

CODE OF PRACTICE for

Safety Standards for Class IV Vessels

(issued under Section 8 of the Merchant Shipping (Local Vessels) Ordinance, Cap 548)



Local Vessels Safety Section
Marine Department, HKSAR

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Record on Updating and Amendments

This code of practice is issued under section 8 of the Merchant Shipping (Local Vessels) Ordinance, (Cap. 548). This code was first notified in the Gazette Notice on (date to be inserted when made known) to take effect on (date to be inserted when made known). Subsequent updating and amendments would be notified to the industry through further notice in the Gazette from time to time. This record sheet is intended for good record keeping of the amendment history of this code.

Amendment No.	Gazette No.	Gazette Date.	Effective Date	Topic Areas / pages

FOREWORD

(1) The Merchant Shipping (Local Vessels) Ordinance, Cap 548 (here below refers as “the Ordinance”), is to provide for the regulation and control of local vessels in Hong Kong and for other matters affecting local vessels, including their navigation and safety at sea (whether within or beyond the waters of Hong Kong).

(2) This Code of Practice is approved and issued by the Director in pursuant to section 8 of the Ordinance for the purpose of ensuring acceptable technical and safety standards in the design, construction, maintenance and inspection of local vessels in conjunction with the condition required or the standards prescribed by the Director under Merchant Shipping (Local Vessels)(Safety Survey) Regulation. This Code also provides necessary practical guidance on operational safety practices in conjunction with the relevant requirements in the Merchant Shipping (Local Vessels)(Certification and Licensing) Regulation.

(3) Section 9 of the Ordinance explains the use of approved codes of practice in proceeding which are quoted as followings:-

“(1) A failure on the part of any person to observe any provision of a code of practice approved under section 8 shall not of itself render the person liable to any civil or criminal proceedings but where in any proceedings under this Ordinance a person is alleged to have contravened a requirement under this Ordinance, being a requirement for which there was an approved code of practice at the time of the alleged contravention, subsection (2) shall have effect with respect to such code in relation to those proceedings.

(2) Any provision of a code of practice which appears to a specified body to be relevant to a requirement under this Ordinance alleged to have been contravened shall be admissible in evidence in the proceedings under this Ordinance concerned and if it is proved that there was at any material time a failure to observe any provision of the code which appears to that body to be relevant to any matter which it is necessary to prove in order to establish a contravention of such requirement, that matter shall be taken as proved in the absence of evidence that such requirement was in respect of that matter complied with otherwise than by way of observance of that provision.

(3) In any proceedings under this Ordinance, a code of practice which appears to a specified body to be the subject of a notice under section 8 shall be taken to be the subject of such notice in the absence of evidence to the contrary. “

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CHAPTER I GENERAL

1 Introduction

- 1.1. The legislation relating to the control, licensing and regulation of local vessels possessed or used for pleasure purposes in Hong Kong (i.e. ‘Class IV vessels’) is contained in the Merchant Shipping (Local Vessels) Ordinance, Cap. 548, and its subsidiary legislation. This Code of Practice is issued under section 8 of the Ordinance.
- 1.2 This “Code of Practice – Safety Standards for Class IV vessels” has been developed by the Hong Kong Marine Department in consultation with the local maritime industry through representation in relevant working groups and committees. The primary aim in developing the Code has been to set standards of safety and protection for all passengers and crew on board. The Code relates especially to the construction of a vessel, its machinery, equipment and stability and to the correct operation of the vessel so that safety standards are maintained.
- 1.3 This Code has been developed for application to Class IV (pleasure vessels) in the waters of Hong Kong, including vessels which are engaged in pleasure purposes under the terms of a written charter agreement or a written hire-purchase agreement.
- 1.4 The requirements in some of the paragraphs of this Code are provisions of the indicated relevant regulations, which are mandatory.
- 1.5 The builder, repairer or owner/managing agent of a vessel, as appropriate should take all reasonable measures to ensure that a material or appliance fitted in accordance with the requirements of the Code is suitable for the purpose intended having regard to its location in the vessel, the area of operation and the weather conditions which may be encountered.
- 1.6 The owner, agent or the coxswain of a Class IV vessel is required to observe and comply with relevant requirements relating to vessel’s operation safety, operators requirements and their certification specified in the Merchant Shipping (Local Vessels)(Safety and Survey) Regulation (“Survey Regulation”), Merchant Shipping (Local Vessels) (General) Regulation(“General Regulation”) and Merchant Shipping (Local Vessels) (Certification and Licensing) Regulation (“Certification & Licensing Regulation”) relevant to the class of the vessel, in addition to the practical guidance requirements given in the following chapters and annexes of this Code where relevant and appropriate:-

Item No.	Chapter / Annex	Section of Relevant Regulation
(a)	Para. 6 of Ch. I , Ch. IX	Section 46 under Certification & Licensing Regulation
(b)	Para. 8 of Ch. I	Section 31 on “Construction and maintenance of local vessels” under Survey Regulation
(c)	Para. 12 of Chapter I, II, Annex 3	Section 30 on “Certificate of Survey” and “Certificate of Inspection” under Survey Regulation
(d)	Para. 3 of Chapter IV	Section 33 “Notice stating maximum number of passenger to be posted” under General Regulation

(e)	Para. 3.15 of Chapter III	Section 31 on “Construction and maintenance of local vessels”
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1.7 In order to satisfy the requirements specified in the Survey Regulation for the issuance of Certificate of Survey or Certificate of Inspection relevant to the class of the vessel, the safety and technical standards given in the following chapters and annexes of this Code are to be complied with additionally where relevant and appropriate: -

Item No.	Chapter/ Annex (Notes 1)	Section of Survey Regulation
(a)	I and II	Section 7 to 30 “Certificate of Survey” and “Certificate of Inspection”
(b)	III, IIIA, IV and VIII	Section 31 on “Construction and maintenance of local vessels”
(c)	IV	Section 68 to 74 on “Carriage of Passenger”
(d)	VI	Section 32 on “Provision of Life-saving appliances on board the local vessels” Schedule 3 “Provision of life-saving appliances”
(e)	V	Section 33 on “Fire prevention and provision of fire-fighting apparatus on board the local vessels” Schedule 4 “Fire Protection and provision of fire-fighting appliances”
Note: (1) Relevant safety standards given in the Annexes of this Code are to be complied with additionally where relevant and appropriate in conjunction with the above .		

1.8 The owner or agent or the coxswain of a Class IV vessel is required to observe and comply with relevant requirements relating to vessel operator requirements specified the following chapters and annexes of this Code:-

Item No.	Chapter & Annex of this Code	Section of Relevant Regulation
(a)	Para. 6 of Ch. I , Ch. IX	Section 46 under Certification & Licensing Regulation
(b)	VII	Section 18 (2) (a) (ix) of Survey Reg – as regards Merchant Shipping (Safety) (Use of Signal of Distress) Regulation requirements
(c)	VIII	Section 31 on “Construction and maintenance of local vessels” under Survey Regulation

1.9 In order to satisfy the requirements specified in Survey Regulation on tonnage measurement and calculation for the issuance of Survey Record of Tonnage Measurement relevant to the class of the vessel, the standards given in the following chapter of this Code are to be complied with where relevant and appropriate:-

Item No.	Chapter/Annex	Section of Survey Regulation
(a)	Annex 8	Section 9(1)(b) – tonnage measurements and calculations

1.10 In order to satisfy the requirements and conditions specified in the Survey Regulation for the issuance of Certificate of Survey or Certificate of Inspection for the vessel of 400 gross tonnage or above in respect to prevention of oil pollution, the technical standards given in the following chapters and annexes of this Code are to be complied with additionally where relevant and appropriate:-

Item No.	Chapter (Note)	Section of Survey Regulation
(a)	I and II	Section 7 to 30 “Certificate of Survey” and “Certificate of Inspection”
(b)	Para. 3.13, Para. 5.1 (a) of Chapter III and Annex 10	Section 9(1)(n) – prevention and control of pollution Section 82 & Schedule 7 – local vessels required to comply with requirements of Merchant Shipping (Prevention of Oil Pollution) Regulations (Cap. 413 sub. leg. A)
Note: The Hong Kong Oil Pollution Prevention Certificate is required to be issued to vessels of 400 gross tonnage or above after confirming the compliance with Merchant Shipping (Prevention of Oil Pollution) Regulations, Cap. 413 sub. Leg.		

1.11 In order to satisfy the requirements and conditions specified in the Survey Regulation for the issuance of Certificate of Survey or Certificate of Inspection for the vessel in respect to the prevention of air pollution, the technical standards given in the following chapters and annexes of this Code are to be complied with additionally as appropriate:-

Item No.	Chapter/Annex	Section of Survey Regulation
(a)	Ch. I and Ch. II	Section 7 to 30 “Certificate of Survey” and “Certificate of Inspection”
(b)	Para. 5.1 (b) of Chapter III and Annex 7 - For the compliance of the requirements of the Merchant Shipping (Prevention of Air Pollution) Regulation, Cap. 413 sub-leg.(Note 1)	Section 9(1)(n) – prevention and control of pollution

Note 1 : Subject to enactment and enforcement of Merchant Shipping (Prevention of Air Pollution) Regulations, Cap 413 Sub-leg., which is expected ready in 2007.

2 Statutory Regulations

2.1 This Code should be applied in conjunction with the following statutory provisions and their amendments (if any) as appropriate:

- (a) Merchant Shipping (Local Vessels) Ordinance, Cap. 548 (hereafter referred to as “the Ordinance”)
- (b) Merchant Shipping (Local Vessels) (General) Regulation, Cap. 548 Sub.

leg.

- (c) Merchant Shipping (Local Vessels) (Certification and Licensing) Regulation, Cap. 548 Sub. leg.
- (d) Merchant Shipping (Local Vessels)(Local Certificates of Competency)
- (e) Merchant Shipping (Local Vessels) (Safety and Survey) Regulation, Cap. 548 Sub. leg. (hereafter to be referred as " Survey Regulation")
- (f) Merchant Shipping (Local Vessels)(Compulsory Third Party Risks Insurance) Regulation, Cap. 548 Sub. leg.
- (g) Merchant Shipping (Prevention of Oil Pollution) Regulations, Cap. 413 Sub. leg .
- (h) Merchant Shipping (Safety) (Signals of Distress and Prevention of Collisions) Regulations, Cap. 369 Sub. leg.
- (i) Merchant Shipping (Local Vessels) (Fees) Regulation, Cap. 548 Sub. Leg.
- (j) Merchant Shipping (Local Vessels)(Typhoon Shelters) Regulation, Cap. 548 Sub. leg.
- (k) Merchant Shipping (Prevention of Air Pollution) Regulation, Cap. 413 Sub-leg. [subject to enactment and enforcement date of the relevant legislation].

2.2 Other standards

- (a) The relevant requirements or guidelines promulgated by Marine Department, unless otherwise clearly specified are not mandatory.
- (b) The vessel's strength, structure, arrangements, materials, scantlings, main and auxiliary machinery, boilers and pressure vessels, electrical installations, etc. should be so designed and installed as to ensure that the vessel is fit for the service for which it is intended. Apart from the requirements in this Code, present rules and standards of classification societies recognized by Marine Department or other equivalent standards should be used as assessment standards.

2.3 Certificates or records

2.3.1 Upon satisfactory completion of statutory surveys or assessment, the following certificates or record document (1), (3) and (4) may either be issued by authorized surveyor or Marine Department. Certificates (2), (5), (6) and (7) should be issued by Marine Department as necessary: -

- (1) Certificate of Inspection;
- (2) Certificate of Survey;
- (3) Survey Record of Tonnage Measurement ;
- (4) Survey Record of Inspection for certain Equipment or Tests etc.; (if applicable)
- (5) Exemption Certificate / Permit for alternative material, fitting or equipment (if applicable);
- (6) Hong Kong Oil Pollution Prevention Certificate; (if Gross Tonnage

>400)

- (7) Hong Kong Air Pollution Prevention Certificate. (if Gross Tonnage >400)#

Note : # Subject to enactment and enforcement date of the relevant legislation.

2.3.2 Requirements for the issue of Certificate of Survey for Class IV pleasure vessels that are licensed to carry more than 60 passengers are to be refer to the “Code of Practice – Safety Standards for Class I, II & III vessels”

2.3.3 The certificates of the above items 2.3.1(3), (6) and (7) that issued in accordance with the International Conventions by a recognized classification societies may be considered as equivalent and accepted by the Director.

3. Definitions

“approved”, in relation to equipment, appliances, machinery, any fittings or materials, means approved by the Director;

“authorized surveyor” means a person, or a person belonging to a class of persons, who is not a public officer, appointed by the Director under section 7(1) of the Ordinance to be a surveyor for the purposes of the Ordinanceⁱ and noticed in the Marine Department Notice from time to time;

“carrying xx passengers” means vessel’s permissible number of passengers that can be carried through out the text of this Code.”

“certificate of ownership” means a certificate of ownership issued or endorsed by the Director under section 10, 23 or 26 the Merchant Shipping (Local Vessels) (Certification and Licensing) Regulation;

“Class I vessel” means any vessel permitted to carry more than 12 passengers, other than a Class IV vessel, licensed under Part IV of the Ordinance;

“Class IV vessel” means any pleasure vessel licensed under Part IV of the Ordinance;

“Code” means this Code;

“classification societies” means the classification societies recognised by the Director, which are as follows:

- (a) American Bureau of Shipping (ABS);
- (b) Bureau Veritas (BV);
- (c) China Classification Society (CCS);
- (d) Det Norske Veritas (DNV);
- (e) Germanischer Lloyd (GL);
- (f) Korean Register of Shipping (KR);
- (g) Lloyd’s Register (LR);

ⁱ May include any person of the following classes, subject to formal authorization having been issued by the Director:

- (i) Registered Professional Engineer (Marine and Naval Architecture);
- (ii) classification societies;

- (h) Nippon Kaiji Kyokai (NK); and
- (i) Registro Italiano Navale (RINA)

“coxswain” means the person having for the time being the charge or command of the vessel; but where there is no such person or the vessel is in the charge or command of a person under the age of 16, it means the person whose name appears in the vessel’s Certificate of Ownership;

“crew” means the coxswain and any other person employed for, or engaged in, any capacity on board a vessel on the business of that vessel;

“Director” means the Director of Marine;

“engine room” means a space of any vessel, which contains propulsion machinery and/or generators;

“existing vessel” means a vessel which is not a new vessel;

“favourable weather” means weather, when the visibility is good and when the combined effects of wind, sea or swell upon the ship under consideration are never greater than those which would cause moderate rolling or pitching, or result in a large amount of sea splash comes to the weather deck or, in the case of open boats, over the gunwale of a vessel”;

“final inspection” means the last or final visit for the purpose of survey or inspection, usually carried out on safety equipment items and functional trials in an initial survey or a periodical survey for a vessel;

"length overall (LOA)", in relation to a Class IV vessel, means the distance between the foreside of the foremost fixed permanent structure and the aft side of the aftermost fixed permanent structure of the vessel;

“extreme breadth”, in relation to a local vessel, means the athwartship distance between the extremity of the outermost permanent structure on the port side and extremity of the outermost permanent structure on the starboard side of the vessel;

“gross tonnage”, a measurement figure for a Class IV vessel of which the details and calculation can be referred to Chapter IX of the ”Code of Practice – Safety Standards for Class I, II and III Vessels”;

“initial survey” in connection with anyone of the certificates mentioned in s.7(1) of Survey Regulation means the survey (including its final inspection) to be completed for a new vessel for the first issue of the concerned certificate;

“new vessel” means –

- (a) a local vessel –

- (i) that has never been licensed under Part IV of the Shipping and Port Control

Ordinance (Cap. 313) before the commencement of Survey Regulation; and

- (ii) in respect of which an application for an operating licence is made for the first time on or after the commencement date of Survey Regulation, but does not include a vessel the keel of which is laid, or which is at a similar stage of construction, within 12 months immediately before that date and is still under construction on that date;
- (b) a local vessel that does not fall within paragraph (a) and undergoes, on or after the commencement date of Survey Regulation, alteration –
 - (i) of –
 - (A) its length, breadth or depth as recorded in the certificate of ownership issued or endorsed under the Certification and Licensing Regulation;
 - (B) the output of its main propulsion engine so that –
 - (I) the output is increased by 10% or more than what is recorded in its certificate of inspection or certificate of survey; or
 - (II) particulars relating to the materials, scantlings or design of the propulsion shafting or stern tube, as shown in the plans approved under Part 3 of Survey Regulation, are no longer accurate; or
 - (C) its passenger capacity so that it increases from not more than 60 to more than 60, or from not more than 100 to more than 100; or
 - (ii) to an extent that it is no longer suitable –
 - (A) to remain certificated for the particular class or type that it is certificated for under the Certification and Licensing Regulation; or
 - (B) to be categorized as a Category A vessel or a Category B vessel;

"local vessel" means-

- (a) any vessel used solely within the waters of Hong Kong, whether registered under the Merchant Shipping (Registration) Ordinance (Cap 415) or in a place outside Hong Kong;
- (b) any vessel possessed or used for pleasure purposes in the

waters of Hong Kong;

“owner”, in relation to a local vessel, means-

- (a) the person or persons named in the vessel's certificate of ownership as the owner of the vessel; or
- (b) in the absence of such a certificate, the person or persons owning the vessel;

“Ordinance” or “LVO” (《商船(本地船隻)條例》或《條例》) means the Merchant Shipping (Local Vessels) Ordinance (Cap 548).

“passenger” means any person carried in a vessel other than: -

- (a) a member of the crew;
- (b) a child under 1 year of age;

“periodical survey” in connection with anyone of the certificates mentioned in s.7(1) of Survey Regulation means the survey (including its final inspection) to be completed for an existing vessel for the renewal survey, annual endorsement survey or intermediate survey issue of the concerned certificate;

“Recognized Authority” (獲承認的當局) means a government authority recognized under section 7A of the Ordinance;

“pleasure vessel” means any launch, yacht, inflatable vessel, junk, lorcha or other vessel that: -

- (a) has an engine installed in it or carried on it, or is designed to have an engine installed in it or carried on it, whereby the vessel may be propelled by mechanical means;
- (b) is possessed or used exclusively for pleasure purposes; and
- (c) is not let for hire or reward other than under the terms of a charter agreement or hire-purchase agreement (hereafter referred in this Code as ‘engaged in chartering’),

but does not include any launch, yacht, inflatable vessel, junk, lorcha or other vessel that has never been launched in the waters of Hong Kong;

“pleasure vessel operator”, in relation to a Class IV vessel, means a person who is in charge of the vessel;

“Survey Regulation” or “Survey Reg” (《檢驗規例》) means the Merchant Shipping (Local Vessels) (Safety and Survey) Regulation (Cap 548);

“waters of Hong Kong” means waters of Hong Kong within the meaning of Schedule 2 of the Interpretation and General Clauses Ordinance (Cap. 1).

4 Application

- 4.1 Subject to the following paragraph 4.2, this Code applies to all pleasure vessels which are required to be licensed as Class IV vessels; with the applicable Chapters and Annexes indicated in the following table:

Vessel Status No. of Passengers / Chapter and Annex	Existing Vessel		New Vessel	
	not engaged in chartering	engaged in chartering	not engaged in chartering	engaged in chartering
(a) More than 60	Ch. I, III-A (para 1.2 applicable), Annex 1A, 1B	Ch. I, III-A (para 1.2 applicable), Annex 1, 1A, 1B	Ch. I, III-A, Annex 1A, 1B	Ch. I, III-A, Annex 1, 1A, 1B
(b) 13 to 60	Ch. I, IV~ IX Annex 1A, 1B 2, 4A	Ch. I, II, III, IV~ IX, Annex 1, 1A, 1B, 2, 3, 4, 4A,5	Ch. I, IV~ IX Annex 1A, 1B, 2, 4A,	Ch. I, II, III, IV~ IX, Annex 1, 1A, 1B, 2, 3, 4, 4A,5
(c) Not more than 12	Ch. I, IV~ IX Annex 1A, 1B, 2, 4A	Ch. I, II, III, IV~ IX, Annex 1, 1A, 1B, 2, 3, 4, 4A,5	Ch. I, IV~ IX Annex 1A, 1B, 2, 4A	Ch. I, II, III, IV~ IX, Annex 1, 1A, 1B, 2, 3, 4, 4A,5

- 4.2 This Code does not apply to any vessel -

- (a) which is a pleasure vessel -
 - (i) from a place outside Hong Kong; and
 - (ii) which does not remain in the waters of Hong Kong for more than 182 days out of 365 consecutive days;
 - (b) which is a pleasure vessel -
 - (i) not fitted with an engine; and
 - (ii) in the opinion of the Director, incapable of being fitted with an engine;
 - (c) which has never been launched.
- 4.3 Any Class IV vessel carrying not more than 60 passengers and engaging in chartering or not, which is -
- (i) of novel type (which is not of conventional construction); or
 - (ii) gross tonnage exceeding 150;
- should be subject to safety survey by Marine Department in accordance with relevant safety requirements indicated in para. 4.1 (a) to (c) above prior to a licence is issued.

- 4.4 The coxswain of any Class IV vessel engaged in chartering is required to conduct safety briefing to all persons onboard before commencing a voyage to ensure general understanding of safety issues and arrangement onboard. A general guide on the content of the “Safety Briefing for a Class IV Vessel Engaged in Chartering” is indicated in Annex 1.

- 4.5 The owner, agent or coxswain of any vessel which carries or uses petrol onboard is required to observe the “Safety Precautions on the Proper Storage and Use of Petrol” indicated in Annex 2.

- 4.6 Compliance with this Code satisfies the condition relevant to the safety and pollution prevention requirements of the Merchant Shipping (Local Vessels) (Safety Survey) Regulation relating to any Class IV vessel operating in the waters of Hong Kong.
- 4.7 The Director may, on the certificate of ownership of a certificated Class IV vessel, make an endorsement to the effect that the certificated vessel may be used with one ancillary vessel meeting the following conditions: –
- (a) belongs to the same owner as the certificated vessel;
 - (b) does not exceed 4 metres in length (L); and
 - (c) either is not fitted with an engine or is fitted with engines not exceeding 7.5 kW total propulsion power.

5 Reporting of Accidents

- 5.1 It is a statutory requirement for the owner or coxswain or agent of a Class IV vessel to report accidents relating to collisions and fires etc. as required in Part XI of the Ordinance.

6 Observance of Safe Navigational Speed and Carrying Certificated Operators or crew

- 6.1 When a Class IV vessel is under way, the coxswain should ensure the vessel is proceeding at a safe navigational speed, and diligently comply with the speed limits in the relevant operating areas and the relevant operational requirements as promulgated in Marine Department notices from time to time. Further operational safety guidance on vessel operator requirements is given in Chapter IX.
- 6.2 Any Class IV vessel carrying more than 60 passengers or having vessel length exceeding 24 metres or its total propulsion power more than 1,000kW (1,340 BHP), owner or coxswain of the vessel should observe any specified licensing conditions on vessel operator requirements in order to cope with operational needs including helping out emergency measures etc.

7 Third Party Risks Insurance Coverage

- 7.1 It is the obligation of the owner and agent of a Class IV vessel to ensure compliance with the relevant requirements of the Merchant Shipping (Local Vessels) (Compulsory Third Party Risks Insurance) Regulation.
- 7.2 The insurance coverage and written charter agreement / written hire-purchase agreement ^(Note) should be kept onboard as required under Merchant Shipping (Local Vessels)(Certification and Licensing) Regulation.

Note : “written charter agreement / written charter agreement” , their meaning or purposes are given in section 6 under Merchant Shipping (Local Vessels) (Certification and Licensing) Regulation (as quoted in Annex 1A).

8 Duties relating to Class IV vessels

- 8.1 It is the responsibility of the owner and agent of any Class IV vessel :-

- (a) to ensure that the vessel is properly maintained and examined in accordance with the requirements of the Ordinance and regulations as mentioned in paragraph 2 above, in addition to this Code; and
- (b) to ensure that the vessel is built and constructed with adequate strength and stability, adequacy in safety for machinery, electrical and in safety arrangement and equipment for vessel's intended purpose ^(see note below).

Note: For any Class IV vessel carrying not more than 60 passengers and not engaged in chartering, owner or agent of the vessel may seek advice and recommendations from a builder or an authorized surveyor/organization, as appropriate, and for their confirmation and verification of vessel's compliance in accordance with relevant standards and requirements as prescribed in this Code; and may request for the issue of relevant survey report or certificate as appropriate. Owners or builders may make reference to requirements on inspection and construction standards in Chapters II and III.

- 8.2 It is the responsibility of the owner, agent and the coxswain of any Class IV vessel to observe applicable duties as indicated in the Merchant Shipping (Local Vessels)(General) Regulation and Merchant Shipping (Local Vessels)(Certification and Licensing) Regulation, and in particular relating to restrictions imposed under section 6 and operators holding relevant certificates of competency etc. required on any Class IV vessel specified under sections 47, 48 and 50 of the latter Regulation. These are extracted in Annex 1A and Annex 1B for reference.
- 8.3 The master of every mechanically propelled Class IV vessel shall ensure that the machinery spaces of his vessel are at all times kept clean and free from unnecessary combustible materials and that waste oil is not allowed to accumulate in the bilges.

9 Documentary Information on Compliance of this Code

- 9.1 For any Class IV vessel carrying not more than 60 passengers and engaging in chartering, owner or agent of the vessel may request builder to propose vessel's design, construction and safety standards and arrangements for certification by an authorized surveyor/organization.
- 9.2 Any vessel carrying more than 60 passengers whether engaging in chartering or not, its design, construction and safety requirements are to be certified by an officer of Marine Department in accordance with relevant requirements prescribed in Chapter I and III-A of this Code.

10 Equivalent

- 10.1 Any requirements of this Code which cannot be fully met for one reason or another by any Class IV vessel carrying not more than 60 passengers and engaged in chartering should be justified and arranged with suitable "equivalence". Where necessary, the owner or agent of the vessel may invite a builder to propose alternative or "equivalence" to the requirements of this code for endorsement by an authorized surveyor or authorized organization. These should be properly documented with records kept onboard.

11 Interpretation

11.1 Where a question of interpretation of a part of this Code arises, a decision may be obtained on written application to the Director (for attention to Local Vessels Safety Section), who will give clarification or advice as appropriate. The Director's decision is final.

12 Inspection and Certification

12.1 Inspection requirements and issue of inspection certification for Class IV vessels are to be in accordance with the following table:

No of Passengers Permitted to Carry	Existing Vessel		New Vessel	
	not engaged in chartering	engaged in chartering	not engaged in chartering	engaged in chartering
More than 60	Note (b)	Note (b)	Note (b)	Note (b)
13 to 60	-	Note (a)	-	Note (a)
Not more than 12	-	Note (a)	-	Note (a)

Note:-

- (a) To be inspected and certificated by an authorized surveyor / organization in accordance with the requirements of this Code.
- (b) To be surveyed and certificated by an officer of the Marine Department in accordance with the requirements prescribed in Chapters I and III-A of this Code.

12.2 The Certificate of Inspection/Survey to be displayed in a conspicuous location onboard and same remark should be indicated on the certificate.

13 Application for Inspection and Fees

13.1 The owner or agent of any vessel carrying not more than 60 passengers and engaged in chartering should apply as required to an authorized surveyor/organization for the relevant statutory inspections. The fees and charges should be settled between the owner/agent and the authorized surveyor/organization.

13.2 The owner or agent of any vessel carrying more than 60 passengers should apply as required to the Marine Department for relevant statutory inspections and pay relevant fees.

CHAPTER II

INSPECTION AND CERTIFICATION

(For any vessel carrying not more than 60 passengers and engaged in chartering)

1 Certification

- 1.1 A certification inspection as guided by the items in this Chapter, is to determine that the vessel's structure, machinery, electrical, safety equipment installations and fittings comply with the requirements of this Code, including the examination when the vessel is out of the water.
- 1.2 The authorized surveyor/organization should decide the extent of the examination based on the type and number of passengers to be carried (or age and history for existing vessel) and the intended plying limits of the vessel in a certification inspection. Upon satisfactory completion, a Certificate of Inspection shall be issued to the vessel for the permitted areas/routes of operation. The validity period of the certificate will be decided by authorized surveyor/organization for the intended purpose and condition of the vessel, and it should not be more than 12 months. A format of the Certificate is suggested in Annex 3 for reference.

2. Examination and Inspections

- 2.1 For the purpose of obtaining a Certificate of Inspection for any vessel, matters relating to examination and inspection of its design, construction, safety equipment installations and fittings in compliance to the requirements of this Code are to be arranged and agreed with authorized surveyor / organization.
- 2.2 Relevant document from builder with endorsement or certification by authorized surveyor / organization confirming the standard of construction applied to the vessel and, where appropriate, together with an inclining test report should be kept onboard with the "Certificate of Inspection".
- 2.3 New vessels of proto-type approval, including details of approved production procedures and key inspections, with certification for a validity period of not more than five years is considered acceptable. Proven type pleasure vessels with proper documentation or verification details can also be considered acceptable.
- 2.4 (a) For any Class IV vessel, builder's inspection reports or certificates are required for assessment and endorsement by an authorized surveyor / organization; The endorsed document should be kept onboard with the Inspection Record.

(b) For any existing vessel which has one year or more record of safe operation ^(Note) (before commencement date of LVO) in the waters of Hong Kong or similar operating conditions, the requirements in (a) above can be waived and it will be considered to be adequate strength after a simple inclining test (Annex 5 refers), few basic drawings (can be supplemented by photos) and satisfactory examination; and

- (c) For any existing vessel which does not have one year record of safe operation as indicated in (b) above, technical assessment (including essential drawings, simple inclining test (Annex 5 refers), details of materials and construction) of the vessel by an authorized surveyor / organization is required to confirm the compliance of relevant safety requirements and structural soundness for the intended operation of the vessel.

Note : “record of safe operation” means that vessel in the past one year or more has not incurred any accidents on fire, collision or serious leaking. An oath declaration of the fact made and signed by owner in a specified form is acceptable.

3 Inspection of Hull, Machinery and Safety Equipment

3.1 The following inspections items are relevant for the vessel concerned :-

Hull Construction

- (1) Hull structure (including integrity of GRP or wood or steel, and underwater fittings) and superstructure.
- (2) Hull buoyancy structure (including tightness).
- (3) Internal bulkheads (including integrity).
- (4) Assessing/ endorsing document / certificate of construction and/or inclining test report where appropriate. (refers to requirements in paragraph 9.1 of Chapter I, paragraph 2.2 of Chapter II and paragraphs 1 and 2 of Chapter III)

Machinery & Electrical

- (5) Propulsion engine and control system in normal working condition.
- (6) Oil tanks and oil pipes (including in good order and any leakage).
- (7) Bilge system and fire mains (including general condition).
- (8) Oil pollution prevention installation functional test (for vessels of gross tonnage exceeding 400).
- (9) Ventilation fans for machinery space (including closing mechanism in working condition).
- (10) Safety for LPG Installation and Use of Petrol.
- (11) Electric cables and electrical installations (including any undue damages).
- (12) Insulation resistance of electric cables, overload protection and earthing of electrical installation.

Safety Equipment and Lights & Sound Signals

- (13) Life-saving appliances (number, stowage and working condition).
- (14) Fire-fighting appliances (number, stowage and working condition).
- (15) Lights, shapes and sound signals (number and working condition).

Passenger Accommodation

- (16) Passenger and crew accommodation requirements:-
- (a) Means of escape for passengers (including any obstruction).
 - (b) Means of protection such as guard rails, handrails and passageways (including maintained in good condition).
 - (c) Ventilation fans for passenger accommodation (including closing mechanism in working condition).
 - (d) Passenger seats and markings.
 - (e) Lifejackets stowage.

Others

- (17) Verification of principal dimension , engine and machinery particulars.
- (18) Other items considered necessary by the authorized surveyor/organization (to be indicated in separate list).

Inspection on slip or dry-docking (at interval not more than two years after initial certification)

- (19) Bottom shell plates, side shell plates, spray strips and stern transom plates (including whether or not any damage or cracking)
- (20) Sea valves, propeller shaft, propeller and water/oil seals (including whether or not maintained in good condition)

3.2 The above inspection items list is indicated in Annex 4 for ready application.

CHAPTER III

CONSTRUCTION, MACHINERY AND ELECTRICAL INSTALLATIONS

(For any vessel carrying not more than 60 passengers and engaged in chartering)

1 Standards on Construction and Installations etc.

1.1 The vessel's strength, structure, arrangements, materials, scantlings, main and auxiliary machinery, boilers and pressure vessels, electrical installations, etc. should be so designed, constructed and installed as to ensure that the vessel is fit for the service for which it is intended. Owner or builder may make reference to any relevant standards of an authorized organization for pleasure vessels or small craft or appropriate standards for equipment and material or any other equivalent open standards.

2 Hull Construction and Marking

2.1 (a) The vessel should be designed and constructed to: -

- (i) provide structural strength adequate for the intended services of the vessel;
- (ii) maintain adequate freeboard and stability; and
- (iii) prevent the ready ingress of sea water.

(b) Vessel shall not have false bottom or secret compartment.

2.2 Bulwarks, guard/hand rails or equivalent protection/fixing should be installed near the periphery of weather decks accessible to passengers and crew.

2.3 In any vessel of other than wooden construction, and as far as practicable on wooden vessel, the bulkheads should be of watertight construction.

2.4 (a) Every enclosed space should be provided with suitable ventilation and lighting. Every such space for regular entrance by crew or working personnel should be suitably mechanically ventilated and illumination.

2.4 (b) Every deck house should be provided with appropriate insulation to avoid from abnormal heat.

2.5 The Certificate of Ownership number of a vessel should be painted and mounted in accordance with section 40 of the Merchant Shipping (Local Vessels)(Certification and Licensing) Regulation.

2.6 (a) For any new vessel, an inclining test should be carried out in accordance with the standards of an authorized organization or equivalent standard.

(b) As alternative to (a) above, for any new vessel carrying less than 12 passengers, a simple inclining test should be carried out to ascertain the angle of heel a vessel would occur when 2/3 of the passengers distributed on one side of the vessel and 1/3 on the other side. The objective is to ensure that no angle of heel exceeding 7° will arise as a result of the movement of passengers from one side of the vessel to the

other side. If that vessel is not exceeding 6 metres, an immersion test to prove its adequacy of buoyancy is also acceptable as an alternative.

- 2.7 For any existing vessel, a simple inclining test should be carried out to ascertain the angle of heel a vessel would occur when 2/3 of the passengers distributed on one side of the vessel and 1/3 on the other side. The objective is to ensure that no angle of heel exceeding 7° will arise as a result of the movement of passengers from one side of the vessel to the other side. If that vessel is not exceeding 6 metres, an immersion test to prove its adequacy of buoyancy is also acceptable as an alternative.

3 Machinery Installations

- 3.1 Suitable means or device should be provided to machinery, equipment, winches, etc. so as to reduce to a minimum any danger to persons on board. Special attention should be paid to moving parts, hot surfaces and other dangers.
- 3.2 Machinery spaces should be so designed and built so as to prevent undue risk of fire or explosion, and provide safe and free access to all machinery and its controls as well as to any other part that may require servicing. Adequate ventilation should be provided for the machinery spaces.
- 3.3 On any open deck vessel capable of cruising at high speeds ^(Note), it is recommended that a safety device capable of tripping the propulsion engine(s), should the vessel become out of control, be fitted. This device may be in the form of a safety lanyard similar to the type normally found on a water scooter/ski.
- Note: It means that when an open deck vessel is rated with operating speed exceeding 17 knot or capable to achieve that speed. It is also termed as “high speed open deck vessel”
- 3.4 If the vessel is of wooden construction, it is recommended that a metal tray, which can readily be cleaned, be fitted under the engine to protect the bilges against saturation by oil.
- 3.5 Any engine fitted on a vessel should be maintained to a condition such that the standards prescribed in the Merchant Shipping (Local Vessels) (General) Regulation are met. The engine's exhaust pipe should be lagged with heat-resistant material unless it is served by a water-cooling system. A silencer or expansion chamber should be fitted on the exhaust pipe.
- 3.6 The arrangements for filling fuel tanks should be such that oil will not spill or overflow into any compartment of the vessel.
- 3.7 Fuel tanks should be substantially constructed of suitable material and securely fixed in position.
- 3.8 All fuel oil tank and lubrication oil tank venting pipes should be led to the weather deck. The open end of each venting pipe for oil tanks should be fitted with properly secured metallic wire-gauze.
- 3.9 Oil pipes, water pipes and engine exhaust pipes should generally not be fitted above or close to any electrical distribution board, switchboard, etc., or any hot surface. If it is unavoidable to do so, suitable protection should be provided.

- 3.10 Fuel oil pipes and their attachments should be of adequate strength and free from excessive vibration.
- 3.11 A bilge pump of sufficient capacity should be provided for any vessel of length (L) 7.6 metres and above.
- 3.12 When petrol is stowed onboard for use in outboard engines or portable generator engines, safety precautions as indicated in Annex 2 should be strictly followed.
- 3.13 Every vessel of gross tonnage 400 and above should be fitted with an oily water separator of an approved type in compliance with the requirements of the Merchant Shipping (Prevention of Oil Pollution) Regulations.
- 3.14 Engine Room & Wheelhouse Communication and Safety Arrangement
- (a) On any vessel with manned engine rooms, a suitable system of communication between wheelhouse and engine room should be provided.
- (b) Any vessel with length or propulsion power as indicated below, operating in unattended machinery spaces mode, should be provided with the following installation in the proximity of the position of helmsman:
- (I) Vessel of $L \leq 24$ m or total propulsion power $\leq 1,000$ kW
- (i) for main engine- essential control (such as means of start and stop, control of speed and clutch), indicators, abnormal alarms and remote stop.
- (ii) for generator engine and engine room ventilation fans - means to stop
- (iii) for bilge water in engine room- high level audible alarm. ^(Note)
- (vi) for existing vessels, a fixed fire detection (operated by smoke detectors) and fire alarm system for engine room are advisable to owners. If these fittings are not installed, regular surveillance to be exercised from outside engine room or control station by the coxswain or a crewmember.
- (v) for existing vessels, a fixed fire detection (operated by smoke detectors) and fire alarm system for engine room are advisable to owners. If these fittings are not installed, regular surveillance to be exercised from outside engine room or control station by the coxswain or a crewmember. ^(Note)
- Note : For the purpose of “combined coxswain” operation , vessel length less than 12 m, if regular surveillance (such as through tale-tell pipe or transparent glass view-hole fittings etc.) can be exercised from outside engine room or control station by the coxswain or a crewmember, these requirements can be waived.
- (II) Vessel of $L > 24$ m or total propulsion power $> 1,000$ kW
same as (I) above but in addition, provided with a fixed fire detection (operated by smoke detectors) and fire alarm system for engine room.
- 3.15 Any engine fitted on a vessel should be properly maintained at all time free from dark smoke emission. In this regard, during the final inspection for initial and periodic survey, engine performance condition check would include smoke emission test using Ringelmann

Chart. Shade 2 of the Ringelmann Chart and a continuous period of 3 minutes are the upper limits. The emission beyond this limit is considered not acceptable.

- 3.16 Any vessel if found or reported emitting excessive dark smoke, owners would be requested to present vessel's engine(s) for special inspection and smoke test to ensure compliance. Any non-compliance will be pursued in accordance with relevant legislation requirement.

4 Electrical Installations

- 4.1 The nominal voltage of electrical systems is recommended to be 380V for generation and power circuits, 220V for lighting and distribution circuits and 24V D.C. for low voltage circuits.
- 4.2 The hull return system should not be used for power or lighting.
- 4.3 Permanently exposed fixed metal parts of electrical machines or equipment which are not intended to be "live", but which are liable under fault conditions to become "live" should be earthed if they are supplied at a voltage exceeding 55V, except arranged with double insulation internally.
- 4.4 Electrical apparatus should be so constructed and so installed that it should not cause injury to person when handled or touched in the normal manner.
- 4.5 The voltage rating of any cable should not be less than the nominal voltage.
- 4.6 Every conductor of a cable, flexible cable or flexible cord should be capable of carrying the maximum current which will normally flow through it without exceeding the appropriate current rating as specified by the manufacturer of the cable.
- 4.7 Cable runs should be selected so as to avoid action from condensed moisture or drips. Cables should, as far as possible, be remote from sources of heat, such as hot pipes, resistors, etc., and should be protected from avoidable risks of mechanical damage.
- 4.8 Circuits should be protected against short circuit and overload.
- 4.9 The current rating of circuit breakers should not exceed the current rating of the smallest size of cable in the circuit protected by the circuit breaker.
- 4.10 Lighting fittings should be so arranged as to prevent temperature rises which could damage the wiring and to prevent surrounding material from becoming excessively hot.
- 4.11 Accumulator batteries of leaded-acid type should not be located in accommodation spaces. Suitably installed hermetically-sealed accumulator batteries of alkaline type are acceptable to be placed in accommodation spaces.
- 4.12 In spaces where flammable mixtures are liable to collect and in any compartment assigned principally to contain an accumulator battery leaded-acid type, the electrical fittings should be of a flameproof type.

- 4.13 A lightning conductor is recommended to be fitted for a vessel whose hull or mast is constructed of nonconductive materials. The lightning conductor may be connected to a copper plate fixed to the vessel's hull below the light waterline. The requirement is applicable to only non-metallic hull vessels.

5. Pollution Prevention

- 5.1 Owners and agents are required to comply with the requirements relevant to the prevention of marine pollution at sea as follows : -
- (a) the being enforced MARPOL Annex I applicable to any pleasure vessel exceeding 400 gross tonnage (Refers to Annex 10); and
 - (b) the requirements of MARPOL Annex VI which is effective on 19 May 2005, applicable to any pleasure vessel (Refers to Annex 7).

6 Other Installations and Equipment

- 6.1 At least one anchor of adequate weight is to be installed with anchor chain of adequate size, length and strength for its intended purpose. Where ropes are used instead of chain cables, the ropes sizes and strength should be equivalent to that of chain cable. Except for manual operating type, suitable cable and anchor recovery arrangement or windlass is recommended.
- 6.2 A repair tool kit for main and auxiliary engines is to be carried.

CHAPTER III -A

DESIGN, CONSTRUCTION, INSPECTION AND CERTIFICATION

(For any vessel carrying more than 60 passengers)

1 Design, Construction and Inspection

- 1.1 Subject to the following paragraph 1.2, the requirements of any vessel relating to design, construction, safety equipment installations and fittings, and inspection are to be in accordance with those relevant requirements for Class I vessel of same carrying passenger capacity specified in “Code of Practice – Safety Standards for Class I, II and III Vessels”.
- 1.2 For an existing vessel licensed with carrying capacity of more than 60 passengers before the commencement of the Ordinance, the requirements on design, construction, machinery and electrical installations and fittings are to be in accordance with the standards and requirements indicated in Chapter III of this Code.

2 Certification

- 2.1 A “Certificate of Survey”, with contents or format similar to the certificate for Class I vessel, shall be issued by Marine Department after satisfactory completion of the necessary items for examination and inspection.

CHAPTER IV

PASSENGER AND CREW ACCOMMODATION

(For any vessel carrying not more than 60 passengers)

1 Accommodation

- 1.1 Accommodation spaces should be maintained in a clean, suitable lighting, well-ventilated and habitable condition with efficient means of escape.
- 1.2 There should be sufficient handholds and grab-rails within the accommodation to allow safe movement around the accommodation when the vessel is in a seaway.
- 1.3 Heavy items of equipment such as batteries, cooking appliances and etc., should be securely fastened in place to prevent movement when the vessel is underway.
- 1.4 All vessels should ensure the boarding for crew and passengers is safe.
- 1.5 For vessels carrying more than 12 persons, sanitary apparatus or wash room should be provided on onboard.
- 1.6 Spaces where noise level exceeds 85 dB(A), measured at maximum operating speed of propulsion engine, should not be used as passenger space
- 1.7 Glass or mirror shall be made of materials, which will not break into dangerous fragments if fractured.

2 Maximum Carrying Capacity and Seating

- 2.1 The maximum carrying capacity (including passengers and crew) for a Class IV vessel should be determined as follows:

- (a) open deck vessel ^{(Note (i))}

L × B numeral	Total Number of Persons
≤ 5	2
>5 to ≤ 10	3
> 10	4

- (b) enclosed deck vessel ^{(Note (ii))}

$$\text{total number of persons} = L \times B \times 0.4$$

where L = vessel's (deck) length overall in metres
 B = vessel's maximum breadth in metres

Note (i): "Open deck vessel" means vessel without the enclosed superstructure or compartment for personnel sheltered from weather. The existing Class IV vessels of open deck type may retain its licensed passenger numbers by submission to Licensing Section relevant supporting document, such as inclining testing certificates issued by Builder or recognized classification society or authorized surveyor or authorized organization indicating the maximum number of carrying capacity.

Note (ii): Jetski is not included. "Enclosed deck vessel" means vessel provided with

enclosed superstructure or compartment for personnel sheltered from weather.

- 2.2 An increased capacity may be considered subject to a satisfactory inclining test being conducted. Such increase should take into consideration of the minimum number of crew required for the vessel as specified in the operating licence, of which the evaluation is guided by the details given at above paragraph 2.1 and format indicated in Annex 4A.
- 2.3 All passengers should be arranged with seating or resting facilities adequate for the intended purpose. As a guidance, the number of fixed seats should be not less than 50% of its maximum number of carrying capacity and the balanced number of seats can be in other form or type provided that they are relatively stable and safe for its purpose.
- 2.4 (a) No Class IV vessel that are let for hire or reward may carry passenger below deck.
- (b) For any new Class IV vessel not engaging in chartering or any existing Class IV vessel; any compartment below main deck should not be used as passenger space as far as practicable, except on a sunken deck which has scantlings equivalent to main deck, provided these spaces are clearly marked the accessible escape route and fitted with flooding alarms.
- 2.5 For any Class IV vessel that are let for hire or reward, a “Seating plan” and a passenger capacity assessment form of format indicated in Annex 4A are to be submitted and verified by an officer of Marine Department.

3. Marking in Passenger Space for any vessel of carrying capacity more than 12

- 3.1 For any Class IV vessel carrying more than 12 passengers and engaging in chartering, the number of passengers in which each deck can accommodate should be indicated, in a conspicuous location, at all spaces where passengers will be embarking, in Chinese and English :-

Upper level	x x x
Main Deck	x x x
Etc.	x x x

Total number of passengers x x x

Minimum number of crew x x x

Total number of person permitted (Note) x x x

Note: Total number of person permitted is determined by Length x Width x factor. There is no specific rule indicating for each deck. This may be decided by the owner after consulting authorized surveyor / organization on the stability. The seating dimension should be not less than 300 mm x 450 mm and above deck for 150 mm .

- 3.2 For any Class IV vessel carrying more than 12 passengers and not engaging in chartering, owner is advised to mark spaces as indicated in para 3.1 above or at least the maximum number of passengers and the maximum carrying capacity, in a conspicuous location where most passengers will be accommodated, in Chinese and English.
- 3.3 Lifejacket stowage location should be clearly marked.

4 Deck Areas Disallowed for Passengers

4.1 The following spaces are not permitted to carry passengers:

- (a) the area abaft the fore side of the rudder stock on the main deck,
- (b) the portion of a compartment or of a deck used for the purpose of navigation and fire fighting,
- (c) machinery compartments, casings and skylights,
- (d) decks or part of a deck set apart exclusively for the carriage of motor vehicles, luggage, etc,
- (e) the forward part of the vessel up to the forward bulkhead of the deckhouse or if there is no deckhouse, up to one metre aft of the seating for the windlass or any other necessary equipment for the operation of the anchors, etc. located forward,
- (f) areas of stairways, stairway landings, hatchways and ventilators,
- (g) areas permanently occupied by equipment, fittings e.g. inflatable liferafts, hatches, ventilation trunkings, etc.
- (h) cabins and spaces allocated for the accommodation of the crew,
- (i) galley/pantry and other service spaces,
- (j) sanitary spaces,
- (k) open deck without awning.
- (l) Spaces where noise level exceeds 85 dB(A), measured at maximum operating speed of propulsion engine, should not be used as passenger space

4.2 An outline guidance plan showing areas to be excluded for measuring passengers space is at Annex 9.

Chapter V

FIRE PROTECTION

(For any vessel carrying not more than 60 passengers)

1 General Requirements

1.1 Fire-fighting appliances should be of an approved type. Appliances approved by the maritime administration of a convention country, or classification society on behalf of an administration in accordance with the recommendations of the International Maritime Organization (IMO) are acceptable. In any vessel carrying not more than 12 persons, fire-fighting appliances approved by the national maritime authority of their country of manufacture are acceptable.

1.2 Portable Fire Extinguishers

1.2.1 The approximate fire-extinguishing capabilities of each type of portable fire extinguisher are as shown in the following table: -

Media \ L (m)	L ≤ 9	9 < L < 15	L ≥ 15
Foam, water (litres)	2.8	4.6	9
CO ₂ (kg)	1	1.5	3
Dry Powder (kg)	1.4	2.3	4.5

1.2.2 Fire extinguishers to be used for switchboards, control panels, batteries, etc. should be of a type suitable for electrical fires, e.g. dry-powder or CO₂ fire extinguishers.

1.2.3 Fire extinguishers to be used for machinery spaces should be of the type suitable for oil fires, e.g. foam, dry powder or CO₂ fire extinguishers.

1.2.4 Portable extinguishers are to be suitably distributed throughout the protected spaces. Normally at least one should be stowed near the entrance inside that space.

1.2.5 The use of CO₂ fire extinguishers in a confined space is not recommended.

1.3 Fire Pumps

1.3.1 When an emergency fire pump is required, such pump, its source of power (if any) and sea connection should not be situated in the same compartment as the main fire pump.

1.3.2 A manually operated pump should be capable of producing a jet of water having a throw of not less than 6 metres from its nozzle.

1.4 Hydrants, Hoses, Nozzles

1.4.1 Fire hydrants should be positioned so as to allow at least one jet of water from a single length of fire hose to reach any part of the vessel normally accessible during navigation. If only one hydrant is provided for the engine room it should be located outside that space and near the entrance.

1.4.2 The nozzles should be appropriate to the delivery capacity of the fire pumps fitted, but in any case should have a diameter of not less than 10 mm.

2 Ready availability and Maintenance of Appliances

2.1 Whenever a local vessel is being used or operated, every fire-fighting apparatus carried on board the vessel shall be –

- (a) in working order;
- (b) ready for immediate use; and
- (c) placed in a position easily accessible.

2.2 The appliances should be inspected at intervals of not more than 12 months.

3 Scale of Fire-fighting Appliances

3.1 Provisions of fire-fighting appliances in Survey Regulation Schedule 4 (table 8) are quoted as below:-

QUOTE

Table 8

Class IV vessels that are licensed to carry not more than 60 passengers and are not let for hire or reward and operate within waters of Hong Kong

Vessel registered length (L)(m)		Fire-fighting apparatus				
		(L) < 5.5	5.5 ≤ (L) ≤ 9	9 < (L) < 15	15 ≤ (L) < 24	(L) ≥ 24
portable fire extinguisher ⁽²⁾	1.4 kg	1 ⁽¹⁾	2	-	-	-
	2.3 kg	-	-	2	-	-
	4.5 kg	-	-	-	2	2
	engine room	-	-	2 ⁽³⁾	2 ⁽³⁾	2 ⁽³⁾
fire bucket with lanyard ⁽⁴⁾		1 (or 1 bailer)	2	2	2	3
main fire pump	power	-	-	-	1 ⁽⁵⁾	1
	manual	-	-	-		-
emergency fire pump	power	-	-	-	-	1 ⁽⁵⁾
	manual	-	-	-		

hydrant	-	-	-	capable of delivering one jet of water having a throw of not less than 6 m which can be directed on to any part of the vessel through a hose with a 10 mm diameter nozzle	
hose	-	-	-	1	2
nozzle	jet	-	-	1	2
	spray	-	-	-	1
fireman's axe	-	-	-	-	1

Notes:

- (1) (a) Portable dry powder fire extinguisher or equivalent.
- (b) No fire extinguisher is required for a jetski.
- (2) Two extinguishers should be provided if there is a galley on board.
- (3) For engine room that contains internal combustion type machinery having in aggregate a total power output of not less than 375 kW.
- (4) Fire buckets may be substituted by an equal number of portable dry powder fire extinguishers each of a capacity of not less than 4.5 kg of dry powder or equivalent.
- (5) The fire pump and its sea suction shall be situated outside the engine room.

UNQUOTE

3.2 Provisions of fire-fighting appliances in Survey Regulation Schedule 4 (table 1) are quoted as below:-

QUOTE

- (iii) Class IV vessels that are licensed to carry 13 to 60 passengers but are let for hire or reward

Vessel registered length (L)(m)		Fire-fighting apparatus			
		(L)<15	15≤(L)<24	24≤(L)<60	60≤(L)<75 ⁽¹⁾
portable fire extinguisher	passenger accommodation space	1 on each deck (minimum 2)		1 within not more than 10 m walking distance, but at least 2 on each deck	
	wheel house	1			
	galley	1			
	engine control room	1			
	engine room	3	4	1 for each 750 kW or part thereof of the power output of the engine and electric motor, but at least 3 and not more than 6 in each room	
	machinery space	1 within each space			
<fixed CO ₂ fire extinguishing system> ^{(2) and (3)}	engine room	-		gas quantity, storage, piping, nozzle, alarm, location and arrangement shall be in accordance with the relevant plans approved under Part 3 of this Regulation	
<fire detection and alarm system> ⁽³⁾		-		quantity, type, location and arrangement shall be in accordance with the relevant plans approved under Part 3 of this Regulation	
main fire pump	power	-	1 ⁽⁴⁾	1 ⁽⁵⁾	1
	manual	-		-	-
emergency fire pump	power	-		1 ⁽⁴⁾	1 ⁽⁴⁾
	manual				
fire main + hose + hydrant + jet nozzle		1 set		1 set to be provided for each pump ⁽⁶⁾	
fireman's axe		-		1	

Notes:

- (1) The requirement for a local vessel of 75 m or more in length shall be specified by the Director on a case-by-case basis.
- (2)
 - (a) Required for any local vessel that is licensed to carry more than 12 passengers and installed with internal combustion engines of aggregate propulsion power of 375 kW or over.
 - (b) The fixed CO₂ fire extinguishing system may be substituted by a non-portable fire extinguisher (45 L foam or equivalent CO₂ type) if it can be satisfactorily demonstrated that the jet of the fire extinguishing media can reach any part of the engine room.
 - (c) For local vessels of 24 m or more in length and that are not new vessels, one 45 L foam or 16 kg CO₂ fire extinguisher shall be provided in the engine room.
- (3) Requirements in angle brackets (“< >”) are for new vessels only.
- (4) The fire pump and its sea suction shall be situated outside the engine room.
- (5) The fire pump may be propulsion engine driven, provided it can be readily engaged to the engine.
- (6) A Class I vessel or Class IV vessel of 24 m or more in length shall be provided with the following additional appliances –
 - (a) 1 hydrant in each engine room; and
 - (b) 1 spray nozzle on each deck and in each engine room.

UNQUOTE

- [Note:(A) The fire fighting requirement for a local vessel of 75 m or more in length will be considered based on the following factors:
- (a) the vessel’s mode of operation;
 - (b) the vessel’s intended service;
 - (c) the vessel’s size;
 - (d) the vessel’s construction;
 - (e) the total number of persons on board (and crew manning);
 - (f) the compliance of regional standards or international standards, if applicable; and
 - (g) potential hazards to the safety of the vessel and any person or property on board the vessel.]

3.3 Provisions of fire-fighting appliances in Survey Regulation Schedule 4 (table 3) are quoted as below:-

QUOTE

Table 3

(ii) Class IV vessels that are licensed to carry not more than 12 passengers but are let for hire or reward

Vessel registered length (L)(m)		(L)<12	12≤(L)<24	24≤(L)<75 ⁽²⁾
portable fire extingui- sher ⁽³⁾	accommodation space	1 on each deck		2 on each deck
	wheel house	1		
	galley	1		
	engine control room	1		
	engine room	2	3	4
	machinery space	1 within each space		
fire bucket with lanyard ⁽⁴⁾		1	2	3
main fire pump	power	1 ⁽⁵⁾	1 ⁽⁵⁾	1 ⁽⁶⁾
	manual			-
emergency fire pump	power	-	-	1 ^{(5) and (7)}
	manual			
fire main + hose + hydrant + jet nozzle		quantity, size, length, type, location and arrangement shall be in accordance with the relevant plans approved under Part 3 of this Regulation		quantity, size, length, type, location and arrangement shall be in accordance with the relevant plans approved under Part 3 of this Regulation ⁽⁸⁾

Notes:

(1) (a) A flat-top work barge, a landing pontoon and any other type of local vessel

having no engine, oil fuel tank, electrical switchboard and combustible materials on board is not required to be provided with any fire-fighting apparatus.

- (b) A local vessel that is used or to be used for carrying any dangerous goods other than oil shall be provided with such additional fire-fighting apparatus as the Director may specify in writing.
- (2) The requirement for a local vessel of 75 m or more in length shall be specified by the Director on a case-by-case basis.
- (3) A Class II vessel that falls within paragraph (b) of Schedule 2 is not required to be provided with any portable fire extinguisher. Instead, such a vessel shall be provided with 1 fire bucket with lanyard.
- (4) Applicable to Category B vessels only. If a fire main is provided, then no fire bucket is required.
- (5) The fire pump and its sea suction shall be situated outside the engine room.
- (6) The fire pump may be propulsion engine driven, provided it can be readily engaged to the engine.
- (7) Only for a Class II vessel that is fitted with any propulsion engine.
- (8) A Class II vessel of 24 m or more in length shall be provided with the following additional appliances –
 - (a) 1 hydrant in each engine room; and
 - (b) 1 spray nozzle on each deck and in each engine room.

UNQUOTE

- [Note:(A) The fire fighting requirement for a local vessel of 75 m or more in length will be considered based on the following factors:
- (a) the vessel's mode of operation;
 - (b) the vessel's intended service;
 - (c) the vessel's size;
 - (d) the vessel's construction;
 - (e) the total number of persons on board (and crew manning);
 - (f) the compliance of regional standards or international standards, if applicable;
and
 - (g) potential hazards to the safety of the vessel and any person or property on board the vessel.]

CHAPTER VI

LIFE-SAVING APPLIANCES AND ARRANGEMENTS

(For any vessel carrying not more than 60 passengers)

1 General

- 1.1 All life-saving appliances should be of an approved type. Appliances, which conform to the International Life-Saving Appliance (LSA) Code, adopted by the Maritime Safety Committee of IMO by Resolution MSC.48 (66) and approved by the maritime administration of a convention country or a classification society on behalf of a maritime administration are acceptable.
- 1.2 Very high frequency (VHF) radio equipment should be of a type approved by the Office of the Telecommunications Authority, Hong Kong.
- 1.3 One lifebuoy of 760 mm diameter is deemed to support two persons.
- 1.4 The buoyant lifeline should be attached to a lifebuoy and be placed in the proximity of the ship's side.
- 1.5 Lifebuoys should be marked on both sides with the name or certificate of ownership number of the vessel on which they are carried.

2 Stowage of Appliances

- 2.1 Whenever a local vessel is being used or operated, every life-saving appliance carried on board the vessel shall be –
 - (a) in working order;
 - (b) ready for immediate use; and
 - (c) placed in a position easily accessible.
- 2.2 Lifebuoys should be distributed on both sides of the vessel. They are to be placed in racks unsecured to allow them to float-free as necessary.
- 2.3 Lifejackets should be stowed in racks or under seats and be clearly marked. They should be evenly distributed according to the disposition of persons on board.

3 Maintenance of Appliances

- 3.1 All life-saving appliances should be maintained in working order and ready for immediate use.

4 Safety Briefing

- 4.1 When a Class IV vessel engaged in chartering, coxswain should ensure that all persons on board are briefed for safety as per annex 1.

5 Scale of Life-saving Appliances

5.1 Provisions of life-saving appliances in Survey Regulation Schedule 3 (table 7) are quoted as below:-

QUOTE

Table 7

Class IV vessels that are licensed to carry not more than 60 passengers and are not let for hire or reward and operate within waters of Hong Kong

Life-saving appliances	Quantity	
lifejacket	100% ⁽¹⁾	
lifebuoy	Vessel registered length (L)(m)	Number
	(L) < 12	1
	12 ≤ (L) < 21	2
	21 ≤ (L) < 37	4
	(L) ≥ 37	6
buoyant lifeline ⁽²⁾	1	

Notes:

- (1) Where the required quantity of life-saving appliances is expressed as a percentage, it means the percentage of the total number of persons on board.
- (2) The minimum length of buoyant lifeline is -
- | | |
|----------------|---------|
| For (L) < 21 m | 18 m |
| For (L) ≥ 21 m | 27.3 m. |

UNQUOTE

5.2 Provisions of life-savings appliances in Survey Regulation Schedule 3 (table 1) are quoted as below:-

QUOTE

Table 1

(iii) Class IV vessels that are licensed to carry 13 to 60 passengers but are let for hire or reward

Operation area	Specified sheltered waters	Anywhere within waters of Hong Kong
Life-saving appliances		
lifejacket	any number)	100% adult lifejacket + 5% children lifejacket
lifebuoy	minimum number per Table 2) Total 100% ⁽¹⁾ and ⁽²⁾)	
buoyant lifeline ⁽³⁾	1 for vessel (L)<12 m 2 for vessel (L)≥12 m	
self-igniting light ⁽⁴⁾	2	
VHF (very high frequency) radio installation ⁽⁵⁾	1	

Notes:

- (1) Where the required quantity of life-saving appliances is expressed as a percentage, it means the percentage of the total number of persons on board.
- (2) The scale for a floating restaurant may be reduced by 50% if it is –
 - (a) attached to the shore and provided with adequate gangways; or
 - (b) not attached to the shore, but provided with –
 - (i) above-water flotation in the form of a steel embarkation pontoon moored alongside; or
 - (ii) steel tenders at both ends capable of being towed to a safe place away from the floating restaurant.

- (3) The minimum length of buoyant lifeline for a Class I vessel or Class IV vessel that is licensed to carry more than 60 passengers is 30 m.

The minimum length of buoyant lifeline for a Class IV vessel that is licensed to carry not more than 60 passengers is –

For $(L) < 21$ m 18 m

For $(L) \geq 21$ m 27.3 m.

- (4) Required for a Class I vessel or Class IV vessel that carries more than 100 passengers.
 (5) Required for a ferry vessel that plies outside the Victoria port.

Table 2
 Minimum number of lifebuoys as required in Table 1

Vessel registered length (L)(m)	Number of lifebuoys
$(L) < 12$	2
$12 \leq (L) < 15$	4
$15 \leq (L) < 18$	6
$18 \leq (L) < 21$	8
$21 \leq (L) < 24$	10
$(L) \geq 24$	12

UNQUOTE

5.3 Provisions of life-savings appliances in Survey Regulation Schedule 3 (table 3) are quoted as below:-

QUOTE

Table 3

(ii) Class IV vessels that are licensed to carry not more than 12 passengers but are let for hire or reward

Operation	Specified sheltered waters	Anywhere within waters of Hong Kong
lifejacket ⁽¹⁾	any number ⁽²⁾)	100% adult lifejacket + <5% children lifejacket> ^{(3), (4) and (5)}
lifebuoy ⁽¹⁾	any number)	
buoyant lifeline ^{(4) and (6)}	1 for vessel (L)<12 m 2 for vessel (L)≥12 m	minimum number per Table 5
<self-igniting light (for vessel (L)≥ 37 m)> ⁽⁵⁾		2

Notes:

- (1) (a) For a transportation sampan that falls within paragraph (b) of Schedule 2, at least 1 lifejacket for every person on board and 1 lifebuoy are required.
- (b) For a work boat that falls within paragraph (b) of Schedule 2, at least 1 lifebuoy is required.
- (2) Lifejacket is not required for –
 - (a) a landing platform;
 - (b) a landing pontoon; and
 - (c) a stationary vessel that is a separation barge.
- (3) Where the required quantity of life-saving appliances is expressed as a percentage, it means the percentage of the total number of persons on board.
- (4) Special requirements for a floating dock –
 - (a) 100% lifejacket is required only when any of the tropical cyclone warning signals commonly referred to as No. 8NW, 8SW, 8NE, 8SE, 9 or 10 is in force and any person is staying on board;

- (b) the total number of lifebuoy provided shall not be less than that required in Table 5, or 1 lifebuoy for every 26 m or part thereof of each of the side wall, whichever is the greater;
 - (c) 4 buoyant lifelines shall be provided and placed at each corner of the dock; and
 - (d) if the dock is not attached to the shore, 1 or more launches shall be provided to carry the workmen to shore Page VI-5
- (5) Requirements in angle brackets (“< >”) are for new vessels only.
- (6) The minimum length of buoyant lifeline is 30 m.

UNQUOTE

CHAPTER VII

LIGHTS, SHAPES AND SOUND SIGNALS

(For any vessel carrying not more than 60 passengers)

1 General

- 1.1 Lights, shapes and sound signals provided for navigational purposes shall be in accordance with the provisions of the Merchant Shipping (Safety) (Signals of Distress and Prevention of Collisions) Regulations, which give effect to the International Regulations for Preventing Collisions at Sea 1972 (COLREG), as amended.
- 1.2 All lanterns and sound signals should be of a type approved/certified by the Director or by the Maritime Administration of a convention country.

2 Definitions

For the purpose of this chapter, except where the context otherwise requires: -

- (a) The "breadth (B)" of a vessel mean her greatest breadth.
- (b) The term "height above the hull" means height above the uppermost continuous deck. This height shall be measured from the position vertically beneath the location of the light.

3 Navigation Lights

Lanterns may be either electric or oil type.

4 Lights and Sound Signals

The tables at the following paragraphs indicate the signal appliances to be carried by vessels of the length (L) as indicated.

4.1 Power Driven Vessels $L \geq 50$ m

Item	No. Required	Intensity/Size	Remarks
Masthead Light	1 fwd 1 aft	visibility 6 n. miles	
Sidelight (P&S)	1 set	" 3 n. miles	
Stern Light	1	" 3 n. miles	
Anchor Light	1 fwd 1 aft	" 3 n. miles	all-round white
N.U.C. Light	2	" 3 n. miles	all-round red
Black Ball	3	0.6 m diameter	
Black Diamond	1	0.6 m diameter, 1.2 m height	
Whistle	1	Audibility $50 \text{ m} \leq L < 75 \text{ m}$ 1 n. mile $75 \text{ m} \leq L < 200 \text{ m}$ 1.5 n. mile	
Bell	1	0.3 m mouth diameter	
Gong	1		for $L \geq 100$ m

4.2 Power Driven Vessels $20 \text{ m} \leq L < 50$ m

Item	No. Required	Intensity/Size	Remarks
Masthead Light	1	visibility 5 n. miles	
Sidelight (P&S)	1 set	" 2 n. miles	
Stern Light	1	" 2 n. miles	
Anchor Light	1	" 2 n. miles	all-round white
N.U.C. Light	2	" 2 n. miles	all-round red
Black Ball	3	0.6 m diameter	
Black Diamond	1	0.6 m diameter, 1.2 m height	
Whistle	1	audibility 1 n. mile	
Bell	1	0.3 m. mouth diameter	

4.3 Power Driven Vessels $12\text{ m} \leq L < 20\text{ m}$

Item	No. Required	Intensity/Size	Remark
Masthead Light	1	visibility 3 n. miles	
Sidelight (P&S)	1 set	" 2 n. miles	may be combined lantern
Stern Light	1	" 2 n. miles	
Anchor Light	1	" 2 n. miles	all-round white
N.U.C. Light ^(Note)	2	" 2 n. miles	all-round red
Black Ball	3	dimensions commensurate with size of vessel	
Black Diamond	1	ditto	
Whistle	1	audibility 0.5 n. miles	
Sound signal	1	means of making efficient sound signal	

Note: N.U.C. means "Not Under Command"

4.4 Power Driven Vessels $L < 12\text{ m}$

Item	No. Required	Intensity/Size	Remarks
Masthead Light	1	visibility 2 n. miles	
Sidelight (P&S)	1 set	" 1 n. miles	may be combined lantern
Stern Light	1	" 2 n. miles	
Anchor Light	1	" 2 n. miles	all-round white
Black Ball	3	dimensions commensurate with size of vessel	
Black Diamond	1	ditto	
Sound Signal	1	means of making efficient sound signal	

4.5 Power Driven Vessels $L < 12\text{ m}$ may, in lieu of the lights prescribed in 4.4 above, exhibit an

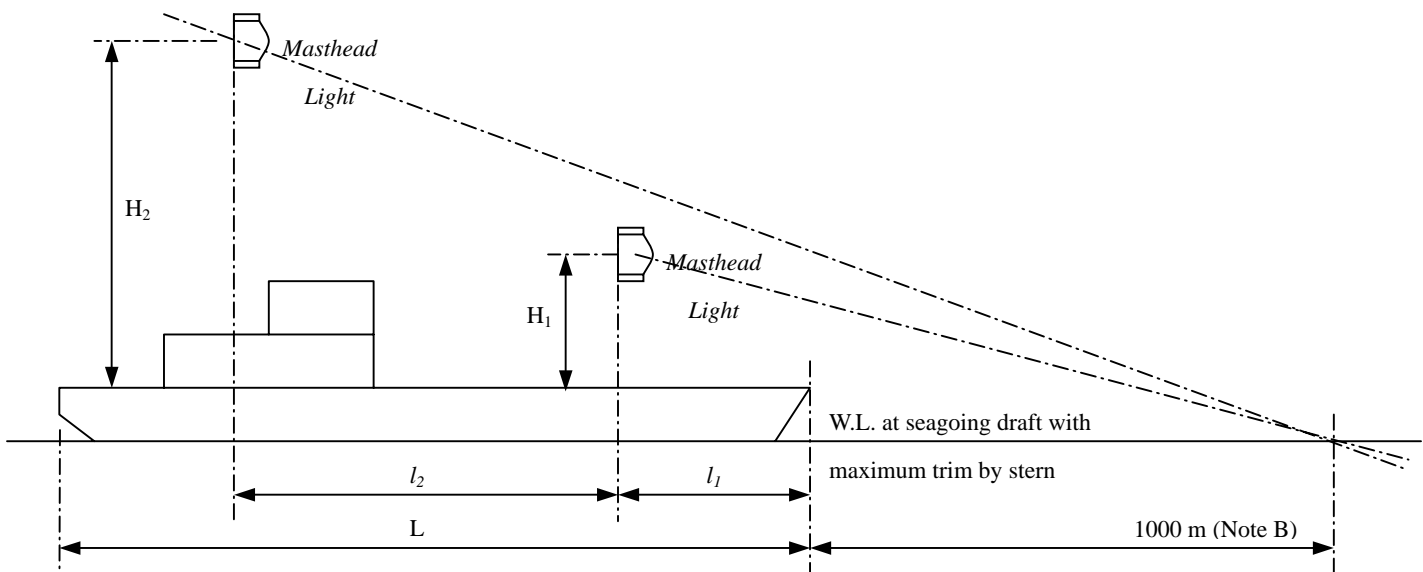
all-round white light and sidelights.

- 4.6 Power Driven Vessels $L < 7$ m and maximum speed not exceed 7 knots may, in lieu of the lights prescribed in 4.4 above, exhibit an all-round white light and shall, if practicable, also exhibit sidelights.

5 Positioning of Light Signals

Except in special cases, the masthead light, sidelights and stern light shall be so placed as to be above and clear of all other lights and obstructions.

5.1 Masthead Light



L (m)	$L < 12$ (Note A)	$12 \leq L < 20$ (Note A)	$20 \leq L < 50$ (Note A)	$L \geq 50$
l_1	--	--	--	$\leq 0.25L$
l_2	--	--	--	$\geq 0.5 L$
H_1	may be < 2.5 m (Note D, F)	≥ 2.5 m (Note C, F)	≥ 6 m or ship's breadth (whichever is greater), but need not > 12 m (Note F)	
H_2	--	--	--	$\geq (H_1+4.5)$ (Note E, F)

Notes: -

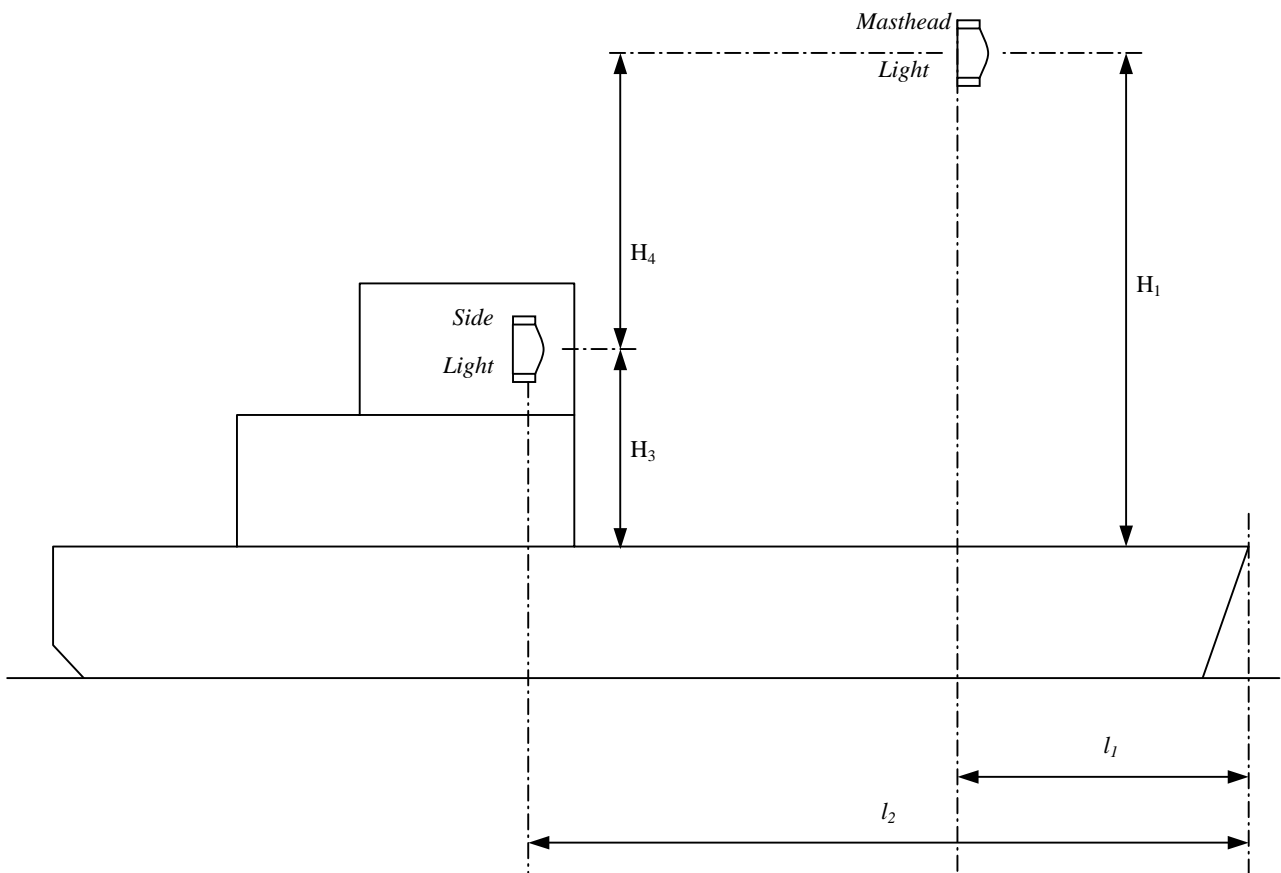
- (A) On vessels of $L < 50$ m only one masthead light is required.
- (B) The vertical separation of masthead lights of power-driven vessels shall be such that in all normal conditions of trim the after light will be seen over and separate from the forward light at a distance of 1000 m from the stem when viewed from sea level.
- (C) On vessels of $12 \text{ m} \leq L < 20$ m the height is measured from the gunwale.
- (D) Vessels of $L < 12$ m carry the uppermost light at a height of less than 2.5 m above the gunwale. When, however, a masthead light is carried in addition to sidelights and a stern light or the all-round light prescribed in the regulation is carried in addition to sidelights, then such masthead light or all-round light shall be carried at least 1m higher than the sidelights.
- (E) The masthead light of any high speed vessel with a length (L) to breadth ratio of less than 3 may be placed at a height related to the breadth of the vessel lower

than that prescribed for H_1 , provided that the base angle of the isosceles triangles formed by the sidelights and masthead light, when seen in end elevation, is not less than 27° .

5.2 Sidelights

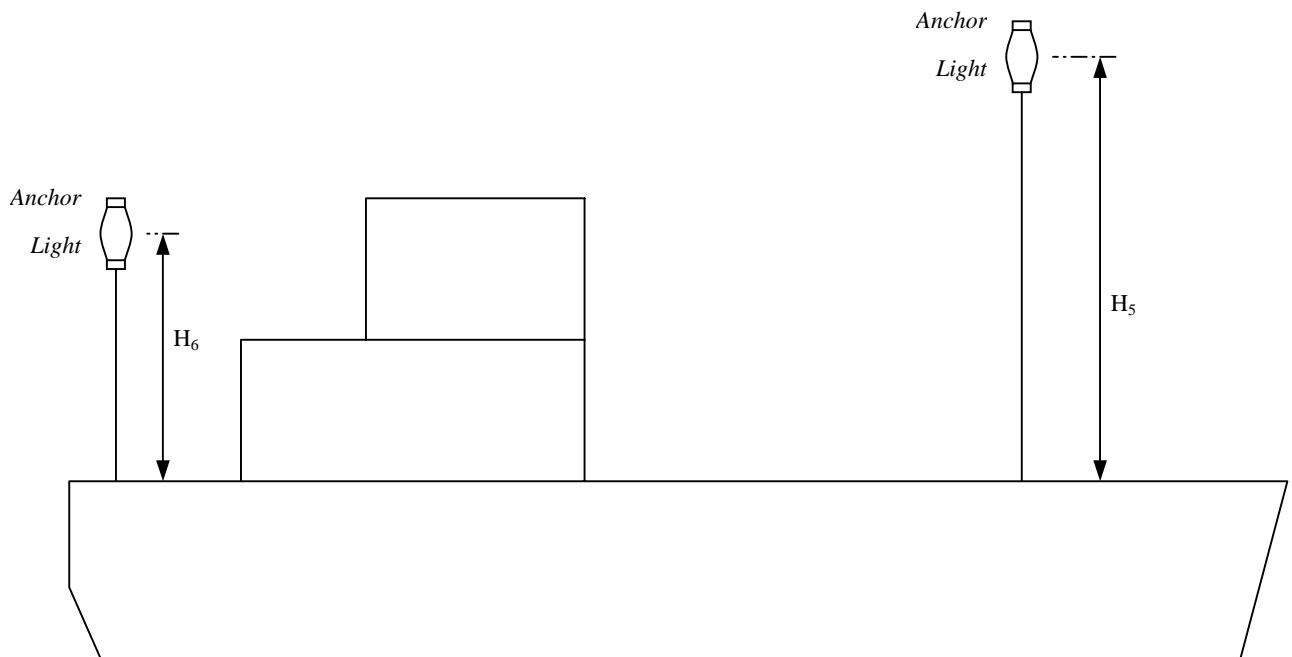
5.2.1 The sidelights of vessels of $L \geq 20$ m shall be fitted with inboard screens painted matt black. On vessels of $L < 20$ m the sidelights, if necessary to provide with horizontal sectors, shall be fitted with inboard matt black screens. With a combined lantern, using a single vertical filament and a very narrow division between the green and red sections, external screens need not be fitted.

5.2.2 Sidelights shall not be so low as to be interfered with by deck lights. They shall be placed at or near the side of the vessel (recommended not more than 0.1 ship's breadth from shipside).



L (m)	L < 20	12 ≤ L < 50	L ≥ 50
l_3	no requirement	$> l_1$ (i.e. sidelight not to be in front of masthead light)	$> l_1$ (i.e. sidelight not to be in front of forward masthead light)
H_3	$\leq 0.75 H_1$		
H_4	in the case of combined lantern, $\geq 1\text{ m}$	--	--

5.3 Anchor Light

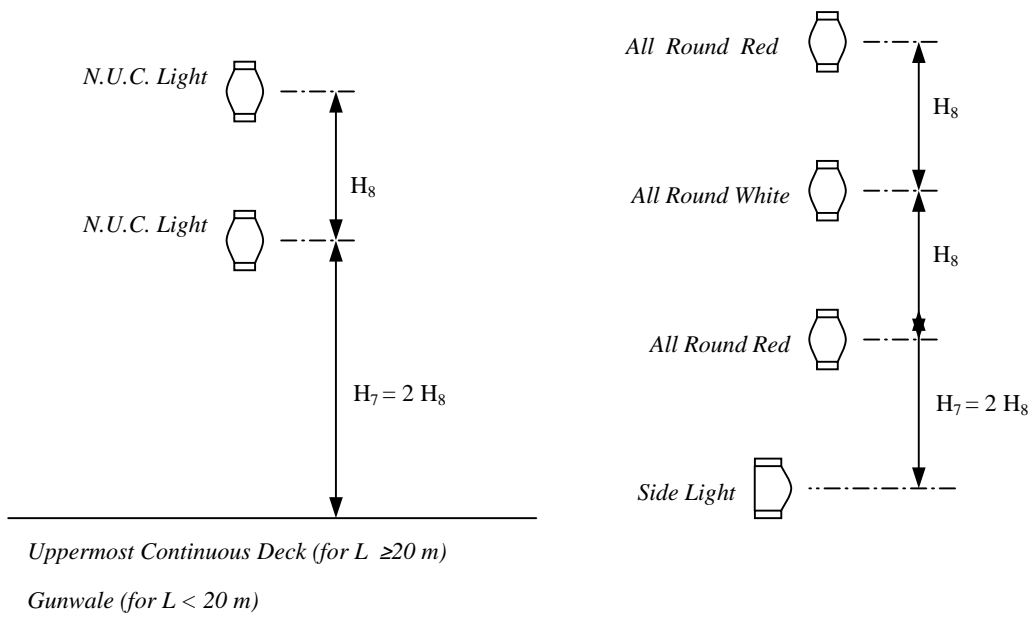


L (m)	L < 50 (Note A)	L ≥ 50
H_5	Position can best be seen	≥ 6 m
H_6		$\leq (H_5 - 4.5)$

Note: -

(A) On vessels of L < 50 m, only one anchor light is required.

5.4 Vertical Spacing of Lights



L (m)	$L < 20$	$L \geq 20$
H_7	≥ 2 m (Note A)	≥ 4 m (Note A)
H_8 (Note B)	≥ 1 m	≤ 2 m

Notes: -

- (A) In the case of the after masthead light, H_7 shall be at least 4.5 m higher than the forward masthead light.
- (B) When 3 lights are carried they shall be equally spaced.

CHAPTER VIII

DOMESTIC LIQUEFIED PETROLEUM GAS INSTALLATION

(For any vessel carrying not more than 60 passengers)

1 Marking

- 1.1 Liquefied petroleum gas (LPG) cylinders should be clearly marked with the name of their contents.

2 Properties of LPG

- 2.1 Possible dangers arising from the use of LPG appliances include fire, explosion and asphyxiation due to leakage of gas from the installation, etc.
- 2.2 LPG is heavier than air and, if released in a space with a coaming, may travel some distance whilst seeking the lowest part of that space and its adjoining spaces. The accumulation of LPG poses dangerous consequences when triggered by an inadvertent spark or other means of ignition.

3 Storage

- 3.1 No more than 50 kg of LPG should be carried on board at any time.
- 3.2 LPG cylinders and expended cylinders should as far as practicable be stowed on open decks. The cylinders and all valves, pressure regulators and pipes leading from such cylinders should be properly secured, protected against mechanical damage, excessive variations in temperature and direct rays of the sun. The cylinders should be installed upright to prevent liquid from flowing into the pipes.
- 3.3 The LPG cylinder storage locker, and all associated pipes and joints, should be readily accessible in order to check for suspected leaks; and should be as far away from any air pipes, ventilators, hatchways, etc. and as close to the cooking appliances as practicable.
- 3.4 Except as necessary for service within the space, electrical wiring and fittings should not be permitted within compartments used for the storage of LPG. Where such electrical fittings are installed, they should be to the satisfaction of the Director for use in a flammable atmosphere. Sources of heat should be kept clear of such spaces and "不准吸煙 No Smoking" and "不准明火 No Naked Lights" notices should be displayed in a prominent position.
- 3.5 Compartments used for the storage of LPG should not be used for the storage of any other combustible products nor for tools or objects, nor for any part of the gas distribution system.

4 Installation

4.1 LPG pipes

- (a) LPG pipes should be of solid drawn copper alloy or stainless steel with

appropriate compression or screwed fittings.

- (b) Flexible connections should be avoided. Should they be used, an approved type of synthetic rubber hose connection should be fitted. When used with flexible connections, appliances should be controlled from the nearest isolating valve, fitted on a metallic pipe.

4.2 LPG cylinder storage locker

- (a) For storage above main deck:

- ventilation openings should be provided on top and bottom of the locker;
- when an LPG pipe is arranged to pass through a bulkhead, the opening on the bulkhead should be of a suitable size and height, to avoid any gas leaking into the accommodation. If the LPG pipe is a synthetic rubber hose, precautions should be taken to prevent the hose being chafed. Protecting conduit should be fitted where necessary.

- (b) For storage below main deck:

- the locker bulkhead should be of gastight construction. Bulkhead piece should be fitted where a LPG pipe is arranged to pass through a bulkhead;
- adequate ventilation should be provided at the top and bottom of the locker and be led overboard;
- gas detectors should be fitted to detect any accumulation of LPG in the bilges.

- 4.3 Newly installed or converted LPG appliances should be of the type approved by the Gas Authority, EMSD, with mark “GU” on the appliance. Existing appliances are recommended to fit with the automatic gas shut-off device to stop the supply of LPG in the event of flame failure.



5 Maintenance

- 5.1 Changing cylinders should be done according to the instructions of gas dealers. If it is suspected that either a cylinder or its valve is faulty, it should be landed ashore as quickly as possible, and until that time kept in the open air, clear of any gratings, hatches or other openings leading below decks.
- 5.2 Sufficient ventilation should be provided at the cooking space to displace the products of combustion and respiration.

6 Inspection

- 6.1 The vessel's crew or operator should regularly examine joints of the LPG installation. If a leakage is suspected, the cylinder stop valve should be turned off immediately; the vessel's engine should be stopped, electrical appliances must not be switched on/off and no other means of ignition allowed until it is certain that the vessel is clear of gas. On no account should appliances be put back into use without the leak having been found and rectified.

Chapter IX

Vessel Operator Requirements

1. General

- 1.1 s.47(4) of the Merchant Shipping (Local Vessels)(Certification and Licensing) Regulation states that “A Class IV vessel or an ancillary vessel of a Class IV vessel that is more than 3 metres in length overall or is fitted with engines of more than 3 kilowatts total propulsion power shall not be underway unless there is on board a person in charge of the vessel who is the holder of a local certificate of competency as a pleasure vessel operator.” However, it is the responsibility of the owner or the coxswain any Class IV vessel to ensure that the vessel is safe for its intended operation when underway, including the consideration of its essential fittings and number of crew. The followings serve as guidance for such practice at operation.

2. Certificate of Competency

Local Certificates of Competency (COC) issued before and after commencement of the Merchant Shipping (Local Vessels)(Local Certificate of Competency) Rules “(LCOC)R”, and its validity limitations are shown in the following table:-

Certificates of Competency (valid for Hong Kong waters only) issue before commencement of(LCOC)R and validity limitations	Equivalent Local Certificate of Competency issued under (LCOC)R ^(Note 1) and validity limitations
Pleasure Vessel Master Grade I (for vessel of 20 m or less) <u>PLUS</u> Pleasure Vessel Engineer Grade I or Grade II	Vessel Operator Grade 1 (for all pleasure vessels)
Pleasure Vessel Master Grade II (for vessel of 13.7 m or less in length) <u>PLUS</u> Pleasure Vessel Engineer Grade I or Grade II	Vessel Operator Grade 2 (for pleasure vessel of not more than 15m in length overall)

Note: (1) Any enquiry about the equivalence of other LCOC can be made to the Seafarers Certification Section of Marine Department

3. Vessel to be operated by a single operator

- 3.1 For the sake of vessel operation and navigational safety, it is an acceptable practice that any Class IV vessel carrying not more than 12 passengers, having vessel length less than 12 metres or fitted with engine not exceeding 83 kW (111 BHP) total propulsion power, can be operated by a single person in charge of the vessel who is the holder of a local certificate of competency as a pleasure vessel operator (i.e. COC – Pleasure Vessel Operator Grade I or Grade II) or equivalent certificate.

4. Vessel to be operated by Combined Coxswain and Engine Operator

- 4.1 Other than those vessels indicated in paragraph 3.1, for any Class IV vessel carrying not more than 60 passengers, having vessel length not exceeding 24 metres or its total propulsion power not more than 1,000kW (1,340 BHP), it is recommended as acceptable practice that the vessel can be considered safe and properly controlled by one person holding Local Certificate of Competency as a Pleasure Vessel Operator Grade 1 or equivalent, i.e. a “combined coxswain” operation, provided that the following arrangements are met:-
- (a) the vessel is appropriately equipped for unattended machinery space operation. For vessels engaging in chartering, these requirements are indicated in para 3.14 of Chapter III; and
 - (b) there should be at least one additional crewmember with common engineering knowledge on board to assist the coxswain while the vessel is underway in order to cope with operational needs including helping out emergency measures, etc..
- 4.2 The requirement in para 4.1 (b) can be waived provided that the vessel is not carrying any passenger and the owner satisfies that coxswain can properly control the vessel safely for the voyages intended.
- 4.3 Any vessel, in particular for vessel under “combined coxswain” operation, the coxswain should understand well that he should not leave the vessel navigating itself when he has left the steering position. Furthermore, it is the owner, agent and the coxswain of the vessel to ensure safe embarkation and dis-embarkation under operation.

SAFETY BRIEFING FOR A CLASS IV VESSEL ENGAGED IN CHARTERING

1. Before the commencement of any voyage under charter, the coxswain should ensure that all persons on board are briefed on the stowage and use of personal safety equipment such as lifejackets, buoyancy aids and lifebuoys, and the procedures to be followed in cases of emergency.

2. In addition to the requirements of paragraph 1, the coxswain should brief at least one other person or assistant who will be sailing with the vessel regarding the following: -
 - 2.1 Procedures for the recovery of a person from the sea;
 - 2.2 Location of first aid kit, if any;
 - 2.3 Procedures and operation of radios carried on board, if any;
 - 2.4 Location of navigation light switches and other light switches;
 - 2.5 Location and use of fire-fighting equipment;
 - 2.6 Method of starting, stopping, and controlling the main engine; and
 - 2.7 Handling emergency situations and communication arrangements.

2. Safety guide plates or cards will be considered to be an acceptable way of providing the information required in paragraph 2 above.

Provisions in Merchant Shipping (Local Vessels)(Certification and Licensing) Regulation on matters relating to restrictions on Class IV vessels and let for hire or reward

The provisions are quoted as below:-

QUOTE

6. Restrictions on Class IV vessels

- (1) A Class IV vessel shall not be used otherwise than –
 - (a) by the owner exclusively for pleasure purposes; or
 - (b) if it has been let to any person, by that person exclusively for pleasure purposes.
- (2) A Class IV vessel shall not be let for hire or reward unless –
 - (a) it is let under the terms of a written charter agreement or written hire-purchase agreement;
 - (b) the agreement contains a warning that states clearly –
 - (i) that the person to whom the vessel is let commits an offence if he does not comply with section 6(5)(b) of the Merchant Shipping (Local Vessels) (Certification and Licensing) Regulation (L.N. 27 of 2004);
 - (ii) that the person to whom the vessel is let should read carefully section 6 (except subsections (1), (2) and (4)) of the Regulation; and
 - (iii) where in the agreement the full text of those provisions may be found;
 - (c) the agreement contains, either in its body or as its attachment, the full text of this section (except subsections (1), (2) and (4));
 - (d) the warning and text referred to in paragraphs (b) and (c) are in the same language as that of the remaining parts of the agreement and are presented prominently in the agreement; and
 - (e) the agreement is signed by the owner and the person to whom the vessel is let.
- (3) A Class IV vessel shall not be let for hire or reward for an intended service that involves the carriage of passengers unless there is in force in respect of the vessel –
 - (a) such certificate of inspection certifying that the vessel is fit for the intended service as is required under the Survey Regulation for a Class IV vessel of the type for which the vessel is certificated; and
 - (b) such policy of insurance in respect of third party risks as is required under the Insurance Regulation for a Class IV vessel of the type for which the vessel is certificated, having regard to the intended service.

(4) If, without reasonable excuse, subsection (1), (2) or (3) is contravened the owner of the vessel, his agent and the coxswain each commits an offence and is liable on conviction to a fine at level 3.

(5) Where a Class IV vessel is let for hire or reward –

- (a) the owner, his agent and the coxswain shall ensure that there is kept on board the vessel –
 - (i) the relevant written charter agreement or written hire-purchase agreement; and
 - (ii) if any passenger is carried in the vessel, the certificate of inspection and the policy of insurance referred to in subsection (3), or certified copies of them;
- (b) the person to whom the vessel is let shall ensure that throughout the period when the person is in possession of the vessel –
 - (i) the vessel is not used otherwise than by him exclusively for pleasure purposes; and
 - (ii) the documents referred to in paragraph (a) are kept on board the vessel; and
- (c) the coxswain shall, on request by an authorized officer, produce for inspection the documents referred to in paragraph (a).

(6) A person who without reasonable excuse contravenes subsection (5), commits an offence and is liable on conviction to a fine at level 2.

(7) A person to whom a Class IV vessel is let does not have a reasonable excuse for contravening subsection (5)(b)(ii) merely because the person's contravention is attributable to the contravention by the owner, his agent and the coxswain of subsection (5)(a).

(8) For the purpose of this section, a Class IV vessel is to be regarded as being used by a person exclusively for pleasure purposes if –

- (a) in the case of the person being an individual, the vessel is used to carry the individual, his family members, relatives, friends and employees, and family members, relatives and friends of his employees, for their pleasure purposes; or
- (b) in the case of the person being a club, company, partnership or association of persons, the vessel is used to carry its members and employees, and family members, relatives and friends of those members and employees, for their pleasure purposes.

(9) If a person to whom a Class IV vessel is let under a hire-purchase agreement is named in the certificate of ownership as owner by virtue of section 9(b), then subsections (3) and (5) apply neither to the hire-purchase agreement nor to the vessel as far as that agreement is concerned.

UNQUOTE

Provisions in Merchant Shipping (Certification and Licensing) Regulation on matters relating to Certificate of Competency required for a Class IV vessel

The provisions are quoted as indicated below.

QUOTED

47. Vessels required to carry operators holding local certificates of competency

(1) A Class I, II or III vessel that is fitted with any propulsion engines shall not be underway unless there is on board –

- (a) a person in charge of the vessel who is the holder of a local certificate of competency as a coxswain appropriate for the vessel, or any equivalent certificate specified in the Local Certificate of Competency Rules;
- (b) in addition to the person referred to in paragraph (a), a person in charge of the engines who is the holder of a local certificate of competency as an engine operator appropriate for the total propulsion power of the engines of the vessel, or any equivalent certificate specified in the Local Certificate of Competency Rules; and
- (c) such additional number of crew with such qualification, training and experience as may be specified in the full licence or temporary licence for the vessel.

(2) Subsection (1)(b) does not apply to a local vessel specified in Schedule 3.

(3) It is sufficient compliance with subsection (1)(a) and (b) if –

- (a) a Government surveyor, having regard to the size of the vessel, the engines of the vessel, and the location of the controls, certifies in writing that a Class I, II or III vessel (including its engines) can be properly controlled by one person; and
- (b) the person in charge of the vessel (including its engines) is the holder of both of the certificates referred to in subsection (1)(a) and

(4) A Class IV vessel or an ancillary vessel of a Class IV vessel that is more than 3 metres in length overall or is fitted with engines of more than 3 kilowatts total propulsion power shall not be underway unless there is on board a person in charge of the vessel who is the holder of a local certificate of competency as a pleasure vessel operator, or any equivalent certificate as specified in the Local Certificate of Competency Rules.

(5) If subsection (1) or (4) is contravened, the owner and the coxswain of the local vessel each commits an offence and is liable on conviction to a fine at level 3 and imprisonment for 6 months.

48. Person under 16 prohibited from operating certain vessels

(1) A person under the age of 16 shall not steer, navigate or operate a local vessel that is fitted with a propulsion engine.

(2) If subsection (1) is contravened by any person, that person, the owner and the coxswain of the local vessel each commits an offence and is liable on conviction to a fine at level 3.

50. Local certificates of competency to be carried on board

(1) A person while in charge of a local vessel fitted with a propulsion engine shall carry with him in the vessel the local certificates of competency, or their equivalents, required under sections 47 and 49 and shall, on request by an authorized officer, produce them for inspection.

(2) A person while in charge of the engines of a local vessel fitted with a propulsion engine shall carry with him in the vessel the local certificates of competency, or their equivalents, required under sections 47 and 49 and shall, on request by an authorized officer, produce them for inspection.

(3) A person who contravenes subsection (1) or (2) commits an offence and is liable on conviction to a fine at level 2.

UNQUOTED

SAFETY PRECAUTIONS ON THE PROPER STORAGE AND USE OF PETROL

1. No excessive quantity of petrol should be carried on board a vessel.
2. If portable container is used to carry petrol, the containers should be of a type approved by the manufacturer of petrol engine and fitted with air vent (if necessary, owner must submit supporting document issued by the manufacturer, e.g. invoice, sale receipt etc.).
3. The portable container should be stored in a well ventilated place, if necessary, on the open deck. The containers and all valves and pipes leading from such containers should be made of suitable material and properly secured and protected against mechanical damage, excessive temperature variations and direct sunlight. The container, storage cabinet, associated valve, pipes and joints should not have any fuel leaking, and should be readily accessible for checking of suspected leaks.
4. Sources of heat should be kept clear of the storage spaces and caution notices “不准吸煙 No Smoking” and “不准明火 No Naked Lights” should be displayed in a prominent position when necessary.
5. Petrol should not be used for other purposes, e.g. cleaning of engine parts, which may impose an unnecessary fire risk.
6. Unless it is certain that the containers storage space is well ventilated, otherwise the containers and the petrol should be removed from the storage place which is expected to be unattended for a period of time.

CERTIFICATE OF INSPECTION FOR A CLASS IV VESSEL

船隻擁有權證明書編號 Certificate of Ownership	船名 Name of Vessel	
總長度(LOA) (米) Length overall (LOA)(metre)	長度(L) (米) Length (L)(metre).....	最大寬度(米) Extreme Breadth (metre)
總噸位 Gross Tonnage	淨噸位 Net Tonnage	建造日期 Date of build
全船引擎總動力 (千瓦) Total engine power on board (kW).....	Let for hire or reward 出租以收取租金或報酬的人數	Number displayed in Operating Licence 在運作牌照顯示的人數
總乘客人數 Total number of passengers		
最少船員人數 Minimum number of crew		
允許運載總人數 Total number of persons permitted		

茲證明上述船隻已由下列人士/機構進行檢驗

This is to certify that the above named vessel was examined by
..... 機構名稱 of.....
..... 於 at 日期 on

並顯示已符合相關規例及“工作守則-第 IV 類船隻安全標準”的相關規定。夾附的檢驗記錄與核證最高可運載量(包括乘客與船員)等記錄, 連同安全設備清單, 包括消防設備、救生設備、燈號、號型及聲號經核實確定有設置、維修及存放船上。

and found to be in accordance with the relevant regulations and relevant requirements of the “Code of Practice – Safety Standards for Class IV vessels”. Attached are the Inspection Record, record on the certified maximum carrying capacity of persons (including passengers and crew) etc. and the listed items of safety equipment including fire-fighting appliances, life-saving appliances and lights & sound signals, which are confirmed, equipped, maintained and kept onboard.

本證書有效期至..... 但船隻、其機器及設備應保持有效維修及按上述安全工作守則的規定檢驗和下列條件(如有): -

This certificate will remain valid until subject to the vessel, its machinery and equipment being efficiently maintained and examined in accordance with the above-mentioned Code, and to the following conditions, (if any): -

核准操作範圍是在香港水域及下列限制 (如有) the permitted area of operation is within waters of Hong Kong and with restrictions as follows (if any): -.....

船上排/乾塢檢驗的最近一次日期 / Date of last slip or docking inspection on _____
上一次最後檢查日期 / Date of pervious final inspection on _____

簽發於 Issued at 日期 on

特許驗船師姓名/ 特許機構名稱及其驗船師姓名
Name of Authorized Surveyor / Authorized Organization & name of surveyor.

簽署 Signature

日期 Date



備註 Note: 此證書應放置於船上顯眼處。 This Certificate to be displayed on board in a conspicuous position.

有出租船或租購書面協議的遊樂船檢驗紀錄 (只適合在良好天氣下在香港水域範圍內操作) INSPECTION RECORD FOR PLEASURE VESSEL LET UNDER THE TERMS OF A WRITTEN CHARTER OR HIRE-PURCHASE AGREEMENT (only for operating within Hong Kong waters and in favourable weather conditions)	
Name of Vessel.....Certificate of Ownership No:..... 船名 :.....擁有權證明書編號 :.....	
檢驗項目 Inspection Items	備註 Remark
船體構造 Hull Construction	
1. 船體結構及上層建築 (包括是否玻璃纖維/ 木質船體完好有無損壞裂縫, 船體各連接處有無鬆動和漏水現象) Hull structure and superstructure (including integrity of GRP/ wooden hull, or any faults in welds or joints, damage or cracking, any evidence of loosing or leakage in way of connections)	
2. 船體內部提供浮力結構 (包括密閉性是否完好) Hull buoyancy structure (including whether or not with tightness integrity)	
3. 內部艙壁 (包括確定完整性) Internal bulkheads (including assurance of Integrity)	
4. 審查/批核適當的建造文件/ 證書及 /或傾斜測試報告等 (參照第 I 章第 9.1 段, 第 II 章第 2.2 段, 第 III 章第 1 及 2 節相關的要求). 批核文件須與本檢驗紀錄放置在船上 Assessing / endorsing document /certificate of construction and/or inclining test report etc, where appropriate (Refers to requirements in paragraph 9.1 of Chapter I, paragraph 2.2 of Chapter II and sections 1 and 2 of Chapter III.) The endorsed document should be kept onboard with this Inspection Record.	
機械及電氣 Machinery & Electrical	
5. 主機及其操控系統在正常工作狀態 Propulsion engine and control system in normal working condition	
6. 油柜及油管 (包括是否完好, 無滲漏現象) Oil tanks and oil pipes (including whether or not in good order and no leakage)	
7. 艙底水系統及消防系統 (包括是否處於有效工作狀態) Bilge system and fire mains (including whether or not in working condition)	
8. 防油污裝置操作試驗 (適用於總噸 > 400) Oil pollution prevention installation functional test (for GT > 400)	
9. 機艙通風裝置 (包括關閉效用是否正常) Ventilation fans for machinery space (including whether or not the closing mechanism in working condition).	
10. 石油氣裝置及使用汽油之安全 Safety for LPG Installation and Use of Petrol.	
11. 電纜及電器裝置 (包括確定無不適當的損壞) Electric cables and electrical installations (including whether or not no undue damages)	
12. 電纜絕緣電阻、電氣裝置過載保護裝置和接地。由機電署合資格工程師或電工簽發的電器系統絕緣測試報告(註明是適用於輪機系統)及經特許驗師/ 機構批註, 是可接受的。) Insulation resistance of cables, overload protection and earthing of electrical installation.(Electrical system insulation test reports (clearly marked suitable marine system) from EMSD qualified engineers or electricians, endorsed by authorized surveyor/ organization, are acceptable.)	

安全設備與燈號及聲號 Safety Equipment and Lights & Sound Signals

- 13. 救火設備（包括是否齊全並設置在適當位置，處於有效工作狀態及維修保養正常）
Fire-fighting appliances (including whether or not are complete in number and installed/ placed in proper position, and maintained in effective working condition)
- 14. 救生設備（包括是否齊全並放在各自位置，處於有效工作狀態及維修保養正常）
Life-saving appliances (including whether or not are complete in number and placed in position, and maintained in effective working condition)
- 15. 燈號、號型及聲號設備（包括是否工作正常）
Lights, shapes and sound signals (including whether or not in effective working condition)

客艙 Passenger Accommodation

- 16. 乘客及船員艙要求 Passenger and crew accommodation requirements:-
 - (a) 乘客逃生通道（包括是否暢通無阻）
Means of escape for passengers (including whether or not being obstructed)
 - (b) 欄杆、扶手、通道等保護設施（包括是否維修保養正常）
Means of protection such as guard rails, handrails and passageways (including whether or not maintained in good condition)
 - (c) 客艙通風裝置（包括關閉效用是否正常）
Ventilation fans for passenger accommodation (including whether or not the closing mechanism in working condition)
 - (d) 乘客座位及標記 Passenger seats and markings
 - (e) 救生衣的存放 Lifejackets stowage

其他 Others

- 17. 確認主要尺度，主機及機器資料。
Verification of principal dimension , engine and machinery particulars.
- 18. 特許驗船師 / 機構認為需要檢驗的項目，表列於另外紙張。
Other items considered necessary to be inspected by the authorized surveyor / organization as listed in separate sheet. 船排/乾塢檢驗（兩年一次）
Inspection on slip or dry-docking (bi-annually)
- 19. 船底板、舷側板、防濺條、尾封板（包括有無損壞裂縫）
Bottom plates, side shell plates, spray strips and stern transom plates (including whether or not any damage or cracking)
- 20. 海底門、螺旋槳軸、螺旋槳及水／油封（包括是否維修保養正常）
Sea valves, propeller shaft, propeller and water/oil seals (including whether or not maintained in good condition)

Note 註(1): 不適用項目請填寫 "N.A."
Items not applicable should be marked "N.A."

備註 (如有需要可另加頁數)

Remark (additional sheet if required)

特許驗船師姓名/ 特許機構名稱及其驗船師姓名

Name of Authorized Surveyor / Authorized Organization and name of surveyor

簽署 Signature 日期 Date

第 IV 類船隻的最高可載運人數的計算 及/或 檢驗證明裝置是適合由一名 “兼任輪機員船長” 操控
Determination of maximum number of persons to be carried and / or Survey
Certification on installation suitable for “combined coxswain” operation of a Class IV vessel

Name of Vessel.....Certificate of Ownership No:.....	
船名 :.....擁有權證明書編號 :.....	
1 (a) 最高可載運量和座椅 Maximum Carrying Capacity and Seating	
船隻的最高可載運量(包括乘客和船員在內)的計算方法如下 : The maximum carrying capacity (including passengers and crew) are determined as follows:	
[] (i) 開敞式甲板船隻 open deck vessel (L x B =)	
L x B 所得數 numeral	總人數 Total No. of
≤ 5	2
>5 to ≤ 10	3
> 10	4
[] (ii) 圍蔽式甲板船隻 enclosed deck vessel	計算總人數 Determined Total No. of Persons
總人數 total number of persons = L x B x 0.4	
及/and (iii) 船東指示要求最少船員名額 Owner’s indicated the requested minimum number of crew = ()	
式中 where L : 船隻(甲板)的總長(米) vessel’s (deck) length overall in metres = ()	
B : 船隻的最大寬度(米) vessel’s maximum breadth in metres = ()	
(b) 所有乘客應有足夠的座椅或休息設施可供預定的用途。作指引之用，應有不少於總載客人數 50% 固定座位，餘數可採用另外的形式或類別，但必須相對地穩妥及安全，符合預定用途。 All passengers should be arranged with seating or resting facilities adequate for the intended purpose. As a guidance, the number of fixed seats should be not less than 50% of its maximum number of carrying capacity and the balanced number of seats can be in other form or type provided that they are relatively stable and safe for its purpose.	不適用 Not applicable
	足夠 / 不足夠 Adequate / Not Adequate
(c) 載運超過 12 名乘客及從事租賃業務的船隻之乘客艙室的標記 Marking in Passenger Space for vessel engaging in chartering and carrying capacity more than 12	
須在乘客上船的顯眼位置，以中、英文註明每層甲板可載運的乘客人數，如以下所示 The number of passengers in which each deck can accommodate should be indicated, in a conspicuous location, at all spaces where passengers will be embarking, in Chinese and English :-	
上層甲板 Upper level ()	不適用 Not applicable /
主甲板 Main Deck ()	
等等 Etc. ()	
總乘客人數 Total number of passengers ()	
最少船員人數 Minimum number of crew ()	
允許運載總人數 Total number of persons permitted ()	已標記 / 未有標記 Marking Completed / Marking Not Done
2. 證明這船隻裝置是適合由一名 “兼任輪機員船長” 操控 Certification on installation suitable for “Combined Coxswain” operation for this vessel	不適用 Not applicable/ 適合 / 不適合 Suitable / Not suitable
以此證明這船隻的無人操作機器艙間備有適合由一名 “兼任輪機員船長” 操控的配備並經檢驗及測試滿意，包括艙底水警報，主要的主機控制、儀錶、主機及發電機故障警報裝置，主機、發電機及抽氣扇的遙控關閉，煙霧偵測及警報裝置等裝置。(參照第 III 章第 3.14 段相關的要求) This is to certify that this vessel has appropriately equipped, inspected and tested satisfactory, including fittings of bilge alarm, essential main engine controls, indicators and main / generator engines abnormal warning alarms, remote shutdown of main / generator engines and ventilation fans, and a fire or smoke detection system etc., as appropriate, for unattended machinery space requirements suitable for “combined coxswain” operation. . (Refers to relevant requirements in paragraph 3.14 of Chapter III.) - 裝置/ 額外詳細資料 Installation / Additional Details: -	

備註 Remark : (如有需要可另加頁數 additional sheet if required)

.....
 特許驗船師姓名 / 特許機構名稱及其驗船師姓名
 Name of Authorized Surveyor / Authorized Organization and name of surveyor

.....
 簽署 Signature 日期 Date

APPROXIMATE DETERMINATION OF STABILITY BY SIMPLE INCLINING TEST

SIMPLE INCLINING TEST

1 General

- 1.1 The simple inclining test is to ascertain the angle of heel a vessel would occur when 2/3 of the passengers distributed on one side of the vessel and 1/3 on the other side. The objective being that it should be ensured that no angle of heel exceeding 7° will arise as a result of the movement of passengers from one side of the vessel to the other side.

2 Test Procedure

- 2.1 The vessel should be tested with weights to represent the fully laden service condition.
- 2.2 The weights should be disposed, as far as practicable, with their centres of gravity in the correct vertical and lateral positions having regard also to those vessels where passengers should be taken as congregated at 0.3 m² each on the uppermost deck or decks to which they have access.
- 2.3 The test should be carried out in the following manner: -

- (a) the vessel is to be loaded with weights as described above,
- (b) calculate a heeling moment equal to 1/12th the weight of the passengers (W) multiplied by the extreme breadth (B) of the vessel (WB/12),
- (c) transfer weights from one side of the vessel to the other side in 3 equal increments such that the final heeling moment is equal to WB/12, the same vertical CG of the whole being maintained.

The weights and the distance they are moved together with the angle of heel should be recorded for each of the 3 moves.

- (d) restore all the weights to their original positions and record angle of heel when they are restored,
- (e) repeat (c) moving weights from opposite side,
- (f) repeat (d),
- (g) if the angle of heel exceeds 7° during the test, the owner might add ballast weight and to repeat the test procedures (c), (d), (e) and (f). The weight and position of such ballast should be recorded.

3 Acceptance of Stability

- 3.1 As a general rule, no vessel will be accepted where the angle of heel exceeds 7° as a result of a heeling moment of WB/12 or any greater heeling moment that could be expected to arise in service.
- 3.2 In any case where an angle of heel exceeding 4° has arisen as a result of a heeling moment of WB/12, the seating and other arrangements of the vessel should be examined to see whether a heeling moment greater than WB/12 could be expected to arise in service. If this is found to be so, proper measure should be taken to avoid an angle of heel greater than 7° would arise as a result of this heeling moment.

4 Determination of weight of passengers and crew

- 4.1 The following information should be used for the consideration of the effects of passenger and crew weight:
- (a) the distribution of passengers is 4 persons per square metre;
 - (b) each person has a mass of 68 kg or <75 kg>;
 - (c) Vertical Centre Gravity of seated passengers is 0.3 m above seat;
 - (d) Vertical Centre Gravity of standing passengers is 1.0 m above deck;
 - (e) passengers and luggage should be considered to be in the space normally at their disposal

Note: Requirement in pair of angle brackets < > are applicable for new vessels calculation only.

For use on simple GRP or wooden pleasure vessel.

適用於簡單玻璃纖維或木質遊樂船

(Vessel length less than 15 m / 船隻長度小於 15 米)

Simple Plans Required Approval for Initial Licensing of Local Vessels

本地船隻首次牌照 需要審批的簡單圖則

* Delete where not appropriate / 刪去不需要處	File No. / 檔案號碼	
Licence No./ Cert of Ownership no. 牌照號碼 / 船隻擁有權證明書號碼	Vessel Class / Type / Category 船隻類別 / 類型 / 種類	
<u>Approval Plans / 審批圖則</u>		<u>Remark / 備註</u>
<u>(A) General Plans / 一般圖則</u>		
1. <u>簡單圖則 Plan(Simp)-G-01</u> General Arrangement Plan (Owner to provide necessary information on layout, decks etc.) 一般佈置圖則 (船東提供所需資料如外形、甲板層數等)		Yes / No / Not Applicable * 有 / 沒有 / 不需 *
2. <u>簡單圖則 Plan(Simp)-G-02 /11</u> (Only applicable to vessel carrying more than 4 passengers /只適用載乘客 4 人以上) Passenger Space (shelter)/ Seating Arrangement & Position / Freeboard Mark Diagram 乘客艙(遮閉安排) / 座位佈置及座位設置 / 吃水標示圖則		Yes / No / Not Applicable * 有 / 沒有 / 不需 *
3. <u>簡單圖則 Plan(Simp)-G-01+ HS-01/ 09</u> (equiv to Plan-G-01and Plan-H-09) (Only applicable to vessel length less than 8 m / 只適用於船隻長度小於 8 米) Vessel Particulars , General Arrangement and Basic Hull and Deck Plate Thickness Diagram 船隻特別資料、一般佈置及基本船殼和甲板之板厚示意圖則		Yes / No / Not Applicable * 有 / 沒有 / 不需 *
<u>(B) Hull and Safety Equipment Plans / 船殼及安全設備圖則</u>		
4. <u>簡單圖則 Plan(Simp)-HS-01/ 09</u> (equiv to Plan- HS-03, H-09) Vessel Particulars , and Basic Hull and Deck Plate Thickness Diagram 船隻特別資料及基本船殼和甲板之板厚示意圖則		Yes / No / Not Applicable * 有 / 沒有 / 不需 *
5. <u>簡單圖則 Plan(Simp)-HS-07</u> Inclining Experiment Report/Rolling Period / Simple Inclining - Test Report 傾斜試驗 / 橫搖週期 / 簡單傾斜- 測試報告		Yes / No / Not Applicable * 有 / 沒有 / 不需 *
6. <u>簡單圖則 Plan(Simp)-HS-10A&B (HS-10C)</u> LSA & FFA Installation and Arrangement Diagram 救生及救火設備及佈置示意圖則		Yes / No / Not Applicable * 有 / 沒有 / 不需 *
7. <u>簡單圖則 Plan(Simp)-HS-10C</u> (Not applicable to open boat / 開敞船隻不需要) Escape Installation and Arrangement Diagram 逃生設備及佈置示意圖則		Yes / No / Not Applicable * 有 / 沒有 / 不需 *
8. <u>簡單圖則 Plan(Simp)-HS-10D</u> Lights, Shapes & Sound Signals Installation and Arrangement Diagram 號燈、號型、聲號備及佈置示意圖則		Yes / No / Not Applicable * 有 / 沒有 / 不需 *
<u>(C) Machinery Installation Plans 機器及其系統設備圖則</u>		
9. <u>簡單圖則 Plan(Simp)-M-01/ to / 10 etc.(</u>)		Yes / No / Not Applicable * 有 / 沒有 / 不需 *
<u>(D) Electrical Installation Plans 電器及其系統設備圖則</u>		
10. <u>簡單圖則 Plan(Simp)-E-01 / to / 05 etc.(</u>)		Yes / No / Not Applicable * 有 / 沒有 / 不需 *
<u>(C/D) Machinery / Electrical Installation Plans 機器/電器及其系統設備圖則</u>		
11. <u>簡單圖則 Plan(Simp)- M-01/ to / 10 + E-01 / to /05 etc.(</u>)		Yes / No / Not Applicable * 有 / 沒有 / 不需 *
Note : If required, owner must submit additional plans to supplement for deficient information (please refer to relevant Code of Practice or regulation). 註 : 如有需要, 船東必須另加圖則去補充不足資料之處 (請參考本有關 工作守則或規例)。		

For use on simple GRP or wooden pleasure vessel

適用於簡單玻璃纖維或木質遊樂船

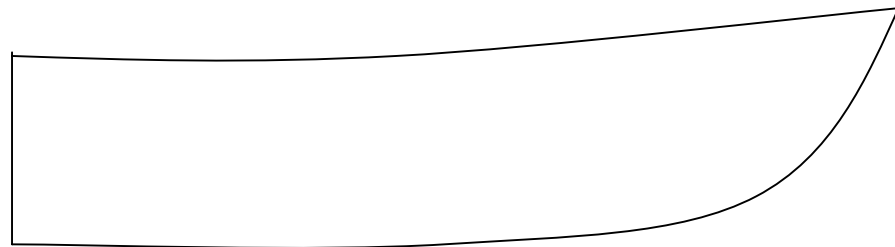
簡單圖則 Plan(Simp)-G-01

General Arrangement Plan (Owner to provide necessary information on layout, decks etc.)

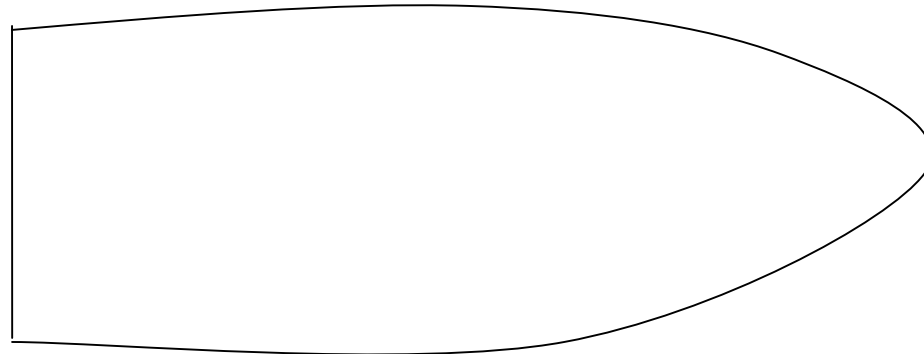
一般佈置圖則 (船東提供所需資料如外形、甲板層數等)

(Note : A copy of this diagram must be kept onboard)

(註 : 一份此圖則必須放置在船上)



側面圖
Side View Profile



甲板
DECK

Remarks 備註:

1. If there is superstructure, please indicate.
如設有上層建築, 請標示
2. Details can be supplement by photos or separate sheets.
詳情可以相片補充或另加紙張
3. Not to proportion/scale.
不按比例/標尺

<u>Vessel information</u> 船隻資料	Content 資料內容
1. File No. 檔案號碼	
2. Licence No./ Cert of Ownership no. 牌照號碼 / 船隻擁有權證明書號碼	
3. Vessel Class / Type / Category 船隻 類別 / 類型 / 種類	
4. Length 長度	
5. Width 闊度	
6. Depth 深度	
7. No. of decks 甲板層數 (Please Show Location / 請顯示位置)	
Approved by 經辦審批 :	Date 日期 :

For use on simple GRP or wooden pleasure vessel

適用於簡單玻璃纖維或木質遊樂船

簡單圖則/ Plan(Simp)-G-02 /11

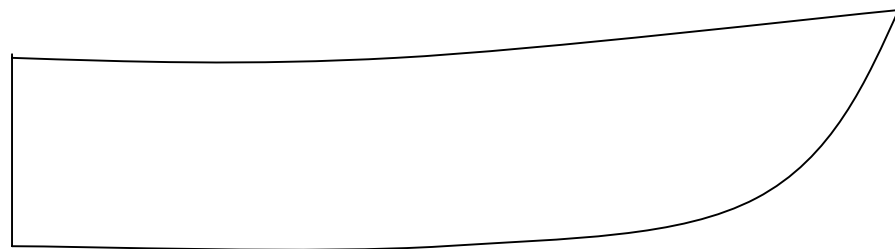
(Only applicable to vessels carrying more than 4 passengers /只適用載乘客 4 人以上)

Passenger Space (shelter)/ Seating Arrangement and Position / Freeboard Mark Diagram

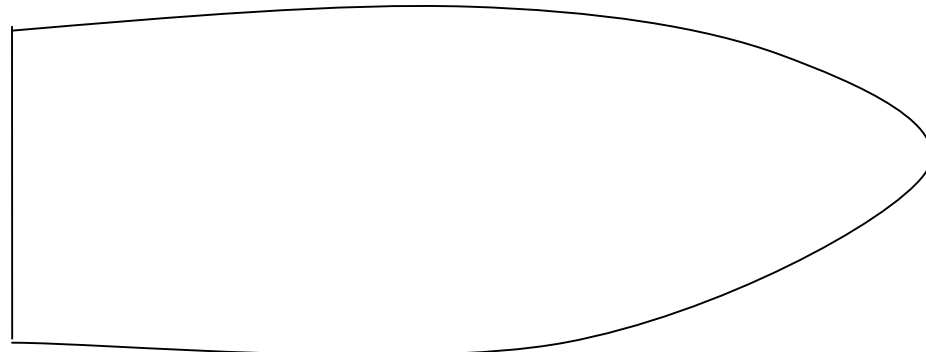
乘客艙(遮閉安排) / 座位佈置及座位設置 / 吃水標 示意圖則

(Note : A copy of this diagram must be kept onboard)

(註 : 一份此圖則必須放置在船上)



側面圖
Side View Profile



甲板
DECK

Remarks 備註:

1. If there is superstructure, please indicate.
如設有上層建築, 請標示
2. Details can be supplement by photos or separate sheets.
詳程可以相片補充或另加紙張
3. Not to proportion/scale.
不按比例/標尺

Vessel information 船隻資料	Content 資料內容
1. File No. 檔案號碼	
2. Licence No./ Cert of Ownership no. 牌照號碼 / 船隻擁有權證明書號碼	
3. Vessel Class / Type / Category 船隻 類別 / 類型 / 種類	
4. Length 長度	
5. Width 闊度	
6. Depth 深度	
7. Freeboard Mark (mm below main deck) 吃水標 (主甲板以下(mm)) (Please Show Location / 請顯示位置)	
8. Seating Arrangement / Position(*) 座佈置及座位設置(*)	
Approved by 經辦審批 :	Date 日期 :

For use on simple GRP or wooden pleasure vessel

適用於簡單玻璃纖維或木質遊樂船

(Only applicable to vessel length less than 8 m / 只適用於船隻長度小於 8 米)

簡單圖則 Plan(Simp)- G-01+ HS-01/09

Vessel Particulars / General Arrangement and Basic Hull and Deck Plate Thickness Diagram

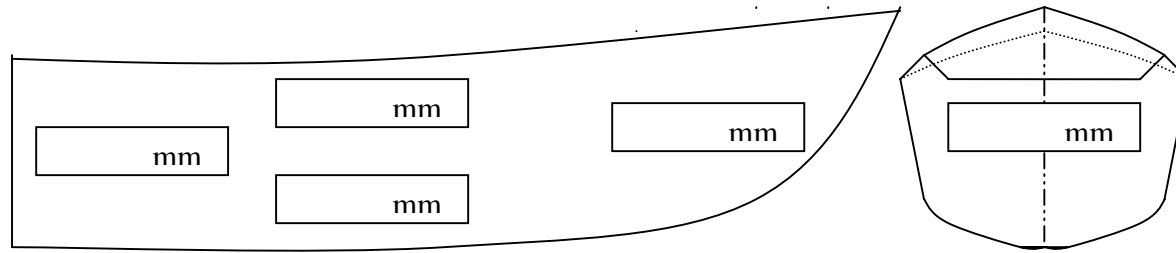
船隻特別資料/一般佈置/及基本船殼和甲板之板厚示意圖則

(Note : A copy of this diagram must be kept onboard)

(註 : 一份此圖則必須放置在船上)

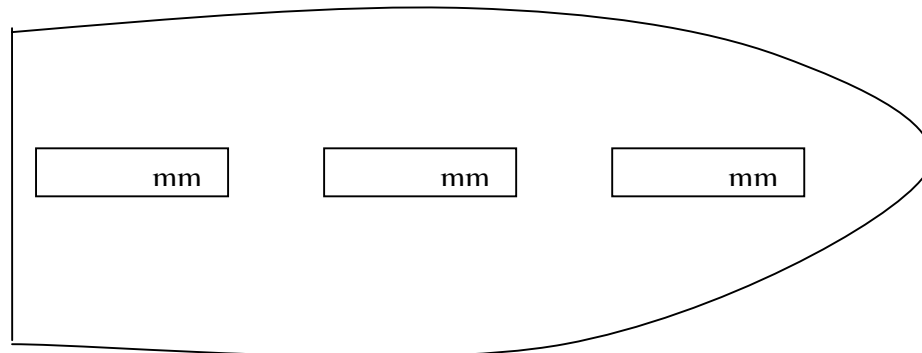
Remarks 備註:

1. If there is superstructure, please indicate. 如設有上層建築, 請標示
2. Details can be supplemented by photos or separate sheets. 詳程可以相片補充或另加紙張.
3. Please show by dotted line long/transverse frame. 請以虛線列出縱及橫向肋骨.
4. Not to proportion/scale. / 不按比例/標尺



**船旁及船底板
SIDE & BOTTOM PLATING**

**船尾板圖
TRANSOM**



**甲板
DECK PLATING**

Vessel Particulars & Basic Hull information 船隻特別資料及基本船殼資料	Content 資料內容
1. File No. 檔案號碼	
2. Licence No./ Cert of Ownership no. 牌照號碼 / 船隻擁有權證明書號碼	
3. Vessel Class / Type / Category 船隻 類別 / 類型 / 種類	
4. Length 長度	
5. Width 闊度	
6. Depth 深度	
7. Material 構造材料 (GRP 或 木質)	
8. Number of Transverse Frame 橫架數目	
9. Number of Long. Girder/Keelson/ Frame 縱龍骨/邊龍骨/直隔擋數目	
10. Number / Size of Buoyancy Space 浮艙數目及容量 _____/_____ (Please show location/ 請顯示位置)	
11. Hull design / construction standards /rules adopted 應用的船殼/結構標準/規則	
Approved by 經辦審批	Date 日期

For use on simple GRP or wooden pleasure vessel

適用於簡單玻璃纖維或木質遊樂船

簡單圖則/ Plan(Simp)-HS-01/09

Vessel Particulars and Basic Hull and Deck Plate Thickness Diagram

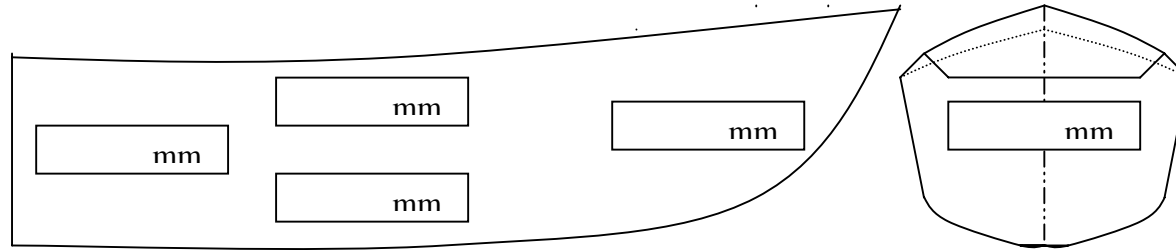
船隻特別資料及基本船殼和甲板之板厚示意圖則

(Note : A copy of this diagram must be kept onboard)

(註 : 一份此圖則必須放置在船上)

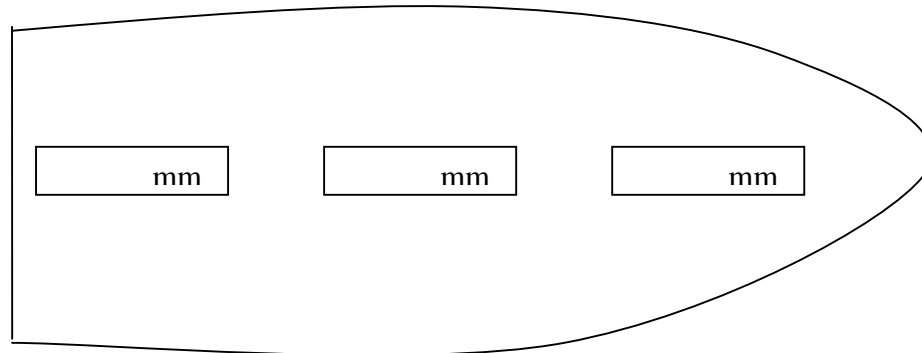
Remarks 備註:

1. If there is superstructure, please indicate. 如設有上層建築, 請標示
2. Details can be supplemented by photos or separate sheets. 詳程可以相片補充或另加紙張.
3. Please show by dotted line long/transverse frame. 請以虛線列出縱及橫向肋骨.
4. Not to proportion/scale. / 不按比例/標尺



**船旁及船底板
SIDE & BOTTOM PLATING**

**船尾板圖
TRANSOM**



DECK PLATING

Vessel Particulars & Basic Hull information 船隻特別資料及基本船殼資料	Content 資料內容
1. File No. 檔案號碼	
2. Licence No./ Cert of Ownership no. 牌照號碼 / 船隻擁有權證明書號碼	
3. Vessel Class / Type / Category 船隻 類別 / 類型 / 種類	
4. Length 長度	
5. Width 闊度	
6. Depth 深度	
7. Material 構造材料 (GRP 或 木質)	
8. Number of Transverse Frame 橫架數目	
9. Number of Long. Girder/Keelson/ Frame 縱龍骨/邊龍骨/直隔擋數目	
10. Number / Size of Buoyancy Space 浮艙數目及容量 ____ / ____ (Please show location/ 請顯示位置)	
11. Hull design / construction standards /rules adopted 應用的船殼/結構標準/規則	
Approved by 經辦審批	Date 日期

For use on simple GRP or wooden pleasure vessel

適用於簡單玻璃纖維或木質遊樂船

簡單圖則 Plan(Simp)-HS-07

Inclining Experiment Report/Rolling Period /

Simple Inclining - Test Report

傾斜試驗 / 橫搖週期 / 簡單傾斜- 測試報告

Remarks 備註:

1. Details can be supplemented by photos or separate sheets.
詳程可以相片補充或另加紙張.
2. Please show by dotted line long/transverse frame.
請以虛線列出縱及橫向肋骨.
3. Not to proportion/scale.
不按比例/標尺

Vessel Particulars & Basic Hull information 船隻特別資料及基本船殼資料	Content 資料內容
1. File No. 檔案號碼	
2. Licence No./ Cert of Ownership no. 牌照號碼 / 船隻擁有權證明書號碼	
3. Vessel Class / Type / Category 船隻 類別 / 類型 / 種類	
4. Length 長度	
5. Width 闊度	
6. Depth 深度	
7. Material 構造材料 (GRP 或 木質)	
8. Number of Transverse Frame 橫架數目	
9. Number of Long. Girder/Keelson/ Frame 縱龍骨/邊龍骨/直隔擋數目	
10. Number / Size of Buoyancy Space 浮艙數目及容量 _____/_____ (Please show location/ 請顯示位置)	
Approved by 經辦審批	Date 日期

For use on simple GRP or wooden pleasure vessel

適用於簡單玻璃纖維或木質遊樂船

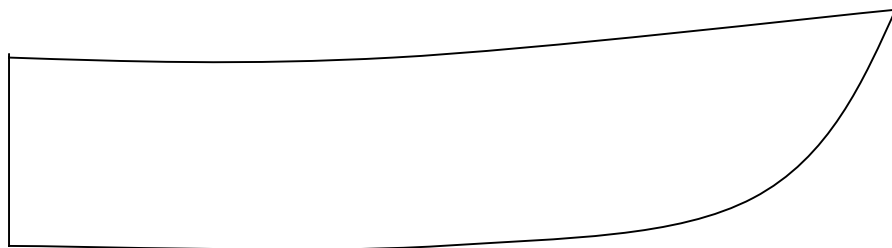
簡單圖則/ Plan(Simp)-HS-10A&B (HS-10C)

LSA & FFA Installation and Arrangement Diagram

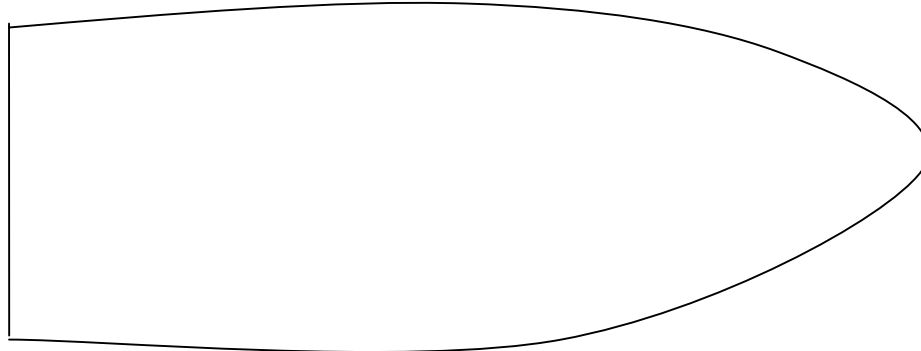
救生及救火設備及佈置示意圖則

(Note : A copy of this diagram must be kept onboard)

(註 : 一份此圖則必須放置在船上)



側面圖
Side View Profile



甲板
DECK

Remarks 備註:

1. If there is superstructure, please indicate.
如設有上層建築, 請註明
2. May use separate sheet for each arrangement of information
可用另外紙張顯示每種設備或佈置
3. Escape routes can be shown in this plan or in separate sheets.
逃生佈置可顯示在本圖則上或另外紙張
4. Details can be supplemented by photos or separate sheets.
詳情可以相片補充或另加紙張
5. Not to proportion/scale.
不按比例/標尺

Vessel information 船隻資料		Content 資料內容	
1. File No. 檔案號碼			
2. Licence No. / Cert of Ownership no. 牌照號碼 / 船隻擁有權證明書號碼			
3. Vessel Class / Type / Category 船隻 類別 / 類型 / 種類			
4. LSA & FFA installation 救生及救火設備		(Please show location/ 請顯示位置)	
(a)			
(b)			
(c)			
(d)			
(e)			
(f)			
(g)			
Approved by 經辦審批		Date 日期	

For use on simple GRP or wooden pleasure vessel

適用於簡單玻璃纖維或木質遊樂船

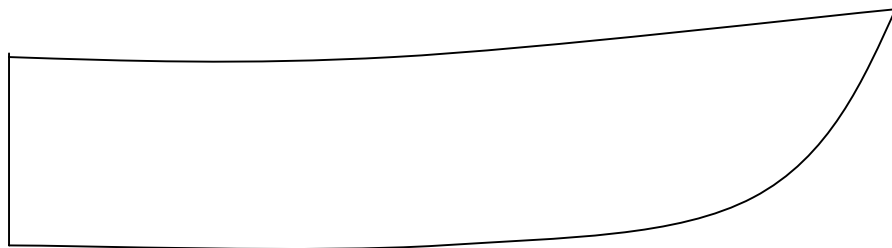
簡單圖則 Plan(Simp)-HS -10C (Not applicable to open boat / 開敞船隻不需要)

Escape Installation and Arrangement Diagram

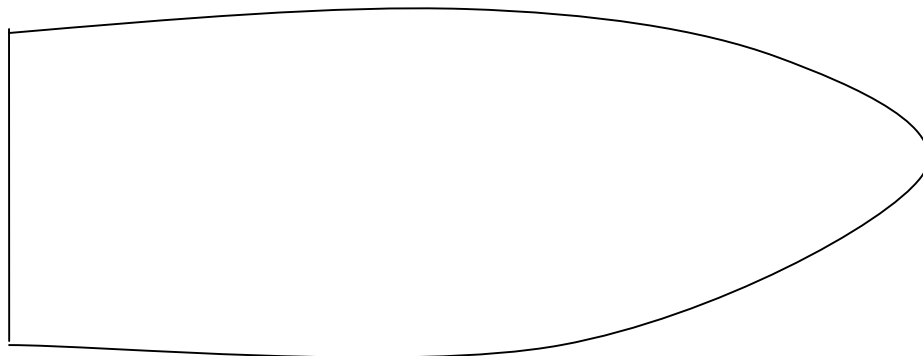
逃生設備及佈置示意圖則

(Note : A copy of this diagram must be kept onboard)

(註 : 一份此圖則必須放置在船上)



側面圖
Side View Profile



甲板
DECK

Remarks 備註:

1. If there is superstructure, please indicate.
如設有上層建築, 請標示
2. Details can be supplemented by photos or separate sheets.
詳程可以相片補充或另加紙張
3. Not to proportion/scale.
不按比例/標尺

<u>Vessel information</u> 船隻資料	Content 資料內容
1. File No. 檔案號碼	
2. Licence No. / Cert of Ownership no. 牌照號碼 / 船隻擁有權證明書號碼	
3. Vessel Class / Type / Category 船隻 類別 / 類型 / 種類	
4. Escape Installation 逃生及設備 (Please show location/ 請顯示位置)	
Approved by 經辦審批	Date 日期

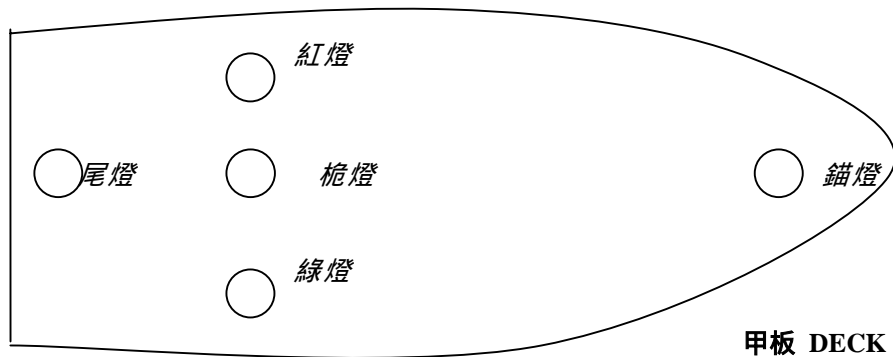
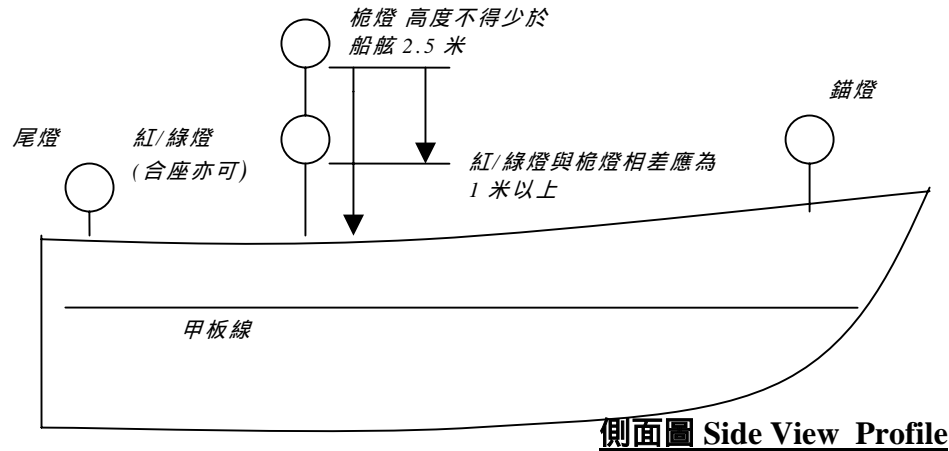
For use on simple GRP or wooden pleasure vessel
適用於簡單玻璃纖維或木質遊樂船

簡單圖則 Plan(Simp)-HS -10D

Lights, Shapes & Sound Signals Installation and Arrangement Diagram

號燈、號型、聲號設備及佈置示意圖則

(Note : A copy of this diagram must be kept onboard)
(註 : 一份此圖則必須放置在船上)



註: 1) 長度未滿 7 米, 最大航速不超過 7 節, 只需環照白(錨燈)一盞。如條件許可, 亦需裝設紅及綠燈。
2) 長度滿 7 米至小於 12 米, 需加 3 個黑色球體, 1 個黑色菱形體及一個能發出有效聲號器具。
3) 長度滿 12 米至小於 20 米, 需加 2 支環照紅(失控燈), 1 個黑色菱形體及 3 個黑色球體, 號笛及號鐘各一個。

Remarks 備註:

1. If there is superstructure, please indicate.
如設有上層建築, 請標示
2. Details can be supplemented by photos or separate sheets.
詳程可以相片補充或另加紙張
3. Not to proportion/scale.
不按比例/標尺

Vessel information 船隻資料	Content 資料內容
1. File No. 檔案號碼	
2. Licence No. / Cert of Ownership no. 牌照號碼 / 船隻擁有權證明書號碼	
3. Vessel Class / Type / Category 船隻 類別 / 類型 / 種類	
4. Lights, Shapes & Sound Signals installation 號燈、號型、聲號設備 (Please show location/ 請顯示位置)	
Approved by 經辦審批	Date 日期

For use on simple GRP or wooden pleasure vessel

適用於簡單玻璃纖維或木質遊樂船

Machinery Installation Plans

機器及其系統設備圖則

(Note : A copy of this diagram must be kept onboard)

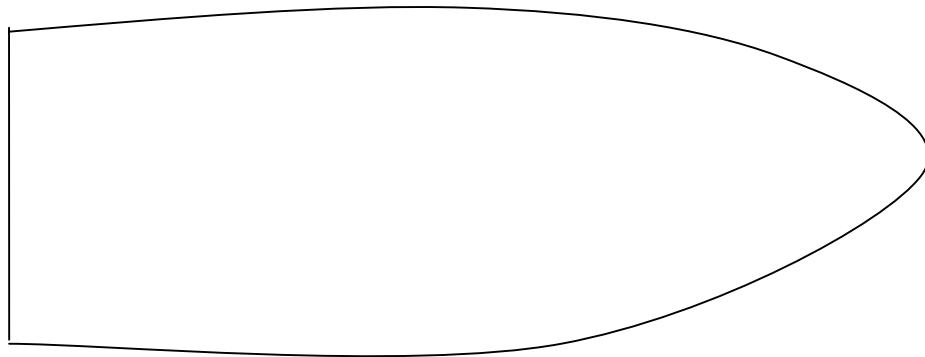
(註 : 一份此圖則必須放置在船上)

簡單圖則 Plan(Simp)-M-01/ / 16 etc



側面圖

Side View Profile



甲板

DECK

Remarks 備註:

1. If there is superstructure, please indicate.
如設有上層建築, 請標示
2. Details can be supplemented by photos or separate sheets.
詳程可以相片補充或另加紙張
3. Not to proportion/scale.
不按比例/標尺

Vessel information 船隻資料	Content 資料內容
1. File No. 檔案號碼	
2. Licence No. / Cert of Ownership no. 牌照號碼 / 船隻擁有權證明書號碼	
3. Vessel Class / Type / Category 船隻 類別 / 類型 / 種類	
4. No. of Main engines/ Propellers. 主機 / 推進器 數量	
5. Main engine maker /type. 主機製造商/型類	
6. Main engine serial number. 主機號碼	
7. Total engine power (kW)/ RPM. 主機總功率 (千瓦) / 轉速	
8. Fuel type/ tank no./ total capacity 燃油類 / 油缸數量 / 總容量	
9. Generator IC engine maker /type. 發電內燃機製造商/型類	
10. Generator engine serial number. 發電內燃機號碼	
11. Fuel type/ tank no./ total capacity 燃油類 / 油缸數量 / 總容量 (If not same as above / 如與上不同)	
(Please show location/ 請顯示位置)	
Approved by 經辦審批	Date 日期

For use on simple GRP or wooden pleasure vessel

適用於簡單玻璃纖維或木質遊樂船

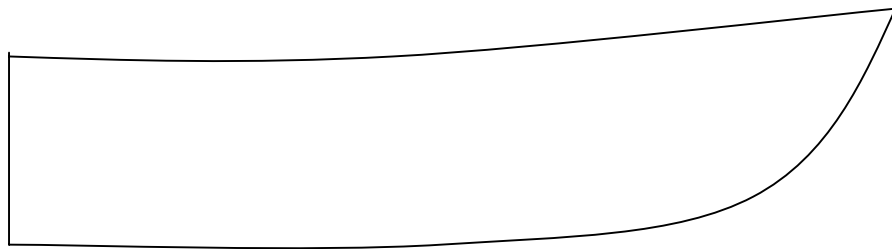
Electrical Installation Plans

電器及其系統設備圖則

(Note : A copy of this diagram must be kept onboard)

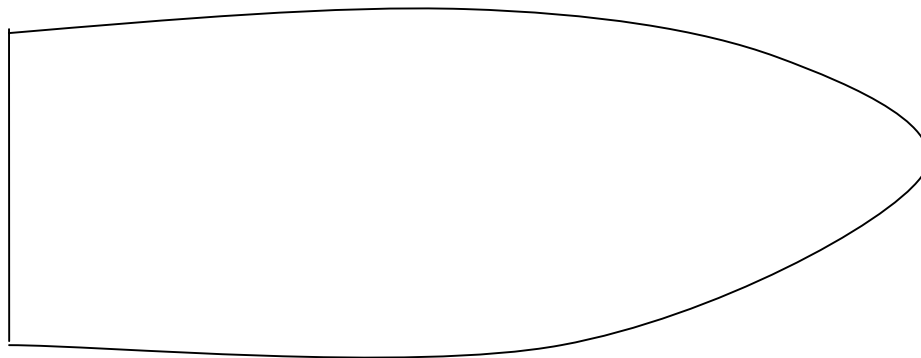
(註 : 一份此圖則必須放置在船上)

簡單圖則 Plan(Simp)-E 01/ / 05 etc



側面圖

Side View Profile



甲板

DECK

Remarks 備註:

1. If there is superstructure, please indicate.
如設有上層建築, 請標示
2. Details can be supplemented by photos or separate sheets.
詳程可以相片補充或另加紙張
3. Not to proportion/scale.
不按比例/標尺

Vessel information 船隻資料	Content 資料內容
1. File No. 檔案號碼	
2. Licence No./ Cert of Ownership no. 牌照號碼 / 船隻擁有權證明書號碼	
3. Vessel Class / Type / Category 船隻 類別 / 類型 / 種類	
4. Generator maker /type. 發電機製造商/型類	
5. No. of Generator / serial no.. 發電機數目 / 號碼	
6. Total engine power (kW)/ RPM. 發電總功率 (千瓦) / 轉速(每分)	
7. Voltage (V) / Frequency (Hz) 電壓 (伏特) / 週頻 (轉數/每秒)	
(Please show location/ 請顯示位置)	
Approved by 經辦審批	Date 日期

For use on simple GRP or wooden pleasure vessel

適用於簡單玻璃纖維或木質遊樂船

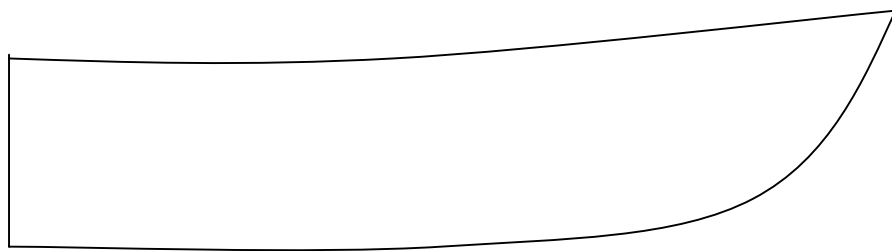
Machinery & Electrical Installation Plans

機器與電器及其系統設備圖則

(Note : A copy of this diagram must be kept onboard)

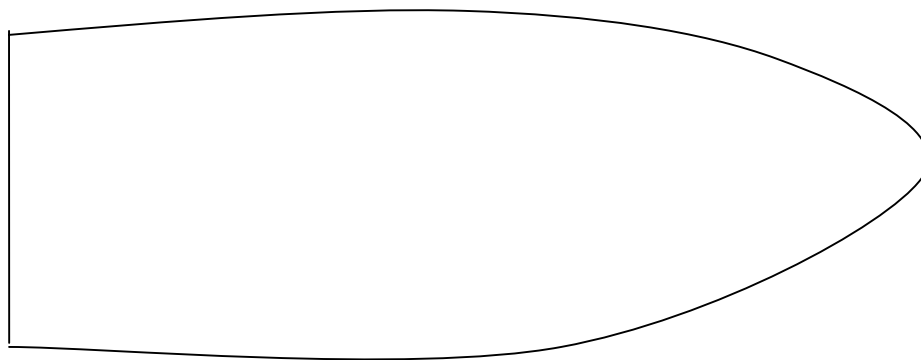
(註 : 一份此圖則必須放置在船上)

簡單圖則 Plan(Simp)-M-01/ / 16 & E-01/ /05 etc



側面圖

Side View Profile



甲板

DECK

Remarks 備註:

1. If there is superstructure, please indicate.
如設有上層建築, 請標示
2. Details can be supplemented by photos or separate sheets.
詳程可以相片補充或另加紙張
3. Not to proportion/scale.
不按比例/標尺

Vessel information 船隻資料	Content 資料內容
1. File No. 檔案號碼	
2. Licence No. / Cert of Ownership no. 牌照號碼 / 船隻擁有權證明書號碼	
3. Vessel Class / Type / Category 船隻 類別 / 類型 / 種類	
4. No. of Main engines/ Propellers. 主機 / 推進器 數量	
5. Main engine maker /type. 主機製造商/型類	
6. Main engine serial number. 主機號碼	
7. Total engine power (kW)/ RPM. 主機總功率 (千瓦) / 轉速	
8. Fuel type/ tank no./ total capacity 燃油類 / 油缸數量 / 總容量	
9. Generator IC engine maker / type. 發電內燃機製造商/型類	
10. Generator engine serial no. 發電內燃機號碼	
11. Generator maker /type. 發電機製造商/型類	
12. No. of Generator / serial no.. 發電機數目 / 號碼	
13. Total engine power (kW)/ RPM. 發電總功率 (千瓦) / 轉速(每分)	
14. Voltage (V) / Frequency (Hz) 電壓 (伏特) / 週頻 (轉數/每秒)	
(Please show location/ 請顯示位置)	
Approved by 經辦審批	Date 日期

Implementation of the Requirements of Annex VI of MARPOL 73/78 to Locally Licensed Vessels

Annex VI of MARPOL 73/78 for the Prevention of Air Pollution from Ships together with the requirement for diesel engines with Engine International Air Pollution Prevention Certificate (EIAPP) came into force internationally on 19 May 2005. The following relevant requirements will be applied to all locally licensed vessels when the above Annex of the conventions are enforced.

2. The Requirements of Annex VI of MARPOL 73/78 contains wide-ranging regulations covering the following areas:

(a) Prohibition of the use or release of ozone depleting substances - As per Regulation 12 of Annex VI, deliberate emission of ozone depleting substances including halons and chlorofluorocarbons (CFCs) will be prohibited. Also, new installations containing ozone-depleting substances will be prohibited on all ships. However, new installations containing hydro-chlorofluorocarbons (HCFCs) may be allowed until 1 January 2020.

(b) Nitrogen oxide (NO_x) emission from diesel engines as per Regulation 13 of Annex VI (refers to requirements of NO_x emission limits in paragraph 5).

(c) Sulphur oxide (SO_x) emissions from ships - As per Regulation 14 of Annex VI, a global cap of 4.5% m/m on the sulphur content of fuel oil used on board ships together with limitation of sulphur oxide emissions from ship exhausts will be imposed.

There will be designated “SO_x Emission Control Areas” that may impose more stringent sulphur oxide emission controls. In these areas, the sulphur content of fuel oil used onboard ships must not exceed 1.5% m/m, unless the ship is fitted with an exhaust gas cleaning system (or by using other technological methods) to limit its SO_x emission.

(d) Volatile organic compounds (VOCs) emission from cargo tanks of oil tankers during loading may be subject to controls from Administration as per Regulation 15 of Annex VI. Should such control requirement is notified by an Administration to IMO, there is a three years grace period from the effective date.

(e) Shipboard incineration of waste as per Regulation 16 of Annex VI.

(f) Fuel oil quality - As per Regulation 18 of Annex VI, fuel oil quality that will be allowed to be used onboard ships requires that:

(i) fuel oil used onboard ships for combustion purposes must comply with the quality standards required by Annex VI;

(ii) all ships of 400 gross tonnage or above are to record details of the

fuel oil used on board, by means of a bunker delivery note. The bunker delivery note must include the information given in Appendix VI of Annex VI; and the bunker delivery note must also contain a declaration signed and certified by the fuel oil supplier's representative to confirm that the fuel oil supplied is in conformity with Annex VI requirements. The bunker delivery note is to be kept on board for ready inspections, and it should be kept for 3 years after the fuel oil has been delivered on board; and

- (iii) a representative sample of the fuel oil delivered on board is required to accompany the bunker delivery note; which is to be sealed and signed by the supplier's representative as well as by the master or officer in charge of the bunker operation, and should be kept by the ship for a period of 12 months or until the fuel oil is consumed, whichever is of the latter.

Application MARPOL Annex VI requirements to Local Vessels

3. For local vessels, it has been decided that –

- (a) as regards the requirement in paragraph 2(d), since the VOCs involved is very small in Hong Kong, it is not necessary to impose VOCs emission control to ships loading in Hong Kong at this stage;
- (b) no incinerator is allowed to be installed onboard for the requirement mentioned in paragraph 2 (e); and
- (c) for the requirements mentioned in paragraph 2 (f) such as fuel oil sampling device, keeping of bunker delivery notes and samples -
 - (i) for vessels of less than 400 gross tonnage
 - if the vessel trading only in local waters is using only marine diesel fuel (sulphur contents not more than 0.5% m/m), and solely supplied by local registered fuel oil suppliers ^(Note), keeping documentary evidence of bunker delivery notes onboard ready for inspection is suffice for the compliance of regulation 18 of the Annex.
 - For vessels other than the above, control measures on bunker delivery notes and fuel oil samples would be same as those specified in para (3)(c)(ii).
 - (ii) for vessels of 400 gross tonnage or above
 - if the vessel is using fuel solely supplied by from registered fuel oil suppliers ^(Note), only bunker delivery notes are required to be maintained on board ready for inspection.
 - oil samples in addition to bunker delivery notes are required for the vessel if the fuel oil is not supplied by the local registered fuel oil suppliers or registered fuel oil suppliers outside Hong Kong.

Note: Vessel operators may voluntarily keep fuel oil samples on board for a reasonable period in order to protect their interests in case of a dispute.

- (d) Per para (3)(c)(ii), bunker delivery notes should be retained for 3 years and

fuel oil samples are to be kept 1 year or until the fuel oil has been subsequently consumed; and they should be readily available for inspection.

4. The application control measures on air pollution prevention to vessels under Annex VI of MARPOL 73/78 applied to local vessels, which are operated in river trade limits or Hong Kong waters (non international voyages), are as follows:

- (a) For self-propelled vessels of 400 gross tonnage and above
Surveys and inspections on these vessels should be in accordance with Regulation 5 of Annex VI. Upon satisfactory completion of the survey, a Hong Kong Air Pollution Prevention (HKAPP) Certificate is to be issued or endorsed as appropriate.
- (b) For self-propelled vessels of less than 400 gross tonnage and non-self-propelled vessels of any tonnage
A Hong Kong Air Pollution Prevention Certificate (HKAPP Cert) is **not required**. However, an effective visual inspection will be carried out to ensure no unauthorized modifications or installation of equipment in compliance with Annex VI during the initial/annual/periodic safety survey of the vessel for the issuance of the Certificate of Survey or Certificate of Inspection (with inspection record) to indicate its compliance with MARPOL Annex VI.

Application of the NOx emission requirements to Local Vessels

5. The requirements relating to the control of Nitrogen oxide (NOx) emission from diesel engines fitted onboard vessels are prescribed under Reg. 13 of the Annex, of which the control NOx limits are summarized as follows:

	Rated Engine Speed (rpm) (n)	Maximum allowable NOx-emissions (g/kWh)
a.	n<130	17
b.	130 ≤ n < 2000	45n ^{-0.2}
c.	n ≥ 2000	9.8

=

6. Subsequent to 19 May 2005, all diesel engines of more than 130 kW power output installed on board a local vessel constructed / licensed or a vessel has undergone a major conversion as defined under Regulation 13(2) (a) of the Annex after that date must subject to NOx emission control. Shipowners and operators should ensure that these engines could meet the relevant requirements.

7. The NOx requirements for engine emission do not apply to emergency generator engines, lifeboat engines and any engine installation intended to be used solely for emergency purpose.

8. (a) A diesel engine of more than 130 kW power output installed on board a local vessel of 400 gross tonnage and above is required to be certified for full compliance with the provisions of Regulation 13 and the NOx Technical Code by an EIAPP certificate together with a Technical File containing record of information as stipulated in paragraph 2.4 of the Technical Code.
- (b) A diesel engine more than 130 kW power output installed on board a local vessel of less than 400 gross tonnage, should be certified by an EIAPP certificate or a certificate (with similar format as EIAPP) issued by the engine maker or authorized surveyor or recognized organization showing that it is in compliance with Regulation 13 and the NOx Technical Code or similar standard acceptable to the Director.
9. When the local legislation (Cap. 413 sub-leg.) comes into force, the engines mentioned in paragraph 6 above will be inspected to confirm their compliance with the NOx requirements of the Annex. All engines are expected to be certified either by the engine manufacturers, authorized surveyors or recognized organizations, as appropriate, for its compliance with the relevant Nox requirements.

Periodic Inspection of Engines

10. The Nox Technical Code allows different on-board verification procedures. Owners may adopt one of the following procedures for periodic inspection:
- (a) engine parameter check method as per Code procedure 6.2 – on board inspections including verification of the engine parameters, critical components, settings and operating data against the engine certificate and Technical File; or
 - (b) simplified measurement method – actual trial run and test run like the engine parent test in the test bed but in a simplified manner as described in the Code procedure 6.3 by verifying against the information in the engine certificate and Technical File, or similar procedures approved or accepted by the Director; or
 - (c) direct measurement and monitoring method in accordance with paragraph 2.3.4, 2.3.5, 2.3.7, 2.3.8, 2.3.11, 2.4.4, and 5.5 of the Code.
11. All diesel engines of more than 130 kW power output will be periodically inspected during the safety certification survey of a local vessel to ensure that they are in compliance with the relevant Nox emission criteria.

Implementation schedules

12. The implementation schedules of the relevant Annex VI requirement as indicated in above paragraph 2 and the application measures in paragraph 4 are as follows^(see remarks):
- (a) vessels constructed / licensed on or after 19 May 2005 shall comply.

- (b) vessels constructed/ licensed before 19 May 2005 are required to comply no later than their first scheduled docking after 19 May 2005, but in no case later than three years, i.e. 19 May 2008, whichever is earlier.
- (c) vessels installed with diesel engines as mentioned in the above paragraph 6 are required to comply on or after 19 May 2005.

Remarks : (1) The aforementioned requirements will be finalized in the relevant legislation in consultation with relevant Policy Bureaux and Department of Justice.

(2) When the local legislation on Annex VI requirement comes into force, which is expected to be in 2007, all local vessels will be mandatory inspected to ensure its compliance. Before that commencement date, owners of local vessels are urged for voluntary compliance of the Annex for the issue of a Certificate of Compliance (with inspection records) or Record of Inspection as appropriate.

Tonnage measurement for a Class IV vessel

Gross tonnage, a measurement figure for a Class IV vessel of which the details and calculation can be referred to Chapter IX of the "Code of Practice – Safety Standards for Class I, II and III Vessels"

The provisions are quoted as below:-

QUOTE

TONNAGE MEASUREMENT

PART 1 GENERAL

1 APPLICATION

1.1 Subject to 1.2 below, this chapter shall apply to -

- (a) new vessel; and
- (b) at the request of the owner for re-measurement of tonnage, existing vessel.

1.2 The following vessels are not required to be measured in accordance with this chapter -

- (a) any vessel the tonnage of which has been measured in accordance with the Merchant Shipping (Registration)(Tonnage) Regulations and is issued with the relevant tonnage certificate; or
- (b) any vessel in possession of International Tonnage Certificate issued in accordance with the International Convention on Tonnage Measurement of Ships, 1969.

2 METHOD OF TONNAGE MEASUREMENT

2.1 The gross and net tonnages shall be determined in accordance with Part 2 of this chapter provided that in the case of novel types of vessel with constructional features which render the application of the provisions of Part 2 unreasonable or impracticable, the gross and net tonnages shall be determined as required by the Director.

2.2 All measurements used in the calculations of volumes shall be taken and expressed in metres to the nearest centimetre.

2.3 Gross and net tonnages shall be expressed as whole numbers, decimals being rounded off downwards.

2.4 All volumes included in the calculation of gross and net tonnages shall be measured, irrespective of the fitting of insulation or the like, to the inner side of the shell or structural boundary plating in ships constructed of metal, and to the outer surface of the

shell or to the inner side of the structural boundary surfaces in ships constructed of any other material.

- 2.5 The total volume shall include the volumes of appendages (e.g. rudder, kort nozzle, skeg, etc.), but exclude the volumes of spaces opened to sea.

PART 2 ASCERTAINMENT OF TONNAGE

3 VESSELS OF 24 M IN LENGTH AND ABOVE

- 3.1 Except wooden fishing vessels and primitive transportation vessels (kaitos), tonnage of vessels of 24 m in length and above should be ascertained in accordance with Part II of the Merchant Shipping (Registration)(Tonnage) Regulations.

4 WOODEN FISHING VESSELS AND PRIMITIVE TRANSPORTATION VESSELS OF ANY LENGTH, AND OTHER VESSELS OF LESS THAN 24 M IN LENGTH

- 4.1 The tonnage of wooden fishing vessels and primitive transportation vessels (kaitos) of any length; and all vessels of less than 24 m in length should be ascertained in accordance with this section.

4.2 Gross tonnage

- 4.2.1 The gross tonnage (GT) shall be determined by the following formula:

$$GT = K_1 (V_1 + V_2)$$

where: $K_1 = 0.2 + 0.02 \log_{10} V_1$

$V_1 = V_H$, total volume of all enclosed spaces under the main deck, in m^3 ; which should be obtained from 4.2.2 below (in catamaran, $V_1 = 2 \times V_H$).

V_2 = total volume of all enclosed spaces above the main deck, in m^3 ; which should be obtained from 4.2.3 below.

- 4.2.2 V_1 shall be determined by the following formula:

$$V_H = L_m B D C \quad m^3$$

where:

L_m = length of the main deck, m;

B = in vessels of other than wooden construction, the moulded breadth (in catamaran, the moulded breadth of one hull); and in wooden vessels, the breadth measured to the outer planking of the hull, m;

D = moulded depth, m;

C = coefficient obtained from the following tables depending on the type of vessel:

Main deck is the deck which form the top of the enclosed space of the hull.

Class and Type of Vessel	Propulsion	Basic Hull Form	Hull Form Factor (C)
Class I Vessel			
Launch Ferry	Mechanically propelled	ship	monohull 0.55
			catamaran 0.50
Primitive Transportation vessels (Kaito)		junk	0.60

Class and Type of Vessel	Propulsion	Basic Hull Form	Hull Form Factor (C)
Class II Vessel			
Dangerous Goods Carrier	Non mech. propelled	box	0.90
Noxious Liquid Substances Barge	Non mech. propelled	box	0.90
Oil Carrier	Non mech. propelled	box	0.90 (Note)
	Mechanically propelled	ship	0.80 (Note)
Dry Cargo Vessel	Mechanically propelled	junk	0.60
		ship	0.80 (Note)
		box	0.90 (Note)
Dumb Lighter (incl. Flat Top Barge)	Non mech. propelled	box	0.90
Edible Oil Barge	Non mech. propelled	box	0.90
Water Boat	Mechanically propelled	ship	0.60
Tug	Mechanically propelled	ship	0.60
Transportation Vessel	Mechanically propelled	ship	0.55
Transportation Sampan	Mechanically propelled	junk	0.60
Pilot Boat	Mechanically propelled	ship	0.60

Floating Workshop (incl. Repair Pontoon, Welding Barge) Crane Barge Flat Top Work Barge Landing Pontoon, Separation Barge, Ice Boat Fish Drying Hulk	Non mech. propelled	box	Vertical ends	1 (Note)
			Sloped ends	0.90 (Note)
Class III Vessel				
Fishing Vessel	Mechanically propelled / Non mech. propelled	junk	0.60	
GRP Fishing Sampan	Mechanically propelled	ship	0.60	

Note

For a vessel with intermediate hull form, for example, bow in ship form and stern in box form, C shall be the mean of the two coefficients, i.e. $(0.80 + 0.90) / 2 = 0.85$.

4.2.3 V_2 shall be determined by the following formula:


$$V_2 = \Sigma l \times b \times h \quad \text{m}^3$$

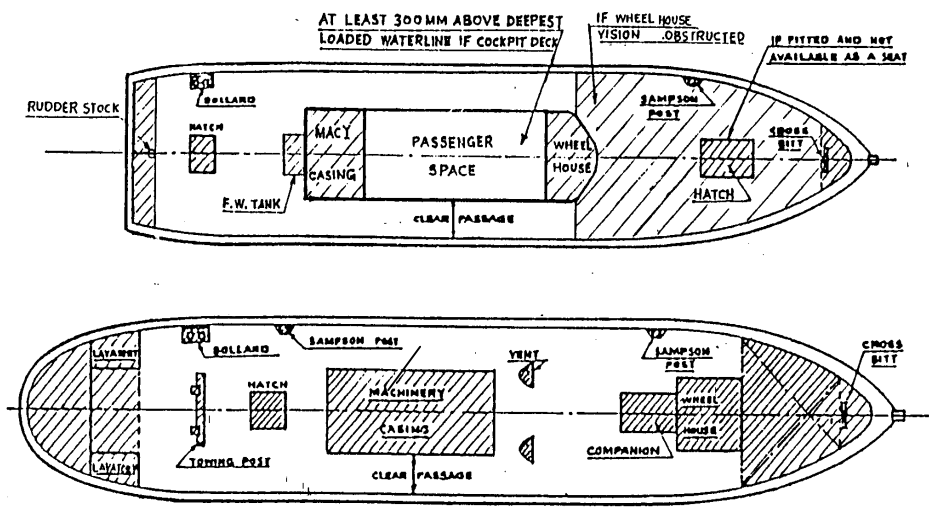
where l, b, h are respectively the mean length, mean breadth and mean height of each tier of the enclosed spaces above the main deck, in m.

UNQUOTE

ANNEX 9

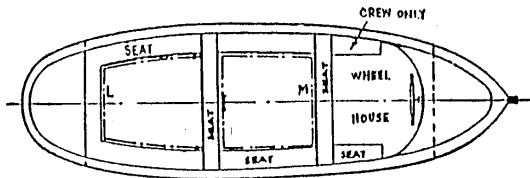
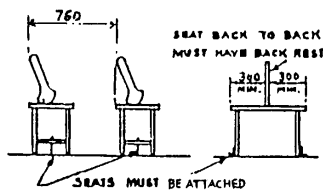
Guidance Plan to Determine Passenger Space for a Class IV Vessels

(Area as shown thus  to be excluded)

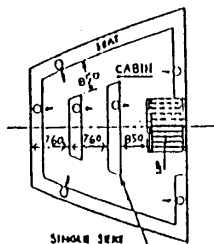
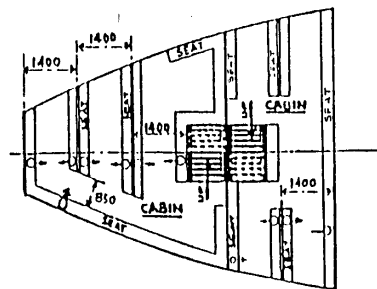



Requirements on Seating Arrangement (mm)

- (a) minimum width 460
- (b) minimum pitch
 - (i) seats facing each other 1400
 - (ii) seats facing the same way 760
- (c) minimum leg room
 - (i) not more than 6 seats in one row 250
 - (ii) more than 6 seats in one row 300
- (d) corner seats, calculations see below :



EXAMPLES $\frac{L-460}{460} = \text{PASSENGERS}$ $M \text{ LESS } 4 @ 230$ $\frac{M-920}{460} = \text{PASSENGERS}$



 MARKED SHOWING THE DIRECTION OF PASSENGERS ON THE SEAT.

1 Installation, Document and Certification for Prevention of Oil Pollution

1.1 The installation, documentation and certification required on board, and information required to submit for approval are detailed in the following table:

Type of Vessel	Pleasure Vessel
Gross Tonnage (GT)	GT≥400
Required Installation, Documentation and Certification	(a),(b),(c),(d),(e)
Information to be submitted	(f),(g), (h)

Legend

- (a) An approved type oily water separator designed to produce effluent not more than 15 ppm of oil.
- (b) Tank (sludge tank) for oil residue in engine room.
- (c) Standard discharge connection.
- (d) For Class IV vessels ≥400 GT, Hong Kong Oil Pollution Prevention Certificate and Supplement issued/endorsed by the Director or International Oil Pollution Prevention Certificate and Supplement issued/ endorsed by a recognized classification society.
- (e) Oil record book (Part I and Part II); Pleasure vessels require Part I.
- (f) Installation plans for oily-water separator consist of:
 - (i) piping arrangements, and
 - (ii) wiring diagram of electrical installation.
- (g) Sludge tank and discharge arrangement plans include:
 - (i) construction, size and location of sludge tank; and
 - (ii) piping diagram of sludge tank from machinery spaces to reception facility via standard discharge connection.
- (h) Shipboard oil pollution emergency plan.