

## PROVISIONAL LOCAL VESSELS ADVISORY COMMITTEE

### **Code of Practice** **Safety Standard for Class IV Vessels**

#### **1. Purpose**

- 1.1 This paper seeks members' approval on the draft "Code of practice Safety Standards for Class IV Vessels" as presented at the Annex to this paper.

#### **2. Background**

- 2.1 The Code is issued under s. 8 of the new Merchant Shipping (Local Vessels) Ordinance ("LVO"), which stipulates that the Director of Marine may:-

- (i) approve and issue such codes of practice as in his opinion are suitable for that purpose;
- (ii) approve different codes of practice for different classes of local vessels.

- 2.2 The Code of Practice (the Code) attached is prepared for the Class IV of locally licensed pleasure vessels and graded in accordance with size and type of those vessels.

#### **3. Determination of Safety Standards**

- 3.1 The safety standards in the Code are set to base in consultation with the industry and previous supports from PLVAC on issues relating to streamline existing arrangements and accepted practices applied to pleasure vessels which include the following major areas:-

- (i) safety inspection required by the Marine Department which is a condition for licensing covering following types of vessels (PLVAC paper no. 2/99, 11/99, 6/2000 refer);
  - (a) licensed to carry more than 60 passengers;
  - (b) of gross tonnage exceeding 150 tons;
  - (c) of novel construction; or
  - (d) engaged in letting for hire or reward under the terms of a charter agreement or hire-purchase agreement.
- (ii) delegation of survey of local vessels other than "high risk vessels"; (PLVAC paper no. 10/00, 8/02, 6/04 and 9/04 refer).

- (iii) the construction and safety equipment standards specified by Director will be issued in the form of codes of practice; (PLVAC paper no. 6/97 and 5/04 etc. refer)
- (iv) determining the maximum of persons allowable to be carried on a pleasure vessel. (PLVAC paper no. 6/2000 refers)

#### **4. Legal Status of the Code**

- 4.1 The Code may be used for evidential purposes in any proceedings under the LVO where a person is alleged to have contravened such a requirement, thereby breaching the seaworthiness clause.

#### **5. Implications**

- 5.1 The Code will provide practical and transparent guidance in respect of safety standard. The Code will also enable the authorized surveyors/ organisations delegated by the Director to conduct survey of local vessels.

#### **6. Application and Amendment of the COP**

- 6.1 The Code will come into operation when the LVO comes into force, by notice in the Gazette. The Director may from time to time approve, revise or withdraw his approval the whole or any part of any code of practice; upon the advice of the LVAC and such other interested persons as he thinks fit.

#### **7. Consultation**

- 7.1 The proposed provisions under the Code were consulted during the drafting process and accepted by the Technical Sub-committee under this Committee, and the relevant owner and operator associations have been consulted.
- 7.2 Members are welcome to give comment on the contents of this paper. Members will be asked whether the contents of this paper should be endorsed.

*Local Vessels Safety Branch  
Shipping Division  
Marine Department  
November 2004*

DRAFT

# **Code of Practice – Safety Standards for Class IV Vessels**

Issued under Section 8 of Merchant Shipping (Local Vessels) Ordinance, Cap. 548

Note:

First draft was issued on March 2004

Second draft was issued in August 2004

Third draft was issued in Nov 2004

Marine Department  
Hong Kong Special Administrative Region

XXX 2005

## **Record on Updating and Amendments**

This Code of Practice is issued under section 8 of the Merchant Shipping (Local Vessels) Ordinance, Cap. 548, through Gazette notice. Subsequent updating and amendments would be notified to the industry through further notice in the Gazette from time to time. This record sheet is intended for good record keeping of this Code.

<b>Amendment No.</b>	<b>Gazette No.</b>	<b>Gazette Date.</b>	<b>Effective Date</b>	<b>Topic Areas / pages</b>

## FORWARD

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

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

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

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

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

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

(4) The owner, agent and the coxswain of any Class IV vessel ( means any licensed pleasure vessel ) when engaged in operations outside the waters of Hong Kong are required -

- (a) to ensure the compliance with relevant safety requirements specified by the Director. These requirements are promulgated in the Marine Department notices from time to time, and
- (b) to observe any relevant requirement required by local Authority of those waters.

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# CHAPTER I GENERAL

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## 1 Introduction

- 1.1. The legislation relating to the control, licensing and regulation of local vessels possessed or used for pleasure purposes in Hong Kong (i.e. 'Class IV vessels') is contained in the Merchant Shipping (Local Vessels) Ordinance, Cap. 548, and its subsidiary legislation. This Code of Practice is issued under section 8 of the Ordinance.
- 1.2 This "Code of Practice – Safety Standards for Class IV vessels" has been developed by the Hong Kong Marine Department in consultation with the local maritime industry through representation in relevant working groups and committees.
- 1.3 This Code has been developed for application to Class IV vessels, including vessels which are engaged in pleasure purposes under the terms of a written charter agreement or a written hire-purchase agreement in the waters of Hong Kong.
- 1.4 The requirements in some of the paragraphs of this Code are provisions of the indicated relevant regulations, which are mandatory.

## 2 Statutory Regulations

- 2.1 This Code should be read in conjunction with the following statutory provisions and their amendments (if any):
  - (a) Merchant Shipping (Local Vessels) Ordinance, Cap. 548 (hereafter referred to as "the Ordinance")
  - (b) Merchant Shipping (Local Vessels) (General) Regulation, Cap. 548 Sub. leg.
  - (c) Merchant Shipping (Local Vessels) (Certification and Licensing) Regulation, Cap. 548 Sub. leg.
  - (d) Merchant Shipping (Local Vessels) (Safety Survey) Regulation, Cap. 548 Sub. leg. (hereafter to be referred as "Safety Survey Regulation")
  - (e) Merchant Shipping (Safety) (Signals of Distress and Prevention of Collisions) Regulations, Cap. 369 Sub. leg.
  - (f) Merchant Shipping (Prevention of Oil Pollution) Regulations, Cap. 413 Sub. leg.
  - (g) Merchant Shipping (Local Vessels) (Fees) Regulation, Cap. 548 Sub. leg.
  - (h) Merchant Shipping (Local Vessels)(Local Certificates of Competency) Rules
  - (i) Merchant Shipping (Local Vessels)(Compulsory Third Party Risks Insurance) Regulation, Cap. 548 Sub. leg.
  - (j) Merchant Shipping (Local Vessels)(Typhoon Shelters) Regulation, Cap. 548 Sub. leg.

### 3 Definitions

- “approved”, in relation to equipment, appliances, machinery, any fittings or materials, means approved by the Director;
- “authorized organizations” means the classification society organizations authorized by the Director under section 7 of the Ordinance for the purposes of the Ordinance and promulgated in the Marine Department Notice from time to time.
- “authorized surveyor” means a person, or a person belonging to a class of persons, who is not a public officer, appointed by the Director under section 7(1) of the Ordinance to be a surveyor for the purposes of the Ordinance and promulgated in the Marine Department Notice from time to time;
- “carrying xx passengers” means vessel’s permissible number of passengers that can be carried through out the text of this Code.”
- “certificate of ownership” means a certificate of ownership issued or endorsed by the Director under section 10, 23 or 26 the Merchant Shipping (Local Vessels) (Certification and Licensing) Regulation;
- “Class I vessel” means any vessel permitted to carry more than 12 passengers, other than a Class IV vessel, licensed under Part IV of the Ordinance;
- “Class IV vessel” means any pleasure vessel licensed under Part IV of the Ordinance;
- “Code” means this Code;
- “coxswain” means the person having for the time being the charge or command of the vessel; but where there is no such person or the vessel is in the charge or command of a person under the age of 16, it means the person whose name appears in the vessel’s Certificate of Ownership;
- “crew” means the coxswain and any other person employed for, or engaged in, any capacity on board a vessel on the business of that vessel;
- “Director” means the Director of Marine;
- “engine room” means a space of any vessel, which contains propulsion machinery and/or generators;
- “existing vessel” means a vessel which is not a new vessel;
- “favourable weather” means weather, when the visibility is good and when the combined effects of wind, sea or swell upon the ship under consideration are never greater than those which would cause moderate rolling or pitching, or result in a large amount of sea splash comes to the weather deck or, in the case of open boats, over the gunwale of a vessel”;
- “length (L)”, in relation to a Class IV vessel, means the distance between the foreside of the foremost fixed permanent structure and the aft side of the aftermost fixed permanent structure of the vessel and it also usually means the same figure as the



“length overall (LOA)”;

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

“new vessel” means: -

- (a) a vessel in respect of which an application for an operating licence is made for the first time; or
- (b) an existing vessel which is undergoing alteration of its recorded length (L), moulded breadth and/or moulded depth; or
- (c) an existing vessel in respect of which an application for alteration of its class as specified in the Merchant Shipping (Local Vessels) (Certification and Licensing) Regulation is made

on or after the commencement of the Ordinance;

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

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

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

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

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

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

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

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

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

## 4 Application

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

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

4.2 This Code does not apply to any vessel -

- (a) which is a pleasure vessel - [ *subject to LVO amendment Bill* ]
  - (i) from a place outside Hong Kong; and
  - (ii) which does not remain in the waters of Hong Kong for more than 182 days out of 365 consecutive days;
- (b) which is a pleasure vessel -
  - (i) not fitted with an engine; and
  - (ii) in the opinion of the Director, incapable of being fitted with an engine;
- (c) which has never been launched.

4.3 Any Class IV vessel carrying not more than 60 passengers and engaging in chartering or not, which is -

- (i) of novel type (which is not of conventional construction); or
- (ii) GT exceeding 150;

should be subject to safety survey by Marine Department in accordance with relevant safety requirements indicated in para. 4.1 (a) to (c) above prior to a licence is issued.

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

- 4.5 The owner, agent or coxswain of any vessel which carries or uses petrol onboard is required to observe the “Safety Precautions on the Proper Storage and Use of Petrol” indicated in Annex 2.
- 4.6 Compliance with this Code satisfies the condition relevant to the safety and pollution prevention requirements of the Merchant Shipping (Local Vessels) (Safety Survey) Regulation relating to any Class IV vessel operating in the waters of Hong Kong.
- 4.7 The Director may, on the certificate of ownership of a certificated Class IV vessel, make an endorsement to the effect that the certificated vessel may be used with one ancillary vessel meeting the following conditions: –
- (a) belongs to the same owner as the certificated vessel;
  - (b) does not exceed 4 metres in length (L); and
  - (c) either is not fitted with an engine or is fitted with engines not exceeding 7.5 kW total propulsion power.

## **5 Reporting of Accidents**

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

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

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

## **7 Third Party Risks Insurance Coverage**

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

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

## **8 Duties relating to Class IV vessels**

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

(a) to ensure that the vessel is properly maintained and examined in accordance with the requirements of the Ordinance and regulations as mentioned in paragraph 2 above, in addition to this Code; and

(b) to ensure that the vessel is built and constructed with adequate strength and stability, adequacy in safety for machinery, electrical and in safety arrangement and equipment for vessel's intended purpose <sup>(see note below)</sup>.

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

8.2 It is the responsibility of the owner, agent and the coxswain of any Class IV vessel to observe applicable duties as indicated in the Merchant Shipping (Local Vessels)(General) Regulation and Merchant Shipping (Local Vessels)(Certification and Licensing) Regulation, and in particular relating to restrictions imposed under section 6 and operators holding relevant certificates of competency etc. required on any Class IV vessel specified under sections 47, 48 and 50 of the latter Regulation. These are extracted in Annex 1A and Annex 1B for reference.

## **9 Documentary Information on Compliance of this Code**

9.1 For any Class IV vessel carrying not more than 60 passengers and engaging in chartering, owner or agent of the vessel may request builder to propose vessel's design, construction and safety standards and arrangements for certification by an authorized surveyor/organization.

9.2 Any vessel carrying more than 60 passengers whether engaging in chartering or not, its design, construction and safety requirements are to be certified by an officer of Marine Department in accordance with relevant requirements prescribed in Chapter I and III-A of this Code.

## **10 Equivalent**

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

## 11 Interpretation

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

## 12 Inspection and Certification

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

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

Note:-

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

12.2 It is recommended to display the Certificate of Inspection in a conspicuous location onboard and same remark should be indicated on the certificate.

## 13 Application for Inspection and Fees

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

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

## CHAPTER II

### INSPECTION AND CERTIFICATION

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

#### 1 Certification

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

#### 2. Examination and Inspections

- 2.1 For the purpose of obtaining a Certificate of Inspection for any vessel, matters relating to examination and inspection of its design, construction, safety equipment installations and fittings in compliance to the requirements of this Code are to be arranged and agreed with authorized surveyor / organization.
- 2.2 Relevant document from builder with endorsement or certification by authorized surveyor / organization confirming the standard of construction applied to the vessel and, where appropriate, together with an inclining test report should be kept onboard with the "Certificate of Inspection".
- 2.3 New vessels of proto-type approval, including details of approved production procedures and key inspections, with certification for a validity period of not more than five years is considered acceptable. Proven type pleasure vessels with proper documentation or verification details can also be considered acceptable.
- 2.4 (a) For any Class IV vessel, builder's inspection reports or certificates are required for assessment and endorsement by an authorized surveyor / organization; The endorsed document should be kept onboard with the Inspection Record.  
  
(b) For any existing vessel which has one year or more record of safe operation <sup>(Note )</sup> (before commencement date of LVO) in the waters of Hong Kong or similar operating conditions, the requirements in (a) above can be waived and it will be considered to be adequate strength after a simple inclining test ( Annex 5 refers), few basic drawings ( can be supplemented by photos) and satisfactory examination; and

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

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

### **3 Inspection of Hull, Machinery and Safety Equipment**

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

#### **Hull Construction**

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

#### **Machinery & Electrical**

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

#### **Safety Equipment and Lights & Sound Signals**

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

### **Passenger Accommodation**

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

### **Others**

- (17) Other items considered necessary by the authorized surveyor/organization (to be indicated in separate list).

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

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

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



## CHAPTER III

### CONSTRUCTION, MACHINERY AND ELECTRICAL INSTALLATIONS

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

#### 1 Standards on Construction and Installations etc.

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

#### 2 Hull Construction and Marking

- 2.1 The vessel should 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.
- 2.2 Bulwarks, guard rails or equivalent protection should be installed near the periphery of weather decks accessible to passengers and crew.
- 2.3 In any vessel of other than wooden construction, and as far as practicable on wooden vessel, the bulkheads should be of watertight construction.
- 2.4 Every enclosed space should be provided with suitable ventilation. Every such space for regular entrance by crew or working personnel should be suitably mechanically ventilated and illumination.
- 2.5 The Certificate of Ownership number of a vessel should be painted and mounted in accordance with section 40 of the Merchant Shipping (Local Vessels)(Certification and Licensing) Regulation.
- 2.6 (a) For any new vessel, an inclining test should be carried out in accordance with the standards of an authorized organization or equivalent standard.
- (b) As alternative to (a) above, for any new vessel carrying less than 12 passengers, a simple inclining test should be carried out to ascertain the angle of heel a vessel would occur when  $\frac{2}{3}$  of the passengers distributed on one side of the vessel and  $\frac{1}{3}$  on the other side. The objective is to ensure that no angle of heel exceeding 7 will arise as a result of the movement of passengers from one side of the vessel to the other side. If that vessel is not exceeding 6 metres, an immersion test to prove its adequacy of buoyancy is also acceptable as an alternative.

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

### **3 Machinery Installations**

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

- 3.10 Fuel oil pipes and their attachments should be of adequate strength and free from excessive vibration.
- 3.11 A bilge pump of sufficient capacity should be provided for any vessel of length (L) 7.6 metres and above.
- 3.12 When petrol is stowed onboard for use in outboard engines or portable generator engines, safety precautions as indicated in Annex 2 should be strictly followed.
- 3.13 Every vessel of gross tonnage 400 and above should be fitted with an oily water separator of an approved type in compliance with the requirements of the Merchant Shipping (Prevention of Oil Pollution) Regulations.

**3.14 Engine Room & Wheelhouse Communication and Safety Arrangement**

(a) On any vessel with manned engine rooms, a suitable system of communication between wheelhouse and engine room should be provided.

(b) Any vessel with length or propulsion power as indicated below, operating in **unattended machinery spaces** mode, should be provided with the following installation in the proximity of the position of helmsman:

(I) Vessel of  $L \leq 24$  m or total propulsion power  $\leq 1,000$  kW

- (i) for main engine- essential control (such as means of start and stop, control of speed and clutch), indicators, abnormal alarms and remote stop.
- (ii) for generator engine and engine room ventilation fans - means to stop
- (iii) for bilge water in engine room- high level audible alarm. <sup>(Note)</sup>
- (vi) for existing vessels, a fixed fire detection (operated by smoke detectors) and fire alarm system for engine room are advisable to owners. If these fittings are not installed, regular surveillance to be exercised from outside engine room or control station by the coxswain or a crewmember.
- (v) for existing vessels, a fixed fire detection (operated by smoke detectors) and fire alarm system for engine room are advisable ~~or optional~~ to owners. If these fittings are not installed, regular surveillance to be exercised from outside engine room or control station by the coxswain or a crewmember. <sup>(Note)</sup>

Note : For the purpose of “combined coxswain” operation , vessel length less than 12 m, if regular surveillance (such as through tale-tell pipe or transparent glass view-hole fittings etc.) can be exercised from outside engine room or control station by the coxswain or a crewmember, these requirements can be waived.

(II) Vessel of  $L > 24$  m or total propulsion power  $> 1,000$  kW

same as (I) above but in addition, provided with a fixed fire detection (operated by smoke detectors) and fire alarm system for engine room.

## **4 Electrical Installations**

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

## **5 Other Installations and Equipment**

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

## CHAPTER III -A

### DESIGN, CONSTRUCTION, INSPECTION AND CERTIFICATION

(For any vessel carrying more than 60 passengers)

#### 1 Design, Construction and Inspection

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

#### 2 Certification

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

## CHAPTER IV

### PASSENGER AND CREW ACCOMMODATION

(For any vessel carrying not more than 60 passengers)

#### 1 Accommodation

- 1.1 Accommodation spaces should be maintained in a clean, suitable lighting, well-ventilated and habitable condition with efficient means of escape.
- 1.2 There should be sufficient handholds and grab-rails within the accommodation to allow safe movement around the accommodation when the vessel is in a seaway.
- 1.3 Heavy items of equipment such as batteries, cooking appliances and etc., should be securely fastened in place to prevent movement when the vessel is underway.
- 1.4 All vessels should ensure the boarding for crew and passengers is safe.
- 1.5 For vessels carrying more than 12 persons, sanitary apparatus or wash room should be provided on onboard.

#### 2 Maximum Carrying Capacity and Seating

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

- (i) open deck vessel <sup>(Note (a))</sup>

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

- (ii) enclosed deck vessel <sup>(Note (b))</sup>

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

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

B = vessel's maximum breadth in metres

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

Note (b): "Enclosed deck vessel" means vessel provided with enclosed superstructure or compartment for personnel sheltered from weather.

- 2.2 An increased capacity may be considered subject to a satisfactory inclining test being conducted. Such increase should take into consideration of the minimum number of crew required for the vessel as specified in the operating licence, of which the evaluation is guided by the details given at above paragraph 2.1 and format indicated in Annex 4A.

- 2.3 All passengers should be arranged with seating or resting facilities adequate for the intended purpose. As a guidance, the number of fixed seats should be not less than 50% of its maximum number of carrying capacity and the balanced number of seats can be in other form or type provided that they are relatively stable and safe for its purpose.
- 2.4 (a) For any new Class IV vessel engaging in chartering, any compartment below main deck should not be used as passenger space, except on a sunken deck which has scantlings equivalent to main deck, and is at least-150 mm above the deepest loaded waterline.
- (b) For any new Class IV vessel not engaging in chartering or any existing Class IV vessel; any compartment below main deck should not be used as passenger space as far as practicable, except on a sunken deck which has scantlings equivalent to main deck, provided these spaces are clearly marked the accessible escape route and fitted with flooding alarms.

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

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

Upper level	x x x
Main Deck	x x x
Etc.	x x x
	-----
Maximum number of passengers	x x x
Minimum number of crew	x x x
Maximum carrying capacity <sup>(Note)</sup>	x x x

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

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



#### **4. Pollution Prevention and Waste Reception**

4.1 Owners and agents are required to comply with the requirements relevant to the prevention of marine pollution at sea as follows : -

- (a) the being enforced MARPOL Annex I applicable to any pleasure vessel exceeding 400 gross tonnage; and
- (b) the requirements of MARPOL Annex VI which is effective on 19 May 2005, applicable to any pleasure vessel.

## CHAPTER V

### FIRE PROTECTION

(For any vessel carrying not more than 60 passengers)

#### 1 General Requirements

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

#### 1.2 Portable Fire Extinguishers

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

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

1.2.2 Fire extinguishers to be used for switchboards, control panels, batteries, etc. should be of a type suitable for electrical fires, e.g. dry-powder or CO<sub>2</sub> fire extinguishers.

1.2.3 Fire extinguishers to be used for machinery spaces should be of the type suitable for oil fires, e.g. foam, dry powder or CO<sub>2</sub> fire extinguishers.

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

1.2.5 The use of CO<sub>2</sub> fire extinguishers in a confined space is not recommended.

#### 1.3 Fire Pumps

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

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

14 Hydrants, Hoses, Nozzles

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

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

**2 Ready availability and Maintenance of Appliances**

2.1 The appliances should be kept in good order and available for immediate use at all times.

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

**3 Scale of Fire-fighting Appliances**

**Table 1** Any vessel carrying not more than 60 passengers and not engaged in chartering: -

FFA		L (m)	L < 5.5	5.5 ≤ L < 9	9 ≤ L < 15	15 ≤ L < 24	L ≥ 24
Portable Fire Extinguishers (Note A)	1.4 kg		1 (Note B)	2			
	2.3 kg				2		
	4.5 kg					2	2
	Engine Room				2 (Note C)	2 (Note C)	2 (Note C)
Fire Bucket with Lanyard (Note D)			1 (or 1 bailer)	2	2	2	3
Main Fire Pumps	Power						1
	Manual					1 (Notes E)	
Emergency Fire Pumps	Power						1 (Note E)
	Manual						
Hydrants						to be provided	
Hoses						1	2
Nozzles	Jet					1	2
	Spray						1
Fireman's Axes							1

Notes: -

- (A) Dry powder fire extinguisher or equivalent.
- (B) Two extinguishers should be provided if there is a galley onboard.
- (C) Required for the engine room in any vessel with an installed power of 350 kW or above.
- (D) Fire buckets may be substituted by an equal number of fire extinguishers each of not less than 4.5 kg dry powder or equivalent.
- (E) The pump and the sea connection should be situated outside the machinery space.

**Table 2** Any vessel carrying not more than 60 passengers and engaged in chartering

FFA		L (m)			
		L < 15	15 ≤ L < 24	24 ≤ L < 60	60 ≤ L < 75 (Note E)
Portable Fire Extinguishers [of suitable type and capacity for the space being protected]	Passenger Accom. Space	1/ each deck (min. 2)		1/ each 10 metres or part thereof walking distance on each deck (min. 2)	
	Wheel House	1			
	Galley	1			
	Engine Control Rm	1			
	Engine Room	3	4	1/ each 750 kW or part thereof (min. 3 but not more than 6 required)	
	Machinery Space	1/ each space			
Fixed CO <sub>2</sub> Fire Extinguishing System (Note A)	Engine Room	-		1 set	
Fire Detection and Alarm System		-		1 set	
Main Fire Pumps	Power		1 (Note B)	1 (Note C)	1
	Manual			-	-
Emergency Fire Pumps	Power			1 (Note B)	1 (Note B)
	Manual				
Fire Main + Hose + Hydrant + Jet Nozzle		1 set		1 set to be provided for each pump (Note D)	
Fireman's Axes				1	

Notes: -

- (A) For any vessel carrying more than 12 passengers and installed with internal combustion engines of aggregate propulsion power of 350 kW or over. The fixed CO<sub>2</sub> fire-extinguishing system may be substituted by a non-portable fire extinguisher (45 kg foam or equivalent CO<sub>2</sub> type) if it can be satisfactorily demonstrated that the jet of the fire extinguishing media can reach any part of the engine room.

- (B) The pump and the sea connection shall be situated outside of the engine room.
- (C) The pump may be propulsion engine driven, provided it can be readily engaged to the engine.
- (D) Any vessel exceeding 24 metres in length (L) shall be provided with the following additional appliances:
  - i) 1 hydrant in engine room; and
  - ii) spray nozzles, 1 on deck and 1 in the engine room.
- (E) Any vessel of length (L) of 75 metres and above will be specially considered.

## **CHAPTER VI**

### **LIFE-SAVING APPLIANCES AND ARRANGEMENTS**

(For any vessel carrying not more than 60 passengers)

#### **1 General**

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

#### **2 Stowage of Appliances**

- 2.1 Life-saving appliances should be stowed so as to be readily accessible to all persons on board.
- 2.2 Lifebuoys should be distributed on both sides of the vessel. They are to be placed in racks unsecured to allow them to float-free as necessary.
- 2.3 Lifejackets should be stowed in racks or under seats and be clearly marked. They should be evenly distributed according to the disposition of persons on board.

#### **3 Maintenance of Appliances**

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

#### 4 Scale of Life-saving Appliances

**Table 1** Any vessel carrying not more than 60 passengers and not engaged in chartering

LSA (Note A)	Quantity	
Lifejacket	100% (Note B)	
Lifebuoy	L (m)	No.
	$L < 12$	1
	$12 \leq L < 21$	2
	$21 \leq L < 37$	4
	$L \geq 37$	6
Buoyant Line (Note C)	1	

**Table 2** Any vessel carrying not more than 60 passengers and engaged in chartering

Operation Area LSA (Note A)	Specified Sheltered Waters	Anywhere within waters of Hong Kong
Lifejacket	any number of Lifejackets ) Total ) 100%	100% adult lifejacket + 5% children lifejacket (Note B and D)
Lifebuoy	min. no. per Table 3 )	min. no. per Table 3
Buoyant Lifeline (Note C)	For $L < 9$ m	requires 1
	For $L \geq 9$ m	requires 2

Notes in Tables 1 and 2: -

- (A) Where the required quantity of life-saving appliances is expressed as a percentage it means the percentage of the total number of persons carried on board.
- (B) Children's lifejackets should be provided when children are carried onboard.
- (C) Minimum length of buoyant line -
  - For  $L < 21$  m requires 18 m
  - For  $L \geq 21$  m requires 27.3 m
- (D) Existing vessel shall comply with the requirements within 1 year from the introduction of this Code.

Table 3 Minimum Number of Lifebuoys as required in Table 2

L (m)	No. of Lifebuoys
L < 12	2
12 ≤ L < 15	4
15 ≤ L < 18	6
18 ≤ L < 21	8
21 ≤ L < 24	10
L ≥ 24	12



## CHAPTER VII

### LIGHTS, SHAPES AND SOUND SIGNALS

(For any vessel carrying not more than 60 passengers)

#### 1 General

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

#### 2 Definitions

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

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

#### 3 Navigation Lights

Lanterns may be either electric or oil type.

#### 4 Lights and Sound Signals

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

##### 4.1 Power Driven Vessels $L \geq 50$ m

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

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

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

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

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

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

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

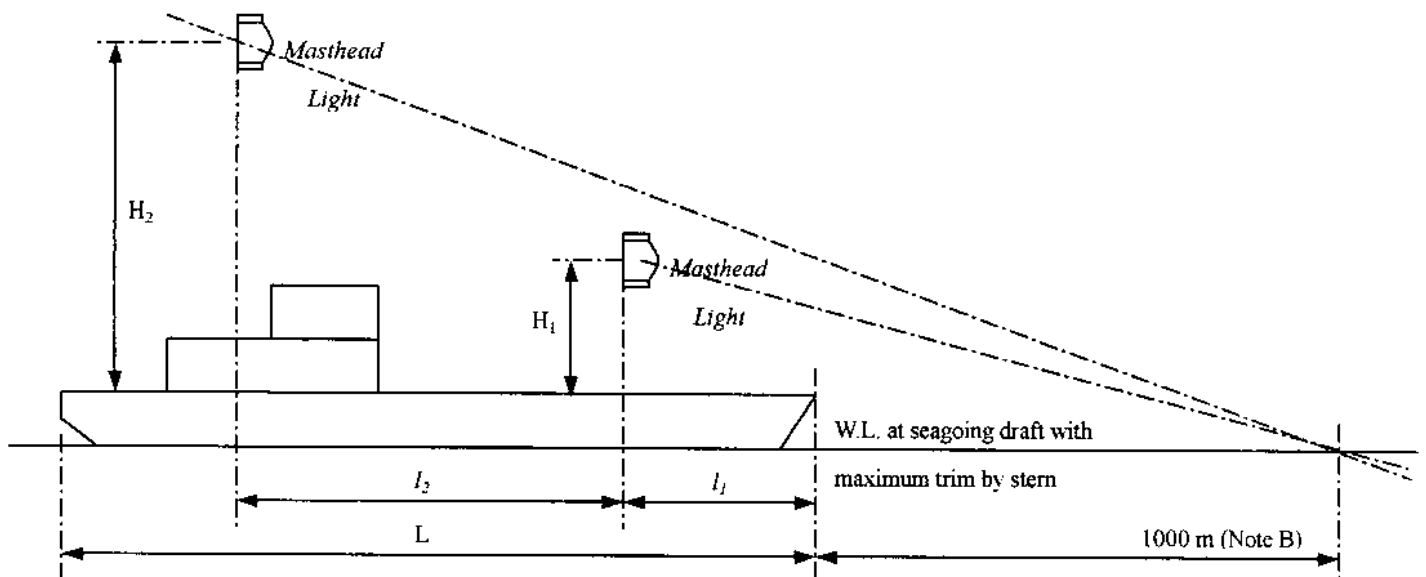
Item	No. Req'd	Intensity/Size	Remarks
Masthead Light	1	visibility 2 n. miles	
Sidelight (P&S)	1 set	" 1 n. miles	may be combined lantern
Stern Light	1	" 2 n. miles	
Anchor Light	1	" 2 n. miles	all-round white
Black Ball	3	dimensions commensurate with size of vessel	
Black Diamond	1	ditto	
Sound Signal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

- 4.5 Power Driven Vessels  $L < 12$  m may, in lieu of the lights prescribed in 4.4 above, exhibit an all-round white light and sidelights.
- 4.6 Power Driven Vessels  $L < 7$  m and maximum speed not exceed 7 knots may, in lieu of the lights prescribed in 4.4 above, exhibit an all-round white light and shall, if practicable, also exhibit sidelights.

## 5 Positioning of Light Signals

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

### 5.1 Masthead Light



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

Notes: -

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

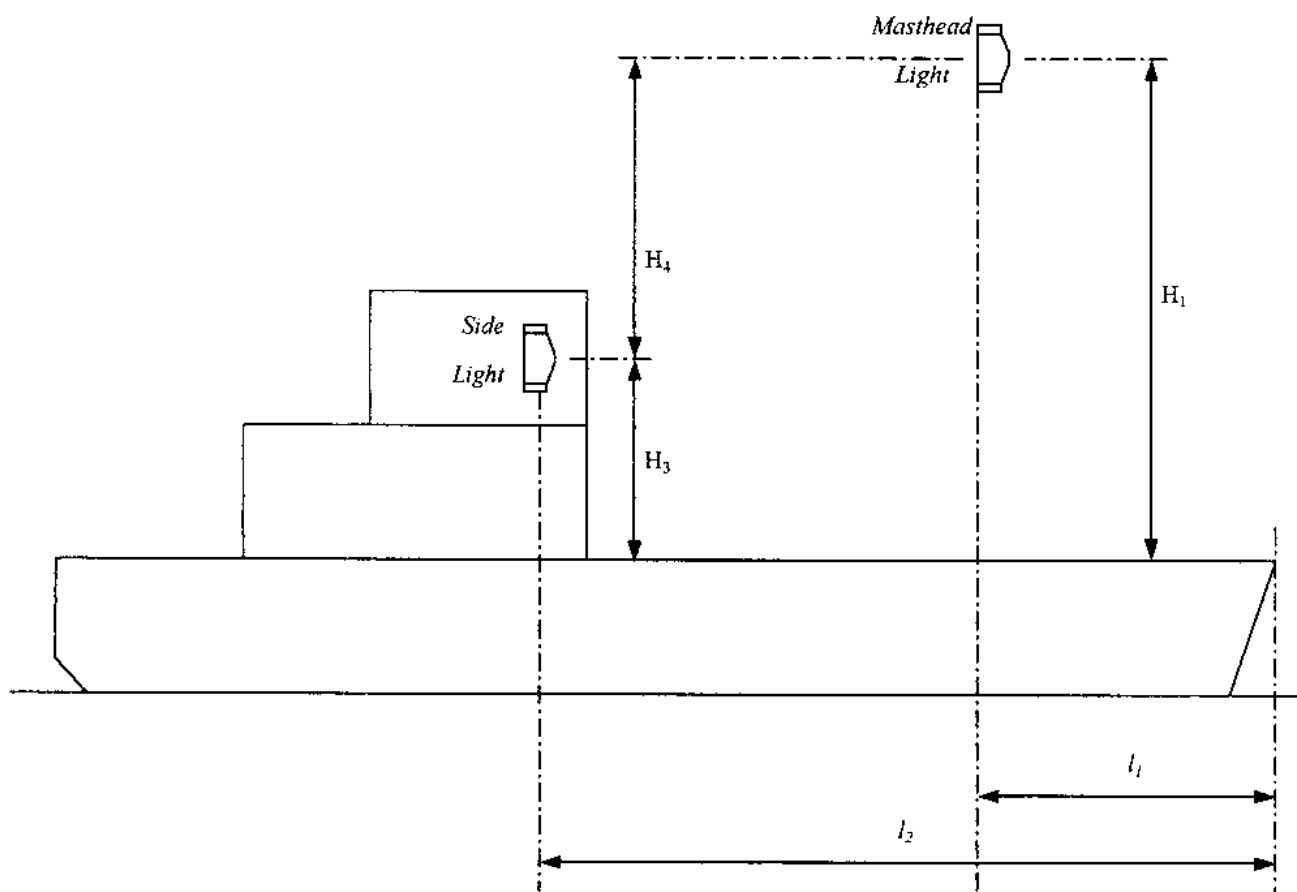
sidelights.

- (E) The masthead light of any high speed vessel with a length (L) to breadth ratio of less than 3 may be placed at a height related to the breadth of the vessel lower than that prescribed for  $H_1$ , provided that the base angle of the isosceles triangles formed by the sidelights and masthead light, when seen in end elevation, is not less than  $27^\circ$ .

## 5.2 Sidelights

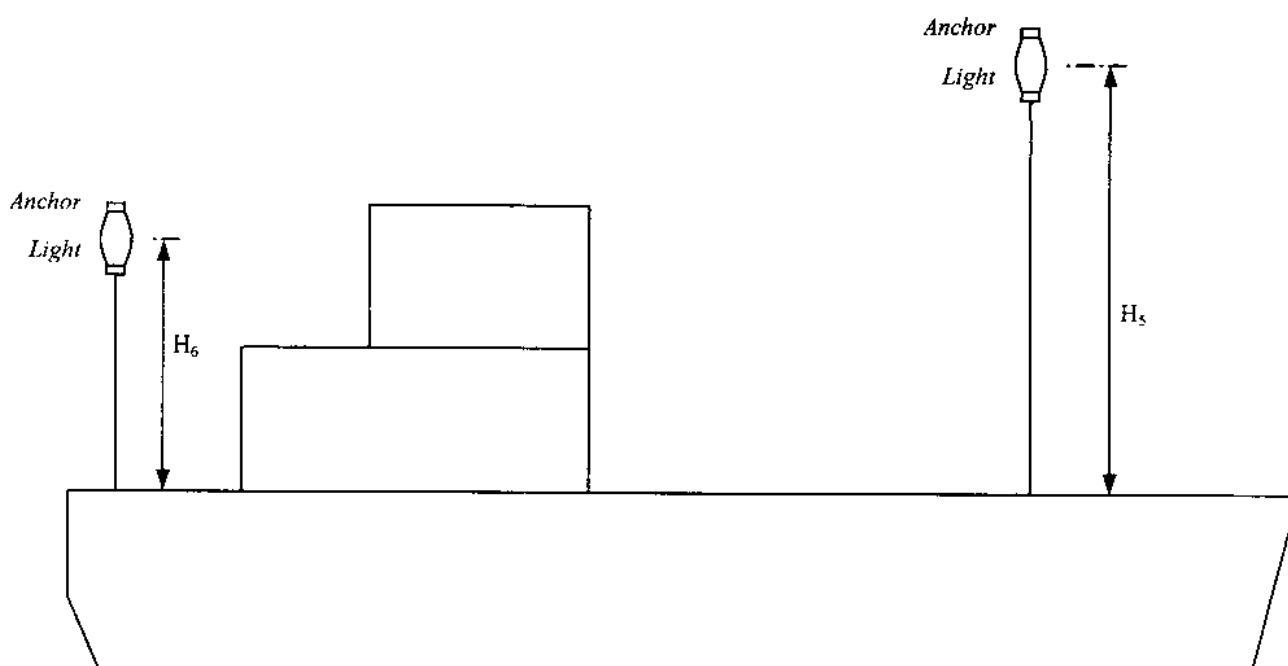
5.2.1 The sidelights of vessels of  $L \geq 20$  m shall be fitted with inboard screens painted matt black. On vessels of  $L < 20$  m the sidelights, if necessary to provide with horizontal sectors, shall be fitted with inboard matt black screens. With a combined lantern, using a single vertical filament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

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



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

### 5.3 Anchor Light

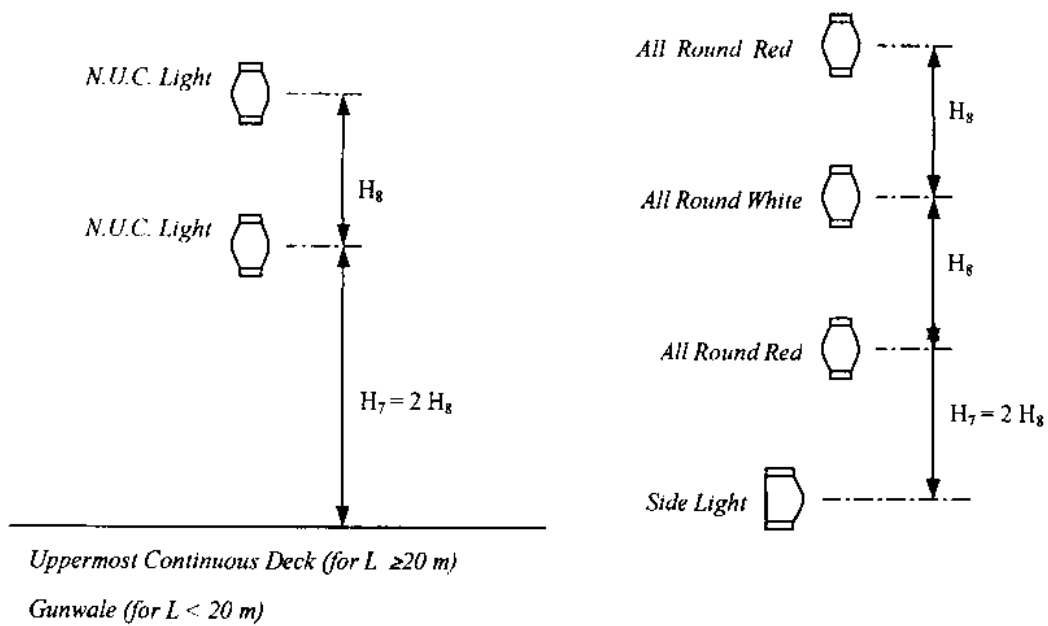


L (m)	L < 50 (Note A)	L ≥ 50
$H_5$	Position can best be seen	$\geq 6\text{ m}$
$H_6$		$\leq (H_5 - 4.5)$

Note: -

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

## 5.4 Vertical Spacing of Lights



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

Notes: -

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

## CHAPTER VIII

### DOMESTIC LIQUEFIED PETROLEUM GAS INSTALLATION

(For any vessel carrying not more than 60 passengers)

#### 1 Marking

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

#### 2 Properties of LPG

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

#### 3 Storage

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

#### 4 Installation

- 4.1 LPG pipes

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

#### 4.2 LPG cylinder storage locker

- (a) For storage above main deck:
  - ventilation openings should be provided on top and bottom of the locker;
  - when an LPG pipe is arranged to pass through a bulkhead, the opening on the bulkhead should be of a suitable size and height, to avoid any gas leaking into the accommodation. If the LPG pipe is a synthetic rubber hose, precautions should be taken to prevent the hose being chafed. Protecting conduit should be fitted where necessary.
- (b) For storage below main deck:
  - the locker bulkhead should be of gastight construction. Bulkhead piece should be fitted where a LPG pipe is arranged to pass through a bulkhead;
  - adequate ventilation should be provided at the top and bottom of the locker and be led overboard;
  - gas detectors should be fitted to detect any accumulation of LPG in the bilges.

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



批准氣體器具製造商

## 5 Maintenance

5.1 Changing cylinders should be done according to the instructions of gas dealers. If it is suspected that either a cylinder or its valve is faulty, it should be landed ashore as quickly as possible, and until that time kept in the open air, clear of any gratings, hatches or other



openings leading below decks.

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

## **6 Inspection**

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

## Chapter IX

### Vessel Operator Requirements

#### 1. General

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

#### 2. Certificate of Competency

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

Certificates of Competency (valid for Hong Kong waters only) issue before commencement of(LCOC)R and validity limitations	Equivalent Local Certificate of Competency issued under (LCOC)R (Note 1) and validity limitations
Pleasure Vessel Master Grade I ( for vessel of 20 m or less ) <u>PLUS</u> Pleasure Vessel Engineer Grade I or Grade II	Please Vessel Operator Grade 1 ( for vessel of any length )
Pleasure Vessel Master Grade II ( for vessel of 13.7 m or less in length ) <u>PLUS</u> Pleasure Vessel Engineer Grade I or Grade II	Please Vessel Operator Grade 2 (for vessel of upto and including 15 m length )
Pleasure Vessel Engineer Grade I ( for engine total propulsion power upto 750 kW )	--
Pleasure Vessel Engineer Grade II ( for engine total propulsion power upto 120 kW )	---

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

### **3. Vessel to be operated by a single operator**

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

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

4.1 Other than those vessels indicated in paragraph 3.1, for any Class IV vessel carrying not more than 60 passengers, having vessel length not exceeding 24 metres or its total propulsion power not more than 1,000kW (1,340 BHP), it is recommended as acceptable practice that the vessel can be considered safe and properly controlled by one person holding Local Certificate of Competency as a Pleasure Vessel Operator Grade 1 or equivalent, i.e. a “combined coxswain” operation, provided that the following arrangements are met:-

- (a) the vessel is appropriately equipped for unattended machinery space operation. For vessels engaging in chartering, these requirements are indicated in para 3.14 of Chapter III; and
- (b) there should be at least one additional crewmember with common engineering knowledge on board to assist the coxswain while the vessel is underway in order to cope with operational needs including helping out emergency measures, etc..

4.2 The requirement in para 4.1 (b) can be waived provided that the vessel is not carrying any passenger and the owner satisfies that coxswain can properly control the vessel safely for the voyages intended.

4.3 Any vessel, in particular for vessel under “combined coxswain” operation, the coxswain should understand well that he should not leave the vessel navigating itself when he has left the steering position. Furthermore, it is the owner, agent and the coxswain of the vessel to ensure safe embarkation and dis-embarkation under operation.

## **SAFETY BRIEFING FOR A CLASS IV VESSEL ENGAGED IN CHARTERING**

1. Before the commencement of any voyage under charter, the coxswain should ensure that all persons on board are briefed on the stowage and use of personal safety equipment such as lifejackets, buoyancy aids and lifebuoys, and the procedures to be followed in cases of emergency.
  
2. In addition to the requirements of paragraph 1, the coxswain should brief at least one other person or assistant who will be sailing with the vessel regarding the following: -
  - 2.1 Procedures for the recovery of a person from the sea;
  - 2.2 Location of first aid kit, if any;
  - 2.3 Procedures and operation of radios carried on board, if any;
  - 2.4 Location of navigation light switches and other light switches;
  - 2.5 Location and use of fire-fighting equipment;
  - 2.6 Method of starting, stopping, and controlling the main engine; and
  - 2.7 Handling emergency situations and communication arrangements.
  
3. Safety guide plates or cards will be considered to be an acceptable way of providing the information required in paragraph 2 above.

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

The provisions are quoted as below:-

QUOTE

**6. Restrictions on Class IV vessels**

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

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

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

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

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

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

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

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

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

UNQUOTE

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

The provisions are quoted as indicated below.

QUOTED

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

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

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

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

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

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

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

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

**48. Person under 16 prohibited from operating certain vessels**

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

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

**50. Local certificates of competency to be carried on board**

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

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

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

UNQUOTED



**SAFETY PRECAUTIONS ON THE PROPER STORAGE AND USE OF PETROL**

1. No excessive quantity of petrol should be carried on board a vessel.
2. If portable container is used to carry petrol, the containers should be of a type approved by the manufacturer of the vessel's engine and fitted with proper air vents.
3. The container should be stored in a well-ventilated space, preferably on the open deck. The container and any valve and pipe leading from such container should be properly secured, protected against mechanical damage, excessive variations in temperature and direct rays of the sun. The associated pipes and joints should be readily accessible in order to check for suspected leaks.
4. Sources of heat should be kept clear of the storage spaces and caution notices “不准吸煙 No Smoking” and “不准明火 No Naked Lights” should be displayed in a prominent position when necessary.
5. Petrol should not be used for other purposes, e.g. cleaning of engine parts, which may impose an unnecessary fire risk.
6. Petrol container should be removed from any space which is expected to be unattended for a period of time, unless sufficient ventilation of the spaces can be ensured.

(只供參考用 For reference only)

(簽發證書之特許驗船師的姓名/機構的名稱和印章/飾章)

## 第 IV 類別船隻的檢驗證書

(Seal / Crest and Name of Issuing Authorized Surveyor / Organization)

## CERTIFICATE OF INSPECTION FOR A CLASS IV VESSEL

船名 Name of Vessel.....		船東/代理人姓名和地址 Name & Address of Owner/ Agent.....	
船隻擁有權證明書編號 Certificate of Ownership No.....			
最高可乘載人數 Maximum No. of Persons to be carried.....			
總噸位 Gross Tonnage.....	最大寬度(米) Max.breadth (metre) .....	總長度(LOA) (米) Length overall(LOA) (metre).....	
建造日期 Date of Build .....		註冊長度(米) Registered length (metre).....	

茲證明上述船隻已由下列人士/機構進行檢驗

This is to certify that the above named vessel was examined by .....

..... 機構名稱 of .....

..... 於 at .....

..... 日期 on .....

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

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

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

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

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

船上排/乾塢檢驗的最近一次日期 / Date of last slip or docking inspection on .....

簽發於 Issued at ..... 日期 on .....

特許驗船師姓名/ 特許機構名稱及其驗船師姓名

Name of Authorized Surveyor / Authorized Organization & name of surveyor.

簽署 Signature ..... 日期 Date .....

備註 Note: 建議 此證書應放置於船上顯眼處。 It is recommended to display this certificate on board in a conspicuous position.

有出租船或租購書面協議的遊樂船檢驗紀錄  
(只適合在良好天氣下在香港水域範圍內操作)

**INSPECTION RECORD FOR PLEASURE VESSEL LET UNDER THE TERMS OF A  
WRITTEN CHARTER OR HIRE-PURCHASE AGREEMENT**

**( only for operating within Hong Kong waters and in favourable weather conditions )**

Name of Vessel..... Certificate of Ownership No:.....

船名 : ..... 擁有權證明書編號 : .....

檢驗項目 Inspection Items

備註 Remark

船體構造 Hull Construction

1. 船體結構及上層建築 (包括是否玻璃纖維/ 木質船體完好有無損壞裂縫, 船體各連接處有無鬆動和漏水現象)  
Hull structure and superstructure (including integrity of GRP/ wooden hull, or any faults in welds or joints, damage or cracking, any evidence of loosening or leakage in way of connections)
2. 船體內部提供浮力結構 (包括密閉性是否完好)  
Hull buoyancy structure (including whether or not with tightness integrity)
3. 內部艙壁 (包括確定完整性)  
Internal bulkheads (including assurance of Integrity)
4. 審查/批核適當的建造文件/ 證書及 /或傾斜測試報告等 (參照第 I 章第 9.1 段, 第 II 章第 2.2 段, 第 III 章第 1 及 2 節相關的要求). 批核文件須與本檢驗紀錄放置在船上  
Assessing / endorsing document /certificate of construction and/or inclining test report etc, where appropriate ( Refers to requirements in paragraph 9.1 of Chapter I, paragraph 2.2 of Chapter II and sections 1 and 2 of Chapter III.) The endorsed document should be kept onboard with this Inspection Record.

機械及電氣 Machinery & Electrical

5. 主機及其操控系統在正常工作狀態  
Propulsion engine and control system in normal working condition
6. 油柜及油管 (包括是否完好, 無滲漏現象)  
Oil tanks and oil pipes (including whether or not in good order and no leakage)
7. 艙底水系統及消防系統 (包括是否處於有效工作狀態)  
Bilge system and fire mains (including whether or not in working condition)
8. 防油污裝置操作試驗 (適用於總噸 > 400 )  
Oil pollution prevention installation functional test ( for GT > 400 )
9. 機艙通風裝置 (包括關閉效用是否正常)  
Ventilation fans for machinery space (including whether or not the closing mechanism in working condition).
10. 石油氣裝置及使用汽油之安全  
Safety for LPG Installation and Use of Petrol.
11. 電纜及電器裝置 (包括確定無不適當的損壞)  
Electric cables and electrical installations (including whether or not no undue damages)
12. 電纜絕緣電阻、電氣裝置過載保護裝置和接地。由機電署合資格工程師或電工簽發的電器系統絕緣測試報告(註明是適用於輪機系統)及經特許驗師/ 機構批註, 是可接受的。)

Insulation resistance of cables, overload protection and earthing of electrical installation.(Electrical system insulation test reports ( clearly marked suitable marine system) from EMSD qualified engineers or electricians, endorsed by authorized surveyor/ organization, are acceptable.)

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

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

客艙 Passenger Accommodation

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

其他 Others

17. 特許驗船師 / 機構認為需要檢驗的項目, 表列於另外紙張。  
Other items considered necessary to be inspected by the authorized surveyor / organization as listed in separate sheet.

船排/乾塢檢驗 (兩年一次) Inspection on slip or dry-docking (bi-annually)

18. 船底板、舷側板、防濺條、尾封板 (包括有無損壞裂縫)  
Bottom plates, side shell plates, spray strips and stern transom plates (including whether or not any damage or cracking)
19. 海底門、螺旋槳軸、螺旋槳及水/油封 (包括是否維修保養正常)  
Sea valves, propeller shaft, propeller and water/oil seals (including whether or not maintained in good condition)

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

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

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

簽署 Signature ..... 日期 Date .....

第 IV 類船隻的最高可載運人數的計算 及/或 檢驗證明裝置是適合由一名“兼任輪機員船長”操控

**Determination of maximum number of persons to be carried and / or Survey Certification on installation suitable for “combined coxswain” operation of a Class IV vessel**

Name of Vessel..... Certificate of Ownership No:.....			
船名 : .....		擁有權證明書編號 : .....	
<b>1 (a) 最高可載運量和座椅 Maximum Carrying Capacity and Seating</b>			
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) 開啟式甲板船隻 open deck vessel	( $L \times B =$ )	
	$L \times B$ 所得數 numeral	總人數 Total No. of	計算總人數 Determined Total No. of Persons
或/or	$\leq 5$	2	( )
	$>5$ to $\leq 10$	3	( )
	$> 10$	4	( )
[ ]	(ii) 圍蔽式甲板船隻 enclosed deck vessel		計算總人數 Determined Total No. of Persons
	總人數 total number of persons	$= L \times B \times 0.4$	
及/and	(iii) 船東指示要求最少船員名額 Owner's indicated the requested minimum number of crew	$= ( )$	
	式中 where L : 船隻(甲板)的總長(米) vessel's (deck) length overall in metres	$= ( )$	
	B : 船隻的最大寬度(米) vessel's maximum breadth in metres	$= ( )$	
(b)	所有乘客應有足夠的座椅或休息設施可供預定的用途。作指引之用，應有不少於總載客人數 60% 固定座位，餘數可採用另外的形式或類別，但必須相對地穩妥及安全，符合預定用途。 All passengers should be arranged with seating or resting facilities adequate for the intended purpose. As a guidance, the number of fixed seats should be not less than 60% 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)	<b>載運超過 12 名乘客及從事租賃業務的船隻之乘客艙室的標記</b> <b>Marking in Passenger Space for vessel engaging in chartering and carrying capacity more than 12</b> 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，如下所示 The number of passengers in which each deck can accommodate should be indicated, in a conspicuous location, at all spaces where passengers will be embarking, in Chinese and English :-		
	上層甲板 Upper level	( )	不適用 Not applicable /
	主甲板 Main Deck	( )	
	等等 Etc.	( )	
	最高乘客名額 Maximum number of passengers	( )	已標記 / 未有標記 Marking Completed / Marking Not Done
	最少船員名額 Minimum number of crew	( )	
	最高載運量 Maximum carrying capacity	( )	
2.	<b>證明這船隻裝置是適合由一名“兼任輪機員船長”操控</b> <b>Certification on installation suitable for “Combined Coxswain” operation for this vessel</b>		不適用 Not applicable/ 適合 / 不適合 Suitable / Not suitable
	以此證明這船隻的無人操作機器艙間備有適合由一名“兼任輪機員船長”操控的配備並經檢驗及測試滿意，包括艙底水警報，主要的主機控制、儀錶、主機及發電機故障警報裝置，主機、發電機及抽氣扇的遙控關閉，煙霧偵測及警報裝置等裝置。(參照第 III 章第 3.14 段相關的要求) This is to certify that this vessel has appropriately equipped, inspected and tested satisfactory, including fittings of bilge alarm, essential main engine controls, indicators and main / generator engines abnormal warning alarms, remote shutdown of main / generator engines and ventilation fans, and a fire or smoke detection system etc., as appropriate, for unattended machinery space requirements suitable for “combined coxswain” operation. (Refers to relevant requirements in paragraph 3.14 of Chapter III.) - 裝置/ 額外詳細資料 Installation / Additional Details:		

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

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

簽署 Signature ..... 日期 Date .....

## APPROXIMATE DETERMINATION OF STABILITY BY SIMPLE INCLINING TEST

### SIMPLE INCLINING TEST

#### 1 General

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

#### 2 Test Procedure

- 2.1 The vessel should be tested with weights to represent the fully laden service condition.
- 2.2 The weights should be disposed, as far as practicable, with their centres of gravity in the correct vertical and lateral positions having regard also to those vessels where passengers should be taken as congregated at 0.3 m<sup>2</sup> each on the uppermost deck or decks to which they have access.
- 2.3 The test should be carried out in the following manner: -
- (a) the vessel is to be loaded with weights as described above,
  - (b) calculate a heeling moment equal to 1/12<sup>th</sup> the weight of the passengers (W) multiplied by the extreme breadth (B) of the vessel (WB/12),
  - (c) transfer weights from one side of the vessel to the other side in 3 equal increments such that the final heeling moment is equal to WB/12, the same vertical CG of the whole being maintained.

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

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

### 3 Acceptance of Stability

- 3.1 As a general rule, no vessel will be accepted where the angle of heel exceeds  $7^\circ$  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  $4^\circ$  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  $7^\circ$  would arise as a result of this heeling moment.