

(Draft January, 2017)

CODE OF PRACTICE ----

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
(January, 2017 Edition)

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 and 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.

Code of Practice - Safety Standards for Class IV Vessels

Content

Chapter I	General
Chapter II	Inspection and Certification (for any Class IV vessel that is licensed to carry not more than 60 passengers and is let for hire or reward)
Chapter III	Hull, Machinery and Electrical Installations
Chapter IV	Passenger and Crew Accommodation
Chapter V	Fire Protection
Chapter VI	Life Saving Appliances and Arrangements
Chapter VII	Lights, Shapes and Sound Signals
Chapter VIII	Domestic Liquefied Petroleum Gas Installation
Chapter IX	Vessel Operator Requirements
Annex 1	Safety Briefing for Class IV Vessels That Are Let for Hire or Reward
Annex 1A	Provisions in the Merchant Shipping (Local Vessels)(Certification and Licensing) Regulation on Matters Relating to Restrictions on Class IV Vessels That Are Let for Hire or Reward
Annex 1B	Provisions in the Merchant Shipping (Certification and Licensing) Regulation on Matters Relating to Certificates of Competency Required for Class IV Vessels
Annex 2	Safety Precautions for Proper Storage and Use of Petrol
Annex 3	Certificate of Inspection
Annex 4	Inspection Record for a Class IV Vessel That Is Issued with a Certificate of Inspection
Annex 4A	Determination of Maximum Number of Persons To Be Carried and/or Survey Certification on Installation Suitable for “Unattended Machinery Space” Operation of a Class IV Vessel
Annex 5	Approximate Determination of Stability by Simple Inclining Test
Annex 6	Plans for Simple Traditionally Built Class IV Vessels
Annex 7	Implementation of the Requirement of Annex VI of MARPOL 73/78 to Locally Licensed Vessels

- Annex 7A Merchant Shipping (Prevention of Air Pollution) Regulation
(Cap. 413 sub. leg. P) - Inspection Checklist for Local Vessels
- Annex 8 Tonnage Measurement for Class IV Vessels
- Annex 9 Guidance Plan to Determine Passenger Space for Class IV Vessels
- Annex 10 Installation, Document and Certification for Prevention of Oil Pollution
- Annex 11 Certificates Relevant to Local Vessels
- Annex 12 Towing a Banana Boat or Similar Vessel
- Annex 13A Periodic Survey Programme for Class IV Vessels That Carry 60 Passengers or
Less and Are Let for Hire or Reward and Are Issued with a Certificate of
Inspection
- Annex 13B Periodic Survey Programme for Class IV Vessels That Are Issued with a
Certificate of Survey

CHAPTER I

GENERAL

1 Introduction

- 1.1 The legislation relating to the control, licensing and regulation of local vessels in Hong Kong 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 complied with and 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 used exclusively for pleasure purposes and are let for hire or reward under the terms of a written charter agreement or a written hire-purchase agreement. In accordance with the legal status prescribed in section 9 of the Ordinance, requirements set out in this Code shall be followed.
- 1.4 The legislative requirements quoted in this Code should be subject to authentic provisions of the legislative instrument and its latest amended. These requirements are mandatory and must be complied with.
- 1.5 The builder, repairer or owner/managing agent of a vessel, as appropriate shall 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.

2 Statutory Regulations and Standards

- 2.1 This Code must be construed in the light of the following statutory provisions and their amendments (if any) as appropriate:
 - (1) Merchant Shipping (Local Vessels) Ordinance, Cap. 548 (hereafter referred to as the “Ordinance”)
 - (2) Merchant Shipping (Local Vessels) (General) Regulation, Cap. 548 sub. leg. F
 - (3) Merchant Shipping (Local Vessels) (Certification and Licensing) Regulation, Cap. 548 sub. leg. D
 - (4) Merchant Shipping (Local Vessels)(Local Certificates of Competency) Rules
 - (5) Merchant Shipping (Local Vessels) (Safety and Survey) Regulation, Cap. 548 sub. leg. G (hereafter referred to as "Survey Regulation")
 - (6) Merchant Shipping (Local Vessels)(Compulsory Third Party Risks Insurance) Regulation, Cap. 548 sub. leg. H
 - (7) Merchant Shipping (Prevention of Oil Pollution) Regulations, Cap. 413 sub. leg. A

- (8) Merchant Shipping (Safety) (Signals of Distress and Prevention of Collisions) Regulations, Cap. 369 sub. leg. N
- (9) Merchant Shipping (Local Vessels) (Fees) Regulation, Cap. 548 sub. leg. J
- (10) Merchant Shipping (Local Vessels)(Typhoon Shelters) Regulation, Cap. 548 sub. leg. E
- (11) Merchant Shipping (Prevention of Air Pollution) Regulation, Cap. 413 sub. leg. P
- (12) Merchant Shipping (Prevention of Pollution by Garbage) Regulations, Cap. 413 sub. leg. O.
- (13) Merchant Shipping (Control of Harmful Anti-Fouling Systems on Ships) Regulation, Cap. 413 sub. leg.

2.2 Other standards

The vessel's strength, structure, arrangements, materials, scantlings, main and auxiliary machinery, boilers and pressure vessels, electrical installations, etc. shall 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 may 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) and (4) may either be issued by competent surveyor or Marine Department. Certificates (2) and (4) shall be issued by Marine Department as necessary (Annex 11 also lists the other certificates and documents that a local vessel might require, as appropriate):

- (1) Certificate of Inspection
- (2) Certificate of Survey
- (3) Survey Record of Inspection for certain Equipment or Tests etc. (if applicable)
- (4) Exemption Certificate / Permit for alternate material, fitting or equipment (if applicable)

2.3.2 International Tonnage Certificate, if issued, may be issued by recognized classification societies directly to the owner, together with survey records in accordance with the requirements of the relevant Convention. A copy of such certificate and record is required to be submitted to Marine Department.

3 Definitions

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

“authorized organization (AO)” means the classification society authorized (by means of authorization document) by the Director to carry out statutory survey work for local vessels;

- “carrying xx passengers” means vessel’s permissible number of passengers that can be carried;
- “certificate of ownership” means a certificate of ownership issued or endorsed by the Director under sections 10, 23 or 26 the Merchant Shipping (Local Vessels) (Certification and Licensing) Regulation;
- “Class I vessel” means any local vessel, other than a Class II, III or IV vessel defined in sections 5 and 6 of the Merchant Shipping (Local Vessels) (Certification and Licensing) Regulation;
- “Code” means this Code;
- “competent surveyor” as defined in section 2 of the Survey Regulation;
- “classification societies” means the classification societies recognized by the Director, which are as follows:
- (1) American Bureau of Shipping (ABS);
 - (2) Bureau Veritas (BV);
 - (3) China Classification Society (CCS);
 - (4) DNV GL;
 - (5) Korean Register of Shipping (KR);
 - (6) Lloyd’s Register (LR);
 - (7) Nippon Kaiji Kyokai (NK);
 - (8) RINA S.p.A. (RINA); or
 - (9) Russian Maritime Register of Shipping (RS)
- “existing vessel” means a vessel which is not a new vessel defined in section 2 of the Survey Regulation;
- “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” or the symbol “(L)”, as defined in section 2 of the Survey Regulation;
- “length overall” (總長度), as defined in section 2 of the Merchant Shipping (Local Vessels) Ordinance;
- “extreme breadth (最大寬度)”, in relation to a local vessel, means the athwartship distance between the extremity of the outermost permanent structure (which includes fender of any kind, bulwark, hand rails, etc.) on the port side and the extremity of the outermost permanent structure on the starboard side of the vessel;

“gross tonnage” (GT), a measurement figure for a Class IV vessel, of which the details and calculation can be referred to Annex 8 of this Code;

“initial survey” in connection with anyone of the certificates mentioned in Part 3 and Part 4, in so far as applicable, 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”, as defined in section 2 of the Survey Regulation;

“owner” , as defined in section 2 of the Ordinance;

“Ordinance” or “LVO” means the Merchant Shipping (Local Vessels) Ordinance (Cap 548);

“passenger”, as defined in section 2 of the Ordinance;

“periodical survey” in connection with anyone of the certificates mentioned in Part 4, in so far as applicable, 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 for the issue of the concerned certificate;

“pleasure vessel”, as defined in section 2 of the Ordinance;

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

“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 section 4.2, this Code applies to all pleasure vessels which are required to be licensed as Class IV vessels. The applicable chapters and annexes relevant to the types of vessels are as follows:

- (1) all vessels: chapters I, IV, V, VI, VII, VIII and IX; annex 1B, 2, 4A, 5, 6, 7, 7A, 8, 9, 10, 11 and 12;
- (2) all vessels that are let for hire or reward: chapters II, annex 1, 1A, 3 and 4, in addition to the above (1);
- (3) any vessel of (2) that carries not more than 60 passengers: annex 13A, in addition to the above (2);
- (4) any vessel that is issued with a Certificate of Survey: annex 13B, in addition to the above (1), (2);
- (5) the application of chapter III of this Code or other specified standard with respect to vessel’s design, construction, safety equipment, installations and fittings and survey, etc, together with certification requirements are as indicated in the following table:

No. of Passengers /Construction Feature	Gross Tonnage	Existing Vessel				New Vessel			
		Not Let for hire or reward		Let for hire or reward		Not Let for hire or reward		Let for hire or reward	
		Constructn Standard	Survey, Certificatn	Constructn Standard	Survey, Certificatn	Constructn Standard	Survey, Certificatn	Constructn Standard	Survey, Certificatn
(a) More than 60	> 150	Ch. III	CoS	Ch. III	CoS	CoP1	CoS	CoP1	CoS
	≤ 150	Ch. III	CoS	Ch. III	CoS	CoP1	CoS	CoP1	CoS
(b) 13 to 60	> 150	Ch. III	CoS	Ch. III	CoS	Ch. III	CoS	CoP1	CoS
	≤ 150	Ch. III	Not required	Ch. III	Coi	Ch. III	Not required	Ch. III	Coi
(c) Not more than 12	> 150	Ch. III	CoS	Ch. III	CoS	Ch. III	CoS	CoP1	CoS
	≤ 150	Ch. III	Not required	Ch. III	Coi	Ch. III	Not required	Ch. III	Coi
Novel Construction	Any Tonnage	case by case	case by case	case by case	case by case	case by case	case by case	case by case	case by case

Legend

CoP1: to be in accordance with relevant requirements for vessel of type “Launch” carrying the same number of passengers specified in “Code of Practice – Safety Standards for Class I Vessels”

Ch. III: to be in accordance with relevant requirements specified in Chapter III of this Code

CoS: Authorized Organization to undertake all statutory plan approval and surveys except the final inspection (i.e. items in Table 2 of Annex 13B); Marine Department officer to undertake final inspection and issuance of the Certificate of Survey

Coi: competent surveyor (or as directed by the Director) to undertake all statutory plan approval and surveys and issuance of the Certificate of Inspection

Case by case: to be specified by the Director on a case-by-case basis.

4.2 This Code does not apply to any vessel prescribed in section 10 of the Ordinance.

4.3 The coxswain of any Class vessel that is let for hire or reward 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 that is let for hire or reward” is indicated in Annex 1.

4.4 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.

4.5 Compliance with this Code satisfies the condition relevant to the safety and pollution prevention requirements of the Survey Regulation relating to any Class IV vessel operating in the waters of Hong Kong.

4.6 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:

- (1) belongs to the same owner as the certificated vessel;
- (2) does not exceed 4 metres in length overall (LOA); and
- (3) either is not fitted with an engine or is fitted with engines not exceeding 7.5 kW total propulsion power.

5 Reporting of Accidents

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 Sections 57 to 59 of 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 shall 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, owner or coxswain of the vessel shall 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) must be kept onboard as required under the Certification and Licensing Regulation.

Note : “written charter agreement / written hire-purchase agreement”, their meaning or purposes are given in section 6 under the 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:
 - (1) to ensure that the vessel is properly maintained and examined in accordance with the requirements of the Ordinance and regulations as mentioned in section 2 above, in addition to this Code; and
 - (2) 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^(Note).

Note: For any Class IV vessel that carries not more than 60 passengers and is not let for hire or reward, owner or agent of the vessel may seek advice and recommendations from a builder or competent surveyor, 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 The coxswain 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.
- 8.3 Class IV vessels of novel construction and jetski shall be of the type/model approved or recognized by classification society or by the national maritime authority of their country of manufacture.
- 8.4 If any Class IV vessel is engaged in towing of a banana boat or similar vessel, the owner, agent or coxswain must complete a declaration form and make an application at any District Marine Offices of Licensing and Port Formalities Section for endorsement of Operation Licence with conditions (if any) and any vessel permitted to tow a banana boat or similar vessel shall conform to the conditions as stipulated in Annex 12 of this Code as well as the following criteria:
- (1) a Class IV vessel that is more than 3 metres in length overall;
 - (2) is fitted with engines of more than 3 kilowatts total propulsion power; and
 - (3) is equipped with towing facilities.

9 Equivalent

Under s83 of the Survey Regulation Marine Department may grant permission for providing on board any other fitting, material, appliance or apparatus, or type thereof, or other facilities that are different from those required in this Code, provided that they have been satisfied by testing or other methods and at least possessed equivalent effectiveness with those required in this Code; supported by necessary survey and test reports.

10 Display of Certificate

Under section 30 of the Survey Regulation, the Certificate of Inspection / Certificate of Survey must be displayed in a conspicuous location onboard.

11 Application for Inspection and Fees

- 11.1 Under section 17(2)(a) of the Survey Regulation the owner or agent of any vessel carrying not more than 60 passengers which is let for hire or reward shall apply as required to a competent surveyor for the relevant statutory inspections.

11.2 Under section 15(2)(a), (c) and (d) of the Survey Regulation the owner or agent of any vessel with carrying capacity of more than 60 passengers or more than 150 gross tonnage or of novel construction, shall apply as required to the Marine Department for relevant statutory inspections and pay relevant fees.

CHAPTER II

INSPECTION AND CERTIFICATION

(for any Class IV vessel that is licensed to carry not more than 60 passengers
and is let for hire or reward)

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 on slip or dry-docking.
- 1.2 The competent surveyor 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 competent surveyor for the intended purpose and condition of the vessel, and it shall not be more than 12 months. A format of the Certificate is available at the following URL:
http://www.mardep.gov.hk/en/forms/pdf/lvs_certin4.pdf

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 the competent surveyor.
- 2.2 Relevant document from builder with endorsement or certification by the competent surveyor confirming the standard of construction applied to the vessel and, where appropriate, together with an inclining test report shall 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 valid certification document is acceptable. Proven type pleasure vessels with proper documentation or verification details can also be considered acceptable.
- 2.4 (1) For any Class IV vessel, builder's inspection reports or certificates and the basic drawings are required for assessment and endorsement by a competent surveyor. The endorsed document shall be kept onboard with the Inspection Record.

- (2) For any existing vessel which has one year or more record of safe operation ^(Note) (before 2 January 2007) in the waters of Hong Kong or similar operating conditions, the requirements in (1) above can be waived and it will be considered to be adequate strength after a simple inclining test (Annex 5 refers), evaluation of a few basic drawings (which can be supplemented by photos) and satisfactory examination; and
- (3) For any existing vessel which does not have one year record of safe operation as indicated in (2) above, technical assessment (including essential drawings, simple inclining test (Annex 5 refers), details of materials and construction) of the vessel by a competent surveyor 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:

Construction

- (1) Structural continuity and strength of hull and deck, superstructure/deckhouse, connections and all localized reinforcement; etc.
- (2) Buoyancy integrity and water tightness, closing and protective means;
- (3) Internal bulkheads strength and integrity, deck and hull fittings;
- (4) Assessing relevant document / certificate of construction and/or inclining test report where appropriate. (Refer to requirements in Chapter I/4.1, Chapter II/2.2 to 2.4 and Chapter III/1 and 2);

Machinery and Electrical

- (5) Main and auxiliary engines installation, functioning and performance of engines and control system;
- (6) Oil tanks and associated piping system;
- (7) Bilge piping system and fire-fighting apparatus/system;
- (8) Ventilation arrangement and closing appliances of machinery space;
- (9) Safety for LPG installation and use of petrol;
- (10) Electric cables and electrical installations;
- (11) Insulation resistance of cables, overload protection and earthing of electrical installation;

Safety Equipment and Lights and Sound Signals

- (12) Life-saving appliances (number, stowage and working condition);
- (13) Fire-fighting apparatus (number, stowage and working condition);
- (14) Lights, shapes and sound signals (installation, number and working condition);

Pollution Prevention System

- (15) Installation and functioning of oil pollution prevention system (for vessels of 400 gross tonnage or above);
- (16) Installation and functioning of air pollution prevention system (refer to MARPOL Annex VI and Annex 7 of this Code);

Passenger and Crew Cabins

- (17) Passenger and crew cabins requirement
 - (a) Means of escape;
 - (b) Means of protection such as guard rails, handrails and passageways;
 - (c) Ventilation arrangement and closing appliances of passenger accommodation;
 - (d) Passenger seating arrangement and carrying capacity markings;

Others

- (18) Verification of principal dimensions, engine and main machinery particulars;
- (19) Other items considered necessary by the competent surveyor (to be indicated in separate list).

Inspection on slip or drydocking (at interval of not more than two years after initial certification and thereafter)

- (20) Examine the internal and external condition of the hull (including fuel tank, water tank, void), bulkhead, sea-chest, skeg and shaft bracket;
- (21) Examine the condition of sea valve, jet nozzle, stabilizer, rudder, propeller shaft, propeller, underwater hull fittings and water/oil seals, etc. and submission of engine inspection reports from engine workshop.

3.2 The above inspection items are shown in Annex 4 and Annexes 13A and 13B for reference.

Chapter III

Hull, Machinery and Electrical Installations

1 Standards for 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. shall 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 standards.

2 Hull Construction and Marking

2.1 (1) The vessel shall be designed and constructed to:

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

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

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

2.3 Bulkheads of vessel except those of wooden construction, and as far as practicable on wooden vessel in particular the foremost bulkhead, shall be of watertight construction.

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

(2) Every deck house shall be provided with appropriate insulation to avoid from excessive heat.

2.5 The certificate of ownership number of a vessel must be painted and mounted in accordance with section 38 of the Certification and Licensing Regulation.

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

(2) As alternative to (1) above, for any new vessel licensed to carry not more than 12 passengers, a simple inclining test shall 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 the length of the new 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 shall 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 the 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 of protection or device shall be provided to machinery, equipment, winches, etc. so as to reduce to a minimum any danger to person on board. Special attention shall be paid to moving parts, hot surfaces and other dangers.
- 3.2 Machinery spaces shall be so designed and built so as to prevent 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 shall 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), shall the vessel become out of control, be fitted. For a jetski, manufacturer recognized engine cutoff device or as appropriate, is to be fitted on board.

Note

When an open deck vessel is rated with operating speed exceeding 17 knots 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 The engine's exhaust pipe and bulkhead piece shall be insulated with heat-resistant material unless it is served by a water-cooling system. A silencer or expansion chamber shall be fitted on the exhaust pipe.
- 3.6 The arrangements for filling fuel tanks shall be such that oil will not spill or overflow into any compartment of the vessel.
- 3.7 Fuel tanks shall be substantially constructed of suitable material and securely fixed in position. Fuel oil outlet valves shall be readily closed from a position outside the space where the tank is situated. A suitable metal tray for collection of leaking oil shall be fitted under each valve of oil tank. For portable petrol containers, requirements in Annex 2 of this Code are to be followed.
- 3.8 All fuel oil tank and lubrication oil tank venting pipes shall be led outside the compartment to open area. The open end of each venting pipe for fuel oil tanks shall be fitted with properly secured metallic wire-gauze.
- 3.9 Oil pipes, water pipes and engine exhaust pipes shall 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 shall be provided.

- 3.10 Fuel oil pipes and their attachments shall be of adequate strength and free from excessive vibration.
- 3.11 A bilge pump of sufficient capacity shall be provided for any vessel of length (L) 8 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 shall be strictly followed.
- 3.13 Every vessel of gross tonnage 400 and above must 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 (refer to Annex 10).

3.14 Engine Room and Wheelhouse Communication and Safety Arrangement

- (1) On any vessel with manned engine rooms, a suitable system of communication between wheelhouse and engine room shall be provided.
- (2) Any vessel with length as indicated below, operating in unattended machinery spaces mode, shall be provided with the following installation in the proximity of the position of helmsman:
- (a) Vessel of $L \leq 24$ m
- (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 recommended. If these fittings are not installed, regular surveillance shall be exercised from outside engine room or control station by the coxswain or a crew member.
- (v) for new vessels, a fixed fire detection (operated by smoke detectors) and fire alarm system for engine room are to be installed. ^(Note)

Note

For vessel length of less than 12 m, if regular surveillance can be exercised from outside engine room or control station by the coxswain or a crewmember, these requirements can be waived.

- (b) Vessel of $L > 24$ m
same as (a) 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 shall 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. When the dark smoke emitted is as dark as or darker than Shade 2 of the Ringelmann Chart and is emitted for a continuous period of more than 3 minutes, the emission is considered against the law.

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.

3.17 Compressed Air System

3.17.1 Suitable pressure-relief arrangements shall be provided to prevent excess pressure in any part of the compressed air systems.

3.17.2 The starting air arrangements for main engine of a cylinder diameter exceeding 300 mm shall be adequately protected against the effects of back firing and internal explosion in the starting air pipes.

3.17.3 The discharge pipes from starting air compressor shall be led directly to the starting air receiver. Starting air pipes from air receivers serving main or generator engines shall be entirely separate from other services.

3.17.4 Provision shall be made to avoid or minimize the entry of oil into the air pressure systems and to drain the oil from the systems.

3.17.5 (1) Construction of air receivers shall meet the standard of a maritime administration's national standard or a classification society, and be subject to the approval of the Director. The air receivers are classified according to the following table:

Class I	Class II	Class III
$P > 39.2$	$39.2 \geq P \geq 17.2$	$P < 17.2$
or $S > 38$	or $38 \geq S \geq 16$	or $S < 16$
or $T > 350$	or $350 \geq T \geq 150$	or $T < 150$

where P = maximum design or working pressure (bar)

S = shell thickness (mm)

T = working temperature (°C)

(2) Air receivers of new vessel ^{Note1} shall be built under the survey of one of the abovementioned maritime institutions, and issued with appropriate certificates.

(3) Each air receiver shall be provided with the following fittings:

(i) Stop valve and pressure gauge

(ii) Drain valve

^{Note1} A vessel which is a new vessel when the reference to “the commencement date” in the definition of “new vessel” under section 2 of the Survey Regulation is substituted by “x.x.2017”.

- (iii) Safety valve
- (4) The following information shall be submitted in duplicate for approval:
 - (i) Air receiver construction (including details of welded connections, attachments, dimensions and supports etc.)
 - (ii) Construction of pressure parts (cylindrical shell, end plates, etc.)
 - (iii) Arrangement of mountings and fittings
 - (iv) Mechanical properties of material
 - (v) Test pressure.

3.17.6 Every air receiver shall be tested at pressure according to the following table:

Type of Construction	Maximum Working Pressure (MWP)	Test Pressure
Riveted or Fusion welded	$MWP \leq 7 \text{ bar}$	$2 \times MWP$
Riveted	$7 \text{ bar} < MWP \leq 20 \text{ bar}$	$1.5 \times MWP + 3.5$
Riveted	$MWP > 20 \text{ bar}$	$MWP + 14$
Fusion welded	$MWP > 7 \text{ bar}$	$1.5 \times MWP + 3.5$

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 shall 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” shall be earthed if they are supplied at a voltage exceeding 50V, except arranged with double insulation internally.
- 4.4 Electrical apparatus shall 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 shall not be less than the nominal voltage.
- 4.6 Every conductor of a cable or flexible cord shall 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 shall be selected so as to protect against condensed moisture or drips. Cables shall, as far as possible, be remote from sources of heat, such as hot pipes, resistors, etc., and shall be protected from avoidable risks of mechanical damage.
- 4.8 Circuits shall be protected against short circuit and overload.

- 4.9 The current rating of circuit breakers shall not exceed the current rating of the smallest size of cable in the circuit protected by the circuit breaker.
- 4.10 Lighting fittings shall 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 lead-acid type shall 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 lead-acid type, the electrical fittings shall be of an explosion proof 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 MARPOL as follows :
- (1) The Merchant Shipping (Prevention of Oil Pollution) Regulations (Cap. 413A) applicable to any pleasure vessel of gross tonnage 400 and above (Refer to Annex 10 of this Code); and
 - (2) The Merchant Shipping (Prevention of Air Pollution) Regulation (Cap. 413P) applicable to any pleasure vessel (Refers to Annex 7 of this Code).

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 shall 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.
- 6.3 No naked fire is permitted to use for cooking or similar activities whenever there is passenger onboard, unless the cooking is done inside a galley fitted with fire protected bulkheads.

7 Alteration

Before making any major alteration of the pleasure vessels, the shipowner/agent/competent surveyor shall follow the requirements of "Instruction to Competent Surveyors No. 2/2010".

Chapter IV

Passenger and Crew Accommodation

1 Accommodation

- 1.1 Accommodation spaces shall be maintained in a clean, suitable lighting, well-ventilated and habitable condition with efficient means of escape.
- 1.2 There shall 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 etc., shall be securely fastened in place to prevent movement when the vessel is underway.
- 1.4 All vessels shall ensure the boarding for crew and passengers is safe.
- 1.5 For vessels carrying more than 12 passengers, sanitary apparatus or wash room shall be provided on onboard.
- 1.6 Glass or mirror shall be made of materials, which will not break into dangerous fragments if fractured.
- 1.7 Passenger and crew accommodation shall have at least 1.85 metres of clear headroom above deck flooring.

2 Maximum Carrying Capacity and Seating

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

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

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

- (2) closed deck vessel^{(Note (ii))}

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

where L = vessel length (m) as defined in Chapter I of this Code

L_d = vessel deck overall length (m)

B = vessel maximum breadth (m)

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 submitting to Licensing

and Port Formalities Section the relevant supporting document, such as inclining testing report issued by shipbuilder or recognized classification society or competent surveyor 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 shall 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 section 2.1 and refer to Annex 4A of this Code.

2.3 All passengers shall be arranged with seating or resting facilities adequate for the intended purpose. As a guidance, the number of fixed seats shall 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 (1) Any new Class IV vessel that is let for hire or reward shall not carry passenger below main deck.

(2) For any new Class IV vessel not let for hire or reward or any existing Class IV vessel let for hire or reward; any compartment below main deck shall not be used as passenger space as far as practicable, except on a sunken deck which has scantlings equivalent to main deck and shall be at least 100 mm above the deepest loaded waterline or fitted with flooding alarms, provided these spaces are clearly marked with the accessible escape route.

2.5 For any Class IV vessel that is 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 competent surveyor / Marine Department.

3 Marking of carrying capacity in Passenger Space

3.1 For any Class IV vessel that carries more than 12 passengers and is let for hire or reward, the number of passengers in which each deck can accommodate shall be indicated, in a conspicuous location, at all spaces where passengers will be embarking, in Chinese and English :-

Upper Deck	xxx
Main Deck	xxx
Others	xxx
Total number of passengers	xxx
Minimum Number of Crew	xxx
Total number of person permitted	xxx

3.2 For any Class IV vessel that carries not more than 12 passengers and is let for hire or reward, it is recommended to mark the maximum carrying capacity in a conspicuous location, in Chinese and English.

3.3 Lifejacket stowage location shall be clearly marked.

4 Deck Areas Disallowed for Passengers

4.1 The following spaces are not permitted to carry passengers:

- (1) the area abaft the fore side of the rudder stock on the main deck, unless bulwark or guardrails are installed near the periphery of the deck;
- (2) the portion of a compartment or of a deck used for the purpose of navigation and fire fighting;
- (3) machinery compartments, casings and skylights;
- (4) decks or part of a deck set apart exclusively for the carriage of motor vehicles, luggage; etc.
- (5) the forward part of the vessel, where the look-out of the coxswain could be obstructed; and, 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;
- (6) areas of stairways, stairway landings, hatchways and ventilators;
- (7) areas permanently occupied by equipment and fittings e.g. inflatable liferafts, hatches, ventilation trunkings; etc.
- (8) cabins and spaces allocated for the accommodation of the crew;
- (9) galley/pantry and other service spaces.

4.2 An outline guidance plan showing areas to be excluded for designating as passengers space is indicated in Annex 9 of this Code.

5. Inflatable Boat

5.1 The construction of inflatable boat shall meet the standard of International Standard Organization issued ISO 6185 with respect to structural materials, functional components and safety requirements (including maximum load capacity), etc. appropriate to vessel's length and engine horsepower. Independent certification for the vessel applying for licence shall be furnished.

5.2 An application for the increase of carrying capacity (including passenger and crew) may be considered subject to the vessel is in compliance with the requirements of ISO 12217-1 (appropriate to vessel's design category) and ISO 14946 for the number of persons intended. An inclining test may be required for confirmation, using test weights representing the total weight of persons.

CHAPTER V

FIRE PROTECTION

1 General Requirements

1.1 Fire-fighting apparatus shall be of approved type. Apparatus 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), or equivalent, are acceptable. In any vessel carrying not more than 12 passengers, fire-fighting apparatus approved by the national maritime authority of their country of manufacture, or equivalent, are acceptable.

1.2 Portable Fire Extinguishers

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

Vessel length (L)(m)	$L \leq 9$	$9 < L < 15$	$L \geq 15$
Media			
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. shall 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 shall 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 shall be stowed near the entrance to that space.

1.2.5 Carbon dioxide fire extinguishers shall not be used in accommodation spaces.

1.2.6 No portable fire extinguisher is required for a jetski.

1.2.7 Portable fire extinguishers shall be periodically examined and subject to such tests as prescribed in Annex 13A or 13B.

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 shall not be situated in the same compartment of the main fire pump.

1.3.2 A manually operated pump shall 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 shall 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. If only one hydrant is provided for the engine room it shall be located outside that space and near the entrance.

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

2 Ready Availability and Maintenance of Apparatus

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 apparatus shall be inspected at intervals of not more than 12 months.

3 Scale of Fire-fighting Apparatus

3.1 The requirements of fire-fighting apparatus are prescribed in Survey Regulation Schedule 4. The electronic version of which is available at URL –

~~[http://www.legislation.gov.hk/blis_pdf.nsf/6799165D2FEE3FA94825755E0033E532/4-B0D89C173F9FB2F4825755EF0018F44D/\\$FILE/CAP_548G_e_b5.pdf](http://www.legislation.gov.hk/blis_pdf.nsf/6799165D2FEE3FA94825755E0033E532/4-B0D89C173F9FB2F4825755EF0018F44D/$FILE/CAP_548G_e_b5.pdf)~~ See Cap. 548G

3.2 The requirements for a vessel of 75 m or more in length shall be specified by the Director on case by case basis having considered 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 apparatus in Survey Regulation Schedule 4 (Table 8) are quoted 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

Fire-fighting apparatus		Vessel length (L)(m)				
		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 ⁽¹⁾	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 shall 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.

3.4 Provisions of fire-fighting apparatus in Survey Regulation Schedule 4 (Table 1) are quoted below:

Table 1

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

Fire-fighting apparatus		Vessel length (L)(m)			
		(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 Survey 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 Survey 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 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

Remark : For existing Class IV vessel that is let for hire or reward and of length less than 24 m, power/manual pump may be substituted by equivalent means of additional fire fighting apparatus.

3.5 Provisions of fire-fighting apparatus in Survey Regulation Schedule 4 (Table 3) are quoted 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

Fire-fighting Apparatus		Vessel length (L)(m)		
		L < 12	12 ≤ L < 24	24 ≤ L < 75 ^(note)
portable fire extinguisher	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		1	2	3

UNQUOTE

Chapter VI

Life-Saving Appliances and Arrangements

1 General

- 1.1 All life-saving appliances (other than lifejackets) shall be of approved type. Appliances conforming to the International Life-Saving Appliance (“LSA”) Code adopted by the Maritime Safety Committee of the International Maritime Organization by its resolution MSC.48(66), and approved by a maritime administration of a jurisdiction to which the International Convention for the Safety of Life at Sea, 1974 is applicable or a classification society, or equivalent, are acceptable.
- 1.1A The lifejackets required to be provided on board a local vessel under section 32 of and Schedule 3 to the Survey Regulation must –
- (a) at least comply with the performance standards and requirements set out in –
 - (i) for a local vessel which is permitted to leave the waters of Hong Kong –
 - (A) section 2.2.1 or 2.2.2 of the LSA Code; or
 - (B) ISO 12402-3:2006 (Personal floatation devices – Part 3: Lifejackets, performance level 150 – Safety requirements) issued by the International Organization for Standardization (ISO);
 - (ii) for a local vessel which is permitted to ply solely in the waters of Hong Kong –
 - (A) section 2.2.1 or 2.2.2 of the LSA Code; or
 - (B) ISO 12402-4:2006 (Personal floatation devices – Part 4: Lifejackets, performance level 100 – Safety requirements) issued by the ISO; and
 - (b) be of a type approved by a maritime administration of a jurisdiction to which the International Convention for the Safety of Life at Sea, 1974 is applicable or a classification society.
- 1.2 Very high frequency (VHF) radio equipment shall be of a type approved by the Communications Authority (CA), Hong Kong.
- 1.3 One lifebuoy of 760 mm diameter is deemed to support two persons.
- 1.4 The buoyant lifeline shall be attached to a lifebuoy and be placed in the proximity of the ship’s side.
- 1.5 Lifebuoys shall 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 shall 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 shall be stowed in racks or under seats and be clearly marked. They shall be evenly distributed according to the disposition of persons on board.
- 2.4 If a lifejacket is individually stored in a plastic bag, and –
- (a) if the plastic bag is completely transparent, the plastic bag shall be easily ripped open; and
 - (b) if the plastic bag is opaque or is not completely transparent –
 - (i) the plastic bag shall be easily ripped open; and
 - (ii) there shall be clear indication at a conspicuous place on the outside of the plastic bag that the plastic bag contains a lifejacket.
- 2.5 If one or more lifejackets are stored in an enclosed space (for example: a cabinet, a bag) which is opaque or is not completely transparent, there shall be clear indication at a conspicuous place on the outside of the enclosed space that the enclosed space contains a lifejacket.
- 2.6 Crew, passengers and persons onboard open cruisers or similar type of vessels, where the risk of falling overboard is high, are recommended to wear lifejackets at all times.

3 Safety Briefing

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

4 Scale of Life-saving Appliances

- 4.1 The requirements of life-saving appliances are prescribed in Survey Regulation Schedule 3, the electronic version of which is available at URL –
- ~~[http://www.legislation.gov.hk/blis_pdf.nsf/6799165D2FEE3FA94825755E0033E532/4B0D89C173F91FB2F482575EF0018F44D/\\$FILE/CAP_548G_e_b5.pdf](http://www.legislation.gov.hk/blis_pdf.nsf/6799165D2FEE3FA94825755E0033E532/4B0D89C173F91FB2F482575EF0018F44D/$FILE/CAP_548G_e_b5.pdf)~~ See Cap. 548G

4.2 Provisions of life-saving appliances in Survey Regulation Schedule 3 (Table 7) are quoted below:

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 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

4.3 Provisions of live-savings appliances in Survey Regulation Schedule 3 (table 1 and table 2) are quoted below:

Table 1

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

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

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 for a 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)≥21 m	27.3 m

- (3) Required for a Class IV vessel that carries more than 100 passengers.

Table 2

Minimum number of lifebuoys as required in Table 1

Vessel length (L)(m)	Number of lifebuoys
(L) < 12	2
12 ≤ (L) < 15	4
15 ≤ (L) < 18	6
18 ≤ (L) < 21	8
21 ≤ (L) < 24	10
(L) ≥ 24	12

4.4 Provisions of life-savings appliances in Survey Regulation Schedule 3 (Table 3 and Table 5) are quoted below:

Table 3

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

Life-saving appliances \ Operation area	Specified Sheltered Waters	Anywhere within waters of Hong Kong
lifejacket	any number) Total	100% adult lifejacket + <5% children lifejacket> ⁽¹⁾⁽²⁾
lifebuoy	any number) 100% ⁽¹⁾	minimum number per Table 5
buoyant lifeline ⁽³⁾	1 for vessel (L)<12 m 2 for vessel (L)≥12 m	
<self-igniting light (for vessel (L)≥ 37 m)> ⁽²⁾	2	

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) Requirements in angle brackets (“< >”) are for new vessels only.
- (3) The minimum length of buoyant lifeline is 30 m.

Table 5

Minimum number of lifebuoys as required in Table 3

Vessel length (L)(m)	Number of lifebuoys
(L) < 12	1
12 ≤ (L) < 24	2
24 ≤ (L) < 37	4
(L) ≥ 37	6

Note: For jetski, one lifejacket for each person to be provided onboard.

CHAPTER VII
LIGHTS, SHAPES AND SOUND SIGNALS

1 General

- 1.1 Unless indicated otherwise, this chapter (including amendments made therein) applies to all vessels (new and existing) with effect from 1 July, 2016.
- 1.2 Lights, shapes and sound signals provided for navigational purpose shall be in accordance with the provisions of the Merchant Shipping (Safety) (Signals of Distress and Prevention of Collisions) Regulations, Cap. 369 sub. Leg. N, which gives effect to the International Regulations for Preventing Collisions at Sea 1972 (COLREG), as amended.
- 1.3 All navigation lights and sound signals shall be of the type approved/certified by Marine Department, Maritime Administration of a convention country.

All lanterns and sound signals fitted on new vessel^{Note 1}; or replacement of these lights/signals on existing vessel shall be of the type approved/certified by Marine Department, Maritime Administration of a convention country or an authorized organization (definition in Ch. I/3.1 refers). Each navigation light shall be accompanied by a type-approval certificate with unique serial number.

2 Definitions

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

- (a) The words "length (L)" and "breadth" of a vessel mean her length overall and greatest breadth (definition in Ch. I/3 refers).
- (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 Alternative Lights

Lanterns may be either electric or oil type.

4 Lights and Sound Signals

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

^{Note 1} Applicable to a vessel which is when the reference to "the commencement date" of the Survey Regulation in the definition of "new vessel" under section 2 of the Survey Regulation, the date is substituted by "x.x.2017".

4.1 Power Driven Vessels $L \geq 50$

Item	No. Req'd	Intensity/Size	Remark
Masthead Light	1 fwd 1 aft	visibility 6 n. miles	
Side Light (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	2	0.6 m diameter	
Black Diamond	1	0.6 m diameter, 1.2 m height	
Whistle	1	Audibility range 50 m \leq L < 75 m 1 n. mile 75 m \leq L < 200 m 1.5 n. mile	
Bell	1	0.3 m mouth diameter	
Gong	1		for L \geq 100 m

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

Item	No. Req'd	Intensity/Size	Remark
Masthead Light	1	visibility 5 n. miles	
Side Light (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	2	0.6 m diameter	
Black Diamond	1	0.6 m diameter, 1.2 m height	
Whistle	1	audibility range 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. Req'd	Intensity/Size	Remark
Masthead Light	1	visibility 3 n. miles	
Side Light (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	2	" 2 n. miles	all round red
Black Ball	2	dimensions commensurate with size of vessel	
Black Diamond	1	ditto	
Whistle	1	audibility range 0.5 n. miles	
Sound Signal	1	means of making efficient sound signal	

4.4 Power Driven Vessels $L < 12$ m

Item	No. Reqd	Intensity/Size	Remark
Masthead Light	1	visibility 2 n. miles	may exhibit an all-round white
Stern Light	1	" 2 n. miles	light instead ^{Note A}
Side Light (P&S)	1 set	" 1 n. miles	may be combined lantern
Anchor Light	1	" 2 n. miles	all round white
N.U.C. Light ^{Note B}	2	" 2 n. miles	all round red
Black Ball ^{Note B}	2	dimensions commensurate with size of vessel	
Black Diamond ^{Note B}	1	ditto	
Sound Signal	1	means of making efficient sound signal	

Note

- (A) The masthead light or all-round white light may be displaced from the fore and aft centreline of the vessel if centreline fitting is not practicable, provided that the sidelights are combined in one lantern which shall be carried on the fore and aft centreline of the vessel or located as nearly as practicable in the same fore and aft line as the masthead light or the all-round white light.
- (B) Except those engaged in diving operations, the subject lights and shapes shall not be required.

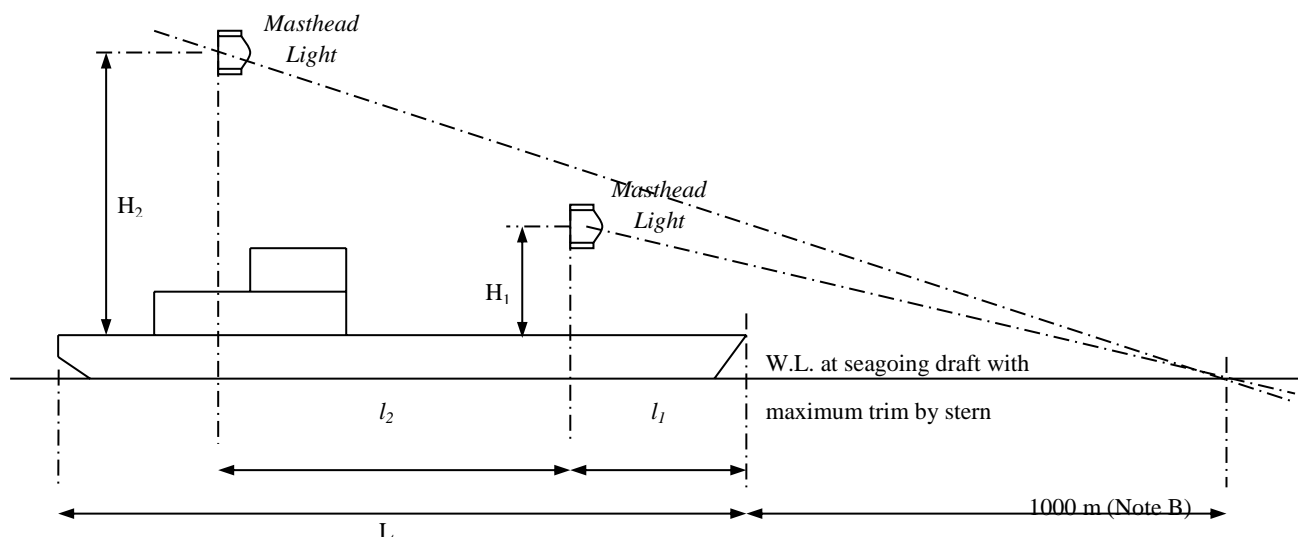
4.5 Power driven vessel with $L < 7$ m and maximum speed not exceeding 7 knots may in lieu of the lights prescribed in 4.4 above, exhibit an all round white light and shall, if practicable, also exhibit sidelights.

4.6 Whenever a jetski is to operate from sunset to sunrise or restricted visibility in daytime, all lights prescribed above shall be exhibited.

5 Positioning of Light Signals

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

5.1 Masthead Light



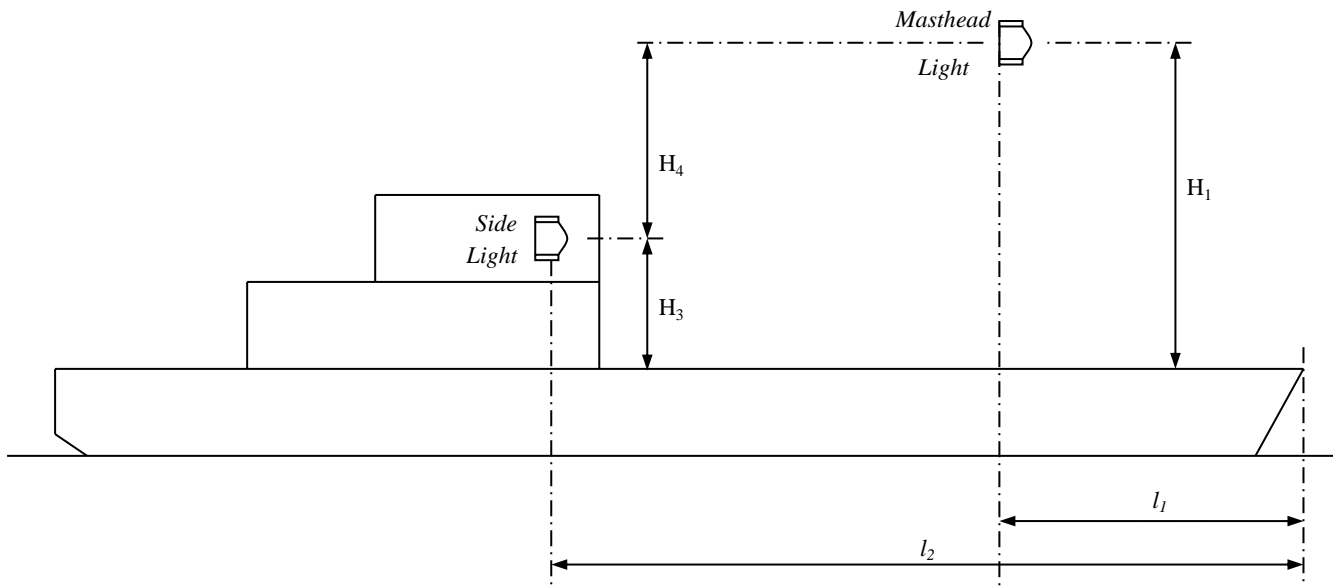
Ship Length L (m)	L < 12 (Note A)	12 ≤ L < 20 (Note A)	20 ≤ L < 50 (Note A)	L ≥ 50
l_1	As far forward as is practicable	As far forward as is practicable	≤ 0.5L	≤ 0.25L
l_2	--	--	--	≥ 0.5 L
H_1	may be < 2.5 m (Note D,F)	≥ 2.5 m (Note C,F)	≥ 6 m or ship's breadth (whichever is greater), but need not > 12 m (Note F)	
H_2	--	--	--	≥ ($H_1+4.5$) (Note E,F)

Note

- (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 m ≤ L < 20 m the height is measured from gunwale.
- (D) Vessels of L < 12 m may 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 side lights and a stern light or the all-round lights prescribed in the regulation is carried in addition to side lights, then such masthead light or all-round light shall be carried at least 1 m higher than the side lights.
- (E) One of the two or three masthead lights prescribed for a vessel when engaged in towing or pushing another vessel shall be placed in the same position as either the forward masthead light or the after masthead light; provided that, if carried on the after mast, the lowest after masthead light shall be at least 4.5 m vertically higher than the forward masthead light.
- (F) The masthead light of high speed vessel 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°. For the dimension of vertical separation between foremast and mainmast light on high speed vessel of L ≥ 50, s13, Annex I of Merchant Shipping (Safety) (Signals of Distress and Prevention of Collisions) Regulations refers.

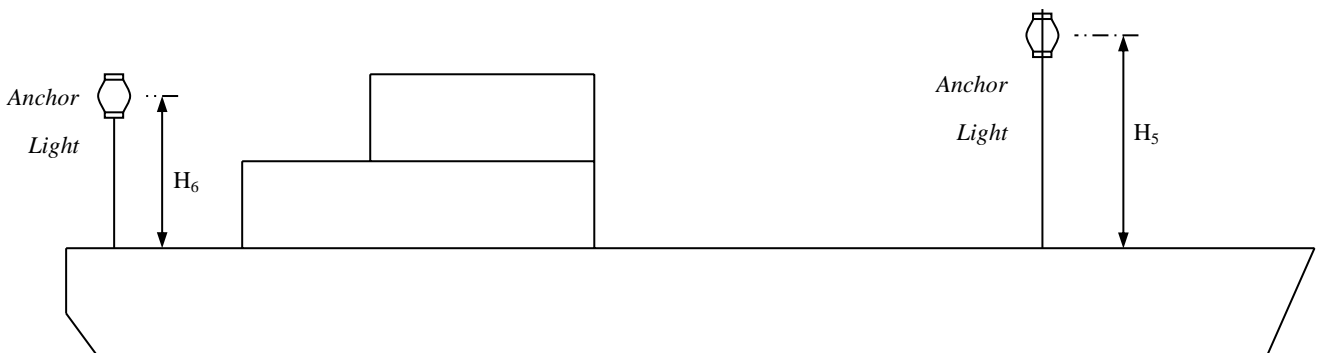
5.2 Side Light

- 5.2.1 The side lights of vessels of L ≥ 20 m shall be fitted with inboard screens painted matt black and meeting the requirements with respect to horizontal sectors. On vessels of L < 20 m the side lights, 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 Side lights 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).
- 5.2.3 The sidelights, if in a combined lantern and carried on a power-driven vessel of less than 20 m in length, shall be placed not less than 1 m below the masthead light.



Length (m)	$L < 20$	$20 \leq L < 50$	$L \geq 50$
l_3	no requirement	$> l_1$ (i.e. side light not to be in front of masthead light)	$> l_1$ (i.e. side light 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

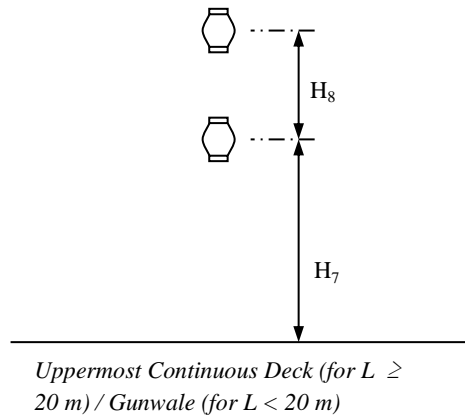


Length (m)	$L < 50$ (Note)	$L \geq 50$
H_5	Position can best be seen	$\geq 6\text{ m}$
H_6		$\leq (H_5 - 4.5)$

Note

On vessels of $L < 50$ m, only one anchor light is required.

5.4 Vertical Spacing of Lights fitted in a Vertical Line



Length (m)	$L < 20$	$L \geq 20$
H_7	≥ 2 m (except where a towing light is fitted) ^{Note A}	≥ 4 m (except where a towing light is fitted) ^{Note A}
H_8 ^{Note B}	≥ 1 m	≥ 2 m

Note

- (A) In the case of 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.

5.5 Electric Light Vertical Sectors

The lights shall be so positioned such that:

- (i) at least the required minimum intensity is maintained at all angles from 5° above to 5° below the horizontal;
- (ii) at least 60% of the required minimum intensity is maintained from 7.5° above to 7.5° below the horizontal.

Chapter VIII

DOMESTIC LIQUEFIED PETROLEUM GAS INSTALLATION

1 Marking

- 1.1 Liquefied petroleum gas (LPG) cylinders shall be clearly marked of 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 coaming, may travel some distance whilst seeking the lowest part of that space and its adjoining spaces. The accumulation of LPG probably poses dangerous consequence and fatality when triggered by inadvertent spark or ignition.

3 Storage

- 3.1 No more than 50 kg (or combined water capacity 130 litres) of LPG shall be carried on board.
- 3.2 LPG cylinders and expended cylinders shall as far as practicable be stowed on open decks. The cylinders and all valves, pressure regulators and pipes leading from such cylinders shall be properly secured, protected against mechanical damage, and excessive variations in temperature and direct rays of the sun. The cylinders shall be installed upright to prevent liquid from flowing into the pipes.
- 3.3 The LPG cylinder storage locker, and associated pipes and joints shall be readily accessible for the check of suspected leaks; and shall be as far away from any air pipes, ventilators, hatchways, etc. and close to the cooking appliances as practicable.
- 3.4 Except as necessary for service within the space, electrical wiring and fittings shall not be permitted within compartments used for the storage of LPG. Where such electrical fittings are installed, they shall be to the satisfaction of the Department for use in a flammable atmosphere. Sources of heat shall be kept clear of such spaces and "不准吸煙 No Smoking" and "不准明火 No naked light" notices shall be displayed in a prominent position.
- 3.5 Compartments used for the storage of LPG shall not be used for storage of other combustible products nor for tools or objects nor part of the gas distribution system. The LPG locker shall be marked with "LPG" on the door of the locker.

4 Installation

- 4.1 LPG pipes-
- (a) LPG pipes shall be of solid drawn copper alloy or stainless steel pipes, with appropriate compression or screwed fittings.
- (b) Flexible connections shall be avoided. Should they be used, an approved type of synthetic rubber hose connection shall be fitted. When used with flexible connections, appliances shall be controlled from the nearest isolating valve fitted on metallic pipe.

4.2 LPG cylinder storage locker

(a) For storage above main deck-

- (i) ventilation openings shall be provided on top and bottom of locker;
- (ii) when LPG pipe is arranged to pass through bulkhead, the opening on bulkhead shall be of suitable size and height, to avoid the gas being leaked into the accommodation. If the LPG pipe is a synthetic rubber hose, precaution shall be taken to prevent the hose being chafed. A protecting conduit shall be fitted when necessary.

(b) For storage below main deck-

- (i) the locker bulkhead shall be of gastight construction. Bulkhead piece shall be fitted when LPG pipe is arranged to pass through bulkhead;
- (ii) adequate ventilation shall be provided at top and bottom of locker and be led overboard;
- (iii) gas detectors shall be fitted to detect any accumulation of LPG in the bilge.

4.3 Newly fitted or replaced gas consuming appliances shall be of type approved by Gas Authority, EMSD and marked with “GU” on them. Existing Gas consuming appliances (e.g. stove, water heater etc.) are recommended to be fitted with automatic gas shut-off device to stop the gas supply in the event of flame failure.



批准氣體用具GU標誌

5 Maintenance

5.1 Changing cylinders shall be done according to instructions of gas dealers. If it is suspected that either a cylinder or valve is faulty, put it ashore as quickly as possible, and in the meantime keep it in the open air, clear of any gratings, hatches or other openings leading below decks.

5.2 Sufficient ventilation shall be provided at the cooking space to displace the products of combustion and respiration.

6 Inspection

6.1 The vessel's crew or operator shall regularly examine joints of the LPG installation. If a leakage is suspected, the cylinder stop valve shall be turned off immediately; the vessel's engine shall be stopped, no switch on/off of electrical appliances and no other means of ignition allowed until it is certain that the vessel is clear of gas. Never put an appliance back into use without the leak having been found and rectified.

Chapter IX

Vessel Operator Requirements

1 General

- 1.1 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 Merchant Shipping (Local Certificates of Competency) Rules. It is the responsibility of the owner or the person in charge of 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.

2 Certificate of Competency

- 2.1 Pleasure Vessel Operator Certificates, which combine both deck and engineering qualifications, are issued in two grades as follows:-
- (1) Pleasure Vessel Operator Grade 2 Certificate; and
 - (2) Pleasure Vessel Operator Grade 1 Certificate.

Pleasure Vessel Operator Grade 2

A Pleasure Vessel Operator Grade 2 Certificate entitles the holder to take charge of a pleasure vessel that is of not more than 15 m in length overall operating in Hong Kong waters.

Pleasure Vessel Operator Grade 1

A Pleasure Vessel Operator Grade 1 Certificate entitles the holder to take charge of any pleasure vessel operating in Hong Kong waters.

- 2.2 Other certificates issued under the current or the repealed legislation are recognized in accordance with the appropriate provisions in the Examination Rules for Pleasure Vessel Operator Certificate of Competency and the Merchant Shipping (Local Vessels)(Local Certificate of Competency) Rules, as follows :

http://www.mardep.gov.hk/en/pub_services/pdf/examrules_ploc.pdf

http://www.mardep.gov.hk/en/pub_services/pdf/cocrules.pdf

(1) Other certificates issued under the current legislation Cap. 548

Item	Other Certificates issued under Cap. 548	Equivalent Grade of Pleasure Vessel Operator Certificate	Type of local vessels that the certificate holder may operate
(a)	Coxswain Grade 1 Certificate or Coxswain Grade 2 Certificate Plus Engine Operator Certificate (without restriction)	Pleasure Vessel Operator Grade 1 Certificate	Any pleasure vessel
(b)	Coxswain Grade 3 Certificate that is not endorsed to the effect that the holder is restricted to act as the coxswain only within certain areas or of particular type of vessel Plus Engine Operator Certificate (without restriction)	Pleasure Vessel Operator Grade 2 Certificate	A pleasure vessel of not more than 15 m in length overall

(2) Following certificates issued under the repealed legislation Cap. 313 (A full list of all such certificates can be found in the links provided in paragraph 2.2 above.):

Item	Combination of Former Certificates (as pleasure vessel master or engineer issued under Cap. 313)	Equivalent Grade of Pleasure Vessel Operator Certificate for the purpose of Cap. 548	Type of local vessels that the certificate holder may operate under Cap. 548
(a)	Local certificate of competency as Pleasure Vessel Master Grade I Plus Any pleasure vessel engineer certificate of competency, or equivalent	Pleasure Vessel Operator Grade 1 Certificate	Any pleasure vessel
(b)	Local certificate of competency as Pleasure Vessel Master Grade II or local certificate of competency as master of a vessel of 15 tons and under, endorsed with “valid for privately owned pleasure craft only” Plus Any pleasure vessel engineer certificate of competency, or equivalent	Pleasure Vessel Operator Grade 2 Certificate	A pleasure vessel of not more than 15 m in length overall

(c)	<p>Local certificate of competency as master of a vessel of 300 tons and under, local certificate of competency as master of a vessel of 60 tons and under, or certificate of competency as a trawling master</p> <p style="text-align: center;">Plus</p> <p>Any pleasure vessel engineer certificate of competency, or equivalent</p>	Pleasure Vessel Operator Grade 1 Certificate	Any pleasure vessel
(d)	<p>Local certificate of competency as master of a fishing vessel (without restriction)</p> <p style="text-align: center;">Plus</p> <p>Any pleasure vessel engineer certificate of competency, or equivalent</p>	Pleasure Vessel Operator Grade 2 Certificate	A pleasure vessel of not more than 15 m in length overall

3. Manning Requirements

3.1 Any Class IV vessel carrying not more than 12 passengers or having vessel length less than 12 metres can be operated by:

- (1) a 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; and
- (2) if the vessel is let for hire or reward, an additional crew member (refer to Annex 1 of this Code).

3.2 For any Class IV vessel carrying more than 12 passengers but not more than 60 passengers or having vessel length on or above 12 metres the vessel can be considered safe and properly controlled by one person holding the Local Certificate of Competency as a Pleasure Vessel Operator Grade 1, or a Pleasure Vessel Operator Grade 2 if the length overall of the vessel is not more than 15 metres, or its equivalence, provided that the following arrangements are met:

- (1) the vessel is appropriately equipped for unattended machinery space operation. For vessels that are let for hire or reward, these requirements are indicated in III/3.14; and
- (2) there shall be at least one additional crew member with common

engineering knowledge on board to assist the person in charge while the vessel is underway in order to cope with operational needs including helping out emergency measures, etc. (refer to Annex 1 of this Code).

- 3.3 The requirement in sect. 3.2 (2) can be waived provided that the vessel is not carrying any passenger and the owner satisfies that person in charge can properly control the vessel safely for the voyages intended.
- 3.4 For any Class IV vessel carrying more than 60 passengers, the minimum safe manning requirements shall be specified by the Director on a case by case basis.

Safety Briefing for Class IV Vessels That Are Let for Hire or Reward

- 1 Before the commencement of any voyage for which the vessel is let for hire or reward, the coxswain shall ensure that all persons on board are briefed on the appropriate safety precaution, 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 section 1, the coxswain shall brief at least one assistant who will be sailing with the vessel regarding the following:
 - (1) Procedures for the recovery of a person from the sea;
 - (2) Location of first aid kit, if any;
 - (3) Procedures and operation of radios carried on board, if any;
 - (4) Location of navigation light switches and other light switches;
 - (5) Location and use of fire-fighting equipment;
 - (6) Method of starting, stopping, and controlling the main engine; and
 - (7) Handling emergency situations and communication arrangements.
- 3 Safety guide plates or cards will be considered to be an acceptable way of providing the information required in section 2 above.

Provisions in Merchant Shipping (Local Vessels)(Certification and Licensing) Regulation on Matters Relating to Restrictions on Class IV Vessels That Are Let for Hire or Reward

The provisions are quoted 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;
 - (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 Part VA of the Merchant Shipping (Local Vessels) Ordinance 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 Class IV Vessels

The provisions are quoted 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 shall be carried on board a vessel.
- 2 If portable container is used to carry petrol, the containers shall be of a type approved by the manufacturer of petrol engine (if necessary, owner shall submit supporting document issued by the manufacturer, e.g. invoice, sale receipt etc.); and fitted with air vent.
- 3 The portable container shall be stored in a well ventilated place, if necessary, on the open deck. The containers and all valves and pipes leading from such containers shall 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 shall not have any fuel leaking, and shall be readily accessible for checking of suspected leaks.
- 4 Sources of heat shall be kept clear of the storage spaces and caution notices “不准吸煙 No Smoking” and “不准明火 No Naked Lights” shall be displayed in a prominent position when necessary.
- 5 Petrol shall 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 shall be removed from the storage place which is expected to be unattended for a period of time.

檢查證明書
Certificate of Inspection
商船(本地船隻)條例
Merchant Shipping (Local Vessels) Ordinance

本證明書是就《商船(本地船隻)(安全及檢驗)規例》(第 548 章 附屬法例)的條文而擬備
in respect of the provisions of the Merchant Shipping (Local Vessels) (Safety and Survey) Regulation, Cap. 548 sub. leg.

擁有權證明書號碼 Certificate of Ownership No.	船名 Name of Vessel	證書編號 Cert. No.
船體物料 Material of Hull	總長度 (米) Length Overall (m)	長度 (米) Length (m)
		最大寬度 (米) Extreme Breadth (m)
總推進功率 : (千瓦) Total Propulsion Power : (kW)	總噸位 Gross Tonnage	淨噸位 Net Tonnage

乘客及船員 Passenger and Crew	出租以收取租金或報酬 Let for Hire or Reward	運作牌照顯示 As Displayed in Operating Licence
總乘客人數 Total No. of Passengers		
最少船員人數 Minimum No. of Crew		
允許運載總人數 Total No. of Persons Permitted		

茲證明上述船隻已由合資格驗船師進行檢驗

This is to certify that the above-named vessel was examined by Competent Surveyor

機構/公司名稱
Name of Institution/Company

.....

於 日期
at on

並顯示已符合相關規例(包括《商船(防止空氣污染)規例》)及“工作守則-第 IV 類別船隻安全標準”的相關規定。夾附的檢驗紀錄與核證最高可運載量(包括乘客與船員)等紀錄, 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、適當維修及存放船上。

and found to be in accordance with the relevant regulations including Merchant Shipping (Prevention of Air Pollution) Regulation 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 apparatus, life-saving appliances and lights & sound signals, which are confirmed, equipped, properly maintained and kept onboard.

最近一次上排/乾塢檢驗日期 上一次最後檢查日期
Date of last slip / docking inspection on Date of last final inspection on

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, 並符合下列條件:

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:

上述船隻只適合在良好天氣下在香港水域範圍內操作及下列限制(如有):

The above-named vessel is only for operating within Hong Kong waters in favourable weather condition and with restrictions as follows (if any):

.....

驗船師姓名
Name of Surveyor :

.....

印章/飾章
Seal/Crest

簽發地點
Issued at :

簽發日期
Issued Date :

簽署
Signature

註: 此證書須時刻展示於該船隻上的顯眼處。
Note: This Certificate shall be displayed at all times in a conspicuous place on the vessel.

簽發第 IV 類別船隻檢查證明書之檢驗紀錄
Inspection Record for a Class IV Vessel That Is Issued With a Certificate of Inspection

船名 Name of Vessel :	擁有權證明書號碼 Certificate of Ownership No:.....	證書編號 Cert. No. :	
檢驗項目 Inspection Items (詳情參見本守則附件 13A Details refer to Annex 13A of this Code)		備註 Remark	
今次定期檢驗周期為第 [一/二*] 年度檢驗 Periodic (Annual / Biennial *) survey conducted in this survey		結果 Result	跟進項目 Items to follow up
船體結構 Hull Construction			
1. 船體外部(水線上)、甲板及上層建築 Hull external (above waterline), decks and superstructure			
2. 船體水密性 Water-tight integrity of hull			
3. 客艙及內部佈置 Cabin and internal arrangement			
4. 審查適當的建造文件/證書及/或傾斜測試報告等(參照第 IV 類別船隻安全標準—工作守則內有關的要求)。批核文件須與本檢驗紀錄放置在船上 Assessing relevant document /certificate of construction and/or inclining test report etc, where appropriate (Refers to relevant requirements of Code of Practice for Safety Standard for Class IV Vessels). The endorsed document should be kept onboard with this Inspection Record.			
機械及電器 Machinery and Electrical			
5. 主機、輔機(如適用)及其操控系統 Main and auxiliary engines (if applicable) and control system			
6. 油柜及其管道系統 Oil tank and associated piping system			
7. 艙底水管系統及消防管系統 Bilge piping system and fire fighting piping system			
8. 機艙通風系統及其關閉裝置 Ventilation arrangement and closing appliance of machinery space			
9. 石油氣裝置及使用汽油之安全 Safety for LPG Installation and Use of Petrol			
10. 電纜及電器裝置 Electric cables and electrical installations			
11. 電纜絕緣電阻、電器過載保護和接地裝置。由合資格人仕簽發的電氣系統絕緣測試報告(經合資格驗船師批註,是接受的。) Insulation resistance of cables, overload protection and earthing of electrical installation.(Electrical system insulation test reports from competent person endorsed by competent surveyor, are acceptable.)			
安全設備與燈號及聲號 Safety Equipment and Lights and Sound Signals			
12. 救生設備的數量、裝置及使用狀態 Quantity, installation and serviceability of life-saving appliances			
13. 滅火設備/系統的數量、裝置及使用狀態 Quantity, installation and serviceability of fire-fighting apparatus / system			
14. 號燈、號型及聲號設備的數量、裝置及使用狀態 Quantity, installation and serviceability of lights, shapes and sound signals			

* 刪除不適用處 Delete where as appropriate

檢驗項目 Inspection Items	備註 Remark	
	結果 Result	跟進項目 Items to follow up
防止污染系統 Pollution Prevention System		
15. 防油污裝置 Oil pollution prevention installation		
16. 防止空氣污染 (須符合《商船 (防止空氣污染) 規例》的規定) Air pollution prevention (comply with the requirements of MS (Prevention of Air Pollution) Regulation)		
客艙 Passenger Accommodation		
17. 乘客及船員艙要求 Passenger and crew accommodation requirements:- (a) 通道及逃生裝置的狀態 Condition of passage and escape means (b) 安全保護設施裝置及工作狀態 Installation and condition of safety protection means (c) 通風及關閉裝置的狀態 Installation and condition of ventilation means with closing appliances (d) 乘客座位、載客量及其他指示或標記 Passenger seats, carrying capacity and other notice or markings		
其他 Others		
18. 確認主要尺度，主機及輔機資料。 Verification of particulars of principal dimensions, main and auxiliary engines		
19. 合資格驗船師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 competent surveyor as listed in separate sheet		
在船排/乾塢檢驗項目 Inspection Items on Slip or Dry-docking		
20. 船體外部及內部、艙壁、海水箱、呆木及軸支架 Hull external and internal, bulkheads, sea-chests, skag and shaft bracket		
21. 海底閘門、噴水推進器、減搖裝置、舵、螺旋槳軸、螺旋槳、船底裝置 Sea valves, steering nozzle, stabilizer, rudder, propeller shaft, propeller, underwater hull fittings		
22. 主機及齒輪箱 (需遞交檢查紀錄) Main engines and gearboxes (submission of inspection record)		

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)

合資格驗船師 (機構/公司名稱)

Competent Surveyor (Name of Institution/Company)

驗船師姓名

Name of Surveyor

印章/飾章

Seal/Crest

簽發於

Issued at

日期

Date

簽署

Signature

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“無人值班機艙”運作

Determination of Maximum Number of Persons to be Carried and / or Survey for Certification on Installation Suitable for “Unattended Machinery Space” Operation of a Class IV Vessel

船名 Name of Vessel.....	權證明書號碼 Certificate of Ownership No :.....
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 Persons
≤ 5	2
> 5 to ≤ 10	3
> 10	4
或/or	計算總人數 Determined Total No. of Persons
[] (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 _d x B x 0.4	
及/and (iii) 船東要求最少船員名額 Owner's requested minimum number of crew	= ()
程式中 where L _d : 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擬定的用途。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，符合擬定用途。 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 名乘客及出租以收取租金或報酬的船隻之乘客艙室的標記 Marking in Passenger Space for vessel let for hire or reward 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 ()	
其他 Others ()	
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“無人值班機艙”運作 Certification on installation suitable for “unattended machinery space” operation for this vessel	
以此證明這船隻設有“無人值班機艙”運作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 節相關的要求) 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 operation. (Refers to relevant requirements in section 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)

合資格驗船師(機構/公司)名稱及其驗船師姓名
Name of Competent Surveyor (Institution/Company) 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 persons 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 persons 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 persons 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:
- (1) The vessel is to be loaded with weights as described above,
 - (2) Calculate a heeling moment equal to the weight of the persons (W) multiplied by the extreme breadth (B) of the vessel and divided by 12 (=WB/12),
 - (3) 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 centre gravity 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.
 - (4) Restore all the weights to their original positions and record angle of heel when they are restored,
 - (5) Repeat (3) moving weights from opposite side,
 - (6) Repeat (4),
 - (7) If the angle of heel exceeds 7° during the test, the owner might add ballast weight and to repeat the test procedures (3), (4), (5) and (6). 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:
- (1) The distribution of persons is 4 persons per square metre;
 - (2) Each person has a mass of 68 kg or <75 kg>;
 - (3) Vertical centre gravity of seated persons is 0.3 m above seat;
 - (4) Vertical centre gravity of standing persons is 1.0 m above deck;
 - (5) Persons and luggage should be considered to be in the space normally at their disposal

Note: < > applicable for new vessels calculation only.

適用於簡單傳統建造的第 IV 類別船隻的圖則
Plans for Simple Traditionally Built Class IV Vessels

首次申請牌照 需要審批的簡單圖則

Simple Plans Required Approval for Initial Licensing

擁有權證明書號碼： Certificate of Ownership no.	船名： Name of Vessel
審批圖則 / Approval Plans 檢查證明書編號 Certificate of Inspection No	
<p><u>一般圖則/ General Plans</u></p> <ol style="list-style-type: none"> 1. 簡單圖則 Plan(Simple)-G -01 一般佈置圖則 (包括號燈、號型、聲號佈置) General Arrangement Plan (incl. lights, shapes & sound signals installations) 2. 簡單圖則 Plan(Simple)-HS-02 船隻特別資料及基本船殼和甲板之板厚示意圖則 Vessel Particulars, and Basic Hull and Deck Plate Thickness Diagram 3. 簡單圖則 Plan(Simple)-HS-03 傾斜試驗 / 橫搖週期 / 簡單傾斜- 測試報告 Inclining Experiment Report/Rolling Period / Simple Inclining - Test Report 4. 簡單圖則 Plan(Simple)- HS -04 救生及救火設備及佈置示意圖則 (包括逃生示意圖) LSA & FFA Installation and Arrangement Diagram (incl. escape route) 5. 簡單圖則 Plan(Simple)-ME-05 機器/電器設備圖則 Machinery / Electrical Installation Plans 	<p align="center">有 / 沒有 / 不需 *</p> <p align="center">Yes / No / Not Applicable *</p> <p align="center">有 / 沒有 / 不需 *</p> <p align="center">Yes / No / Not Applicable *</p> <p align="center">有 / 沒有 / 不需 *</p> <p align="center">Yes / No / Not Applicable *</p> <p align="center">有 / 沒有 / 不需 *</p> <p align="center">Yes / No / Not Applicable *</p>
<p>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)。</p> <p>Note : Owner must submit additional plans to supplement for deficient information if necessary (please refer to relevant Code of Practice or regulation).</p> <p>* 刪去不需要處 / Delete where not appropriate</p>	

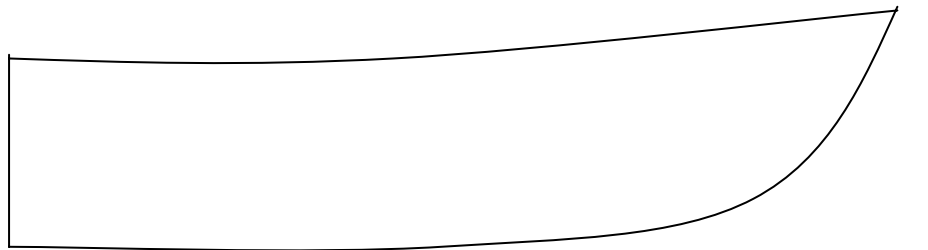
簡單圖則 *Plan(Simple)-G-01*

General Arrangement Plan (incl. lights, shapes & sound signals installations)

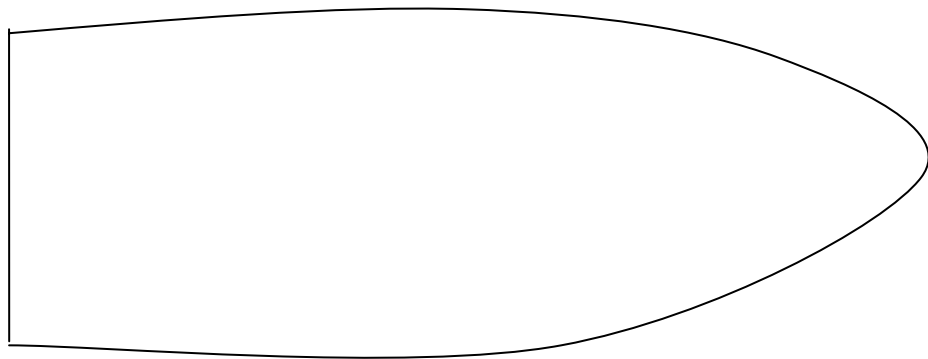
一般佈置圖則 (包括號燈、號型、聲號佈置)

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

(註 : 一份此圖則必須存放在船上)



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.
詳細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. Certificate of Ownership no. 擁有權證明書號碼	
3. Vessel Class / Type 船隻 類別 / 類型	
4. Length Overall 總長度	
5. Extreme Breath 最大寬度	
6. Depth 深度	
7. No. of decks 甲板層數	
8. Lights, Shapes & Sound Signals installations 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 :

簡單圖則/ Plan(Simple)-HS-02

Vessel Particulars and Basic Hull and Deck Plate Thickness Diagram

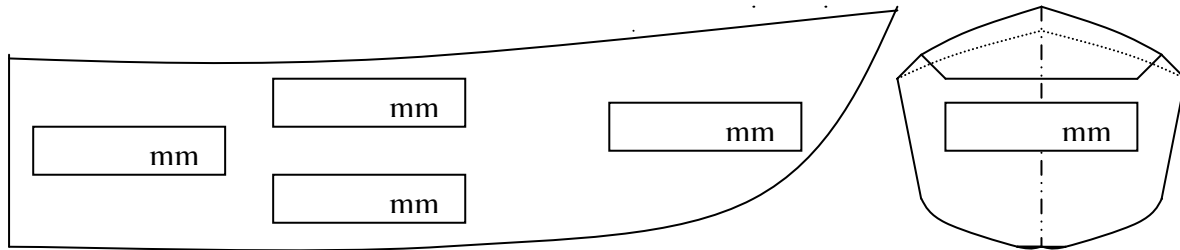
船隻特別資料及基本船殼和甲板之板厚示意圖則

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

(註 : 一份此圖則必須存放在船上)

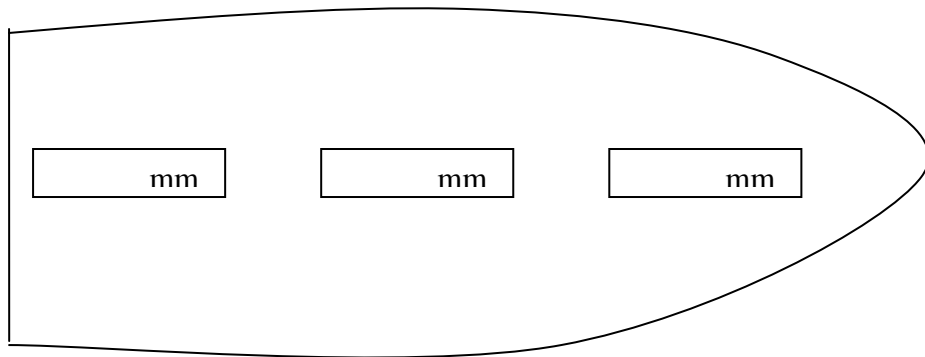
Remarks 備註:

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. 詳細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. Certificate of Ownership no. 擁有權證明書號碼	
3. Vessel Class / Type 船隻 類別 / 類型	
4. Length Overall 總長度	
5. Extreme Breath 最大寬度	
6. Depth 深度	
7. Material 構造材料	
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

簡單圖則 *Plan(Simple)-HS-03*

**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.
詳細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. Certificate of Ownership no. 擁有權證明書號碼	
3. Vessel Class / Type 船隻 類別 / 類型	
4. Length Overall 總長度	
5. Extreme Breath 最大寬度	
6. Depth 深度	
7. Material 構造材料	
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

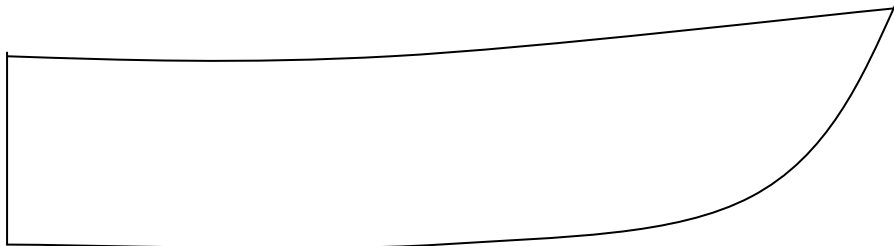
簡單圖則 Plan(Simple)-HS-04

LSA & FFA Installation and Arrangement Diagram (incl. escape route)

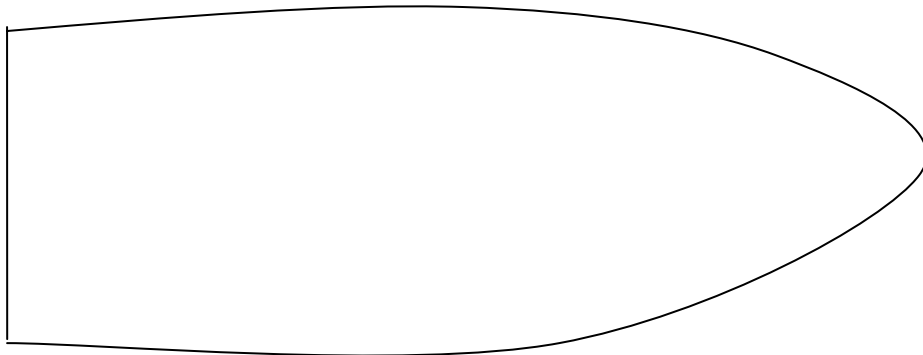
救生及滅火設備及佈置示意圖則 (包括逃生示意圖)

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

(註 : 一份此圖則必須存放在船上)



側面圖
Side View Profile



甲板
DECK

Vessel information 船隻資料		Content 資料內容	
1. File No. 檔案號碼			
2. Certificate of Ownership no. 擁有權證明書號碼			
3. Vessel Class / Type 船隻類別 / 類型			
4. LSA & FFA installation 救生及救火設備		(Please show location/ 請顯示位置)	
(a)			
(b)			
(c)			
(d)			
(e)			
5. Escape Route 逃生路線			
Approved by 經辦審批		Date 日期	

簡單圖則 Plan(Simple)-ME-05

Machinery & Electrical Installation Plans

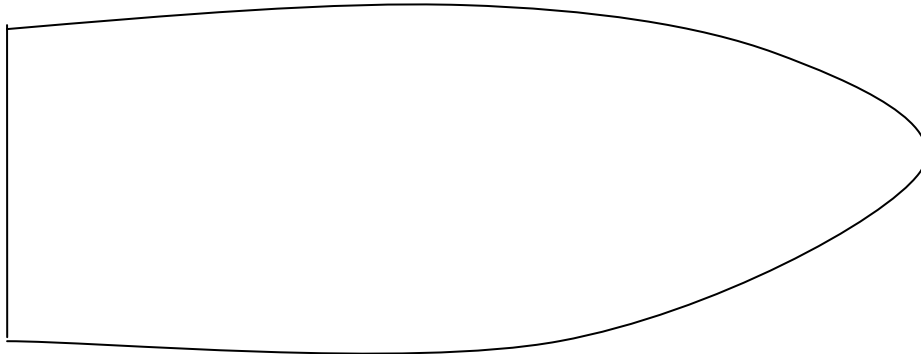
機器與電器設備圖則

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

(註 : 一份此圖則必須存放在船上)



側面圖
Side View Profile



甲板
DECK

Vessel information 船隻資料	Content 資料內容
1. File No. 檔案號碼	
2. Certificate of Ownership no. 擁有權證明書號碼	
3. Vessel Class / Type 船隻 類別 / 類型	
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 engine maker / type 發電機製造商/型類	
10. Generator engine serial no. 發電機號碼	
11. Total generator engine power (kW)/ RPM 發電總功率 (千瓦) / 轉速(每分)	
12.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**

(Merchant Shipping (Prevention of Air Pollution) Regulation, sub. leg. 413P)

The new Merchant Shipping (Prevention of Air Pollution) Regulation, CAP 413P has entered into force on 1 July, 2016. The regulation is to give effect to the requirements of MARPOL Annex VI in Hong Kong. The Marine Department Notice No. 39 of 2016 (MDN) promulgated on 6 April 2016 gives details of the relevant requirements applicable to locally licensed vessels under the regulation. The MDN 39 of 2016 is available at the following URL:
<http://www.mardep.gov.hk/en/notices/pdf/mdn16039.pdf>

-- Inspection Checklist for Local Vessels

Certificate of Ownership number:

Date of Survey:

Place of Survey:

Name of Surveyor:

		Inspection Details	Inspection Items	Inspection Results		Remarks	
1	Division 2, Part 3 - Ozone-depleting substance (ODS)	Records (if any) and management guidelines for installations containing ODS	ODS that may be emitted aboard, mainly from air conditioning systems, refrigeration equipment, halon fire extinguishers, etc. To check management guidelines and relevant records (if applicable) are displayed on board.	Requirement met	Requirement not met		
			To ensure no new installations containing ODS are fitted on board, except that new installations containing hydrochlorofluorocarbons (HCFCs) may be allowed until 1 January 2020.	Requirement met	Requirement not met		
2	Division 3, Part 3 - Nitrogen oxides (NOx)	Records of brand, models and serial numbers of shipboard diesel engines with power output of more than 130 kW	To check "existing vessels" are fitted with "existing diesel engines". Engines on "New vessels" to comply with NOx emission requirements (document proof is acceptable).	Requirement met	Requirement not met	Requirement for control of NOx emissions not applicable to "existing vessels" fitted with "existing engines".	
			Tier 1	Ship built after 1.6.2008 but before 1.7.2016	Requirement met		Requirement not met
			Tier 2	Ship built on or after 1.7.2016	Requirement met		Requirement not met
3	Division 6, Part 3 - Shipboard incinerators	Shipboard incinerators (incl. type, manual, training & record) meeting IMO requirements.	Incinerators	Available	Not available	Incinerators not meeting IMO requirements are not permitted to operate.	
			IMO specifications	Requirement met	Requirement not met		
			IMO approved incinerator operated in Hong Kong; Operation (manual, training & record) of incinerators meeting relevant requirements.	Yes	No		
4 4.1	Division 4, Part 3 & Section 87, Part 6 - Fuel oil quality	Vessels of 400 gross tonnage or above: bunker delivery notes shall be kept on board for at least half year.	Bunker delivery note kept on board.	Yes	No	Some vessels may already have obtained the exemption document from HKMD.	
			Bunker delivery note issued by a local supplier or recognized/recorded supplier in the Mainland.	Yes	No		
	Sulphur oxides (SOx)	Vessels of less than 400 gross tonnage: bunker delivery note not required.	Not Required	Not applicable			
			Sulphur content of fuel oil not exceeding 3.5% m/m (before 1 January, 2020)	Yes	No		

Tonnage Measurement for Class IV Vessels

PART 1 General

1 Application

1.1 Subject to section 1.2, this chapter shall apply to –

- (1) new vessel (see definition in Ch. I/3.1); and
- (2) at the request of the owner for re-measurement of tonnage, an existing vessel^{Note¹}

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

- (1) 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
- (2) 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 volumes of appendages (e.g. rudder, kort nozzle, skeg, propeller shaft bossings, etc.) but exclude the volumes of spaces opened to sea. Volumes within the hulls of ship, such as split-hull barges and dredgers, shall be retained in V and V_c notwithstanding that the space within the hull is temporarily opened to the sea when discharging cargo.

Note¹: Existing vessels which are not to be re-measured, their previous methods of tonnage are still applied and tonnage expression may be in decimals.

- 2.6 Enclosed spaces above the main deck not exceeding 1 m³, air trunks having a cross-sectional area not exceeding 1 m² shall not be measured.
- 2.7 Masts, cranes and container support structures, which are completely inaccessible and above the main deck, separated on all their sides from other enclosed spaces shall not be included in the total volume of all enclosed spaces. All mobile cranes shall be exempted.

PART 2 Ascertainment of Tonnage

3 Vessels of 24 Metres in Length and Above

- 3.1 Tonnage of vessels of 24 m in length and above shall be ascertained in accordance with Part II of the Merchant Shipping (Registration)(Tonnage) Regulations. Only tonnage certificate or tonnage measurement record issued by the competent surveyors are considered to be acceptable.

3 Class IV Vessels of Less Than 24 m in Length

- 4.1 The tonnage of Class IV vessels of less than 24 m in length shall 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 m³; which shall be obtained from section 4.2.2 (in catamaran, $V_1 = 2 \times V_H$).

V_2 = total volume of all enclosed spaces above the main deck, in m³; which shall be obtained from section 4.2.3.

- 4.2.2 V_1 shall be determined by the following formula:

$$V_1 = L_m \times B \times D \times C \quad m^3$$

where: L = length of the main deck, m (Main deck is the deck which form the top of the enclosed space of the hull.);

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 table depending on the type of vessel:

Basic Hull Form	Hull Form Factor (C)	
ship	monohull	0.55
	catamaran	0.50
junk	0.60	
box	0.90	

4.2.3 V_2 shall be determined by the following formula:

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

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.

4.3 Net Tonnage

The net tonnage (NT) shall be determined by the following formula:

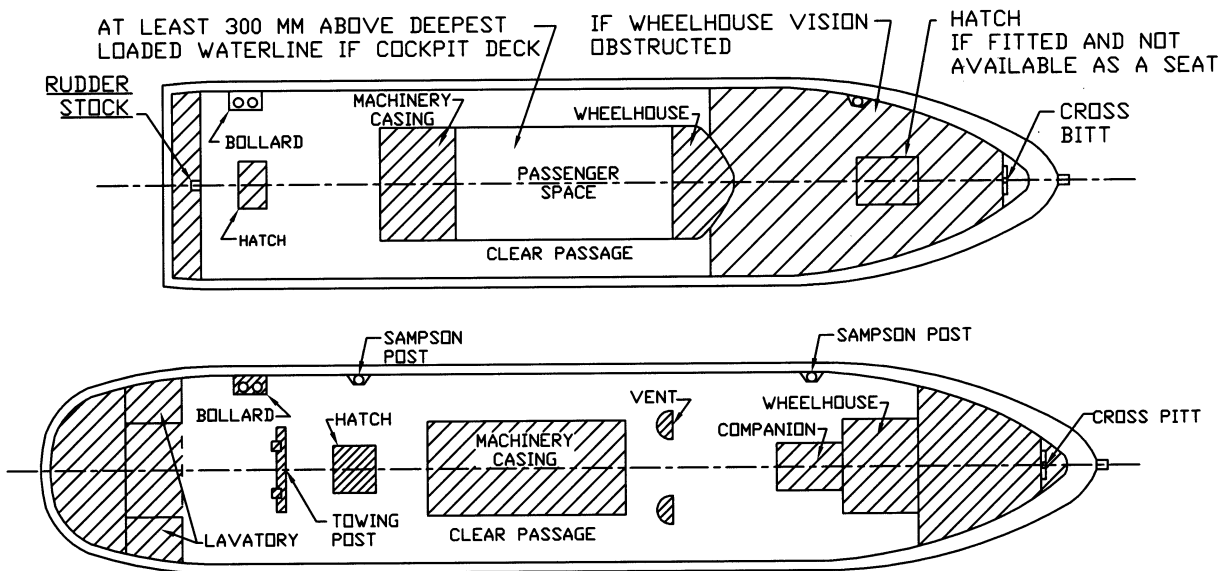
$$NT = K_2 \times GT$$

where: K_2 = coefficient obtained from the following table;

GT = gross tonnage calculated by section 4.2.1 above.

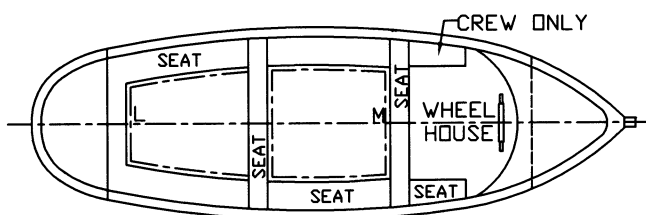
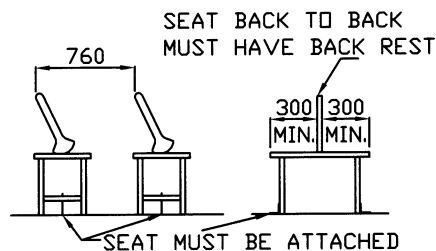
Guidance Plan to Determine Passenger Space for Class IV Vessels

(Area as shown thus to be excluded)



Requirements on Seating Arrangement (mm)

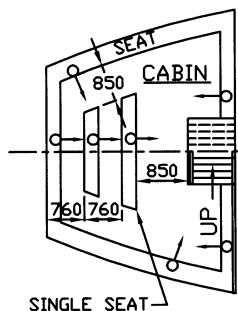
- | | | |
|-----|---------------------------------------|------|
| (a) | minimum width | 460 |
| (b) | minimum pitch | |
| | (i) seats facing each other | 1400 |
| | (ii) seats facing the same way | 760 |
| (c) | minimum leg room | |
| | (i) not more than 6 seats in one row | 250 |
| | (ii) more than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



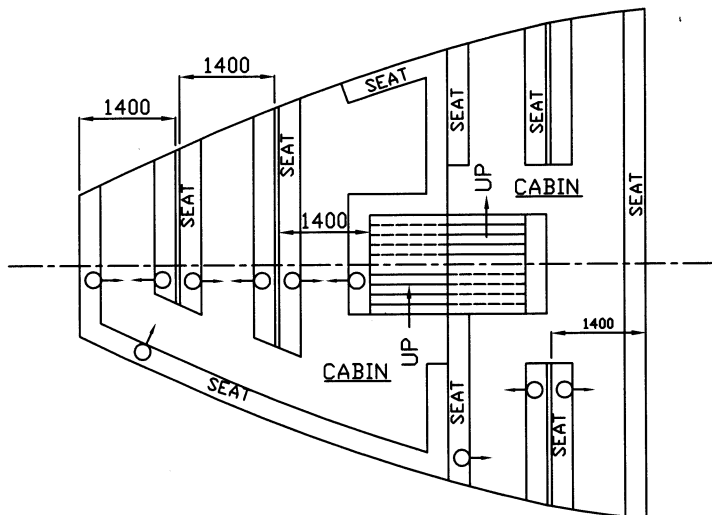
EXAMPLE $\frac{L - 460}{460} = \text{PASSENGERS}$

M LESS 4 @ 230

$\frac{M - 920}{460} = \text{PASSENGERS}$



○ MARKED SHOWING THE DIRECTION OF PASSENGERS ON THE SEAT



Installation, Document and Certification for Prevention of Oil Pollution

The installation, documentation and certification required on board, and information required to submit for approval for vessel of gross tonnage (GT) ≥ 400 are detailed as follows.

1 Required Installation, Documentation and Certification

- (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.

The minimum sludge tank capacity (V_1) should be determined by the following formula:

$$V_1 = 0.005CD \text{ (m}^3\text{)}$$

where

C = daily fuel oil consumption (m^3); and

D = maximum no. of days when sludge can be discharged ashore.

Oil residue (sludge) may be disposed of directly from the oil residue (sludge) tank(s) through the standard discharge connection, or any other approved means of disposal. The oil residue (sludge) tank(s) should be provided with a designated pump for disposal that is capable of taking suction from the oil residue (sludge) tank(s); and should have no discharge connections to the bilge system, oily bilge water holding tank(s), tank top or oily water separators except that the tank(s) may be fitted with drains, with manually operated self-closing valves and arrangements for subsequent visual monitoring of the settled water, that lead to an oily bilge water holding tank or bilge well, or an alternative arrangement, provided such arrangement does not connect directly to the bilge piping system.

- (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.

2 Information to be submitted

- (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.

Certificates Relevant to Local Vessels

- 1 Apart from the certificates listed in section 2.3 of Chapter I, the following plan approval, surveys and/or issuance of certificates or record document, which may be for operational purpose or requirements specified under legislations outside the Ordinance, Cap 548, are also relevant to local vessels if applicable:
 - (1) International Oil Pollution Prevention Certificate;
 - (2) International Air Pollution Prevention Certificate or Hong Kong Air Pollution Prevention Certificate under Merchant Shipping (Prevention of Air Pollution) Regulations, Cap. 413 sub. leg.
- 2 For items 1(1) and (2) the indicated International Convention certificates may be issued by recognized classification societies directly to the owner, together with survey records in accordance with the requirements of the relevant Convention. A copy of such certificate and record is required to be submitted to Marine Department.

Towing a Banana Boat or Similar Vessel

Any vessel engaged in towing of a banana boat or similar vessel must possess the relevant permission from the Director of Marine. For details refer to Marine Department Notice No. 124/2007, which is available at the following URL:
<http://www.mardep.gov.hk/en/notices/pdf/mdn07124.pdf>

**Periodic Survey Programme for Class IV Vessels That Carry
60 Passengers or Less and Are Let for Hire or Reward
and Are Issued with a Certificate of Inspection**

Pursuant to the Merchant Shipping (Local Vessels) (Safety and Survey) Regulation, Cap. 548G, all class IV vessels that carry 60 passengers or less and are let for hire or reward should possess a valid Certificate of Inspection. These type of vessels should conduct the annual or biennial periodical survey^(Remark 1). The stipulations of these periodical survey items are as follows:

(I) Annual Survey Afloat

(A) Vessels carrying 60 passengers or less

- (a) A general inspection of hull external (above waterline), decks, superstructure, water-tight integrity and cabin arrangement etc;
- (b) An inspection of fire-fighting apparatus, life-saving appliances, navigation lights, shape and sound signals etc.;
- (i) the inspection of CO₂ and sprinkler systems (if fitted) shall be carried out in accordance with the requirements set out in remark*4 of Annex 13B.
- (ii) the inspection of portable fire extinguishers and CO₂ bottles shall be carried out in accordance with the requirements set out in remark*5 of Annex 13B. The inspecting authorized surveyor is responsible for the work in place of Marine Department officer.
- (c) Passage and escape means of passenger cabin, safety protection means, ventilation means with closing appliances (if applicable), notice and markings;
- (d) A functional test of engine room bilge pump and fire pump (if fitted);
- (e) An inspection of the fuel oil system of engines, fire and oil pollution hazards prevention at machinery space, and a running test of main and auxiliary engines;
- (f) A general inspection of electrical installation and megger tests of A.C. electric circuits^(Remark 2);
- (g) An inspection of ventilation arrangement and closing appliance of machinery space, if applicable;
- (h) Air Pollution Prevention installation (if applicable);
- (i) Verification of principal dimensions, engine and major machinery particulars;
- (j) Checking the domestic LPG system, if fitted;
- (k) Safety valve of air receiver functioning test (if fitted); and
- (l) Checking the relevant document/certificate of the vessel.

(B) Open deck GRP vessel of LOA less than 8 m

- (a) A general inspection of hull external (above waterline), decks, superstructure, water-tight integrity and cabin arrangement etc;
- (b) An inspection of fire-fighting apparatus, life-saving appliances, navigation lights, shape and sound signals etc.;
- (c) Passage and escape means of cabin, safety protection means, notice and markings;
- (d) A functional test of engine room bilge pump and fire pump (if fitted);
- (e) An inspection of the fuel oil system of engines, fire and oil pollution hazards prevention at machinery space, and a running test of main and auxiliary engines;
- (f) A general inspection of electrical installation and megger tests of A.C. electric circuits^(Remark 2);
- (g) Verification of principal dimensions, engine and major machinery particulars;
- (h) Checking the relevant document/certificate of the vessel.

(II) Biennial Survey on Slipway

(A) Vessel carrying 60 passengers or less

- (a) The vessel is to be slipped and cleaned for inspection of the external hull (internal inspection of void spaces, tanks and double bottoms are required);
- (b) Gauging of the thickness of the keel, bottom, shell, deck and bulkhead plates for the vessel made of steel/aluminum and is eight (8) or more years old;
- (c) All sea and overboard discharge valves at below waterline are to be opened up for inspection;
- (d) Inspection of tail shaft, propeller, rudder and rudder stock;
- (e) Inspection of main engine and gearbox^(Remark 3);
- (f) Air receiver to undergo a hydraulic test plus an internal inspection;
- (g) Items in Section (I)(A) above.

(B) Open deck GRP vessel of LOA less than 8 m

- (a) The vessel is to be slipped and cleaned for inspection of the external and internal hull^(Remark 4);
- (b) Items in Section (I) (B) above.

(III) Additional Requirements

During any periodical survey, the relevant surveyor has the right to inspect any part of the vessel or require any item of machinery or equipment to be opened up under any conditions, if deemed necessary.

Remarks :

- (1) a. The periodical survey should be carried out in subsequent order; i.e. an annual survey should be followed by a biennial survey, etc.
- b. If a certificate of inspection has expired and the certificate renewal inspection is carried out within one year from the date of the expiry of the certificate, the periodic survey that should be carried out will be the yearly survey due in accordance with the order as shown in (a). If the certificate had expired for more than one year, the biennial survey shall apply for renewal of the certificate.
- (2) Electric circuits insulation test reports issued by an EMSD registered electrical worker (REW) or registered electrical contractor (REC) are also acceptable.
- (3) An appropriate inspection/maintenance is subject to the engine maker's periodical maintenance schedule, an inspection/maintenance record issued by engine workshop or shipyard or ship owner as appropriate should be submitted for competent surveyor's endorsement.
- (4) Inspection record declared by ship owner / shipyard / competent surveyor is also acceptable.

Survey Programme for Class IV Vessels That Are Issued with a Certificate of Survey

Table 1 Periodic Survey Programme

No	Survey Items	Vessel carrying more than 60 passengers			Vessel that is of more than 150 gross tonnage and is let for hire or reward; or of novel type			Vessel that is of more than 150 gross tonnage but is not let for hire or reward		
		1	2	4	1	2	4	1	2	4
A	General and safety equipment									
1	Fixed Fire Extinguishing Installation CO ₂ system - blowing test Sprinkler System - function test		✓				✓ (*5d)			✓ (*5d)
2	Fixed Fire Extinguishing Installation - hydraulic test	(*4)								
3	Fire Extinguisher, CO ₂ Bottle - refill and hydraulic test (*5)	✓			✓			✓		
4	Buoyancy Apparatus – submerging test (for air case not filled with buoyant material)			✓			✓ (*3)			✓ (*3)
B	Hull and fittings									
1	Hull - external (incl. Ship bottom) inspection	✓				✓			✓	
2	Hull - internal (including tanks and voids) inspection		✓				✓			✓
3	Gauging thickness of deck, shell and bulkhead plating (for steel/aluminium vessel) (*2)			✓			✓			✓ (*3)
4	Sea Suctions, Discharging Valves - stripped down inspection		✓				✓			✓ (*3)
5	Anchors, Cables- ranged out for inspection		✓				✓			✓ (*3)
C	Machinery and electrical installation									
1	Main Engine - hydraulic test of coolers (incl. air, lub. oil, cooling water), cylinder head and water jacket		✓				✓ (*3)			✓ (*10)
2	Main Engine - overhaul of fuel oil pump, fuel nozzles		✓ (*3)				✓ (*3)			✓ (*10)
3	Main Engine and Gear Box - stripped down for inspection)		✓			✓ (*3)				✓ (*10)
4	Generator engine- stripped down for inspection			✓			✓ (*3)			✓ (*10)
5	Main fire pump and emergency fire pump		✓				✓ (*3)			✓ (*3)
6	Bilge pump and windlass - stripped down for inspection		✓				✓ (*3)			
7	Independent fuel oil tank – internal & hydraulic test			✓			✓ (*3)			✓ (*3)
8	Air Receiver (P<17.2 bar) - internal inspection			✓			✓			✓

No	Survey Items	Vessel carrying more than 60 passengers			Vessel that is of more than 150 gross tonnage and is let for hire or reward; or of novel type			Vessel that is of more than 150 gross tonnage but is not let for hire or reward		
		1	2	4	1	2	4	1	2	4
9	Air Receiver (P<17.2 bar) -hydraulic test			✓			✓			✓
10	Air Receiver (P≥17.2 bar) - internal inspection		✓			✓			✓	
11	Air Receiver (P≥17.2 bar)- hydraulic test		✓			✓			✓	
12	Tail Shaft, Propeller, Rudder and Rudder Stock - inspection		✓				✓			✓ (*3)
13	Steering System – stripped down for inspection			✓			✓ (*3)			✓ (*3)
14	AC electrical circuit –main circuit breaker load test (*7)			✓						
15	Oil Pollution Prevention Installation (for vessel with IOPP/HKOPP certificate)	(*9)								
16	Oil Pollution Prevention Installation (for vessel do not require IOPP/HKOPP certificate) – hydraulic test of independent sludge tank			✓			✓ (*3)			✓ (*3)
17	Relevant requirements of Merchant Shipping (Prevention of Air Pollution) Regulation (Cap. 413 sub. leg. P)	(*8) and (*9)								

Remarks in Table 1

*1 Survey Intervals

- 1 - to be conducted every year
- 2 - to be conducted every two years
- 4 - to be conducted every four years

- (a) The periodical survey should be carried out in subsequent order; i.e. a 1st year survey should be followed by a 2-yearly survey, a 3rd year survey should be followed by a 4-yearly survey, etc.
- (b) If a certificate of survey has expired and the certificate renewal inspection is carried out within one year from the date of the expiry of the certificate, the periodic survey that should be carried out will be the yearly survey due in accordance with the order as shown in (a). If the certificate had expired for more than one year, the 4-yearly survey shall apply for renewal of the certificate.

*2 Applicable to vessels of age exceeding 8 years. For classed vessel possessing Classification Society's Certificate, the gauging inspections may be arranged when in the renewals of the Classification Society's Certificate.

*3 Inspection record issued by engine workshop or shipyard as appropriate, should be submitted for reference.

*4 Hydraulic test for CO₂ and sprinkler systems should begin from the 10th anniversary the system is in service, and thereafter at intervals of 10 years. The hydraulic testing pressure for the CO₂ system high pressure manifold should not be less than 125 bar.

*5 Inspection for portable fire extinguishers and CO₂ bottles should be in accordance with the following table. The inspection record should be retained on board for examination; or each fire extinguisher is to be marked by paint or attached with a tag indicating the date and type of test.

Water, Foam, Dry Powder Fire Extinguisher		CO ₂ Fire Extinguisher, CO ₂ Fixed Installation Bottle		
Refill / Weighting (*a)	Hydraulic Test (*b)	Weighting	Refill	Hydraulic Test (*b)
Owner (*c) /FSIC(*d)	FSIC(*d)/MD	FSIC(*d)/MD	DG Reg. 62	DG Reg. 66

Abbreviation

- FSIC : Fire Service Installation Contractors registered in the Fire Service Department or institutions acceptable to the Director
- DG Reg. 62: A person holding a Dangerous Goods Licence issued under Reg. 62, Dangerous Goods (General) Regulation
- DG Reg. 66: A person approved by Fire Service Department under Reg. 66, Dangerous Goods (General) Regulation
- MD : Marine Department officer

Note

- (*a) The need for refilling should be in accordance with the instruction of manufacturer of fire extinguisher.
- (*b) Intervals of hydraulic test:
 Portable Fire Extinguishers - 5 years
 CO₂ bottles/propellant cartridges - 10 years
- (*c) MD officers may examine the owner's competence on carrying out the servicing and conduct random checks including function test of the portable fire extinguishers.
- (*d) Serviced by FSIC is acceptable.
- *6 If the hull and machinery installation of a classed vessel are inspected by a surveyor of classification society, the inspection reports/certificates issued by classification society should be submitted for record.
- *7 Applicable to vessel fitted with generator each of capacity exceeding 50 kW.
- *8 Implementation of the requirements of Annex VI of MARPOL 73/78 to locally licensed vessels, please refer to Annex 7 & 7A of this code of practice.
- *9 For renewal of HKOPP/HKAPP certificate, surveys should be carried out by MD officer only. For renewal/endorsement of IOPP/IAPP certificate, surveys to be conducted by relevant Classification Society only and report to be submitted for reference.
- *10 Inspection/maintenance record issued by engine workshop or shipyard or ship owner as appropriate should be submitted for record purpose.

Table 2 Final Inspection (*1)

No.	Survey Items (*2)
A	GENERAL, HULL & SAFETY EQUIPMENT
1	Life Saving Appliances - inspection and function test
2	Fire Fighting Apparatus (incl. CO ₂ fixed fire extinguishing installation, emergency fire pump) - inspection and function test
3	Navigation Lights and Sound Signals - inspection and function test
4	Watertight / Weathertight Closing Appliances (incl. door, ventilator, air pipe, etc.) - inspection
5	Passenger Space (incl. escape signs, etc.), Crew Space, Escape Arrangement, Bulwarks and Rails - general inspection
6	General condition in Machinery Space (a) protection from injury of personnel (b) prevention of fire hazard (c) prevention of oil pollution hazard
7	Verification of principal dimensions, engine and major machinery particulars
B	MACHINERY AND ELECTRICAL INSTALLATION
1	Main Engines, Generator Engines, Steering Gears - running test
2	Air Emission Assessment
3	Air Receiver Safety Valves - function test
4	Bilge and Oily Water Pumping System - function test
5	Prevention of Oil Pollution Installation - function test
6	Electrical Circuit - earthing test
7	- insulation resistance test (*3)
8	Meters on Switchboard - function test
9	Domestic L.P.G. Installation – inspection
C	OTHERS
1	Verifying Certificates of Competency of Master and Engineer (if manoeuvring test required)
2	Permanent ballast - confirmation of amount and position
3	Survey report issued by the competent surveyor - verification
4	Marking of Safe Working Load and Certificate of Lifting Appliances – verification (*4)

Remarks in Table 2

- *1 The final inspection shall be carried out afloat annually, by Marine Department officer.
- *2 Where practicable the listed items may be presented for inspection prior to the final inspection.
- *3 Electric circuits insulation test reports issued by an EMSD registered electrical worker (REW) or registered electrical contractor (REC) are also acceptable.
- *4 The following document / certificates certified by competent examiner should be presented in final inspection for verification of validity.
- i) Register of Lifting Appliance & Lifting Gear (Form 1);
 - ii) Certificate of Test and Examination of Winches, Derricks and their Accessory Gear (Form 2);
 - iii) Certificate of Test and Examination of Lifting Appliance and their Accessory Gear other than Derricks (Form 3).