklik. Vir hierdie doel moet elke davit toegerus word met 'n skinkel van voldoende krag en geskikte lengte, waarvan die een end aan die onderste loperblok en die ander aan die ophaalinrigting op die boot bevestig moet word. Middels moet ook verskaf word om die boot hangend te hou nadat hy opgehaal is sodat die onderste loperblok regstreeks aan die hyshaak bevestig kan word.

(18) Wanneer 'n reddingsboot op 'n skip waarop hierdie deel van toepassing is, bevestig is aan 'n stel davits, 'n davit of ander tewaterlatingsmiddel wat nie sterk genoeg is om die reddingsboot met sy volle kwota persone en die uitrusting by hierdie deel voorgeskryf onder toestande van kop- of stuurlas en van slagsy in hierdie deel vir 'n skip van so 'n klas genoem, veilig in die water neer te laat nie, of wanneer 'n klas-C-boot of boot wat nie sterk genoeg is om met sy volle kwota persone en die uitrusting by hierdie deel voorgeskryf veilig in die water neergelaat te word nie bevestig is aan 'n stel davits, 'n davit of ander tewaterlatingsmiddel, moet elke davit of ander tewaterlatingsmiddel duidelik gemerk word met 'n rooi streep ses duim breed op 'n wit agtergrond geverf.

HOOFSTUK V.—DIVERSE BEPALINGS.

39. *Plasing en Hantering van Reddingsvlotte, Drywende Toestelle, Reddingsboeie en Reddingsbuise.*

(1) Reddingsvlotte en drywende toestelle moet so geplaas word dat hulle veilig te water gelaat kan word selfs onder ongunstige toestande van kop- of stuurlas en van 'n slagsy van soveel as 15 grade aan die een of ander kant.

(2) (*a*) Op elke skip van klas I, II, IIA of VIIA wat reddingsvlotte ooreenkomstig regulasie 5 (1) (*b*), 6 (7) (*c*) of 13 (1) (*b*) aan boord het, moet daar vir sodanige reddingsvlotte tewaterlatingstoestelle verskaf word wat aan die voorskrifte van bylae 16 voldoen.

(*b*) Reddingsvlottewaterlatingstoestelle moet so ingerig wees dat elke reddingsvlot wat ontwerp is om deur so 'n toestel bedien te word, met sy volle kwota persone en volledige uitrusting aan boord in die water neergelaat kan word selfs onder ongunstige omstandighede van kop- of stuurlas en 'n slagsy van soveel as 15 grade aan die een of ander kant.

(*c*) Reddingsvlotte waarvoor tewaterlatingstoestelle verskaf word en sodanige toestelle mag nie in die boeg van 'n skip geplaas word nie en moet in sodanige posisies gestu word dat veilige tewaterlating verseker word, veral met inagneming van vryruimte tussen hulle en die skroef en steil oorhangende dele van die romp agterskeeps, en om sover doenlik te verseker dat hulle langs die reguit kant van die skip af in die water neergelaat kan word.

(*d*) Middels moet voorsien word om reddingsvlotte waarvoor tewaterlatingstoestelle verskaf is, teen die kant van die skip te bring en hulle daar te hou sodat persone veilig ingeskeep kan word.

(3) Reddingsboeie moet só geplaas word dat hulle maklik vir alle persone aan boord van die skip bekombaar is, en vinnig losgemaak kan word.

(4) Reddingsbuise moet só geplaas word dat hulle maklik vir alle persone aan boord bekombaar is. Die plek waar hulle gestu word, moet duidelik en blywend aangedui word.

40. *Inskeping in Reddingsbote, Klas-C-Bote, Bote en Reddingsvlotte.*

(1) Reëlings moet getref word om vinnige en ordelike inskeping in reddingsbote, klas-C-bote, bote en reddingsvlotte moontlik te maak.

the boat is recovered from the sea in adverse weather conditions. For this purpose a pendant of adequate strength and suitable length shall be provided for each davit, and the one end of the pendant shall be attached to the lower fall block and the other end to the lifting arrangement on the boat. Means shall in addition be provided for hanging off the boat after hoisting to enable the lower fall block to be attached directly to the lifting hook.

(18) In any ship to which this part applies, when a lifeboat is attached to any set of davits, davit, or other means of launching not of sufficient strength that the lifeboat can be safely lowered into the water when loaded with its full complement of persons and equipment required by this part under the conditions of trim and of list specified in this part for the class of ship, or when any class C boat or boat not of sufficient strength that it can be safely lowered into the water when loaded with its full complement of persons and equipment required by this part is attached to any set of davits, davit, or other means of launching, each davit or other means of launching shall be conspicuously marked with a red band 6 inches wide painted on a white background.

CHAPTER V.—MISCELLANEOUS PROVISIONS.

39. *Stowage and Handling of Liferafts, Buoyant Apparatus, Lifebuoys and Lifejackets.*

(1) Liferafts and buoyant apparatus shall be so stowed that they can be put into the water safely even under unfavourable conditions of trim and of up to 15 degrees of list either way.

(2) (*a*) In every class I, II, IIA or VIIA ship which carries liferafts in accordance with regulation 5 (1) (*b*), 6 (7) (*c*) or 13 (1) (*b*), there shall be provided for such liferafts launching appliances complying with the requirements of annex 16.

(*b*) Every liferaft launching appliance shall be so arranged that even under unfavourable conditions of trim and of up to 15 degrees of list either way, each liferaft which is designed for use with such an appliance, can be launched when loaded with its full complement of persons and equipment.

(*c*) Liferafts for which launching appliances are provided and such launching appliances, shall not be placed in the bows of the ship, and shall be so placed as to ensure safe launching having particular regard to clearance from the propeller and steeply overhanging portions of the hull aft, and to ensure so far as is practicable that they can be launched down the straight side of the ship.

(*d*) Means shall be provided for bringing liferafts, for which launching appliances are provided, against the ship's side and for holding them there for the safe embarkation of persons.

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

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

40. *Embarkation into Lifeboats, Class C Boats, Boats and Liferafts.*

(1) Arrangements shall be made to ensure that it is possible to effect embarkation into lifeboats, class C boats, boats and liferafts rapidly and in good order.

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

(3) (*a*) Op elke skip van klas VII, VIII of IX, op elke klas-X-skip van 150 voet of langer en op elke klas-XI-skip moet een leer beskikbaar wees by elke stel reddingsbootdavits waar die davits in staat is om die reddingsboot in die water neer te laat wanneer hy sy volle kwota persone en die uitrusting by hierdie deel voorgeskryf, aan boord het. Soortgelyke voorsiening moet ook gemaak word op elke skip van klas I, II of IIA en op elke klas-VIIA-skip van 500 ton of meer, maar die Owerheid kan toelaat dat sodanige lere op dergelike skepe vervang word deur geskikte maganiese toestelle: Met dien verstande dat daar minstens een leer aan elke kant van die skip beskikbaar moet wees.

(*b*) Op elke skip van klas VII, VIIA, VIII, IX, X of XI wat toegerus is met 'n klas-C-boot of 'n reddingsboot wat nie met sy volle kwota persone en die uitrusting by hierdie deel voorgeskryf in die water neergelaat kan word nie, moet middels verskaf word vir die inskeping van persone in die klas-C-boot of reddingsboot.

(*c*) Op elke skip van klas I, II of IIA en op elke skip van klas VII, VIIA of VIII van 500 ton of meer, moet genoeg lere verskaf word om inskeping in die reddingsvlotte te vergemaklik wanneer hulle drywend is maar die Owerheid kan toelaat dat party of al sodanige lere op so 'n skip deur geskikte meganiese toestelle vervang word.

(*d*) Die lere wat ingevolge hierdie subregulasie verskaf word, moet lank genoeg wees om die waterlyn te bereik wanneer die skip se seevarende diepgang op sy vlakste is en die skip 'n slagsy van 15 grade aan die een of ander kant het.

(4) Elke skip van klas I, II, IIA, VII, VIIA of VIII moet toegerus wees met middels aan die buitekant van die masjienkamer geleë, deur middel waarvan voorkom sal word dat water by vaste tewaterlatingsposte met inbegrip van dié onder tewaterlatingstoestelle, in die reddingsbote of in reddingsvlotte sal instroom.

41. *Bemanning van Reddingsbote en Reddingsvlotte.*

(1) Op elke skip van klas I, II of IIA moet 'n dekoffisier of 'n gediplomeerde reddingsbootman in bevel van elke reddingsboot geplaas word en daar moet ook 'n tweede-in-bevel aangewys word. Die persoon in bevel moet beskik oor 'n lys van die reddingsbootbemanning en moet toesien dat die persone onder sy bevel met hul onder skeie pligte vertroud is.

(2) Op elke klas-I-skip moet 'n persoon wat geoefen is in die hantering en bediening van reddingsvlotte vir elke reddingsvlot toegewys word.

(3) (*a*) Op elke klas-II- of klas-IIA-skip met reddingsvlotte aan boord wat deur middel van tewaterlatingstoestelle bedien word, moet twee persone wat geoefen is in die hantering en bediening van reddingsvlotte vir elke tewaterlatingstoestel toegewys word.

(*b*) Op elke klas-II- of klas-IIA-skip met reddingsvlotte aan boord wat nie deur middel van tewaterlatingstoestelle bedien word nie en wat in groepe by vaste tewaterlatingsposte geplaas is, moet 'n persoon wat geoefen is in die hantering en bediening van reddingsvlotte vir elke sodanige pos toegewys word.

(4) Op elke skip van klas I, II of IIA moet 'n persoon wat in staat is om die radio- en soekliguitrusting te bedien, vir elke reddingsboot wat hierdie uitrusting aan boord het, toegewys word.

(5) Op elke skip wat motorreddingsbote aan boord het, met 'n persoon wat in staat is om die motor te bedien aan elke motorreddingsboot toegewys word.

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

(3) (*a*) In every class VII, VIII or IX ship, in every class X ship of 150 feet in length or over and in every class XI ship, one ladder shall be carried at each set of lifeboat davits where the davits are capable of lowering the lifeboat when loaded with its full complement of persons and its equipment required by this part. Such provision shall also be made in every class I, II or IIA ship and in every class VIIA ship of 500 tons or over, except that in such a ship the Authority may permit such ladders to be replaced by suitable mechanical devices provided that there shall not be less than one ladder on each side of the ship.

(*b*) In every class VII, VIIA, VIII, IX, X or XI ship which carries a class C boat or a lifeboat which is not capable of being lowered into the water when loaded with its full complement of persons and its equipment required by this part, means shall be provided for embarking persons into the class C boat or lifeboat.

(*c*) In every class I, II or IIA ship and in every class VII, VIIA or VIII ship of 500 tons or over, sufficient ladders shall be provided to facilitate embarkation into the liferafts when waterborne, except that in such a ship the Authority may permit the replacement of some or all such ladders by suitable mechanical devices.

(*d*) The ladders provided in compliance with this subregulation, 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 or VIII ship, shall be provided with means situated outside the engine room whereby any discharge of water into the lifeboats or into liferafts at fixed launching positions, including those under launching appliances, can be prevented.

41. *Manning of Lifeboats and Liferafts.*

(1) In every class I, II or 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 persons placed under his orders are acquainted with their several duties.

(2) In every class I ship a person trained in the handling and operation of liferafts shall be assigned to each lifecraft.

(3) (*a*) In every class II or IIA ship carrying liferafts served by launching appliances, two persons trained in the handling and operation of liferafts shall be assigned to each launching appliance.

(*b*) In every class II or IIA ship carrying liferafts not served by launching appliances, which are stowed in groups at fixed launching positions, a person trained in the handling and operation of liferafts shall be assigned to each such position.

(4) In every class I, II or IIA ship, a person capable of working the radio equipment and searchlight equipment, shall be assigned to each lifeboat carrying such equipment.

(5) In every ship in which motor lifeboats are carried, a person capable of working the motor shall be assigned to each motor lifeboat.

42. *Gediplomeerde Reddingsbootmanne.*

(1) Die bemanning van elke skip van klas I, II of IIA moet vir elke reddingsboot wat ingevolge hierdie deel aan boord gehou word, 'n getal gediplomeerde reddingsbootmanne insluit wat minstens gelyk is aan dié wat in onderstaande tabel aangegee word:—

Voorgeskrewe getal persone in reddingsboot.	*Minimum getal gediplomeerde reddingsbootmanne.*
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 toepassing van hierdie regulasie beteken "voorgeskrewe getal persone" die getal persone wat 'n reddingsboot ooreenkomstig hierdie deel geskik geag word om op te neem.

43. *Draagbare Radio-Uitrusting.*

(1) Die draagbare radio-uitrusting wat ingevolge regulasie 5 (5), 6 (10), 12 (9) of 13 (5) aan boord moet wees, moet voldoen aan die vereistes van die Handelskeepvaartradioregulasies, 1968, wat daarop van toepassing is, en moet op 'n geskikte plek gehou word, gereed om in geval van nood na 'n reddingsboot of reddingsvlot geneem te word.

(2) Op 'n skip waar die inrigting van die bowerke of dekhuise sodanig is dat die hoofsender en die reddingsbote voor en agter op die skip taamlik ver van mekaar af is, moet draagbare radio-uitrusting gehou word in die nabyheid van dié reddingsbote of reddingsvlotte wat die verste van die hoofsender af verwyder is.

44. *Kragbediende Seine.*

Elke skip van klas I, II, IIA, VII, VIIA of VIII moet dwarsdeur van seine voorsien wees wat met elektrisiteit werk en wat vanaf die brug beheer word, om die bemanning en passasiers na die monsteringsposte te ontbied.

45. *Elektriese Verligtings.*

(1) Op elke skip van klas I, II of IIA moet 'n elektriese verligtingstelsel dwardeur die skip verskaf word, en veral op die dekke van waar reddingsbote en reddingsvlotte ingeskeep word. Op elke sodanige skip moet voorsiening ook gemaak word vir die elektriese verligting van die tewaterlatingstuig en van die reddingsbote, asook van die reddingsvlottewaterlatingstoestelle, indien hulle verskaf word, en van die reddingsvlotte wat deur hulle bedien word, terwyl voorbereidings getref word vir hul tewaterlating en gedurende die tewaterlatingsverrigting. Die water waarin die reddingsbote, en die reddingsvlotte wat deur tewaterlatingstoestelle bedien word, neergelaat word, moet ook elektries verlig word tot na afloop van die tewaterlatingsverrigting, en elektriese verligting moet ook verskaf word vir die stuwingsplekke van die reddingsvlotte waarvoor tewaterlatingstoestelle nie verskaf word nie. Hierdie verligtingstelsel moet van krag voorsien word vanaf die skip se hoofkraginstallasie en moet so ingerig wees dat krag verskaf kan word deur die noodkragbron in regulasie 42 van die Regulasies in verband met Konstruksie, 1968, vermeld.

(2) Op elke skip van klas I, II of IIA moet die uitgang uit elke hoofafdeling wat deur passasiers of bemanning betrek word, voortdurend verlig word deur middel van 'n elektriese noodlamp wat vanaf die skip se hoofkraginstallasie bedien word en sodanig ingerig is dat krag verskaf kan word deur die noodkragbron in regulasie 42 van die Regulasies in verband met Konstruksie, 1968, vermeld.

42. *Certificated Lifeboatmen.*

(1) The crew of every class I, II or IIA ship shall include, for each lifeboat carried in compliance with this part, a number of certificated lifeboatmen not less than that specified in the following table:—

Prescribed complement of lifeboat.	*Minimum number of certificated lifeboatmen.*
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, "prescribed complement" means the number of persons which a lifeboat is in accordance with this part deemed fit to carry.

43. *Portable Radio Equipment.*

(1) The portable radio equipment required to be carried in compliance with regulation 5 (5), 6 (10), 12 (9) or 13 (5), shall comply with such of the requirements of the Merchant Shipping Radio Regulations, 1968, as apply thereto, and shall be kept in a suitable place ready to be moved into a lifeboat or a liferaft in case of emergency.

(2) In a ship where the disposition of superstructures or deck houses is such as to involve substantial fore and aft separation of the main transmitter and lifeboats portable radio equipment shall be kept in the vicinity of those lifeboats or liferafts which are furthest away from the main transmitter.

44. *Electrically Operated Signals.*

Every class I, II, IIA, VII, VIIA or VIII ship shall be provided throughout the ship with electrically operated signals, controlled from the bridge, for summining the crew and passengers to muster stations.

45. *Electric Lighting.*

(1) In every class I, II or IIA ship, an electric lighting system shall be provided throughout the ship and in particular upon the decks from which lifeboats and liferafts are embarked. Provision shall also be made in every such ship for the electric lighting of the launching gear and of the lifeboats, and of the liferaft launching appliances where provided and the liferafts which they serve, during the preparation for and process of launching and also for illuminating the water into which the lifeboats and liferafts served by launching appliances are launched until the process of launching is completed, and for lighting the stowage position of liferafts for which launching appliances are not provided. The lighting shall be operated from the ship's main generating plant and shall be so arranged that power may be supplied from the emergency source of power referred to in regulation 42 of the Construction Regulations, 1968.

(2) In every class I, II or 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 42 of the Construction Regulations, 1968.

(3) (*a*) Op elke skip van klas VII, VIIA of VIII van 500 ton of meer, moet voorsiening gemaak word vir die elektriese verligting van die tewaterlatingstuig en van die reddingsbote, asook van die reddingsvlottewaterlatingstoestelle, indien hulle verskaf word, en van die reddingsvlotte wat deur hulle bedien word, terwyl voorbereidings getref word vir hul tewaterlating en gedurende die tewaterlatingsverrigting. Die water waarin die reddingsbote, en die reddingsvlotte wat deur tewaterlatingstoestelle bedien word, neergelaat word, moet ook elektries verlig word tot na afloop van die tewaterlatingsverrigting, en daar moet ook elektriese verligting wees vir die stuwingsplekke van die reddingsvlotte waarvoor tewaterlatingstoestelle nie verskaf word nie.

(*b*) Op elke skip van klas VII, VIIA of VIII van 1,600 ton of meer, moet voorsiening gemaak word vir die elektriese verligting van die loopgange, trappe en uitgange, ten einde vrye toegang tot die tewaterlatingsposte en stuwingsplekke van die reddingsbote en reddingsvlotte vir alle persone aan boord van die skip te verseker.

(*c*) Die verligting by paragrawe (*a*) en (*b*) voorgeskryf, moet vanaf die elektriese hoofkraginstallasie in werking gestel word en moet daarbenewens ook soos volg bedien kan word—

(i) op elke skip van 5,000 ton of meer, vanaf 'n elektriese noodkragbron wat vir sodanige verligting verskaf moet word, of in die geval van 'n skip waarop regulasie 112 van die Regulasies in verband met Konstruksie, 1968, van toepassing is, vanaf die elektriese noodkragbron wat by daardie regulasie voorgeskryf word;

(ii) op elke sodanige skip van 1,600 ton of meer maar minder as 5,000 ton, vanaf 'n elektriese noodkragbron wat vir sodanige verligting verskaf moet word, of in die geval van 'n skip waarop regulasie 113 van die Regulasies in verband met Konstruksie, 1968, van toepassing is, vanaf die elektriese noodkragbron wat by daardie regulasie voorgeskryf word.

(*d*) Op elke skip van klas VII, VIIA of VIII van 500 ton of meer maar van minder as 1,600 ton moet die verligting by paragraaf (*a*) voorgeskryf, bedien word vanaf die elektriese hoofkraginstallasie van die skip en daarbenewens moet dit bedien kan word vanaf 'n elektriese noodkragbron wat vir sodanige verligting verskaf moet word of, in die geval van 'n skip waarop regulasie 114 van die Regulasies in verband met Konstruksie, 1968, van toepassing is, vanaf die elektriese noodkragbron wat by daardie regulasie voorgeskryf word of, indien die Owerheid dit toelaat, vanaf die elektriese reserwekragbron wat by regulasie 13 (2) of by regulasie 23 (1) van die Handelskeepvaart-radioregulasies, 1968, voorgeskryf word, mits die ligkring maklik afgesluit kan word en genoemde reserwekragbron in staat is om addisionele lading of ladings te lewer sonder om laer te daal as die vermoë by genoemde regulasies voorgeskryf.

(4) Op elke skip van klas VII, VIIA of VIII waarop subregulasie (3) nie van toepassing is nie en op elke klas-X-skip van 75 voet of langer moet middels verskaf word vir die elektriese verligting van die tewaterlatingstuig en van reddingsbote of bote solank voorbereidings getref word vir en gedurende hul tewaterlating en ook vir die verligting van die reddingsvlotte se stuwingsplek.

46. *Identifikasiemerke van Vaartuie, Noodseine van Vaartuie, en Lys van Persone aan Boord.*

(1) *Identifikasiemerke.*—(*a*) Behoudens die bepalings van paragraaf (*b*), moet daar in die geval van elke vaartuig

(3) (*a*) In every class VII, VIIA or VIII ship of 500 tons or over, provision shall be made for the electric lighting of the launching gear and of the lifeboats and of the liferaft launching appliances, where provided, and of the liferafts which they serve, during the preparation for and process of launching and also for lighting the water into which the lifeboats, and the liferafts served by launching appliances, are launched until the process of launching is completed, and for the lighting of the stowage position of liferafts for which launching appliances are not provided.

(*b*) In every class VII, VIIA or VIII ship of 1,600 tons or over, provision shall be made for the electric lighting of the alleyways, stairways and exits, so as to ensure that access of all persons on board to the launching stations and stowage positions of lifeboats and liferafts is not impeded.

(*c*) The lighting required by paragraphs (*a*) and (*b*), shall be operated from the ship's main electric generating plant and, in addition, shall be capable of being operated—

(i) in every such ship of 5,000 tons or over, from an emergency source of electric power which shall be provided for such lighting, or in the case of any ship to which regulation 112 of the Construction Regulations, 1968, applies, from the emergency source of electric power required by that regulation;

(ii) in every such ship of 1,600 tons or over but of under 5,000 tons, from an emergency source of electric power which shall be provided for such lighting, or in the case of any ship to which regulation 113 of the Construction Regulations, 1968 applies, from the emergency source of electric power required by that regulation.

(*d*) In every class VII, VIIA or VIII ship of 500 tons or over but of less than 1,600 tons, the lighting required by paragraph (*a*) shall be operated from the ship's main electric generating plant and, in addition, shall be capable of being operated from an emergency source of electric power which shall be provided for such lighting or, in the case of any such ship to which regulation 114 of the Construction Regulations, 1968 applies, from the emergency source of electric power required by that regulation or, if the Authority so permits, the reserve source of electrical energy required by regulation 13 (2) or by regulation 23 (1) of the Merchant Shipping Radio Regulations, 1968, on condition that the lighting circuits can be readily disconnected and the said reserve source is capable of supplying additional load or loads without falling below the capacity required by the aforesaid regulations.

(4) In every class VII, VIIA or VIII ship to which subregulation (3) does not apply and in every class X ship of 75 feet or over in length, means shall be provided for the electric lighting of the launching gear and lifeboats or boats during the preparation for and process of launching and also for the lighting of the stowage position of the liferafts.

46. *Vessels' Identification Marks, Vessels' Distress Signals, and List of Persons on Board.*

(1) *Identification marks.*—(*a*) Subject to the provisions of paragraph (*b*), every class V, VI or X vessel of less than 25 tons shall be marked on a horizontal surface visible from the air, in letters not less than 12 inches in length

van klas V, VI of X van minder as 25 ton die naam van die vaartuig en—

(i) die amptelike nommer (indien enige) deur die Departement van Vervoer aan die vaartuig toegeken; en/of

(ii) die letters en nommers deur die Afdeling Seevisserye aan die vaartuig toegeken,

met letters minstens twaalf duim lank en van eweredige wydte en dikte in ligte kleur op 'n donker agtergrond, of omgekeerd, op 'n horisontale oppervlak wat uit die lug sigbaar is, aangebring word.

(*b*) Indien dit prakties ondoenlik is om die vaartuig ooreenkomstig die bepalings van paragraaf (*a*) te merk, moet 'n doek van seil of ander geskikte materiaal van voldoende grootte, wat ooreenkomstig voornoemde bepalings gemerk is, aan boord gehou word, en die doek moet vertoon word wanneer die vaartuig in nood verkeer en 'n vliegtuig aankom om hulp te verleen.

(*c*) Op drywende uitrusting aan boord van 'n vaartuig in paragraaf (*a*) vermeld, moet een of meer van die merke in genoemde paragraaf uiteengesit, aangebring word.

(2) *Noodseine.*—(*a*) Elke skip van klas I, II, IIA, VII, VIIA of VIII, en elke klas-X- of klas-XI-skip van 50 voet of langer, moet minstens 12 valskermnoodvuurpylseine wat aan die voorskrifte van bylae 17 voldoen, aan boord hê.

(*b*) Elke klas-V- of klas-VI-skip, elke klas-X-skip wat 25 voet lank of langer maar korter as 50 voet is, elke klas XI-skip wat korter as 50 voet is en elke klas-IX- of klas-XII-skip, moet toegerus wees met minstens 12 pirotegniese noodseine wat òf valskermnoodvuurpylseine is wat aan die vereistes van deel III van bylae 12 voldoen òf rooisternoodseine is. Elke sodanige rooisternoodsein moet twee of meer rooi sterre tegelykertyd of afsonderlik op of tot 'n hoogte van minstens 150 voet in die lug kan stuur, en elkeen van dié sterre moet vir minstens vyf sekondes met 'n minimum ligsterkte van 5,000 kerskrag kan brand.

(*c*) Elke klas-X-vaartuig van minder as 25 voet moet toegerus wees met minstens 6 handnoodfakkelseine wat aan die vereistes van deel IV van bylae 12 voldoen.

(*d*) Elke klas-V- of klas-VI-skip moet toegerus wees met minstens 6 drywende rookseine en elke klas-X-vaartuig van minder as 50 voet met minstens twee drywende rookseine wat aan die vereistes van deel V van bylae 12 voldoen.

(*e*) Alle pirotegniese noodseine moet in 'n waterdigte houer verpak wees en moet duidelik en onuitwisbaar gemerk wees om hul doel aan te dui.

(*f*) 'n Eksemplaar van die geïllustreerde tabel in bylae 13 vermeld, moet op elke vaartuig maklik bekombaar wees.

(3) *Lys van persone aan boord.*—Die gesagvoerder of eienaar van elke skip wat nie 'n ooreenkoms met die bemanning van die skip aangegaan het nie, moet 'n lys opstel en onderteken waarin die naam en adres van elke persoon aan boord van die skip aangegee word. Ten opsigte van elke persoon aan boord moet daar aangedui word of hy 'n lid van die bemanning of 'n passasier is. Voordat die skip ter see uitvaar, moet genoemde lys by die bevoegde beampte, hawe-owerheid of persoon deur die bevoegde beampte benoem, ingedien word.

HOOFSTUK VI.—EKWIVALENTE, VERGUNNINGS EN VRYSTELLINGS.

47. *Ekwivalente, en Goedkeuring van tipes Reddingsuitrusting.*

(1) Waar in hierdie deel voorgeskryf word dat 'n bepaalde of 'n bepaalde tipe uitrusting, materiaal, toestel

and of proportionate breadth and thickness, in light colour on a dark background or vice versa, with the name of the vessel and—

(i) the official number (if any) allocated by the Department of Transport; and/or

(ii) the letters and numbers allocated by the Division of Sea Fisheries.

(*b*) If it is not practicable to mark the vessel in accordance with the provisions of paragraph (*a*), it shall carry on board a sufficiently large sheet of canvas or other suitable material marked in accordance with the said provisions. Such sheet shall be displayed upon the approach of an aircraft when the vessel is in need of assistance.

(*c*) Flotation equipment carried on a vessel referred to in paragraph (*a*), shall be marked with one or more of the markings set forth in the said paragraph.

(2) *Distress signals.*—(*a*) Every class I, II, IIA, VII, VIIA or VIII ship, and every class X or XI ship of 50 feet or over in length, shall carry at least 12 parachute distress rocket signals which shall comply with the requirements of annex 17.

(*b*) Every class V or VI ship, every class X ship of 25 feet or over butt less than 50 feet in length, every class XI ship of less than 50 feet in length and every class IX or XII ship, shall carry at least 12 pyrotechnic distress signals which shall be either parachute distress rocket signals complying with the requirements of part III of annex 12 or red star distress signals. Every such red star distress signal shall be capable of emitting 2 or more red stars either together or separately at or to a height of not less than 150 feet, and each of these stars shall burn with a minimum luminosity of 5,000 candle power for not less than five seconds.

(*c*) Every class X vessel of less than 25 feet in length shall carry at least 6 hand-held distress flare signals complying with the requirements of part IV of annex 12.

(*d*) Every class V or VI ship shall carry at least 6 and every class X vessel of less than 50 feet in length shall carry at least 2 buoyant smoke signals which shall comply with the requirements of part V of annex 12.

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

(*f*) A copy of the illustrated table referred to in annex 13 shall be readily available in every vessel.

(3) *List of persons on board.*—The master or owner of every ship who has not entered into an agreement with the crew of the ship, shall make out and sign a list setting forth the name and address of each person on board the ship. The list shall indicate in respect of each person on board whether he is a member of the crew or a passenger. The said list shall be handed to the proper officer, port authority or person nominated by the proper officer before the ship proceeds to sea.

CHAPTER VI.—EQUIVALENTS, CONCESSIONS AND EXEMPTIONS.

47. *Equivalents and Approval of Types of Life-saving Equipment.*

(1) Where this part requires that a particular fitting, material, appliance or apparatus, or type thereof, shall be

of apparaat op 'n vaartuig aangebring of aan boord daarvan moet wees, of dat 'n bepaalde voorsiening gemaak moet word, kan die Owerheid toelaat dat 'n ander of 'n ander tipe uitrusting, materiaal, toestel of apparaat aangebring of aan boord gehou word, of dat 'n ander voorsiening in daardie vaartuig gemaak word, mits hy oortuig is dat sodanige ander uitrusting, materiaal, toestel of apparaat, of tipe daarvan, of voorsiening, minstens net so doeltreffend is as dié wat by hierdie deel voorgeskryf word.

(2) Die Sekretaris kan enige tipe reddingsuitrusting goedkeur vir gebruik op 'n vaartuig wat aan die Republiek behoort indien dit na sy mening aan die vereistes van hierdie deel voldoen.

48. *Vergunning betreffende Davits.*

Indien dit op versoek van die eienaar van enige skip vir die Owerheid voorkom dat dit nie doenlik of redelik is om op daardie skip die getal stelle davits aan te bring wat by hierdie deel voorgeskryf word nie, kan hy toelaat dat op daardie skip van een of meer stelle davits afgesien word, behoudens sodanige voorwaardes, indien enige, as wat hy nodig mag ag: Met dien verstande dat, in die geval van 'n klas-II- of klas-IIA-skip die getal stelle davits, behoudens die bepalings van regulasie 6 (1) en (7), gelees saam met regulasie 7, onder geen omstandighede minder mag wees as die minimum getal bepaal in kolom B van die tabel wat in bylae 1 uiteengesit word nie.

49. *Vergunning betreffende die Akkommodasie wat deur Reddingsbote, Reddingsvlotte en Drywende Toestelle verskaf word.*

Indien 'n klas-I-skip ooreenkomstig sy veiligheidsertifikaat toegelaat word om tussen gespesifiseerde hawens of plekke in die buiteland 'n groter getal passasiers te vervoer as wat toegelaat word wanneer die skip vanaf die Republiek ter see uitvaar, kan die Owerheid, behoudens voorwaardes wat hy mag goed ag, wysigings van die bepalings van regulasie 5 (1) en (9) (wat op reddingsbote, reddingsvlotte en drywende toestelle betrekking het), toelaat met betrekking tot die gedeelte van die reis tussen sodanige gespesifiseerde hawens en plekke: Met dien verstande dat waar sulke wysigings toegelaat word, die totale getal reddingsbote, tesame met sodanige reddingsvlotte aan boord, altyd voldoende moet wees vir die totale getal persone wat die skip gesertifiseer is om te vervoer, en dat voldoende reddingsvlotte daarbenewens aan boord moet wees om 10 persent van daardie getal persone te onderskraag.

50. *Vrystelling ten opsigte van Draagbare Radio-uitrusting.*

Die Owerheid kan enige klas-II- of klas-IIA-skip van die vereistes van regulasie 6 (10), gelees met regulasie 7, of enige klas-VII- of klas-VIII-skip van die vereistes van regulasie 12 (9), gelees met regulasie 14, of enige klas-VIIA-skip van die vereistes van regulasie 13 (5), ten opsigte van draagbare radio-uitrusting, vrystel indien die skip gebruik word op reise van sodanige korte duur dat sodanige uitrusting na sy mening onnodig is.

51. *Vergunning betreffende die grootte van Reddingsbote of bote.*

Indien dit prakties ondoenlik of onredelik vir 'n skip sou wees om 'n reddingsboot of boot van die minimum lengte wat by hierdie deel voorgeskryf word, aan boord te hê, kan die owerheid toelaat dat 'n kleiner reddingsboot of boot op daardie skip gedra word.

52. *Vrystelling ten opsigte van 'n Vaartuig wat gebou is voor die Inwerkingtreding van hierdie Deel.*

Die Owerheid kan enige vaartuig wat gebou is voor die inwerkingtreding van hierdie deel, behoudens sodanige

fitted or carried in a vessel, or that any particular provision shall be made, the Authority may allow any other fitting, material, appliance, apparatus, or type thereof, to be fitted or carried, or any other provision to be made in that vessel if he is satisfied that such other fitting, material, appliance or apparatus, or type thereof, or provision, is at least as effective as that required by this part.

(2) The Secretary may approve any type of life-saving equipment for use on a vessel belonging to the Republic which in his opinion complies with the requirements of this part.

48. *Concession Regarding Davits.*

If it appears to the Authority 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 1 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 a class II or IIA ship, the number of sets of davits shall, subject to the provisions of regulation 6 (1) and (7) read with regulation 7, in no case be less than the minimum number determined by column B of the table set forth in annex 1.

49. *Concession Regarding the Accommodation Provided by Lifeboats, Liferafts 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 Republic, the Authority 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 regulation 5 (1) and (9) (which relate to lifeboats, liferafts and buoyant apparatus): Provided that where such modifications are allowed, the total number of lifeboats together with such liferafts as are carried, shall always be sufficient for the total number of persons which the ship is certified to carry, and in addition liferafts shall be carried sufficient to support 10 per cent of that number of persons.

50. *Exemption in Respect of Portable Radio Equipment.*

The Authority may exempt any class II or IIA ship from the requirements of regulation 6 (10) read with regulation 7, or any class VII or VIII ship from the requirements of regulation 12 (9) read with regulation 14 or any class VIIA ship from the requirements of regulation 13 (5), in respect of portable radio equipment, if the ship is engaged on voyages of such duration that in his opinion such equipment is unnecessary.

51. *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 Authority may allow a smaller lifeboat or boat to be carried by that ship.

52. *Exemption in Respect of Vessel Constructed Before the Coming Into Force of this Part.*

The Authority may, on such conditions as he thinks fit, exempt any vessel constructed before the coming into

voorwaardes as wat hy nodig ag, van enige van die vereistes van hierdie deel vrystel indien hy daarvan oortuig is dat voldoening aan daardie vereiste in die geval van daardie vaartuig òf prakties ondoenlik òf onredelik is.

53. *Algemene Vrystelling ten opsigte van sekere Vaartuie.*

(1) Die Owerheid 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 so 'n skip voldoen aan die veiligheidsvereistes wat na die mening van die Owerheid voldoende is vir die reis wat deur die skip onderneem moet word.

(2) Die Owerheid kan, behoudens sodanige voorwaardes as wat hy nodig mag ag, 'n vaartuig wat nie op internasionale reise gebruik word nie van enige van die vereistes van hierdie deel vrystel.

DEEL II.—BRANDTOESTELLE.

HOOFSTUK I.—SKEPE VAN KLAS I.

54. *Rondediens, Brandalarm- en Brandverklikstelsels.*

(1) (*a*) Op elke klas-I-skip moet 'n doeltreffende rondediens in stand gehou word sodat enige uitbreek van brand onmiddellik ontdek kan word. Elke brandpatrolleerder moet opgelei word sodat hy vertroud is met die inrigtings van die skip, asook met die ligging en werking van enige uitrusting wat hy geroepe mag word om te gebruik.

(*b*) Brandalarmtoestelle wat met die hand bedien word, moet dwarsdeur die passasiers- en bemanningsruimtes aangebring word om die brandpatrolleerders in staat te stel om onmiddellik by die navigasiebrug of brandbeheerpos alarm te maak. 'n Spesiale alarm om die bemanning te ontbied, moet aangebring word en dit kan deel van die skip se algemene alarmstelsel uitmaak. 'n Luidsprekerstelsel of ander doeltreffende kommunikasiemiddel moet ook dwarsdeur die akkommodasie-, openbare en diensruimtes geïnstalleer word.

(2) Op elke klas-I-skip moet daar in enige deel van die skip wat nie vir die brandpatrolleerders toeganklik is nie 'n brandverklikstelsel verskaf word wat voldoen aan die vereistes in regulasie 113 voorgeskryf.

55. *Brandpompe, Watertoevoerpype, Brandkrane, Brandslange en Spuitstukke.*

(1) Elke klas-I-skip moet ooreenkomstig hierdie regulasie voorsien word van toestelle deur middel waarvan minstens twee strale water, soos in hierdie deel voorgeskryf, enige deel van die skip wat normaalweg toeganklik is vir die passasiers of bemanning terwyl die skip voortvaar, en enige pakkamer en enige deel van 'n vragruimte wanneer dié leeg is, kan bykom.

(2) Elke klas-I-skip van 4,000 ton of meer moet voorsien word van minstens drie kragbediende brandpompe, en elke klas-I-skip van minder as 4,000 ton van minstens twee sodanige pompe. Elke sodanige pomp moet in staat wees om minstens een straal water gelyktydig te lewer vanaf elk van enige twee brandkrane, brandslange en spuitstukke wat op die skip aangebring is, en moet aan die vereistes van regulasie 104 voldoen.

(3) (*a*) Op elke klas-I-skip van 1,000 ton of meer moet die inrigting van die see-aansluitings, pompe en die kragbron waarmee hulle bedien word, sodanig wees dat daar verseker word dat 'n brand in die een of ander enkele afdeling nie al die brandpompe buite werking sal stel nie.

(*b*) Indien 'n brand in die een of ander afdeling op 'n klas-I-skip van minder as 1,000 ton al die brandpompe buite werking kan stel, moet daar op 'n plek buite die

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 vessel.

53. *General Exemption in Respect of Certain Vessels.*

(1) The Authority 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.

(2) The Authority may, on such conditions as he thinks fit, exempt any vessel which does not engage on an international voyage, from any of the requirements of this part.

PART II.—FIRE APPLIANCES.

CHAPTER I.—SHIPS OF CLASS I.

54. *Fire Patrol, Alarm and Detection Systems.*

(1) (*a*) In every class I ship, an efficient patrol system shall be maintained so that any outbreak of fire may be promptly detected. Each member of the patrol shall be trained to be familiar with the arrangements of the ship as well as the location and operation of any equipment he may be called upon to use.

(*b*) 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 navigating bridge or fire control station. A special alarm to summon the crew shall be fitted which may be part of the ship's general alarm system. A public address system or other effective means of communication shall also be fitted throughout the accommodation, public and service spaces.

(2) In every Class I ship, there shall be provided in any part of the ship which is not accessible to the fire patrol, a fire detection system complying with the requirements specified in regulation 113.

55. *Fire Pumps, Water Service Pipes, Hydrants, Hoses and Nozzles.*

(1) Every class I ship shall be provided with appliances in accordance with this regulation whereby at least 2 jets of water as required by this part, can reach any part of the ship normally accessible to the passengers or crew while the ship is being navigated and any store room and any part of any cargo space when empty.

(2) 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 less than 4,000 tons shall be provided with at least 2 such pumps. Each such pump shall be capable of delivering at least 1 jet simultaneously from each of any 2 hydrants, hoses and nozzles provided in the ship and shall comply with the requirements of regulation 104.

(3) (*a*) In every class I ship of 1,000 tons or over, the arrangement of the 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.

(*b*) If, in any class I ship of less than 1,000 tons, a fire in any one compartment could put all the fire pumps out of action, there shall be provided in a position outside

masjinerieruimtes 'n onafhanklik aangedrewe, kragbediende noodbrandpomp, tesame met die kragbron en see-aansluiting daarvan, verskaf word. So 'n pomp moet in staat wees om minstens twee strale water te lewer vanaf enige twee brandkrane en brandslange deur spuitstukke wat aan regulasie 106 (4) (*b*) voldoen, terwyl dit tegelykertyd 'n drukking van minstens 30 pond per vierkante duim by enige brandkraan op die skip handhaaf.

(4) Op elke klas-I-skip moet 'n hoofbrandpyp, watertoevoerpype, brandkrane, brandslange en spuitstukke verskaf word wat sodanig ingerig is dat hulle aan die vereistes van regulasies 105 en 106 voldoen wanneer alle waterdigte deure en alle deure in beskotte gebou ooreenkomstig regulasie 50 (1) van die regulasies in verband met Konstruksie, 1968, toe is.

(5) Op elke klas-I-skip moet daar minstens een brandslang wees vir elke brandkraan wat ingevolge hierdie deel aangebring word, en al dergelike brandslange moet te alle tye by die brandkrane aangesluit wees.

(6) Op elke klas-I-skip wat uitgerus is met oliegestookte ketels of aandrywingsmasjinerie van die binnebrandtipe moet minstens twee brandkrane, een aan die bakboord- en een aan die stuurboordkant, in elke ruimte wat dergelike ketels of masjinerie bevat, aangebring word. Op elke sodanige skip waar toegang tot die masjinerieruimte deur middel van 'n skroefaskoker verkry word, moet daar nog 'n brandkraan aangebring word aan die uiteinde van die koker naasgeleë aan die masjinerieruimte. Elke brandslang by elke brandkraan wat ingevolge hierdie deel in sodanige ruimtes aangebring word, moet toegerus wees met 'n sproeispuitstuk. By alle brandkrane buite die masjinerieruimtes moet sproeispuitstukke of tweedoelspuitstukke verskaf word wat maklik vir brandbestryding in die masjinerieruimtes gebruik kan word.

56. *Draagbare Brandblussers in Akkommodasie- en Diensruimtes.*

(1) Op elke klas-I-skip moet daar op elke dek 'n voldoende getal draagbare brandblussers verskaf word sodat minstens twee daarvan maklik bekombaar is vir gebruik in elke akkommodasie- en diensruimte tussen waterdigte beskotte en beskotte wat ingevolge regulasie 50 (1) van die Regulasies in verband met Konstruksie, 1968, gebou is. In ingeslote akkommodasie- en diensruimtes bokant die beskotdek moet minstens een sodanige brandblusser verskaf word wat aan weerskante van die skip in dergelike ruimtes gebruik kan word. Daarbenewens moet elke kombuis toegerus wees met minstens een draagbare brandblusser en een asbeskombers: Met dien verstande dat minstens twee sodanige brandblussers en twee sodanige asbeskomberse verskaf moet word in gevalle waar die oppervlak van die dekgebied van 'n kombuis meer as 500 vierkante voet beslaan.

(2) Op elke klas-I-skip moet minstens een draagbare brandblusser vir gebruik in elke beheerpos verskaf word.

57. *Vaste Brandsmoorinrigtings in Vragruimtes.*

Elke klas-I-skip van 1,000 ton of meer moet toegerus wees met 'n vaste brandsmorende gasinstellasie wat aan die vereistes van regulasie 111 voldoen en wat sodanig ingerig is dat elke vragruimte daarmee beskerm kan word.

58. *Masjinerieruimtes wat Oliegestookte Ketels of Olieverbruikende Uitrusting bevat.*

(1) Op elke klas-I-skip moet daar vir die beskerming van enige ruimte wat 'n oliegestookte ketel, oliebrandstofbesinktenk of oliebrandstofeenheid bevat minstens een van die volgende vaste brandblusinstallasies aangebring word:—

(*a*) 'n Drukwatersproeistelsel wat aan die vereistes van regulasie 110 voldoen;

the machinery spaces, an independently driven power-operated emergency fire pump and its source of power and sea connection. Such pump shall be capable of producing at least 2 jets of water from any 2 hydrants and hoses through nozzles which shall comply with regulation 106 (4) (*b*), while simultaneously maintaining a pressure of at least 30 lb per square inch at any hydrant in the ship.

(4) In every class I ship, there shall be provided a fire main, water service pipes, hydrants, hoses and nozzles, which shall be so arranged that they comply with the requirements of regulations 105 and 106 when all watertight doors and all doors in bulkheads constructed in accordance with regulation 50 (1) of the Construction Regulations, 1968, are closed.

(5) In every class I ship, at least 1 fire hose shall be provided for every hydrant fitted in compliance with this part. All such fire hoses shall be connected to fire hydrants at all times.

(6) In every class I ship fitted with oil fired boilers or internal combustion type propelling machinery, there shall be provided in each space containing such boilers or machinery, at least 2 fire hydrants, one on the port side and one on the starboard side. In addition, in any such ship in which there is access to the machinery space by way of a shaft tunnel, a fire hydrant shall be provided in the tunnel at the end adjacent to that space. A spray nozzle shall be provided for every fire hose at every hydrant fitted in such spaces in compliance with this part. Spray nozzles or dual purpose nozzles shall be provided at all hydrants outside the machinery spaces which could be readily used for the purpose of fighting a fire inside the machinery spaces.

56. *Portable Fire Extinguishers in Accommodation and Service Spaces.*

(1) In every class I ship, there shall be provided on each deck a sufficient number of portable fire extinguishers so that at least 2 of these shall be readily available for use in every accommodation and service space between watertight bulkheads and bulkheads constructed in compliance with regulation 50 (1) of the Construction Regulations, 1968. In enclosed accommodation and service spaces above the bulkhead deck, at least 1 such extinguisher shall be provided for use on each side of the ship in such spaces. In addition, at least 1 portable fire extinguisher and an asbestos blanket shall be provided in every galley: Provided that, where the superficial deck area of any galley exceeds 500 square feet, at least 2 such extinguishers and 2 such blankets shall be provided.

(2) In every class I ship, at least 1 portable fire extinguisher shall be provided for use in each control station.

57. *Fixed Fire Smothering Arrangements in Cargo Spaces.*

In every class I ship of 1,000 tons or over, there shall be provided a fixed fire smothering gas installation complying with the requirements of regulation 111, which shall be so arranged as to protect every cargo space.

58. *Machinery Spaces Containing Oil-fired Boilers or Oil-burning Equipment.*

(1) In every class I ship, there shall be provided for the protection of any space containing any oil-fired boiler, oil fuel settling tank or oil fuel unit, at least 1 of the following fixed fire extinguishing installations:—

(*a*) A pressure water spraying system complying with the requirements of regulation 110;

(*b*) 'n brandsmorende gasinstallasie wat aan die vereistes van regulasie 111 voldoen; of

(*c*) 'n skuimbrandblusinstallasie wat aan die vereistes van regulasie 112 voldoen.

Indien die masjien- en ketelkamers nie geheel en al deur 'n beskot van mekaar geskei word nie, of indien brandstofolie vanaf die ketelkamer na die masjienkamer kan dreineer, moet die gekombineerde masjien- en ketelkamers vir die toepassing van hierdie subregulasie as een ruimte beskou word.

(2) Benewens die vereistes van subregulasie (1) moet die volgende verskaf word:—

(*a*) In elke ketelkamer, een of meer skuimbrandblussers met 'n inhoudsvermoë van minstens 30 gellings elk, of koolsuurgasbrandblussers met 'n inhoudsvermoë van minstens 100 pond elk. Die brandblussers moet so geleë wees dat hulle maklik bekombaar is in geval van 'n brand, en hulle moet voldoende in getal wees sodat skuim of koolsuurgas op enige deel van die ketelkamer en ruimtes wat enige deel van die oliebrandstofinstallasie bevat, gerig kan word;

(*b*) in elke stookruimte en in elke ruimte wat enige deel van 'n oliebrandstofinstallasie bevat, minstens twee draagbare brandblussers wat geskik is om oliebrande te blus; en

(*c*) in elke stookruimte, 'n houer met minstens 10 kubieke voet sand of ander droë materiaal wat geskik is om oliebrande te blus, tesame met 'n skepgraaf vir die verspreiding van die houer se inhoud of, as alternatief, nog 'n draagbare brandblusser wat geskik is om oliebrande te blus.

59. *Masjinerieruimtes wat Masjinerie van die Binnebrandtipe bevat.*

(1) Vir die beskerming van enige ruimte wat masjinerie van die binnebrandtipe bevat wat vir hoofaandrywingsdoeleindes gebruik word of wat globaal 'n totale krag van minstens 1,000 remperdekrag vir hulpdoeleindes het, moet elke klas-I-skip toegerus wees met minstens een van die vaste brandblusinstallasies wat ooreenkomstig regulasie 58 (1) vereis word.

(2) Benewens die vereistes van subregulasie (1) moet die volgende in enige sodanige ruimte verskaf word:—

(*a*) Een skuimbrandblusser met 'n inhoudsvermoë van minstens 10 gelling of 'n koolsuurgasbrandblusser met 'n inhoudsvermoë van minstens 35 pond; en

(*b*) een draagbare brandblusser wat geskik is om oliebrande vir elke 1,000 remperdekrag van sodanige masjinerie of deel daarvan te blus, maar onder geen omstandighede minder as twee sodanige brandblussers nie: Met dien verstande dat hoogstens ses sodanige brandblussers vir enige sodanige ruimte voorgeskryf word.

60. *Masjinerieruimtes wat Stoommasjiene bevat.*

Op elke klas-I-skip moet daar in ruimtes wat stoomturbines of ingeslote druksmeringstoommasjiene bevat wat vir hoofaandrywingsdoeleindes gebruik word of wat globaal 'n totale krag van minstens 1,000 remperdekrag vir hulpdoeleindes het, die volgende verskaf word:—

(*a*) Skuimbrandblussers, elk met 'n inhoudsvermoë van minstens 10 gellings, of koolsuurgasbrandblussers, elk met 'n inhoudsvermoë van minstens 35 pond, voldoende in getal om te verseker dat skuim of koolsuurgas gerig kan word op enige deel van die druksmeringstelsel en op enige deel van die kaste wat die druksmeringsgedeeltes van die turbines, masjiene of verwante ratwerk, indien daar is, omsluit: Met dien verstande dat dergelike brandblussers nie vereis word nie indien ekwivalente beskerming in

(*b*) a fire smothering gas installation complying with the requirements of regulation 111; or

(*c*) a foam fire extinguishing installation complying with the requirements of regulation 112.

If the engine and boiler rooms are not entirely separated from each other by a bulkhead, or if fuel oil can drain from the boiler room into the engine room, the combined engine and boiler rooms shall, for the purpose of this subregulation, be regarded as a single space.

(2) In addition to the requirements of subregulation (1), there shall be provided—

(*a*) in each boiler room, 1 or more foam fire extinguishers each of at least 30 gallons capacity or carbon dioxide fire extinguishers each of at least 100 lb capacity. The extinguishers shall be sited so as to be readily accessible in the event of fire, and they shall be sufficient in number to enable foam or carbon dioxide to be directed on to any part of the boiler room and spaces containing any part of the oil fuel installation;

(*b*) in each firing space and in each space which contains any part of any oil fuel installation, at least 2 portable fire extinguishers suitable for extinguishing oil fires; and

(*c*) in each firing space, a receptacle containing at least 10 cubic feet of sand or other dry material suitable for quenching oil fires together with a scoop for its distribution, or, alternatively, an additional portable fire extinguisher suitable for extinguishing oil fires.

59. *Machinery Spaces Containing Internal Combustion Type Machinery.*

(1) In every class I ship, there shall be provided for the protection of any space containing internal combustion type machinery used for main propulsion, or having in the aggregate a total power of not less than 1,000 b.h.p. for auxiliary purposes, at least one of the fixed fire extinguishing installations required by regulation 58 (1).

(2) In addition to the requirements of subregulation (1), there shall be provided in any such space—

(*a*) one foam fire extinguisher of at least 10 gallons capacity or a carbon dioxide fire extinguisher of at least 35 lb capacity; and

(*b*) one portable fire exinguisher suitable for extinguishing oil fires for each 1,000 b.h.p. or part thereof of such machinery, but in no event less than 2 such extinguishers: Provided that not more than 6 such extinguishers shall be required in any such space.

60. *Machinery Spaces Containing Steam Engines.*

In every class I ship, there shall be provided in spaces containing steam turbines or enclosed pressure lubricated steam engines used either for main propulsion, or having in the aggregate a total power of not less than 1,000 b.h.p. for auxiliary purposes:—

(*a*) Foam fire extinguishers each of at least 10 gallons capacity or carbon dioxide fire extinguishers each of at least 35 lb capacity, sufficient in number to enable foam or carbon dioxide to be directed on to any part of the pressure lubrication system and on to any part of the casings enclosing pressure lubricated parts of the turbines, engines or associated gearing, if any: Provided that such extinguishers shall not be required if equivalent protection

sodanige ruimtes verskaf word deur middel van 'n vaste brandblusinstallasie wat ingevolge regulasie 58 (1) of 59 (1) aangebring word; en

(*b*) vir elke 1,000 remperdekrag van sodanige masjinerie of deel daarvan, een draagbare brandblusser wat geskik is om oliebrande te blus, maar onder geen omstandighede minder as twee sodanige brandblussers nie: Met dien verstande dat hoogstens ses sodanige brandblussers vir enige sodanige ruimte voorgeskryf word; met dien verstande voorts dat dergelike brandblussers nie vereis word benewens dié wat ingevolge regulasie 59 (2) verskaf moet word nie.

61. *Uitrustings vir Brandweermanne.*

(1) Elke klas-I-skip moet een brandweermansuitrusting vir elke 100 voet (of deel daarvan) van die geregistreerde lengte van die skip aan boord hê, maar onder geen omstandighede minder as twee sodanige uitrustings nie. Elke sodanige uitrusting moet aan die vereistes van regulasie 114 voldoen.

(2) Indien daar op 'n klas-I-skip wat toegerus is met brandweermansuitrustings wat slegs asemhaaltoestelle van die lugslangtipe bevat, 'n lugslang langer as 120 voet nodig sou wees om vanaf die oop dek, deeglik weg van enige luik of deuropening, tot in enige deel van die akkommodasie-, diens-, vrag- of masjinerieruimtes te reik, moet minstens twee asemhaaltoestelle van die selfonderhoudende tipe daarbenewens verskaf word.

62. *Internasionale Landaansluiting.*

Elke klas-I-skip van 1,000 ton of meer moet toegerus wees met minstens een internasionale landaansluiting om dit moontlik te maak dat water vanaf 'n ander skip of vanaf die land aan die hoofbrandpyp verskaf word, en vaste reëlings moet getref word om dit moontlik te maak dat so 'n aansluiting aan sowel die bakboord- as die stuurboordkant van die skip gebruik word.

HOOFSTUK II.—SKEPE VAN KLAS II OF IIA.

63. *Vereistes.*

Regulasies 54 tot en met 62 is ook van toepassing op 'n skip van klas II of IIA.

HOOFSTUK III.—SKEPE VAN KLAS III OF IV.

64. *Skepe van Klas III.*

Nog nie toegewys nie.

65. *Skepe van Klas IV.*

Nog nie toegewys nie.

HOOFSTUK IV.—SKEPE VAN KLAS V OF VI.

66. *Waterpype, Brandkrane en Brandslange.*

Elke klas-V- of klas-VI-skip, volledig gedek, moet toegerus wees met waterpype en brandkrane. Die deursnee van die watertoevoerpype moet voldoende wees om die lewering van 'n toereikende watervoorraad vir gebruik van minstens een brandslang en die uitspuiting van 'n kragtige straal water daarmee moontlik te maak. Die getal en ligging van die brandkrane moet sodanig wees dat minstens een sodanige straal water 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 verskaf word.

67. *Draagbare Brandblussers vir Passasiers- en Bemanningsruimtes.*

Elke klas-V- of klas-VI-skip, volledig gedek, moet toegerus wees met minstens twee draagbare brandblussers vir elke passasiers- en bemanningsruimte.

is provided in such spaces by a fixed fire extinguishing installation fitted in compliance with regulation 58 (1) or 59 (1); and

(*b*) one portable fire extinguisher for each 1,000 b.h.p. or part thereof of such machinery, suitable for extinguishing oil fires, but in no event less than 2 such extinguishers: Provided that not more than 6 such extinguishers shall be required in any one such space and provided that such extinguishers shall not be required in addition to any provided in compliance with regulation 59 (2).

61. *Firemen's Outfits.*

(1) Every class I ship shall carry 1 fireman's outfit for each 100 feet (or part thereof) of the registered length of the ship, but in no case less than 2. Every such outfit shall comply with the requirements of regulation 114.

(2) If, in any class I ship which carries firemen's outfits containing only breathing apparatus of the air hose type, an air hose exceeding 120 feet in length would be necessary to reach from the open deck well clear of any hatch or doorway to any part of the accommodation, service, cargo or machinery spaces, at least 2 sets of breathing apparatus of the self-contained type shall be provided in addition.

62. *International Shore Connection.*

Every class I ship of 1,000 tons or over shall be provided with at least 1 international shore connection to enable water to be supplied from another ship or from the shore to the fire main, and fixed provision shall be made to enable such a connection to be used on the port side and on the starboard side of the ship.

CHAPTER II.—SHIPS OF CLASS II OR IIA.

63. *Requirements.*

Regulations 54 to 62 inclusive, shall apply also to a class II or IIA ship.

CHAPTER III.—SHIPS OF CLASS III OR IV.

64. *Ships of Class III.*

Not yet allocated.

65. *Ships of class IV.*

Not yet allocated.

CHAPTER IV.—SHIPS OF CLASS V OR VI.

66. *Water Pipes, Hydrants and Fire Hoses.*

Every fully-decked class V or 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 1 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 1 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 1 fire hose shall be provided for each hydrant.

67. *Portable Fire Extinguishers for Passenger and Crew Spaces.*

Every fully-decked class V or VI ship shall be provided with at least 2 portable fire extinguishers for each of the passenger and crew spaces.

68. *Masjinerieruimtes: Skepe uitgerus met Oliegestookte Hoof- of Hulpketels.*

(1) Elke klas-V- of Klas-VI-skip, volledig gedek, wat met oliegestookte hoof- of hulpketels uitgerus is, moet in die masjinerieruimtes voorsien word van minstens—

(*a*) een brandkraan en brandslang met 'n spuitstuk wat geskik is om water op olie te spuit;

(*b*) 'n houer met 'n voldoende hoeveelheid sand of ander droë materiaal wat geskik is om oliebrande te blus;

(*c*) 'n skepgraaf om die inhoud van die houer te versprei; en

(*d*) twee draagbare brandblussers wat geskik is om oliebrande te blus.

(2) Benewens die vereistes van subregulasie (1) moet daar in die masjinerieruimte 'n brandsmorende koolsuurgas- of ander gasinstallasie verskaf word wat aan die vereistes van regulasie 111 voldoen: Met dien verstande dat die hoeveelheid gas minstens 60 pond moet weeg en gehou moet word in minstens twee silinders wat afsonderlik uitgespuit kan word.

69. *Masjinerieruimtes wat Masjinerie van die Binnebrandtipe Bevat.*

(1) Elke klas-V- of klas-VI-skip, volledig gedek, wat uitgerus is met aandrywingsmasjinerie van die binnebrandtipe, moet in die masjinerieruimtes oor minstens die volgende beskik:—

(*a*) Een brandkraan en brandslang met 'n spuitstuk wat geskik is om water op olie te spuit; en

(*b*) een draagbare skuimbrandblusser vir elke 500 remperdekrag van die masjinerie of deel daarvan, maar onder geen omstandighede minder as twee sodanige brandblussers nie: Met dien verstande dat hoogstens ses sodanige brandblussers op enige skip vereis word.

(2) Benewens die vereistes van subregulasie (1) moet daar in die masjinerieruimte 'n brandsmorende koolsuurgas- of ander gasinstallasie verskaf word wat aan die vereistes van regulasie 111 voldoen: Met dien verstande dat die hoeveelheid gas minstens 60 pond moet weeg en gehou moet word in minstens twee silinders wat afsonderlik uitgespuit kan word.

70. *Brandpompe.*

(1) Elke klas-V- of klas-VI-skip, volledig gedek, moet met minstens een kragbediende brandpomp toegerus wees.

(2) Elke klas-V- of klas-VI-skip, volledig gedek, moet toegerus wees met 'n addisionele brandpomp wat nie met krag hoef te werk nie en wat permanent aangesluit moet wees by die waterpype in regulasie 66 genoem. So 'n pomp, en die kragbron daarvan, indien daar een is, moet geleë wees in 'n afsonderlike afdeling, ver van die een waarin die pomp in subregulasie (1) genoem, aangebring is. Indien 'n handpomp ingevolge hierdie subregulasie verskaf word, moet dit 'n draaipomp of semi-draaipomp wees. 'n Seesuigklep wat van buite die masjinerieruimte beheer kan word, moet verskaf word.

71. *Skepe wat nie Volledig gedek is nie.*

Elke klas-V- of klas-VI-skip wat nie volledig gedek is nie en wat uitgerus is met aandrywingsmasjinerie van die binnebrandtipe, moet oor minstens die volgende beskik:—

(*a*) Twee brandemmers;

(*b*) 'n handpomp met 'n slang en spuitstuk wat geskik is om water op olie te spuit;

(*c*) 'n houer met 'n voldoende hoeveelheid sand of ander droë materiaal wat geskik is om oliebrande te blus, en 'n skepgraaf vir die verspreiding van die houer se inhoud; en

68. *Machinery Spaces: Ships Fitted With Main or Auxiliary Oil-fired Boilers.*

(1) Every fully-decked class V or VI ship fitted with main or auxiliary oil-fired boilers, shall be provided in the machinery space with at least—

(*a*) one fire hydrant and fire hose with a nozzle suitable for spraying water on oil;

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

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

(*d*) two portable fire extinguishers suitable for extinguishing oil fires.

(2) In addition to the requirements of subregulation (1), there shall be provided in the machinery space a fire smothering carbon dioxide or other gas installation complying with the requirements of regulation 111: Provided that the quantity of gas shall not be less than 60 lb in weight contained in at least 2 cylinders which can be discharged separately.

69. *Machinery Spaces Containing Internal Combustion Type Machinery.*

(1) Every full-decked class V or VI ship fitted with internal combustion type propelling machinery, shall be provided in the machinery space with at least—

(*a*) one fire hydrant and fire hose with a nozzle suitable for spraying water on oil; and

(*b*) one portable foam fire extinguisher for each 500 b.h.p. of the machinery or part thereof, but in no event less than 2 such extinguishers: Provided that not more than 6 such extinguishers shall be required in any ship.

(2) In addition to the requirements of subregulation (1), there shall be provided in the machinery space a fire smothering carbon dioxide or other gas installation complying with the requirements of regulation 111: Provided that the quantity of gas shall not be less than 60 lb in weight contained in at least 2 cylinders which can be discharged separately.

70. *Fire Pumps.*

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

(2) Every fully-decked class V or 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 66. 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 subregulation (1). If a hand pump is provided in compliance with this subregulation, it shall be of the rotary or semi-rotary type. A sea suction valve shall be provided which shall be capable of being controlled from outside the machinery space.

71. *Ships not Fully Decked.*

Every class V or VI ship which is not fully-decked and is fitted with internal combustion type propelling machinery, shall be provided with at least—

(*a*) two fire buckets;

(*b*) a hand pump with a hoze and a nozzle suitable for spraying water on oil;

(*c*) 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

(*d*) skuimbrandblussers en brandblussers wat droë poeier of 'n ander bestanddeel wat geskik is om oliebrande te blus, kan uitspuit, volgens onderstaande tabel:—

Lengte van skip.	Skuimbrandblussers.		Getal brandblussers wat droë poeier of 'n ander bestanddeel geskik om oliebrande te blus, uitspuit.
	Getal.	Minimum inhoudsvermoë van elke brandblusser.	
		Gellings.	
Nie langer as 30 voet nie....	1	2	2
Langer as 30 voet, maar nie langer as 50 voet nie.....	2	2	2
Langer as 50 voet.....	2	2	3

HOOFSTUK V.—SKEPE VAN KLAS VII.

72. Klas-VII-Skepe van 500 Ton of meer: Brandpompe, Hoofbrandpyp, Watertoevoerpype, Brandslange en Spuitstukke.

(1) Elke klas-VII-skip van 500 ton of meer moet ooreenkomstig hierdie regulasie voorsien word van toestelle deur middel waarvan minstens twee strale water, soos by hierdie deel voorgeskryf, enige deel van die skip wat normaalweg toeganklik is vir die passasiers of bemanning terwyl die skip voortvaar, en enige pakkamer en enige deel van 'n vragruimte wanneer dié leeg is, kan bykom.

(2) (*a*) Elke klas-VII-skip van 1,000 ton of meer moet voorsien word van minstens twee kragbediende brandpompe. Elke sodanige pomp moet in staat wees om minstens een straal water gelyktydig te lewer vanaf elk van enige twee brandkrane, brandslange en spuitstukke wat op die skip aangebring is, en moet aan die vereistes van regulasie 104 voldoen.

(*b*) Elke klas-VII-skip van 500 ton of meer maar van minder as 1,000 ton moet toegerus wees met minstens twee kragbediende brandpompe, en elke sodanige pomp moet in staat wees om minstens een straal water te lewer vanaf enige brandkraan, brandslang en spuitstuk wat op die skip verskaf word en moet aan die vereistes van regulasie 104 voldoen.

(3) (*a*) Indien 'n brand in die een of ander afdeling op 'n klas-VII-skip van 500 ton of meer al die brandpompe buite werking kan stel, moet daar op 'n plek buite die masjinerieruimtes 'n onafhanklik aangedrewe, kragbediende noodbrandpomp, tesame met die kragbron en see-aansluiting daarvan, verskaf word: Met dien verstande dat die noodbrandpomp op enige sodanige skip van minder as 1,000 ton met die hand bedien kan word.

(*b*) Op elke skip van 1,000 ton of meer in paragraaf (*a*) vermeld, moet die noodbrandpomp in staat wees om minstens twee strale water vanaf enige van die brandkrane en brandslange te lewer deur spuitstukke wat aan die vereistes van regulasie 106 (4) (*b*) moet voldoen, terwyl hy tegelykertyd 'n drukking van minstens 30 pond per vierkante duim by enige brandkraan op die skip handhaaf.

(*c*) Op elke skip van 500 ton of meer maar van minder as 1,000 ton in paragraaf (*a*) vermeld, moet die noodbrandpomp in staat wees om vanaf enige van die brandkrane en brandslange op die skip deur 'n spuitstuk wat aan die vereistes van regulasie 106 (4) (*a*) moet voldoen, 'n straal water te lewer wat minstens 40 voet ver gespuit kan word.

(*d*) foam fire extinguishers and fire extinguishers capable of discharging dry powder or some other substance suitable for quenching oil fires in accordance with the following table:—

Length of the ship.	Foam fire extinguishers.		Number of extinguishers discharging dry powder or other substance suitable for quenching oil fires.
	No.	Minimum capacity of of each extinguisher.	
		Gallons.	
Not over 30 feet.....	1	2	2
Over 30 feet, but not over 50 feet.....	2	2	2
Over 50 feet.....	2	2	3

CHAPTER V.—SHIPS OF CLASS VII.

72. Ships of Class VII of 500 Tons or Over: Fire Pumps, Fire Main, Water Service Pipes, Hydrants, Hoses and Nozzles.

(1) Every class VII ship of 500 tons or over shall be provided with appliances in accordance with this regulation whereby at least 2 jets of water, as required by this part, can reach any part of the ship normally accessible to the passengers or crew while the ship is being navigated, and any store room and any part of any cargo space when empty.

(2) (*a*) Every class VII ship of 1,000 tons or over shall be provided with at least 2 fire pumps operated by power. Each such pump shall be capable of delivering at least 1 jet simultaneously from each of any 2 fire hydrants, hoses and nozzles provided in the ship, and shall comply with the requirements of regulation 104.

(*b*) Every class VII ship of 500 tons or over but of less than 1,000 tons, shall be provided with at least 2 fire pumps operated by power each of which shall be capable of delivering at least 1 jet of water from any hydrant, hose and nozzle provided in the ship, and shall comply with the requirements of regulation 104.

(3) (*a*) If, in any class VII ship of 500 tons or over, a fire in any one compartment could put all the fire pumps out of action, there shall be provided in a position outside the machinery spaces, an independently driven power operated emergency fire pump and its source of power and sea connection: Provided that, in any such ship of less than 1,000 tons, the emergency fire pump may be manually operated.

(*b*) In every ship referred to in paragraph (*a*) of 1,000 tons or over, the emergency fire pump shall be capable of producing at least 2 jets of water from any of the fire hydrants and hoses through nozzles which shall comply with regulation 106 (4) (*b*) while simultaneously maintaining a pressure of at least 30 lb per square inch at any hydrant in the ship.

(*c*) In every ship referred to in paragraph (a) of 500 tons or over but of less than 1,000 tons, the emergency fire pump shall be capable of producing from any of the fire hydrants and hoses in the ship through a nozzle which shall comply with regulation 106 (4) (*a*), a jet of water having a throw of not less than 40 feet.

(4) (*a*) Elke klas-VII-skip van 500 ton of meer moet voorsien wees van 'n hoofbrandpyp, watertoevoerpype en brandkrane wat aan die vereistes van regulasie 105 moet voldoen.

(*b*) (i) Elke klas-VII-skip van 1,000 ton of meer moet, benewens die brandslange wat in die masjinerieruimtes verskaf word, voorsien wees van minstens een brandslang vir elke 100 voet van die skip se lengte, maar onder geen omstandighede met minder as vyf brandslange nie, en die totale lengte van sodanige brandslange moet gelyk wees aan minstens 60 persent van die skip se lengte. Benewens sodanige brandslange moet een reserwebrandslang ook verskaf word.

(ii) Elke klas-VII-skip van 500 ton of meer maar van minder as 1,000 ton moet, benewens die brandslange wat in die masjinerieruimtes verskaf word, voorsien wees van minstens twee brandslange waarvan die totale lengte gelyk is aan minstens 60 persent van die skip se lengte, asook een reserwebrandslang.

(*c*) Op elke klas-VII-skip van 500 ton of meer wat uitgerus is met oliegestookte ketels of aandrywingsmasjinerie van die binnebrandtipe, moet minstens twee brandkrane, een aan die bakboord- en een aan die stuurboordkant, in elke ruimte wat sodanige ketels of masjinerie bevat, aangebring word en daarbenewens moet daar, waar toegang tot die masjinerieruimte van so 'n skip deur middel van 'n skroefaskoker verkry word, 'n brandkraan aangebring word aan die uiteinde van die koker naasgeleë aan die masjinerieruimte. 'n Brandslang en sproeispuitstuk moet by elke sodanige brandkraan verskaf word.

73. *Klas-VII-Skepe van* 500 *Ton of meer: Draagbare Brandblussers vir Akkommodasie- en Diensruimtes.*

Elke klas-VII-skip van 500 ton of meer moet toegerus wees met 'n voldoende getal draagbare brandblussers om te verseker dat minstens een sodanige blusser maklik bekombaar sal wees vir gebruik in enige deel van die akkommodasie- of diensruimtes. Op 'n skip van 1,000 ton of meer moet daar minstens vyf sodanige brandblussers wees, en op 'n skip van 500 ton of meer maar van minder as 1,000 ton minstens drie.

74. *Klas-VII-Skepe van* 2,000 *Ton of meer: Vaste Brandsmoorinrigtings in Vragruimtes.*

Elke klas-VII-skip van 2,000 ton of meer moet voorsien wees van 'n vaste brandsmorende gasinstallasie wat aan die vereistes van regulasie 111 voldoen en wat so ingerig is dat elke vragruimte daarmee beskerm kan word: Met dien verstande dat, behoudens die bepalings van regulasie 103 (1) en regulasie 111, brandsmoorgas in enige sodanige installasie deur stoom vervang kan word: Met dien verstande voorts dat die vaste brandsmorende gasinstallasie wat by hierdie regulasie vereis word op 'n tenkskip vervang kan word deur 'n vaste installasie wat skuim uitwendig en deur middel van geskikte mobiele sproeiers inwendig in die tenks met hul vloeistofvrag spuit en wat aan die vereistes van regulasie 112 (2) voldoen.

75. *Klas-VII-Skepe van* 500 *Ton of meer: Masjinerieruimtes wat Oliegestookte Ketels of Olieverbruikende Uitrusting Bevat.*

(1) Elke klas-VII-skip van 500 ton of meer moet, vir die beskerming van enige ruimte wat 'n oliegestookte ketel, oliebrandstofbesinktenk of oliebrandstofeenheid bevat, toegerus wees met minstens een van die volgende vaste brandblusinstallasies:—

(*a*) 'n Drukwatersproeistelsel wat aan die vereistes van regulasie 110 voldoen;

(*b*) 'n brandsmorende gasinstallasie wat aan die vereistes van regulasie 111 voldoen; of

(4) (*a*) In every class VII ship of 500 tons or over, there shall be provided a fire main, water service pipes and hydrants which shall comply with the requirements of regulation 105.

(*b*) (i) Every class VII ship of 1,000 tons or over shall, in addition to any fire hoses provided in the machinery spaces, be provided with at least 1 fire hose for each 100 feet length of the ship but in no case less than 5 hoses, and such hoses shall have a total length of at least 60 per cent of the length of the ship. In addition to such hoses, there shall be provided 1 spare fire hose.

(ii) Every class VII ship of 500 tons or over but of less than 1,000 tons, shall in addition to any fire hoses provided in the machinery spaces, be provided with at least 2 fire hoses having a total length of at least 60 per cent of the length of the ship and 1 spare fire hose.

(*c*) In every class VII ship of 500 tons or over fitted with oil-filled boilers or internal combustion type propelling machinery, there shall be provided in each space containing such boilers or machinery, at least 2 fire hydrants 1 on the port side and 1 on the starboard side, and in addition where there is access to the machinery space of any such ship by way of a shaft tunnel, a fire hydrant shall be provided in the tunnel at the end adjacent to that space. A fire hose and spray nozzle shall be provided at every such fire hydrant.

73. *Ships of Class VII of* 500 *Tons or Over: Portable Fire Extinguishers for Accommodation and Service Spaces.*

Every class VII ship of 500 tons or over 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 any part of the accommodation or service spaces. The number of such extinguishers shall not be less than 5 in a ship of 1,000 tons or over and not less than 3 in a ship of 500 tons or over but of less than 1,000 tons.

74. *Ships of Class VII of* 2,000 *Tons or Over: Fixed Fire Smothering Arrangements in Cargo Spaces.*

In every class VII ship of 2,000 tons or over, there shall be provided a fixed fire smothering gas installation complying with the requirements of regulation 111 which shall be so arranged as to protect every cargo space: Provided that, subject to the provisions of regulation 103 (1) and regulation 111, steam may be substituted for fire smothering gas in any such installation and provided further that in any tanker, a fixed installation discharging foam externally and through suitable mobile sprayers internally to the liquid cargo tanks and complying with the requirements of regulation 112 (2) may be substituted for the fixed fire smothering gas installation required by this regulation.

75. *Ships of Class VII of* 500 *Tons or over: Machinery Spaces Containing Oil-fired Boilers or Oil Burning Equipment.*

(1) In every class VII ship of 500 tons or over, there shall be provided for the protection of any space containing any oil-fired boiler, oil fuel settling tank or oil fuel unit, at least 1 of the following fixed fire extinguishing installations:—

(*a*) A pressure water spraying system complying with the requirements of regulation 110;

(*b*) a fire smothering gas installation complying with the requirements of regulation 111; or

(*c*) 'n skuimbrandblusinstallasie wat aan die vereistes van regulasie 112 voldoen:

Met dien verstande dat 'n klas-VII-skip van 500 ton of meer maar van minder as 1,000 ton in die plek van enige van bogenoemde installasies toegerus mag wees met 'n brandsmorende stoominstallasie wat aan die vereistes van regulasie 111 voldoen.

Indien die masjienkamer en die ketelkamers nie geheel en al deur 'n beskot van mekaar geskei word nie, of indien brandstofolie vanaf die ketelkamer na die masjienkamer kan dreineer, moet die gekombineerde masjien- en ketelkamer vir die toepassing van hierdie subregulasie as een ruimte beskou word.

(2) Benewens die vereistes van subregulasie (1) moet die volgende verskaf word:—

(*a*) In elke ketelkamer, een skuimbrandblusser met 'n inhoudsvermoë van minstens 10 gellings of 'n koolsuurgasbrandblusser met 'n inhoudsvermoë van minstens 35 pond indien die getal branders daarin vyf of meer is. Indien die getal branders in die ketelkamer kleiner as vyf is, moet daar vir elke brander daarin een draagbare brandblusser verskaf word wat geskik is om oliebrande te blus;

(*b*) in elke stookruimte en in elke ruimte wat enige deel van 'n oliebrandstofinstallasie bevat, minstens twee draagbare brandblussers wat geskik is om oliebrande te blus, benewens dié wat ingevolge paragraaf (*a*) aan boord is; en

(*c*) in enige stookruimte, 'n houer wat op 'n skip van 1,000 ton of meer 10 kubieke voet, of op 'n skip van 500 ton of meer maar van minder as 1,000 ton, 5 kubieke voet sand of ander droë materiaal moet bevat wat geskik is om oliebrande te blus, tesame met 'n skepgraaf vir die verspreiding van die houer se inhoud, of, as alternatief, nog 'n draagbare brandblusser wat geskik is om oliebrande te blus.

(3) Indien daar op 'n Klas-VII-skip van 500 ton of meer maar van minder as 1,000 ton ingevolge die voorbehoud by subregulasie (1) 'n vaste brandsmorende stoominstallasie aangebring word en stoom deur waterbuisketels verskaf word, moet daarbenewens, vir die beskerming van die ketelkamer en ruimtes wat die olie brandstofinstallasie bevat, een skuimbrandblusser met 'n inhoudsvermoë van minstens 30 gellings of 'n koolsuurgasbrandblusser met 'n inhoudsvermoë van minstens 100 pond verskaf word.

76. *Klas-VII-skepe van* 500 *ton of meer: Masjinerieruimtes wat masjinerie van die binnebrandtipe bevat.*

(1) Elke klas-VII-skip van 500 ton of meer moet, vir die beskerming van enige ruimte wat masjinerie van die binnebrandtipe bevat wat vir hoofaandrywingsdoeleindes gebruik word of wat globaal 'n totale krag van minstens 1,000 remperdekrag vir hulpdoeleindes het, toegerus wees met minstens een van die vaste brandblusinstallasies by regulasie 75 (1) voorgeskryf: Met dien verstande dat enige klas-VII-skip van 500 ton of meer, maar van minder as 1,000 ton, in die plek van enige van genoemde installasies toegerus mag wees met 'n vaste brandsmorende stoominstallasie wat aan die vereistes van regulasie 111 voldoen.

(2) Benewens die vereistes van subregulasie (1) moet daar in enige ruimte in daardie subregulasie vermeld, die volgende verskaf word:—

(*a*) Een skuimbrandblusser met 'n inhoudsvermoë van minstens 10 gellings, of 'n koolsuurgasbrandblusser met 'n inhoudsvermoë van minstens 35 pond; en

(*b*) een draagbare brandblusser wat geskik is om oliebrande te blus vir elke 1,000 remperdekrag van die

(*c*) a foam fire extinguishing installation complying with the requirements of regulation 112:

Provided that in any class VII ship of 500 tons or over but of less than 1,000 tons, a fixed fire smothering steam installation complying with the requirements of regulation 111, may be provided in lieu of any of the above-mentioned installations.

If the engine room and boiler rooms are not entirely separated from each other by a bulkhead, or if fuel oil can drain from the boiler room into the engine room, the combined engine and boiler room shall, for the purpose of this subregulation, be regarded as a single space.

(2) In addition to the requirements of subregulation (1), there shall be provided—

(*a*) in each boiler room, one foam fire extinguisher of at least 10 gallons capacity or a carbon dioxide fire extinguisher of at least 35 lb. capacity if the number of burners therein is 5 or more. If the number of burners in the boiler room is less than 5, there shall be provided for each burner therein, 1 portable fire extinguisher suitable for extinguishing oil fires;

(*b*) in each firing space and in each space which contains any part of any oil fuel installation, at least 2 portable fire extinguishers suitable for extinguishing oil fires, in addition to any which may be carried in compliance with paragraph (*a*); and

(*c*) in each firing space, a receptacle containing, in a ship of 1,000 tons or over, 10 cubic feet, or in a ship of 500 tons or over but of less than 1,000 tons, 5 cubic feet of sand or other dry material suitable for quenching oil fires together with a scoop for its distribution, or alternatively, an additional portable fire extinguisher suitable for extinguishing oil fires.

(3) If, in any class VII ship of 500 tons or over but of less than 1,000 tons, a fixed fire smothering steam installation is fitted in compliance with the proviso to subregulation (1) and steam is supplied by water-tube boilers, there shall in addition be provided for the protection of the boiler room and spaces containing the oil fuel installation, 1 foam fire extinguisher of at least 30 gallons capacity or a carbon dioxide fire extinguisher of at least 100 lb capacity.

76. *Ships of Class VII of* 500 *Tons or Over: Machinery Spaces Containing Internal Combustion Type Machinery.*

(1) In every class VII ship of 500 tons or over, there shall be provided for the protection of any space containing internal combustion type machinery used for main propulsion, or having in the aggregate a total power of not less than 1,000 b.h.p. for auxiliary purposes, at least one of the fixed fire extinguishing installations required by regulation 75 (1): Provided that in any class VII ship of 500 tons or over but of less than 1,000 tons, a fixed fire smothering steam installation complying with the requirements of regulation 111 may be provided in lieu of any of the said installations.

(2) In addition to the requirements of subregulation (1), there shall be provided in any space referred to in that subregulation—

(*a*) one foam fire extinguisher of at least 10 gallons capacity, or a carbon dioxide fire extinguisher of at least 35 lb capacity; and

(*b*) one portable fire extinguisher suitable for extinguishing oil fires for each 1,000 b.h.p. or part thereof of

masjinerie of deel daarvan, maar onder geen omstandighede minder as twee sodanige brandblussers nie: Met dien verstande dat hoogstens ses sodanige brandblussers in enige sodanige ruimte vereis word.

77. *Klas-VII-skepe van* 500 *ton of meer: Masjinerieruimtes wat stoommasjiene bevat.*

Op elke klas-VII-skip van 500 ton of meer moet daar in die ruimtes wat stoomturbines of ingeslote druksmeringstoommasjiene bevat wat vir hoofaandrywingsdoeleindes gebruik word of wat globaal 'n totale krag van minstens 1,000 remperdekrag vir hulpdoeleindes het, die volgende verskaf word:—

(*a*) Skuimbrandblussers, elk met 'n inhoudsvermoë van minstens 10 gellings, of koolsuurgasbrandblussers, elk met 'n inhoudsvermoë van minstens 35 pond, voldoende in getal om te verseker dat skuim of koolsuurgas gerig kan word op enige deel van die druksmeringstelsel en op enige deel van die kaste wat die druksmeringsgedeeltes van die turbines, masjiene of verwante ratwerk, indien daar is, omsluit: Met dien verstande dat dergelike brandblussers nie vereis word nie indien ekwivalente beskerming in sodanige ruimtes verskaf word deur 'n vaste brandblusinstallasie wat ingevolge regulasie 75 (1) of regulasie 76 (1) aangebring word; en

(*b*) een draagbare brandblusser vir elke 1,000 remperdekrag van sodanige masjinerie of deel daarvan, wat geskik is om oliebrande te blus, maar onder geen omstandighede minder as twee sodanige brandblussers nie: Met dien verstande dat hoogstens 6 sodanige brandblussers in enige sodanige ruimte vereis word; met dien verstande voorts dat sodanige brandblussers nie vereis word benewens dié wat ingevolge regulasie 76 (2) verskaf word nie.

78. *Klas-VII-skepe van* 500 *Ton of meer: Uitrustings vir Brandweermanne.*

(1) Elke klas-VII-skip van 500 ton of meer moet uitrustings vir brandweermanne wat aan die vereistes van regulasie 114 voldoen, ooreenkomstig die volgende skaal aan boord hê:—

Tonnemaat van skip.	*Getal uitrustings.*
500 ton of meer, maar minder as 2,500 ton....	1
2,500 ton of meer.....	2

(2) Indien daar op enige klas-VII-skip van 500 ton of meer wat toegerus is met brandweermansuitrustings wat slegs asemhaaltoestelle van die lugslangtipe bevat, 'n lugslang langer as 120 voet nodig sou wees om vanaf die oop dek deeglik weg van enige luik of deuropening, tot in enige deel van die akkommodasie-, diens-, vrag- of masjinerieruimtes te reik, moet minstens een asemhaaltoestel van die selfonderhoudende tipe daarbenewens verskaf word.

79. *Klas-VII-skepe van* 1,000 *Ton of meer: Internasionale Landaansluiting.*

Elke klas-VII-skip van 1,000 ton of meer moet toegerus wees met minstens een internasionale landaansluiting om dit moontlik te maak dat water vanaf 'n ander skip of vanaf die land aan die hoofbrandpyp verskaf word, en vaste reëlings moet getref word om dit moontlik te maak dat so 'n aansluiting aan sowel die bakboord- as stuurboordkant van die skip gebruik word.

80. *Klas-VII-skepe van minder as* 500 *Ton: Brandpompe, Hoofbrandpyp, Watertoevoerpype, Brandkrane, Brandslange en Spuitstukke.*

(1) Elke klas-VII-skip van minder as 500 ton moet ooreenkomstig hierdie regulasie voorsien wees van toestelle deur middel waarvan minstens een straal water,

the machinery, but in no event less than 2 such extinguishers: Provided that not more than 6 such extinguishers shall be required in any such space.

77. *Ships of Class VII of* 500 *Tons or Over: Machinery Spaces Containing Steam Engines.*

In every class VII ship of 500 tons or over, there shall be provided in the spaces containing steam turbines or enclosed pressure lubricated steam engines used either for main propulsion, or having in the aggregate a total power of not less than 1,000 b.h.p. for auxiliary purposes—

(*a*) foam fire extinguishers each of at least 10 gallons capacity or carbon dioxide fire extinguishers each of at least 35 lb capacity, sufficient in number to enable foam or carbon dioxide to be directed on to any part of the pressure lubrication system and on to any part of the casings enclosing pressure lubricated parts of the turbines, engines or associated gearing, if any: Provided that such extinguishers shall not be required if equivalent protection is provided in such spaces by a fixed fire extinguishing installation fitted in compliance with regulation 75 (1) or regulation 76 (1); and

(*b*) one portable fire extinguisher, for each 1,000 b.h.p. or part thereof of such machinery, suitable for extinguishing oil fires, but in no event less than 2 such extinguishers: Provided that not more than 6 such extinguishers shall be required in any one such space and provided further that such extinguishers shall not be required in addition to any provided in compliance with regulation 76 (2).

78. *Ships of Class VII of* 500 *Tons or Over: Firemen's Outfits.*

(1) Every class VII ship of 500 tons or over, shall carry firemen's outfits which shall comply with the requirements of regulation 114, in accordance with the following scale:—

Tonnage of ship.	*Number of outfits.*
500 or over, but under 2,500.....	1
2,500 or over.....	2

(2) If, in any class VII ship of 500 ton or over which carries firemen's outfits containing only breathing apparatus of the air hose type, an air hose exceeding 120 feet in length would be necessary to reach from the open deck well clear of any hatch or doorway to any part of the accommodation, service, cargo or machinery spaces, at least one breathing apparatus of the self-contained type shall be provided in addition.

79. *Ships of Class VII of* 1,000 *Tons or Over: International Shore Connection.*

Every class VII ship of less than 500 tons, shall be provided with at least one international shore connection to enable water to be supplied from another ship or from the shore to the fire main, and fixed provision shall be made to enable such a connection to be used on the port side and on the starboard side of the ship.

80. *Ships of Class VII of Less than* 500 *tons: Fire Pumps, Fire Main, Water Service Pipes, Hydrants, Hoses and Nozzles.*

(1) Every class VII ship of less than 500 tons, shall be provided with appliances in accordance with this regulation whereby at least one jet of water, as required by

soos by hierdie deel voorgeskryf, enige deel van die skip wat normaalweg toeganklik is vir die passasiers of bemanning terwyl die skip voortvaar, en enige pakkamer en enige deel van 'n vragruimte wanneer dié leeg is, kan bykom.

(2) Elke klas-VII-skip van minder as 500 ton moet voorsien wees van minstens een kragbediende brandpomp wat in staat moet wees om minstens een straal water te lewer vanaf enige brandkraan, brandslang en spuitstuk wat op die skip aangebring is en wat aan die vereistes van regulasie 104 moet voldoen.

(3) Op elke klas-VII-skip van minder as 500 ton wat uitgerus is met oliegestookte ketels of aandrywingsmasjinerie van die binnebrandtipe, moet daar op 'n plek buite die ruimtes waarin sodanige ketels of masjinerie geleë is, 'n addisionele brandpomp, tesame met die kragbron en see-aansluiting daarvan, verskaf word. Indien so 'n pomp deur krag bedien word, moet hy aan die vereistes van subregulasie (2) voldoen, en indien hy met die hand bedien word, moet hy toegerus wees met 'n brandslang en 'n spuitstuk met 'n deursnee van $\frac{3}{8}$ duim waardeur hy 'n straal water moet kan lewer wat minstens 20 voet ver gespuit kan word en wat op enige deel van die skip gerig kan word.

(4) Elke klas-VII-skip van minder as 500 ton moet toegerus wees met 'n hoofbrandpyp, watertoevoerpype en brandkrane wat aan die vereistes van regulasies 105 moet voldoen, en met minstens drie brandslange.

(5) Op elke klas-VII-skip van minder as 500 ton wat uitgerus is met oliegestookte ketels of aandrywingsmasjinerie van die binnebrandtipe, moet 'n sproeispuitstuk verskaf word wat geskik is vir gebruik saam met die brandslange wat ooreenkomstig subregulasie (4) vereis word.

81. *Klas-VII-skepe van minder as* 500 *ton: Draagbare Brandblussers vir akkommodasie- en diensruimtes.*

Elke klas-VII-skip van minder as 500 ton moet toegerus wees met minstens drie draagbare brandblussers wat so geleë is dat hulle maklik bekombaar is vir gebruik in die akkommodasie- en diensruimtes.

82. *Klas-VII-skepe van minder as* 500 *ton: Masjinerieruimtes wat oliegestookte ketels of olieverbruikende uitrusting bevat.*

(1) Op elke klas-VII-skip van minder as 500 ton moet daar vir die beskerming van enige ruimte wat 'n oliegestookte ketel, oliebrandstofbesinktenk of oliebrandstofeenheid bevat, minstens een van die volgende vaste brandblusinstallasies aangebring word:—

(*a*) 'n Drukwatersproeistelsel wat aan die vereistes van regulasie 110 voldoen;

(*b*) 'n brandsmorende gas- of stoominstallasie wat aan die vereistes van regulasie 111 voldoen; of

(*c*) 'n skuimbrandblusinstallasie wat aan die vereistes van regulasie 112 voldoen.

Indien die masjien- en ketelkamer nie geheel en al deur 'n beskot van mekaar geskei is nie, of indien brandstofolie vanaf die ketelkamer na die masjienkamer kan dreineer, moet die gekombineerde masjien- en ketelkamer vir die toepassing van hierdie subregulasie as een ruimte beskou word.

(2) Benewens die vereistes van subregulasie (1), moet die volgende verskaf word:—

(*a*) In elke ketelkamer en in elke ruimte wat enige deel van 'n oliebrandstofinstallasie bevat, minstens 2 draagbare brandblussers wat geskik is om oliebrande te blus; en

(*b*) in elke stookruimte, 'n houer met minstens 5 kubieke voet sand of ander droë materiaal wat geskik

this part, can reach any part of the ship normally accessible to the passengers or crew while the ship is being navigated, and any store room and any part of any cargo space when empty.

(2) Every class VII ship of less than 500 tons shall be provided with at least one fire pump operated by power which shall be capable of delivering at least one jet of water from any fire hydrant, hose and nozzle provided in the ship, and which shall comply with the requirements of regulation 104.

(3) In every class VII ship of less than 500 tons fitted with oil-fired boilers or internal combustion type propelling machinery, there shall be provided in a position outside the spaces containing such boilers or machinery, an additional fire pump and its source of power and sea connection. If such pump is operated by power, it shall comply with the requirements of subregulation (2), and if it is manually operated, it shall be provided with a hose and $\frac{3}{8}$-inch diameter nozzle through which it shall be capable of producing a jet of water having a throw of not less than 20 feet which can be directed on to any part of the ship.

(4) In every class VII ship of less than 500 tons, there shall be provided a fire main, water service pipes and hydrants which shall comply with the requirements of regulation 105, and at least three fire hoses.

(5) In every class VII ship of less than 500 tons fitted with oil-fired boilers or internal combustion type propelling machinery, there shall be provided a spray nozzle suitable for use with the fire hoses required by subregulation (4).

81. *Ships of Class VII of Less than* 500 *Tons: Portable Fire Extinguishers for Accomodation and Service Spaces.*

Every class VII ship of less than 500 tons, shall be provided with at least three portable fire extinguishers so situated as to be readily available for use in the accommodation and service spaces.

82. *Ships of Class VII of Less than* 500 *Tons: Machinery Spaces Containing Oil-fired Boilers or Oil Burning Equipment.*

(1) In every class VII ship of less than 500 tons, there shall be provided for the protection of any space containing any oil-fired boiler, oil fuel settling tank or oil fuel unit, at least one of the following fixed fire extinguishing installations:—

(*a*) A pressure water spraying system complying with the requirements of regulation 110;

(*b*) a fire smothering gas or steam installation complying with the requirements of regulation 111; or

(*c*) a foam fire extinguishing installation complying with the requirements of regulation 112.

If the engine and boiler room are not entirely separated from each other by a bulkhead, or if fuel oil can drain from the boiler room into the engine room, the combined engine room and boiler room shall, for the purpose of this subregulation, be regarded as a single space.

(2) In addition to the requirements of subregulation (1), there shall be provided—

(*a*) in each boiler room and in each space which contains any part of any oil fuel installation, at least two portable fire extinguishers suitable for extinguishing oil fires; and

(*b*) in each firing space, a receptacle containing at least 5 cubic feet of sand or other dry material suitable

is om oliebrande te blus, tesame met 'n skepgraaf vir die verspreiding van die houer se inhoud of, as alternatief nog 'n draagbare brandblusser wat geskik is om oliebrande te blus.

83. *Klas-VII-skepe van minder as* 500 *ton: Masjinerieruimtes wat Masjinerie van die binnebrandtipe bevat.*

Op elke klas-VII-skip van minder as 500 ton moet daar in enige ruimte wat masjinerie van die binnebrandtipe bevat, een draagbare brandblusser wat geskik is om oliebrande te blus, vir elke 100 remperdekrag van sodanige masjinerie of deel daarvan verskaf word, maar hoogstens ses sodanige brandblussers word in een ruimte vereis, en as alternatief kan twee sodanige brandblussers verskaf word tesame met òf—

(*a*) een skuimbrandblusser met 'n inhoudsvermoë van minstens 10 gellings; òf

(*b*) een koolsuurgasbrandblusser met 'n inhoudsvermoë van minstens 35 pond.

84. *Klas-VII-skepe van Minder as* 500 *ton: Uitrusting vir Brandweermanne.*

Elke klas-VII-skip van minder as 500 ton moet voorsien wees van minstens een brandweermansuitrusting wat aan die vereistes van regulasie 114 voldoen.

HOOFSTUK VI.—SKEPE VAN KLAS VIIA.

85. *Vereistes.*

Regulasies 72 tot en met 84 is ook van toepassing op 'n skip van klas VIIA.

HOOFSTUK VII.—SKEPE VAN KLAS VIII.

86. *Klas-VIII-skepe van* 1,000 *ton of meer.*

Regulasies 72 en 73 en regulasies 75 tot en met 79 is ook van toepassing op 'n klas-VIII-skip van 1,000 ton of meer. Daarbenewens is regulasie 74 ook van toepassing op 'n klas-VIII-tenkskip van 2,000 ton of meer.

87. *Klas-VIII-skepe van* 500 *ton of meer, maar van Minder as* 1,000 *ton: Brandpompe, hoofbrandpyp, Watertoevoerpype, Brandkrane, Brandslange en Spuitstukke.*

(1) Elke klas-VIII-skip van 500 ton of meer, maar van minder as 1,000 ton, moet ooreenkomstig hierdie regulasie voorsien wees van toestelle deur middel waarvan minstens twee strale water, soos by hierdie deel voorgeskryf, enige deel van die skip wat normaalweg toeganklik is vir die passasiers of bemanning terwyl die skip voortvaar, en enige pakkamer en enige deel van 'n vragruimte wanneer dié leeg is, kan bykom.

(2) Elke klas-VIII-skip van 500 ton of meer, maar van minder as 1,000 ton, moet voorsien wees van minstens twee kragbediende brandpompe, en een van hulle moet deur die hoofmasjien aangedryf kan word. Elke sodanige pomp moet in staat wees om minstens een straal water te lewer vanaf enige brandkraan, brandslang en spuitstuk wat op die skip aangebring word, en moet aan die vereistes van regulasie 104 voldoen.

(3) Indien 'n brand in die een of ander afdeling op 'n klas-VIII-skip van 500 ton of meer, maar van minder as 1,000 ton, wat toegerus is met oliegestookte ketels of aandrywingsmasjinerie van die binnebrandtipe, al die brandpompe buite werking kan stel, moet 'n noodbrandpomp, tesame met die kragbron en see-aansluiting daarvan, op 'n plek buite die masjinerieruimtes aangebring word. So 'n pomp kan deur krag of met die hand bedien word en moet in staat wees om vanaf enige van die brandkrane en brandslange op die skip aangebring, deur 'n spuitstuk wat aan die vereistes van regulasie 106 (4) (*a*) moet voldoen, 'n straal water te lewer wat minstens 40 voet ver gespuit kan word.

for quenching oil fires together with a scoop for its distribution, or, alternatively an additional portable fire extinguisher suitable for extinguishing oil fires.

83. *Ships of Class VII of Less than* 500 *Tons: Machinery Spaces Containing Internal Combustion Type Machinery.*

In every Class VII ship of less than 500 tons, there shall be provided in any space containing internal combustion type machinery, one portable fire extinguisher suitable for extinguishing oil fires for each 100 b.h.p. or part thereof of such machinery, except that not more than six such extinguishers shall be required in any one space and that alternatively there may be provided two such extinguishers together with either—

(*a*) one foam fire extinguisher of at least 10 gallons capacity; or

(*b*) one carbon dioxide fire extinguisher of at least 35 lb capacity.

84. *Ships of Class VII of Less than* 500 *Tons: Firemen's Outfits.*

Every class VII ship of less than 500 tons, shall be provided with at least one firemen's outfit which shall comply with the requirements of regulation 114.

CHAPTER VI.—SHIPS OF CLASS VIIA.

85. *Requirements.*

Regulations 72 to 84 inclusive, shall apply also to a class VIIA ship.

CHAPTER VII.—SHIPS OF CLASS VIII.

86. *Ships of Class VIII of* 1,000 *Tons or Over.*

Regulations 72 and 73 and regulations 75 to 79 inclusive, shall apply also to a class VIII ship of 1,000 tons or over. In addition, regulation 74 shall apply also to a tanker of class VIII of 2,000 tons or over.

87. *Ships of Class VIII of* 500 *Tons or Over but of Less than* 1,000 *Tons: Fire Pumps, Fire Main, Water Service Pipes, Hydrants, Hoses and Nozzles.*

(1) Every class VIII ship of 500 tons or over but of less than 1,000 tons, shall be provided with appliances in accordance with this regulation whereby at least two jets of water, as required by this part, can reach any part of the ship normally accessible to the passengers or crew while the ship is being navigated, and any store room and any part of any cargo space when empty.

(2) Every class VIII ship of 500 tons or over but of of less than 1,000 tons, shall be provided with at least 2 fire pumps operated by power, 1 of which may be driven by the main engine. Each such pump shall be capable of delivering at least 1 jet of water from any fire hydrant, hose and nozzle provided in the ship, and shall comply with the requirements of regulation 104.

(3) If, in any class VIII ship of 500 tons or over but of less than 1,000 tons fitted with oil-fired boilers or internal combustion type propelling machinery, a fire in any one compartment could put all the fire pumps out of action, there shall be provided in a position outside the machinery spaces, an emergency fire pump and its source of power and sea connection. Such pump may be operated by power or manually, and shall be capable of producing from any of the fire hydrants and hoses provided in the ship, through a nozzle which shall comply with regulation 106 (4) (*a*), a jet of water having a throw of not less than 40 feet.

(4) Elke klas-VIII-skip van 500 ton of meer, maar van minder as 1,000 ton, moet toegerus wees met 'n hoofbrandpyp, watertoevoerpype en brandkrane wat aan die vereistes van regulasie 105 moet voldoen.

(5) Elke klas-VIII-skip van 500 ton of meer, maar van minder as 1,000 ton, moet, benewens enige brandslang wat in die masjinerieruimtes verskaf word, toegerus wees met minstens twee brandslange met 'n totale lengte gelyk aan minstens 60 persent van die skip se lengte, en een reserwebrandslang.

(6) Elke klas-VIII-skip van 500 ton of meer, maar van minder as 1,000 ton, wat toegerus is met oliegestookte ketels of aandrywingsmasjinerie van die binnebrandtipe, moet in elke ruimte wat sodanige masjinerie bevat oor minstens een brandkraan beskik. 'n Brandslang en sproeispuitstuk moet by elke sodanige brandkraan verskaf word.

88. *Klas-VIII-skepe van* 500 *ton of meer, maar van Minder as* 1,000 *ton: Draagbare Brandblussers vir Akkommodasie- en Diensruimtes.*

Elke klas-VIII-skip van 500 ton of meer, maar van minder as 1,000 ton, moet oor minstens drie draagbare brandblussers beskik wat so geleë moet wees dat hulle maklik bekombaar is vir gebruik in die akkommodasie- en diensruimtes.

89. *Klas-VIII-skepe van* 500 *ton of meer, maar van minder as* 1,000 *ton: Masjinerieruimtes wat oliegestookte Ketels of Olieverbruikende Uitrusting bevat.*

(1) Op elke klas-VIII-skip van 500 ton of meer, maar van minder as 1,000 ton, moet daar vir die beskerming van enige ruimte wat 'n oliegestookte ketel, oliebrandstofbesinktenk of oliebrandstofeenheid bevat, minstens een van die volgende vaste brandblusinstallasies aangebring word:—

(*a*) 'n Drukwatersproeistelsel wat aan die vereistes van regulasie 110 voldoen;

(*b*) 'n brandsmorende gas- of stoominstallasie wat aan die vereistes van regulasie 111 voldoen; of

(*c*) 'n skuimbrandblusinstallasie wat aan die vereistes van regulasie 112 voldoen.

Indien die masjien- en ketelkamers nie geheel en al deur 'n beskot van mekaar geskei is nie, of indien brandstofolie vanaf die ketelkamer na die masjienkamer kan dreineer, moet die gekombineerde masjien- en ketelkamer vir die toepassing van hierdie subregulasie as een ruimte beskou word. Indien 'n vaste brandsmorende stoominstallasie ingevolge paragraaf (*b*) aangebring word en stoom slegs deur waterbuisketels verskaf word, moet daar vir die beskerming van die ketelkamer en ruimtes wat die oliebrandstofinstallasie bevat, een skuimbrandblusser met 'n inhoudsvermoë van minstens 30 gellings of 'n koolsuurgasbrandblusser met 'n inhoudsvermoë van minstens 100 pond verskaf word.

(2) Benewens die vereistes van subregulasie (1) moet die volgende verskaf word:—

(*a*) In elke ketelkamer waarin daar vyf of meer branders is, een skuimbrandblusser met 'n inhoudsvermoë van minstens 10 gellings of 'n koolsuurgasbrandblusser met 'n inhoudsvermoë van minstens 35 pond. Indien daar minder as vyf branders in die ketelkamer is, moet daar vir elke brander een draagbare brandblusser verskaf word wat geskik is om oliebrande te blus;

(*b*) in elke stookruimte, en in elke ruimte wat enige deel van 'n oliebrandstofinstallasie bevat, minstens twee draagbare brandblussers wat geskik is om oliebrande te blus, benewens enige sodanige blussers wat ingevolge paragraaf (*a*) aan boord mag wees; en

(4) In every class VIII ship of 500 tons or over but of less than 1,000 tons, there shall be provided a fire main, water service pipes and hydrants which shall comply with the requirements of regulation 105.

(5) Every class VIII ship of 500 tons or over but of less than 1,000 tons shall, in addition to any fire hose provided in the machinery spaces, be provided with at least 2 fire hoses having a total length of at least 60 per cent of the length of the ship and 1 spare fire hose.

(6) In every class VIII ship of 500 tons or over but of less than 1,000 tons fitted with oil-fired boilers or internal cumbustion type propelling machinery, there shall be provided in each space containing such machinery, at least 1 fire hydrant. A fire hose and spray nozzle shall be provided at every such hydrant.

88. *Ships of Class VIII of* 500 *Tons or Over but of Less than* 1,000 *Tons: Portable Fire Extinguishers for Accommodation and Service Spaces.*

Every class VIII ship of 500 tons or over but of less than 1,000 tons, shall be provided with at least 3 portable fire extinguishers so situated as to be readily available for use in the accommodation and service spaces.

89. *Ships of Class VIII of* 500 *Tons or Over but of Less than* 1,000 *Tons: Machinery Spaces Containing Oil-fired Boilers or Oil Burning Equipment.*

(1) In every class VIII ship of 500 tons or over but of less than 1,000 tons, there shall be provided for the protection of any space containing any oil-fired boiler, oil fuel settling tank or oil fuel unit, at least 1 of the following fixed fire extinguishing installations:—

(*a*) A pressure water spraying system complying with the requirements of regulation 110;

(*b*) a fire smothering gas or steam installation complying with the requirements of regulation 111; or

(*c*) a foam fire extinguishing installation complying with the requirements of regulation 112.

If the engine room and boiler rooms are not entirely separated from each other by a bulkhead, or if fuel oil can drain from the boiler room into the engine room, the combined engine room and boiler room shall, for the purpose of this subregulation, be regarded as a single space. If a fixed fire smothering steam installation is fitted in compliance with paragraph (*b*) and steam is supplied only by water-tube boilers, there shall be provided for the protection of the boiler room and spaces containing the oil fuel installation, 1 foam fire extinguisher of at least 30 gallons capacity or a carbon dioxide fire extinguisher of at least 100 lb capacity.

(2) In addition to the requirements of subregulation (1), there shall be provided—

(*a*) in each boiler room, if the number of burners therein is 5 or more, 1 foam fire extinguisher of at least 10 gallons capacity or a carbon dioxide fire extinguisher of at least 35 lb capacity. If the number of burners is less than 5, there shall be provided for each burner therein 1 portable fire extinguisher suitable for extinguishing oil fires;

(*b*) in each firing space, and in each space which contains any part of any oil fuel installation, at least 2 portable fire extinguishers suitable for extinguishing oil fires in addition to any such extinguishers which may be carried in compliance with paragraph (*a*); and

(*c*) in elke stookruimte, 'n houer met minstens 5 kubieke voet sand of ander droë materiaal wat geskik is om oliebrande te blus, tesame met 'n skepgraaf vir die verspreiding van die houer se inhoud of, as alternatief, nog 'n draagbare brandblusser wat geskik is om oliebrande te blus.

90. *Klas-VIII-skepe van* 500 *ton of meer, maar van minder as* 1,000 *ton: Masjinerieruimtes wat masjinerie van die Binnebrandtipe bevat.*

(1) Op elke klas-VIII-skip van 500 ton of meer, maar van minder as 1,000 ton, moet daar in enige ruimte wat masjinerie van die binnebrandtipe bevat wat vir hoofaandrywingsdoeleindes gebruik word of wat globaal 'n totale krag van minstens 250 remperdekrag vir hulpdoeleindes het, een skuimbrandblusser met 'n inhoudsvermoë van minstens 10 gellings of 'n koolsuurgasbrandblusser met 'n inhoudsvermoë van minstens 35 pond verskaf word.

(2) Op elke klas-VIII-skip van 500 ton of meer, maar van minder as 1,000 ton, moet daar in enige ruimte wat masjinerie van die binnebrandtipe bevat, een draagbare brandblusser wat geskik is om oliebrande te blus, vir elke 100 remperdekrag van sodanige masjinerie of deel daarvan verskaf word: Met dien verstande dat hoogstens ses sodanige brandblussers in enige sodanige ruimte vereis word.

91. *Klas-VIII-skepe van* 500 *ton of meer, maar van minder as* 1,000 *ton: Uitrustings vir Brandweermanne.*

Elke klas-VIII-skip van 500 ton of meer, maar van minder as 1,000 ton, moet toegerus wees met minstens een brandweermansuitrusting wat aan die vereistes van regulasie 114 moet voldoen.

92. *Klas-VIII-skepe van* 150 *ton of meer, maar van minder as* 500 *ton: Brandpompe, hoofbrandpyp, watertoevoerpype, brandkrane, brandslange en spuitstukke.*

(1) Elke klas-VIII-skip van 150 ton of meer, maar van minder as 500 ton, moet ooreenkomstig hierdie regulasie voorsien word van toestelle deur middel waarvan minstens een straal water, soos by hierdie deel voorgeskryf, enige deel van die skip wat normaalweg toeganklik is vir die passasiers of die bemanning terwyl die skip voortvaar, en enige pakkamer en enige deel van 'n vragruimte wanneer dié leeg is, kan bykom.

(2) Elke klas-VIII-skip van 150 ton of meer, maar van minder as 500 ton, moet voorsien wees van minstens een kragbediende brandpomp wat in staat moet wees om minstens een straal water te lewer vanaf enige brandkraan, brandslang en spuitstuk wat op die skip aangebring is en wat aan die vereistes van regulasie 104 voldoen.

(3) Elke klas-VIII-skip van 150 ton of meer, maar van minder as 500 ton, moet voorsien wees van 'n hoofbrandpyp, watertoevoerpype en brandkrane wat aan die vereistes van regulasie 105 voldoen, en met minstens twee brandslange.

(4) Op elke klas-VIII-skip van 150 ton of meer, maar van minder as 500 ton, wat uitgerus is met oliegestookte ketels of aandrywingsmasjinerie van die binnebrandtipe, moet 'n sproeispuitstuk verskaf word wat geskik is om gebruik te word saam met die brandslange wat ooreenkomstig subregulasie (3) vereis word.

93. *Klas-VIII-skepe van* 150 *ton of meer, maar van minder as* 500 *ton: Draagbare Brandblussers vir Akkommodasie- en Diensruimtes.*

(1) Elke klas-VIII-skip van 150 ton of meer, maar van minder as 500 ton, moet voorsien wees van minstens twee draagbare brandblussers wat so geleë is dat hulle maklik bekombaar is vir gebruik in die akkommodasie- en diensruimes.

(*c*) in each firing space, a receptacle containing at least 5 cubic feet of sand or other dry material suitable for quenching oil fires together with a scoop for its distribution, or alternatively, an additional portable fire extinguisher suitable for extinguishing oil fires.

90. *Ships of Class VIII of* 500 *Tons or Over but of Less than* 1,000 *Tons: Machinery Spaces Containing Internal Combustion Type Machinery.*

(1) In every class VIII ship of 500 tons or over but of less than 1,000 tons, there shall be provided in any space containing internal combustion type machinery used for main propulsion, or having in the aggregate a total power of not less than 250 b.h.p. for auxiliary purposes, 1 foam fire extinguisher of at least 10 gallons capacity or a carbon dioxide fire extinguisher of at least 35 lb capacity.

(2) In every class VIII ship of 500 tons or over but of less than 1,000 tons, there shall be provided in any space containing internal combustion type machinery, 1 portable fire extinguisher suitable for extinguishing oil fires for each 100 b.h.p. or part thereof of such machinery: Provided that not more than 6 such extinguishers shall be required in any such space.

91. *Ships of Class VIII of* 500 *Tons or Over but of Less than* 1,000 *Tons: Firemen's Outfits.*

Every class VIII ship of 500 tons or over but of less than 1,000 tons, shall be provided with at least 1 fireman's outfit which shall comply with the requirements of regulation 114.

92. *Ships of Class VIII of* 150 *Tons or Over but of Less than* 500 *Tons: Fire Pumps, Fire Main, Water Service Pipes, Hydrants, Hoses and Nozzles.*

(1) Every class VIII ship of 150 tons or over but of less than 500 tons, shall be provided with appliances in accordance with this regulation whereby at least 1 jet of water, as required by this part, can reach any part of the ship normally accessible to the passengers or crew while the ship is being navigated, and any store room and any part of any cargo space when empty.

(2) Every class VIII ship of 150 tons or over but of less than 500 tons, shall be provided with at least 1 fire pump operated by power which shall be capable of delivering at least 1 jet of water from any fire hydrant, hose and nozzle provided in the ship and which shall comply with the requirements of regulation 104.

(3) In every class VIII ship of 150 tons or over but of less than 500 tons, there shall be provided a fire main, water service pipes and hydrants which shall comply with the requirements of regulation 105, and at least 2 fire hoses.

(4) In every class VIII ship of 150 tons or over but of less than 500 tons fitted with oil-fired boilers or internal combustion type propelling machinery, there shall be provided a spray nozzle suitable for use with the fire hoses required by subregulation (3).

93. *Ships of Class VIII of* 150 *Tons or Over but of Less than* 500 *Tons: Portable Fire Extinguishers for Accommodation and Service Spaces.*

Every class VIII ship of 150 tons or over but of less than 500 tons, shall be provided with at least 2 portable fire extinguishers so situated as to be readily available for use in the accommodation and service spaces.

94. *Klas-VIII-skepe van* 150 *ton of meer, maar van minder as* 500 *ton: Masjinerieruimtes wat oliegestookte ketels of olieverbruikende uitrusting bevat.*

(1) Op elke klas-VIII-skip van 150 ton of meer, maar van minder as 500 ton, moet daar vir die beskerming van enige ruimte wat 'n oliegestookte ketel, oliebrandstofbesinktenk of oliebrandstofeenheid bevat, minstens een van die volgende vaste brandblusinstallasies aangebring word:—

(*a*) 'n Drukwatersproeistelsel wat aan die vereistes van regulasie 110 voldoen;

(*b*) 'n brandsmorende gas- of stoominstallasie wat aan die vereistes van regulasie 111 voldoen; of

(*c*) 'n skuimbrandblusinstallasie wat aan die vereistes van regulasie 112 voldoen.

Indien die masjien- en ketelkamers nie geheel en al deur 'n beskot van mekaar geskei word nie, of indien brandstofolie vanaf die ketelkamer na die masjienkamer kan dreineer, moet die gekombineerde masjien- en ketelkamer vir die toepassing van hierdie subregulasie as een ruimte beskou word.

(2) Benewens die vereistes van subregulasie (1) moet die volgende verskaf word:—

(*a*) In elke ketelkamer en in elke ruimte wat enige deel van 'n oliebrandstofinstallasie bevat, minstens twee draagbare brandblussers wat geskik is om oliebrande te blus; en

(*b*) in elke stookruimte, 'n houer met minstens 5 kubieke voet sand of ander droë materiaal wat geskik is om oliebrande te blus, tesame met 'n skepgraaf vir die verspreiding van die houer se inhoud of, as alternatief, nog 'n draagbare brandblusser wat geskik is om oliebrande te blus.

95. *Klas-VIII-skepe van* 150 *ton of meer, maar van minder as* 500 *ton: Masjinerieruimtes wat masjinerie van die Binnebrandtipe bevat.*

Op elke klas-VIII-skip van 150 ton of meer, maar van minder as 500 ton, moet daar in enige ruimte wat masjinerie van die binnebrandtipe bevat, een draagbare brandblusser wat geskik is om oliebrande te blus, vir elke 100 remperdekrag van sodanige masjinerie of deel daarvan verskaf word, maar hoogstens ses sodanige brandblussers word in een ruimte vereis en as alternatief kan twee sodanige brandblussers verskaf word, tesame met òf—

(*a*) een skuimbrandblusser met 'n inhoudsvermoë van minstens 10 gellings; òf

(*b*) een koolsuurgasbrandblusser met 'n inhoudsvermoë van minstens 35 pond.

96. *Klas-VIII-skepe van* 150 *ton of meer, maar van minder as* 500 *ton: Uitrustings vir Brandweermanne.*

Elke klas-VIII-skip van 150 ton of meer, maar van minder as 500 ton, moet voorsien wees van minstens een brandweermansuitrusting wat aan die vereistes van regulasie 114 moet voldoen.

97. *Klas-VIII-skepe van minder as* 150 *ton: Brandpompe, hoofbrandpyp, watertoevoerpype, brandkrane, brandslange en spuitstukke.*

Regulasie 92 is ook van toepassing op 'n klas-VIII-skip van minder as 150 ton, maar die brandpomp by regulasie 92 (2) voorgeskryf, kan deur die hoofmasjien aangedryf word.

94. *Ships of Class VIII of* 150 *Tons or Over but of Less than* 500 *Tons: Machinery Spaces Containing Oil-fired boilers or Oil Burning Equipment.*

(1) In every class VIII ship of 150 tons or over but not less than 500 tons, there shall be provided for the protection of any space containing any oil-fired boiler, oil fuel settling tank or oil fuel unit, at least one of the following fixed fire extinguishing installations:—

(*a*) A pressure water spraying system complying with the requirements of regulation 110;

(*b*) a fire smothering gas or steam installation complying with the requirements of regulation 111; or

(*c*) a foam fire extinguishing intallation complying with the requirements of regulation 112.

If the engine and boiler rooms are not entirely separated from each other by a bulkhead, or if fuel oil can drain from the boiler room into the engine room, the combined engine room and boiler room shall, for the purpose of this subregulation, be regarded as a single space.

(2) In addition to the requirements of subregulation (1), there shall be provided—

(*a*) in each boiler room and in each space which contains any part of any oil fuel installation, at least 2 portable fire extinguishers suitable for extinguishing oil fires; and

(*b*) in each firing space, a receptacle containing at least 5 cubic feet of sand or other dry material suitable for quenching oil fires together with a scoop for its distribution, or alternatively, an additional portable fire extinguisher suitable for extinguishing oil fires.

95. *Ships of Class VIII of* 150 *Tons or Over but of Less than* 500 *Tons: Machinery Spaces Containing Internal Combustion Type Machinery.*

In every class VIII ship of 150 tons or over but of less than 500 tons, there shall be provided in any space containing internal combustion type machinery, 1 portable fire extinguisher suitable for extinguishing oil fires for each 100 b.h.p. or part thereof of such machinery, except that not more than 6 such fire extinguishers shall be required in any one space and that, alternatively, there may be provided 2 such extinguishers together with either—

(*a*) one foam fire extinguisher of at least 10 gallons capacity; or

(*b*) one carbon dioxide fire extinguisher of at least 35 lb capacity.

96. *Ships of Class VIII of* 150 *Tons or Over but of Less than* 500 *Tons: Firemen's Outfits.*

Every class VIII ship of 150 tons or over but of less than 500 tons, shall be provided with at least one firemen's outfit which shall comply with the requirements of regulation 114.

97. *Ships of Class VIII of Less than* 150 *Tons: Fire Pumps, Fire Main, Water Service Pipes, Hydrants, Hoses and Nozzles.*

Regulation 92 shall apply also to a class VIII ship of less than 150 tons, except that the fire pump required by regulation 92 (2) may be driven by the main engine.

98. *Klas-VIII-skepe van minder as* 150 *ton: Draagbare Brandblussers.*

(1) Elke klas-VIII-skip van minder as 150 ton moet ooreenkomstig die volgende tabel toegerus wees met draagbare brandblussers wat geskik is om oliebrande te blus en wat so geleë is dat hulle maklik bekombaar is vir gebruik:—

Lengte van skip in voet.	*Minimum getal brandblussers.*
Onder 40 voet	1
40 voet of langer maar korter as 70 voet	2
70 voet of langer	3

HOOFSTUK VIII.—SKEPE VAN KLAS IX OF IXA.

99. *Vereistes.*

Regulasies 86 tot en met 98 is ook van toepassing op 'n skip van klas IX of IXA.

HOOFSTUK IX.—SKEPE VAN KLAS X.

100. *Vereistes.*

(1) Regulasies 72 en 73 en regulasies 75 tot en met 78 is van toepassing op 'n klas-X-skip van 1,000 ton of meer net soos hulle van toepassing is op 'n klas-VII-skip van 1,000 ton of meer.

(2) Regulasie 87 (1), (2), (4), (5) en (6) en regulasies 88 tot en met 91 is ook van toepassing op 'n klas-X-skip van 500 ton of meer, maar van minder as 1,000 ton.

(3) Regulasies 92 tot en met 95 is ook van toepassing op 'n klas-X-skip van 150 ton of meer, maar van minder as 500 ton.

(4) Regulasies 97 en 98 is ook van toepassing op 'n klas-X-skip van minder as 150 ton, uitgesonderd 'n skiboot of ander platboomskuit: Met dien verstande dat 'n kragpomp op 'n skip van minder as 25 ton deur 'n handpomp vervang kan word.

HOOFSTUK X.—SKEPE VAN KLAS XI.

101. *Vereistes.*

Elke klas-XI-skip moet toegerus wees met—

(*a*) een pomp en een brandslang deur middel waarvan 'n kragtige straal water maklik op enige deel van die skip gerig kan word;

(*b*) voldoende draagbare brandblussers om te verseker dat minstens een beskikbaar is vir onmiddellike gebruik in elke afdeling van die bemanningsruimtes en van die passasiersruimtes, indien daar is; en

(*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 nie	3, waarvan twee aan 'n koord geheg is.
Oor 70	4, waarvan twee aan 'n koord geheg is.

HOOFSTUK XI.—SKEPE VAN KLAS XII.

102. *Vereistes.*

(1) Elke klas-XII-skip van 75 voet of langer moet toegerus wees met 'n pomp en 'n brandslang deur middel waarvan 'n kragtige straal water vinnig op enige deel van die skip gerig kan word.

(2) Elke klas-XII-skip moet toegerus wees met 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 75 nie	3, waarvan twee aan 'n koord geheg is.
Oor 75	4, waarvan twee aan 'n koord geheg is.

98. *Ships of Class VIII of Less than* 150 *Tons: Portable Fire Extinguishers.*

(1) Every class VIII ship of less than 150 tons, shall be provided with portable fire extinguishers suitable for extinguishing oil fires, so situated as to be readily available for use, in accordance with the following table:—

Length of ship in feet.	*Minimum number of extinguishers.*
Under 40 feet	1
40 feet or over but less than 70 feet	2
70 feet or over	3

CHAPTER VIII.—SHIPS OF CLASS IX OR IXA.

99. *Requirements.*

Regulations 86 to 98 inclusive, shall apply also to a class IX or IXA ship.

CHAPTER IX.—SHIPS OF CLASS X.

100. *Requirements.*

(1) Regulations 72 and 73 and regulations 75 to 78 inclusive, shall apply to a class X ship of 1,000 tons or over as they apply to a class VII ship of 1,000 tons or over.

(2) Regulation 87 (1), (2), (4), (5) and (6) and regulations 88 to 91 inclusive shall apply also to a class X ship of 500 tons or over but of less than 1,000 tons.

(3) Regulations 92 to 95 inclusive shall apply also to a class X ship of 150 tons or over but of less than 500 tons.

(4) Regulations 97 and 98 shall apply also to a class X ship of less than 150 tons other than a ski or other surf boat: Provided that a hand pump may be substituted for a power pump in a ship of less than 25 tons.

CHAPTER X.—SHIPS OF CLASS XI.

101. *Requirements.*

Every class XI ship shall be provided with—

(*a*) one pump and one fire hose whereby a powerful jet of water can be readily 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; and

(*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.

CHAPTER XI.—SHIPS OF CLASS XII.

102. *Requirements.*

(1) Every class XII ship of 75 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 75	3, two of which shall be fitted with lanyards.
Over 75	4, two of which shall be fitted with lanyards.

(3) Elke klas-XII-skip van 75 voet of langer wat toegerus is met aandrywingsmasjinerie van die binnebrandtipe moet beskik oor 'n spuitstuk wat geskik is om water op olie te sproei deur middel van die brandslang in subregulasie (1) vermeld.

(4) Elke klas-XII-skip wat toegerus is met aandrywingsmasjinerie van die binnebrandtipe moet beskik oor draagbare brandblussers wat in staat is om skuim of 'n ander bestanddeel wat geskik is om oliebrande te blus, uit te spuit, en die getal sodanige blussers moet ooreenkomstig die volgende tabel wees:—

Remperdekrag van hoofmasjiene.	*Getal brandblussers.*
Nie oor 500 nie.....	2
Oor 500.....	3

(5) Elke klas-XII-skip wat slegs deur seile voortgedryf word, moet minstens twee draagbare brandblussers aan boord hê.

HOOFSTUK XII.—ALGEMENE VEREISTES BETREFFENDE BRANDTOESTELLE.

103. *Bykomstige Vereistes vir Skepe wat Plofstowwe Vervoer.*

(1) Terwyl 'n skip, uitgesonderd 'n skip wat meer as 12 passasiers vervoer, plofstowwe aan boord het van 'n aard of in 'n hoeveelheid wat ooreenkomstig die betrokke bepalings van die Regulasies in verband met die Veiligheid van die Navigasie, 1961, nie in 'n passasierskip vervoer mag word nie, mag stoom nie vir brandsmoordoeleindes gebruik word in 'n afdeling wat plofstowwe bevat nie, en in elke sodanige afdeling wat plofstowwe bevat en in elke aangrensende vragafdeling moet 'n brandverklikstelsel wat aan die vereistes van regulasie 113 voldoen, of 'n rookverklikstelsel, verskaf word.

(2) Vir die toepassing van hierdie regulasie beteken „ afdeling " alle ruimtes tussen twee aangrensende permanente beskotte, en dit sluit in die onderruim en alle vragruimtes daarbo. Die hele skuildekruimte wat nie onderverdeel is deur staalbeskotte met openings wat deur staalsluitplate toegemaak kan word nie, moet vir die toepassing van hierdie regulasie as een ruimte beskou word. Wanneer staalbeskotte met openings wat deur staalsluitplate toegemaak word, aangebring word, moet die ingeslote ruimtes in die skuildek as deel van die afdeling of afdelings daaronder beskou word.

104. *Brandpompe.*

(1) (*a*) Op elke passasierskip wat ingevolge hierdie deel met kragbediende brandpompe toegerus moet wees, moet sodanige brandpompe (uitgesonderd 'n noodbrandpomp) saam in staat wees om, onder die voorwaardes en onder die druk in regulasie 105 gespesifiseer, vir brandbestrydingsdoeleindes minstens twee-derdes soveel water te lewer as wat die lenspompe wat ingevolge Hoofstuk III van deel I van die Regulasies in verband met Konstruksie, 1968, op die skip verskaf moet word, moet behartig.

(*b*) Op elke skip, uitgesonderd 'n passasierskip, wat ingevolge hierdie deel met kragbediende brandpompe toegerus moet wees, moet sodanige brandpompe (uitgesonderd 'n noodbrandpomp) saam in staat wees om, onder die voorwaardes en onder die druk in regulasie 105 gespesifiseer, vir brandbestrydingsdoeleindes 'n hoeveelheid water te lewer wat nie kleiner moet wees nie as die hoeveelheid verkry deur middel van die volgende formule:—

Hoeveelheid water in ton per uur = Cd^2.

(3) Every class XII ship of 75 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 subregulation (1).

(4) Every class XII ship fitted with internal combustion propelling machinery shall be provided with portable fire extinguishers capable of discharging foam or some other substance suitable for quencing 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.....	3

(5) Every class XII ship in which sails are the only means of propulsion shall carry not less than 2 portable fire extinguishers.

CHAPTER XII.—GENERAL REQUIREMENTS REGARDING FIRE APPLIANCES.

103. *Additional Requirements for Ships Carrying Explosives.*

(1) Where any ship, other than a ship carrying more than 12 passengers, carries explosives of such a nature or in such quantity as are not permitted to be carried in a passenger ship by the relative provisions of the Safety of Navigation Regulation, 1961, steam shall not be used for fire smothering purposes in any compartment containing explosives, and in any such compartment containing explosives and in every adjacent cargo compartment there shall be provided a fire detection system complying with the requirements of regulation 113 or a smoke detection system.

(2) For the purpose of this regulation, " compartment " means all spaces contained between 2 adjacent permanent bulkheads, and includes the lower hold and all cargo spaces above it. The whole of any shelter deck space not subdivided by steel bulkheads the openings in which can be closed by steel closing plates, shall for the purpose of this regulation be considered as a single space. Where steel bulkheads with openings closed by steel closing plates are fitted, the enclosed spaces in the shelter deck shall be considered as part of the compartment or compartments below.

104. *Fire Pumps.*

(1) (*a*) In every passenger ship which is required by this part to be provided with fire pumps operated by power, such fire pumps (other than any emergency fire pump) shall together be capable of delivering for fire fighting purposes a quantity of water, under the conditions and at the pressure specified in regulation 105, of not less than two-thirds of the quantity required to be dealt with by the bilge pumps provided in the ship in compliance with chapter III of part I of the Construction Regulations, 1968.

(*b*) in every ship, other than a passenger ship, which is required by this part to be provided with fire pumps operated by power, such fire pumps (other than any emergency fire pump) shall together be capable of delivering for fire fighting purposes a quantity of water, under the conditions and at the pressure specified in regulation 105, which shall not be less than the quantity obtained from the following formula:—

Quantity of water in tons per hour = Cd^2.

Waar—

(i) C=5 in die geval van 'n skip wat toegerus moet wees met meer as een brandpomp (uitgesonderd 'n noodbrandpomp) en C=2·5 in die geval van 'n skip wat met slegs een brandpomp toegerus moet wees; en

(ii) $d=1+\sqrt{\frac{L(B+D)}{2500}}$ tot die naaste $\frac{1}{4}$.

Waar—

L=lengte van die skip in voet op die somerlaaiwaterlyn van die voorkant van die voorstewe tot by die agterkant van die roerpos. Indien daar geen roerpos is nie, moet die lengte gemeet word vanaf die voorkant van die voorstewe tot by die as van die roerkoning. In die geval van 'n skip met 'n kruiser-agterstewe, moet die lengte beskou word as 96 persent van die totale lengte van die bedoelde somerlaaiwaterlyn, of as die lengte vanaf die voorkant van die voorstewe tot by die as van die roerkoning, indien laasgenoemde lengte die grootste is;

B=grootste breedte van die skip ooreenkomstig die mal, in voet; en

D=holte van die skip ooreenkomstig die mal gemeet tot by die beskotdek midskeeps:

Op so 'n skip hoef die totale vereiste vermoë van die brandpompe vir brandbestrydingsdoeleindes egter nie 180 ton per uur te bowe te gaan nie.

(2) Elke brandpomp wat ooreenkomstig hierdie deel deur krag bedien moet word, moet, behoudens uitdruklik andersluidende bepalings in hierdie deel, bedien word deur ander middels as die hoofmasjiene van die skip. Brandpompe wat ingevolge hierdie deel verskaf word, kan sanitêre, ballas-, lens- of algemene dienspompe wees, mits hulle nie normaalweg gebruik word om olie te pomp nie en mits geskikte omskakelingsinrigtings aangebring is in gevalle waar hulle miskien af en toe aangewend word om olie oor te voer of te pomp en bedieningsvoorskrifte duidelik by die omskakelingspos vertoon word.

(3) (*a*) Op elke skip wat ingevolge hierdie deel toegerus moet wees met meer as een kragbediende brandpomp (uitgesonderd 'n noodbrandpomp), moet elke sodanige brandpomp 'n vermoë hê gelyk aan minstens 80 persent van die totale vermoë van die brandpompe by subregulasie (1) voorgeskryf, gedeel met die getal brandpompe wat ingevolge hierdie deel op die skip verskaf moet word. Wanneer meer kragbediende brandpompe as dié by hierdie deel voorgeskryf op 'n skip verskaf word, kan die Owerheid egter toelaat dat die vermoë van elkeen van sodanige addisionele brandpompe minder as 80 persent is.

(*b*) Elke brandpomp by hierdie deel voorgeskryf wat deur krag bedien word, moet in staat wees om vanaf enige brandkraan of brandkrane op die skip minstens die minimum getal strale water te lewer wat by hierdie deel voorgeskryf word as geskik vir die klas en tonnemaat van die skip, terwyl die druk by regulasie 105 (2) voorgeskryf, gehandhaaf word.

(4) Alle brandpompe moet met ontlaskleppe toegerus wees indien die pompe 'n groter druk kan ontwikkel as die ontwerpdruk van die hoofbrandpyp, watertoevoerpype, brandkrane en brandslange. Hierdie kleppe moet so geleë en ingestel wees dat oormatige druk in enige deel van die hoofbrandnet voorkom sal word.

(5) Elke sentrifugale pomp wat met die hoofbrandpyp verbind is, moet met 'n terugslagklep toegerus wees.

(6) Op elke skip van klas I, II of IIA moet elke noodbrandpomp geleë wees op 'n plek agter die aanvaringsbeskot van die skip.

Where—

(i) C=5 for a ship required to be provided with more than 1 fire pump (excluding any emergency fire pump) and C=2·5 for a ship required to be provided with only one fire pump; and

(ii) $d=1+\sqrt{\frac{L(B+D)}{2500}}$ to the nearest $\frac{1}{4}$.

Where—

L= length of the ship in feet on the summer load waterline from the foreside of the stem to the afterside of the rudder post. Where there is no rudder post, the length is measured from the foreside of the stem to the axis of the rudder stock. For a ship with a cruiser stern, the length shall be taken as 96 per cent of the total length of the designed summer load waterline, or as the length from the foreside of the stem to the axis of the rudder stock if that be the greater;

B=greatest moulded breadth of the ship in feet; and

D=moulded depth of the ship in feet measured to the bulkhead deck amidships:

Provided that in any such ship, the total capacity of the fire pumps for fire fighting purposes shall not be required to exceed 180 tons per hour.

(2) Every fire pump required by this part to be operated by power shall, except as expressly provided otherwise in this part, be operated by a means other than the ship's main engines. Fire pumps provided in compliance with this part may be sanitary, ballast, bilge or general service pumps, provided that they are not normally used for pumping oil and that if they are subject to occasional duty for the transfer or pumping of oil, suitable change-over arrangements are fitted and operating instructions conspicuously displayed at the changeover position.

(3) (*a*) In every ship which is required by this part to be provided with more than 1 fire pump operated by power (other than any emergency pump), every such fire pump shall have a capacity of not less than 80 per cent of the total capacity of the fire pumps required by subregulation (1) divided by the number of fire pumps required by this part to be provided in the ship: Provided that when more fire pumps operated by power than are required by this part are provided in any ship, the Authority may permit the capacity of any such additional fire pumps to be less than 80 per cent.

(*b*) Every fire pump required by this part which is operated by power, shall be capable of producing from any fire hydrant or hydrants in the ship, at least the minimum number of jets of water required by this part as appropriate to the class and tonnage of the ship, while maintaining the pressure required by regulation 105 (2).

(4) Relief valves shall be provided in conjunction with all fire pumps if the pumps are capable of developing a pressure exceeding the design pressure of the fire main, water service pipes, hydrants and hoses. Such valves shall be so placed and adjusted as to prevent excessive pressure in any part of the fire main system.

(5) Every centrifugal pump which is connected to the fire main, shall be fitted with a non-return valve.

(6) In every class I, II or IIA ship, any emergency fire pump shall be situated in a position aft of the ship's collision bulkhead.

105. *Hoofbrandpyp, Watertoevoerpype en Brandkrane.*

(1) Op elke skip wat ingevolge hierdie deel toegerus moet wees met kragbediende brandpompe, moet die deursnee van die hoofbrandpyp en van die watertoevoerpype wat die brandkrane met die hoofbrandpyp verbind, voldoende wees vir die doeltreffende verspreiding van die maksimum uitstroming by hierdie deel vereis, uit—

(*a*) een brandpomp, wanneer slegs een pomp by hierdie deel voorgeskryf word;

(*b*) twee pompe wat gelyktydig werk, wanneer twee pompe aldus voorgeskryf word; of

(*c*) die twee grootste pompe wat gelyktydig werk in gevalle waar meer as twee pompe aldus voorgeskryf word:

Met dien verstande dat die deursnee van die hoofbrandpyp en van die watertoevoerpype op enige skip, uitgesonderd 'n passasierskip, slegs voldoende hoef te wees vir die uitlating van 140 ton per uur.

(2) Wanneer die brandpompe, by hierdie deel voorgeskryf, die hoeveelheid water in subregulasie (1) vermeld deur aangrensende brandkrane in enige deel van die skip lewer uit spuitstukke waarvan die groottes in regulasie 106 genoem word, moet die volgende minimum druk by enige brandkraan gehandhaaf kan word:—

(*a*) In enige passasierskip—

(i) van 4,000 ton of meer—45 pond per vierkante duim;

(ii) van 1,000 ton of meer, maar minder as 4,000 ton—40 pond per vierkante duim;

(iii) van minder as 1,000 ton—30 pond per vierkante duim;

(*b*) in enige skip, uitgesonderd 'n passasierskip—

(i) van 6,000 ton of meer—40 pond per vierkante duim;

(ii) van 1,000 ton of meer, maar van minder as 6,000 ton—37 pond per vierkante duim;

(iii) van minder as 1,000 ton—30 pond per vierkante duim.

(3) (*a*) Waar hierdie deel vereis dat 'n skip twee strale water ingevolge die voorskrifte van hierdie deel moet voorsien, moet die brandkrane, voldoende in getal, sodanig aangelê wees dat minstens twee strale water wat nie van dieselfde brandkraan uitstroom nie en waarvan een deur 'n enkellengtebrandslang gelewer word, enige deel van die skip wat normaalweg toeganklik is vir die passasiers of bemanning terwyl die skip voortvaar, en enige pakkamer en enige deel van 'n vragruimte wanneer dié leeg is, kan bykom.

(*b*) Waar hierdie deel vereis dat 'n skip een straal water ingevolge die voorskrifte van hierdie deel moet voorsien, moet die brandkrane, voldoende in getal, sodanig aangelê wees dat een straal water vanaf 'n enkellengtebrandslang enige deel van die skip wat normaalweg toeganklik is vir die passasiers of bemanning terwyl die skip voortvaar, en enige pakkamer en enige deel van 'n vragruimte wanneer dié leeg is, kan bykom.

(4) (*a*) Die hoofbrandpyp moet geen ander aansluitings hê nie behalwe dié wat nodig is vir brandbestryding en spoeldoeleindes.

(*b*) Materiaal wat geredelik deur hitte ondoeltreffend gemaak word, mag nie vir hoofbrandpype gebruik word nie, tensy dit behoorlik beskerm is. Die pype en brandkrane moet só geleë wees dat die brandslange maklik aan hulle gekoppel kan word. Op 'n skip wat dekvrag mag vervoer, moet die brandkrane so geleë wees dat hulle altyd geredelik toeganklik is en moet die pype vir sover doenlik

105. *Fire Main, Water Service Pipes and Hydrants.*

(1) In every ship which is required by this part to be provided with fire pumps operated by power, the diameter of the fire main and of the water service pipes connecting the hydrants thereto, shall be sufficient for the effective distribution of the maximum discharge required by this part from—

(*a*) where only 1 pump is required by this part, that pump;

(*b*) where 2 pumps are so required, both pumps operating simultaneously; or

(*c*) where more than two pumps are so required, the 2 largest of such pumps operating simultaneously:

Provided that in any ship, other than a passenger ship, the diameter of the fire main and of the water service pipes shall be required to be sufficient only for the discharge of 140 tons per hour.

(2) When the fire pumps required by this part, are discharging the quantity of water required by subregulation (1) through adjacent fire hydrants in any part of the ship from nozzles of sizes specified in regulation 106, the following minimum pressure shall be capable of being maintained at any hydrant:—

(*a*) In any passenger ship—

(i) of 4,000 tons or over—45 lb per square inch;

(ii) of 1,000 tons or over but of less than 4,000 tons—40 lb per square inch;

(iii) of less than 1,000 tons—30 lb per square inch;

(*b*) in any ship, other than a passenger ship—

(i) of 6,000 tons or over—40 lb per square inch;

(ii) of 1,000 tons or over but of less than 6,000 tons—37 lb per square inch;

(iii) of less than 1,000 tons—30 lb per square inch.

(3) (*a*) Where any ship is required by this part to provide 2 jets of water under the conditions required by this part, hydrants sufficient in number, shall be so positioned as to enable at least 2 jets of water not emanating from the same hydrant, 1 of which shall be from a single length of hose, to reach any part of the ship normally accessible to the passengers or crew while the ship is being navigated, and to any store room and any part of any cargo space when empty.

(*b*) Where any ship is required by this part to provide 1 jet of water under the conditions required by this part, hydrants sufficient in number, shall be so positioned as to enable 1 jet of water from a single length of hose to reach any part of the ship normally accessible to the passengers or crew while the ship is being navigated, and any store room and any part of any cargo space when empty.

(4) (*a*) The fire main shall have no connections other than those necessary for fire-fighting and washing down.

(*b*) Materials readily rendered ineffective by heat, shall not be used for fire mains unless adequately protected. The pipes and fire hydrants shall be so placed that the fire hoses may be easily coupled to them. In a ship which may carry deck cargo, the fire hydrants shall be so placed that they are always readily accessible, and the pipes shall

so geplaas wees dat gevaar van beskadiging deur sodanige vrag vermy word. Tensy een brandslang met spuitstuk vir elke brandkraan op die skip verskaf word, moet die brandslangkoppelings en spuitstukke volkome verwisselbaar wees.

(*c*) Kleppe van die skroefheftipe of krane moet op sodanige plekke aan die pype aangebring word dat enige van die brandslange verwyder kan word terwyl die brandpompe aan die werk is.

(*d*) Die waterpype moet nie uit gietyster vervaardig word nie, en indien hulle van yster of staal gemaak word, moet dit gegalvaniseer wees.

(*e*) Wanneer spoeldeklyne nie self-dreinerend is nie, moet geskikte aftapkrane aangebring word om beskadiging deur ryp te vermy.

(*f*) Op 'n skip van klas I of II moet water uit die hoofbrandpyp sover doenlik onmiddellik beskikbaar wees, bv. deur instandhouding van druk of deur afstandsbeheer van die brandpompe, en die beheermiddels moet maklik bedien kan word en geredelik toeganklik wees.

106. *Brandslange, Spuitstukke, ens.*

(1) Brandslange wat ingevolge hierdie deel verskaf moet word, moet nie langer as 60 voet wees nie, maar op 'n skip met 'n malbreedte van 90 voet of meer, moet die brandslange wat vir buiteplekke en vir vragruimtes gebruik word, nie langer as 90 voet wees nie. Dergelike brandslange moet vervaardig wees uit digweefvlasseildoek of ander geskikte materiaal, en moet toegerus wees met koppelings, takpype en ander noodsaaklike toebehore, en met 'n gewone spuitstuk bo en behalwe enige sproeispuitstuk wat by hierdie deel voorgeskryf word.

(2) Elke brandslang wat ingevolge hierdie deel verskaf word, moet saam met die gereedskap en toebehore wat noodsaaklik is vir die gebruik daarvan in 'n ooglopende plek gehou word naby die brandkrane of aansluitings waarmee dit saam gebruik sal word.

(3) Brandslange wat ingevolge hierdie deel verskaf word, mag vir geen ander doel as vir die blus van brande of die toetsing van brandtoestelle gebruik word nie, behalwe op skepe van klas V of VI wat gedeeltelik gedek is of op skepe van klas X of klas XII.

(4) (*a*) Elke skip wat ingevolge hierdie deel met kragbediende brandpompe toegerus moet wees, moet beskik oor spuitstukke met 'n deursnee van $\frac{1}{2}$, $\frac{5}{8}$ of $\frac{3}{4}$ duim of so na as moontlik daaraan. Spuitstukke met 'n groter deursnee is toelaatbaar mits die vereistes van hierdie deel met betrekking tot die verskaffing van water vir brandbestrydingsdoeleindes in ander opsigte nagekom word.

(*b*) Vir masjinerieruimtes en buiteplekke van die skip moet die deursnee van die spuitstukke sodanig wees dat daar vanaf die kleinste brandpomp wat ooreenkomstig regulasie 104 (3) (*a*) toegelaat word die grootste moontlike hoeveelheid water deur die minimum getal strale onder die drukking by hierdie deel voorgeskryf, gelewer sal word: Met dien verstande dat die deursnee van die spuitstukke nie groter as $\frac{3}{4}$ duim hoef te wees nie.

(*c*) Vir akkommodasie- en diensruimtes word daar nie spuitstukke met 'n deursnee van meer as $\frac{1}{2}$ duim voorgeskryf nie.

(*d*) Elke sproeispuitstuk wat ingevolge hierdie deel verskaf word, moet sproeiwater kan lewer wat geskik is om oliebrande te blus en moet verskaf word bo en behalwe enige gewone spuitstuk wat by subregulasie (1) voorgeskryf word: Met dien verstande dat 'n tweedoelspuitstuk wat in staat is om beurtelings sproeiwater en 'n gewone straal water te lewer, in die plek daarvan verskaf kan word.

be arranged as far as practicable to avoid risk of damage by such cargo. Unless there is provided 1 fire hose and nozzle for each fire hydrant in the ship, there shall be complete interchangeability of fire hose couplings and nozzles.

(*c*) Valves of the screw lift type or cocks shall be fitted in such positions on the pipes that any of the fire hoses may be removed while the fire pumps are at work.

(*d*) The water pipes shall not be made of cast iron, and if made of iron or steel, shall be galvanised.

(*e*) where wash deck lines are not self-draining, suitable drain cocks shall be fitted to avoid damage by frost.

(*f*) In a class I or II ship, water from the fire main shall, so far as practicable, be immediately available, such as by maintenance of pressure or by remote control of fire pumps, which control shall be easily operable and readily accessible.

106. *Fire Hoses, Nozzles, Etc.*

(1) Fire hoses provided in compliance with this part, shall not exceed 60 feet in length except that in a ship having a moulded breadth of 90 feet or more, the length of the fire hoses for exterior locations and for cargo spaces shall not exceed 90 feet in length. Such hoses shall be made of closely woven flax canvas or other suitable material, and shall be provided with couplings, branchpipes and other necessary fittings, and with a plain nozzle 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 a partially decked class V or VI ship or in a class X or XII ship, fire hoses provided in compliance with this part, shall not be used for any purpose other than extinguishing fire or testing with fire appliances.

(4) (*a*) Every ship which is required by this part to be provided with fire pumps operated by power, shall be provided with nozzles of $\frac{1}{2}$ inch, $\frac{5}{8}$ inch or $\frac{3}{4}$ inch in diameter or as near thereto in diameter as possible. Nozzles larger in diameter may be provided if the requirements of this part relating to the provision of water for fire fighting purposes are otherwise complied with.

(*b*) For machinery spaces and exterior locations, the diameter of the nozzles shall be such as to obtain the maximum possible discharge from the minimum number of jets of water and at the pressure required by this part from the smallest fire pump permitted by regulation 104 (3) (*a*): Provided that the diameter of the nozzles shall not be required to be greater than $\frac{3}{4}$ inch.

(*c*) For accommodation and service spaces, the diameter of the nozzles shall not be required to be greater than $\frac{1}{2}$ inch.

(*d*) Every spray nozzle provided in compliance with this part, shall be capable of producing a water spray suitable for extinguishing oil fires and shall be provided in addition to any plain nozzle required by subregulation (1): Provided that a dual-purpose nozzle capable of producing alternately such a spray and a plain water jet, may be provided in substitution.

107. *Internasionale Landaansluiting.*

'n Internasionale landaansluiting wat ingevolge hierdie deel verskaf word, moet ooreenkomstig die voorskrifte van bylae 18 gebou wees.

108. *Brandblussers.*

(1) Elke brandblusser wat ingevolge hierdie deel verskaf word, moet gebou wees ooreenkomstig die betrokke bylae wat in die tweede kolom van die volgende tabel genoem word:—

Tipe brandblusser.	*Bylae.*
Nie-draagbare skuimbrandblusser	19
Draagbare of nie-draagbare koolsuurgasbrandblusser	20
Draagbare skuim-, water- (gasdruk) of water-(sodasuur) brandsblusser	21
Draagbare droëpoeierbrandblusser	22

(2) Behoudens die bepalings van subregulasie (3) moet—

(*a*) elke draagbare brandblusser (uitgesonderd 'n koolsuurgasbrandblusser) wat ingevolge hierdie deel verskaf word, 'n inhoudsvermoë van hoogstens 3 en minstens 2 gellings hê indien hy van 'n tipe is wat vloeistof uitlaat;

(*b*) elke draagbare koolsuurgasbrandblusser wat ingevolge hierdie deel verskaf word, 'n inhoudsvermoë van minstens 7 pond koolsuurgas hê;

(*c*) elke draagbare droëpoeierbrandblusser wat ingevolge hierdie deel verskaf word, 'n inhoudsvermoë van minstens 10 pond droë poeier hê;

(*d*) elke draagbare brandblusser van enige ander tipe wat ingevolge hierdie deel verskaf word, 'n blusvermoë hê wat minstens gelyk is aan dié van 'n vloeistofbrandblusser met 'n inhoudsvermoë van 2 gellings;

(*e*) elke draagbare brandblusser wat ingevolge hierdie deel verskaf word, met sy volle lading vir diens toestande hoogstens 56 pond weeg en net so draagbaar wees soos 'n vloeistofbrandblusser met 'n inhoudsvermoë van 3 gellings.

(3) Die Sekretaris kan toelaat dat 'n skip van klas IX, IXA, X, XI of XII in die plek van elke draagbare brandblusser wat ingevolge hierdie deel verskaf moet word, toegerus word met 'n kombinasie van draagbare brandblussers, deur hom goedgekeur, met 'n globale blusvermoë wat minstens gelyk is aan dié van 'n vloeistofbrandblusser met 'n inhoudsvermoë van 2 gellings.

(4) Elke draagbare brandblusser wat ingevolge hierdie deel verskaf word vir gebruik in akkommodasie- of diensruimtes van 'n skip moet, sover doenlik, 'n eenvormige bedieningsmetode hê.

(5) Waar draagbare droëpoeierbrandblussers ingevolge hierdie deel òf in akkommodasie- en diensruimtes òf in masjinerieruimtes verskaf word, moet hul getal nie een helfte van die totale getal brandblussers wat in die een of ander sodanige ruimte verskaf word, te bowe gaan nie.

(6) 'n Brandblusser wat vir gebruik op 'n skip verskaf word, mag nie 'n blusmiddel bevat wat òf vanself òf wanneer in gebruik gas afgee wat nadelig vir persone is nie.

(7) Vir die toepassing van hierdie deel word daar beskou dat die inhoudsvermoë van 'n brandblusser, uitgesonderd 'n koolsuurgasbrandblusser, die grootste volume of gewig van die blusmiddel is wat hy kan bevat wanneer voldoende ruimte oorbly om die behoorlike bediening van die brandblusser te verseker.

(8) Vir die toepassing van hierdie deel word daar beskou dat die inhoudsvermoë van 'n koolsuurgasbrandblusser die grootste gewig van koolsuurgas is wat hy met veiligheid in 'n tropiese klimaat kan bevat.

107. *International Shore Connection.*

Any international shore connection provided in compliance with this part, shall be constructed in accordance with the requirements of annex 18.

108. *Fire Extinguishers.*

(1) Every fire extinguisher provided in compliance with this part, shall be constructed in accordance with the relative annex specified in the second column of the following table:—

Type of extinguisher.	*Annex.*
Non-portable foam	19
Portable or non-portable carbon dioxide	20
Portable foam, water (gas pressure) or water (soda acid)	21
Portable dry powder	22

(2) Subject to the provisions of subregulation (3)—

(*a*) every portable fire extinguisher (other than a carbon dioxide fire extinguisher) provided in compliance with this part shall, if it is of a type discharging fluid, have a capacity of not more than 3 and not less than 2 gallons;

(*b*) every portable carbon dioxide fire extinguisher provided in compliance with this part, shall have a capacity of not less than 7 lb of carbon dioxide;

(*c*) every portable dry powder fire extinguisher provided in compliance with this part, shall have a capacity of not less than 10 lb of dry powder;

(*d*) every portable fire extinguisher of any other type provided in compliance with this part, shall be of not less than the fire extinguishing equivalent of a 2 gallon fluid fire extinguisher;

(*e*) every portable fire extinguisher provided in compliance with this part, shall not exceed 56 lb in weight in the fully charged service condition and shall be as portable as a 3 gallon fluid fire extinguisher.

(3) The Secretary may in a class IX, IXA, X, XI or XII ship permit for every portable fire extinguisher required to be provided in compliance with this part, the provision of a combination of portable fire extinguishers approved by him having an aggregate capacity of not less than the fire extinguishing equivalent of a 2 gallon fluid fire extinguisher.

(4) Every portable fire extinguisher provided in compliance with this part for use in accommodation or service spaces of any ship shall, so far as practicable, have a uniform method of operation.

(5) Where portable dry powder fire extinguishers are provided in compliance with this part in either accommodation and service spaces or in machinery spaces, their number shall not exceed one half of the total number of extinguishers provided in either of those spaces.

(6) A fire extinguisher provided for use in any ship, shall not contain an extinguishing medium which either itself or when in use, gives off gases harmful to persons.

(7) For the purpose of this part, the capacity of any fire extinguisher other than a carbon dioxide fire extinguisher, shall be taken to be the greatest volume or weight of extinguishing medium which it can contain when sufficient space is left to ensure the proper operation of the extinguisher.

(8) 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 safely contain in a tropical climate.

(9) Elke brandblusser wat ingevolge hierdie deel verskaf word, moet te alle tye ten volle gelaai gehou word.

(10) 'n Reserwelading moet verskaf word vir elke draagbare brandblusser wat ingevolge hierdie deel aan boord gehou word, maar vir elke sodanige brandblusser van 'n tipe wat nie maklik herlaai kan word terwyl die skip op die see vaar nie, moet 'n addisionele draagbare brandblusser van dieselfde tipe, of die ekwivalent daarvan, in die plek van 'n reserwelading verskaf word.

109. *Brandemmers.*

(1) Elke brandemmer wat ingevolge hierdie deel verskaf word, moet rooi geverf word en die Engelse woord „FIRE" en die Afrikaanse woord „BRAND" moet duidelik met blywende letters daarop aangebring word. Behalwe op 'n oop skip moet al sodanige brandemmers vol sand of water gehou word.

(2) Behalwe op 'n oop skip mag brandemmers wat ingevolge hierdie deel verskaf word, vir geen ander doel as vir brandbestryding gebruik word nie.

110. *Vaste Drukwatersproeistelsels vir Masjinerie-Ruimtes.*

(1) Elke vaste drukwatersproeistelsel wat ingevolge hierdie deel aangebring word, moet voorsien word van 'n pomp, pypleidingstelsel, beheerkleppe en sproeikoppe.

(2) Die tipe, getal en plasing van die sproeikoppe moet sodanig wees dat 'n doeltreffende verspreiding van water verseker word om oliebrande doelmatig te blus in die ruimtes wat beskerm moet word. Sproeikoppe moet aangebring word bokant kimme, tenktoppe en ander oppervlaktes waaroor oliebrandstof kan versprei en bokant ander hoofbrandgevaarplekke in die ruimtes wat beskerm moet word.

(3) Die watersproeistelsel kan ingedeel word in seksies en moet beheer word vanaf verdeelspruitpype met kontrolekleppe wat bedien moet kan word vanaf maklik toeganklike plekke buite die ruimtes wat beskerm moet word, en wat nie geredelik deur die uitbreek van 'n brand afgesny sal word nie.

(4) Die watersproeistelsel moet onder die nodige druk gelaai gehou word, en die pomp wat die water vir die stelsel verskaf, moet by 'n drukverlaging in die stelsel outomaties in werking kom.

(5) Die pomp moet in staat wees om gelyktydig onder die nodige druk alle seksies van die watersproeistelsel in 'n enkele afdeling wat beskerm moet word, van water te voorsien. Die pomp en sy beheermiddels moet geïnstalleer word buite die ruimte of ruimtes wat beskerm moet word. Die stelsel moet nie buite werking gestel kan word deur 'n brand in die ruimte of ruimtes wat deur die watersproeistelsel beskerm word nie.

(6) Middels moet verskaf word om te verhoed dat sproeikoppe deur onsuiwerhede in die water of die verroesting van pype, sproeikoppe, kleppe en pompe verstop word.

(7) Die watersproeistelsel moet mobiele sproeiers insluit wat gereed is vir onmiddellike gebruik in die stookopper-vlakte van die ketel of in die nabyheid van die oliebrandstofeenheid.

(8) Op passasierskepe moet geen deel van die watersproeistelsel voor die aanvaringsbeskot geleë wees nie.

(9) Gebruiksaanwysigings, in albei die amptelike landstale van die Republiek, moet duidelik met blywende letters, op elke watersproeistelsel of op 'n aangrensende plek aangebring word.

(9) Every fire extinguisher provided in compliance with this part shall at all times be kept fully charged.

(10) A spare charge shall be provided for every portable fire extinguisher provided in compliance with this part, except that for each such fire extinguisher which is of a type which cannot readily be recharged while the ship is at sea, an additional portable fire extinguisher of the same type, or its equivalent, shall be provided in lieu of a spare charge.

109. *Fire Buckets.*

(1) Every fire bucket provided in compliance with this part, shall be painted red and shall be clearly and permanently marked with the English word "FIRE" and the Afrikaans word "VUUR". Except in an open ship, every such fire bucket shall be kept filled with sand or water.

(2) Except in an open ship, fire buckets provided in compliance with this part, shall not be used for any purpose other than for extinguishing fire.

110. *Fixed Pressure Water Spraying Systems for Machinery Spaces.*

(1) Every fixed pressure water spraying system fitted in compliance with this part shall be provided with a pump, piping system, control valves, and spraying nozzles.

(2) The spraying nozzles shall be of such a type, sufficient in number and so arranged as to ensure distribution of water spray such as will effectively extinguish oil on fire in the spaces protected thereby. Spraying nozzles shall be fitted above bilges, tank tops and other areas over which oil fuel is liable to spread and above other main fire hazards in the spaces to be protected.

(3) The water spraying system may be divided into sections and shall be controlled from distribution manifolds the valves of which shall be capable of being operated from easily accessible positions outside the spaces to be protected and which will not be readily cut off by an outbreak of fire.

(4) The water spraying system shall be kept charged at the necessary pressure, and the pump supplying the water for the system shall be automatically put into action by a pressure drop in the system.

(5) The pump shall be capable of supplying water at the necessary pressure simultaneously to all sections of the water spraying system in any one compartment to be protected. The pump and its controls shall be installed outside the space or spaces to be protected. It shall not be possible for a fire in the space or spaces protected by the water spraying system to put the system out of action.

(6) Means shall be provided which will prevent nozzles from becoming clogged by impurities in the water or corrosion of piping, nozzles, valves and pump.

(7) The water spraying system shall include mobile sprayers ready for immediate use in the firing area of the boiler or in the vicinity of the oil fuel unit.

(8) No part of the water spraying system shall be situated forward of the collision bulkhead in any passenger ship.

(9) Operating instructions, in both official languages of the Republic, in clear and permanent lettering, shall be affixed to every water spraying system or in a position adjacent thereto.

111. *Vaste Brandsmorende Gas- en Stoominstallasies.*

(1) Hierdie regulasie is van toepassing op elke vaste brandsmorende gas- of stoominstallasie wat ingevolge hierdie deel aangebring word.

(2) In elke installasie wat verskaf word om gas of stoom vir die blus van brande in masjinerie- of vragruimtes uit te laat, moet die pype vir die toevoer van die gas of stoom toegerus word met kontrolekleppe of krane wat so geplaas moet word dat hulle maklik toeganklik sal wees en nie geredelik deur die uitbreek van 'n brand buite bereik geplaas sal word nie. Dergelike beheerkleppe of krane moet permanent sodanig gemerk wees dat dit duidelik is na watter afdelings die pype loop. Geskikte voorsiening moet gemaak word om te verhoed dat gas of stoom per ongeluk in 'n afdeling kom. Wanneer vragruimtes wat vir beskerming teen brand met 'n brandsmorende gas- of stoomstelsel toegerus is as passasiersruimte gebruik word, moet die smoorgas- of stoompypaansluitings afgedig wees solank sodanige vragruimtes as passasiersruimte diens doen.

(3) (*a*) Die pype moet só ingerig word dat die brandsmorende gas of stoom doeltreffend versprei sal word. Wanneer stoom gebruik word in 'n ruim wat langer as 60 voet is, moet daar minstens twee pype wees, waarvan een in die voorste en die ander in die agterste gedeelte van die ruim aangebring moet word. Behalwe in 'n tenkskip en 'n skip wat gebruik word om steenkool te vervoer, moet die pype vir die toevoer van stoom toegerus word met afvoerpype so laag doenlik in die ruimte wat hulle bedien en so na as moontlik aan die middellyn van die ruimte aangelê.

(*b*) Op 'n tenkskip moet die pype so ingerig word dat die stoom of brandsmoorgas oor die hele oppervlak van die vrag versprei sal word.

(4) (*a*) Wanneer koolsuurgas as blusmiddel in vragruimtes gebruik word, moet die hoeveelheid beskikbare gas voldoende wees om 'n minimum volume vrye gas te lewer wat gelyk is aan 30 persent van die bruto volume van die grootste vragafdeling op die skip wat verseëlbaar is.

(*b*) Wanneer koolsuurgas gebruik word as blusmiddel vir ruimtes wat ketels of masjinerie bevat, moet die hoeveelheid gas aan boord voldoende wees om 'n minimum hoeveelheid vrye gas te lewer wat gelyk is aan die grootste van die volgende hoeveelhede, naamlik—

(i) 40 persent van die bruto volume van die grootste ruimte wat ketels of masjinerie bevat, en sodanige volume moet gemeet word tot op die hoogte waar die horisontale oppervlakte van die kas 40 persent of minder as 40 persent van die bruto oppervlakte van sodanige ruimte is; of

(ii) 35 persent van die bruto volume van die grootste ruimte wat ketels of masjinerie bevat, met inbegrip van die kas:

Met dien verstande dat bovermelde persentasies verminder kan word tot onderskeidelik 35 persent en 30 persent vir 'n skip van minder as 2,000 ton wat nie 'n passasierskip is nie; met dien verstande voorts dat, indien twee of meer ruimtes met ketels of masjinerie nie geheel en al afsonderlik van mekaar is nie, daar vir die toepassing van hierdie regulasie beskou word dat hulle een afdeling uitmaak.

(*c*) Wanneer koolsuurgas as 'n brandblusmiddel gebruik word in 'n ruimte wat 'n oliegestookte ketel of oliebrandstofinstallasie bevat, moet 'n hoeveelheid gas wat sonder gevaar vir die operateur uitgelaat kan word, beskikbaar wees vir toepassing met die hand, deur middel van 'n geskikte aanwendmiddel, in die stookgebied van die ketel en in die nabyheid van die oliebrandstofeenheid.

111. *Fixed Fire Smothering Gas and Steam Installations.*

(1) This regulation applies to every fixed fire smothering gas or steam installation fitted in compliance with this part.

(2) In every installation provided for the injection of gas or steam into machinery or cargo spaces for fire extinguishing purposes, the pipes for conveying the gas or steam shall be provided with control valves or cocks which shall be so placed that they will be easily accessible and not readily cut off from use by an outbreak of fire. Such control valves or cocks shall be permanently marked to indicate clearly the compartments to which the pipes are led. Suitable provision shall be made to prevent inadvertent admission of the gas or steam to any compartement. Where cargo spaces fitted with a gas or steam smothering system for fire protection are used as passenger spaces, the smothering gas or steam pipe connection shall be blanked during service as a passenger space.

(3) (*a*) The piping shall be so arranged as to provide effective distribution of fire smothering gas or steam. Where steam is used in any hold exceeding 60 feet in length, there shall be at least 2 pipes one of which shall be fitted in the forward part and one in the after part of the hold. Except in a tanker and a ship 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 and as near as possible to the centre line of the space.

(*b*) In a tanker, the piping shall be so arranged that the steam or fire smothering gas will be distributed over the surface of the cargo.

(4) (*a*) When carbon dioxide is used as the extinguishing medium in cargo spaces, the quantity of gas available shall be sufficient to give a minimum volume free gas equal to 30 per cent of the gross volume of the largest cargo compartment in the ship which is capable of being sealed.

(*b*) When carbon dioxide is used as an extinguishing medium for spaces containing boilers or machinery, the quantity of gas carried shall be sufficient to give a minimum quantity of free gas equal to the larger of the following quantities, either—

(i) 40 per cent of the gross volume of the largest space containing boilers or machinery, such volume being measured up to the level at which the horizontal area of the casing is 40 per cent or less of the gross area of such space; or

(ii) 35 per cent of the gross volume of the largest space containing boilers or machinery, including the casing:

Provided that the aforesaid percentages may be reduced to 35 per cent and 30 per cent respectively for a ship of less than 2,000 tons, not being a passenger ship, and provided that if two or more spaces containing boilers or machinery are not entirely separate, they shall for the purpose of this regulation be considered as forming one compartment.

(*c*) When carbon dioxide is used as the extinguishing medium for a space containing any oil-fired boiler or oil fuel installation, a quantity of gas which can be discharged without danger to the operator, shall be available for manual application, by means of a suitable applicator, in the firing area of the boiler and in the vicinity of the oil fuel unit.

(*d*) Wanneer koolsuurgas as blusmiddel gebruik word vir sowel vragruimtes as ruimtes wat ketels of masjinerie bevat, hoef die hoeveelheid gas nie groter te wees as die maksimum wat òf vir die grootste vragafdeling òf vir die masjinerieruimte vereis word nie.

(*e*) Vir die toepassing van hierdie subregulasie moet die volume van die gas bereken word teen 9 kubieke voet per pond.

(*f*) Wanneer koolsuurgas gebruik word as blusmiddel vir enige ruimte wat ketels of masjinerie bevat, moet die vaste pypleidingstel sodanig wees dat 85 persent van die gas wat nodig is om die by paragraaf (*b*) genoemde konsentrasie te verskaf wanneer dit in die betrokke ruimte aangewend word, binne twee minute in daardie ruimte uitgelaat kan word.

(*g*) Middels moet verskaf word om hoorbare waarskuwing aan persone in die werkruimte te gee wanneer koolsuurgas, uitgesonderd dié in paragraaf (*c*) genoem, in enige werkruimte vrygelaat gaan word.

(5) Wanneer 'n stelsel wat trae gas produseer, gebruik word om smoorgas in 'n vaste brandsmoorinstallasie vir vragruimtes te verskaf, moet dit 72 uur lank elke uur 'n volume vrye gas kan produseer wat gelyk is aan minstens 25 persent van die bruto volume van die grootste afdeling wat op hierdie wyse beskerm word.

(6) Wanneer stoom as blusmiddel in vragruimtes gebruik word, moet die ketel of ketels wat beskikbaar is vir die verskaffing van stoom 'n verdampingsvermoë hê van minstens 1 pond stoom per uur vir elke 12 kubieke voet van die bruto volume van die grootste vragafdeling. Die inrigtings moet sodanig wees dat stoom onmiddellik beskikbaar sal wees en dat dit nie eers beskikbaar sal word nadat onder ketels vuur aangesteek is nie, en voortdurend tot aan die einde van die reis in die hoeveelheid by hierdie subregulasie vereis, verskaf kan word benewens enige stoom wat nodig is vir die normale vereistes van die skip met inbegrip van aandrywing, en dat voorsiening gemaak is vir addisionele toevoerwater om aan hierdie vereiste te voldoen.

(7) Geen deel van die beheer-, bewarings- of ontwikkelingsinrigting van 'n vaste brandsmorende gas- of stoominstallasie mag voor die aanvaringsbeskot op 'n passasierskip geleë wees nie.

(8) Gebruiksaanwysings, in albei die amptelike landstale van die Republiek, moet duidelik met blywende letters op elke vaste brandsmorende gasinstallasie of op 'n aangrensende plek aangebring word.

112. *Vaste Skuimbrandblusinstallasies.*

(1) Elke vaste skuimbrandblusinstallasie wat ingevolge hierdie deel aangebring word, moet in staat wees om in hoogstens 5 minute deur vaste afvoerpype 'n voldoende hoeveelheid skuim uit te laat om die grootste enkele oppervlakte waaroor oliebrandstof waarskynlik sal sprei, tot 'n diepte van 6 duim te bedek. So 'n installasie moet in staat wees om skuim te ontwikkel wat geskik is om oliebrande te blus, en middels moet verskaf word om die skuim deur middel van 'n permanente pypleidingstelsel en beheerkleppe of krane aan afvoerpype doeltreffend te versprei, en om die skuim deur middel van vaste sproeiers gelyktydig of afsonderlik doeltreffend op ander hoofoliebrandgevare in die oppervlakte wat beskerm moet word, te spuit. So 'n installasie moet mobiele sproeiers insluit wat gereed moet wees vir onmiddellike gebruik in die stookgebied van die ketel en in die nabyheid van die oliebrandstofeenheid.

(2) Elke vaste skuimbrandblusinstallasie wat aangebring word in die plek van 'n vaste brandsmorende gasinstallasie wat ingevolge hierdie deel in die olievragruimtes van 'n tenkskip verskaf moet word, moet in staat wees om in

(*d*) When carbon dioxide is used as the extinguishing medium both for cargo spaces and for spaces containing boilers or machinery, the quantity of gas shall not be required to be more than the maximum required either for the largest cargo compartment or machinery space.

(*e*) For the purpose of this subregulation, the volume of gas shall be calculated at 9 cubic feet to the pound.

(*f*) When carbon dioxide is used as the extinguishing medium for any space containing boilers or machinery, the fixed piping system shall be such that 85 per cent of the gas required to provide the concentration referred to in paragraph (*b*) when applied to the space concerned, can be discharged into that space within 2 minutes.

(*g*) Means shall be provided for giving audible warning to persons within the space when carbon dioxide, other than that specified in paragraph (*c*), is about to be released into any working space.

(5) When a system producing inert gas is used to provide smothering gas in a fixed fire smothering installation for cargo spaces, it shall be capable of producing hourly a volume of free gas at least equal to 25 per cent of the gross volume of the largest compartment protected in this way for a period of 72 hours.

(6) When steam is used as the extinguishing medium in cargo spaces, the boiler or boilers available for supplying steam shall have an evaporation of at least 1 lb of steam per hour for each 12 cubic feet of the gross volume of the largest cargo compartment. The arrangements shall be such that steam will be available immediately and will not be dependent on the lighting of boilers and that it can be supplied continuously until the end of the voyage in the quantity required by this subregulation in addtion to any steam necessary for the normal requirements of the ship, including propulsion, and that provision is made for extra feed water necessary to meet this requirement.

(7) No part of the control, storage or generating arrangement of any fixed fire smothering gas or steam installation shall be situated forward of the collision bulkhead in any passenger ship.

(8) Operating instructions, in both official languages of the Republic, in clear and permanent lettering, shall be affixed to every fixed fire smothering gas installation or in a position adjacent thereto.

112. *Fixed Foam Fire Extinguishing Installations.*

(1) Every fixed foam fire extinguishing installation fitted in compliance with this part, shall be capable of discharging through fixed discharge outlets in not more than 5 minutes, a quantity of foam sufficient to cover to a depth of 6 inches the largest single area over which oil fuel is liable to spread. Such installation shall be capable of generating foam suitable for extinguishing oil fires, and means shall be provided for the effective distribution of the foam through a permanent system of piping and control valves or cocks to discharge outlets, and for the foam to be effectively directed by fixed sprayers on other main oil fire hazards in the protected space either simultaneously or separately. Such installation shall include mobile sprayers ready for immediate use in the firing area of the boiler and in the vicinity of the oil fuel unit.

(2) Every fixed foam fire extinguishing installation fitted in lieu of a fixed fire smothering gas installation required by this part to be provided in the oil cargo spaces of any tanker, shall be capable of distributing on the decks

hoogstens 15 minute deur vaste afvoerpype 'n voldoende hoeveelheid skuim op die dekke oor die olievragtenks te versprei om die hele tenkdekoppervlakte tot 'n diepte van minstens 2 duim te bedek. So 'n installasie moet in staat wees om skuim te ontwikkel wat geskik is om oliebrande te blus, en middels moet verskaf word om die skuim deur middel van 'n permanente pypleidingstelsel en beheerkleppe of krane aan die afvoerpype doeltreffend te versprei. Voldoende mobiele skuimsproeiers wat aan die installasie gekoppel kan word, moet verskaf word deur middel waarvan skuim in 'n tenk vrygelaat kan word.

Vir die toepassing van hierdie subregulasie beteken "tenkdekoppervlakte" 'n oppervlakte gelyk aan die grootste lengte van die vragtenks, vermenigvuldig met die breedte van die skip.

(3) Elke vaste skuimbrandblusinstallasie moet so ingerig word dat 'n brand in die een of ander ruimte wat beskerm moet word nie sal veroorsaak dat die beheermiddels ontoeganklik of die installasie buite werking gestel sal word nie.

(4) Gebruiksaanwysings, in albei die amptelike landstale van die Republiek, moet duidelik met blywende letters op elke vaste skuimbrandblusinstallasie of op 'n aangrensende plek aangebring word.

113. *Brandverklikstelsels.*

(1) Elke brandverklikstelsel wat ingevolge hierdie deel aangebring word, moet in staat wees om outomaties die aanwesigheid of tekens en posisie van 'n brand aan te dui. Die aanwysers moet gesentraliseer wees òf op die navigasiebrug òf in ander beheerposte wat regstreekse verbinding met die navigasiebrug het: Met dien verstande dat die Owerheid kan toelaat dat die aanwysers op enige skip oor verskeie poste versprei word indien hy oortuig is dat dergelike reëlings minstens net so doeltreffend is as wanneer die aanwysers gesentraliseer is.

(2) Op enige passasierskip moet elektriese uitrusting wat gebruik word vir die werking van enige brandverklikstelsel wat ingevolge hierdie deel aangebring word, bedien kan word deur twee bronne van elektriese krag waarvan een die noordkragbron moet wees wat by regulasie 42 van die Regulasies in verband met Konstruksie, 1968, voorgeskryf word.

(3) Die aanwysers van 'n brandverklikstelsel wat ingevolge hierdie deel aangebring word, moet sowel hoorbare as sigbare alarms by die poste in subregulasie (1) vermeld, in werking stel.

114. *Uitrusting vir Brandweermanne.*

(1) Elke brandweermansuitrusting wat ingevolge hierdie deel aan boord gehou word, moet bestaan uit—

(*a*) 'n asemhaalapparaat wat aan die vereistes van bylae 23 voldoen;

(*b*) persoonlike uitrusting bestaande uit—

(i) beskermende klere van materiaal wat die vel kan beskerm teen hitte wat deur die vuur uitgestraal word en teen brandplekke en verskroeiing deur stoom. Die buitekant moet waterbestand wees;

(ii) stewels en handskoene van rubber of ander materiaal wat nie elektrisiteit gelei nie;

(iii) 'n stewige helm wat doeltreffende beskerming teen stamp verleen;

(iv) 'n draagbare, selfonderhoudende batterybediende veiligheidslamp van die lanterntipe wat minstens drie uur lank doeltreffend sal funksioneer; en

(v) 'n brandbyl met 'n geïsoleerde handvatsel.

(2) Wanneer meer as een van die uitrustings in subregulasie (1) genoem, verskaf word, moet hulle gehou word op plekke wat maklik bereik kan word en ver van mekaar geleë is, en wat nie waarskynlik deur die uitbreek van brand afgesny sal word nie.

over the oil cargo tanks through fixed discharge outlets in not more than 15 minutes, a quantity of foam sufficient to cover to a depth of at least 2 inches the whole of the tank deck area. Such installation shall be capable of generating foam suitable for extinguishing oil fires, and means shall be provided for the effective distribution of the foam through a permanent system of piping and control valves or cocks to discharge outlets. There shall be sufficient mobile foam sprayers capable of being connected to the installation whereby foam can be directed into any tank.

For the purpose of this subregulation, "tank deck area" means an area equivalent to the extreme length of the cargo tanks multiplied by the breadth of the ship.

(3) Every fixed foam fire extinguishing installation shall be so arranged that a fire in any of the spaces it protects, will not render the controls inaccessible nor put the installation out of action.

(4) Operating instructions, in both official languages of the Republic, in clear and permanent lettering, shall be affixed to every fixed foam fire extinguishing installation or in a position adjacent thereto.

113. *Fire Detection Systems.*

(1) Every fire detection system fitted in compliance with this part, shall be capable of automatically indicating the presence or indication of fire and its location. The indicators shall be centralised either on the navigating bridge or at other control stations which are provided with direct communication with the navigating bridge: Provided that the Authority may in any ship, permit the indicators to be distributed among several stations if he is satisfied that such arrangements are at least as effective as if the indicators were so centralised.

(2) In any passenger ship, electrical equipment used in the operation of any fire detection system fitted in compliance with this part, shall be capable of being supplied from two sources of electric power one of which shall be the emergency source of power required by regulation 42 of the Construction Regulations, 1968.

(3) The indicating system of any fire detection system fitted in compliance with this part, shall operate both audible and visible alarms at the stations referred to in subregulation (1).

114. *Firemen's Outfits.*

(1) Every fireman's outfit carried in compliance with this part, shall consist of—

(*a*) a breathing apparatus complying with the requirements of annex 23;

(*b*) personal equipment comprising—

(i) protective clothing of material to protect the skin from the heat radiating from a fire and from burns and scalding by steam. The outer surface shall be water-resistant;

(ii) boots and gloves of rubber or other electrically non-conducting material;

(iii) a rigid helmet providing effective protection against impact;

(iv) a portable self-contained battery-operated safety lamp of the lantern type capable of functioning efficiently for at least three hours; and

(v) a firemen's axe with an insulated handle.

(2) Where more than one of the outfits mentioned in subregulation (1) is provided, they shall be kept in readily accessible and widely separated positions which are not likely to be cut off in the event of fire.

115. *Middels om Masjinerie tot Stilstand te bring, Oliebrandstofsuigpype af te sluit en openings toe te maak.*

(1) Op elke skip moet middels verskaf word om ventilasiewaaiers wat masjinerie-, akkommodasie- en diensruimtes bedien, tot stilstand te bring. Vir masjinerie- en vragruimtes moet middels verskaf word om alle dakligte, deuropenings, ventilators, ringvormige ruimtes om skoorstene en ander openings na sodanige ruimtes toe te maak. Hierdie middels moet bedien kan word vanaf plekke buitekant genoemde ruimtes wat nie afgesny sal word deur die uitbreek van brand in sodanige ruimtes nie.

(2) Op elke skip moet masjinerie wat geforseerde trekwaaiers en suigwaaiers, oliebrandstofoorvoerpompe, oliebrandstofeenheidspompe en ander soortgelyke brandstofpompe aandryf, toegerus wees met afstandsbeheermiddels geleë buite die ruimtes waarin sodanige masjinerie of pompe geïnstalleer is. Dergelike beheermiddels moet sodanige masjinerie of pompe in geval van brand in genoemde ruimtes tot stilstand kan bring.

(3) Op elke skip moet alle pype wat aangesluit is by oliebrandstofbewaar-, besink- of daaglikse dienstenks wat nie dubbelboomtenks is nie en wat in geval van beskadiging die inhoud van so 'n tenk sou laat uitloop en gevaar van brand sou veroorsaak, toegerus wees met 'n klep of kraan, bevestig aan die tenk waarby die pyp aangesluit is, wat toegemaak moet kan word vanaf 'n geredelike toeganklike plek buite die ruimte waarin die tenk geleë is: Met dien verstande dat so 'n klep of kraan in die geval van 'n inlaatpyp aan so 'n tenk vervang kan word deur 'n terugslagklep wat op soortgelyke wyse aan die tenk bevestig is. In die geval van 'n oliebrandstofdieptenk wat deur 'n as of pyptonnel deurkruis word, moet 'n klep aan die tenk aangebring word, maar beheer in die geval van brand kan bewerkstellig word deur 'n addisionele klep of kleppe aan die pyplyn of -lyne buite die tonnel of tonnels aan te bring.

116. *Brandbeheerplanne.*

(1) Op elke skip van klas I, II of IIA moet daar vir die leiding van die gesagvoerder en skeepsoffisiere algemene inrigtingsplanne blywend vertoon word wat duidelik vir elke dek aantoon die ligging van die beheerposte, die seksies van die skip wat deur brandvaste beskotte omsluit word, die seksies van die skip wat deur brandvertragende beskotte omsluit word, tesame met besonderhede van die brandalarms, brandverklikstelsels, die sproeieringsinstallasies, die vaste en draagbare brandblustoestelle en brandweermansuitrustings, middels van toegang tot die verskillende afdelings en dekke op die skip, die ventilasiestelsel met inbegrip van die hoofwaaierbeheermiddels, die posisie van dempers en die identifikasienommers van die ventilasiewaaiers wat elke seksie van die skip bedien, die ligging van die internasionale landaansluiting en die ligging van alle beheermiddels in regulasie 115 vermeld.

(2) Op elke skip van 500 ton of meer, uitgesonderd skepe van klas I, II of IIA, moet daar vir die leiding van die gesagvoerder en skeepsoffisiere algemene inrigtingsplanne blywend vertoon word waarin die inligting in subregulasie (1) vermeld, vir sover dit op die skip van toepassing is, duidelik aangetoon word.

(3) Die algemene inrigtingsplanne by hierdie regulasie voorgeskryf, moet altyd bygewerk word, en enige wysigings moet sonder versuim daarop aangebring word.

117. *Beskikbaarheid van Brandbestrydingstoestelle.*

Brandbestrydingstoestelle aan boord van elke skip moet in goeie werkende orde gehou word en moet te alle tye gereed en beskikbaar wees vir onmiddellike gebruik. Alle

115. *Means for Stopping Machinery, Shutting off Oil Fuel Suction Pipes and Closing of Openings.*

(1) In every ship, there shall be provided means for stopping ventilating fans serving machinery, accommodation and cargo spaces. For machinery and cargo spaces, there shall be provided means for closing all skylights, doorways, ventilators, annular spaces around funnels and other openings to such spaces. Such means shall be capable of being operated from positions outside the said spaces which would not be made inaccessible by a fire within such spaces.

(2) In every ship, machinery driving forced and induced draught fans, oil fuel transfer pumps, oil fuel unit pumps and other similar fuel pumps, shall be fitted with remote controls situated outside the spaces in which such machinery or pumps are situated. Such controls shall be capable of stopping such machinery or pumps in the event of fire in the said spaces.

(3) In every ship, every pipe connected to any oil fuel storage, settling, or daily service tank, not being a double bottom tank, which if damaged, would permit discharge of the contents so as to cause a fire hazard, shall be fitted with a valve or cock which shall be secured to the tank to which it is connected and which shall be capable of being closed from a readily accessible position outside the space in which the tank is situated: Provided that in the case of any inlet pipe to such a tank, a non-return valve similarly secured to the tank may be substituted. In the case of an oil fuel deep tank traversed by any shaft or pipe tunnel, a valve shall be fitted on the tank but an additional valve or valves may be fitted on the pipe line or lines outside the tunnel or tunnels to enable control to be exercised in the event of fire.

116. *Fire Control Plans.*

(1) In every class I, II or IIA ship, there shall be permanently exhibited for the guidance of the master and officers of the ship, general arrangement plans showing clearly for each deck the position of the control stations, the sections of the ship which are enclosed by fire resisting bulkheads, the sections of the ship which are enclosed by fire retarding bulkheads, together with particulars of the fire alarms, fire detection systems, the sprinkler installations, the fixed and portable fire extinguishing appliances and firemen's outfits, the means of access to the various compartments and decks in the ship, the ventilating system including particulars of the master fan controls, the position of dampers and identification numbers of the ventilating fans serving each section of the ship, the location of the international shore connection and the position of all means of control referred to in regulation 115.

(2) In every ship of 500 tons or over, other than a class I, II or IIA ship, there shall be permanently exhibited for the guidance of the master and officers of the ship, general arrangement plans showing clearly the information referred to in subregulation (1) where it is applicable to the ship.

(3) The general arrangement plans required by this regulation, shall be kept up-to-date and any alterations shall without delay be recorded on such plans.

117. *Availability of Fire Fighting Appliances.*

Fire appliances carried in every ship, shall be maintained in good order and shall be kept available for immediate use at all times. All moveable fire appliances,

roerende brandtoestelle, uitgesonderd brandweermansuitrustings, wat ingevolge hierdie deel aan boord gehou word, moet so geplaas word dat hulle maklik bereik kan word vanaf die ruimtes waarvoor hulle gebruik moet word en, in besonder moet een van die draagbare brandblussers wat vir gebruik in enige ruimte bedoel is, naby die ingang tot daardie ruimte geberg word.

HOOFSTUK XIII.—EKWIVALENTE EN VRYSTELLINGS.

118. *Ekwivalente en Goedkeuring van Tipes Brandtoestelle.*

(1) Waar in hierdie deel voorgeskryf word dat 'n bepaalde of 'n bepaalde tipe uitrusting, materiaal, toestel of apparaat op 'n skip aangebring of aan boord daarvan moet wees, of dat 'n bepaalde voorsiening gemaak moet word, kan die Owerheid toelaat dat 'n ander of 'n ander tipe uitrusting, materiaal, toestel of apparaat aangebring of aan boord gehou word, of dat 'n ander voorsiening in daardie skip gemaak word, mits hy oortuig is dat sodanige ander uitrusting, materiaal, toestel of apparaat, of tipe daarvan, of voorsiening, minstens net so doeltreffend is as dié wat by hierdie deel voorgeskryf word.

(2) Die Sekretaris kan enige tipe brandtoestel goedkeur vir gebruik op 'n skip wat aan die Republiek behoort indien dit na sy mening aan die vereistes van hierdie deel voldoen.

119. *Vrystelling ten opsigte van Rondediens, Brandalarm- en Brandverklikstelsels.*

Die Owerheid kan enige skip van klas I, II of IIA vrystel van die voorskrifte van regulasie 54 (2), gelees met regulasie 63, indien hy oortuig is dat dit vanweë die korte duur van die reise wat die skip onderneem onredelik sou wees om te vereis dat daar aan bogemelde voorskrifte voldoen word.

120. *Vrystelling ten opsigte van Vaste Brandsmoorinrigtings in vragruimtes op Passasierskepe.*

Die Owerheid kan enige klas-I-, klas-II- of klas-IIA-skip van 1,000 ton of meer vrystel van die voorskrifte van regulasie 57, gelees met regulasie 63, indien hy oortuig is dat dit vanweë die korte duur van die reise wat die skip onderneem, onredelik sou wees om te vereis dat daar aan bogemelde voorskrifte voldoen word.

121. *Vrystelling ten opsigte van vaste Brandsmoorinrigtings in Vragruimtes op Skepe, Uitgesonderd Passasierskepe.*

Die Owerheid kan enige klas-VII- of klas-VIIA-skip van 2,000 ton of meer vrystel van die voorskrifte van regulasie 74, gelees met regulasie 85, ten opsigte van die verskaffing van 'n vaste brandsmorende gas- of stoominstallasie in die vragruime van die skip, uitgesonderd die tenks van 'n tenkskip, indien hy oortuig is dat—

(*a*) die ruime van so 'n skip toegerus is met staalluikdeksels en doeltreffende middels om alle ventilators en ander openings wat toegang tot die ruime bied, toe te maak;

(*b*) die skip gebou is om erts, steenkool of graan te vervoer en slegs vir dié doel gebruik word; of

(*c*) dit vanweë die korte duur van die reise wat die skip onderneem onredelik sou wees om te vereis dat daar aan die voorskrifte van genoemde regulasie voldoen word.

other than firemen's outfits, carried 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, one of the portable fire extinguishers intended for use in any space shall be stowed near the entrance to that space.

CHAPTER XIII.—EQUIVALENTS AND EXEMPTIONS.

118. *Equivalents and Approval of Types of Fire Appliances.*

(1) Where this part requires that a particular fitting, material, appliance or apparatus, or type thereof, shall be fitted or carried in a ship, or that any particular provision shall be made, the Authority may allow any other fitting, material, 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, material, appliance or apparatus, or type thereof, or provision, is at least as effective as that required by this part.

(2) The Secretary may approve of any type of fire appliance for use on a ship belonging to the Republic which in his opinion complies with the requirements of this part.

119. *Exemption in Respect of Fire Patrol, Alarm and Detection Systems.*

The Authority may exempt any class I, II or IIA ship from the requirements of regulation 54 (2) read with regulation 63, if he is satisfied that to require compliance therewith would be unreasonable on account of the short duration of the voyages on which the ship is engaged.

120. *Exemption in Respect of Fixed Fire Smothering Arrangements in Cargo Spaces in Passenger Ships.*

The Authority may exempt any class I, II or IIA ship of 1,000 tons or over from the requirements of regulation 57 read with regulation 63, if he is satisfied that to require compliance therewith would be unreasonable on account of the short duration of the voyages on which the ship is engaged.

121. *Exemption in Respect of Fixed Fire Smothering Arrangements in Cargo Spaces in Ships Other than Passenger Ships.*

The Authority may exempt any class VII or VIIA ship of 2,000 tons or over from the requirements of regulation 74 read with regulation 85 in respect of the provision of a fixed fire smothering gas or steam installation in the cargo holds of the ship, not being the tanks of a tanker, 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;

(*b*) the ship is constructed for, and employed solely in, the carriage of ore, coal or grain; or

(*c*) to require compliance with the requirements of the said regulation would be unreasonable on account of the short duration of the voyages on which the ship is engaged.

122. *Algemene Vrystelling ten opsigte van sekere Skepe.*

Die Owerheid kan, behoudens voorwaardes wat hy geskik ag, 'n skip wat nie op internasionale reise gebruik word nie, van enige van die voorskrifte van hierdie deel vrystel.

123. *Vrystelling ten opsigte van skepe wat gebou is voor die Inwerkingtreding van hierdie Deel.*

Die Owerheid kan, behoudens voorwaardes wat hy geskik ag, 'n skip wat gebou is voor die inwerkingtreding van hierdie deel, van enige van die voorskrifte van hierdie deel vrystel indien hy oortuig is dat voldoening aan daardie voorskrifte in die geval van daardie skip òf onprakties òf onredelik is.

BYLAE I.

(Regulasies 6 en 48.)

Tabel waarin die minimum getal stelle davits wat verskaf moet word en die minimum kubieke inhoud van reddingsbote op 'n skip van klas II of IIA aangedui word.

Lengte van skip (voet).	(A). Minimum getal stelle davits.	(B). Kleiner getal stelle davits by uitsondering gemagtig.	(C). Minimum inhoud van reddingsbote in kubieke 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	—

122. *General Exemption in Respect of Certain Ships.*

The Authority may, on such conditions as he thinks fit, exempt any ship which does not engage on an international voyage, from any of the requirements of this part.

123. *Exemption in Respect of a Ship Constructed Before the Coming into Force of this Part.*

The Authority 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.

ANNEX I.

(Regulations 6 and 48.)

Table showing the minimum numbers of sets of davits to be provided and the minimum cubic capacity of lifeboats in a class II and IIA ship.

Length of ship (feet).	(A). Minimum number of sets of davits.	(B). Smaller number of sets of davits authorised exceptionally.	(C). Minimum capacity of lifeboats in cubic 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	—

BYLAE 2.

(Regulasie 20.)

ALGEMENE VEREISTES VIR 'N REDDINGSBOOT.

(1) Alle reddingsbote moet gebou wees met onbuigsame sye.

(2) Op enige reddingsboot met 'n onbuigsame onderdak moet die onderdak sowel van binne as van buite maklik oopgemaak kan word en nie vinnige inskeping en ontskeping of die tewaterlating en hantering van die reddingsboot belemmer nie. Wanneer so 'n onderdak aangebring is, kan daar aangeneem word dat dit aan die voorskrifte van regulasie 32 (1) (*x*) voldoen.

(3) Elke reddingsboot, behalwe 'n houtreddingsboot wat van planke vervaardig is, moet 'n blokkoëffisiënt van die kubieke inhoud van die boot, soos ooreenkomstig bylae 3 bepaal, van minstens 0·64 hê.

(4) Elke reddingsboot moet so 'n vorm en afmetings hê dat hy voldoende stabiliteit in 'n seegang kan behou en met sy volle kwota persone en uitrusting aan boord voldoende vryboord sal hê.

(5) Elke reddingsboot moet so gebou wees dat hy in staat sal wees om positiewe stabiliteit te behou wanneer hy aan die see blootgestel is en sy volle kwota persone en uitrusting aan boord het.

(6) Elke reddingsboot moet behoorlik gebou wees sodat hy aan sy doel sal beantwoord en moet sterk genoeg wees om veilig in die water neergelaat te word wanneer hy sy volle kwota persone en uitrusting aan boord het. Hy moet so sterk wees dat hy nie enige na-defleksie sal toon wanneer hy aan 'n oorbelasting van minstens 25 persent onderwerp word nie.

(7) Geen reddingsboot mag korter as 16 voet wees nie, behalwe—

(*a*) wanneer 'n reddingsboot ingevolge deel I van hierdie regulasies as alternatief vir 'n klas-C-boot aan boord gehou word, in welke geval die lengte van die reddingsboot nie kleiner mag wees as dié wat ooreenkomstig paragraaf (3) van bylae 6 vir die klas-C-boot bepaal word nie; en

(*b*) wanneer 'n reddingsboot aan boord van 'n skip gehou word waarop die Veiligheidskonvensie nie van toepassing is nie, in welke geval hy minstens 14 voet lank moet wees.

(8) Geen reddingsboot met sy volle kwota persone (bereken teen 165 pond per persoon) en uitrusting aan boord mag meer as 20 ton weeg nie.

(9) Op elke reddingsboot moet die dwarsbanke en sybanke so laag as doenlik in die reddingsboot ingerig word, en buikplanke moet aangebring word.

(10) Elke reddingsboot moet 'n gemiddelde seeg hê wat minstens gelyk is aan 4 persent van sy lengte. Die seeg moet ongeveer 'n paraboliese vorm hê.

(11) Elke reddingsboot moet toegerus wees met inwendige dryfmiddels wat moet bestaan òf uit lugkaste òf drywende materiaal wat nie deur olie of olieprodukte nadelig aangetas sal word nie en wat die reddingsboot nie nadelig sal aantas nie.

(12) Op elke reddingsboot moet die totale volume van die inwendige dryfmiddels sodanig wees dat dit minstens gelyk is aan die som van die volumes van—

(*a*) die inwendige dryfdmidels wat nodig is om die reddingsboot met sy volledige uitrusting drywend te hou wanneer hy vol water en aan die see blootgestel is, sodat die bopunt van die dolboord midskeeps nie onder water is nie; en

(*b*) dié wat gelyk is aan 10 persent van die kubieke inhoud van die reddingsboot.

ANNEX 2.

(Regulation 20.)

GENERAL REQUIREMENTS FOR A LIFEBOAT.

(1) Every lifeboat shall be constructed with rigid sides.

(2) In any lifeboat fitted with a rigid shelter, the shelter shall be capable of being readily opened from both inside and outside and shall not impede rapid embarkation and disembarkation or the launching and handling of the lifeboat. Such a shelter, where fitted, may be accepted as complying with the requirements of regulation 32 (1) (*x*).

(3) Every lifeboat, except wooden lifeboats made of planks, shall have a block coefficient of the cubic capacity as determined in accordance with Annex 3 of not less than 0·64.

(4) Every lifeboat shall be of such form and proportions that it shall have ample stability in a seeway, and sufficient freeboard when loaded with its full complement of persons and equipment.

(5) Every lifeboat shall be so constructed that it shall be capable of maintaining positive stability when open to the sea and loaded with its full complement of persons and equipment.

(6) Every lifeboat shall be properly constructed for the purpose for which it is intended, and shall be of sufficient strength to permit its being safely lowered into the water when loaded with its full complement of persons and equipment. It shall be of such strength that it will not suffer residual deflection if subjected to an overload of at least 25 per cent.

(7) No lifeboat shall be less than 16 feet in length, except—

(*a*) that where part I of these regulations permits a lifeboat to be carried as an alternative to a class C boat, the length of such lifeboat shall not be less than that of the class C boat as determined in accordance with paragraph (3) of annex 6; and

(*b*) when it is carried on a ship to which the Safety Convention does not apply in which case the length of the lifeboat shall be not less than 14 feet.

(8) No lifeboat when laden with its full complement of persons (calculated at 165 lb per person) and equipment shall weigh more than 20 tons.

(9) In every lifeboat all thwart and side seats shall be fitted as low in the lifeboat as practicable, and bottom boards shall be fitted.

(10) Every lifeboat shall have a mean sheer at least equal to 4 per cent of its length. The sheer shall be approximately parabolic in form.

(11) Every lifeboat shall be fitted with internal buoyancy appliances which shall consist either of air cases or buoyant material which shall not be adversely affected by oil or oil products and which shall not adversely affect the lifeboat.

(12) In every lifeboat, the total volume of the internal buoyancy appliances shall be such that it will be at least equal to the sum of the volumes of—

(*a*) that required to float the lifeboat and its full equipment when the lifeboat is flooded and open to the sea so that the top of the gunwale amidships is not submerged; and

(*b*) that equal to 10 per cent of the cubic capacity of the lifeboat.

(13) In die geval van 'n reddingsboot wat 100 of meer persone kan opneem, moet die volume van die dryfmiddels wat by paragraaf (12) (*b*) voorgeskryf word, soos volg vergroot word:—

Op 'n reddingsboot wat van 100 tot 130 persone kan opneem, deur 'n hoeveelheid bepaal deur interpolasie tussen nul by 100 persone en 1·5 persent van die kubieke inhoud van die reddingsboot by 130 persone;

Op 'n reddingsboot wat meer as 130 persone kan opneem, deur 'n hoeveelheid gelyk aan 1·5 persent van die kubieke inhoud van die reddingsboot.

BYLAE 3.

(Regulasie 21.)

BEREKENING VAN KUBIEKE INHOUD VAN 'N REDDINGSBOOT.

(1) Behoudens die bepalings van paragraaf (4), moet die kubieke inhoud van 'n reddingsboot in kubieke voet gemeet word en bepaal word volgens die reël van Sterling (Simpson) wat beskou kan word as uitgedruk deur die volgende formule:—

Kubieke inhoud $= \frac{L}{12}(4A+2B+4C)$, waar L die reddingsboot se lengte in voet vanaf die binnekant van die beplating aan die bo-ent van die voorstewe tot by die ooreenkomstige punt aan die bo-ent van die agterstewe verteenwoordig; in die geval van 'n reddingsboot met 'n plat agterstewe word die lengte gemeet tot by die binnekant van die spieël; en A, B, C onderskeidelik die oppervlaktes van die dwarsdeursnee op 'n kwart van die lengte voor, midskeeps, en 'n kwart van die lengte agter verteenwoordig wat ooreenkom met die drie punte wat verkry word deur L in vier gelyke dele te verdeel (die oppervlaktes aan die twee ente van die reddingsboot word as onbeduidend beskou).

Die oppervlaktes A, B, C word geag in vierkante voet aangegee te wees deur agtereenvolgens die volgende formule op elk van die drie dwars deursneë toe te pas, naamlik:—

Oppervlakte $= \frac{h}{12}(a+4b+2c+4d+e)$, waar h die holte in voet vanaf die binnekant van die beplating van die kiel tot op die hoogte van die dolboord of, in sekere gevalle, tot op die laer hoogte, soos hierna bepaal, verteenwoordig; *a, b, c, d,* en *e* die horisontale breedtes van die reddingsboot in voet verteenwoordig vanaf die binnekant van die beplating 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 (waar *a* en *e* die breedtes aan die uiteindes is en *c* die breedte 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 'n kwart van die reddingsbote se lengte vanaf die uiteindes geleë is, 1 persent van die lengte van die reddingsboot te bowe gaan, 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 persent van die breedte te bowe gaan, moet die holte wat gebruik word by die berekening van die oppervlakte van die midskeepse dwarsdeursnee 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 laasgenoemde syfer te vermeerder met 'n

(13) In the case of a lifeboat which accommodates 100 or more persons, the volume of the buoyancy appliances required by paragraph (12) (*b*) shall be increased as follows:—

In a lifeboat which accommodates from 100 to 130 persons, by an amount determined by interpolating between nil at 100 persons and 1·5 per cent of the cubic capacity of the lifeboat at 130 persons.

In a lifeboat which accommodates over 130 persons, by an amount equal to 1·5 per cent of the cubic capacity of the lifeboat.

ANNEX 3.

(Regulation 21.)

CALCULATION OF CUBIC CAPACITY OF A LIFEBOAT.

(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, which may be considered as given by the following formula:—

Cubic capacity $= \frac{L}{12}(4A+2B+4C)$, where L denotes the length of the lifeboat in feet from the inside of the shell at the top of the stem to the corresponding point at the top of 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 4 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:—

Area $= \frac{h}{12}(a+4b+2c+4d+e)$, where h denotes the depth measured in feet inside the shell 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 shell at the upper and lower points of the depth and at the three points obtained by dividing h into 4 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

syfer gelyk aan 1 persent van die lengte van die reddingsboot: Met dien verstande dat die holtes wat by die berekening gebruik word, in geen geval die werklike holtes op hierdie punte te bowe mag gaan nie.

(4) Tensy die eienaar van die reddingsboot vereis dat die kubieke inhoud deur juiste meting bepaal word, kan veronderstel word dat die kubieke inhoud van 'n reddingsboot wat van houtplanke gebou is, die produk is van die lengte, die breedte en die holte, vermenigvuldig met 0.6, indien hierdie formule nie 'n groter inhoud gee as die wat verkry word deur die formule in paragraaf (1) uiteengesit nie. Die afmetings moet op die volgende wyse gemeet word:—

Lengte.—Vanaf die snypunt van die buitekant van die beplanking en die bo-ent van die voorstewe tot by die ooreenkomstige punt op die agterstewe of, in die geval van 'n boot met 'n plat agterstewe, tot by die agterkant van die bo-ent van die spieël.

Breedte.—Vanaf die buitekant van die beplanking op die punt waar die reddingsboot die breedste is.

Holte.—Midskeeps binnekort die beplanking vanaf die kiel tot by die bopunt van die dolboord, maar die holte wat by die berekening van die kubieke inhoud gebruik word, mag in geen geval 45 persent van die breedte te bowe gaan nie.

(5) Die kubieke inhoud van 'n motorreddingsboot of 'n reddingsboot met 'n ander aandrywingsinrigting word van die bruto inhoud verkry deur aftrekking van 'n volume gelyk aan dié wat in beslag geneem word deur die motor en sy toebehore, of die ratkas van die ander aandryfinrigting, en enige uitrusting waarmee die reddingsboot ingevolge regulasie 34 toegerus mag wees.

BYLAE 4.

(Regulasie 22.)

MASJINERIE VAN 'N MOTORREDDINGSBOOT.

(1) Die motor moet in staat wees om in koue weer maklik te vat en om in toestande van temperatuuruiterstes betroubaar te loop.

(2) Die motor moet behoorlik funksioneer onder toestande van minstens 10 grade slagsy en 10 grade kop- of stuurlas. Sirkulasiewaterpompe, indien aangebring, moet selflaaiend wees.

(3) Die motor en sy toebehore, met inbegrip van die brandstoftenk, pype en toebehore, moet voldoende beskerm wees om betroubare werking te verseker onder toestande wat waarskynlik deur ongunstige weersomstandighede op see geskep kan word. Daarbenewens moet die motorkas brandwerend wees, en in die geval van 'n lugverkoelde dieselmotor moet dit sodanig ontwerp wees dat die toevoer van verkoelingslug nie beperk word nie.

(4) Op elke reddingsboot moet middels verskaf word om die verspreiding van olie te voorkom. Op houtreddingsbote moet 'n metaalbak onder die motor aangebring word.

(5) Die brandstoftenk moet stewig gebou en veilig, met 'n metaalbak onder, in posisie bevestig wees en moet met geskikte vul-, wasemontlug- en aftapinrigtings uitgerus wees. In geen deel van die tenk of sy aansluitings of enige deel van die brandstoftoevoerpype of -toebehore moet van sagte soldeersel vir stewigheid gebruik gemaak word nie, en staaltenks moet uitwendig teen verroesting deur seewater beskerm word deur hulle met metaal of soortgelyke middels oor te blaas. Die tenk en sy aansluitings moet in staat wees om hidrouliese druk, gelyk aan 'n stoomdruk van minstens 15 voet, te weerstaan. Aan elke end van die brandstofpyp moet 'n kraan aangebring word.

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) Unless the owner of the lifeboat requires the cubic capacity to be determined by exact measurement, the cubic capacity of a lifeboat constructed of wooden planks may be assumed to be the product of the length, the breadth and the depth multiplied by 0·6 if this formula does not give a greater capacity than that obtained by the formula set out in paragraph (1). The dimensions shall be measured in the following manner: —

Length.—From the intersection of the outside of the planking with the top of 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 top 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 top 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 or a lifeboat fitted with other propelling gear shall be obtained from the gross capacity by deducting a volume equal to that occupied by the motor and its accessories, or the gearbox of the other propelling gear, and any equipment with which the lifeboat may be provided in compliance with regulation 34.

ANNEX 4.

(Regulation 22.)

MACHINERY OF A MOTOR LIFEBOAT.

(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, where fitted, 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 adverse weather, The engine casing shall additionally be fire resisting, and in the case of an air-cooled diesel engine, shall be so designed that the supply of cooling air is not restricted.

(4) Means shall be provided in every lifeboat to prevent the spread of oil. 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, vapour venting and relief arrangements. No part of the tank or its connections nor any part of the fuel piping or fittings shall depend on soft solder for tightness, and tanks made of steel shall be protected externally against corrosion by sea water by metal spraying or similar means. The tank and its connections shall be capable of withstanding hydraulic pressure corresponding to a head of at least 15 feet. A cock shall be fitted at each end of the fuel pipe.

(6) Die motor en brandstoftenkruimtes moet doeltreffend geventileer wees.

(7) Die asinrigting en ander bewegende dele moet, waar nodig, ingesluit wees om persone in die reddingsboot teen besering te beskerm.

BYLAE 5.

(Regulasie 23.)

MASJINERIE VAN 'N MEGANIES AANGEDREWE REDDINGSBOOT.

(1) Die aandryfinrigting 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 aandryfinrigting met die hand bedien word, moet dit deur persone ongeoefen in die gebruik daarvan bedien kan word en moet dit ook bedien kan word wanneer die reddingsboot vol water is.

(3) Die aandryfinrigting moet nie verstelling nodig hê om deur persone van verskillende lengtes bedien te kan word nie. Dit moet die reddingsboot, gedeeltelik of ten volle gelaai, doeltreffend kan aandryf.

(4) Die aandryfinrigting moet sterk genoeg gebou wees en moet op 'n doeltreffende wyse aan die reddingsboot aangebring word. Die metaalgedeelte van enige bedieningshandvatsel moet op geskikte wyse met 'n ander materiaal as hout beklee wees om te verseker dat die operateur se hande in toestande van uiterste koue beskerm is.

(5) Die aandryfinrigting moet sterk genoeg wees om die reddingsboot, wanneer hy gelaai is met die uitrusting by deel I van hierdie regulasies voorgeskryf en 'n verspreide gewig gelyk aan die volle getal persone wat hy geskik is om op te neem, teen 'n spoed vooruit van minstens 3.5 knope in kalm water oor 'n afstand van $\frac{1}{4}$ myl aan te dryf.

(6) Die aandryfinrigting moet die reddingsboot vooruit en agteruit kan aandryf, en 'n toestel moet aangebring word deur middel waarvan die stuurman die reddingsboot te eniger tyd terwyl die aandryfinrigting in werking is, agteruit of vooruit kan laat vaar.

BYLAE 6.

(Regulasie 24.)

VEREISTES VIR 'N KLAS-C-BOOT.

(1) Elke klas-C-boot moet 'n oop boot wees en moet gebou wees met onbuigsame sye.

(2) Die boot moet so 'n vorm en sulke afmetings hê dat hy volddoende stabiliteit in 'n seegang kan behou en met die maksimum getal persone vir wie sitplekke ingerig is en sy volledige uitrusting aan boord voldoende vryboord sal hê.

(3) Op 'n skip van 150 voet of langer moet die boot minstens 16 voet lank wees en in die geval van 'n skip korter as 150 voet, minstens 12 voet lank.

(4) Alle dwarsbanke en sybanke moet so laag as doenlik in die boot ingerig word en buikplanke moet ook aangebring word.

(5) Die boot moet 'n plat agterstewe hê en 'n gemiddelde seeg 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 ongunstige weersomstandighede volgelaai is.

(6) The engine and fuel tank spaces shall be efficiently ventilated.

(7) The shafting and other moving parts, shall be fenced where necessary to protect the persons in the lifeboat from injury.

ANNEX 5.

(Regulation 23.)

MACHINERY OF A MECHANICALLY PROPELLED LIFEBOAT.

(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. The metal part of any operating handle shall be suitably sheathed by material other than wood to ensure that the hands of the operator are protected in conditions of extreme cold.

(5) The propelling gear shall be of sufficient power to enable the lifeboat, when loaded with the equipment required by part I of these regulations 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 at least 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 or astern and a device shall be fitted by means of which the helmsman can cause the lifeboat to go astern or ahead at any time when the propelling gear is in operation.

ANNEX 6.

(Regulation 24.)

REQUIREMENTS FOR A CLASS C BOAT.

(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 16 feet for a ship having a length of 150 feet or over and at least 12 feet for a ship having a length of less than 150 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) Elke boot moet toegerus wees met inwendige dryfmiddels wat moet bestaan òf uit lugkaste òf drywende materiaal wat nie deur olie of olieprodukte nadelig aangetas sal word nie en wat die boot nie nadelig sal aantas nie.

(8) Die totale volume van die inwendige dryfmiddels moet sodanig wees dat dit minstens gelyk is aan die som van die volumes van—

(*a*) dié wat nodig is om die boot met sy volledige uitrusting drywend te hou wanneer hy vol water en aan die oop see blootgestel is sodat die bopunt van die dolboord midskeeps nie onder water is nie; en

(*b*) dié wat gelyk is aan 7·5 persent van die kubieke inhoud van die boot; laasgenoemde moet op dieselfde wyse bepaal word as die vir reddingsbote in bylae 3 voorgeskryf.

BYLAE 7.

(Regulasie 25.)

VEREISTES VIR 'N REDDINGSVLOT.

Deel I.—Opblaasbare Reddingsvlotte.

(1) Behoudens die bepalings van paragrawe (2) en (3) moet elke opblaasbare reddingsvlot aan die volgende vereistes voldoen:—

(*a*) Die reddingsvlot moet so gebou wees dat hy in 'n seegang stabiel sal wees wanneer hy ten volle opgeblaas is en met sy bedekking boontoe dryf;

(*b*) die reddingsvlot moet so gebou wees dat nòg die reddingsvlot nòg sy uitrusting beskadig sal word indien hy van 'n hoogte van 60 voet in die water laat val word;

(*c*) die konstruksie van die reddingsvlot moet 'n bedekking van 'n hoogs sigbare kleur insluit wat outomaties in posisie kom wanneer die reddingsvlot opgeblaas word. Hierdie bedekking moet die insittendes kan beskerm teen besering as gevolg van blootstelling, en middels moet verskaf word om reënwater op te vang. Bo-op die bedekking moet 'n lamp aangebring word wat sy ligsterkte uit 'n see-geaktiveerde sel verkry, en 'n soortgelyke lamp moet ook binnekant die reddingsvlot aangebring word;

(*d*) die reddingsvlot moet toegerus wees met 'n vanglyn en moet 'n reddingslyn hê wat buite-om die vlot vasgestrop is. 'n Reddingslyn moet ook binne-om die reddingsvlot aangebring word;

(*e*) die reddingsvlot moet geredelik deur een persoon regop gedraai kan word indien hy in 'n omgekeerde posisie opblaas;

(*f*) die reddingsvlot moet by elke opening toegerus wees met doeltreffende middels om persone wat hulle in die water bevind, in staat te stel om aan boord te klim;

(*g*) die reddingsvlot moet gehou word in 'n ransel of ander houer wat so gemaak is dat dit strawwe gebruik kan weerstaan in omstandighede wat op see teengekom word, en die reddingsvlot in sy ransel of ander houer moet inherente dryfvermoë hê;

(*h*) die dryfvermoë van die reddingsvlot moet sodanig ingerig word dat deur 'n verdeling in 'n gelyke getal afsonderlike afdelings, waarvan die helfte in staat moet wees om die getal persone wat die reddingsvlot geskik is om op te neem, bo die water te hou, of deur ander ewe doeltreffende middels verseker word dat daar 'n redelike dryfvermoëgrens is indien die reddingsvlot beskadig sou word of gedeeltelik nie sou opblaas nie;

(*i*) die totale gewig van die reddingsvlot, tesame met sy ransel of ander houer en sy uitrusting, moet hoogstens 400 pond wees;

(7) Every boat shall be fitted with internal bouyancy appliances which shall consist either of air cases or buoyant material which shall not be adversely affected by oil or oil products and which shall not adversely affect the boat.

(8) The total volume of the internal buoyancy appliances shall be such that it will be at least equal to the sum of the volumes of—

(*a*) that required to float the boat and its full equipment when the boat is flooded and open to the sea so that the top of the gunwale amidships is not submerged; and

(*b*) that equal to 7·5 per cent of the cubic capacity of the boat which shall be determined in the same manner as that prescribed for lifeboats in Annex 3.

ANNEX 7.

(Regulation 25.)

REQUIREMENTS FOR A LIFERAFT.

Part I.—Inflatable Liferaft.

(1) Subject to the provisions of paragraphs (2) and (3), every inflatable liferaft shall comply with the following requirements: —

(*a*) The liferaft shall be so constructed that, when fully inflated and floating with the cover uppermost, it shall be stable in a seaway;

(*b*) 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;

(*c*) the construction of the liferaft shall include a cover, of a highly visible colour, which shall automatically be set in place when the liferaft is inflated. This cover 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, and a similar lamp shall also be fitted inside the liferaft;

(*d*) the liferaft shall be fitted with a painter and shall have a lifeline becketed round the outside. A lifeline shall also be fitted round the inside of the liferaft;

(*e*) the liferaft shall be capable of being readily righted by one person if it inflates in an inverted position;

(*f*) the liferaft shall be fitted at each opening with efficient means to enable persons in the water to climb on board;

(*g*) the liferaft shall be contained in a valise or other container, so constructed as to be capable of withstanding hard wear under conditions encountered at sea. The liferaft in its valise or other container shall be inherently buoyant;

(*h*) the buoyancy of the liferaft shall be so arranged as to ensure by a division into an even number of separate compartments, half of which shall be 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;

(*i*) the total weight of the liferaft, its valise or other container and its equipment shall not exceed 400 lb;

(*j*) die getal persone wat 'n reddingsvlot geskik geag word om op te neem, moet gelyk wees aan—

(i) die grootste heelgetal wat verkry word deur die volume, in kubieke voet gemeet, van die hoofdryfbuise (wat vir ierdie doel nie die boë of die dwarsbank of -banke, indien aangebring, moet insluit nie) wanneer hulle opgeblaas is, met 3·4 te deel; of

(ii) die grootste heelgetal wat verkry word deur die oppervlakte, in vierkante voet gemeet, van die vloer (wat vir hierdie doel die dwarsbank of -banke, indien aangebring, kan insluit) van die reddingsvlot wanneer hy opgeblaas is, met 4 te deel,

na gelang van watter getal die kleinste is;

(*k*) die vloer van die reddingsvlot moet waterdig wees en moet voldoende teen koue geïsoleer kan word—

(i) deur middel van een of meer afdelings wat die insittendes kan opblaas, indien hulle dit verlang, of wat vanself opblaas en deur die insittendes afgeblaas en weer opgeblaas kan word; of

(ii) deur ander ewe doeltreffende middels wat nie van opblasing afhanklik is nie;

(*l*) die reddingsvlot moet opgeblaas word met gas wat nie vir die insittendes skadelik sal wees nie, en die opblasing moet outomatiese bewerkstellig word deur 'n tou te trek of deur 'n ander metode wat net so eenvoudig en doeltreffend is. Middels moet verskaf word waardeur die byvullingspomp of blaasbalk gebruik kan word om drukking te handhaaf;

(*m*) die reddingsvlot moet van geskikte materiaal en konstruksie wees, en moet so gemaak wees dat hy 30 dae lank op see in alle seetoestande teen blootstelling bestand sal wees;

(*n*) elke reddingsvlot wat ontwerp is vir gebruik saam met 'n tewaterlatingstoestel moet behoorlik gebou wees vir die doel waarvoor hy bestem is en moet sterk genoeg wees om veilig in die water neergelaat te word wanneer hy sy volle kwota persone en volledige uitrusting aan boord het;

(*o*) die reddingsvlot moet 'n draagvermoë, bereken ooreenkomstig subparagraaf (*j*), van minstens ses persone of hoogstens vyf-en-twintig persone hê;

(*p*) die reddingsvlot moet dwarsdeur 'n temperatuurspeling van 150° F tot minus 22° F (of 66° C tot minus 30° C) bruikbaar wees;

(*q*) die reddingsvlot moet toegerus wees met sodanige inrigtings dat hy geredelik gesleep kan word;

(*r*) elke reddingsvlot aan boord van 'n skip wat toegerus is met draagbare radio-uitrusting wat voldoen aan die spesifikasie uiteengesit in deel II van bylae 4 tot die Handelskeepvaart-radioregulasies, 1968, moet toegerus wees met inrigtings om die antenne in daardie bylae vermeld, behoorlik in die bruikbare posisie te huisves.

(2) In 'n skip van klas V, VI of IX en in 'n klas-XII-skip wat korter as 75 voet is, kan die vereistes van paragraaf (1) (*b*), (*c*), (*k*), (*o*), (*p*) en (*q*) soos volg gewysig word:—

(*a*) Die hoogte van 60 voet in paragraaf (1) (*b*) vermeld, kan die hoogte wees gelykstaande met die van die dek waarop die reddingsvlot gestu word bokant die skip se ligte waterlyn, maar onder geen omstandighede minder as 20 voet nie;

(*b*) dit word nie vereis dat middels om reënwater op te vang, waarvan in paragraaf (1) (*c*) melding gemaak word, verskaf moet word nie;

(*c*) dit word nie vereis dat daar voldoen moet word aan die metode vir die isolering van die reddingsvlot se vloer teen koue waarvan in paragraaf (1) (*k*) melding gemaak word nie;

(*j*) the number of persons which a liferaft shall be deemed fit to accommodate, shall be equal to—

(i) 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

(ii) 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;

(*k*) the floor of the liferaft shall be waterproof and shall be capable of being sufficiently insulated against cold either—

(i) by means of 1 or more compartments which the occupants can inflate if they so desire, or which inflate automatically and can be deflated and re-inflated by the occupants; or

(ii) by other equally efficient means not dependent on inflation;

(*l*) the liferaft shall be inflated by a gas which is not injurious to the occupants, and the inflation shall take place automatically either on the pulling of a line or by some other equally simple and efficient method. Means shall be provided whereby a topping-up pump or bellows may be used to maintain pressure;

(*m*) the liferaft shall be of suitable material and construction, and shall be so constructed as to be capable of withstanding exposure for 30 days afloat in all sea conditions;

(*n*) every liferaft which is designed for use with a launching appliance shall be properly constructed for the purpose for which it is intended and shall be of sufficient strength to permit it to be safely lowered into the water when loaded with its full complement of persons and equipment;

(*o*) the liferaft shall have a carrying capacity calculated in accordance with subparagraph (*j*) of not less than 6 persons or more than 25 persons;

(*p*) the liferaft shall be capable of operating throughout a temperature range of 150° F to minus 22° F (or 66° C to minus 30° C);

(*q*) the liferaft shall be fitted with arrangements enabling it to be readily towed;

(*r*) every liferaft carried on a ship which is provided with portable radio equipment which complies with the specification set forth in part II of annex 4 to the Merchant Shipping Radio Regulations, 1968, shall be provided with arrangements for accommodating properly in the operating position the aerial referred to in the said annex.

(2) In a class V, VI or IX ship and in a class XII ship of less than 75 feet in length, the requirements of paragraph (1) (*b*), (*c*), (*k*), (*o*), (*p*) and (*q*) may be modified as follows:—

(*a*) The height of 60 feet referred to in paragraph (1) (*b*), may be the height equivalent to that of the deck on which the liferaft is stowed above the ship's light water line, but in no case less than 20 feet;

(*b*) means for collecting rain referred to in paragraph (1) (*c*), shall not be required to be provided;

(*c*) the method for insulating the floor of the liferaft against cold as referred to in paragraph (1) (*k*), shall not be required to be complied with;

(*d*) die minimum draagvermoë van 'n reddingsvlot wat ooreenkomstig paragraaf (1) (*o*) 6 persone moet wees, mag 4 persone wees, maar 'n reddingsvlot wat geskik geag word om minder as 6 persone op te neem, mag verskaf word slegs op 'n skip waarop die totale getal persone minder as 6 is;

(*e*) die temperatuur van minus 22° F (minus 30° C) in paragraaf (1) (*p*) vermeld, mag 0° F (minus 18° C) wees; en

(*f*) dit word nie vereis dat inrigtings om die reddingsvlot te sleep, soos in paragraaf (1) (*q*) vermeld, verskaf moet word nie.

(3) Op 'n klas-X- of klas-XI-skip en op 'n klas-XII-skip van 75 voet of langer, kan die voorskrifte van paragraaf (1) (*o*) gewysig word soos in paragraaf (2) (*d*) gespesifiseer.

Deel II.—Onbuigsame Reddingsvlotte.

Elke onbuigsame reddingsvlot moet aan die volgende vereistes voldoen:—

(*a*) Die reddingsvlot moet so gebou wees dat nòg die reddingsvlot nòg sy uitrusting beskadig sal word wanneer hy vanaf sy stuwingsplek in die water laat val word;

(*b*) enige reddingsvlot wat ontwerp is om saam met 'n tewaterlatingstoestel gebruik te word, moet behoorlik gebou wees om aan sy doel te beantwoord en moet sterk genoeg wees om veilig in die water neergelaat te word wanneer hy sy volle kwota persone en volledige uitrusting aan boord het;

(*c*) die reddingsvlot moet so gebou wees dat sy lugkaste of drywende materiaal so na moontlik aan sy sye geplaas word;

(*d*) die dekoppervlakte van die reddingsvlot moet geleë wees binne dié gedeelte van die reddingsvlot wat beskerming aan sy insittendes verleen. Die aard van die dek moet sodanig wees dat dit vir sover moontlik sal voorkom dat water binnedring, en dit moet die insittendes doeltreffend bo die water kan hou;

(*e*) die reddingsvlot moet toegerus wees met 'n bedekking of gelykwaardige inrigting, wat 'n hoogs sigbare kleur het en die insittendes kan beskerm teen besering, ongeag watter kant van die reddingsvlot bo dryf;

(*f*) die uitrusting van die reddingsvlot moet so gebêre wees dat dit geredelik beskikbaar is, ongeag watter kant van die reddingsvlot bo dryf;

(*g*) die totale gewig van 'n reddingsvlot en sy uitrusting op 'n passasierskip mag nie 400 pond te bowe gaan nie. Reddingsvlotte op 'n skip uitgesonderd 'n passasierskip mag meer as 400 pond weeg indien hulle van albei kante van die skip te water gelaat kan word of indien middels verskaf word om hulle meganies aan enige kant van die skip in die water te plaas;

(*h*) die reddingsvlot moet te alle tye doelmatig en stabiel wees wanneer hy met enige kant na bo dryf;

(*i*) die getal persone wat die reddingsvlot geskik geag word om op te neem, moet gelyk wees aan—

(i) die grootste heelgetal wat verkry word deur die volume van die lugkaste of drywende materiaal, in kubieke voet gemeet, met 3·4 te deel; of

(ii) die grootste heelgetal wat verky word deur die dekoppervlakte van die reddingsvlot, in vierkante voet gemeet, met 4 te deel,

na gelang van watter getal die kleinste is;

(*j*) die reddingsvlot moet 'n vanglyn aan hom hê, asook 'n reddingslyn wat buite-om hom veilig vasgestrop is. 'n Reddingslyn moet ook binne-om die reddingsvlot aangebring word;

(*k*) die reddingsvlot moet by elke opening toegerus wees met doeltreffende middels om persone wat hulle in die water bevind, in staat te stel om aan boord te klim;

(*d*) the minimum carrying capacity of a liferaft required by paragraph (1) (*o*) as 6 persons, may be 4 persons, provided that a liferaft which is deemed fit to accommodate less than 6 persons shall only be carried on a ship on which the total number of persons on board is less than 6;

(*e*) the temperature of minus 22° F (minus 30° C) referred to in paragraph (1) (*p*), may be 0° F (minus 18° C); and

(*f*) the arrangements for towing referred to in paragraph (1) (*q*), shall not be required to be provided.

(3) In a class X or XI ship and in a class XII ship of 75 feet or over in length, the requirements of paragraph (1) (*o*) may be modified as specified in paragraph (2) (*d*).

Part II.—Rigid Liferaft.

Every rigid liferaft shall comply with the following requirements:—

(*a*) The liferaft shall be so constructed that if it is dropped into the water from its stowed position neither the liferaft nor its equipment will be damaged;

(*b*) any liferaft which is designed for use with a launching appliance, shall be properly constructed for the purpose for which it is intended and shall be of sufficient strength to permit it to be safely lowered into the water when loaded with its full complement of persons and equipment;

(*c*) the liferaft shall be so constructed that its air cases or buoyant material are placed as near as possible to its sides;

(*d*) the deck area of the liferaft shall be situated within that part of the liferaft which affords protection to its occupants. The nature of the deck shall be such as to prevent so far as practicable the ingress of water and it shall effectively support the occupants out of the water;

(*e*) the liferaft shall be fitted with a cover or equivalent arrangement, of a highly visible colour, which shall be capable of protecting the occupants against injury whichever way up the liferaft is floating;

(*f*) the equipment of the liferaft shall be so stowed as to be readily available whichever way up the liferaft is floating;

(*g*) the total weight of any liferaft and its equipment carried in a passenger ship, shall not exceed 400 lb. Liferafts carried in a ship other than a passenger ship, may each exceed 400 lb in weight if they are capable of being launched from both sides of the ship or if means are provided for putting them into the water mechanically on either side of the ship;

(*h*) the liferaft shall at all times be effective and stable when floating either way up;

(*i*) the number of persons which the liferaft shall be deemed fit to accommodate, shall be equal to—

(i) the greatest whole number obtained by dividing by 3·4 the volume, measured in cubic feet, of the air cases or buoyant material; or

(ii) the greatest whole number obtained by dividing by 4 the deck area of the liferaft measured in square feet,

whichever number shall be the less;

(*j*) the liferaft shall have a painter attached and a lifeline securely becketed round the outside. A lifeline shall also be fitted round the inside of the liferaft;

(*k*) the liferaft shall be fitted at each opening with efficient means to enable persons in the water to climb on board;

(*l*) die reddingsvlot moet so gebou wees dat hy nie deur olie of olieprodukte aangetas sal word nie;

(*m*) 'n drywende lig van die elektriese batterytipe moet met 'n koord aan die reddingsvlot bevestig word;

(*n*) die reddingsvlot moet toegerus wees met sodanige inrigtings dat hy geredelik gesleep kan word;

(*o*) reddingsvlotte moet so gebêre word dat hulle los kan wegdryf indien die skip sink; en

(*p*) elke reddingsvlot aan boord van 'n skip wat toegerus is met draagbare radio-uitrusting wat voldoen aan die spesifikasie uiteengesit in deel II van bylae 4 tot die Handelskeepvaart-radioregulasies, 1968, moet toegerus wees met inrigtings om die antenne in daardie bylae vermeld, behoorlik in die bruikbare posisie te huisves.

BYLAE 8.

(Regulasie 26.)

VEREISTES VIR DRYWENDE TOESTELLE.

(1) Drywende toestelle moet sodanig gebou wees dat hulle hul vorm en eienskappe behou wanneer hulle aan boord van die skip en in die water aan die weer blootgestel is. 'n Drywende toestel moet so gebou wees dat hy nie verstelling voor gebruik vereis nie.

(2) Drywende toestelle moet in staat wees om 'n valtoets, waarvan die hoogte gelyk is aan dié van die dek waarop hulle gebêre word bo die skip se ligte waterlyn te weerstaan, maar onder geen omstandighede mag dit minder as die volgende wees nie:—

Toestelle aan boord 'n Klas-I-skip.....	60 voet.
Toestelle aan boord 'n Klas-II- of IIA-skip.....	35 voet.

(3) Drywende toestelle moet doelmatig en stabiel wees ongeag watter kant bo dryf. Hulle moet in staat wees om 'n ystergewig van 15 pond per voetlengte wat aan enige kant van die toestel aan die gryplyne hang (onderworpe aan 'n minimum van 64 pond) in varswater te steun sonder om enige deel van die boonste oppervlakte van die toestel onder te dompel.

(4) Die lugkaste of ekwivalente dryfmiddels moet so na as moontlik aan die kante van die apparaat geplaas word, en sodanige dryfvermoë moet nie van opblasing afhanklik wees nie. Drywende materiaal moet nie deur olie of olieprodukte nadelig aangetas word nie en dit moet ook nie die drywende toestelle nadelig aantas nie.

(5) Gryplyne moet op so 'n wyse rondom die toestel aangebring wees dat 'n gelyke getal lusse wat ooreenstem met die getal persone wat die toestel geskik is om op te neem, verskaf word. Elke lus moet 'n kurk- of ligte houtdobber hê, en wanneer die lus nat is, moet dit minstens 6 duim en hoogstens 8 duim lank wees. Twee rye gryplyne moet aangebring word aan toestelle met 'n globale diepte van meer as 12 duim, waarvan een effens onder die kruin van die lugkaste en die ander effens bokant die bodem van die lugkaste en so na as doenlik aan die kante van die lugkaste bevestig is. Een ry gryplyne kan langs die middelste holtelyn van 'n toestel met 'n globale diepte van 12 duim of minder bevestig word.

Die gryplyne moet van tou van minstens $1\frac{3}{4}$ duim in omtrek wees. Hulle kan aan die toestel bevestig word deur hulle deur die gate in die raamwerk te steek en hulle inmekaar te vleg om beweging te voorkom, of hulle kan aan die toestel bevestig word deur middel van smee-yster of deur staalverbindings. Watter metode ook al gebruik word, moet die bevestiging sterk genoeg wees om toe te laat dat die toestel van die gryplyne opgelig kan word.

(6) Drywende toestelle moet toegerus wees met 'n vanglyn.

(*l*) the liferaft shall be so constructed as not to be affected by oil or oil products;

(*m*) a buoyant light of the electric battery type, shall be attached to the liferaft by a lanyard;

(*n*) the liferaft shall be fitted with arrangements enabling it to be readily towed;

(*o*) liferafts shall be so stowed as to float free in the event of the ship sinking; and

(*p*) every liferaft carried on a ship which is provided with portable radio equipment which complies with the specification set forth in part II of annex 4 to the Merchant Shipping Radio Regulations, 1968, shall be provided with arrangements for accommodating properly in the operating position the aerial referred to in that annex.

ANNEX 8.

(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 a Class I ship.....	60 feet.
Apparatus carried in a Class II or IIA ship.....	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 lb) 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. Buoyant material shall not be adversely affected by oil or oil products, nor shall it adversely affect the buoyant apparatus.

(5) Grab lines shall be fitted all round the apparatus 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 $1\frac{3}{4}$ 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.

(6) Buoyant apparatus shall be fitted with a painter.

(7) Drywende toestelle mag nie meer as 400 pond weeg nie, tensy geskikte middels verskaf word om hulle te water te laat sonder om hulle met die hand op te tel. Indien so 'n toestel meer as 300 pond weeg, moet geskikte handvatsels of sporte vir hierdie doel aangebring word.

(8) Drywende toestelle aan boord van 'n Klas-I-skip moet minstens 3 voet 6 duim breed wees.

BYLAE 9.

(Regulasie 28.)

VEREISTES VIR 'N REDDINGSBOEI.

(1) Elke reddingsboei moet vervaardig wees uit kurk, reëlmatig gevorm en goed vasgeprop, of uit ander ewe doeltreffende drywende materiaal wat nie deur olie of olieprodukte nadelig aangetas sal word nie, en moet minstens 24 uur in varswater met 32 pond yster daaraan vasgemaak, kan drywe.

(2) Elke reddingsboei wat uit plastiek of ander sintetiese verbindings vervaardig is, moet sy dryfeienskappe en duursaamheid kan behou wanneer hy met seewater of olieprodukte in aanraking kom of onder temperatuurskommelings of klimaatsveranderings wat op reise op die oop see voorkom.

(3) Die reddingsboei mag nie met biesies, kurkskaafsels, los korrelkurk of enige ander los korrelrige stof gevul wees nie en die dryfvermoë daarvan moet nie afhanklik wees van lugafdelings wat opgeblaas moet word nie.

(4) Die binnedeursnee van die reddingsboei moet 18 duim wees en die buitedeursnee 30 duim. Die hoofspil van die afdeling moet 6 duim lank wees en die hulpspil van die afdeling 4 duim lank.

(5) Elke reddingsboei moet 'n hoogs sigbare kleur hê.

(6) Die naam van die skip wat die reddingsboei aan boord het en die naam van die hawe waar die skip geregistreer of gelisensieer is, moet met blokletters op die reddingsboei aangebring word. Reddingsboeie wat vervaardig word uit ander materiaal as kurk, moet blywend gemerk word met die fabrikant se handelsnaam vir sodanige produk.

(7) Elke reddingsboei moet toegerus wees met gryplyne van knoopvrye tou van goeie gehalte wat deeglik bevestig is by vier punte wat ewe ver van mekaar verwyder is en wat vier lusse van tou, elk minstens 2 voet 4 duim lank, verskaf.

(8) Die gewig van die reddingsboei mag nie 13 pond 8 onse te bowe gaan nie en dit moet nie minder as 5 pond weeg wanneer dit nuut gebou is nie.

BYLAE 10.

(Regulasie 30.)

VEREISTES VIR 'N REDDINGSBUIS.

Deel I.—Reddingsbuis vir 'n Persoon wat 70 pond of meer weeg.

(1) Behoudens die bepalings van paragraaf (7), moet elke reddingsbuis vir gebruik deur 'n persoon wat 70 pond of meer weeg, 'n minimum dryfvermoë van 35 pond 24 uur lank in varswater verskaf.

(2) Die woorde „PERSOON WAT 70 POND OF MEER WEEG", moet onuitwisbaar met letters minstens 'n halfduim groot aan albei kante van elke sodanige reddingsbuis aangebring word en die naam van die fabrikant of ander identifikasiemerk slegs aan die een kant van die reddingsbuis.

(7) Buoyant apparatus shall not exceed 400 lb 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 lb, suitable handles or rungs shall be fitted for this purpose.

(8) Buoyant apparatus carried in a class I ship shall not be less than 3 feet 6 inches in breadth.

ANNEX 9.

(Regulation 28.)

REQUIREMENTS FOR A LIFEBUOY.

(1) Every lifebuoy shall be constructed of cork, evenly formed and securely plugged, or other equally efficient buoyant material which shall not be adversely affected by oil or oil products, and shall be capable of floating in fresh water for at least 24 hours with 32 lb of iron suspended from it.

(2) Every lifebuoy made of plastic or other synthetic compounds shall be capable of retaining its buoyant properties and durability in contact with sea water or oil products, or under variation of temperature or climatic changes prevailing in open sea voyages.

(3) The lifebuoy shall not be filled with rushes, cork shavings, granulated cork or any other loose granulated material, and its buoyancy shall not depend upon air compartments which require to be inflated.

(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) Every lifebuoy shall be of a highly visible colour.

(6) Every lifebuoy shall be marked in block letters with the name of the ship in which it is carried and with the name of the port where it is registered or licensed. Lifebuoys constructed of materials other than cork, shall be permanently marked with the manufacturer's trade name for that product.

(7) Every lifebuoy shall be fitted with grab lines which shall be of good quality unkinkable line and well secured at four equidistant points, providing four loops of line each not less than 2 feet 4 inches long.

(8) The weight of a lifebuoy shall not exceed 13 lb 8 ounces nor shall it be less than 5 lb, when newly constructed.

ANNEX 10.

(Regulation 30.)

REQUIREMENTS FOR A LIFEJACKET.

Part I.—Lifejacket for a Person Weighing 70 lb or More.

(1) Subject to the provisions of paragraph (7), every lifejacket for use by a person weighing 70 lb or more, shall provide a minimum of 35 lb buoyancy in fresh water for 24 hours.

(2) Every such lifejacket shall be marked indelibly on both sides in letters not less than half an inch in size with the words " PERSON OF 70 LB OR MORE " and on one side only with the maker's name or other identification mark.

(3) Elke sodanige reddingsbuis moet ook aan die volgende vereistes voldoen:—

(*a*) Hy moet so vervaardig wees dat alle gevaar dat hy verkeerd aangesit kan word, vir sover doenlik uitgeskakel word, en dit moet moontlik wees om hom met sy binnekant na buite te dra;

(*b*) hy moet in staat wees om die draer se liggaam wanneer dié in stil water beland, binne 5 sekondes in 'n veilige drywende posisie te draai met die liggaam skuins agtertoe geleun, en moet ondersteuning bied vir die kop van die persoon wat dit aan het, ongeag of hy by sy bewussyn of bewusteloos is, sodat die mond minstens 6 duim bokant die water is;

(*c*) hy moet nie deur olie of olieprodukte nadelig aangetas word nie;

(*d*) hy moet 'n hoogs sigbare kleur hê;

(*e*) hy moet toegerus wees met 'n ring of lus of soortgelyke toestel van voldoende sterkte om reddingswerk te vergemaklik;

(*f*) hy moet uit materiaal met 'n lae vlambaarheid vervaardig wees, en die fabrikaat waarmee hy oorgetrek is, tesame met die bande, moet vrotvry wees.

(*g*) hy moet toegerus wees met 'n goedgekeurde fluitjie wat deur middel van 'n koord stewig bevestig is;

(*h*) hy moet voorsien wees van knoopbande wat stewig aan die reddingsbuis se oortreksel bevestig is en 'n gewig van 200 pond kan dra. Die metode om die bande vas te knoop, moet sodanig wees dat dit maklik begryp en geredelik uitgevoer kan word. Wanneer metaalvasmakers gebruik word, moet hulle van 'n grootte en sterkte wees wat ooreenstem met die vasknoopbande en van korrosiebestande materiaal vervaardig wees; en

(*i*) hy moet toelaat dat die draer 'n afstand van 20 voet hoog regaf in die water inspring sonder besering en sonder om die reddingsbuis te verskaf.

(4) Die dryfvermoë van elke sodanige reddingsbuis moet deur kapok of ander ewe doeltreffende drywende materiaal verskaf word.

(5) Elke sodanige kapokreddingsbuis moet aan die vereistes van paragrawe (1) tot (4) voldoen en daarbenewens ook aan die volgende vereistes:—

(*a*) Dit moet minstens 35 ons kapok bevat;

(*b*) die kapok moet van 'n goeie dryfgehalte wees, deeglik uitgepluis, egalig ingeprop en vry van saad en ander vreemde materie;

(*c*) Die kapok moet beskerm wees teen die uitwerking van olie of olieprodukte sodat die verlies aan dryfvermoë in die reddingsbuis, nadat dit vir 'n tydperk van 48 uur rondgedryf het in troebel water met 'n laag gasoliemengsel van minstens 3 millimter in diepte bevat, hoogstens 2 persent van die oorspronklike dryfvermoë sal wees, en vir die doel van hierdie toets moet die reddingsbuis belas word met gewigte gelyk aan die helfte an sy oorspronklike dryfvermoë; en

(*d*) die oortreksel moet van voorafgekrimpte katoenstof wees waarvan die gewig in weeftoestand per lineêre jaart minstens 6 onse moet wees vir 'n breedte van 27 duim en in verhouding vir ander wydtes. Die fabrikaat moet vry wees van pappingbymengsel of ander vreemde materie. Die drade per duim in die weeftoestand moet 'n skering van 44 dubbeldrade en 'n inslag van 34 dubbeldrade hê. Dit moet gewerk word met linnedraad van die gehalte van 'n fyn koord minstens gelyk aan Whittemorekoord No. 25a.

(6) Elke sodanige reddingsbuis waarvoor ander drywende materiaal as kapok gebruik is, moet aan die

(3) Every such lifejacket shall also comply with the following requirements:—

(*a*) It shall be so constructed as to eliminate as far as possible all risk of its being put on incorrectly, and it shall be capable of being worn inside out;

(*b*) it shall turn the wearer on entering still water to a safe floating position within 5 seconds with the body inclined backwards from its vertical floating position and shall support the head of the conscious or unconscious wearer so that the mouth shall not be less than 6 inches above the water;

(*c*) it shall not be adversely affected by oil or oil products;

(*d*) it shall be of a highly visible colour;

(*e*) it shall be fitted with a ring or loop or similar device of adequate strength to facilitate rescue;

(*f*) it shall be made of materials of low flammability, and the fabric with which it is covered and its tapes shall be rotproof;

(*g*) it shall be fitted with an approved whistle firmly attached by a lanyard;

(*h*) it shall have fastening tapes securely attached to the lifejacket cover and capable of taking a load of 200 lb. The method of fastening the tapes shall be such as to be easily understood and capable of being readily carried out. Metal fastenings, when used, shall be of a size and strength consistent with the fastening tapes and of corrosion resistant material; and

(*i*) it shall allow the wearer to jump a vertical distance of 20 feet into the water without injury and without dislodgement of the lifejacket.

(4) The buoyancy of every such lifejacket shall be provided by kapok or other equally effective buoyant material.

(5) Every such kapok lifejacket shall in addition to complying with the requirements of paragraph (1) to (4), comply with the following requirements:—

(*a*) It shall contain not less than 35 ounces of kapok;

(*b*) the kapok shall be of good flotation quality, well teased, evenly packed and free from seeds and other foreign matter;

(*c*) the kapok shall be protected from the effects of oil or oil products so that the loss of buoyancy in the lifejacket, after floating in disturbed water containing a layer of not less than 3 millimeters in depth of a mixture of gas oil for a period of 48 hours, shall not exceed 2 per cent of the initial buoyancy, and for the purpose of this test the lifejacket shall be loaded with weights equal to half its initial buoyancy; and

(*d*) the covering shall be of pre-shrunk cotton material, the weight of which in loomstate per linear yard shall be not less than 6 ounces for a width of 27 inches and in proportion for other widths. The fabric shall be free from admixture of sizing or other foreign matter. The threads per inch in loomstate shall be warp 44 two-fold threads and weft 34 two-fold threads. The sewing shall be carried out with linen thread of not less quality than No. 25a fine cord Whittemore Cord.

(6) Every such lifejacket using a buoyant material other than kapok, shall in addition to complying with the

vereistes van paragrawe (1) tot (4) en paragraaf 5 (*d*) voldoen en daarbenewens ook aan die volgende voorskrifte:—

(*a*) Die materiaal mag nie meer as 12 pond per kubieke voet weeg nie en moet van goeie gehalte en skoon wees. Indien die materiaal in stukke is, moet elke stuk minstens 10 kubieke duim groot wees, tensy sodanige stukke in lae is en met 'n goedgekeurde kleefmiddel op mekaar vasgeheg is; en

(*b*) die materiaal moet chemies stabiel wees.

(7) Elke reddingsbuis waarvan die dryfvermoë afhanklik is van opblasing, wat aan boord gehou mag word vir gebruik deur lede van die bemanning van 'n skip, uitgesonderd 'n tenkskip, van klas VII, VIII, IX, IXA, X of XII, moet aan die vereistes van paragraaf (3) voldoen en daarbenewens ook aan die volgende vereistes:—

(*a*) Hy moet twee afsonderlike dryfafdelings hê, in enige van die volgende vorms:—

(i) Een afdeling met inherente dryfvermoë gelyk aan minstens 20 pond en een lugafdeling van minstens 15 pond; of

(ii) twee afsonderlike lugafdelings elk met 'n dryfvermoë van minstens 20 pond;

(*b*) die woorde „SLEGS BEMANNING" moet onuitwisbaar met letters minstens 1 duim groot aan weerskante van die reddingsbuis aangebring word en die naam van die fabrikant of ander identifikasiemerk met kleiner letters slegs aan die een kant daarvan; en

(*c*) die reddingsbuis moet sowel meganies as met die mond opgeblaas kan word.

Deel II.—Reddingsbuis vir 'n persoon wat minder as 70 pond weeg.

(1) Elke reddingsbuis vir gebruik deur 'n persoon wat minder as 70 pond weeg, moet 'n minimum dryfvermoë van 15 pond vir 24 uur in varswater verskaf.

(2) Die woorde „VIR PERSOON WAT MINDER AS 70 POND WEEG", moet onuitwisbaar met letters minstens 'n halfduim groot aan weerskante van elke sodanige reddingsbuis aangebring word en die naam van die fabrikant of ander identifikasiemerk slegs aan die een kant daarvan.

(3) Elke sodanige reddingsbuis moet aan die vereistes van paragrawe (3) en (4) van deel I voldoen.

(4) Elke sodanige reddingsbuis wat van kapok gemaak is, moet minstens 15 onse kapok bevat en moet aan die vereistes van paragrawe (1) tot (3) van hierdie deel en daarbenewens ook aan die vereistes van paragraaf (5) (*b*), (*c*) en (*d*) van deel I voldoen.

(5) Elke sodanige reddingsbuis wat van ander drywende materiaal as kapok gemaak is, moet aan die vereistes van paragrawe (1) tot (3) van hierdie deel en daarbenewens ook aan die voorskrifte van paragrawe (5) (*d*) en (6) (*a*) en (*b*) van deel I voldoen.

BYLAE 11.

(Regulasie 31.)

VEREISTES VIR 'N LYNWERPTOESTEL.

(1) Elke lynwerptoestel moet 4 vuurpyle insluit asook 4 lyne, elk met 'n omtrek van ½ duim en van geskikte lengte, en met 'n breekbelasting van minstens 250 pond.

(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 dit afgevuur word, hoogstens 10 persent is van die lengte van die vuurpyl se vlug.

requirements of paragraphs (1) to (4) and paragraph (5) (*d*), comply with the following requirements:—

(*a*) The material shall not weigh more than 12 lb per cubic foot, and shall be of good quality and clean. If the material is in pieces, the size of each piece shall be not less than 10 cubic inches, unless such pieces are in layer form and are fastened together with an approved adhesive; and

(*b*) the material shall be chemically stable.

(7) Every lifejacket the buoyancy of which depends on inflation, which may be carried for use by members of the crew of a ship, other than a tanker, of class VII, VIII, IX, IXA, X or XII, shall comply with the requirements of paragraph (3) and in addition shall comply with the following requirements:—

(*a*) It shall have 2 separate buoyancy compartments in either of the following forms:—

(i) One compartment of inherent buoyancy equal to at least 20 lb and one air compartment of at least 15 lb; or

(ii) two separate air compartments each of at least 20 lb buoyancy;

(*b*) it shall be marked indelibly on both sides in letters not less than one inch in size with the words "CREW ONLY" and on one side only with the maker's name or other identification mark in smaller letters; and

(*c*) it shall be capable of being inflated both mechanically and by mouth.

Part II.—Lifejacket for a Person Weighing Less than 70 lb.

(1) Every lifepacket for use by a person weighing less than 70 lb shall provide a minimum buoyancy of 15 lb in fresh water for 24 hours.

(2) Every such lifejacket shall be marked indelibly on both sides in letters not less than half an inch in size with the words "FOR PERSON UNDER 70 lb" and on one side only with the maker's name or other identification mark.

(3) Every such lifejacket shall comply with the requirements of paragraphs (3) and (4) of part I.

(4) Every such kapok lifejacket shall contain not less than 15 ounces of kapok, and shall in addition to complying with the requirements of paragraphs (1) to (3) of this part, comply with the requirements of paragraph (5) (*b*), (*c*) and (*d*) of part I.

(5) Every such lifejacket using a buoyant material other than kapok, shall in addition to complying with the requirements of paragraphs (1) to (3) of this part, comply with paragraphs (5) (*d*) and (6) (*a*) and (*b*) of part I.

ANNEX 11.

(Regulation 31.)

REQUIREMENTS FOR A LINE-THROWING APPLIANCE.

(1) Every line-throwing appliance shall include 4 rockets and 4 lines, each line being ½ inch in circumference and of suitable length, and having a breaking strain of not less than 250 lb.

(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) Die lyne en vuurpyle, met middels om hulle te ontsteek, moet in 'n waterdigte kas gehou word.

(4) Elke lynwerptoestel aan boord van 'n skip van 75 voet of langer moet in staat wees om in kalm weer 'n lyn van $\frac{1}{2}$ duim in omtrek 'n minimum afstand van 250 tree te kan werp.

(5) Elke lynwerptoestel aan boord van 'n skip wat korter as 75 voet is, moet in staat wees om in kalm weer 'n lyn van $\frac{1}{2}$ duim in omtrek 'n minimum afstand van 200 tree te kan werp.

(6) Alle onderdele, samestellings en bestanddele van die vuurpyle en die middels om hulle te ontsteek, moet van sodanige aard en gehalte wees dat hulle hul bruikbaarheid onder goeie gemiddelde bergingstoestande vir 'n tydperk van minstens twee jaar kan behou. Die datum waarop die vuurpyl volgemaak word, moet onuitwisbaar op die vuurpyl en sy houer gestempel word en die datum van verpakking moet insgelyks op die patroonhouers aangebring word.

BYLAE 12.

SPESIFIKASIES VAN UITRUSTING VIR 'N REDDINGSBOOT, KLAS-C-BOOT, BOOT OF REDDINGSVLOT.

DEEL I.

[Regulasie 32 (1) (*j*).]

KOMPAS VIR 'N REDDINGSBOOT.

(1) Elke kompas moet van die vloeistoftipe wees. Die vloeistof wat gebruik word, moet 'n mengsel van industriële brandspiritus en water wees, met 'n soortlike gewig van 0·93 by 60° F. Dit moet helder wees, sonder afsaksel, troebelheids- en onsuiwerheidsgebreke. Die kompas moet doeltreffend funksioneer oor 'n temperatuuromvang van −10° F tot +120° F.

(2) Die magneet moet voldoende rigkrag besit. In die Verenigde Koninkryk word daar geag dat 'n periode van 18 tot 22 sekondes na 'n defleksie van 40 grade by 'n temperatuur van ongeveer 60° F aan hierdie vereiste voldoen. Vir die toepassing van hierdie paragraaf is 'n „periode" die tyd wat die kaart neem om 'n volkome omwenteling te maak na 'n defleksie van 40 grade, 'n swaai by die rusposisie verby en weer terug tot die voltooiing van die swaai na die kant waarna dit oorspronklik afgewyk het.

(3) Oor 'n temperatuuromvang van −10° F tot +120° F moet die kaartstelsel wanneer dit onder die kompasvloeistof gedompel word, 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 'n ruimte van minstens $\frac{1}{2}$ 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 of toegerus wees met 'n geskikte verligtingsmiddel.

(5) Die middelpunt van die kaart moet uit saffier of 'n soortgelyke harde juweel vervaardig wees en moet van die dobber verwyder kan word.

(6) Die spil van die kaart moet uit iridium of 'n ander ewe geskikte harde materiaal vervaardig wees.

(7) Die reëlings wat getref word om voorsiening te maak vir die uitsetting en sametrekking van die vloeistof moet die kompas in staat stel om 'n temperatuuromvang 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 dwarsskeepse werking toe te laat. Die kompasbeuels moet in dieselfde horisontale vlak wees as die

(3) The lines and rockets, with the means of igniting them, shall be kept in a watertight case.

(4) Every line-throwing appliance carried in a ship of 75 feet in length or over, shall be capable of throwing a line $\frac{1}{2}$ inch in circumference a minimum distance of 250 yards in calm weather.

(5) Every line-throwing appliance carried in a ship less than 75 feet in length, shall be capable of throwing a line $\frac{1}{2}$ inch in circumference a minimum distance of 200 yards in calm weather.

(6) All components, compositions and ingredients of the rockets and the means of igniting them, shall be of such a character and of such quality as to enable them to maintain their serviceability under good average storage conditions for a period of at least two years. The date on which the rocket is filled shall be stamped indelibly on the rocket and its container and the date of packing shall be similarly stamped on the cartridge containers.

ANNEX 12.

SPECIFICATIONS OF EQUIPMENT FOR A LIFEBOAT CLASS C BOAT, BOAT OR LIFERAFT.

PART I.

[Regulation 32 (1) (*j*).]

COMPASS FOR A LIFEBOAT.

(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 sedement, 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 oscilliation 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 $\frac{1}{4}$ inch. It shall be marked to half points, the 8 principal points being distinctively marked. The card shall be luminised or fitted with a suitable means of illumination.

(5) The centre of the card shall be of sapphire or equally hard jewel, and shall be removable from the float.

(6) The pivot of the card 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 gimballing shall be in the same horizontal plane as the point of suspension of the card

suspensiepunt van die kompaskaart, en die buitenste beuelnaalde moet voor en agter geplaas wees. Die kompasbak moet in 'n kompashuis of kas van nie-magnetiese materiaal geplaas wees en die stuurstreep of streek moet verlig wees of toegerus wees met geskikte verligtingsmiddels. Die kaartstelsel moet vry wees 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 buitenste kompasbeuels 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 buitenste 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 bou van die kompas, moet soos volg wees:—

Kompasbak	21 S.D.N.
Kompashuis	24 S.D.N.
Lamp	24 S.D.N.

Die kompasbak moet so doeltreffend versterk wees dat beuelnaalde aangebring kan word. Die kompashuisdop moet gesaalsmee of met 'n draaibank in die bodemring gevestig word en rondom vasgesoldeer word.

Die beuelring moet van skeepsgeelkoper of ander onbuigsame nie-magnetiese metaal van $\frac{5}{8}$ duim by $\frac{1}{8}$ duim gemaak wees. Beuelnaalde moet gemaak wees van skeepsgeelkoper of ander harde nie-magnetiese materiaal van $\frac{1}{4}$ duim in deursnee; sowel die beuelnaalde as 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 hy sy doeltreffendheid onder seevaarttoestande sal behou.

(13) Die kompasbak moet met die fabrikant se naam of ander identifikasiemerk gegraveer of gestempel wees.

DEEL II.

[Regulasie 32 (1) (*k*).]

SEE-ANKER VIR 'N REDDINGSBOOT.

(1) Elke see-anker moet aan die volgende voorskrifte voldoen:—

(*a*) Hy moet van die beste vlasseildoek No. 1 of ander geskikte materiaal gemaak wees;

(*b*) die seilgedeelte moet stewig aanmekaar vasgewerk en die soom moet met lyktou van $1\frac{3}{4}$ duim vasgewerk wees; die toue moet dan 'n toom vorm met 'n oogring aan die verbindingskant vasgevang, en die toue moet uitgestrek en vasgevang word in 'n teerseilomboorde lus om die verbinding vir die kantellyn te vorm;

(*c*) 'n kabeltou moet aan die see-anker bevestig wees deur middel van 'n ankersluiting wat groot genoeg is om die oogring te bevat;

(*d*) die lengte van die kabeltou moet drie maal die lengte van die reddingsboot wees; en

(*e*) 'n kantellyn wat twee vame langer is as die kabeltou moet verskaf word.

(2) 'n Ronde see-anker moet by die mond met 'n gegalvaniseerde ysterring toegerus wees. Enige ander soort see-anker moet oor die mond met gegalvaniseerde yster-spanners en aan die boonste rand met 'n asspanner toegerus wees.

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 or fitted with suitable means of illumination. 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 bow 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 $\frac{5}{8}$ inch by $\frac{1}{8}$ inch. Gimbal pins shall be of naval brass or other hard non-magnetic material of $\frac{1}{4}$ 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.

[Regulation 32 (1) (*k*).]

SEA ANCHOR FOR A LIFEBOAT.

(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*) the canvas part shall be strongly sewn together and be roped at the seams with $1\frac{3}{4}$ 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; and

(*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) Die grootte van see-ankers moet soos volg wees:—

(*a*) Vir 'n reddingsboot langer as 30 voet—

nie-sirkelvormige voubare see-ankers: mond 30 duim by die boonste rand, 27 duim by die onderste rand, 27 duim aan elke kant;
oppervlakte van mond: 770 vierkante duim;
lengte van seilsak: 4 voet 6 duim;
kabeltou: 3 duim in omtrek;
kantellyn: 2 duim in omtrek.

(*b*) Vir 'n reddingsboot langer as 22 voet, maar hoogstens 30 voet lank—

ronde see-ankers: mond, 27 duim in deursnee;
nie-sirkelvormige voubare see-ankers: mond, 24 duim aan elke kant;
lengte van seilsak: 4 voet;
kabeltou: 3 duim in omtrek;
kantellyn: 2 duim in omtrek;

(*c*) Vir 'n reddingsboot hoogstens 22 voet lank—

ronde see-ankers: mond, 24 duim in deursnee;
nie-sirkelvormige, voubare see-ankers: mond, 21½ duim aan elke kant;
lengte van seilsak: 3 voet 6 duim;
kabeltou: 2½ duim in omtrek;
kantellyn: 1½ duim in omtrek.

DEEL III.

[Regulasies 32 (1) (*n*), 36 (1) (*m*) en 46 (2) (*b*).]

VALSKERMNOODVUURPYLSEINE VIR 'N REDDINGSBOOT, REDDINGSVLOT, KLAS-V- OF KLAS-VI-SKIP, KLAS-X-SKIP VAN 25 VOET OF LANGER MAAR KORTER AS 50 VOET, KLAS-XI-SKIP WAT KORTER IS AS 50 VOET, KLAS-IX- OF KLAS-XII-SKIP.

(1) Elke valskermnoodvuurpylsein moet bestaan uit 'n enkele helderrooi ster wat deur middel van 'n vuurpyl tot die vereiste hoogte opgeskiet word, en wat brand terwyl dit val. Die snelheid waarteen dit val, moet beheer word deur middel van 'n klein valskerm teen gemiddeld 15 voet per sekonde. Dit moet toegerus wees met 'n self-onderhoudende ontbrandingsinrigting wat so ontwerp is dat dit van die vashouplek sonder hulp van buite bedien kan word en sodat die vuurpyl vanaf die reddingsboot, reddingsvlot of skip afgevuur kan word sonder dat die insittendes beseer word.

(2) Wanneer die vuurpyl ongeveer vertikaal afgevuur word, moet die ster en valskerm by of voor die hoogtepunt van die vuurpylbaan op '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 ligsterkte van 15,000 kerskrag brand. Dit moet 'n hoogte van minstens 150 voet bo seespieël bereik voordat dit uitbrand.

(4) Die grootte van die valskerm moet sodanige wees dat dit die vereiste kontrole oor die valsnelheid van die brandende ster kan uitoefen. Dit moet aan die ster bevestig wees 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 was.

(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.

(3) The size of sea anchors shall be as follows:—

(*a*) For a lifeboat 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 a lifeboat 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 a lifeboat not over 22 feet in length—

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.

[Regulations 32 (1) (*n*), 36 (1) (*m*) and 46 (2) (*b*).]

PARACHUTE DISTRESS ROCKET SIGNALS FOR A LIFEBOAT, LIFERAFT, CLASS V OR VI SHIP, CLASS X SHIP OF 25 FEET OR OVER BUT LESS THAN 50 FEET IN LENGTH, CLASS XI SHIP OF LESS THAN 50 FEET IN LENGTH, CLASS IX OR XII SHIP.

(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 an average rate 15 feet per second. It shall be fitted with a self-contained means of ignition, so designed as to operate from the handheld position without external aid, and as to enable the rocket to be discharged from a lifiboat, liferaft or ship 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 15,000 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 satisfactorily 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) Die vuurpyl moet verpak wees in 'n houer wat doeltreffend verseël is. 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 gebruiksaanwysigings moet in albei die amptelike landstale van die Republiek onuitwisbaar op die vuurpyl gedruk wees.

DEEL IV.

[Regulasie 32 (1) (*n*), (4) (*l*) en (5) (*f*), en regulasies 36 (1) (*n*) en 46 (2) (*c*).]

HANDNOODFAKKELSEINE VIR 'N REDDINGSBOOT, KLAS-C-BOOT, BOOT, REDDINGSVLOT, OF KLAS-X-VAARTUIG WAT KORTER AS 25 VOET IS.

(1) Elke handnoodfakkelsein moet toegerus wees met 'n selfonderhoudende ontbrandingsinrigting wat so ontwerp is dat dit vanaf die vashouposisie sonder hulp van buite bedien kan word en sodat die fakkel vanaf 'n reddingsboot, klas-C-boot, boot, reddingsvlot of klas-X-vaartuig vertoon kan word sonder om die insittendes te beseer.

(2) Wanneer 'n fakkel aan boord van 'n reddingsvlot gehou word, moet dit so vervaardig wees dat geen branddende samstelling wat die reddingsvlot kan beskadig, van die fakkel sal afval wanneer dit afgevuur word nie.

(3) Die fakkel moet in staat wees om 'n rooi lig met 'n minimum ligsterkte van 15,000 kerskrag vir minstens 55 sekondes uit te straal.

(4) Die fakkel 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 fakkel in staat kan stel om onder goeie gemiddelde bergingstoestande sy bruikbaarheid vir 'n tydperk van minstens twee jaar te behou.

(6) Die datum waarop die fakkel gevul is, moet onuitwisbaar daarop gestempel wees.

(7) Duidelike en noukeurige gebruiksaanwysings moet in albei die amptelike landstale van die Republiek onuitwisbaar op die fakkel gedruk word.

DEEL V.

[Regulasies 32 (1) (*o*) en 46 (2) (*d*).]

DRYWENDE ROOKSEINE VIR 'N REDDINGSBOOT, KLAS-V- OF VI-SKIP, OF KLAS-X-VAARTUIG WAT KORTER AS 50 VOET IS.

(1) Elke drywende rooksein moet met 'n selfonderhoudende ontbrandingsinrigting toegerus wees.

(2) Die sein moet, terwyl dit op die water dryf, in staat wees om 'n digte massa oranjekleurige rook vir 'n tydperk van minstens twee minute en hoogstens vier minute af te gee.

(3) Die sein 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 die sein in staat kan stel om onder goeie gemiddelde bergingstoestande sy bruikbaarheid vir 'n tydperk van minstens twee jaar te behou.

(5) Die datum waarop die sein gevul is, moet onuitwisbaar daarop gestempel wees.

(6) Duidelike en noukeurige gebruiksaanwysings moet in albei die amptelike landstale van die Republiek onuitwisbaar op die sein gedruk word.

(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 Republic shall be printed indelibly on the rocket.

PART IV.

[Regulation 32 (1) (*n*), (4) (*l*) and (5) (*f*), regulations 36 (1) (*n*) and 46 (2) (*c*).]

HAND-HELD DISTRESS FLARE SIGNALS FOR A LIFEBOAT, CLASS C BOAT, BOAT, LIFERAFT, OR CLASS X VESSEL OF LESS THAN 25 FEET IN LENGTH.

(1) Every hand-held distress flare signal shall be fitted with a self-contained means of ignition so designed as to operate from a hand-held position without external aid and as to enable the flare to be displayed from a lifeboat, class C boat, boat, liferaft, or class X vessel without harm to the occupants.

(2) Where the flare is carried in a 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 Republic shall be printed indelibly on the flare.

PART V.

[Regulations 32 (1) (*o*) and 46 (2) (*d*).]

BUOYANT SMOKE SIGNALS FOR A LIFEBOAT, CLASS V OR VI SHIP, OR A CLASS X VESSEL OF LESS THAN 50 FEET IN LENGTH.

(1) Every buoyant smoke signal shall be fitted with a selfcontained 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.

(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 Republic shall be printed indelibly on the signal.

DEEL VI.

[Regulasie 32 (1) (*p*).]

EERSTEHULPUITRUSTING VIR 'N REDDINGSBOOT.

(1) Die inhoud van elke eerstehulpuitrusting waarvan 'n reddingsboot voorsien moet word, moet voldoen aan die standaarde en voorskrifte van die jongste uitgawe van die *British Pharmacopoeia,* die *British Pharmaceutical Codex* of die *National Formulary,* waar sodanige standaarde en voorskrifte van toepassing is, en moet die volgende insluit:—

Artikel.	*Hoeveelheid.*
(*a*) Bybringmiddels (ses gegeurde ammoniakapsules)	1 blik.
(*b*) Saamgestelde kodiïentablette (Tabl. Codeine Co.)	25 tablette.
(*c*) Ses morfienampulspuite wat 'n oplossing bevat van òf 'n morfiensout wat gelykstaande is met watervrye morfien ¼ gr in 1 cc òf Papaveretum B.P.C. ½ gr in 1 cc, bv. „ Omnopon "—in skroefdopmetaaldrom, met gebruiksaanwysings	1 drom.
(*d*) Standaardverbande, No. 14, middelslag, B.P.C., 6″×4″	2
(*e*) Standaardverbande, No. 15, groot, B.P.C., 8″×6″	2
(*f*) Elastiekhegverbande, 2″×3″, pakkies van drie	2 pakkies.
(*g*) Swagtels, driehoekig, geïllustreerd, minstens 38″-sykant, basissy 54″	5
(*h*) Gaas, wit, absorberend, saamgepers, 36″×2½ jaart	3
(*i*) Rolswagtel, saamgepers, 2½″×4 jaart	4
(*j*) Swagtel, ongebleikte linne, 6″×6 jaart	1
(*k*) Watte, saamgepers, 4-onspakkie	1 pakkie
(*l*) Sagte paraffien, buis van 1 ons	1 buis.
(*m*) Haakspelde, koper geplateer, 2″	6
(*n*) Skêr, 4″, een skerp en een stomp punt, van roesvrye en vlekvrye staal	1
(*o*) Energietablette (10 mg amfetamiensulfaat)	60 tablette.
(*p*) Silikajel	1 kapsule.
(*q*) Aanwysings in albei die amptelike landstale van die Republiek op linne of waterdigte papier gedruk.	

(2) Die eerstehulpuitrusting moet verpak wees in 'n houer wat aan die volgende voorskrifte moet voldoen:—

(*a*) Dit moet duursaam, vogdig en doeltreffend verseël wees. Dit moet ook verseël word met 'n toestel om aan te dui dat die inhoud ongeskonde is.

(*b*) Dit moet verpak wees in 'n kamer waaruit atmosferiese vog sover moontlik verwyder is.

(*c*) Wanneer die houer van metaal gemaak is, moet dit deeglik vertin en met lakvernis geverf wees, en 'n handvatsel moet aan die deksel aangebring wees.

(*d*) 'n Genommerde lys van die inhoud moet aan die buitekant van die houer verstrek word.

DEEL VII.

[Regulasie 32 (1) (*u*).]

HANDPOMP VIR 'N REDDINGSBOOT.

Elke handpomp vir 'n reddingsboot moet aan die volgende vereistes voldoen:—

(1) Die inhoud wanneer dit teen hoogstens 60 dubbele hale per minuut werk, teen suigstoomdruk van 4 voet, moet minstens soos volg wees:—

(*a*) 7 gellings per minuut in 'n reddingsboot van 24 voet of langer;

(*b*) 5 gellings per minuut in 'n reddingsboot wat korter as 24 voet is.

(2) Die pomp moet geredelik selflaaiend wees in sy gewone droë toestand (uitgesonderd binnesmering of ander hulpmiddels) wanneer dit teen 'n suigstoomdruk van minstens 4 voet werk.

PART VI.

[Regulation 32 (1) (*p*).]

FIRST-AID OUTFIT FOR A LIFEBOAT.

(1) The contents of every first-aid outfit provided in a lifeboat 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 ¼ gr in 1 cc of papaveretum B.P.C. ½ gr in 1 cc, e.g. " Omnopon "—in screw capped metal drum with directions for use	1 drum.
(*d*) Standard dressings No. 14, medium B.P.C., 6″×4″	2
(*e*) Standard dressings, No. 15, large, B.P.C., 8″×6″	2
(*f*) Elastic adhesive dressings, 2″×3″, packets of three	2 packets.
(*g*) Bandages, triangular, illustrated, not less than 38″ side, 54″ base	5
(*h*) Gauze, white, absorbent, compressed, 36″×2½ yds	3
(*i*) Roller bandage, compressed, 2½″×4 yds	4
(*j*) Bandage, unbleached calico, 6″×6 yds	1
(*k*) Cotton wool, compressed, 4 oz. packet	1 packet.
(*l*) Soft paraffin, 1 oz. tube	1 tube.
(*m*) Safety pins, brass plated, 2″	6
(*n*) Scissors, 4″, one sharp, one blunt point, of rustless and stainless steel	1
(*o*) Energy tablets (10 mg amphetamine sulphate)	60 table .
(*p*) Silica gel	1 capsule.
(*q*) Instructions in both official languages of the Republic printed on linen or waterproof paper.	

(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.

[Regulation 32 (1) (*u*).]

MANUAL PUMP FOR A LIFEBOAT.

Every manual pump for a lifeboat 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*) seven gallons per minute in a lifeboat of 24 feet in length or over;

(*b*) five gallons per minute in a lifeboat of less than 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) Alle dele van die pomp moet van materiaal wees wat bestand is teen die korrosie-uitwerking van seewater.

(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 vir gebruik saam met rubberpypverbindings met 'n binnemiddellyn van minstens $1\frac{1}{4}$ duim. Die metaalgedeelte van die bedieningshandvatsel moet behoorlik met ander materiaal as hout oorgetrek wees om te verseker dat die operateur se hande beskerm is wanneer die pomp in uiterste koue gebruik word. Die spil van die pakkingsdrukstuk moet van die veerbelaste afsluitingsringtipe wees.

DEEL VIII.

[Regulasie 36 (1) (*i*).]

EERSTEHULPUITRUSTING VIR 'N REDDINGSVLOT.

(1) Behoudens die bepalings van paragraaf (2), moet die inhoud van elke eerstehulpuitrusting wat in 'n reddingsvlot verskaf word, voldoen aan die standaarde en voorskrifte van die jongste uitgawe van die *British Pharmacopoeia*, die *British Pharmaceutical Codex*, of die *National Formulary* waar sodanige standaarde van toepassing is, en dit moet die volgende insluit:—

Artikel.	*Hoeveelheid.*
(*a*) Standaardverbande, No. 14, middelslag, B.P.C., 6″ × 4″	4
(*b*) Standaardverbande, No. 15, groot, B.P.C., 8″ × 6″	4
(*c*) Swagtels, driehoekig, geïllustreerd, minstens 38″-sykant, basissy, 54″	4
(*d*) Oopweefswagtels (B.P.C.), 3″ × 4 jaarts	10
(*e*) Antiseptiese brand- of wondsalf, centrimide B.P., 0·5 persent, w/w. 50 gr-buis	2
(*f*) Skêr, 4″, een skerp en een stomp punt, van roesvrye en vlekvrye staal	1
(*g*) Ses morfienampulspuite wat 'n oplossing bevat van òf 'n morfiensout, gelykstaande met watervrye morfien, $\frac{1}{4}$ gr in 1 cc, òf Papaveretum B.P.C., $\frac{1}{2}$ gr in 1 cc, bv. „Omnopon"—in skroefdopmetaaldrom met gebruiksaanwysings	1 drom.
(*h*) Gebruiksaanwysings in albei die amptelike landstale van die Republiek op linne of waterdigte papier gedruk.	

(2) Op 'n klas-XII-skip wat korter is as 75 voet, moet die inhoud van die eerstehulpuitrusting in elke reddingsvlot een helfte wees van die hoeveelhede in paragraaf (1) (*a*) tot (*e*) genoem, tesame met die items in paragraaf (1) (*f*) en (*h*) vermeld.

(3) Die eerstehulpuitrusting moet in 'n duursame, vogdigte en doeltreffend verseëlde houer verpak wees. 'n Genommerde lys van die inhoud moet aan die buitekant van die houer verstrek wees.

BYLAE 13.

[Regulasies 32 (1) (*y*), 36 (1) (*t*) en 46 (2) (*f*).]

REDDINGSEINE.

1. Die geïllustreerde tabel in regulasies 32 (1) (*y*), 36 (1) (*t*) en 46 (2) (*f*) vermeld, moet die seine en aanduidings in paragraaf 2 aangetoon met behoorlike illustrasies in kleur bevat.

2. Ondervermelde seine moet deur reddingstasies en maritieme reddingseenhede in verbindings met vaartuie of persone wat in nood verkeer, en deur vaartuie of persone wat in nood verkeer, in verbindings met reddingstasies en maritieme reddingseenhede gebruik word. Die seine wat vliegtuie op soek- en reddingsondernemings gebruik om

(3) All parts of the pump shall be of material unaffected by the corrosive effects of 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 rubber hose connections of at least $1\frac{1}{4}$ inches bore. The metal part of the operating handle shall be suitably sheathed by material other than wood to ensure that the hands of the operator are protected when the pump is used in extreme cold. The spindle gland shall be of the spring loaded seal ring type.

PART VIII.

[Regulation 36 (1) (*i*).]

FIRST-AID OUTFIT FOR A LIFERAFT.

(1) Subject to the provisions of paragraph (2), the contents of every first-aid outfit provided in a 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″ × 4″	4
(*b*) Standard dressings, No. 15, large B.P.C., 8″ × 6″	4
(*c*) Bandages, triangular, illustrated, not less than 38″ side, 54″ base	4
(*d*) Open wove bandages (B.P.C.), 3″ × 4 yds	10
(*e*) Antiseptic burn or wound cream, Cetrimide B.P., 0·5 per cent w/w. 50 gm tube	2
(*f*) Scissors, 4″, 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, $\frac{1}{4}$ gr in 1 cc or Papaveretum B.P.C., $\frac{1}{2}$ gr in 1 cc, e.g. "Omnopon"—in screw capped metal drum with directions for use	1 drum.
(*h*) Instructions in both official languages of the Republic printed on linen or waterproof paper.	

(2) In a class XII ship of less than 75 feet in length, the contents of the first-aid outfit in every liferaft shall be one-half of the quantities specified in paragraph (1) (*a*) to (*e*) together with the items specified in paragraph (1) (*f*) and (*h*).

(3) 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.

ANNEX 13.

[Regulations 32 (1) (*y*), 36 (1) (*t*) and 46 (2) (*f*).]

LIFE-SAVING SIGNALS.

1. The illustrated table referred to in regulations 32 (1) (*y*), 36 (1) (*t*) and 46 (2) (*f*), shall contain the signals and significations shown in paragraph 2 with suitable illustrations in colour.

2. The following signals shall be used by life-saving stations and maritime rescue units when communicating with vessels or persons in distress and by vessels or persons in distress when communicating with life-saving stations and maritime rescue units. The signals used by

aan vaartuie rigting te gee, word in subparagraaf (*d*) aangedui. 'n Geïllustreerde tabel met 'n beskrywing van die seine in subparagrawe (*a*) tot en met (*d*) gelys, moet geredelik beskikbaar wees vir die offisier van die wag op elke vaartuig.

(*a*) *Antwoorde van reddingstasies of maritieme reddingseenhede op noodseine van 'n vaartuig of persoon:—*

Sein.	*Betekenis.*
Bedags.—Oranje rooksein of gekombibineerde lig-en-geluidsein (liggewende knalsein) bestaande uit drie enkele seine wat by tussenpose van ongeveer een minuut afgevuur word *Snags.*—Vuurpyl met wit sterre bestaande uit drie enkele seine wat by tussenpose van ongeveer een minuut afgevuur word	" U word gesien—hulp word so spoedig moontlik verleen." (Herhaling van sodanige seine het dieselfde betekenis.)

Indien nodig, kan die dagseine snags of die nagseine bedags gegee word.

(*b*) *Landingseine vir die leiding van klein bote met bemannings of persone wat in nood verkeer:—*

Sein.	*Betekenis.*
Bedags.—Vertikale beweging van 'n wit vlag of van die arms, of die afvuur van 'n sein met groen sterre of die oorsein van die kodeletter „ K " (–·–) met 'n lig- of geluidseinapparaat *Snags.*—Vertikale beweging van 'n wit lig of fakkel, of die afvuur van 'n sein met groen sterre of die oorsein van die kodeletter " K " (–·–) met 'n lig- of geluidseinapparaat. 'n Ligging (aanduiding van rigting) kan gegee word deur 'n vaste wit lig of fakkel op 'n laer vlak en op 'n lyn met die waarnemer te plaas	„ Dit is die beste plek om te land."
Bedags.—Horisontale beweging van 'n wit vlag of arms horisontaal uitgestrek, of die afvuur van 'n sein met rooi sterre of die oorsein van die kodeletter „ S " (· · ·) met 'n lig- of geluidseinapparaat *Snags.*—Horisontale beweging van 'n wit lig of fakkel of die afvuur van 'n sein met rooi sterre of die oorsein van die kodeletter „ S " (· · ·) met 'n lig- of geluidseinapparaat	„ Om hier te land, is hoogs gevaarlik."
Bedags.—Horisontale beweging van 'n wit vlag, gevolg deur die wit vlag in die grond te steek en 'n ander wit vlag te dra in die rigting wat aangedui moet word, of die vertikale afvuring van 'n sein met rooi sterre en die afvuur van 'n sein met wit sterre in die rigting van die gunstiger landingsplek, of die oorsein van die kodeletter „ S " (· · ·), gevolg deur die kodeletter „ R " (·–·), indien 'n gunstiger landingsplek vir die vaartuig wat in nood verkeer, meer na regs van die naderingsrigting geleë is, of die kodeletter „ L " (·–··) indien 'n gunstiger landingsplek vir die vaartuig wat in nood verkeer, meer na links van die naderingsrigting geleë is *Snags.*—Horisontale beweging van 'n wit lig of fakkel, gevolg deur die wit lig of fakkel op die grond neer te sit en 'n ander wit lig of fakkel te dra in die rigting wat aangedui moet word, of die vertikale afvuring van 'n sein met rooi sterre en die afvuur van 'n sein met wit sterre in die rigting van die gunstiger landingsplek, of die oorsein van die kodeletter „ S " (· · ·) gevolg deur die kodeletter „ R " (·–·) indien 'n gunstiger landingsplek vir die vaartuig wat in nood verkeer, meer na regs van die naderingsrigting geleë is, of die kodeletter „ L " (·–··) indien 'n gunstiger landingsplek vir die vaartuig wat in nood verkeer, meer na links van die naderingsrigting geleë is	„ Om hier te land, is hoogs gevaarlik. Daar is 'n gunstiger landingsplek in die aangeduide rigting."

aircraft engaged in search and rescue operations to direct vessels are indicated in subparagraph (*d*). An illustrated table describing the signals listed in subparagraphs (*a*) to (*d*), inclusive, shall be readily available to the officer of the watch of every vessel.

(*a*) *Replies from life-saving stations or maritime rescue units to distress signals made by a vessel or person:—*

Signal.	*Signification.*
By day.—Orange smoke signal or combined light and sound signal (thunderlight) consisting of three single signals which are fired at intervals of approximately one minute *By night.*—White star rocket consisting of three single signals which are fired at intervals of approximately one minute	" You are seen—assistance will be given as soon as possible." (Repetition of such signals shall have the same meaning.)

If necessary, the day signals may be given at night or the night signals by day.

(*b*) *Landing signals for the guidance of small boats with crews or persons in distress:—*

Signal.	*Signification.*
By day.—Vertical motion of a white flag or the arms, or firing of a green star-signal, or signalling the code letter " K " (–·–) given by light or sound-signal apparatus *By night.*—Vertical motion of a white light or flare, or firing of a green star-signal, or signalling the code letter " K " (–·–) given by light or sound-signal apparatus. A range (indication of direction) may be given by placing a steady white light or flare at a lower level and in line with the observer	" This is the best place to land."
By day.—Horizontal motion of a white flag or arms extended horizontally, or firing of a red star-signal, or signalling the code letter " S " (· · ·) given by light or sound-signal apparatus *By night.*—Horizontal motion of a white light or flare, or firing of a red star-signal, or signalling the code letter " S " (· · ·) given by light or sound-signal apparatus	" Landing here highly dangerous."
By day.—Horizontal motion of a white flag, followed by the placing of the white flag in the ground and the carrying of another white flag in the direction to be indicated, or firing of a red star-signal vertically and a white star-signal in the direction towards the better landing place, or signalling the code letter " S " (· · ·) followed by the code letter " R " (·–·) if a better landing place for the craft in distress is located more to the right in the direction of approach or the code letter " L " (·–··) if a better landing place for the craft in distress is located more to the left in the direction of approach *By night.*—Horizontal motion of a white light or flare, followed by the placing of the white light or flare on the ground and the carrying of another white light or flare in the direction to be indicated, or firing of a red star-signal vertically and a white star-signal in the direction towards the better landing place, or signalling the code letter " S " (· · ·) followed by the code letter " R " (·–·) if a better landing place for the craft in distress is located more to the right in the direction of approach or the code letter " L " (·–··) if a better landing place for the craft in distress is located more to the left in the direction of approach	" Landing here highly dangerous. A more favourable location for landing is in the direction indicated."

(*c*) *Seine wat in verband met reddingsapparaat op die kus gebruik moet word:—*

Sein.	*Betekenis.*
Bedags.—Vertikale beweging van 'n wit vlag of van die arms, of die afvuur van 'n sein met groen sterre	In die algemeen „ Bevestigend ". In die besonder „ Vuurpyllyn word gehou." „ Stertblok is vasgemaak." „ Tros is vasgemaak." „ Daar is iemand in die broekboei." „ Trek maar."
Snags.—Vertikale beweging van 'n wit lig of fakkel, of die afvuur van 'n sein met groen sterre	
Bedags.—Horisontale beweging van 'n wit vlag of arms horisontaal uitgestrek, of die afvuur van 'n sein met rooi sterre	In die algemeen „ Ontkennend ". In die besonder „ verslap die toue ". „ Hou op met trek."
Snags.—Horisontale beweging van 'n wit lig of fakkel, of die afvuur van 'n sein met rooi sterre	

(*d*) *Seine wat gebruik word deur vliegtuie op soek- en reddingsondernemings om skepe rigting te gee na 'n vliegtuig, vaartuig of persoon wat in nood verkeer:—*

(i) Wanneer 'n vliegtuig die volgende prosedures agtereenvolgens uitvoer, beteken dit dat die vliegtuig vir 'n bowatervaartuig rigting gee na 'n vliegtuig of 'n bowatervaartuig wat in nood verkeer:—

(1) Minstens een keer om die bowatervaartuig sirkel;
(2) laag vlak voor die boeg die koers van die bowatervaartuig kruis, terwyl versnel en snelheid verminder of die toonhoogte van die skroef verander word;
(3) in die rigting vlieg waarin die bowatervaartuig gelei word.

Herhaling van hierdie prosedures het dieselfde betekenis.

(ii) Wanneer 'n vliegtuig die volgende prosedure uitvoer, beteken dit dat die hulp van die bowatervaartuig aan wie die sein gerig word, nie meer nodig is nie:—

Laag vlak agter die bowatervaartuig die volgstroom kruis, terwyl versnel en snelheid verminder of die toonhoogte van die skroef verander word.

(*e*) *Seine wat gebruik moet word om 'n vaartuig te waarsku dat hy in gevaar verkeer:—*

Sein.	*Betekenis.*
Bedags.—Vertoning van die kodevlae „ U " of „ JD ", of die oorsein van die kodeletter „ U " (. .–) met 'n lig- of geluidseinapparaat *Snags.*—Die oorsein van die kodeletter „ U " (. .–) met'n lig- of geluidseinapparaat	„ U verkeer in gevaar."

Indien dit nodig mag blyk, moet die vaartuig se aandag op hierdie seine gevestig word deur middel van 'n wit fakkel, 'n vuurpyl wat wit sterre uitskiet wanneer dit uitmekaar spat of 'n plofgeluidsein.

(*f*) *Wanneer 'n vaartuig wat in nood verkeer petroleumspiritus of 'n ander hoogs ontvlambare vloeistof vervoer en 'n lekkasie opgedoen het, moet die volgende seine vertoon word om aan te dui dat dit gevaarlik is om 'n vuurpyl met 'n lyn daaraan af te vuur:—*

Bedags.—Hysing van die kodevlag „ B " aan die mastop.
Snags.—Hysing van 'n rooi lig aan die mastop.

Wanneer die sigbaarheid swak is, moet bostaande seine aangevul word deur die gebruik van die volgende kodeseine wat met geluidseinapparaat oorgesein word:—

„ MQF " (– – – –.– ..–.): „ Dit is onveilig om 'n vuurpyl af te vuur."

Die aandag word ook op die volgende kodesein gevestig:—

„ MQH " (– – – –.– ....): „ Is dit velig om 'n vuurpyl af te vuur? "

BYLAE 14.

[Regulasie 38 (9).]

DAVITS EN TEWATERLATINGSTUIG VIR 'N REDDINGSBOOT, KLAS-C-BOOT OF BOOT.

DEEL I.

ALGEMEEN.

Definisie van „ Werkbelasting ".—Die uitdrukking „ werkbelasting " beteken in hierdie bylae—

(*a*) met betrekking tot davits waarop paragraaf (1) (*a*) van deel II van toepassing is, die som van die gewig van die reddingsboot, sy volledige uitrusting, die

(*c*) *Signals to be employed in connection with the use of shore life-saving apparatus:—*

Signal.	*Signification.*
By day.—Vertical motion of a white flag or the arms, or firing of a green star-signal	In general—" Affirmative ". Specifically: " Rocket line is held." " Tail block is made fast." " Hawser is made fast." " Man is in the breeches buoy." " Haul away."
By night.—Vertical motion of a white light or flare, or firing of a green star-signal	
By day.—Horizontal motion of a white flag or arms extended horizontally, or firing of a red star-signal	In general — " Negative." Specifically: " Slack away." " Avast hauling."
By night.—Horizontal motion of a white light or flare, or firing of a red star-signal	

(*d*) *Signals used by aircraft engaged on search and rescue operations to direct ships towards an aircraft, vessel or person in distress:—*

(i) The following procedures performed in sequence by an aircraft mean that the aircraft is directing a surface craft towards an aircraft or a surface craft in distress:—

(1) Circling the surface craft at least once;
(2) crossing the projected course of the surface craft close ahead at a low altitude, opening and closing the throttle or changing the propeller pitch;
(3) heading in the direction in which the surface craft is to be directed.

Repetition of such procedures has the same meaning.

(ii) The following procedure performed by an aircraft means that the assistance of the surface craft to which the signal is directed is no longer required:—

crossing the wake of the surface craft close astern at a low altitude, opening and closing the throttle or changing the propeller pitch.

(*e*) *Signals to be used to warn a vessel which is standing into danger:—*

Signal.	*Signification.*
By day.—The code flags " U " or " JD " or the code letter " U " (· · –) given by light or sound-signal apparatus *By night.*—The code letter " U " (· · –) given by light or sound-signal apparatus	" You are standing into danger."

If it should prove necessary, the attention of the vessel is called to these signals by a white flare, a rocket showing white stars on bursting, or an explosive sound signal.

(*f*) *When a vessel in distress is carrying petrol spirit or other highly inflammable liquid and is leaking, the following signals should be exhibited to show that it is dangerous to fire a line-carrying rocket:—*

By day.—Code flag " B " hoisted at the masthead.
By night.—A red light hoisted at the masthead.

When visibility is poor, the above signals should be supplemented by the use of the following code signal given by sound-signal apparatus:—

" MQF " (– – – –.– · · –.–) " It is not safe to fire a rocket."

Attention is also called to the following code signal:—

" MQH " (– – – –.– · · · ·) " Is it safe to fire a rocket? "

ANNEX 14.

[Regulation 38 (9).]

DAVITS AND LAUNCHING GEAR FOR A LIFE-BOAT, CLASS C BOAT OR BOAT.

PART I.

GENERAL.

Definition of " Working Load ".—In this Annex, the expression " working load " means—

(*a*) in relation to davits to which paragraph (1) (*a*) of part II applies, the sum of the weight of the lifeboat, its full equipment, the blocks and falls, and the maxi-

blokke en lopers, en die maksimum getal persone wat die reddingsboot geskik geag word om op te neem, met die gewig van elke persoon teen 165 pond bereken;

(*b*) met betrekking tot davits en ander tewaterlatingsmiddels waarop paragraaf (1) (*b*) of (*c*) van deel II van toepassing is, die som van die gewig van die reddingsboot, klas-C-boot of boot, sy volledige uitrusting, die blokke en lopers, en 'n tewaterlatingsbemanning bestaande uit twee persone, met die gewig van elke persoon teen 165 pond bereken;

(*c*) met betrekking tot windasse, die maksimum trekkrag deur die loper of lopers by die wentrommel uitgeoefen gedurende die tewaterlating, ophaal of stuwing, wat in elk geval bereken moet word as minstens die werkbelasting op die davit of davits gedeel met die snelheidsverhouding van die tewaterlatingstakel.

DEEL II.

KONSTRUKSIE.

(1) *Sterkte.*—(*a*) Elke davit wat 'n reddingsboot bedien wat ooreenkomstig regulasie 38 (1) in die water neergelaat moet word met sy volle kwota persone aan boord moet, tesame met sy windas, lopers, blokke en alle ander verwante tewaterlatingstuig, so sterk wees dat die reddingsboot met sy volledige uitrusting en 'n tewaterlatingsbemanning van minstens twee persone uitgeswaai en dan met die volle kwota persone aan boord vanaf die inskeeppos veilig in die water neergelaat kan word terwyl die skip 'n stuur- of koplas van 10 grade ondervind en 'n slagsy van 15 grade aan die een of ander kant het.

(*b*) Elke meganies beheerde en enkelarmdavit, tesame met sy windas, lopers, blokke en alle ander verwante tewaterlatingstuig, moet so sterk en die bedieningsinrigting so kragtig wees dat die reddingsboot met sy volledige uitrusting en 'n tewaterlatingsbemanning van twee lede uitgeswaai en dan veilig in die water neergelaat kan word terwyl die skip 'n slagsy van 25 grade het.

(*c*) Elke stel davits, davit of ander tewaterlatingsmiddel waaraan 'n reddingsboot, klas-C-boot of boot bevestig is, uitgesonderd 'n davit waarvan die sterkte in subparagraaf (*a*) of (*b*) vermeld word, moet saam met sy windas, lopers, blokke en alle ander verwante tewaterlatingstuig so sterk wees dat die reddingsboot, klas-C-boot of boot met sy volledige uitrusting en 'n tewaterlatingsbemanning van twee lede uitgeswaai en dan veilig in die water neergelaat kan word wanneer die skip 'n stuur- of koplas van 10 grade ondervind en 'n slagsy van 15 grade aan die een of ander kant het.

(*d*) Elke stel davits, davit of ander tewaterlatingsmiddel waaraan 'n reddingsboot, klas-C-boot of boot bevestig is, saam met sy windas en alle verwante ophaalinrigtings moet so sterk wees dat die reddingsboot, klas-C-boot of boot veilig opgehaal en gestu kan word wanneer hy sy volledige uitrusting en minstens twee persone aan boord het, en daarbenewens, dat 'n noodreddingsboot veilig uit die water tot by die inskeepdek opgehaal kan word teen 'n snelheid van minstens 60 voet per minuut wanneer hy sy volledige uitrusting en 'n verspreide belasting van 2,240 pond aan boord het.

(2) *Swaartekragdavits.*—Alle swaartekragdavits moet so ontwerp wees dat wanneer die skip regop is en ook wanneer hy 'n slagsy van soveel as 25 grade aan die een of ander kant het, daar gedurende die beweging van die davit van die binneboord- na die buiteboordposisie 'n vaste tewaterlatingsmoment is. 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 met die horisontale vlak.

mum number of persons which the lifeboat is deemed fit to carry, the weight of each person being taken to be 165 lb;

(*b*) in relation to davits and other means of launching to which paragraph (1) (*b*) or (*c*) of part II applies, the sum of the weight of the lifeboat, class C boat or boat, its full equipment, the blocks and falls, and a launching crew consisting of two persons, the weight of each person being taken to be 165 lb;

(*c*) in relation to winches, the maximum pull exerted by the fall or falls at the winch drum during lowering, hoisting or stowing, which in any case is to be taken as not less than the working load on the davit or davits divided by the velocity ratio of the lowering tackle.

PART II.

CONSTRUCTION.

(1) *Strength.*—(*a*) Every davit serving a lifeboat which is required by regulation 38 (1) to be put into the water when loaded with its full complement of persons shall, together with its winch, falls, blocks and all other associated lowering gear, be of such strength that the lifeboat with its full equipment and manned by a launching crew of not less than two persons can be turned out and then safely lowered into the water from the embarkation position with its full complement of persons, when the ship has a trim of up to 10 degrees and is listed up to 15 degrees either way.

(*b*) Every mechanically controlled single-arm davit shall together with its winch, falls, blocks and all other associated lowering gear, be of such strength and the operating gear shall be of such power that the lifeboat when fully equipped and manned with a launching crew of two members can be turned out and then safely lowered into the water with the ship listed to 25 degrees.

(*c*) Every set of davits, davit or other means of launching to which a lifeboat, class C boat or boat is attached, other than a davit the strength of which is specified in subparagraph (*a*) or (*b*), shall together with its winch, falls, blocks and all other associated lowering gear be of such strength that the lifeboat, class C boat or boat with its full equipment and manned by a launching crew of two members, can be turned out and then safely lowered into the water when the ship has a trim of 10 degrees and is listed up to 15 degrees either way.

(*d*) Every set of davits, davit or other means of launching to which a lifeboat, class C boat or boat is attached, together with its winch and all associated hoisting gear, shall be of such strength that the lifeboat, class C boat or boat can be safely hoisted and stowed when loaded with its full equipment and at least two persons, and in addition in the case of an emergency lifeboat, that it can be safely hoisted from the water to the embarkation deck at a speed of not less than 60 feet per minute when loaded with its full equipment and a distributed load of 2,240 lb.

(2) *Gravity davits.*—All gravity davits 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 upright and also when the ship is listed at any angle up to and including 25 degrees either way from upright.

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.

(3) *Radiale davits.*—Die bedieningsinrigting van alle davits van die radiale tipe moet toereikende krag besit om te verseker dat die reddingsboot, klas-C-boot of boot wanneer hulle volledig uitgerus en met die tewaterlatingsbemanning beman is, maar nie ander persone aan boord het nie, teen 'n hellingshoek van minstens 15 grade uitgeswaai kan word.

(4) *Meganies beheerde enkelarmdavits.*—Die werkbelasting van enige meganies beheerde enkelarmdavit moet hoogstens 1·5 ton wees.

(5) *Spanning.*—(*a*) In die geval van davits, uitgesonderd meganies beheerde enkelarmdavits, moet die ontwerpspanning aan die davitsarms, wanneer hulle met 'n maksimum belasting en onder toestande van stuur- of koplas en slagsy 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 onderworpe is.

(*b*) In die geval van meganies beheerde enkelarmdavits, moet die ontwerpspanning aan die davit wanneer hy met die maksimum belasting en onder gunstige hellingstoestande 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 onderworpe is.

(6) *Statiese belastingtoets.*—Elke davit met sy arm ten volle uitgestrek moet in staat wees om 'n statiese belastingstoets van minstens 2·2 maal daardie gedeelte van die werkbelasting wat deur die arm gedra word, te weerstaan.

(7) *Bevestigings by die davitkop.*—Die bevestigings by die kop waaraan die blokke hang, moet 'n proefbelastingtoets van minstens 2½ maal die maksimum belasting aan die bevestigings kan weerstaan.

(8) *Blokke.*—(*a*) Alle blokke wat gebruik word in die werkproses om 'n reddingsboot, klas-C-boot of boot op te haal of neer te laat, moet so ontwerp wees dat dit 'n toereikende veiligheidsfaktor bied. Die onderste blokke, indien hulle aangebring word, moet kantelvas wees, en in die geval van noodreddingsbote, moet voorsiening gemaak word om te verhoed dat die lopers inmekaarvleg. Die grootte van die blokke moet eweredig wees aan die grootte van die lopers.

(*b*) 'n Metaalblok moet in staat wees om 'n proefbelastingtoets van minstens 2½ maal die maksimum belasting wat hy bedoel is om te dra wanneer hy in gebruik is, te weerstaan. Die speelruimte tussen die katrolwiele en die blokwange van metaalblokke waarin draadtoue gebruik word, moet tot 'n praktiese minimum beperk word ten einde te voorkom dat die tou oor die rand van die katrolwiel van enige blok of leikatrolwiel skuif. Onderdele van blokke, uitgesonderd hul katrolwiele, moet uit smeebare materiaal vervaardig wees.

(*c*) 'n Houtblok moet in staat wees om 'n proefbelastingtoets van minstens 2½ maal die belasting op die blok te weerstaan. Die wydte tussen die wange van die blok moet 'n ½ duim groter wees as die deursnee van nuwe koordtoue as daardie toue 3¾ duim in omtrek is, en na verhouding minder as die omtrek van die toue kleiner is.

(9) *Draadtoue.*—(*a*) Die breektrekbelasting van elke draadtou wat gebruik word om 'n reddingsboot, klas-C-boot of boot neer te laat, moet minstens 6 maal die maksimum belasting op die draadtou wees wanneer die boot neergelaat, opgehaal of gestu word.

(*b*) Draadtoue moet stewig aan die wentol bevestig wees, en die bevestigingspunte van die drade en ander dele waaraan die reddingsboot, klas-C-boot of boot moet

(3) *Luffing davits.*—The operating gear of all luffing type davits shall be of sufficient power to ensure that the lifeboat, class C boat or boat 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.

(4) *Mechanically controlled single-arm davits.*—The working load of any mechanically controlled single-arm davit shall not exceed 1·5 tons.

(5) *Stresses.*—(*a*) In the case of davits other than mechanically controlled single-arm davits, the designed stress on the davit arms, when operating under maximum load and conditions of trim and 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.

(6) *Static load test.*—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.

(7) *Attachments at the davit head.*—The attachments at the head from which the blocks are suspended shall be capable of withstanding a proof load test of not less than 2½ times the maximum load on the attachments.

(8) *Blocks.*—(*a*) All blocks used in the operation of hoisting and lowering of a lifeboat, class C boat or boat, shall be of a design that affords an adequate factor of safety. Lower blocks, when fitted, shall be non-toppling, and in the case of emergency lifeboats, provision shall be made to prevent the falls from cabling. The size of blocks shall be commensurate with the size of the falls.

(*b*) A metal block shall be capable of withstanding a proof load test of not less than 2½ times the maximum load it is intended to carry in service. The clearance between the sheaves and the block cheeks of metal blocks in which wire rope is used, shall be kept to a practical minimum which will prevent the rope from overriding the rim of the sheave of any block or lead sheave. Component parts of blocks, other than their sheaves, shall be of ductile material.

(*c*) A wood block shall be capable of withstanding a proof load of not less than 2½ times the load on the block. The width between the cheeks shall be half an inch greater than the diameter of new cordage ropes when those ropes are 3¾ inches in circumference, and less in proportion to the circumference of the ropes when they are smaller.

(9) *Wire ropes.*—(*a*) The breaking tensile load of each wire rope used for lowering a lifeboat, class C boat or boat, shall be not less than 6 times the maximum load on the wire rope when lowering, hoisting or stowing.

(*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, class C boat or boat

hang, moet in staat wees om 'n proefbelasting van minstens 2½ maal die belasting op sodanige bevestigings en ander dele te weerstaan.

(*c*) Waar draadtousplitsings of ringbevestigde oogeindpunte gebruik word, moet hulle in staat wees om 'n proeftoets van minstens 2½ maal die belasting op hulle wanneer hulle in gebruik is, te weerstaan tensy monsters verteenwoordigend van elke grootte draad waarop hulle gebruik word, 'n veiligheidsfaktor van minstens 5 gee wanneer dit vir die breek getoets word.

(10) *Windasse.*—(*a*) In die geval van davits, uitgesonderd meganies beheerde enkelarmdavits, moet die wentolle ingerig wees om die twee lopers 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 5 grade vir groefwentolle en 3 grade vir ongegroefde wentolle te gee. In die geval van meganies beheerde enkelarmdavits moet die leiding van die draadtouloper sodanig wees dat die loper gelyk oor die tol opdraai.

(*b*) Windasremme moet van kragtige konstruksie wees en volkome beheer en beperking van snelheid bied wanneer die reddingsbote in die water neergelaat word. Die handrem moet so opgestel wees dat dit normaalweg op die „ AAN "-posisie is en terugkeer na die „ AAN "-posisie wanneer die kontrolehandvatsel nie bedien 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 tewaterlatingsnelheid, om te verseker dat die reddingsboot, klas-C-boot 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 snelheid van tussen 60 en 120 voet per minuut vir die tewaterlating van die reddingsboot te gee. Die handremmeganisme van reddingsbootwindasse moet sperratinrigtings insluit. Waar prakties doenlik, moet die reminrigting sodanig geleë wees dat die man wat met die windas werk in staat gestel word om die reddingsboot, klas-C-boot of boot gedurende die hele tewaterlatingsverrigting in die oog te hou, maar windasse wat noodreddingsbote bedien, moet in elk geval egter sodanig geleë wees.

(*c*) Elke windas moet in staat wees om 'n toetsbelasting van 1·5 maal die werkbelasting soos in paragraaf (*c*) van deel I omskryf, neer te laat en te hou.

(*d*) Windasse moet van sodanige konstruksie wees dat die slinger of slingers nie deur bewegende dele van die windas gedraai word wanneer die reddingsboot, klas-C-boot of boot neergelaat of deur middel van krag opgehaal word nie, en voorsiening moet gemaak word om toe te laat dat die lopers met die hand losgedraai word.

(11) *Koordtoulopers.*—Koordtoulopers moet van manilla of 'n ander geskikte materiaal wees en moet duursaam, onkinkbaar, diggedraai en buigsaam wees. Hulle moet in staat wees om onder enige omstandighede vryelik deur 'n opening ⅜ duim groter as die nominale deursnee van die tou te gaan. Die breekbelasting van elke tou wat gebruik word om 'n reddingsboot, klas-C-boot of boot neer te laat, moet minstens 6 maal die maksimum belasting op die tou wees wanneer dit neergelaat of opgehaal word. Tou met 'n omtrek van minder as 2½ duim mag nie as reddingsbootlopers gebruik word nie. Opwenkatrolle of tou-oprolkaste moet vir die manillatoulopers verskaf word.

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 rope splices or ferrule-secured eye terminals are used, they shall be capable of withstanding a proof test of not less than 2½ times the load imposed on them in service unless samples representing each size of wire on which they are used, show a factor of safety of at least 5 when tested to destruction.

(10) *Winches.*—(*a*) In the case of davits other than mechanically controlled single-arm davits, winch drums shall be arranged to keep the 2 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 5 degrees for grooved drums and 3 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*) Winch brakes 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, class C boat 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, class C boat or boat under observation during the whole process of its being launched into the water, provided that winches serving emergency lifeboats shall in any case be so placed.

(*c*) Each winch shall be capable of lowering and holding a test load of 1·5 times the working load as defined in paragraph (*c*) of part I.

(*d*) Winches shall be so constructed that the crank handle or handles are not rotated by moving parts of the winch when the lifeboat, class C boat or boat is being lowered or when it is being hoisted by power, and provision shall be made to allow the falls to be manually unwound.

(11) *Cordage rope falls.*—Cordage rope falls shall be of manilla or some other suitable material and 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. The breaking load of each rope used for lowering a lifeboat, class C boat or boat shall be not less than 6 times the maximum load on the rope when lowering or hoisting. Rope of less than 2½ inches in circumference shall not be used for lifeboat falls. Winding reels or flaking boxes for the manilla rope falls shall be provided.

(12) *Bolders.*—Geskikte bolders of ander ewe doelmatige toestelle vir die tewaterlating van enige reddingsboot, klas-C-boot of boot moet verskaf word in alle gevalle waar koordtoulopers gebruik word. Dergelike bolders of ander toestelle moet sodanig geleë wees dat daar verseker word dat die reddingsboot, klas-C-boot of boot wat deur hulle bedien word veilig neergelaat kan word, en touleiers of leikatrolle moet aangebring word om te verseker dat die reddingsboot nie gedurende die uitdraai- of uitswaaiverrigting opgelig word nie.

DEEL III.

TOETSE NA INSTALLERING AAN BOORD VAN DIE SKIP.

(1) *Algemeen.*—Toetse moet uitgevoer word om te verseker dat alle reddingsbote, klas-C-bote of bote wat aan davits bevestig is, met die voorgeskrewe uitrusting aan boord vanaf die inskeeppos veilig en gemaklik opnuut gestu kan word en dat die reddingsboot, klas-C-boot of boot wanneer hy met so 'n belasting aan boord losgehaak word, deur swaartekrag in die water neergelaat kan word teen die wrywingsweerstand van die windas, lopers, blokke en ander verwante tuig.

(2) *Tewaterlatingstoetse.*—(*a*) Elke stel davits waarop paragraaf (1) (*a*) van deel II van toepassing is en enige verwante reddingsbootwindasse en hul remme moet in staat wees om die volgende toets te weerstaan:—

Die reddingsboot by elke stel davits moet vanaf die inskepingsdek in die water neergelaat word, gelaai met die uitrusting wat by deel I van hierdie regulasies voorgeskryf word en 'n verspreide gewig gelykstaande met die volle getal persone wat hy geskik geag word om op te neem, plus 10 persent van die werkbelasting. Windasremme wat aan die weer blootgestel is, moet in staat wees om bostaande toets met 'n nat remoppervlakte te weerstaan.

(*b*) In die geval van davits waarop paragraaf (1) (*b*) of (*c*) van deel II van toepassing is, moet die reddingsboot klas-C-boot of boot in die water neergelaat word met die uitrusting wat by deel I van hierdie regulasies voorgeskryf word en 'n verspreide gewig wat gelykstaande is met die gewig van 'n tewaterlatingsbemanning van twee persone plus 10 persent van die werkbelasting.

(*c*) Vir die toepassing van die toetse voorgeskryf by paragrawe (*a*) en (*b*), moet die gewig van 'n persoon teen 165 pond bereken word.

(3) *Ophaaltoetse vir 'n noodreddingsboot.*—'n Noodreddingsboot wat ooreenkomstig deel I van hierdie regulasies vir ophaaldoeleindes deur windasse bedien moet word, moet benewens die toetse by paragrawe (1) en (2) voorgeskryf, getoets word deur die noodreddingsboot met die uitrusting wat ingevolge deel I van hierdie regulasies vereis word en 'n verspreide belasting van 2,240 pond plus 10 persent van die totale ophaalbelasting, met inbegrip van blokke en lopers teen die maksimum ophaalspoed uit die water tot op die inskepingsdek te hys.

BYLAE 15.

[Regulasie 38 (16).]

ONTKOPPELINGSINRIGTING VIR 'N REDDINGSBOOT, KLAS-C-BOOT OF BOOT.

(1) Die ontkoppelingsinrigting moet ingerig wees sodat daar verseker word dat beide kante van die reddingsboot, klas-C-boot of boot gelyktydig losgehaak kan word.

(12) *Bollards.*—Suitable bollards or other equally effective appliances for lowering any lifeboat, class C boat or boat shall be provided in all cases where cordage rope falls are used. Such bollards or other appliances shall be sited so as to ensure that the lifeboat, class C boat or boat served by them can be safely lowered, and fairleads or lead sheaves shall be fitted so as to ensure that it shall not be lifted during the process of turning out or swinging out.

PART III.

TESTS AFTER INSTALLATION ON BOARD SHIP.

(1) *General.*—Tests shall be made to ensure that all lifeboats, class C boats or boats attached to davits can be re-stowed from the embarkation position safely and with the facility when loaded with the required equipment and that when so loaded, the lifeboat, class C boat or boat can, when released, be lowered by gravity into the water against the frictional resistance of the winch, falls, blocks and other associated gear.

(2) *Lowering tests.*—(*a*) Each pair of davits to which paragraph (1) (*a*) of part II applies and any associated lifeboat winches and their brakes, shall be capable of withstanding the following test:—

The lifeboat at each set of davits shall be lowered from the embarkation deck into the water loaded with the equipment required by part I of these regulations and a distributed weight equal to the full number of persons which it is deemed fit to accommodate plus 10 per cent of the working load. Winch brakes exposed to the weather, shall be capable of withstanding the foregoing test with the braking surface wetted.

(*b*) In the case of davits to which paragraph (1) (*b*) or (*c*) of part II applies, the lifeboat, class C boat or boat shall be lowered into the water with the equipment required by part I of these regulations and a distributed weight equal to the weight of a launching crew of 2 persons plus 10 per cent of the working load.

(*c*) For the purpose of the tests required under subparagraphs (*a*) and (*b*), the weight of a person shall be taken to be 165 lb.

(3) *Hoisting tests for an emergency lifeboat.*—An emergency lifeboat which is required by part I of these regulations to be served by winches for recovery, shall in addition to the tests required by paragraphs (1) and (2), be tested by hoisting the emergency lifeboat with the equipment required by part I of these regulations and a distributed load of 2,240 lb plus 10 per cent of the total hoisting load, including blocks and falls, from the water to the embarkation deck, at the maximum hoisting speed.

ANNEX 15.

[Regulation 38 (16).]

DISENGAGING GEARS FOR A LIFEBOAT, CLASS C BOAT OR BOAT.

(1) Disengaging gears shall be so arranged as to ensure simultaneous release of both ends of the lifeboat, class C boat or boat.

(2) Die middels om die loshaak te bewerkstellig, moet agter op die skip geplaas word.

(3) Die inrigting moet van so 'n aard wees dat hy die loshaak van die reddingsboot, klas-C-boot of boot toelaat eers wanneer hulle drywend is.

(4) Die inrigting moet van so 'n aard wees dat hy die loshaak toelaat selfs as daar 'n sleepbelasting aan die skakel of lopers is.

(5) Die hake moet geskik wees vir onmiddellike loshaking met die hand.

(6) Die punt waar die haak aan die oog, ring of skakel van die blok bevestig is, mag nie laer wees as wanneer gewone vaste hake aangebring is nie.

(7) Die inrigting en meganisme om die loshaak te bewerkstellig, moet so gebou en ingerig wees dat die veiligheid van die reddingsboot, klas-C-boot of boot verseker word, onafhanklik van enige veiligheidspenne.

(8) Die middels om die loshaak te bewerkstellig, moet geskied deur die inhaal of loslating van 'n lyn, of deur die gebruik van 'n hefboom. As loshaking bewerkstellig word deur aan 'n lyn te trek, moet die lyn behoorlik ingewikkel wees. Stawe of ander verbindings tussen hake moet ook ingewikkel wees wanneer dit nodig mag wees vir die veiligheid of die doeltreffende werking van die inrigting of vir die beskerming van persone teen besering.

Touleiers moet behoorlik ingerig wees om te voorkom dat die lyne klem of knak en moet stewig aan permanente dele van die reddingsboot, klas-C-boot of boot 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 korrosie, moet van roesvrye materiaal gemaak wees.

(10) Geen gedeelte van die inrigting wat die gewig van die reddingsboot, klas-C-boot of boot dra, moet van gietmetaal gemaak wees nie.

(11) Die kleinhoute en afmetings van alle dele wat die gewig van die reddingsboot, klas-C-boot of boot dra, moet so ontwerp wees dat breeksterkte verskaf word eweredig aan 'n belasting van minstens 2½ maal die gewig van die reddingsboot, klas-C-boot of boot met die swaarste belasting waarin dit die bedoeling is om die inrigting aan te bring.

BYLAE 16.

[Regulasie 39 (2).]

REDDINGSVLOTTEWATERLATINGSTOESTELLE.

(1) *Definisie van „werkbelasting".*—Die uitdrukking „werkbelasting" beteken in hierdie deel—

die som van die gewig van die reddingsvlot en sy uitrusting, alle ander verwante tuig wat deur die tewaterlatingstoestel bo water gehou word tydens die tewaterlatingsverrigting en die maksimum getal persone wat die reddingsvlot geskik geag word om op te neem, met die gewig van elke persoon teen 165 pond bereken.

(2) *Sterkte.*—Elke reddingsvlotewaterlatingstoestel en alle verwante tuig wat gedurende die tewaterlatingsverrigting onderworpe is aan die werkbelasting of aan 'n belasting meegebring as gevolg van die werkbelasting, moet so sterk wees dat die reddingsvlot met sy volle kwota persone en volledige uitrusting aan boord veilig neergelaat kan word wanneer die skip 'n stuur- of koplas van 10 grade ondervind en 'n slagsy van 15 grade aan die een of ander kant het.

(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, class C boat or boat 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, class C boat or boat 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, Class C boat or boat. 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, class C boat or boat, shall be made of cast metal.

(11) The scantlings and proportions of all parts which support the weight of the lifeboat, class C boat or boat, shall be designed to provide breaking strength proportionate to a load of at least 2½ times the weight of the heaviest loaded lifeboat, class C boat or boat in which the gear is intended to be fitted.

ANNEX 16.

[Regulation 39 (2).]

LIFERAFT LAUNCHING APPLIANCES.

(1) *Definition of "Working Load".*—In this annex, the expression "working load" means—

the sum of the weight of the liferaft and its equipment, all other associated gear which is supported by the launching appliance during the launching operation and the maximum number of persons which the liferaft is deemed fit to carry, the weight of each person being taken to be 165 lb.

(2) *Strength.*—Every liferaft launching appliance and all associated gear which, during the launching operation, is subjected to the working load or to a load imposed due to the working load, shall be of such strength that the liferaft when loaded with its full complement of persons and equipment can be safely lowered when the ship has a trim of up to 10 degrees and is listed up to 15 degrees either way.

(3) *Konstruksie.*—Elke deel van elke reddingsvlotte-waterlatingstoestel moet sodanig wees dat die toestel wanneer hy met die werkbelasting en ongunstige toestande van slagsy en stuur- of koplas in werking is, 'n toereikende veiligheidsfaktor bied, met inagneming van die materiaal gebruik, die metode van konstruksie en die aard van sy pligte. Met die uitsondering van die leikatrolle en blokkatrolle, moet alle dele van die toestel en sy verwante tuig wat onderwerp word aan die werkbelasting of waarvan die veiligheid van die toestel of van die reddingsvlot gedurende die tewaterlatingsverrigting afhang, vervaardig word uit smeebare materiaal, en geen deel, uitgesonderd leikatrolle en blokkatrolle, mag uit gietmateriaal vervaardig wees nie, tensy die Sekretaris dit goedkeur.

(4) *Statiese belastingtoets.*—Elke reddingsvlot se tewaterlatingstoestel moet in staat wees om 'n statiese belastingtoets van minstens 2.2 maal die werkbelasting te weerstaan.

(5) *Bediening.*—(*a*) Elke reddingsvlottewaterlatingstoestel moet sodanig ontwerp wees dat die reddingsvlot met sy volle kwota persone en volledige uitrusting aan boord veilig in die water neergelaat kan word.

(*b*) Die snelheid waarmee die reddingsvlot neergelaat kan word, moet outomaties beheer word teen minstens 60 voet per minuut en hoogstens 120 voet per minuut, en die afsakking van die reddingsvlot moet te alle tye deur die operateur met die hand beheer kan word.

(*c*) Die bediening van die tewaterlatingstoestel moet nie geheel en al afhanklik wees van die gebruik van middels uitgesonderd handbediening of swaartekrag nie. Die inrigting moet sodanig wees dat die reddingsvlot deur swaartekrag neergelaat kan word.

(*d*) Reëlings moet sodanig getref wees dat die reddingsvlot outomaties van die tewaterlatingstoestel losgehaak kan word sodra dit drywend is, en daar moet voorsiening gemaak word sodat die reddingsvlot deur 'n persoon aan boord van die reddingsvlot met die hand losgehaak kan word.

(*e*) Wanneer reddingsvlottewaterlatingstoestelle windasse insluit, moet die windasse ooreenkomstig paragraaf (10) van deel II van bylae 14 gebou word.

(6) *Tewaterlatingstoetse.* — Elke reddingsvlottewaterlatingstoestel moet getoets word deur die grootste reddingsvlot wat hy moet bedien met sy volledige uitrusting aan boord, tesame met 'n verspreide gewig gelykstaande met die volle kwota persone wat hy geskik geag word om op te neem, plus 10 persent van die werkbelasting, vanaf die inskepingspos tot in die water neer te laat.

(7) *Werkingstoetse.*—Toetse moet uitgevoer word om te verseker dat 'n reddingsvlot wat deur 'n tewaterlatingstoestel bedien word, deur swaartekrag in die water neergelaat kan word wanneer hy slegs sy volledige uitrusting aan boord het. Indien meer as een reddingsvlot deur 'n tewaterlatingstoestel bedien word, moet doeltreffende tewaterlating van die reddingsvlotte agtereenvolgens gedemonstreer word.

BYLAE 17.

[Regulasie 46 (2) (*a*).]

VALSKERMNOODVUURPYLSEINE VAN SKEPE.

(1) Elke valskermnoodvuurpylsein van 'n skip moet bestaan uit 'n enkele helderrooi ster wat deur middel van 'n vuurpyl tot die vereiste hoogte opgeskiet word, en wat brand terwyl dit val. Die snelheid waarteen dit val, moet beheer word deur middel van 'n valskerm teen gemiddeld 15 voet per sekonde.

(3) *Construction.*—Each part of every liferaft launching appliance shall be such that when the appliance is operating under the working load and unfavourable conditions of list and trim, it shall have an adequate factor of safety having regard to the material used, the method of construction and the nature of its duty. Except for lead sheaves and block sheaves, all parts of the appliance and its associated gear which are subjected to the working load or on which the safety of the appliance or the liferaft while in the process of launching depends, shall be constructed of ductile material and no part, other than lead sheaves and block sheaves, shall be constructed of cast metal unless the Secretary shall so permit.

(4) *Static load test.*—Every liferaft launching appliance shall be capable of withstanding a static load test of not less than 2·2 times the working load.

(5) *Operation.*—(*a*) Every liferaft launching appliance shall be so designed that the liferaft when loaded with its full complement of persons and equipment can be safely lowered into the water.

(*b*) The speed of lowering of the liferaft shall be automatically controlled at not less than 60 feet per minute nor more than 120 feet per minute and the descent of the liferaft shall be at all times under the manual control of the operator.

(*c*) Operation of the launching appliance shall not be solely dependent on the use of means other than manual effort or gravity. The arrangement shall be such that the liferaft can be lowered by gravity.

(*d*) Arrangements shall be such that on becoming waterborne, the liferaft shall be automatically released from the launching appliance, and there shall be provision for the manual release of the liferaft by a person on board the liferaft.

(*e*) When liferaft launching appliances incorporate winches, the winches shall be constructed in accordance with paragraph (10) of part II of annex 14.

(6) *Lowering tests.*—Every liferaft launching appliance shall be tested by lowering the largest liferaft it is intended to serve when loaded with its full equipment and a distributed weight equal to the full number of persons which it is deemed fit to accommodate plus 10 per cent of the working load from the embarkation position into the water.

(7) *Operational tests.*—Tests shall be made to ensure that any liferaft, served by any launching appliance, when loaded only with its full equipment, can be lowered by gravity into the water. If more than 1 liferaft is served by any launching appliance, effective successive launching shall be demonstrated.

ANNEX 17.

[Regulation 46 (2) (*a*).]

SHIP'S PARACHUTE DISTRESS ROCKET SIGNALS.

(1) Every ship's 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 an average rate of 15 feet per second.

(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 750 voet, uitgeskiet word. Die vuurpyl moet ook in staat wees om te funksioneer indien hy afgevuur word met 'n hoek van 45 grade met die horisontale vlak.

(3) Die ster moet vir minstens veertig sekondes met 'n minimum ligsterkte van 30,000 kerskrag brand. Hy moet 'n hoogte van minstens 150 voet bo seespieël bereik voordat hy uitbrand.

(4) Die grootte van die valskerm moet sodanig wees dat dit die vereiste beheer oor die valsnelheid van die brandende ster kan uitoefen. Dit moet deur middel van 'n buigsame, vuurvaste tuig aan die ster bevestig wees.

(5) Die vuurpyl kan deur middel van enige geskikte metode ontbrand. 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 vuurhoutjiesamestelling en 'n afsonderlike slagpen moet behoorlik aan elke vuurpyl bevestig wees.

(6) Die vuurhoutjiesamestelling, die slagpensamestelling, die beslagring en die hele uitwendige oppervlakte van die vuurpyl moet waterdig wees.

(7) Die vuurpyl moet bevredigend kan werk nadat dit vir een minuut onder water was en die water daarvan afgeskud word.

(8) Alle onderdele, samestellings en bestanddele moet van sodanige aard en gehalte 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.

(9) Die vuurpyl moet verpak wees in 'n houer wat duursaam, vogdig en doeltreffend verseël 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 op die houer gestempel wees.

(11) Duidelike en noukeurige gebruiksaanwysings moet in albei die amptelike landstale van die Republiek onuitwisbaar op die vuurpyl gedruk wees.

BYLAE 18.

(Regulasie 107.)

INTERNASIONALE LANDAANSLUITING.

(1) Die internasionale landaansluiting, in onderstaande skets aangetoon, wat ingevolge deel II van hierdie regulasies aan boord van 'n skip moet wees, moet met die volgende spesifikasies strook:—

Buitedeursnee	7 duim;
binnedeursnee	2½ duim;
deursnee van die boutsirkel	5¼ duim;
gate	vier gate, elk met'n deursnee van ¾-duim, ewe ver uitmekaar aangebring, gegleuf na die flensrand;
dikte van die flens	minstens $\frac{9}{16}$ duim;
boute	vier, elk met 'n deursnee van $\frac{5}{8}$-duim, twee duim lank, met agt wasters;
flensoppervlakte	plat vlak;
materiaal	enige materiaal geskik vir gebruik onder 'n drukking van 150 pond per vierkante duim;
pakstuk	enige pakstuk geskik vir gebruik onder 'n drukking van 150 pond per vierkante duim.

(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 in addition 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 30,000 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 suitably 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 capable of functioning properly after immersion in water for one minute and removal of the water by shaking.

(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 Republic shall be printed indelibly on the rocket.

ANNEX 18.

(Regulation 107.)

INTERNATIONAL SHORE CONNECTION.

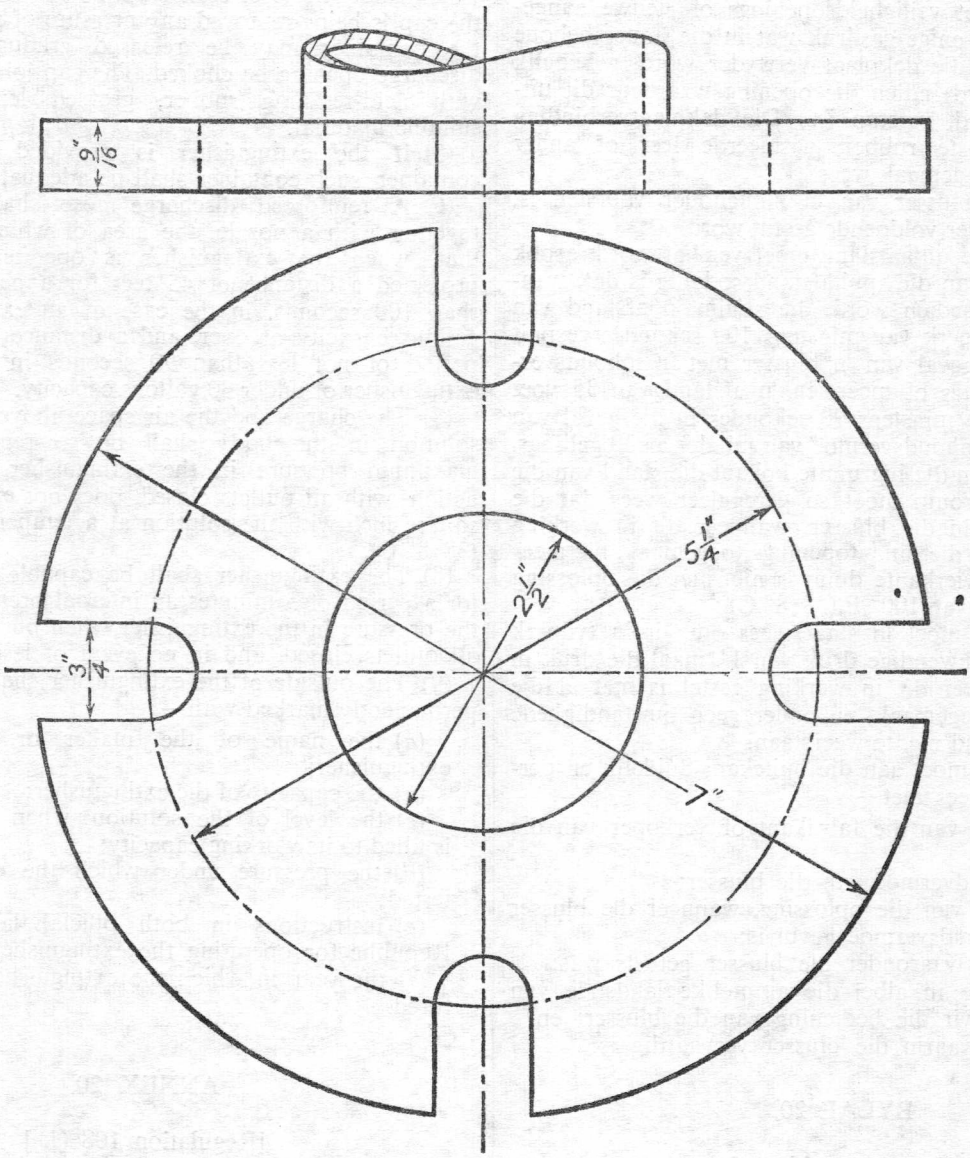
(1) The international shore connection, as hereinafter illustrated, which is required by part II of these regulations to be carried in a ship, shall be in accordance with the following specifications:—

Outside diameter	7 inches;
inner diameter	2½ inches;
bolt circle diameter	5¼ inches;
holes	4 holes of ¾ inch diameter equidistantly placed, slotted to the flange periphery;
flange thickness	$\frac{9}{16}$ inch minimum;
bolts	4, each of $\frac{5}{8}$ inch diameter, 2 inches in length with eight washers;
flange surface	flat face;
material	any suited to 150 lb per square inch service;
gasket	any suited to 150 lb per square inch service.

(2) Die aansluiting moet vervaardig wees uit materiaal wat geskik is vir gebruik onder 'n drukking van 150 pond per vierkante duim. Die flens moet aan die een kant 'n plat vlak hê en aan die ander kant moet daar 'n permanent bevestigde koppeling wees wat op die skip se brandkrane en brandslang sal pas. Die aansluiting tesame met sy pakstuk, boute en wasters, moet aan boord van die skip gehou word.

(2) The connection shall be constructed of material suitable for 150 lb per square inch service. The flange shall have a flat face on one side, and to the other there shall be permanently attached a coupling which will fit the ship's hydrants and hose. The connection shall be kept aboard the ship together with its gasket, bolts and washers.

Internasionale Landaansluiting.—International Shore Connection.



BYLAE 19.

[Regulasie 108 (1).]

NIE-DRAAGBARE SKUIMBRANDBLUSSER.

(1) Elke skuimbrandblusser, uitgesonderd 'n draagbare brandblusser, wat ingevolge deel II van hierdie regulasies verskaf word, moet so ontwerp en gebou wees dat die binnekant van die blusser ondersoek kan word.

(2) Die romp van die blusser moet silindries wees met ente wat na buite gekom is, sonder teenflense, tot 'n straal wat nie groter is as die middellyn van die romp nie.

ANNEX 19.

[Regulation 108 (1).]

NON-PORTABLE FOAM FIRE EXTINGUISHER.

(1) Every foam fire extinguisher, other than a portable fire extinguisher, provided in compliance with part II of these regulations, shall be so designed and constructed that the interior of the extinguisher can be examined.

(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

Die romp en ente moet van plaatstaal gemaak wees wat aan die binnekant vertin of met lood uitgevoer is, of hulle moet voorsien wees van gelykstaande beskerming teen korrosie aan die binnekant. Elke ander deel van die blusser moet, waar nodig, teen korrosie beskerm wees.

(3) Die romp van die blusser moet gesweis of vasgeklink wees. Alle vasgeklinkte 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 aangebring word, sodat enige gasdruk wat in die houer behoue mag bly wanneer die dekplaat verwyder word, geleidelik vrygelaat kan word indien die opening waardeur dit uitgespuit moet word, verstop 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 verskaf word, asook 'n spuitstuk waarvan die spuitafstand sodanig is dat, wanneer die blusser bedien word, die skuim 'n afstand van 45 voet vir 'n tydperk van minstens 100 sekondes gespuit kan word in die geval van 'n blusser met 'n inhoudsvermoë van 30 gellings of meer, en 'n afstand van 35 voet vir 'n tydperk van minstens 90 sekondes in die geval van 'n blusser met 'n inhoudsvermoë van minder as 30 gellings.

(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 al die uitlaatopenings toegemaak, nie meer as 280 pond per vierkante duim is nie, met die oplossing by 'n temperatuur van 100° F (38·8° C).

(8) Die blusser moet in staat wees om vir 'n tydperk van 5 minute 'n inwendige druk van 1½ maal die druk in die blusser wanneer dit in werking gestel is met al die uitlaatopenings toegemaak, en onder geen omstandighede minder as 350 pond nie, te weerstaan.

(9) Die blusser moet aan die buitekant duidelik en permanent gemerk wees met—

(*a*) die naam van die fabrikant of verkoper van die blusser;

(*b*) die inhoudvermoë van die blusser;

(*c*) die stand van die oplossing, wanneer die blusser tot sy werkinhoudsvermoë gevul is;

(*d*) die druk waaronder die blusser getoets was;

(*e*) voorskrifte in albei die amptelike landstale van die Republiek vir die bediening van die blusser; en

(*f*) die jaar waarin die blusser vervaardig is.

BYLAE 20.

[Regulasie 108 (1).]

DRAAGBARE OF NIE-DRAAGBARE KOOLSUURGASBRANDBLUSSERS.

(1) Elke koolsuurgasbrandblusser wat ingevolge deel II van hierdie regulasies verskaf word, moet toegerus wees met silinders wat gebou is ooreenkomstig spesifikasies wat van tyd tot tyd deur die Sekretaris goedgekeur word.

(*Opmerking.*—Tot op datum het die Sekretaris die volgende spesifikasies goedgekeur:—

Spesifikasie S.A.B.S. 50 van die Suid-Afrikaanse Buro van Standaarde;

Britse Standaardspesifikasies Nos. 401, 1287 een 1288.)

(2) Elke silinder moet toegerus wees met 'n binneontladingsbuis en 'n klep om die gas vry te laat.

body. The body and ends shall be made of sheet steel which shall be tinned or lead-coated internally or they shall be provided with equivalent protection against corrosion internally. Every other 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 foam 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—

(*a*) the name of the maker or vendor of the extinguisher;

(*b*) the capacity of the extinguisher;

(*c*) the level of the solution, when the extinguisher is filled to its working capacity;

(*d*) the pressure under which the extinguisher was tested;

(*e*) instructions in both official languages of the Republic for operating the extinguisher; and

(*f*) the year in which the extinguisher was manufactured.

ANNEX 20.

[Regulation 108 (1).]

PORTABLE OR NON-PORTABLE CARBON DIOXIDE FIRE EXTINGUISHER.

(1) Every carbon dioxide fire extinguisher provided in compliance with part II of these regulations, 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 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 shal be provided with an internal discharge tube, and a valve to release the gas.

(3) Die blusser moet toegerus wees met 'n uitlaatslang wat versterk is sodat hy 'n druk van minstens 1,800 pond per vierkante duim kan weerstaan as die nodige koppelings aangebring is. Die boring van die uitlaatslang moet nie kleiner wees as die onderskeie groottes wat in onderstaande tabel uiteengesit word nie:—

Inhoudsvermoë van blusser.	*Mininum boring van uitlaatslang. (Duim.)*
10 pond	¼
35 pond	⅜
100 pond	½

Die uitlaatslang moet toegerus wees met 'n horing vervaardig uit materiaal wat nie elektrisiteit gelei nie, en wat so ontwerp is dat hy die snelheid van die gas wat uitgelaat word, sal verminder. Die metaalgedeelte van die bedieningshandvatsel moet behoorlik beklee wees om die hande van die operateur teen uiterste koue te beskerm.

(4) Die blusser moet by enige temperatuur vanaf 50° F (10° C) tot en met 70° F (21·1° C) gas teen so 'n snelheid uitlaat dat koolsuurgas in gewig gelykstaande met ¾ van die inhoudsvermoë van die houer uitgelaat word in die onderskeie tydperke in onderstaande tabel uiteengesit:—

Inhoudsvermoë van blusser.	*Tydperk. (Sekondes.)*
10 pond	20
35 pond	35
100 pond	70

(5) Die blusser moet aan die buitekant duidelik en permanent gemerk wees met—

(*a*) die naam van die fabrikant of verkoper van die blusser;

(*b*) voorskrifte in albei die amptelike landstale van die Republiek vir die bediening van die blusser;

(*c*) merke wat die gewig van die blusser sal aantoon wanneer hy onderskeidelik leeg of vol is; en

(*d*) die jaar waarin die blusser vervaardig is.

BYLAE 21.

[Regulasie 108 (1).]

DRAAGBARE BRANDBLUSSER VAN DIE SKUIMTIPE, DIE WATERTIPE (GASDRUK) EN DIE WATERTIPE (SODASUUR).

(1) Die romp van elke draagbare brandblusser van die skuimtipe, die watertipe (gasdruk) of the watertipe (sodasuur) wat ingevolge deel II van hierdie regulasies verskaf word, moet silindries wees met komvormige ente, of keëlvormig met die grootste ent komvormig. Die komming moet na buite wees (konveks), sonder teenflense, tot 'n straal wat nie groter as die middellyn van die romp is nie. Indien die blusser vertikaal staan, moet 'n metaalstut stewig aan die romp bevestig wees.

(2) Die romp en ente van die blusser moet vervaardig wees uit koper, staal of ander geskikte materiaal van voldoende gehalte en sterkte, en indien metaalrompe nie uit vleklose staal vervaardig is nie, moet hulle aan die binnekant geheel en al met loodtin, loodlegering of sink uitgevoer word. Inwendige bestanddele van sagte staal, koper of koperlegering wat met die vloeistof in aanraking kom, moet uitgevoer word op dieselfde manier as die romp of met 'n metode wat gelykstaande beskerming verleen maar wat nie korrosie van die romp versnel nie.

(3) Indien die oorlangse naat van 'n silindriese staalromp nie solied getrokke is nie, moet dit gesweis of vasgeklink wees.

Die oorlangse naat van 'n keëlvormige staalromp moet gesweis of vasgeklink of van sluitvoeë voorsien wees.

(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. (Inch.)*
10 lb	¼
35 lb	⅜
100 lb	½

The discharge hose shall be provided with a horn which shall be of electrically non-conducting material and of a design which will reduce the velocity of the gas discharged. The metal part of the operating handle shall be suitably sheathed to protect the hands of the operator from extreme cold.

(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 ¾ of the capacity of the container will be discharged in the periods respectively set forth in the following table:—

Capacity of extinguisher.	*Period. (Seconds.)*
10 lb	20
35 lb	35
100 lb	70

(5) The outside of the extinguisher shall be clearly and permanently marked with—

(*a*) the name of the maker or vendor of the extinguisher;

(*b*) instructions in both official languages of the Republic for operating the extinguisher;

(*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.

ANNEX 21.

[Regulation 108 (1).]

PORTABLE FIRE EXTINGUISHER OF THE FOAM TYPE, THE WATER TYPE (GAS PRESSURE) AND THE WATER TYPE (SODA ACID).

(1) The body of every portable fire extinguisher of the foam type, the water (gas pressure) type or the water (soda acid) type provided in compliance with part II of these regulations, shall be cylindrical with dished ends or conical with larger end dished. The dishing shall be outwards (convex), 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.

(2) The body and ends of the extinguisher shall be made of copper, steel or other suitable material of adequate quality and strength and metal bodies unless made of stainless steel, shall be completely coated internally with lead-tin, lead alloy or zinc. Internal components of mild steel, copper or copper alloy in contact with the liquid shall be coated in the same way as the body or by a method giving equal protection and not accelerating corrosion of the body.

(3) The longitudinal joint of a steel cylindrical body which is not solid drawn shall be brazed or riveted.

The longitudinal joint of a steel conical body shall be welded, riveted or lock-jointed.

Die omtreksdigting of -digtings van 'n staalromp moet gesweis, vasgeklink of gesaalsmee wees.

Alle klinknaelgate moet netjies deurgeslaan en/of geboor wees, en alle vasgeklinkte, sluitvoeg- of saalsmeenate moet gesoldeer wees.

(4) Die oorlangse naat van 'n silindriese koperromp wat nie solied getrokke is nie, moet gesweissoldeer of vasgeklink wees.

Die oorlangse naat van 'n keëlvormige koperromp moet gesweissoldeer of van sluitvoeë voorsien wees.

Die omtreksdigting of -digtings van 'n koperromp moet gesweissoldeer, vasgeklink of, in die geval van die onderste naat, gesaalsmee wees. Indien dit gesaalsmee word, moet die middellyn van die saal kleiner wees as dié van die romp en die saal moet minstens een duim bokant die bodem van die romp gevorm word om die kom op sy plek aan te bring, of die kom kan deeglik op sy plek vasgesoldeer word en daarna kan die romp gesaalsmee word sodat hy 'n kleiner middellyn onderkant die kom het, met 'n oorslag van minstens 'n kwartduim om hom onder druk in sy plek te hou.

Alle klinknaelgate moet netjies deurgeslaan en/of geboor wees en alle vasgeklinkte nate moet gesoldeer of gesweissoldeer wees. Alle saalsmeenate moet gesoldeer wees.

(5) Die romp moet van 'n opening vir die insteek van 'n binnehouer voorsien wees. Die opening moet minstens drie duim in deursnee wees in die geval van 'n skuimbrandblusser of minstens $2\frac{1}{4}$ duim in deursnee in die geval van 'n blusser van die watertipe (gasdruk) of die watertipe (sodasuur). 'n Parallelskroefdraad vir die bevestiging van 'n dekplaat moet 'n effektiewe lengte van minstens $\frac{5}{8}$ duim hê.

Die dekplaat moet van vleklose staal, geelkoper, brons, skutmetaal of ander geskikte materiaal van goeie gehalte en voldoende sterkte wees en moet 'n skroefgedeelte hê vir bevestiging aan die romp, met 'n effektiewe lengte van minstens $\frac{5}{8}$ duim.

Minstens 3 gate met 'n minimum deursnee van $^3/_{32}$ duim moet deur die draad van die dekplaat geboor word om openings te vorm waardeur enige gasdruk wat in die romp behoue mag bly gedurende die verwydering van die dekplaat vrygelaat sal word. Die middelpunt van die ontluggate moet $\frac{1}{4}$ duim vanaf die vlak van die dekplaatverbindingswaster wees.

Die dekplaatverbindingswaster moet vervaardig wees uit basgelooide, behandelde leer, suurvaste rubber of ander geskikte materiaal, en moet nie dikker as $\frac{1}{8}$ duim wees nie.

Enige houer wat 'n bottel met suur bevat, moet verwyder kan word indien die vorm daarvan sodanig is dat die skoonmaak of inspeksie van die binnekant van die romp daardeur bemoeilik word.

Enige beveilger wat aan 'n suier aangebring word, moet van die oop of hoktipe wees.

Die romp moet 'n binnedruk van 350 pond per vierkante duim 5 minute lank kan weerstaan.

(6) In 'n brandblusser wat met 'n uitlaatbuis toegerus is, moet middels verskaf word om te verhoed dat die vloeistof in die uitlaatbuis bokant die normale vlak styg as gevolg van die uitsetting van lug in die romp wanneer die temperatuur van die omliggende atmosfeer styg, of as gevolg van die ontwikkeling van klein hoeveelhede gas.

Die uitlaatbuis of opening in so 'n blusser 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 krane, kappe of kleppe mag aangebring word om die uitlating van die vloeistof te stuit nie.

(7) Daar moet 'n lugruimte bokant die gespesifiseerde stand van die vloeistof in die romp wees, en dit moet 'n voldoende volume hê om te verseker dat, wanneer die

The circumferential joint or joints of a steel body shall be welded, riveted or swaged.

All rivet holes shall be clean punched and/or drilled and all riveted, lock-jointed or swaged joints shall be soldered.

(4) The longitudinal joint of a copper cylindrical body which is not solid drawn shall be brazed or riveted.

The longitudinal joint of a copper conical body shall be brazed or lock-jointed.

The circumferential joint or joints of a copper body shall be brazed, riveted or in the case of the lower joint, swaged. If swaged, the swage shall be of smaller diameter than the body, formed not less than one inch from the bottom of the body for positioning the dish, or by well soldering the dish into position and then swaging the body to smaller diameter below the dish with not less than $\frac{1}{4}$ inch overlap to retain it in position under pressure.

All rivet holes shall be clean punched and/or drilled and all riveted joints shall be soldered or brazed. All swaged joints shall be soldered.

(5) 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 in the case of a foam type extinguisher or not less than $2\frac{1}{4}$ inches in diameter in the case of the water type (gas pressure) or the water type (soda acid) extinguisher. A parallel screw thread for the attachment of a cap shall be not less than $\frac{5}{8}$ inch in effective length.

The cap shall be of good quality stainless steel, brass, bronze, gunmetal or other suitable material of ample strength and shall be screwed for attachment to the body for not less than $\frac{5}{8}$ inch in effective length.

At least three holes of not less than $^3/_{32}$ inch in diameter shall be drilled through the thread of the cap to form vents for the release of any pressure remaining in the body during withdrawal of the cap. The centres of the vent holes shall be $\frac{1}{4}$ inch from the face of the cap-joint washer.

The cap-joint washer shall be made of vegetable-tanned treated leather, acid-resisting rubber or other suitable material and shall not exceed $\frac{1}{8}$ inch in thickness.

Any cage for holding an acid bottle shall be removable if the form is such as to interfere with cleaning or inspection of the interior of the body.

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.

(6) In an extinguisher fitted with a discharge tube, means shall be provided to prevent the liquid being raised in the discharge tube above the normal level by the expansion of air in the body on a rise in temperature of the surrounding atmosphere or by the evolution of small quantities of gas.

The discharge tube or opening in such extinguisher shall be fitted with a strainer.

Any internal discharge tubes shall be of sufficient length to discharge substantially the whole of the liquid in the extinguisher.

No cocks, tops or valves shall be fitted for stopping the discharge of the liquid.

(7) An air space shall be provided in the body above the specified liquid level and shall be of sufficient volume to ensure that, when the discharge nozzle is temporarily

ontladingspuitstuk tydelik toe is en die blusser in werking gestel word by 'n temperatuur van 70° F (21·1° C), die druk wat toegepas word nie 250 pond per vierkante duim te bowe sal gaan nie.

(8) 'n Blusser van die skuimtipe moet in staat wees om skuim vir 'n tydperk van 30 sekondes 20 voet ver te spuit en 'n blusser van die watertipe (sodasuur of gasdruk) moet in staat wees om die vloeistof vir 'n tydperk van 1 minuut 20 voet ver te spuit.

(9) Die blusser moet voorsien wees van vaste handvatsels wat dit moontlik sal maak om die blusser maklik te vervoer en te gebruik.

(10) Die uitlaatbuis of -opening moet voorsien wees van 'n skroefverbinding wat toetsing sal vergemaklik.

(11) Die blusser moet aan die buitekant duidelik en blywend gemerk wees met—

(*a*) die tipe blusmiddel;

(*b*) die naam van die fabrikant of verkoper van die blusser;

(*c*) die inhoudsvermoë van die blusser;

(*d*) die stand van die vloeistof wanneer die blusser tot sy werkinhoudsvermoë gevul is;

(*e*) 'n sertifikaat van die fabrikant dat die blusser onder hidrouliese druk van 350 pond per vierkante duim getoets is;

(*f*) voorskrifte in albei die amptelike landstale van die Republiek vir die bediening van die blusser; en

(*g*) die jaar waarin die blusser vervaardig is.

BYLAE 22.

[Regulasie 108 (1).]

DRAAGBARE BRANDBLUSSER VAN DIE DROËPOEIERTIPE.

(1) Die romp van elke draagbare brandblusser van die droëpoeiertipe wat ingevolge deel II van hierdie regulasies verskaf word, moet so ontwerp wees dat hy 'n veiligheidsfaktor van minstens twee maal die toetsdruk bied, en die toetsdruk moet twee maal die werkdruk of 350 pond per vierkante duim wees, na gelang van watter die grootste is.

(2) Die romp moet silindries en van staal, aluminium of plastiek wees, en as die romp en toebehore nie van korrosiebestande materiaal gemaak is nie, moet hulle behoorlik beskerm wees om korrosie te weerstaan. Enige korrosiewerende behandeling wat toegedien word, moet sy doeltreffendheid behou en moet onder omgewingstemperatuurtoestande van soveel as 150° F (65·5° C) nie sag of klewerig word nie.

(3) Indien die romp van staal gemaak is, moet hy naatloos, vasgeklink, gesweis of gesweissoldeer wees, en die ente moet komvormig na buite (konveks) of na binne (konkaaf) wees tot 'n straal wat nie groter is nie as die middellyn van die romp waaraan hulle bevestig is of waarvan albei 'n deel uitmaak indien hulle daarmee solied getrokke is.

Indien die romp van aluminium gemaak is, moet hy naatloos wees, met die ente komvormig na buite (konveks) of na binne (konkaaf) tot 'n straal wat nie groter as die middellyn van die romp is nie.

Die binnehoekstraal van die ente op die plek waar hulle met die silindriese gedeelte saamval, moet gelyk wees aan minstens $^1/_{10}$ van die binnedeursnee van die romp.

closed and the extinguisher put into operation at a temperature of 70° F (21·1° C) the pressure exerted shall not exceed 250 lb per square inch.

(8) The foam type of extinguisher shall be capable of projecting foam for a distance of 20 feet during a period of thirty seconds and the water type (soda acid or gas pressure) shall be capable of projecting liquid for a distance of 20 feet for 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 outside of the extinguisher shall be clearly and permanently marked with—

(*a*) the type of extinguishing medium;

(*b*) the name of the maker or vendor of the extinguisher;

(*c*) the capacity of the extinguisher;

(*d*) the level of the liquid when the extinguisher is filled to its working capacity;

(*e*) a certificate by the maker that the extinguisher has been tested by hydraulic pressure to 350 lb per square inch;

(*f*) instructions in both official languages of the Republic for operating the extinguisher; and

(*g*) the year in which the extinguisher was manufactured.

ANNEX 22.

[Regulation 108 (1).]

PORTABLE FIRE EXTINGUISHER OF THE DRY POWDER TYPE.

(1) The body of every portable fire extinguisher of the dry powder type provided in compliance with part II of these regulations shall be designed to have a factor of safety of not less than twice the test pressure, and the test pressure shall be twice the working pressure or 350 lb per square inch, whichever is the greater.

(2) The body shall be cylindrical and made of steel, aluminium or plastic, and if the body and fittings are not made of corrosion-resistant materials they shall be suitably protected to resist corrosion. Any anti-corrosive treatment given shall remain effective and shall not become soft or tacky at ambient temperature up to 150° F (65·5° C).

(3) The body, if of steel, shall be seamless, riveted, welded or brazed and the ends shall be dished outwards (convex) or inwards (concave) to a radius not exceeding the diameter of the body to which they are attached, or of which either forms a part if solid drawn therewith.

The body, if of aluminium, shall be seamless and the ends shall be dished outwards (convex) or inwards (concave) to a radius not exceeding the diameter of the body.

The inner corner radius of the ends at the point of meeting the cylindrical portion shall be not less than one tenth the internal diameter of the body.

Omgekeerde kromming van die voetstuk word slegs toegelaat in die geval van 'n blusser met 'n inhoudsvermoë van tot 5 pond, en so 'n blusser moet toegerus wees met 'n permanent bevestigde rand wat die boom van die blusser minstens $\frac{1}{4}$ duim van die grond af oplig. Die materiaal waaruit die rand vervaardig is, moet korrosievas wees ten opsigte van die romp waaraan dit bevestig word.

(4) Klinkkonstruksie moet aan die volgende vereistes voldoen: —

(*a*) Die oorvleueling van die oorslagnate en die wydte van die flense van koepels of komme moet minstens $\frac{3}{4}$ duim wees. Hierdie flense moet volkome deur die silindriese gedeelte van die romp oorvleuel word.

(*b*) Klinknaelgate in sowel die oorlangse nate as die omtreksdigtings moet netjies deurgeslaan en/of geboor wees minstens so groot soos die tussenruimtes vir klinknaels met 'n deursnee van $\frac{3}{16}$ duim en op 'n steekhoogte van minstens $\frac{3}{4}$ duim en hoogstens 1 duim.

(*c*) Klinknaels moet 'n deursnee van minstens $\frac{3}{16}$ duim hê.

(*d*) Die hele naat moet deeglik vasgesoldeer word.

(5) Die romp moet voorsien wees van 'n opening wat toereikend is om met poeier gevul te word. 'n Parallelskroefdraad vir die bevestiging van 'n dekplaat moet 'n lengte van minstens die volgende hê: —

	Duim.
Vir openings met 'n deursnee van minder as 1 duim..	$\frac{1}{4}$
Vir openings met 'n deursnee van 1 duim en minder as $2\frac{1}{4}$ duim.....	$\frac{1}{2}$
Vir openings met 'n deursnee van $2\frac{1}{4}$ duim of meer....	$\frac{5}{8}$

Die dekplaat moet van vlekvrye staal, smeebare yster, geelkoper, skutmetaal, brons, aluminiumlegering of plastiek wees, na gelang van watter die geskikste is, en moet sterk en duursaam genoeg wees, en hy moet vir bevestiging aan die romp vasgeskroef word met dieselfde effektiewe lengte as die skroefdraad waarop hy pas.

Draad van ekstra lengte moet vir aanskroefdraad verskaf word om voorsiening te maak vir enige vermindering in die dikte van die waster as gevolg van kompressie of slytasie.

Die dekplaat moet voorsien word van luggate om toe te laat dat enige gasdruk wat in die romp behoue bly voordat die dekplaat heeltemal verwyder is, vrygelaat sal word.

(6) Die uitlaatkontroleklep en/of -spuitstuk moet van korosiebestande metaal of ander ewe geskikte materiaal gemaak wees. Die uitlaatmontasie moet sodanig ontwerp wees dat dit verhoed dat vogtigheid die romp binnedring.

(7) 'n Blusser van die opgaardrukbeheeruitlaattipe moet toegerus wees met 'n toestel wat doeltreffend sal aandui of die blusser tot op die regte drukking gelaai is, en ook om aan te dui dat hy volkome of gedeeltelik ontlaai is.

(8) 'n Gaspatroondrukhouer wat gebruik word in 'n blusser wat nie in die romp self van drukreëling voorsien is nie, moet uit staal of koper vervaardig en sodanig ontwerp wees dat hy sonder onderbreking 'n inwendige druk van minstens 4 maal die ingehoue druk by 100° F (37·8° C) kan weerstaan. Hierdie proefdruk kan verminder word na 3 maal die ingehoue druk wanneer die houer 'n naatlose konstruksie het. Elke houer moet getoets word tot twee maal die ingehoue druk by 'n temperatuur van 100° F vir 'n ononderbroke tydperk van minstens $2\frac{1}{2}$ minute.

(9) Die inhoud van drukhouers van die gaspatroontipe moet bepaal word deur hulle te weeg. Nadat die houers gevul is, moet hulle vir 21 dae geberg en dan weer geweeg word vir kontroledoeleindes, en dié wat dan verlies aan gewig toon, moet afgekeur word.

Reverse of curvature of the base is only allowed for an extinguisher up to 5 lb capacity and such extinguisher shall be fitted with a permanently attached skirt which raises the bottom of the extinguisher at least $\frac{1}{4}$ inch off the floor. The material from which the skirt is made shall be corrosively inert to the body to which it is attached.

(4) Riveted construction shall be in accordance with the following requirements: —

(*a*) The overlap of lap joints and the width of flanges of domes or dishes shall be not less than $\frac{3}{4}$ inch. These flanges shall be wholly overlapped by the cylindrical portion of the body.

(*b*) Rivet holes in both longitudinal and circumferential joints shall be cleanly punched and/or drilled not less than the clearance size for $\frac{3}{16}$ inch diameter rivets and not less than $\frac{3}{4}$ inch and not more than 1 inch pitch.

(*c*) Rivets shall be not less than $\frac{3}{16}$ inch in diameter.

(*d*) The whole joint shall be well soldered.

(5) The body shall be provided with an opening adequate for filling with powder. A parallel screw thread for the attachment of a cap shall be not less in length than: —

	Inch.
For openings less than 1 inch in diameter.....	$\frac{1}{4}$
For openings 1 inch and under $2\frac{1}{4}$ inches in diameter..	$\frac{1}{2}$
For openings $2\frac{1}{4}$ inches and over in diameter.....	$\frac{5}{8}$

The cap shall be of stainless steel, malleable iron, brass, gunmetal, bronze, aluminium alloy or plastic, whichever is the most suitable, and shall be of ample strength and durability and shall be screwed for attachment to the body for the same effective length as the screw thread it fits.

Extra length of thread shall be provided on male threads to allow for any reduction in washer thickness due to compression or wear.

The cap shall be provided with vents to permit the release of any pressure remaining in the body before complete removal of the cap.

(6) The discharge control valve and/or nozzle shall be made of corrosion resistant metal or other not less suitable material. The discharge assembly shall be so designed as to prevent the ingress of moisture into the body.

(7) An extinguisher of the stored pressure controlled discharge type shall be fitted with a device which will effectively indicate whether the extinguisher is charged to the correct pressure and also to indicate that it is wholly or partially discharged.

(8) A gas cartridge pressure container which is used in an extinguisher which is not pressurised in the body itself, shall be made of steel or copper and shall be designed to withstand, without failure, an internal pressure of not less than 4 times the contained pressure at 100° F (37·8° C). This proof-pressure may be reduced to 3 times the contained pressure when the container is of seamless construction. Each container shall be tested to twice the contained pressure at 100° F for a continuous period of not less than $2\frac{1}{2}$ minutes.

(9) The contents of cartridge type pressure containers shall be determined by weighing. All containers when filled shall be stored for 21 days and then be checkweighed; those showing loss of weight shall be rejected.

(10) Elke gaspatroondrukhouer moet blywend en duidelik gemerk word met:—

(*a*) Die naam of voorletter van die fabrikant;

(*b*) die tipe gas;

(*c*) die gewig wanneer hy onderskeidelik leeg en vol is; en

(*d*) die jaar waarin hy vervaardig is.

(11) Elke volledige romp wat aan die werkdruk onderworpe is, moet deur die fabrikant getoets word tot 2 keer die werkdruk of 350 pond per vierkante duim, na gelang van watter een die grootste is, vir 'n ononderbroke tydperk van minstens 2½ minute sonder dat hy lekkasie of sigbare vormverlies toon. Die werkdruk moet gedefinieer word as die geslote spuitstutdruk vir die gaspatroontipe of die opgegaarde druk vir die opgaardruktipe, albei by 'n temperatuur van 60-70° F (16-21° C). Die toets moet uitgevoer word voordat die blusser geverf word, behalwe in die geval van 'n naatlose tipe.

Elke blusser van die opgaardruktipe moet, nadat hy gevul is, en tensy hy getoets word deur 'n ander ewe betroubare metode om vryheid van lekkasie te verseker, vir 21 dae geberg en dan gekontroleer word vir verlies aan gas; 'n blusser wat 'n verlies toon, moet afgekeur word.

(12) Die blusser moet aan die buitekant duidelik en blywend gemerk word met—

(*a*) die woord „ Droëpoeierbrandblusser ";

(*b*) die naam van die fabrikant of verkoper van die blusser;

(*c*) die werkdruk en die gewig van die poeier in pond;

(*d*) 'n sertifikaat van die fabrikant dat die blusser onder 'n hidrouliese druk van 350 pond per vierkante duim getoets is;

(*e*) voorskrifte in albei die amptelike landstale van die Republiek vir die bediening van die blusser; en

(*f*) die jaar waarin die blusser vervaardig is.

BYLAE 23.

[Regulasie 114 (1) (*a*).]

ASEMHAALTOESTELLE.

(1) Elke asemhaaltoestel wat ingevolge deel II van hierdie regulasies verskaf word, moet òf—

(*a*) 'n rookhelm of 'n rookmasker wees, elkeen toegerus met 'n lugpomp of blaasbalk en 'n lugslang; òf

(*b*) 'n selfonderhoudende asemhaaltoestel wat in staat is om vir minstens 'n halfuur te funksioneer.

(2) *Rookhelm en rookmasker.*—Elke rookhelm of rookmasker wat ingevolge deel II van hierdie regulasies verskaf word, moet voorsien wees van 'n slang vir die verskaffing van lug vanaf die buite-atmosfeer. 'n Lugpomp of blaasbalk moet verskaf word wat geskik moet wees om lug deur die slang te pomp. Die slang moet van die nie-voubare tipe wees en moet lank genoeg wees om toe te laat dat die lugpomp of blasbalk op die oop dek in suiwer lug is, deeglik weg van enige luik of deuropening, terwyl die draer van die helm of masker in enige deel van die akkommodasie-, diens-, vrag- of masjinerieruimtes is. Doeltreffende koppelings moet verskaf word indien 2 of meer lengtes van slange aanmekaar gelas moet word om bogenoemde ruimtes by te kom. Die luginlaatent van die slang na die pomp of blaasbalk moet sodanig beskerm wees dat daar verseker word dat die lugvoorsiening nie belemmer kan word nie.

(3) *Selfonderhoudende asemhaaltoestelle—oopkringdruklugtipe.*—(*a*) Die opgaarvermoë van die druklugsilinder of -silinders wat aan die toestel bevestig is en gedra word deur die persoon wat daarvan gebruik maak, moet minstens 1,200 liters (42 kubieke voet) vry lug wees. Die opgaarsilinders moet van geskikte materiaal gemaak wees en moet doeltreffend ontwerp en sterk genoeg wees om met 'n

(10) Each gas cartridge pressure container shall be permanently and clearly marked with the following:—

(*a*) Name or initial of the manufacturer;

(*b*) the type of gas;

(*c*) the weight empty and the weight full; and

(*d*) year of manufacture.

(11) Each complete body subject to the working pressure shall be tested by the manufacturer to twice the working pressure or 350 lb per square inch whichever is the greater, for a continuous period of not less than 2½ minutes without leakage or without visible distortion. The working pressure shall be defined as the closed nozzle pressure for the gas cartridge type or the stored pressure for the stored pressure type, both at a temperature of 60-70° F (16-21° C). The test shall be carried out before the extinguisher is painted except on a seamless type.

Every stored pressure type extinguisher after filling and unless tested by other not less reliable method to ensure freedom from leakage, shall be stored for 21 days and then checked for loss of gas; an extinguisher showing a loss shall be rejected.

(12) The outside of the extinguisher shall be clearly and permanently marked with—

(*a*) the words " Dry Powder Fire Extinguisher ";

(*b*) the name of the maker or vendor of the extinguisher;

(*c*) the working pressure and the weight of powder in pounds;

(*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 Republic for operating the extinguisher; and

(*f*) the year of manufacture.

ANNEX 23.

[Regulation 114 (1) (*a*).]

BREATHING APPARATUS.

(1) Every breathing apparatus provided in compliance with part II of these regulations may be either—

(*a*) a smoke helmet or a smoke mask, each of which shall be provided with an air pump or bellows and an air hose; or

(*b*) a self-contained breathing apparatus capable of functioning for at least half an hour.

(2) *Smoke helmet and smoke mask.*—Every smoke helmet or smoke mask provided in compliance with part II of these regulations, shall be provided with a hose for the supply of air from the outside atmosphere. An air pump or bellows shall be provided which shall be suitable for pumping air through the hose. The hose shall be of the non-collapsing type and shall be sufficient in length to enable the air pump or bellows to be on the open deck in clean air well clear of any hatch or doorway while the wearer of the helmet or mask is in any part of the accommodation, service, cargo or machinery spaces. Efficient couplings shall be provided if 2 or more lengths of hose are to be joined in order to reach the aforesaid spaces. The air inlet to the pump or bellows shall be so protected as to ensure that the supply of air cannot be obstructed.

(3) *Self-contained breathing apparatus—open circuit compressed air type.*—(*a*) The storage capacity of the compressed air cylinder or cylinders attached to the apparatus and carried by the wearer, shall be at least 1,200 litres (42 cubic feet) of free air. The storage cylinders shall be constructed of suitable material and

toereikende veiligheidsfaktor die inwendige lugdruk waaraan hulle onderwerp mag word, te weerstaan, en elke silinder moet in staat wees om 'n toets deur te maak onder hidrouliese druk wat die maksimum werkdruk behoorlik te bowe gaan.

(*b*) Middels moet verskaf word vir die outomatiese reëling van die lugvoorsiening aan die persoon wat die toestel gebruik ooreenkomstig sy asemhaalvereistes wanneer hy enige volume vry lug van soveel as 85 liters (3 kubieke voet) per minuut inasem te eniger tyd wanneer die druk in die toevoersilinder of -silinders meer as 150 pond per vierkante duim is. Middels moet verskaf word om die vermoë van die outomatiese lugtoevoerklep aan te vul.

(*c*) 'n Drukmeter met 'n opening om te keer dat die meter nie bars nie, moet ingelyf word in die hoogdruklugtoevoerstelsel om die draer in staat te stel om die druk van die lug in die toevoersilinder of -silinders regstreeks en gemaklik te kan lees.

(*d*) Middels moet verskaf word om die draer hoorbaar te waarsku wanneer 80 persent van die bruikbare inhoud van die toestel verbruik is.

(*e*) Die maksimum gewig van enige sodanige toestel, uitsluitende enige reddingslyn, en, indien hulle nie 'n integrale deel van die toestel uitmaak nie, enige veiligheidsgordel of -tuig, moet nie 35 pond te bowe gaan nie.

(*f*) Elke lugdrukasemhaaltoestel moet toegerus wees met volgelaaide reserwe-silinders met 'n reserwe-opgaarvermoë van minstens 2,400 liters (84 kubieke voet) vry lug, maar—

(i) indien daar 5 of meer stelle van dergelike apparate aan boord van die skip is, hoef die totale reserwe-opgaarvermoë vry lug nie meer as 9,600 liters (336 kubieke voet) te wees nie; of

(ii) indien die skip toegerus is met middels om die silinders tot volle druk te herlaai met lug wat vry van besoedeling is, moet die reserwe-opgaarvermoë van die volgelaaide reserwe-silinders van elke sodanige toestel minstens 1,200 liters (42 kubieke voet) vry lug wees, en die totale reserwe-opgaarvermoë vry lug wat in die skip verskaf word, hoef nie meer as 4,800 liters (168 kubieke voet) te wees nie.

(*g*) 'n Handleiding in verband met bediening en gebruik moet saam met elke sodanige toestel gehou word.

(4) *Selfonderhoudende asemhaaltoestelle—suurstofontwikkeltipe.*—(*a*) Die toestel moet bestaan uit 'n oogskerm met spreekmembraan en asemhaalbuismontasie, asemhaalsak, suigpyphouer en stewige tuig met D-ring, tesame met kontrolekleppe vir in- en uitaseming, en 'n drukontlasklep wat met die hand werk waardeur die draer kan uitasem maar nie inasem nie. Die asemhaalsak moet van neopreen en die oogskerm en asemhaalbuise van rubber gemaak wees. Die tuig moet 'n gewig van minstens 740 pond kan onderskraag.

(*b*) Die toestel moet toegerus wees met 'n vervoerkas wat 'n tydsgrenswaarskuwingsklok en 'n moersleutel bevat om die moere van die asemhaalbuis aan te draai. Elke toestel moet twee suurstofontwikkelsuigpype bevat.

(*c*) 'n Handleiding in verband met bediening en gebruik moet saam met elke toestel gehou word.

(5) *Algemeen.*—(*a*) Elke asemhaaltoestel moet vervaardig word uit materiaal van voldoende meganiese sterkte, duursaamheid en weerstand teen ontaarding as gevolg van hitte of kontak met water, en sodanige materiaal moet brandbestand wees en moet voorkom dat rook of ander

shall be of efficient design and of sufficient strength to withstand, with an adequate factor of safety, the internal air pressure to which they may be subjected, and each cylinder shall be capable of withstanding a test by hydraulic pressure suitably in excess of the maximum working pressure.

(*b*) Means shall be provided for the automatic regulation of the air supply to the wearer of the apparatus in accordance with his breathing requirements when he is breathing any volume of free air of up to 85 litres (3 cubic feet) per minute at any time when the pressure in the supply cylinder or cylinders is above 150 lb per square inch. Means shall be provided for overriding the automatic air supply valve.

(*c*) A pressure gauge with an anti-bursting orifice shall be incorporated in the high-pressure air supply system to enable the wearer to read directly and easily the pressure of air in the supply cylinder or cylinders.

(*d*) Means shall be provided for warning the wearer audibly when 80 per cent of the usable capacity of the apparatus has been consumed.

(*e*) The maximum weight of any such apparatus shall not exceed 35 lb excluding any lifeline and, if they do not form an integral part of the apparatus, any safety belt or harness.

(*f*) Every compressed air breathing apparatus shall be provided with fully charged spare cylinders having a spare storage capacity of at least 2,400 litres (84 cubic feet) of free air, except that—

(i) if the ship is carrying 5 sets or more of such apparatus, the total spare storage capacity of free air shall not be required to exceed 9,600 litres (336 cubic feet); or

(ii) if the ship is equipped with means for recharging the air cylinders to full pressure with air free from contamination, the spare storage capacity of the fully charged spare cylinders of each such apparatus shall be of at least 1,200 litres (42 cubic feet) of free air, and the total spare storage capacity of free air provided in the ship shall not be required to exceed 4,800 litres (168 cubic feet).

(*g*) A servicing and instruction manual shall be kept with each such apparatus.

(4) *Self contained breathing apparatus—self generating oxygen type.*—(*a*) The apparatus shall consist of a face-piece with speaking diaphragm and breathing tube assembly, breathing bag, cannister holder and sturdy harness with D-ring, together with inhalation and exhalation check valves and a manual pressure relief valve through which the wearer can exhale but not inhale. The breathing bag shall be made of neoprene and the face-piece and breathing tubes of rubber. The harness shall be capable of supporting a weight of at least 740 lb.

(*b*) The apparatus shall be provided with a carrying case containing a time-limit warning bell and a spanner wrench for tightening the breathing tube nuts. Each apparatus shall contain 2 oxygen generating cannisters.

(*c*) A servicing and instruction manual shall be kept with each apparatus.

(5) *General.*—(*a*) Every breathing apparatus shall be constructed of materials having adequate mechanical strength, durability and resistance to deterioration by heat or by contact with water, and such materials shall be resistant to fire and shall not allow the breathing circuit to

chemiese dampe wat waarskynlik tydens diens teengekom sal word, die asemhaalkring binnedring. Die stof wat gebruik word vir die vervaardiging van enige tuig wat saam met so 'n toestel verskaf word, moet krimpbestand wees. Metaaldele van die toestel, tuig en toebehore wat blootgestel is, moet van materiaal wees wat sover doenlik bestand is teen wrywingsvonkontsteking.

(*b*) Die volgende uitrusting moet verskaf word vir gebruik saam met elke stel asemhaalapparaat:—

(i) 'n Vuurvaste reddings-en-seinlyn minstens 10 voet langer as wat nodig is om vanaf die oop dek in suiwer lug, deeglik weg van enige luik of deuropening, enige deel van die akkommodasie-, diens-, vrag- of masjinerieruimtes by te kom. Die lyn moet vervaardig wees uit koper of gegalvaniseerde staaldraadtou met 'n breeksterkte van minstens 1,120 pond, en moet in sy omtrek 'n hennepoorlegsel of ander bedekking van tot minstens 1¼ duim hê om 'n oppervlakte te verskaf wat ferm vasgevat kan word wanneer dit nat is;

(ii) 'n verstelbare veiligheidsgordel of tuig waaraan die lyn in subparagraaf (i) genoem, stewig bevestig kan word en deur die draer deur middel van 'n springhaak losgemaak kan word;

(iii) middels om die oë en gesig van die draer teen rook te beskerm;

(iv) plate van geskikte nie-vlambare materiaal met 'n duidelik leesbare kode van seine daarop wat gebruik moet word tussen die draer en sy bediener, en een daarvan moet bevestig wees aan die veiligheidsgordel of tuig en 'n ander aan die los ent van die reddingslyn; en

(v) in die geval van elke toestel, uitgesonderd 'n rookhelm, 'n ligte veiligheidshelm met voering en verstelbare kopband.

(*c*) Elke asemhaaltoestel moet duidelik gemerk wees met die naam van die fabrikant of verkoper en die jaar waarin dit vervaardig is. Gebruiksaanwysings in albei die amptelike landstale van die Republiek moet duidelik met blywende letters op die toestel aangebring word.

be penetrated by smoke or chemical fumes likely to be encountered in service. The fabric used in the construction of any harness provided with such apparatus shall be resistant to shrinkage. Exposed metal parts of the apparatus, harness and fittings, shall be of materials so far as practicable resistant to frictional sparking.

(*b*) The following equipment shall be provided for use with each set of breathing apparatus:—

(i) A fire-proof life-and-signalling-line at least 10 feet longer than is required to reach from the open deck in clean air well clear of any hatch or doorway to any part of the accommodation, service, cargo or machinery spaces. The line shall be made of copper or galvanised steel wire rope having a breaking strength of at least 1,120 lb, and shall be overlaid up to at least 1¼ inches in circumference by hemp or other covering to provide a surface which can be firmly gripped when wet;

(ii) an adjustable safety belt or harness to which the line mentioned in subparagraph (i) shall be capable of being securely attached and detached by the wearer by means of a snap hook;

(iii) means for protecting the eyes and face of the wearer against smoke;

(iv) plates of suitable non-inflammable material bearing a clearly legible code of signals to be used between the wearer and his attendant, one of which shall be attached to the safety belt or harness and another attached to the free end of the life-line; and

(v) in the case of every apparatus other than a smoke helmet, a lightweight safety helmet with lining and adjustable head-band.

(*c*) Every breathing apparatus shall be clearly marked with the name of the maker or vendor and the year of manufacture. Operating instructions, in both official languages of the Republic, in clear and permanent lettering shall be affixed to the apparatus.

INHOUD.

CONTENTS.

Nuttige wenke–

1. Adresseer alle posstukke volledig, duidelik en sonder misleidende afkortings.
2. Plaas u eie adres agterop die koevert of omslag.
3. Moenie muntstukke of ander harde artikels in briewe insluit nie.
4. Gebruik posorders of poswissels wanneer geld deur die pos gestuur word.
5. Verpak pakkette behoorlik. Gebruik sterk houers en dik papier en bind dit stewig vas.
6. Maak seker dat die posgeld ten volle vooruitbetaal is.
7. Plak die posseëls in die boonste regterhoek van die koevert of omslag.
8. Verseker u pakkette en registreer waardevolle briewe. Dokumente wat slegs teen hoë koste vervang kan word, moet verkieslik verseker word.
9. Pos vroegtydig en dikwels gedurende die dag. Posstukke wat tot op die laaste oomblik teruggehou word kan vertraging veroorsaak.
10. Verstrek u volledige posadres aan u korrespondente asook u posbusnommer waar van toepassing.

Useful Hints–

1. Address all mail fully, clearly and without misleading abbreviations.
2. Place your own address on the back of the envelope or wrapper.
3. Do not enclose coins or other hard objects in letters.
4. Send remittances by Postal Order or Money Order.
5. Pack parcels properly, using strong containers and heavy paper. Tie securely.
6. Prepay postage fully.
7. Place postage stamps in the upper right hand corner of the envelope or wrapper.
8. Insure your parcels and register valuable letters. Documents which can only be replaced at considerable cost should preferably be insured.
9. Post early and often during the day. Mail held until the last moment may cause delay.
10. Give your correspondents your correct post office address including your box number where applicable.

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