

## LOCAL VESSELS ADVISORY COMMITTEE

### Amendments to Code of Practice – Safety Standards for Class I, II and IV Vessels

#### Purpose

This paper informs members of the amendments to the Code of Practice – Safety Standards for Class I Vessels, Code of Practice – Safety Standards for Class II Vessels and Code of Practice – Safety Standards for Class IV Vessels (hereafter collectively referred to as “CoPs”) to effect the extension of the scope of authorization for authorized surveyors employed by Authorized Organizations<sup>1</sup> (AOs) to carry out final inspection for local vessels except Class IV vessel of novel construction.

#### Amendments to CoPs

2. We informed members via LVAC Paper No. 8/2020 issued on 12 October 2020 that the scope of authorization for AOs and Recognized Authorities (RAs) has been extended and that relevant parts of the CoPs for local vessels will be amended as appropriate to reflect the new arrangement.

3. The CoPs amendments to reflect the extension of the scope of authorization for AOs to carry out final inspection for local vessels except Class IV vessel of novel construction are detailed at **Annex 1**. The opportunity is also taken to make some minor textural amendments to the Code of Practice – Safety Standards for Class IV Vessels. The edited version of the CoPs are at **Annex 2** for reference. After the CoPs amendments, authorized surveyors employed by AOs will conduct the final inspection for Class I vessels, Class II high risk vessels and Class IV vessels with gross tonnage over 150GT or carrying more than 60 passengers.

#### Way Forward

4. The amended CoPs will come into effect on 2 November 2020. They

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<sup>1</sup> [https://www.mardep.gov.hk/en/pub\\_services/ocean/pdf/lvs\\_list.pdf](https://www.mardep.gov.hk/en/pub_services/ocean/pdf/lvs_list.pdf)

will be gazette and posted on MD's website.

5. Members are invited to note the content of this paper.

Local Vessels Safety Branch  
Marine Department  
October 2020

**Amendment to the CoPs**

**A. Code of Practice - Safety Standards for Class I Vessels**

**CHAPTER II - SURVEY / INSPECTION, ISSUANCE OF CERTIFICATE AND PLAN APPROVAL**

**Amendment No. 1**

**2 Statutory Surveys and Application**

2.2 The Director may delegate the statutory plan approval and surveys (items other than that marked with 'MD' ~~and Table 7-3 (final inspection)~~) to **authorized surveyor employed by** authorized organization (AO) (see definition ~~at~~ in Ch. I/3.1) as indicated in the authorization/recognition document. List of AOs will be promulgated in the Marine Department Notice issued from time to time. Vessel owner or agent, when required, may also apply to Marine Department for plan approval and surveys.

**Amendment No. 2**

**2 Statutory Surveys and Application**

2.5 (b) on completion of survey - a survey report and a declaration duly signed and issued by the authorized organization. ~~The survey report may be furnished to the attending surveyor during final inspection (item No. F-7 in Table 7-3 refers).~~

**Amendment No. 3**

**Table 7-3 Final Inspection**

**Remarks in Table 7-3**

\*1 The final inspection shall be carried out ~~by Marine Department officer~~ annually for every vessel.

## B. Code of Practice-Safety Standards for Class II Vessels

### CHAPTER II - SURVEY / INSPECTION, ISSUANCE OF CERTIFICATE AND PLAN APPROVAL

#### Amendment No. 1

#### 2 Statutory Surveys and Application

- 2.2 The Director may delegate some or all of the statutory plan approval and surveys of Class II vessel specified in this Code to Authorized Surveyor (AS)/**authorized surveyor employed by** Authorized Organization (AO)/Recognized Authority (RA)(see definition ~~at~~**in** Ch. I/3.1) as indicated in the authorization/recognition document. List of AS/AO/RA will be promulgated in the Marine Department Notice issued from time to time. Vessel owner or agent, when required, may also apply to Marine Department for plan approval and surveys.
- 2.3 The approval of plans and data (Table 5-1 refers) and surveys (Tables 7-1 ~ 7-3 refer) shall be undertaken by the relevant authority/person according to the following:

Type of Vessel	Classed/ Not Classed	Plan Approval/Inspection Body
Low Risk Vessel (refer to definition at I/3.1)	Classed	AO
	Not classed	AS/AO/RA
High Risk Vessel (refer to definition at I/3.1)	Classed	AO (except items marked with 'MD')
	Not classed	<b>and items of Table 7-3)</b>

#### Amendment No. 2

#### Table 7-3 Final Inspection

#### Remarks in Table 7-3

- \*4 ~~For high risk vessel, the final inspection shall be carried out by Marine Department officer annually for every vessel.~~

## **C. Code of Practice-Safety Standards for Class IV Vessels**

### **Amendment No. 1**

**Annex 13B - Periodic Survey Programme for Other Class IV Vessels that are issued with a Certificate of Survey or Certificate of Inspection**

**Remarks in Table 2**

\*1 The final inspection shall be carried out afloat annually. **Vessels of novel type shall be carried out** by Marine Department officer.

### **Amendment No. 2**

**CHAPTER X - ADDITIONAL REQUIREMENTS APPLICABLE TO CERTAIN TYPES OF CLASS IV VESSELS**

**Note \*4 under paragraph 3.4, PART 1A**

iii) on-site verification/test carried out by a competent surveyor to confirm the vessel's compliance with section 4.5(b), and hence its compliance with the equivalent intact stability requirements.

### **Amendment No. 3**

**Paragraph 4.5 under PART 1A, Chapter X**

(a) requirements of sections 4.1.1(a), 4.1.2 & 4.1.3, and to carry out an inclining test in accordance with section 4.4; or

### **Amendment No. 4**

**ANNEX 5 - APPROXIMATE DETERMINATION OF STABILITY BY SIMPLE INCLINING TEST**

Throughout the Annex, the term "person" is to be substituted by "passenger".

### **Amendment No. 5**

**Part 2 under Annex 5**

According to the procedure described in Part 1, with the value of the heeling moment equal to WB, to ensure that the ship's heel angle will not exceed 10° when all (100%) persons are distributed on one side of the ship. For safety's sake, the test shall be carried out from one side of the vessel to the other side in three equal increments as described in paragraph 2.3(c) above, until the final heeling moment equals **WB/2**.

### **Amendment No.6** (for Chinese version only)

**Paragraph (b) under "Determination of Metacentric Height (GM)", Part 2, Annex 5**

$$GM_o = (0.77(B/T))^2$$

**Amendments Made to**  
**the Code of Practice – Safety Standards for Class I Vessels**  
**regarding new requirement on authorization of inspections for local vessels**

**CHAPTER II**  
**SURVEY / INSPECTION, ISSUANCE OF CERTIFICATE AND**  
**PLAN APPROVAL**

**1 Survey / Inspection for Issue or Endorsement of Certificate**

- 1.1 Any local vessel to which sections 7(1) and (3) of Survey Regulation apply when applying for an initial licence is subject to the approval of plans per items (appropriate according to category and type of vessel) indicated in Table 5-1.
- 1.2 Any local vessel to which Part 4 of Survey Regulation applies when applying for an initial licence is subject to the initial survey per items (appropriate according to category and type of vessel) indicated in Tables 7-1 and 7-3; and after licencing the periodical survey per items indicated in Tables 7-2 and 7-3.
- 1.3 Any licensed vessel of the above sections 1.1 or 1.2 intended for alteration shall be subject to the approval of plans (if section 1.1 is applicable) and survey relating to the alteration under section 76(5) of the Survey Regulation.
- 1.4 A replacement primitive vessel (kaito) carrying more than 60 passengers is required to comply with the standard of plan approval and survey as that for Class I vessel of type “Launch” carrying the same number of passengers.
- 1.5 Any vessel intended for change of the vessel’s name is subject to a survey relating to the change of name and the relevant fees.
- 1.6 A laid-up vessel (which is granted with a permission for laid-up) shall be subject to survey when returning to service if the Certificate of Survey previously issued has expired. If the expiry is not exceeding 2 years, the survey shall cover items due in the past 2 years as the vessel was not laid up.
- 1.7 Any vessel having its Certificate of Survey expired for more than 2 year but less than 8 years, the surveys shall follow the quadrennial survey programme prescribed in Table 7-2.
- 1.8 Any vessel having its Certificate of Survey expired for more than 8 years, it shall be subject to thorough inspection according to items of Table 7-1. If alterations had been carried out onboard vessel plans relating to the alterations shall be submitted for approval. The survey and plan approval are to comply with standards applicable to existing vessels, and the amended (if any).
- 1.9 When deemed necessary or at his discretion, the attending surveyor/inspector may request any other item to be presented for inspection

**2 Statutory Surveys and Application**

- 2.1 Subject to the below section 2.2 officers delegated by the Director are responsible for the statutory plan approval and survey of vessel.

2.2 The Director may delegate the statutory plan approval and surveys (items other than that marked with ‘MD’ and Table 7-3 (final inspection) ) to authorized surveyor employed by Authorized Organization (AO)(see definition in Ch. I/3.1) as indicated in the authorization/recognition document. List of AOs will be promulgated in the Marine Department Notice issued from time to time. Vessel owner or agent, when required, may also apply to Marine Department for plan approval and surveys.

2.3 Upon satisfactory completion of surveys or assessment, the following relevant statutory certificates or record document would be issued by Marine Department as specified in the following table. Annex V-4 also lists the other certificates and documents that a local vessel might require, as appropriate:

No.	CERTIFICATES / RECORDS
(1)	Certificate of Survey
(2)	Exemption Certificate / Permit for alternative material, fitting or equipment (when applicable)

2.4 The Certificate of Survey and relevant remarks must be displayed in a conspicuous location onboard under section 30 of the Survey Regulation.

2.5 If the owner or agent wishes his vessel to be surveyed by an authorized organization he shall provide the Department an “Engagement Form”:

- (a) prior to the survey - the name of the authorized organization, the place and date of the intended survey; and
- (b) on completion of survey - a survey report and a declaration duly signed and issued by the authorized organization. The survey report may be furnished to the attending surveyor during final inspection (item No. F 7 in Table 7-3 refers).

### 3 Validity of Certificate and Endorsement

The expiry date of the certificate or endorsement shall be determined as follows:

No.	Date of Final Inspection	Expiry Date of Certificate/Endorsement to be issued
(a)	New vessel	FID + 12 months <sup>(*1)</sup>
(b)	Re-commissioned laid-up vessel <sup>(*2)</sup>	FID + 12 months
(c)	Existing vessel	
	(i) within 2 months before CED	CED + 12 months
	(ii) after CED	FID + 12 months
	(iii) more than 2 months before CED	FID + 12 months

#### Abbreviations

CED = expiry date of existing certificate/endorsement

FID = final inspection date

**Remark**

- \*1 For a new vessel required to be surveyed on slip (or in dry-dock), the validity of certificate to be issued should in no case exceed 14 months counted from the last hull bottom survey date or the final inspection date plus 12 months, whichever is the earlier.
- \*2 Sections 1.6~1.8 refers.

**4 Submission of Plans and Data**

- 4.1 Plans and data shall be submitted according to Table 5-1 (as marked with "✓"). Additional plans and data will be required when deemed necessary. The required plans and data may be consolidated into one plan (or plans) according to the size of vessel and complexities of the plan.
- 4.2 Except for any vessel classed with a classification society; and otherwise indicated in the table (items marked with 'MD'), the plans and data may be submitted to any of the AO for approval at the discretion of the owner. For any vessel classed with a classification society, plans and data shall be submitted to the relevant classification society for approval.
- 4.3 For plans and data to be submitted for Marine Department's approval, 3 copies of each shall be submitted for the 1<sup>st</sup> vessel of a series and 2 copies for the subsequent vessels.
- 4.4 One copy of such plans and data approved by AO shall be submitted to Marine Department for record. Supplementary plans and data may be required should any survey be undertaken by Marine Department.
- 4.5 Plans of General Arrangement, vessel construction and relevant plans shall be drawn in appropriate scale of legibly quality.

**5 Plans and Data required to be submitted [Survey Regulation, section 9 refers]**

- 5.1 For new primitive vessel (kaito) carrying not more than 60 passengers (Category B vessel), plans and data stipulated in Annex Q shall be submitted for approval.
- 5.2 For vessels other than 5.1, plans and data shall be submitted according to Table 5-1 below.

**Table 5-1 Plans and Data**

Table 5-1 No.	PLANS AND DATA
(A)	<b>GENERAL ARRANGEMENTS, ACCOMMODATION LAYOUTS, PASSENGER SPACE, SEATING ARRANGEMENTS, NUMBER OF PASSENGERS AND ESCAPE ROUTES</b>
(1)	General Arrangement (*1)
(2)	Passenger Space (shelter)/Seating Arrangement (Ch. V refers)
(3)	Passengers and Crew Accommodation Requirements (incl. handrail, seat belt, staircase, lighting and etc.) (Ch. V refers)
(B)	<b>SAFETY EQUIPMENT INCLUDING LIFE-SAVING APPLIANCES, FIRE-FIGHTING APPARATUS, LIGHTS, SHAPES AND SOUND SIGNALS ; EMERGENCY CONTROLS, STRUCTURAL FIRE PROTECTION</b>



Table 5-1 No.	PLANS AND DATA
(1)	Safety Plan showing arrangement of - (a) life saving appliances (b) fire fighting apparatus and structural fire protection arrangement (c) light and sound signals (d) means of escape, escape installation and arrangement, etc.
(2)	Structural Fire Protection Arrangement
(3)	A muster list specifying the duties of every member of crew in the events of emergency including collision, grounding, fire and abandonment of ship (only applicable to ferries and launches carrying more than 100 passengers)
(C)	<b>STABILITY, FREEBOARD CALCULATIONS; ARRANGEMENTS RELATING TO WATERTIGHTNESS, WEATHERTIGHTNESS, BULKHEADS, HATCHWAYS, COAMINGS, SIDE SCUTTLES, AIR VENTS, FREEING PORTS, SCUPPERS, INLETS AND DISCHARGES</b>
(1)	Lines Plan and Offsets Table (for record)
(2)	Hydrostatic Curves
(3)	Cross Curves of Stability
(4)	Preliminary Intact Stability Information
(5)	Estimated Damage Stability Information (Ch. IV/2 refers)
(6)	Inclining Experiment Report/Rolling Period Test Report/Lightweight Survey Report (Ch. IV/4 refers)
(7)	Stability Information Booklet (after inclining experiment)
(7a)	Permanent Ballast Weights Arrangement (if designed) <sup>(*)</sup> (Added G.N. 6489 of 2018)
(8)	Damage Stability Calculation (after inclining experiment) (Ch. IV/2 refers)
(9)	Draft Marks
(10)	Arrangements relating to Watertightness, Weathertightness, Bulkheads, Hatchways, Coamings, Side Scuttles, Air Vents, Freeing Ports, Scuppers, Inlets and Discharges, etc.
(D)	<b>STRUCTURES AND SCANTLINGS</b>
(1)	Midship Sections
(2)	Scantling Calculation
(3)	Profile, Decks and Bulkheads (incl. hull and superstructure decks)
(4)	Shell Expansion
(5)	Rudder/Kort Nozzle, Rudder Stock, Skeg and Sole Piece
(6)	Materials and Paints Specifications (for floating restaurant)
(E)	<b>FUEL, MACHINERY, SHAFTING</b>

Table 5-1 No.	<b>PLANS AND DATA</b>
(1)	Engine Room Arrangement
(2)	Propeller Shafting, Stern Tube and Coupling
(3)	Main engine and Gear Box Certificates <sup>(*3)</sup>
(4)	Aux. diesel engine Certificates <sup>(*3)</sup>
(5)	Fuel Oil System (incl. tanks, piping
(6)	Fire-fighting Piping Arrangement (incl. fire main, fixed fire extinguishing system, etc)
(7)	Bilge Pumping Arrangement
(8)	Compressed Air Piping System (for pressure $\geq 10$ bar)
(9)	Air Receiver (Ch. IIIA/15 refers)
(10)	Filling, Sounding and Air Vent System
<b>(F)</b>	<b>ELECTRICAL SYSTEMS (including Emergency Power System)</b>
(1)	Electrical System Line diagram
(2)	Wiring Diagram of Main Switchboard
(3)	Layout of Main Switchboard
(4)	Electrical Arrangement
(5)	Wiring Diagram of Distribution Boxes
<b>(G)</b>	<b>PREVENTION AND CONTROL OF POLLUTION</b>
(1)	Prevention of Oil Pollution Installation (Ch. IIIA/19.2 refers)
(2)	Prevention of Air Pollution Installation (refer to Annex I-10, etc)
<b>(H)</b>	<b>NAVIGATIONAL AND COMMUNICATION EQUIPMENT</b>
(1)	Radio Communication equipment and arrangement

#### Remarks in Table 5-1

- \*1 Amended plan to be submitted should there be any change from the arrangement of vessel shown on the original General Arrangement Plan.
- \*2 Applicable to new vessels <sup>Note 2</sup> after the enforcement of this Code. The plan shall include information on the positions, quantity, materials, unit weights and serial number markings (which can be colour painted) as well as relevant photos (12 megapixels or above and hard copy prints in 1200 x 1200 dpi or above) of the permanent ballast weights.
- \*3 For diesel engine of new vessels, engine maker or classification societies approved certificates/information and document as appropriate required in Ch. IIIA or IIIB and Annex

<sup>Note2</sup> Applicable to a vessel which is a new vessel under section 2 of the Survey Regulation when the reference to “the commencement date” in the definition of “new vessel” is substituted by “31.8.2018”

## 6 Plans to be retained onboard

- <6.1 Every vessel shall be provided onboard one copy of the plan(s) approved by Marine Department:
- (a) general arrangement of vessel with seating arrangement and escape routes;
  - (b) types and dispositions of life saving appliance, fire-fighting appliance, light, shape, sound signals and radiocommunications equipment (if fitted).
- 6.2 For every vessel which has been modified or altered in a way that would change the seating arrangement, escape routes or dispositions of life saving appliance or fire-fighting appliance, all plans and documentation carried or displayed on board shall be modified to reflect those changes and approved by Marine Department.
- 6.3 For every Class I vessel carrying more than 100 passengers, safety plan showing arrangement of life saving appliances, fire-fighting apparatus, light and sound signals and means of escape, escape installation and arrangement shall be exhibited in conspicuous places throughout the vessel.>
- 6.4 All ferries and launches carrying more than 100 passengers should have on board the muster list as stated in item (B)(3) of Table 5-1.
- 6.5 An emergency drill shall be practised by crewmembers at least once every two months. Records of emergency drills are to be kept onboard for at least one year for inspections by a MD officer.

## 7 Survey / Inspection Items and Survey / Inspection Programmes

**Table 7-1 Initial Survey**

“✓” means applicable

Table 7-1 No.	Survey Item	Category of Vessel	
		A	B
<b>(A)</b>	<b>CONSTRUCTION – GENERAL, SHIP STABILITY</b>		
(1)	Draft Marks – verification	✓	✓
(2)	Measurement of Principal Dimensions	✓ <sup>(*9)</sup>	✓ <sup>(*9)</sup>
(3)	Inclining Experiment <sup>(*1)</sup>	✓	
(4)	Lightship Verification <sup>(*2)</sup>	✓	
(5)	Simple Inclining Test (for Kaito with $C_{np} \geq 0.35$ )		✓
<b>(B)</b>	<b>FIRE-FIGHTING APPARATUS, STRUCTURAL FIRE PROTECTION, APPLIANCES FOR PREVENTION OF COLLISION</b>		
(1)	CO <sub>2</sub> Pipe - inspection, hydraulic test and blowing test	✓	✓ <sup>(*8)</sup>
(2)	Fire Main - inspection and hydraulic test	✓	✓ <sup>(*8)</sup>
(3)	Structural Fire Protection (Ch. VI/13 refers) - inspection	✓	

Table 7-1		Category of Vessel	
No.	Survey Item	A	B
(4)	Position of Navigational Light and its Foundation – verification	✓	✓
<b>(C)</b>	<b>CARRIAGE OF PASSENGERS</b>		
(1)	Measurement of Noise Level in Passenger Space	✓	--
(2)	Measurement of Passenger Space / Seating	✓	✓
(3)	Minimum headroom in Accommodation Space - confirmation	✓	✓
(4)	Means of Escape in Accommodation Space and Machinery Spaces - inspection	✓	✓
<b>(D)</b>	<b>CONSTRUCTION – HULL; CONDITIONS OF ASSIGNMENT</b>		
(1)	Material test - Steel Plate <sup>(*3)</sup> /Aluminium Plate <sup>(*3)</sup> /GRP Polyester Resin	✓	
(2)	- Propeller Shaft, Coupling, Rudder Stock <sup>(*4)</sup>	✓	✓ <sup>(*8)</sup>
(3)	Hull Scantlings - verification	✓	
(4)	Welding / GRP Lamination and Finishing - inspection	✓	
(5)	Below Main Deck W.T. bulkhead and W.T. door fitted thereon - Hose test <sup>(*5)</sup>	✓	
(6)	Structural Tanks - internal inspection	✓	
(7)	- hydraulic test/air test <sup>(*5)</sup>	✓	
(8)	Watertight / Weathertight Appliances - inspection	✓	
(9)	- hose test <sup>(*5)</sup>	✓	
(10)	Permanent Ballast Weights - inspection <sup>(*10)</sup> (Added G.N. 6489 of 2018)	✓	✓
<b>(E)</b>	<b>CONSTRUCTION - FUEL, MACHINERY, SHAFTING</b>		
(1)	Main Engine <sup>(*6)</sup> <sup>(*7)</sup> , Gear Box - Type Approval Certificate /inspection	✓	✓ <sup>(*8)</sup>
(2)	Generator Diesel Engine - Certificate <sup>(*6)</sup> / inspection	✓	✓ <sup>(*8)</sup>
(3)	Tail Shafts and Coupling - verification of dimensions	✓	✓ <sup>(*8)</sup>
(4)	- taper bedding test	✓	✓ <sup>(*8)</sup>
(5)	Stern Tube - verification of dimension and hydraulic test	✓	✓ <sup>(*8)</sup>
(6)	Independent Fuel Oil Tanks - internal inspection and hydraulic test	✓	✓ <sup>(*8)</sup>
(7)	Verification of No. and Volume of Structural and Independent Fuel Oil Tanks	✓	✓ <sup>(*8)</sup>
(8)	Bilge Line - inspection and hydraulic test	✓	✓ <sup>(*8)</sup>
(9)	Sea Suction valve – inspection and hydraulic test	✓	✓ <sup>(*8)</sup>

Table 7-1		Category of Vessel	
No.	Survey Item	A	B
(10)	Steering System Hydraulic Line - inspection and hydraulic test	✓	✓ (*8)
(11)	Fuel Oil Line - inspection and hydraulic test	✓	✓ (*8)
(12)	Compressed Air Pipe - hydraulic test (for P > 17.2 bar)	✓	✓
(13)	Air Receiver - verification of wall thickness/ dimensions	✓	✓
(14)	- hydraulic test	✓	✓
(15)	Main Engine Alarm System and FMEA items - function test (Applicable to vessels of the type stated in Ch. I/4.2)	MD	MD
<b>(F)</b>	<b>CONSTRUCTION - ELECTRICAL SYSTEMS</b>		
(1)	Electrical Wiring/installation - inspection	✓	✓
(2)	Generator circuit breaker load test (vessels with GenSet power > 50 kW )	✓	--
<b>(G)</b>	<b>PREVENTION AND CONTROL OF POLLUTION</b>		
(1)	Prevention of Oil Pollution Installation (MD/AO) - Inspection	MD/AO	MD/AO
(2)	- hydraulic test of independent bilge water / sludge holding tank	✓	✓

#### Remarks in Table 7-1

- \*1 Applicable to the 1st vessel of a series of four vessels.
- \*2 Applicable to the 2nd, 3rd and 4th of a series of four vessels.
- \*3 In lieu of the material test, mill sheet issued/endorsed by a classification society is acceptable.
- \*4 Ch. IIIA/9 and IIIA/17.4 refer.
- \*5 Annex M/3, 4 refer. Hose test for door fitted on watertight bulkhead may be replaced by a chalk test if a prototype test (with pressure corresponding at least to the head required for the intended location) has been carried out and certificated.
- \*6 Ch. IIIA/7.1 refers. For engine of new vessel, engine maker or classification societies approved certificates/information and document as appropriate required in Ch. IIIA or IIIB and Annex I-10 of this Code or MARPOL Annex VI.
- \*7 With effect from 1 March 2016, each brand new main engine to be fitted on board newbuilding and existing locally licensed Class I vessels shall be engraved with an unique official mark.
- \*8 For visual inspection and operational test at either initial or final inspection only.
- \*9 The measurement record shall be submitted to Marine Department for verification.
- \*10 Applicable to new vessels<sup>Note 2</sup> after the enforcement of this Code. The inspection shall be carried out in the vessel's initial survey; or when alterations or repairs resulting in the removal/modification of permanent ballast weights (PBWs) have been made. The inspection shall be carried out in accordance with the requirements set out in the table below:

<sup>Note2</sup> Applicable to a vessel which is a new vessel under section 2 of the Survey Regulation when the reference to "the commencement date" in the definition of "new vessel" is substituted by "31.8.2018"

Tasks Shipowner/Shipyard Responsible for		Tasks Inspecting Personnel Responsible for
Documents Submission	Inspection Arrangement	
<p>(1) Declaration (refer to Annex Y of this Code) - which shall include the PBWs information (positions, quantity, materials, unit weights, serial number markings, etc.) designated in the stability booklet of the vessel.</p> <p>(2) Photo records (12 megapixels or above and hard copy prints in 1200 x 1200 dpi or above)- which shall clearly show the following conditions of PBWs stowage:</p> <p>(a) ship structure prior to PBWs being stowed;</p> <p>(b) 50% of PBWs stowed;</p> <p>(c) 100% of PBWs stowed; and</p> <p>(d) fittings used for securing the PBWs.</p>	<p>Stow PBWs according to the information given in item (1) in the left-hand column and carry out the inspection described in the right-hand column in coordination with attending inspecting personnel.</p>	<p>(1) Inspect vessel's structure with regard to PBWs stowage;</p> <p>(2) verify all PBWs; and</p> <p>(3) randomly select at least 10% of PBWs (but no less than one PBW) for inspection. The inspection shall include the PBWs' appearance, markings, weight confirmation, etc.</p>

**Table 7-2 Periodical Survey**

Table 7-2 No.	Survey Item	Class/Category/Type of Vessel	Class IA >60 Passengers Vessel			Class IA ≤60 Passengers Vessel			Class I B Vessel		
			1	2	4 (full survey)	1	2	4 (full survey)	1	2	4 (full survey)
(A)	<b>LIFE-SAVING APPLIANCES, FIRE-FIGHTING APPARATUS</b>										
(1)	Fixed Fire Ext. Installation CO <sub>2</sub> system - blowing test Sprinkler System - spraying test		✓				✓				
(2)	- hydraulic test		(*2)								
(3)	Fire Extinguisher, CO <sub>2</sub> Bottle - refill and hydraulic test		✓ (*3)			✓ (*3)					
(4)	Buoyant Apparatus - submerging test (*4)				✓			✓			
(B)	<b>CONSTRUCTION – HULL; CONDITIONS OF ASSIGNMENT</b>										
(1)	Hull - external (incl. ship bottom) inspection		✓				✓			✓ (*5)	
(2)	- internal (excl. oil, water tanks and void spaces) visual inspection						✓				
(3)	- internal (incl. oil, water tanks and void spaces) inspection (*6)			✓				✓			✓ (*5)
(4)	- gauging thickness of deck, shell and bulkhead plating (*6) (*7)				✓			✓			✓ (*5)
(5)	Sea Suctions, Discharging Valves - stripped down inspection			✓			✓ (*14)	✓			✓ (*5)

Table 7-2 No.	Survey Item	Class/Category/Type of Vessel	Class IA >60 Passengers Vessel			Class IA ≤60 Passengers Vessel			Class I B Vessel		
			1	2	4 (full survey)	1	2	4 (full survey)	1	2	4 (full survey)
(6)	Anchors, Cables, Wire Ropes - ranged out for inspection <sup>(*6)(*15)</sup>			✓				✓			
(7)	Permanent Ballast Weights - inspection <sup>(*16)</sup> (Added G.N. 6489 of 2018)		✓			✓			✓		
(C)	<b>CONSTRUCTION - FUEL, MACHINERY, SHAFTING, ELECTRICAL SYSTEMS</b>										
(1)	Main Engine - hydraulic test of coolers (incl. air, lub. oil, cooling water), cylinder head and water jacket		✓					✓			
						(by engine workshop) <sup>(*8)</sup>					
(2)	- overhaul of fuel oil pump, fuel nozzles		✓					✓			
					(by engine workshop) <sup>(*8)</sup>						
(3)	Main Engine and Gear Box - stripped down for inspection <sup>(*9)(*10)</sup>		✓ (*11)					✓			
					(by engine workshop) <sup>(*8)</sup>						
(4)	Generator engine, auxiliary machinery engine - stripped down for inspection			✓				✓			
					(by engine workshop) <sup>(*8)</sup>						
(5)	Main fire pump, emergency fire pump, bilge pump, windlass - stripped down for inspection		✓					✓			
(6)	Air Receiver (P<17.2 bar) - internal inspection			✓				✓			✓
(7)	- hydraulic test <sup>(*6)</sup>			✓				✓			✓
(8)	Air Receiver (P≥17.2 bar) - internal inspection		✓			✓				✓	
(9)	- hydraulic test <sup>(*6)</sup>		✓			✓				✓	
(10)	Tail Shaft, Propeller, Rudder, Rudder Stock <sup>(*6)</sup> - drawn out for inspection		✓ (*11)					✓			
(11)	Independent Fuel Oil Tank – internal inspection & hydraulic test			✓				✓			
(12)	AC electrical circuit – main circuit breaker load test			✓ (*13)							
(D)	<b>PREVENTION AND CONTROL OF POLLUTION</b>										
(1)	Oil Pollution Prevention Installation - vessel with HKOPP certificate										
					(*12)						
(2)	- vessel without HKOPP certificate: hydraulic test of independent bilge water/sludge holding tank			✓				✓			✓

### Remarks in Table 7-2

\*1 Survey Intervals: “2” means such item to be subjected to survey biennially, “4” quadrennially (“full survey”), etc. The periodical survey shall be carried out in subsequent order; i.e. a 1st year survey shall

be followed by a 2-yearly survey, a 3rd year survey shall be followed by a 4-yearly survey, etc.

- \*2 Hydraulic test for CO<sub>2</sub> and sprinkler systems shall begin from the 10th anniversary the system is in service, and thereafter at intervals of 10 years. The hydraulic testing pressure for the CO<sub>2</sub> system high pressure manifold shall not be less than 125 bar.
- \*3 Inspection for portable and non-portable type fire extinguishers and CO<sub>2</sub> bottles shall be in accordance with the following table. The inspection record shall be retained on board for examination; or each fire extinguisher to be marked by paint or attached with a tag indicating the date and type of test.

ITEM	Water/Foam/Dry Powder Fire Extinguisher		CO <sub>2</sub> Fire Extinguisher, CO <sub>2</sub> Fixed Installation Bottle		
	Refill / Weighting (*a)	Hydraulic (*b)	Weighting	Refill	Hydraulic (*b)
INSPECTION BODY	Owner (*c) /FSIC	FSIC/MD	FSIC/MD	DG Reg. 62	DG Reg. 66

**Abbreviation**

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

**Note**

- (\*a) The need for refilling shall be in accordance with the instruction of manufacturer of fire extinguisher.
- (\*b) Intervals of hydraulic test:
  - Portable Fire Extinguishers - 5 years
  - CO<sub>2</sub> bottles/propellant cartridges - 10 years
- (\*c) MD officers may examine the owner’s competence on carrying out the servicing and conduct random checks including function test of the portable fire extinguishers.

- \*4 Air case not filled with buoyant materials shall be tested for air tightness by submerging in water.
- \*5 Applicable to ceremonial boat only.
- \*6 For guidance on machinery and hull wear down or corrosion tolerance limits and other inspection items, Annex M refers.
- \*7 Applicable to vessels of age exceeding 8 years.
- \*8 Inspection record issued by engine workshop shall be submitted for reference.
- \*9 For a brand new gear box, the strip down inspection shall begin from the fourth anniversary the gear box is in service.
- \*10 The survey schedule for medium speed engines (of 300~1400 rpm), Annex K-1 refers.
- \*11 Vessels carrying more than 60 passengers may apply for extension of subject items’ survey interval from 2 years to 3 years if meeting the conditions set out in Annex K-2.
- \*12 For the renewal of HKOPP certificates, oil pollution prevention installation shall be stripped down for



inspection. Independent bilge water holding/sludge tank shall be hydraulic tested.

\*13 Applicable to Class I Category A vessels fitted with generator of each capacity exceeding 50kW.

\*14 Applicable to sea water suction valves only.

\*15 The length required to be ranged out for inspection: for anchor chains (or classification society accepted alternatives fitting) – whole length; for steel wire ropes – the whole length or a minimum length of 50m, whichever is the less. More or the whole length to be ranged out for inspection should there be major defect is found.

\*16 Applicable to the first full survey of vessels one year after the enforcement of this Code (i.e. on or after 31.8.2019). The PBWs inspection may be carried out during the final inspection (Table 7-3 items). The inspection shall be carried out in accordance with the requirements set out in the table below:

Item	Survey Year	Tasks Shipowner Responsible for		Tasks Inspecting Personnel Responsible for
		Documents Submission	Inspection/Maintenance Arrangement	
(A)	Full Survey <sup>Note</sup> Note: The PBWs inspections described below shall be carried out in the quadrennial full survey when a vessel has reached 8 years of age, and in every quadrennial full survey thereafter (for a classed vessel, in the special survey when the vessel has reached 10 years of age, and in every special survey thereafter), commencing one year after the enforcement of this code (i.e. on or after 31.8.2019). The first one will be a Grade A inspection, followed by a Grade B inspection, alternating at 4-year intervals (for classed vessels, 5-year intervals, i.e. the special survey). If it is found during a Grade B inspection that the vessel’s bottom and internal structural members with regard to PBWs stowage show no excessive corrosion (not exceeding 1/2 or more of the limit set down in Annex M of this Code) and the coating is in good condition with no significant deterioration, MD may consider the shipowner’s application for having a Grade B inspection in the subsequent full survey, followed by a Grade A inspection in the next quadrennial full survey (for classed vessels, the next 5-yearly special survey).			
	Grade A Inspection	Submit the same declaration and photo records required for the PBWs inspection in the initial survey (remark *10 of Table 7-1).	(1) Clear the whole area (100%) of vessel bottom used for PBWs stowage. (2) Assist inspecting personnel and provide necessary ventilation, lighting, etc. to facilitate the inspection described in the right-hand column. (3) Carry out repairs when directed by inspecting personnel.	(1) Confirm the area at vessel bottom used for PBWs stowage is clear, and carry out PBWs inspection items (1)~(3) of remark *10 of Table 7-1 of the initial survey. (2) Confirm the following during hull inspection: (i) steel vessel – no large area of damage or heavy rusting of hull material, no abnormal accumulation of water, etc.; protective coating (if any) in good condition. (ii) Aluminium, GRP and wooden vessel - no large area of damage or abnormalities of hull material, no abnormal accumulation of water, etc.; protective coating (if any) in good condition.

Item	Survey Year	Tasks Shipowner Responsible for		Tasks Inspecting Personnel Responsible for
		Documents Submission	Inspection/Maintenance Arrangement	
				<p>(iii) gauge plating thickness (if applicable) and submit to MD a copy of the record.</p> <p>(3) If the results of the abovementioned inspection items (2)(i)~(iii) fall short of requirements, the owner shall be instructed to carry out repairs, and re-inspection shall be carried out until satisfactory results are obtained.</p> <p>(4) If the wastage of hull material has reached 3/4 or more of the corrosion limit set down in Annex M of this Code, the owner shall be instructed to renew the hull material concerned. If it cannot be done, the hull of the part concerned shall be subject to inspection annually thereafter.</p> <p>(5) If heavy wastage of hull material is found, the adjoining cement PBWs (if any) shall be removed to facilitate the hull inspection.</p>
	Grade B Inspection	<p>(1) Declaration</p> <p>(2) Upon the completion of inspection and repair (if applicable), submit to MD a copy of the photo records which shall include:</p> <p>(i) photos showing the condition of the hull structure with PBWs removed to expose at least 25% of the total area of the hull structure covered by PBWs; and</p> <p>(ii) the condition of the PBWs after they are</p>	<p>(1) Follow inspecting personnel's instruction (as described in the right-hand column) and remove PBWs to expose at least 25% of the total area of the hull structure covered by PBWs to facilitate inspection.</p> <p>(2) carry out task items (2) and (3) of Grade A inspection.</p>	<p>(1) Instruct the owner to remove PBWs for hull structure inspection. At least 25% <sup>Notes (i) &amp; (ii)</sup> of the total area of hull structure covered by PBWs in each compartment shall be inspected.</p> <p>Note:</p> <p>(i) The quantity of the randomly checked PBWs shall be based on the number of PBWs removed for inspection.</p> <p>(ii) The positions subject to inspection are normally the parts of the hull that are more vulnerable to corrosion (such as the bottom of the aft part of the vessel for the stowage of PBWs). If individual PBWs cannot be removed for safety reason, the owner shall be instructed to remove all the PBWs to</p>

Item	Survey Year	Tasks Shipowner Responsible for		Tasks Inspecting Personnel Responsible for
		Documents Submission	Inspection/Maintenance Arrangement	
		restored to their original positions. (3) If all the PBWs have to be removed, the records required in items (1) and (2) of remark *10 of Table 7-1 for the initial survey shall be re-submitted.		facilitate hull inspection. In such case, the inspection items (1)-(3) of remark *10 of Table 7-1 of the initial survey shall be carried out.  (2) Carry out task items (2)~(5) of Grade A inspection.  (3) Randomly select at least 10% of PBWs (but no less than one PBWs) for inspection. The inspection shall include the PBWs' appearance, markings, weight confirmation, etc.
(B)	Years other than the full survey year	Declaration required in item (1) of Grade B inspection in (A), or a copy of an endorsed declaration.	Carry out task items (2) and (3) of Grade A inspection in (A) upon receipt of special instructions.	Conduct a visual inspection of the PBWs according to the documents submitted by the owner as mentioned in the left-hand column as and when necessary.

**Table 7-3 Final Inspection** <sup>(\*1)</sup>

Table 7-3 No.	Survey Item <sup>(*2)</sup>
<b>(A)</b>	<b>LIFE-SAVING APPLIANCES, FIRE-FIGHTING APPARATUS, APPLIANCES FOR PREVENTION OF COLLISION</b>
(1)	Life Saving Appliances - inspection and function test <sup>(*3)</sup>
(2)	Fire Fighting apparatus (incl. CO <sub>2</sub> fixed fire extinguishing installation, emergency fire pump, etc) - inspection and function test
(3)	Navigation Lights and Sound Signals - inspection and function test
(4)	Fire Drill, Abandon Ship Drill <sup>(*10)</sup>
<b>(B)</b>	<b>CARRIAGE OF PASSENGERS</b>
(1)	Passenger Space, Crew Space, Cabin Escape Arrangement, Bulwarks and Rails - general inspection
(2)	Passenger seats and their attachment - inspection <sup>(*4)</sup>
(3)	Signage within Passenger Space, incl. Exits Signage, Lifejacket Donning Instructions, Plan on Escape Arrangement and Fire-fighting Plan - general inspection
<b>(C)</b>	<b>CONSTRUCTION – HULL, CONDITIONS OF ASSIGNMENT</b>
(1)	Watertight / Weathertight Closing Appliances (incl. Door, Ventilator, Air Pipe, etc.) - inspection
(2)	Permanent ballast - confirmation of amount and position <sup>(*9)</sup>

Table 7-3 No.	Survey Item <sup>(*2)</sup>
(3)	General condition in Machinery Space (including fuel oil installation) (a) protection from injury of personnel (b) prevention of fire hazard (c) prevention of oil pollution hazard
(4)	Principal Dimensions, Engine and major machinery particulars - verification
<b>(D)</b>	<b>CONSTRUCTION - FUEL, MACHINERY, SHAFTING, ELECTRICAL SYSTEMS</b>
(1)	Main Engines, Generator Engines, Steering Gears - running test
(2)	Unattended Machinery Space Installation (Ch. IIIA/18 and Ch. IIIB/13 refer) - function test
(3)	Air Receiver Safety Valves - function test
(4)	Bilge and Oily Water Pumping System - function test
(5)	Electrical Circuit - earthing test
(6)	- insulation resistance test <sup>(*6)</sup>
(7)	- Main circuit breaker function test <sup>(*7)</sup>
(8)	Location of emergency source of electrical power shall be outside machinery space and above waterline – verification <sup>(*8)</sup>
(9)	Meters on Switchboard - function test
<b>(E)</b>	<b>PREVENTION AND CONTROL OF POLLUTION</b>
(1)	Air Emission Assessment <sup>(*5)</sup>
(2)	Prevention of Oil Pollution Installation - function test
<b>(F)</b>	<b>NAVIGATIONAL, COMMUNICATION EQUIPMENT AND OTHERS</b>
(1)	Radio Communication Equipment
(2)	Navigational Equipment
(3)	Certificates of Competency of Master and Engineer (if manoeuvring trial required) - verification
(4)	Ship Manoeuvring Trial <sup>(*11)</sup>
(5)	Operational and Safety Trial (FMEA items) <sup>(*12) (*13)</sup>
(6)	Plans and data required to be retained onboard (section 6.1 refers) - confirmation of numbers and contents
(7)	Survey report issued by MD/AS/AO/RA - verification
(8)	Inspection of remedial deficiency items in Initial / Periodical Survey
(9)	Supplementary information/data and list of inspection, testing & trial requirements relating to the type of vessel
(10)	Domestic L.P.G. Installation - inspection

### Remarks in Table 7-3

- \*1 The final inspection shall be carried out ~~by Marine Department officer,~~ annually for every vessel.
- \*2 Where practicable the listed items may be presented for inspection prior to the final inspection.
- \*3 Random check on the condition of lifejackets is to be according to the following proportions:

Statutorily Required No. of Adult Lifejackets	Random Check	Statutorily Required No. of Children Lifejackets	Random Check
1-10	100%	1-10	100%
11-100	10 pieces	11-50	10 pieces
		51-100	20 pieces
101-1 000	10%	> 100	20%
> 1 000	100 pieces		

The counting of the number is to be 100%.

- \*4 Strength test to be carried out when necessary.
- \*5 Air emission requirements to be conducted as per Annex I-10.
- \*6 Applicable to all vessels other than Cat. B primitive vessels (kaito). For vessels other than ferries and floating restaurants, a valid EMSD registered electrical contractor (REC) issued electrical system insulation test report (with the test being conducted by an EMSD registered electrical worker (REW) within 2 weeks prior to the final inspection) is acceptable in lieu of the insulation resistance test inspection responsible by MD officer or authorized inspection personnels. A valid electrical system insulation test report shall include the relevant necessary information. A valid electrical system insulation test report issued by an authorized inspection personnel is acceptable.
- \*7 Applicable to any vessel fitted with generator of each capacity exceeding 50 kW.
- \*8 Applicable to only a vessel which is still a new vessel when the reference to “the commencement date of the Survey Regulation” in the definition of “new vessel” under Ch. I/3.1 is substituted by “29 November 2014”.
- \*9 Refer to the requirements of remark \*10 of Table 7-1 or remark \*16 of Table 7-2.  
(Amended G.N. 6489 of 2018)
- \*10 Applicable to launches, ferries and floating restaurants. The exact crew number indicated on the muster list shall participate in the drill.
- \*11 Applicable to ferry vessels only. The trial shall include crash ahead and astern running, turning and windlass operation test.
- \*12 Applicable to vessels of the type stated in Ch. I/4.2.
- \*13 For vessels of the type stated in Ch. I/4.2, the certificate of competence or an eyesight certificate (issued by a registered medical practitioner or registered optometrist) of the designated look-out (Ch. XII/11.1 refers) also to be verified.

**Amendments Made to  
the Code of Practice – Safety Standards for Class II Vessels  
regarding new requirement on authorization of inspections for local vessels**

**CHAPTER II  
SURVEY / INSPECTION, ISSUANCE OF CERTIFICATE AND  
PLAN APPROVAL**

**1 Survey / Inspection for Issue or Endorsement of Certificate**

- 1.1 Any local vessel to which sections 7(1) and (3) of Survey Regulation apply when applying for an initial licence is subject to the approval of plans per items (appropriate according to category and type of vessel) indicated in Table 5-1.
- 1.2 Any local vessel to which Part 4 of Survey Regulation applies when applying for an initial licence is subject to the initial survey per items (appropriate according to category and type of vessel) indicated in Tables 7-1 and 7-3; and after licencing the periodical survey per items indicated in Tables 7-2 and 7-3.
- 1.3 Any licensed vessel of the above sections 1.1 or 1.2 intended for alteration shall be subject to the approval of plans (if section 1.1 is applicable) and survey relating to the alteration under section 76(5) of the Survey Regulation.
- 1.4 Vessels of the types referred to in the table below, which are not fitted with propulsion engine and not fitted with any internal combustion engine onboard, and with the product Length overall x extreme breadth<sup>Note</sup> not exceeding 25 are not subject to any survey:

<b>Class</b>	<b>Types</b>	<b>Material of construction</b>	<b>Minimum requirements for life-saving appliances and fire-fighting apparatus</b>
II	Transportation Sampan	any material	(a) 1 lifejacket for every person on board; (b) 1 lifebuoy; and (c) 1 fire bucket with lanyard
II	Work Boat	other than metal	(a) 1 lifebuoy; and (b) 1 fire bucket with lanyard

**Note**

The terms “Length overall” and “extreme breadth” are defined in Ch. I/3.1.

- 1.5 A laid-up vessel (which is granted with a permission for laid-up) shall be subject to survey when returning to service if the Certificate of Survey previously issued has expired. If the expiry is not exceeding 2 years, the survey shall cover items due in the past 2 years as the vessel was not laid up.
- 1.6 Any vessel having its Certificate of Survey expired for more than 2 year but less than 8 years, the surveys shall follow the quadrennial survey programme prescribed in Table 7-2.
- 1.7 Any vessel having its Certificate of Survey expired for more than 8 years, it shall be subject to thorough inspection according to items of Table 7-1. If alterations had been carried out on board vessel plans relating to the alterations shall be submitted for approval. The survey and plan approval are to comply with standards applicable to existing vessels, and the amended (if any).
- 1.8 When deemed necessary or at his discretion, the attending surveyor/inspector may request

any other item to be presented for inspection

## 2 Statutory Surveys and Application

- 2.1 Subject to the below section 2.2 officers delegated by the Director are responsible for the statutory plan approval and survey of vessel.
- 2.2 The Director may delegate some or all of the statutory plan approval and surveys of Class II vessel specified in this Code to Authorized Surveyor (AS)/**authorized surveyor employed by** Authorized Organization (AO)/Recognized Authority (RA)(see definition in Ch. I/3.1) as indicated in the authorization/recognition document. List of AS/AO/RA will be promulgated in the Marine Department Notice issued from time to time. Vessel owner or agent, when required, may also apply to Marine Department for plan approval and surveys.
- 2.3 The approval of plans and data (Table 5-1 refers) and surveys (Tables 7-1 ~ 7-3 refer) shall be undertaken by the relevant authority/person according to the following:

Type of Vessel	Classed/Not Classed	Plan Approval/Inspection Body
Low Risk Vessel (refer to definition at I/3.1)	Classed	AO
	Not classed	AS/AO/RA
High Risk Vessel (refer to definition at I/3.1)	Classed	AO (except items marked with 'MD') and items of Table 7-3)
	Not classed	

- 2.4 Upon satisfactory completion of statutory surveys or assessment, the following relevant statutory certificates or record document would be issued by Marine Department or AO as specified in the following table. Annex V-4 also lists the other certificates and documents that a local vessel might require, as appropriate:

No.	Certificates / Records	Applicable Vessels	Issuing Authority/Person
(1)	Certificate of Survey <sup>(*1)</sup>	All	MD
(2)	Survey Record of Safety Equipment	(i) Any dry cargo vessel of $L \geq 24m$ operating within RTL (ii) Any vessel of $L \geq 24m$ operating within HKW or RTL: high risk vessel (as defined in Ch. I/1.3) or special purpose vessel	MD/AO <sup>(*2)</sup>
(3)	Hong Kong Load Line Certificate / Freeboard Assignment Certificate	Part 1 of Schedule 5 of Survey Regulation refers	MD/AO <sup>(*2)</sup>
(4)	Declaration of Fitness for the Carriage of Dangerous Goods	Any vessel that is used or to be used for carrying any dangerous goods	MD
(5)	Exemption Certificate / Permit for alternative material, fitting or equipment	when applicable	MD
(6)	Certification of Lifting Appliances and Lifting Gear	Any vessel fitted with crane or derrick used for works including cargo handling, etc.	CE

## Legend

- HKW = waters of Hong Kong  
RTL = river trade limits  
MD = Marine Department  
CE = Competent examiner appointed under Merchant Shipping (Local Vessels) (Works) Regulation

## Note

- \*1 For a pilot boat, transportation boat or tug the Certificate of Survey and relevant remarks must be displayed in a conspicuous location on board under section 30 of the Survey Regulation.
- \*2 For a vessel classed with an AO, international convention certificates may be issued by AO directly to the owner in lieu, together with survey records in accordance with the requirements of the relevant Convention. A copy of such certificate and record is required to be submitted to Marine Department.

2.5 If the owner or agent wishes his vessel to be surveyed by an authorized organization or authorized organization or recognized authority, he shall provide the Department an “Engagement Form”:

- (a) prior to the survey - the name of the authorized organization or authorized organization or recognized authority, the place and date of the intended survey; and
- (b) on completion of survey - a survey report and a declaration duly signed and issued by the authorized organization or authorized organization or recognized authority. The survey report may be furnished to the attending surveyor during final inspection (item No. F-4 in Table 7-3 refers).

## 3 Validity of Certificates and Endorsement

3.1 The expiry date of the certificate or endorsement for vessels of the type nos. (1) to (10) and (15) in the table “Guide on Periodical Survey Cycle for Class II Vessel” (hereafter referred as “guide table”) shall be determined as follows:

No.	Date of Final Inspection	Expiry Date of Certificate/Endorsement to be issued
(a)	New vessel	FID + 12 months <sup>(*1)</sup>
(b)	Re-commissioned laid-up vessel <sup>(*2)</sup>	FID + 12 months
(c)	Existing vessel	
	(i) within two months before CED	CED + 12 months
	(ii) after CED	FID + 12 months
	(iii) more than two months before CED	FID + 12 months

### Abbreviations

CED = expiry date of existing certificate/endorsement

FID= final inspection date

### Remark

- \*1 For a new vessel required to be surveyed on slip (or in dry-dock), the validity of certificate to be issued should in no case exceed 14 months counted from the last hull bottom survey date or the final inspection date plus 12 months, whichever is



the earlier.

\*2 Sections 1.5~1.7 refers.

- 3.2 The validity of Certificate of Survey for vessels of the types no. (11) ~ (13) listed in the guide table will normally be 24 months from the date of completion of the survey, or the expiry date of the existing certificates if the existing certificates have not expired on the date of completion of the survey, whichever is the later, but in no circumstance be more than 26 months. (Note: The owner's Declaration shall be made at the 1<sup>st</sup> anniversary date of the Certificate of Survey).
- 3.3 For vessels of the type no. (14) listed in the guide table, the validity of Certificate of Survey will normally be, as reference to section 3.2, 36 months in place of 24 months; and 38 months in place of 26 months. (Note: The owner's Declaration shall be made at the 1<sup>st</sup> and 2<sup>nd</sup> anniversary date of the Certificate of Survey).

#### 4 Submission of Plans and Data

- 4.1 Plans and data shall be submitted, to the relevant authority/person indicated in section 2.3, according to Table 5-1 (as marked with "✓"). Additional plans and data will be required when deemed necessary. The required plans and data may be combined into one plan (or plans) according to the size of vessel and complexities of the data.
- 4.2 Except for any vessel classed with a classification society; and otherwise indicated in the table (items marked with 'MD'), the plans and data may be submitted to any of the AS/AO/RA for approval at the discretion of the owner. For any vessel classed with a classification society, plans and data shall be submitted to the relevant classification society for approval.
- 4.3 For plans and data to be submitted for Marine Department's approval, 3 copies of each shall be submitted of the 1<sup>st</sup> vessel of a series and 2 copies for the subsequent vessels.
- 4.4 One copy of such plans and data approved by AS/AO/RA shall be submitted to Marine Department for record. Supplementary plans and data may be required should any survey be undertaken by Marine Department.
- 4.5 Plans of General Arrangement, vessel construction and relevant plans shall be drawn in appropriate scale of legibly quality.

#### 5 Plans and Data required to be submitted [Survey Regulation, section 9 refers]

**Table 5-1 Plans and Data**

“✓” means applicable

Table 5-1 No.	VESSEL CATEGORY PLANS AND DATA	A	B (L ≥ 8m)	B (L < 8m)
		(A)	<b>GENERAL ARRANGEMENTS, ACCOMMODATION LAYOUTS, PASSENGER SPACE, SEATING ARRANGEMENTS, NUMBER OF PASSENGERS AND ESCAPE ROUTES</b>	
(1)	General Arrangement <sup>(*8)</sup>	✓	✓ (*1)	✓
(2)	Passenger Space (shelter)/Seating Arrangement (Ch. V refers)(passenger carrying vessel only)	✓		
(3)	Passengers and Crew Accommodation Requirements (incl. handrail, seats, etc.) (Ch. V refers) (passenger carrying vessel only)	✓		

Table 5-1		VESSEL CATEGORY		
No.	PLANS AND DATA	A	B (L ≥ 8m)	B (L < 8m)
(B)	<b>SAFETY EQUIPMENT INCLUDING LIFE-SAVING APPLIANCES, FIRE-FIGHTING APPARATUS, LIGHTS, SHAPES AND SOUND SIGNALS ; EMERGENCY CONTROLS, STRUCTURAL FIRE PROTECTION</b>			
(1)	Safety Plan showing arrangement of -	✓	✓ (*1)	✓
	(a) life saving appliances,	✓	✓ (*1)	✓
	(b) fire fighting apparatus	✓	✓ (*1)	✓
	(c) structural fire protection arrangement	✓		
	(d) light and sound signals	✓	✓ (*1)	✓
	(e) means of escape, escape installation and arrangement, etc. (passenger carrying vessel only)	✓		
(2)	Structural Fire Protection Arrangement	✓		
(C)	<b>STABILITY, FREEBOARD CALCULATIONS, ARRANGEMENTS RELATING TO WATERTIGHTNESS, WEATHERTIGHTNESS, BULKHEADS, HATCHWAYS, COAMINGS, SIDE SCUTTLES, AIR VENTS, FREEING PORTS, SCUPPERS, INLETS AND DISCHARGES</b>			
(1)	Lines Plan and Offsets Table (for record)	✓	✓ (*2)	
(2)	Hydrostatic Curves	✓	✓ (*2)	
(3)	Cross Curves of Stability	✓	✓ (*2)	
(4)	Preliminary Intact Stability Information (for oil carrier, noxious liquid substance carrier)	✓		
(5)	Estimated Damage Stability Information (Ch. IV/2 refers) (for oil carrier, noxious liquid substance carrier)	✓		
(6)	Inclining Experiment Report/Lightweight Survey Report (Ch. IV/4 refers)	✓	✓ (*3)	
(7)	Simple Inclining Test Report			✓
(8)	Stability Information Booklet (after inclining experiment)	✓	✓ (*3)	
(8a)	Permanent Ballast Weights Arrangement (if designed) (*12) (Added G.N. 6489 of 2018)	✓	✓ (*3)	
(9)	Damage Stability Calculation (after inclining experiment) (Ch. IV/2 refers)	✓		
(10)	Draft Marks	✓		
(11)	Load Line freeboard calculation and conditions of assignment	✓		
(12)	Arrangements relating to Watertightness, Weathertightness, Bulkheads, Hatchways, Coamings, Side Scuttles, Air Vents, Freeing Ports, Scuppers, Inlets and Discharges, etc.	✓	✓ (*2)	
(D)	<b>TONNAGE MEASUREMENTS AND CALCULATIONS</b>			
(1)	Tonnage Measurement and Calculation (*4) (for Hong Kong registered vessel)	✓		

Table 5-1 No.	VESSEL CATEGORY PLANS AND DATA	A	B (L ≥ 8m)	B (L < 8m)
		<b>(E) STRUCTURES AND SCANTLINGS</b>		
(1)	Midship Sections	✓	✓ (*2)	
(2)	Scantling Calculation	✓	✓ (*2)	
(3)	Profile, Decks and Bulkheads (incl. Hull and Superstructure decks)	✓	✓ (*2)	✓
(4)	Shell Expansion	✓	✓ (*2)	
(5)	Rudder/Kort Nozzle, Rudder Stock, Skeg and Sole Piece	✓	✓ (*2)	
(6)	Mooring Arrangement and Equipment Number Calculation (for oil carrier , DG carriers and L>75m dumb steel lighters)	✓		
<b>(F) FUEL, MACHINERY, SHAFTING</b>				
(1)	Engine Room Arrangement	✓	✓	
(2)	Pump Room Arrangement (for oil carrier)	✓		
(3)	Propeller Shafting, Stern Tube and Coupling	✓	✓	✓
(4)	Main Engine and Gear Box Certificates (*5)	✓		
(5)	Aux. Diesel Engine Certificates (*5)	✓		
(6)	Fuel Oil System (incl. tanks, piping)	✓	✓	
(7)	Fire-fighting Piping Arrangement (incl. fire main, fixed fire extinguishing system,etc)	✓	✓	
(8)	Bilge Pumping Arrangement	✓	✓	
(9)	Compressed Air Piping System (for pressure ≥ 10 bar)	✓	✓	
(10)	Air Receiver (Ch. IIIA/15 refers)	✓	✓	
(11)	Steering Gear Hydraulic Piping System	✓	✓	
(12)	Fresh Water System (incl. tank construction, piping) (for water boat)	✓		
(13)	Cargo Tank Venting System (for oil carrier)	✓		
(14)	Filling, Sounding and Air Vent System	✓	✓ (*6)	
<b>(G) ELECTRICAL SYSTEMS (including Emergency Power System)</b>				
(1)	Electrical System Line diagram	✓	✓ (*7)	✓
(2)	Wiring Diagram of Main Switchboard	✓	✓ (*7)	
(3)	Layout of Main Switchboard	✓	✓ (*7)	
(4)	Electrical Arrangement	✓	✓ (*7)	

Table 5-1 No.	VESSEL CATEGORY PLANS AND DATA	A	B (L ≥ 8m)	B (L < 8m)
		(5)	Wiring Diagram of Distribution Boxes	✓
<b>(H)</b>	<b>PREVENTION AND CONTROL OF POLLUTION</b>			
(1)	Prevention of Oil Pollution Installation (Ch. IIIA/19.2 refers)	MD/AO	MD/AO	
(2)	Prevention of Air Pollution Installation (Annex I-10 refers)	MD/AO	MD/AO	
<b>(I)</b>	<b>NAVIGATIONAL AND COMMUNICATION EQUIPMENT</b>			
(1)	Radio Communication equipment and arrangement	✓		
(2)	Navigational equipment and arrangement	✓		
(3)	Visibility Calculation (for oil carriers)	✓		
<b>(J)</b>	<b>MEASURES AGAINST POTENTIAL HAZARDS TO THE SAFETY OF THE VESSEL AND ANY PERSON OR PROPERTY ON BOARD THE VESSEL</b>			
(1)	Supplementary information/data and list of inspection, testing & trial requirements relating to the type of vessel	✓	✓	
(2)	Additional Items for Oil Carriers having cargoes ≤ 60°C (Ch. VI refers)	✓	✓	
(3)	Additional Items for DG or NLS Carrier (Ch. VI refers)	✓	✓	
(4)	Domestic LPG Installation (Annex U-1 refers)	✓	✓	
<b>(K)</b>	<b>LIFTING APPLIANCES (including derrick cranes, extensible jib cranes and fixed-jib crane etc.)</b>			
(1)	Strength calculations for the stress members <sup>(*9)</sup>	Competent Examiner <sup>(*10) (*11)</sup>		
(2)	Rigging diagrams			
(3)	As fitted drawings			

### Remarks in Table 5-1

- \*1 Applicable to the following Category B vessels: dumb lighter, hopper barge, water boat, flat top work barge, landing pontoon, stationary vessel.
- \*2 Applicable to dumb lighter and hopper barge.
- \*3 For any dumb lighter required to be submitted with heavy lifting stability calculations and hopper barge.
- \*4 International Tonnage Certificate issued by an administration (or classification society on her behalf) may be acceptable to Marine Department.
- \*5 For new vessels, engine maker or classification societies approved certificates / information and document as appropriate required in Ch. IIIA or IIIB and Annex I-10 of this Code or MARPOL Annex VI.
- \*6 Applicable to vessels of other than wooden construction.
- \*7 Applicable to the following Category B vessels fitted with A.C. generator: dumb lighter,

other barge, landing pontoon, stationary vessel, but not applicable to vessels of wooden construction.

- \*8 Amended plan to be submitted should there be any change from the arrangement of vessel shown on the original General Arrangement Plan.
- \*9 Recognised manufacturer’s loading tables indicated essential information are acceptable instead of detailed strength calculations.
- \*10 The competent examiner shall ascertain that the structures of the vessel can withstand the loadings of the derrick crane operation at all times and it complies with the licensing conditions of the vessel.
- \*11 The document/drawing shall be certified by a competent examiner. One copy of the certified document shall be submitted to Marine Department for record.
- \*12 Applicable to new vessels <sup>Note 2</sup> after the enforcement of this Code. The plan shall include information on the positions, quantity, materials, unit weights and serial number markings (which can be colour painted) as well as relevant photos (12 megapixels or above and hard copy prints in 1200 x 1200 dpi or above) of the permanent ballast weights.

## 6 Plans to be retained on board

6.1 Every Class II vessel shall be provided on board one copy of the plan(s) approved by the relevant authority, person or organisation at least with the following information indicated thereon :

- (a) general arrangement of vessel with seating arrangement and escape routes if passengers are carried;
- (b) types and dispositions of life saving appliance, fire-fighting appliance, light, shape, sound signals and radiocommunications equipment(if fitted).

6.2 For every Class II vessel which has been modified or altered in a way that would change the escape routes or dispositions of life saving appliance or fire-fighting apparatus, all plans and documentation carried or displayed on board shall be modified to reflect those changes and approved by the relevant authority, person or organisation.

6.3 Stability/loading & unloading information where applicable shall be provided on board. >

6.4 An emergency drill shall be practised by crewmembers at least once every two months. Records of emergency drills are to be kept onboard for at least one year for inspections by a Marine Department officer.

## 7 Survey / Inspection Items and Survey / Inspection Programmes

**Table 7-1 Initial Survey**

“✓” means applicable

Table 7-1 No.	Survey Item	Category and Vessel Length (m)		
		A (All Lengths)	B (L ≥ 8 m)	B (L < 8 m)
(A)	<b>CONSTRUCTION – GENERAL, SHIP STABILITY</b>			
(1)	Draft Marks – verification	✓	✓	

<sup>Note 2</sup> Applicable to a vessel which is a new vessel under section 2 of the Survey Regulation when the reference to “the commencement date” in the definition of “new vessel” is substituted by “31.8. 2018”

Table 7-1		Category and Vessel Length (m)		
No.	Survey Item	A (All Lengths)	B (L ≥ 8 m)	B (L < 8 m)
(2)	Measurement of Principal Dimensions	✓ <sup>(*1)</sup>	✓	✓
(3)	Inclining Experiment <sup>(*2)</sup>	✓	✓ <sup>(*4)</sup>	
(4)	Lightship Verification <sup>(*3)</sup>	✓	✓ <sup>(*4)</sup>	
(5)	Rolling Period Test (for Category B dry cargo vessel)		✓	
(6)	Simple Inclining Test			✓
<b>(B)</b>	<b>FIRE-FIGHTING APPARATUS, STRUCTURAL FIRE PROTECTION, APPLIANCES FOR PREVENTION OF COLLISION</b>			
(1)	CO <sub>2</sub> Pipe - inspection, hydraulic test and blowing test	✓	✓ <sup>(*8)</sup>	
(2)	Fire Main - inspection and hydraulic test	✓		
(3)	Structural Fire Protection (Ch. VI/13 refers) - inspection	✓		
(4)	Position of Navigational Light and its Foundation – verification	✓	✓	
<b>(C)</b>	<b>CARRIAGE OF PASSENGERS</b>			
(1)	Measurement of Passenger Space / Seating (for transportation boat and transportation sampan)	✓		✓
(2)	Means of Escape in Accommodation Space and Machinery Spaces - inspection	✓	✓	
<b>(D)</b>	<b>CONSTRUCTION – HULL; CONDITIONS OF ASSIGNMENT, LOAD LINES / FREEBOARD MARK</b>			
(1)	Material test - Steel Plate/Aluminium Plate <sup>(*5)</sup> /GRP Polyester Resin	✓	✓ <sup>(*6)</sup>	
(2)	- Propeller Shaft, Coupling, Rudder Stock <sup>(*5)</sup> <sup>(*7)</sup>	✓	✓ <sup>(*8)</sup>	
(3)	Hull Scantlings - verification	✓	✓ <sup>(*6)</sup>	✓
(4)	Welding / GRP Lamination and Finishing - inspection	✓	✓ <sup>(*6)</sup>	✓
(5)	Below Main Deck W.T. bulkhead and W.T. door fitted thereon - Hose test <sup>(*9)</sup>	✓	✓ <sup>(*4)</sup>	
(6)	Structural and Independent Tanks - internal inspection	✓	✓ <sup>(*6)</sup>	
(7)	- hydraulic test/air test <sup>(*9)</sup>	✓	✓ <sup>(*4)</sup>	
(8)	Watertight / Weathertight Appliances - inspection	✓	✓ <sup>(*6)</sup>	
(9)	- hose test <sup>(*9)</sup>	✓	✓ <sup>(*4)</sup>	
(10)	Load Line /Freeboard Assignment Certificate Items incl. Freeboard Marks -inspection	✓	✓	
(11)	Permanent Ballast Weights - inspection <sup>(*11)</sup> (Added G.N. 6489 of 2018)	✓	✓	
<b>(E)</b>	<b>CONSTRUCTION - FUEL, MACHINERY, SHAFTING, ELECTRICAL SYSTEMS</b>			
(1)	Main Engine, Gear Box - Type Approval Certificate <sup>(*10)</sup> - inspection	✓	✓ <sup>(*8)</sup>	✓

Table 7-1		Category and Vessel Length (m)		
No.	Survey Item	A (All Lengths)	B (L ≥ 8 m)	B (L < 8 m)
(2)	Generator Diesel Engine Certificate <sup>(*10)</sup> / inspection	✓	✓ <sup>(*8)</sup>	
(3)	Tail Shafts and Coupling - verification of dimensions	✓	✓ <sup>(*8)</sup>	
(4)	- taper bedding test	✓	✓ <sup>(*8)</sup>	
(5)	Stern Tube - verification of dimension and hydraulic test	✓	✓ <sup>(*8)</sup>	
(6)	Independent Fuel Oil Tanks - internal inspection and hydraulic test <sup>(*9)</sup>	✓	✓ <sup>(*8)</sup>	
(7)	Verification of no. and volume of fuel oil tanks (incl. structural and independent tanks)	✓	✓ <sup>(*8)</sup>	✓
(8)	Bilge Line - inspection and hydraulic test	✓	✓ <sup>(*8)</sup>	
(9)	Sea Suction valve – inspection and hydraulic test	✓	✓ <sup>(*8)</sup>	
(10)	Steering System Hydraulic Line - inspection and hydraulic test	✓	✓ <sup>(*8)</sup>	
(11)	Fuel Oil Line - inspection and hydraulic test	✓	✓ <sup>(*8)</sup>	
(12)	Compressed Air Pipe - hydraulic test (for P > 17.2 bar)	✓	✓	
(13)	Air Receiver / Cement Tank - verification of wall thickness/ dimensions	✓	✓	
(14)	- hydraulic test <sup>(*9)</sup>	✓	✓	
(15)	Main Engine Alarm System and FMEA items - function test (Applicable to vessels of the type stated in Ch. I/4.2)	MD	✓	
(16)	Electrical Wiring/installation - inspection	✓	✓	
<b>(F)</b>	<b>PREVENTION AND CONTROL OF POLLUTION</b>			
(1)	Prevention of Oil Pollution Installation - Inspection	MD/AO	MD/AO	
(2)	- hydraulic test of independent bilge water / sludge holding tank	✓	✓	
<b>(G)</b>	<b>STRUCTURES, EQUIPMENTS AND ARRANGEMENTS FOR CARRYING DANGEROUS GOODS</b>			
(1)	Supplementary information/data and list of inspection, testing & trial requirements relating to the type of vessel	✓	✓	
(2)	Additional Items for Oil Carriers having cargoes ≤ 60°C (Ch. VI refers) - inspection and test	✓	✓	
(3)	Additional Items for DG or NLS Carrier (Ch. VI refers) - inspection and test	✓	✓	

### Remarks in Table 7-1

- \*1 The measurement record shall be submitted to Marine Department for verification.
- \*2 Applicable to the 1st vessel of a series of four vessels.
- \*3 Applicable to the 2nd, 3rd and 4th of a series of four vessels.
- \*4 For hopper barge only.
- \*5 In lieu of the material test, mill sheet issued/endorsed by a classification society is acceptable.

- \*6 Applicable to any vessel to be issued with Freeboard Assignment Certificate (e.g. dumb lighter, hopper barge, etc.).
- \*7 Ch. IIIA/9 and IIIA/17.4 refer.
- \*8 For visual inspection and operational test at either initial or final inspection only.
- \*9 Annex M refers. Hose test for door fitted on watertight bulkhead may be replaced by a chalk test if a prototype test (with pressure corresponding at least to the head required for the intended location) has been carried out and certificated.
- \*10 Ch. IIIA/7.1 refers. For diesel engine of new vessels, engine maker or classification societies approved certificates/information and document as appropriate required in Ch. IIIA or IIIB and Annex I-10 of this Code or MARPOL Annex VI.
- \*11 Applicable to new vessels <sup>Note 2</sup> after the enforcement of this Code. The inspection shall be carried out in the vessel's initial survey, or when alterations or repairs resulting in the removal/modification of permanent ballast weights (PBWs) have been made. The inspection shall be carried out in accordance with the requirements set out in the table below:

Tasks Shipowner/Shipyard Responsible for		Tasks Inspecting Personnel Responsible for
Documents Submission	Inspection Arrangement	
<p>(1) Declaration (refer to Annex Y of this Code) - which shall include the PBWs information (positions, quantity, materials, unit weights, serial number markings, etc.) designated in the stability booklet of the vessel.</p> <p>(2) Photo records (12 megapixels or above and hard copy prints in 1200 x 1200 dpi or above)- which shall clearly show the following conditions of PBWs stowage:</p> <ul style="list-style-type: none"> <li>(a) ship structure prior to PBWs being stowed;</li> <li>(b) 50% of PBWs stowed;</li> <li>(c) 100% of PBWs stowed; and</li> <li>(d) fittings used for securing the PBWs.</li> </ul>	<p>Stow PBWs according to the information given in item (1) in the left-hand column and carry out the inspection described in the right-hand column in coordination with attending inspecting personnel.</p>	<ul style="list-style-type: none"> <li>(1) Inspect vessel's structure with regard to PBWs stowage;</li> <li>(2) verify all PBWs; and</li> <li>(3) randomly select at least 10% of PBWs (but no less than one PBW) for inspection. The inspection shall include the PBWs' appearance, markings, weight confirmation, etc.</li> </ul>

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<sup>Note 2</sup> Applicable to a vessel which is a new vessel under section 2 of the Survey Regulation when the reference to "the commencement date" in the definition of "new vessel" is substituted by "31.8.2018"



**Guide on Periodical Survey Cycle for Class II Vessel (“guide table”)**

No.	Material of Construction	Vessel Type	Vessel Length (L)(m)	Owner Declaration (*1)	Vessel Category and Yearly Interval of Survey on Slip (Table 7-2 refers)	Interval of Survey Afloat (Table 7-3 refers)
<b>Mech. Propelled Vessel</b>						
(1)	Steel / Al.	Cat. A , B	Any Length	-	(Cat. A, B) 2	Annual
(2)	GRP	Cat. A	Any Length	-	(Cat. A) 2	Annual
(3)	GRP	Cat. B	Any Length	-	(Cat. B) 3	Annual
(4)	Wood	Dry Cargo Vessel operating within River Trade Limits -	Any Length	-	(Cat. A) 2	Annual
(5)	Wood	New Vessel	$L \geq 8$	-	(Cat. A) 2	Annual
(6)	Wood	Existing Vessel of other than item (4)	$L \geq 24$	-	(Cat. B) 4 (full survey)	Annual
(7)	Wood	Existing Vessel	$8 \leq L < 24$	-	(Cat. A, B) 6 (full survey)	Annual
(8)	Wood	New Vessel Transportation Sampan	$L < 8$	-	(Cat. B) 4 (*2) (full survey)	Annual
(9)	Wood	New vessel of other than item (8), Existing Vessel	$L < 8$	-	-	Annual
<b>Non-Mech. Propelled Vessel</b>						
(10)	Steel	Existing - Crane Barge, Work Boat, Flat Top Work Barge	Any Length	-	(Cat. B) 6 (full survey) (Cat. B) (*2) (Cat. A)	Annual
(11)	Steel	Passenger use Landing Pontoon	Any Length	Annual	(Cat. B) 6 (*2) (full survey)	2
(11A)	Any Material	Landing Pontoon of other than item (11)	Any Length	Annual	-	2
(12)	Steel/GRP/ Wood	Landing Platform	Any Length	Annual	-	2
(12A)	Any Material of other than item (12)		Any Length	-	-	Annual
(13)	Steel/GRP/	Stationary Vessels other than items (14)	Any Length	Annual	-	2
(14)	Wood	Stationary Vessels (except Kitchen Boat) with $LXB \leq 25$	Any Length	Annual	-	3
(15)	Steel	Dumb Lighter, Hopper Barge	Any Length	-	(Cat. B) 2	Annual
(16)		Cat. A Vessels other than the above	Any Length		(Cat. A) 2	Annual
(17)		Cat. B Vessels other than the above	Any Length		(Cat. B) 3	Annual

## Remark

- \*1 Owner Declaration: The owner shall inspect and declare the safety and equipment of his vessel within 2 months before the 1st / 2nd anniversary date of the Certificate of Survey, and produce a “Declaration of Safety and Equipment for Class II B or III B Vessels” (which is appendix to MDN 26/2007 and can be downloaded at URL: <http://www.mardep.gov.hk/en/notices/pdf/mdn07026.pdf>) together with the Certificate of Survey to the Marine Department for the annual renewal of licence.
- \*2 (a) The first slipping date of vessel is due on the 6<sup>th</sup> anniversary (for new transportation sampan, the 4<sup>th</sup> anniversary) of the vessel’s initial licensing date counted from 1 July 2017 (1 July inclusive); or at owner’s discretion, the date of the upcoming periodical survey.
- (b) Shall the vessel be required to slip before 1 July 2018, the slipping may be postponed to a date on or before the next anniversary; or the date of the upcoming periodical survey.
- (c) In special case and depending on the particular situation, the slipping due date may be postponed to 30 June 2020 the latest, subject to the results of past periodical surveys were in satisfaction. The postponed slipping shall be carried out simultaneously with the periodical survey. The owner shall, at least 3 months prior to the slipping due date, apply to Marine Department in writing with supporting document giving the reasons for the deferral of vessel’s slipping.
- (d) From 1 July 2020, all vessels shall be slipped according to schedule; with the periodical survey carried out simultaneously.
- (e) If the vessel is slipped during the period from the effective date of this Code to 30 June 2017, and surveyed to the satisfaction of Marine Department officer / authorized surveyor, it can be regarded as meeting the requirement of (a), and the next slipping date may be scheduled for 2023 (for L<8 m wooden new transportation sampan, the next slipping date may be scheduled for 2021).

**Table 7-2 Periodical Survey**

“✓” means applicable

Table 7-2 No.	Survey Item	Class/Category/Type of Vessel	Class IIA DG/Oil/NLS Carrier			Class IIA Vessel other than DG/Oil/NLS Carrier			Class IIB Vessel		
			1	2	4 (full survey)	1	2	4 (full survey)	1	2 or 3	4 or 6 (full survey)
(A)	<b>LIFE-SAVING APPLIANCES, FIRE-FIGHTING APPARATUS</b>										
(1)	Fixed Fire Ext. Installation CO <sub>2</sub> system - blowing test Sprinkler System - spraying test		✓					✓			
(2)	- hydraulic test		(*3)								
(3)	Fire Extinguisher, CO <sub>2</sub> Bottle - refill and hydraulic test		✓ (*4)							✓ (*4, *5)	
(4)	Buoyant Apparatus (without buoyant materials filled) - submerging test				✓						
(B)	<b>CONSTRUCTION – HULL, CONDITIONS OF ASSIGNMENT</b>										
(1)	Hull - external (incl. ship bottom) inspection		✓ (*1)				✓ (*1)				✓ (*1)
(2)	internal (excl. oil, water tanks - and void spaces) visual inspection		✓				✓			✓ (*5)	

Table 7-2											
No.	Survey Item	Class/Category/Type of Vessel	Class IIA DG/Oil/NLS Carrier			Class IIA Vessel other than DG/Oil/NLS Carrier			Class IIB Vessel		
			1	2	4 (full survey)	1	2	4 (full survey)	1	2 or 3	4 or 6 (full survey)
(3)		internal (incl. oil, water tanks - and void spaces) inspection (*7)(*8)			✓			✓			✓
(4)		- gauging thickness of deck, shell and bulkhead plating (*8)(*9)			✓			✓			✓
(5)		Sea Suctions, Discharging Valves - stripped down inspection		✓ (*13)	✓		✓ (*13)	✓		✓ (*5,*13)	✓
(6)		Anchors, Cables, Steel Wire Ropes - ranged out for inspection (*8)			✓			✓			✓ (*5)
(7)		Permanent Ballast Weights - inspection (*17) (Added G.N. 6489 of 2018)			✓			✓			✓
(C)	<b>CONSTRUCTION - FUEL, MACHINERY, SHAFTING, ELECTRICAL SYSTEMS</b>										
(1)		Main Engine - hydraulic test of coolers (incl. air, lub. oil, cooling water), cylinder head and water jacket			✓			✓			
			(by engine workshop) (*10)								
(2)		- overhaul of fuel oil pump, fuel nozzles			✓			✓			
			(by engine workshop) (*10)								
(3)		Main Engine and Gear Box – stripped down for inspection (*11)			✓			✓			
			(by engine workshop) (*10)								
(4)		Generator engine, auxiliary machinery (incl. windlass, lifting appliance) engine - stripped down for inspection			✓			✓			✓ (*5)
			(by engine workshop) (*10)								
(5)		Main fire pump, emergency fire pump, bilge pump, windlass - stripped down for inspection			✓			✓			
(6)		Air Receiver (P<17.2 bar) - internal inspection			✓			✓			✓
(7)		- hydraulic test (*8)			✓			✓			✓
(8)		Air Receiver (P≥17.2 bar) - internal inspection		✓			✓			✓	
(9)		- hydraulic test (*8)		✓			✓			✓	
(10)		Tail Shaft, Propeller, Rudder and Rudder Stock - drawn out for inspection (*8)			✓			✓			✓ (*15)
(11)		Independent Cement Tank – internal Inspection & thickness gauging						✓			✓
(12)		Independent Cement Tank – external inspection				✓			✓		
(13)		Independent Fuel Oil Tank – internal inspection and hydraulic test (*8)			✓			✓			✓ (*5, *16)
(14)		Independent Water Tank (For Water Boat only) – hydraulic test							✓		

Table 7-2 No.	Survey Item	Class/Category/Type of Vessel	Class IIA DG/Oil/NLS Carrier			Class IIA Vessel other than DG/Oil/NLS Carrier			Class IIB Vessel			
			1	2	4 (full survey)	1	2	4 (full survey)	1	2 or 3	4 or 6 (full survey)	
(D)	<b>PREVENTION AND CONTROL OF POLLUTION</b>											
(15)	Oil Pollution Prevention Installation - vessel with HKOPP certificate	(*12)										
(16)	- vessel without HKOPP certificate: - hydraulic test of independent bilge water/sludge holding tank			✓			✓				✓	
(E)	<b>STRUCTURES, EQUIPMENTS AND ARRANGEMENTS FOR CARRYING DANGEROUS GOODS</b>											
(1)	Pump Room - inspection	✓										
(2)	Cargo Tank Vent Piping System – inspection	✓										
(3)	Cargo Tank Lids - inspection	✓										

### Abbreviations

- DG Carrier - dangerous goods carrier  
 NLS Carrier - noxious liquid substances carrier

### Remarks in Table 7-2

- \*1 Survey Intervals: “2” means such item (marked as “✓”) to be subjected to survey biennially, “3” triennially, etc. The periodical survey shall be carried out in subsequent order; i.e. a 1st year survey shall be followed by a 2-yearly survey, a 3rd year survey shall be followed by a 4-yearly survey (“full survey”), etc. Refer to “guide table” for applicable types of vessels for survey intervals.
- \*2 If the hull and machinery installation of a classed vessel are inspected by a surveyor of the classification society, the inspection reports/certificates issued by the classification society shall be submitted to Marine Department for record.
- \*3 Hydraulic test for CO<sub>2</sub> and sprinkler systems shall begin from the 10th anniversary the system is in service, and thereafter at intervals of 10 years. The hydraulic testing pressure for the CO<sub>2</sub> system high pressure manifold shall not be less than 125 bar.
- \*4 Inspection for portable and non-portable type fire extinguishers and CO<sub>2</sub> bottles shall be in accordance with the following table. The inspection record shall be retained on board for examination; or each fire extinguisher to be marked by paint or attached with a tag indicating the date and type of test.

ITEM	Water/Foam/Dry Powder Fire Extinguisher		CO <sub>2</sub> Fire Extinguisher, CO <sub>2</sub> Fixed Installation Bottle		
	TYPE OF TEST	Refill / Weighting (*a)	Hydraulic (*b)	Weighting	Refill
INSPECTION BODY	Owner (*c) /FSIC	FSIC/MD	FSIC/MD	DG Reg. 62	DG Reg. 66

### Abbreviation

- FSIC: Fire Service Installation Contractors registered in the Fire Service Department or institutions acceptable to the Director

- DG Reg. 62: A person holding a Dangerous Goods Licence issued under Reg. 62, Dangerous Goods (General) Regulation
- DG Reg. 66: A person approved by Fire Service Department under Reg. 66, Dangerous Goods (General) Regulation
- MD : Marine Department officer

**Note**

- (\*a) The need for refilling shall be in accordance with the instruction of manufacturer of fire extinguisher.
- (\*b) Intervals of hydraulic test:
- |   |            |
|---|------------|
| Portable Fire Extinguishers                   | - 5 years  |
| CO <sub>2</sub> bottles/propellant cartridges | - 10 years |
- (\*c) MD officers may examine the owner's competence on carrying out the servicing and conduct random checks including function test of the portable fire extinguishers.
- \*5 Applicable to Cat. B high risk vessels, including dumb lighters used for carrying dangerous goods.
- \*6 Applicable to vessels issued with Freeboard Assignment Certificate (e.g. dumb lighter, hopper barge, etc.), and new mechanised transportation sampan.
- \*7 In inner bottom spaces not provided with access holes, at least 5% of area of the inner bottom plate, in at least five sufficiently scattered locations, shall be opened up to facilitate inspection of the inner bottom spaces.
- \*8 For guidance on machinery and hull wear down or corrosion tolerance limits and other inspection items, refer to Annex M.
- \*9 Applicable to vessels of age exceeding 8 years. For vessels possessing International Load Line Certificate the gauging inspections may be arranged when in the renewals of the load line certificate.
- \*10 Inspection record issued by engine workshop shall be submitted for reference.
- \*11 For a brand new gear box, the strip down inspection shall begin from the fourth anniversary the gear box is in service.
- \*12 For the renewal of HKOPP certificates, oil pollution prevention installation shall be stripped down for inspection. Independent bilge water holding/sludge tank shall be hydraulic tested.
- \*13 Applicable to sea water suction valves only.
- \*14 Length required to be ranged out for inspection: for anchor chains (or classification society accepted alternatives fitting) – the whole length; for steel wire ropes – the whole length or a minimum length of 50m, whichever is the less. More or the whole length to be ranged out for inspection should there be defect found.
- \*15 Applicable to new mechanised transportation sampan. Tail shaft shall be drawn out for inspection every 4 years. The drawn out inspection may be postponed for a period not exceeding 2 years if the condition is satisfactory.
- \*16 Applicable to new mechanised transportation sampan. External visual inspection is to be carried out for independent fuel oil tanks. Internal inspection and hydraulic test shall be carried out if the tanks are found in unsatisfactory condition.
- \*17 Applicable to the first full survey of vessels one year after the enforcement of this Code (i.e. on or after 31.8.2019). The PBWs inspection may be carried out during the final inspection (Table 7-3 items). The inspection shall be carried out in accordance with the requirements set out in the table below:

Item	Survey Year	Tasks Shipowner Responsible for		Tasks Inspecting Personnel Responsible for
		Documents Submission	Inspection/Maintenance Arrangement	
(A)	Full Survey <sup>Note</sup> Note: The PBWs inspections described below shall be carried out in the quadrennial full survey when a vessel has reached 8 years of age, and in every quadrennial full survey thereafter (for a classed vessel, in the special survey when the vessel has reached 10 years of age, and in every special survey thereafter), commencing one year after the enforcement of this code (i.e. on or after 31.8.2019). The first one will be a Grade A inspection, followed by a Grade B inspection, alternating at 4-year intervals (for classed vessels, 5-year intervals, i.e. the special survey). If it is found during a Grade B inspection that the vessel's bottom and internal structural members with regard to PBWs stowage show no excessive corrosion (not exceeding 1/2 or more of the limit set down in Annex M of this Code) and the coating is in good condition with no significant deterioration, MD may consider the shipowner's application for having a Grade B inspection in the subsequent full survey, followed by a Grade A inspection in the next quadrennial full survey (for classed vessels, the next 5-yearly special survey).			
	Grade A Inspection	Submit the same declaration and photo records required for the PBWs inspection in the initial survey (remark *11 of Table 7-1).	(1) Clear the whole area (100%) of vessel bottom used for PBWs stowage. (2) Assist inspecting personnel and provide necessary ventilation, lighting, etc. to facilitate the inspection described in the right-hand column. (3) Carry out repairs when directed by inspecting personnel.	(1) Confirm the area at vessel bottom used for PBWs stowage is clear, and carry out PBWs inspection items (1)~(3) of remark *11 of Table 7-1 of the initial survey. (2) Confirm the following during hull inspection: (i) steel vessel – no large area of damage or heavy rusting of hull material, no abnormal accumulation of water, etc.; protective coating (if any) in good condition. (ii) Aluminium, GRP and wooden vessel - no large area of damage or abnormalities of hull material, no abnormal accumulation of water, etc.; protective coating (if any) in good condition. (iii) gauge plating thickness (if applicable) and submit to MD a copy of the record. (3) If the results of the abovementioned inspection items (2)(i)~(iii) fall short of requirements, the owner shall be instructed to carry out repairs, and re-inspection shall be carried out until satisfactory results are obtained. (4) If the wastage of hull material has reached 3/4 or more of the corrosion limit set down in Annex M of this Code, the owner shall be instructed to renew the hull material

Item	Survey Year	Tasks Shipowner Responsible for		Tasks Inspecting Personnel Responsible for
		Documents Submission	Inspection/Maintenance Arrangement	
				<p>concerned. If it cannot be done, the hull of the part concerned shall be subject to inspection annually thereafter.</p> <p>(5) If heavy wastage of hull material is found, the adjoining cement PBWs (if any) shall be removed to facilitate the hull inspection.</p>
	Grade B Inspection	<p>(1) Declaration</p> <p>(2) Upon the completion of inspection and repair (if applicable), submit to MD a copy of the photo records which shall include:</p> <p>(i) photos showing the condition of the hull structure with PBWs removed to expose at least 25% of the total area of the hull structure covered by PBWs; and</p> <p>(ii) the condition of the PBWs after they are restored to their original positions.</p> <p>(3) If all the PBWs have to be removed, the records required in items (1) and (2) of remark *11 of Table 7-1 for the initial survey shall be re-submitted.</p>	<p>(1) Follow inspecting personnel's instruction (as described in the right-hand column) and remove PBWs to expose at least 25% of the total area of the hull structure covered by PBWs to facilitate inspection.</p> <p>(2) carry out task items (2) and (3) of Grade A inspection.</p>	<p>(1) Instruct the owner to remove PBWs for hull structure inspection. At least 25%<sup>Notes (i)&amp;(ii)</sup> of the total area of hull structure covered by PBWs in each compartment shall be inspected.</p> <p>Note:</p> <p>(i) The quantity of the randomly checked PBWs shall be based on the number of PBWs removed for inspection.</p> <p>(ii) The positions subject to inspection are normally the parts of the hull that are more vulnerable to corrosion (such as the bottom of the aft part of the vessel for the stowage of PBWs). If individual PBWs cannot be removed for safety reason, the owner shall be instructed to remove all the PBWs to facilitate hull inspection. In such case, the inspection items (1)-(3) of remark *11 of Table 7-1 of the initial survey shall be carried out.</p> <p>(2) Carry out task items (2)~(5) of Grade A inspection.</p> <p>(3) Randomly select at least 10% of PBWs (but no less than one PBWs) for inspection. The inspection shall include the PBWs' appearance, markings, weight confirmation, etc.</p>
(B)	Years other than the full survey year	Declaration required in item (1) of Grade B inspection in (A), or a copy of an endorsed declaration.	Carry out task items (2) and (3) of Grade A inspection in (A) upon receipt of special instructions.	Conduct a visual inspection of the PBWs according to the documents submitted by the owner as mentioned in the left-hand column as and

Item	Survey Year	Tasks Shipowner Responsible for		Tasks Inspecting Personnel Responsible for
		Documents Submission	Inspection/Maintenance Arrangement	
				when necessary.

**Table 7-3 Final Inspection** <sup>(\*)</sup> <sup>(#4)</sup>

“✓” means applicable

Table 7-3 No.	Survey Item <sup>(*)</sup>	Category of Vessel	A	B
<b>(A)</b>	<b>LIFE-SAVING APPLIANCES, FIRE-FIGHTING APPARATUS, APPLIANCES FOR PREVENTION OF COLLISION</b>			
(1)	Life Saving Appliances - inspection and function test <sup>(*)</sup>		✓	✓
(2)	Fire Fighting apparatus (incl. CO <sub>2</sub> fixed fire extinguishing installation, emergency fire pump, etc) - inspection and function test		✓	✓
(3)	Navigation Lights and Sound Signals - inspection and function test		✓	✓
(4)	Fire Drill, Abandon Ship Drill <sup>(*)</sup>		✓	✓
<b>(B)</b>	<b>CARRIAGE OF PASSENGERS</b>			
(1)	Passenger Space, Crew Space, Cabin Escape Arrangement, Bulwarks and Rails - general inspection		✓	
<b>(C)</b>	<b>CONSTRUCTION – HULL, CONDITIONS OF ASSIGNMENT, LOAD LINES / FREEBOARD MARK</b>			
(1)	Hull External (above waterline part) - General inspection (not required if there is on slip/docking survey during the year)		✓	✓
(2)	Watertight / Weathertight Closing Appliances (incl. door, ventilator, air pipe, etc.) - inspection		✓	✓ <sup>(*)</sup>
(3)	Permanent ballast - confirmation of amount and position <sup>(*)</sup>		✓	
(4)	Freeboard Mark / Load Line Mark - verification		✓	✓ <sup>(*)</sup>
(5)	General condition in Machinery Space (including fuel oil installation) (a) protection from injury of personnel (b) prevention of fire hazard (c) prevention of oil pollution hazard		✓	
(6)	Principal Dimensions, Engine and major machinery particulars - verification		✓	✓
<b>(D)</b>	<b>CONSTRUCTION - FUEL, MACHINERY, SHAFTING, ELECTRICAL SYSTEMS</b>			
(1)	Main Engines, Generator Engines, Steering Gears, Windlass <sup>(*)</sup> - running test		✓	✓
(2)	Unattended Machinery Space Installation (Ch. IIIA/18 and IIIB/13 refer) - function test		✓	✓
(3)	Air Receiver / Cement Tank Safety Valves - function test		✓	✓



Table 7-3		Category of Vessel	
No.	Survey Item <sup>(*2)</sup>	A	B
(4)	Bilge and Oily Water Pumping System - function test	✓	✓
(5)	Electrical Circuit - earthing test	✓	✓
(6)	- insulation resistance test	✓	✓ <sup>(*7)</sup>
(7)	- Main circuit breaker function test <sup>(*8)</sup>	✓	✓
(8)	Location of emergency source of electrical power shall be outside machinery space and above waterline – verification <sup>(*9)</sup>	✓	
(9)	Meters on Switchboard - function test	✓	
<b>(E)</b>	<b>PREVENTION AND CONTROL OF POLLUTION</b>		
(1)	Air Emission Assessment <sup>(*6)</sup>	✓	✓
(2)	Prevention of Oil Pollution Installation - function test	✓	✓
<b>(F)</b>	<b>NAVIGATIONAL, COMMUNICATION EQUIPMENT AND OTHERS</b>		
(1)	Radio Communication Equipment	✓	
(2)	Navigational Equipment	✓	
(3)	Plans and data required to be retained onboard (s 6.1 refers) - confirmation of numbers and contents	✓	
(4)	Survey report issued by MD/AS/AO/RA - verification	✓	
(5)	Inspection of remedial deficiency items in Initial / Periodical Survey	✓	
(6)	Marking of Safe Working Load and Certificate of Lifting Appliances – verification <sup>(*12)</sup>	✓	✓
(7)	Supplementary information/data and list of inspection, testing & trial requirements relating to the type of vessel	✓	
(8)	Domestic L.P.G. Installation - inspection	✓	✓

**Remarks in Table 7-3**

- \*1 For intervals of final inspection with respect to type of vessel, guide table refers.
- \*2 Where practicable the listed items may be presented for inspection prior to the final inspection.
- \*3 Random check on the condition of lifejackets is to be according to the following proportions:

Statutorily Required No. of Adult Lifejackets	Random Check	Statutorily Required No. of Children Lifejackets	Random Check
1-10	100%	1-10	100%
11-100	10 pieces	11-50	10 pieces

The counting of the number is to be 100%.

~~\*4 For high risk vessel, the final inspection shall be carried out by Marine Department officer.~~ *Repealed*

- \*5 Applicable to dumb lighter and hopper barge.
- \*6 Air emission requirements to be conducted as per Annex I-10.
- \*7 Applicable to any vessel other than Category B wooden construction vessel. For vessels other than high risk vessels, a valid EMSD registered electrical contractor (REC) issued electrical system insulation test report (with the test being conducted by an EMSD registered electrical worker (REW) within 2 weeks prior to the final inspection) is acceptable in lieu of the insulation resistance test inspection responsible by MD officer or authorized inspection personnels. A valid electrical system insulation test report shall include the relevant necessary information. A valid electrical system insulation test report issued by an authorized inspection personnel is acceptable.
- \*8 Applicable to any vessel fitted with generator of each capacity exceeding 50 kW.
- \*9 Applicable to only a vessel which is still a new vessel when the reference to “the commencement date of the Survey Regulation” in the definition of “new vessel” under Ch. I/3.1 is substituted by “29 November 2014”.
- \*10 Refer to the requirements of remark \*11 of Table 7-1 or remark \*17 of Table 7-2.  
(Amended G.N. 6489 of 2018)
- \*11 Applicable to any mechanized oil carrier, dangerous goods carrier and noxious liquid substances carrier; and any types of mechanized vessels plying beyond Hong Kong waters.
- \*12 The following document / certificates certified by competent examiner shall be presented in final inspection for verification of validity:
  - i) Register of Lifting Appliance & Lifting Gear (Form 1);
  - ii) Certificate of Test and Examination of Winches, Derricks and their Accessory Gear (Form 2)(if applicable);
  - iii) Certificate of Test and Examination of Lifting Appliance and their Accessory Gear other than Derricks (Form 3)(if applicable).
- \*13 For high risk vessels (including dumb lighter used for carrying dangerous goods) inspecting officer will carry out external visual inspection and running test. Owner of vessel shall confirm by writing that the windlass has been properly repaired and maintained.

## **8 Large Cargo Vessel**

- 8.1 “Large Cargo Vessel”: means local licensed cargo vessel of overall length exceeding 75 metres. These vessels are prohibited to enter the typhoon shelter and must be anchored or to leave Hong Kong waters during typhoon period, consequently reinforcement of relevant shipboard equipment and installation as stated in sections 8.2 and 8.3 are required.
- 8.2 In addition to the requirements as stated in this Code, following equipment and installation are also required:
  - (a) Non-mechanically propelled vessel: one kind of communication equipment, anchor and windlass;
  - (b) Mechanically propelled vessel: compass, echo sounder, radar, VHF (Very High Frequency) radio telephone (with licence issued by Communications Authority, Hong Kong), anchor, windlass and inclinor.

8.3 Standard of anchor and anchoring machine must comply with relevant strength and calculation requirements of classification societies or an equivalent Standard.

**Amendments Made to**  
**the Code of Practice – Safety Standards for Class IV Vessels**  
**regarding new requirement on authorization of inspections for local vessels**

**CHAPTER X**

**ADDITIONAL REQUIREMENTS APPLICABLE TO  
CERTAIN TYPES OF CLASS IV VESSELS**

*(New chapter (Amendment No. 48))*

**PART 1A**

This part applies to the following types of new vessels<sup>1.8.2020</sup>

- (a) pleasure vessels of 24m or more in length ( $L \geq 24\text{m}$ ) that are not let for hire; or
- (b) pleasure vessels of any length and carry not more than 60 passengers that are let for hire (except open cruisers carrying not more than 12 passengers that are let for hire).

**1 Vessels Shall Be Built to Acceptable Standards**

- 1.1 Each vessel shall be designed and built to the standards of classification societies specified in Annex 14 or equivalent standards (e.g. CE/ISO standards) based on its size, building materials, intended use, etc. However, in the event of any inconsistency between this Code and any of the standards of the classification societies, CE/ISO, etc., the requirements of this Code shall prevail.
- 1.2 Relevant certificates, documents or declarations provided by the ship builder/shipyard or other certification bodies are acceptable.

**2 Ship Builder/Shipyard**

- 2.1 Shipyards should be recognized by relevant authorities or international certification bodies; obtain ship building approval documents endorsed by classification societies, relevant authorities or quality certification bodies; or be inspected by an AS who shall submit a relevant report to Marine Department (see the sample report in Annex 16) upon satisfactory inspection of the following:
  - (1) **workshop facilities & equipment:** e.g. workshop scale, ventilation system, dust extracting system, illumination, lifting appliances, fire-fighting system;
  - (2) **quality control:** e.g. humidity control (or an equivalent measure), material storage, quality monitoring and reporting, material certificates (resin, fibre glass, paint, etc.);
  - (3) **production process:** e.g. types of tools and methods used, hull inspection and repair records, the method statement of mould loft, transportation process from mould loft to sea; and
  - (4) **competency of management staff and technicians:** e.g. qualifications of

management staff and technicians (professional/training certificates, relevant experience, etc.).

2.2 A copy of the supporting documents mentioned in section 2.1 above shall be provided to Marine Department for record purposes.

### 3 Submission of Plans and Data for Approval

3.1 Plans and data for the items listed in the table below shall be submitted for approval.

3.2 For plans and data submitted to Marine Department for approval, 3 copies of each plan shall be submitted for the first of a series of sister ships and 2 copies for the remaining sister ships. For plans and data submitted to the AO/AS for approval, 1 copy of the approved plans and data shall be submitted to Marine Department for record purposes.

3.3 Plans shall be drawn in appropriate scale and of legible quality.

3.4 For vessels of 24m or more in length with gross tonnage of more than 150 ( $L \geq 24m$  &  $GT > 150$ ), let for hire or not for hire, their plans and data shall be submitted to Marine Department or AO for approval;

For (a) vessels of 24m or more in length with gross tonnage of 150 or below ( $L \geq 24m$  &  $GT \leq 150$ ) that are not let for hire; or (b) pleasure vessels of any length with gross tonnage of 150 or below that are let for hire, their plans and data may be submitted to Marine Department, AO or AS for approval.

No.	Plans and Data
(1)	General arrangement
(2)	Safety equipment plan, showing: (a) life saving appliances (b) fire fighting apparatus, emergency controls and structural fire protection arrangement (c) light, light and sound signals (d) means of escape, escape installations and arrangement, etc.
(3)	Structures and scantlings, watertight/weathertight closing appliances <sup>*1</sup>
(4)	Machinery installations <sup>*2</sup>
(5)	Electrical installations <sup>*2</sup>
(6)	Installations for prevention of oil and air pollution <sup>*2</sup>
(7)	Inclining test report <sup>*3, *4</sup>
(8)	Intact stability information booklet (after inclining test) <sup>*3, *4</sup>
(9)	Damage stability information booklet (after inclining test) (for any pleasure vessels carrying more than 12 passengers that are let for hire) <sup>*3, *4</sup>

#### Notes

\*1 The plan requirement for this item can be waived if the ship builder/shipyard or other

certification bodies provide relevant certificates, documents or declarations on the construction standards.

- \*2 The required vessel particulars in the form of Annex 15 may be filled in in lieu of the plan required for this item.
- \*3 Only one report for the same ship model of the same shipyard is required to be provided to Marine Department for record purposes.

(Note: If the newly built vessel is of the same design as a ship found in the database (i.e. constructed with the same mould and material, having the same number of watertight bulkheads and the same bulkhead arrangement, as well as the same essential machinery installations, carrying capacities of persons, water and fuel. If there are changes in machinery installations, an inclining test has to be carried out to ascertain that the variances of lightship weight and vertical centre of gravity (VCG) are less than 2%, and the variance of longitudinal centre of gravity (LCG) is less than 1%), the survey and plan approval requirement of intact and damage stability (if applicable) can be waived.)

- \*4 The plan required for this item may be substituted by the following:
  - i) an inspection report or a certificate or declaration issued by the ship builder/shipyard or a third-party inspection body (e.g. a CE certification body, a competent surveyor or an IACS member); or
  - ii) calculation based on inclining test data made and relevant reports endorsed by a competent surveyor; or
  - iii) on-site verification/test carried out by a competent surveyor to confirm the vessel's compliance with section 4.5(b), and hence its compliance with the equivalent intact stability requirements.

## 4 Intact Stability

4.1 Except for vessels mentioned in section 4.5 below, the intact stability of any vessel shall meet the following requirements in both lightship and full load conditions:

- (a) sections 4.1.1 – 4.1.4; or
- (b) section 4.2; or
- (c) section 4.3.

4.1.1 Criteria regarding righting lever (GZ) curve properties

- (a) the initial transverse metacentric height (initial  $GM_T$ )  $\geq 0.15\text{m}$ ;
- (b) the area under the righting lever (GZ) curve :
  - (i)  $\geq 0.055$  m-rad up to an angle of heel of  $30^\circ$ ;
  - (ii)  $\geq 0.090$  m-rad up to an angle of heel of  $40^\circ$  or the angle of down flooding (if that angle is less);
  - (iii)  $\geq 0.030$  m-rad between the angles of heel of  $30^\circ$  and  $40^\circ$  or the angle of down flooding (if that angle is less);

(Note: angle of down flooding is an angle of heel at which the lower edges of any opening in the hull, superstructures or deckhouses which cannot be closed weathertight immerse).

- (c) the righting lever (GZ) shall be at least 0.20m at an angle of heel equal to or

greater than 30°; and

- (d) the maximum righting lever (GZ<sub>max</sub>) shall occur at an angle of heel not less than 25° but preferably over 30°.

4.1.2 Crowding (this section applies to any vessels carrying more than 12 passengers)

The angle of heel due to the crowding of passengers when they move from one side of the vessel to the other shall not be greater than 10°. The passengers shall be assumed to congregate at 0.25m<sup>2</sup> per person on the uppermost deck(s), with all passengers crowding on one side of the vessel. The vertical centre of gravity of a standing passenger shall be taken.

4.1.3 Turning (this section applies to any vessels carrying more than 12 passengers)

Heeling is developed due to turning of the vessel. The angle of heel shall not be greater than 10°. The heeling moment may be derived from the following formula: –

$$MR = 0.2 V_o \Delta (KG - d/2) / Lwl$$

where

MR = heeling moment (kN-m)

V<sub>o</sub> = speed of the vessel in the turn (m/sec)

Lwl = length of vessel on the waterline (m)

Δ = displacement (tonnie)

KG = height of the centre of gravity above keel (m)

d = mean draft (m)

4.1.4 Wind Moment (this section applies to any vessels carrying more than 12 passengers)

Wind moment is calculated according to section 2.3 “Severe Wind and Rolling Criterion (Weather Criterion)” of the International Code on Intact Stability, 2008 (2008 IS Code) published by the International Maritime Organization (IMO). The wind pressure factor shall be taken to be 500 Pa. (ref: Resolution A.749(18))

4.2 For vessels of less than 20m in length (L<20m) that carry not more than 100 passengers, Marine Department accepts the standards for intact stability applicable to vessels operating within sheltered waters as stipulated in the Technical Regulation for the Survey of Coastal Boats (《沿海小型船舶檢驗技術規則》) promulgated by the Maritime Safety Administration of the People’s Republic of China (MSA), or the equivalent. For vessels of 20m or more in length (L≥20m) that carry not more than 100 passengers, Marine Department accepts the standards appropriate for vessels operating in Hong Kong waters as promulgated by the MSA.

4.3 Other standards (such as CE) with equivalent criteria on intact stability appropriate for vessels operating in Hong Kong waters are also acceptable.

4.4 Every vessel shall be inclined according to the standards of the AO or equivalent to confirm the vessel's displacement, VCG and LCG in lightship condition on completion or close to completion of construction (for a new vessel) or modification (for an existing vessel). An inclining test report shall be submitted for approval.

- 4.5 For vessels operating solely under favourable weather<sup>Note1</sup> and sea conditions, only the following requirements are to be complied with:
- (a) requirements of sections 4.1.1(a), 4.1.2 & 4.1.3, and to carry out an inclining test in accordance with section 4.4; or
  - (b) an alternative to intact stability calculation:
    - (i) a simple on-site inclining test carried out by a competent surveyor in accordance with the procedures set out in Annex 5:
      - (1) for Class IV vessels that are licensed to carry not more than 12 passengers, to ascertain that the angle of heel will not exceed 7° when having 2/3 of the passengers distributed on one side of the vessel and 1/3 on the other. The test is to be carried out in accordance with the details stated in Part 1; or
      - (2) for Class IV vessels that are licensed to carry 13 to 60 passengers, to ascertain that the angle of heel will not exceed 10° when all passengers move from one side of the vessel to the other. The test is to be carried out in accordance with the details stated in Part 2; and
    - (ii) a sea trial of the vessel in full load condition carried out to the satisfaction of a competent surveyor.

**5 Damage Stability** (this section applies to any pleasure vessels carrying more than 12 passengers that are let for hire)

5.1 Subdivision standard

Every vessel shall comply with the subdivision standard for flooding of any one main compartment.

5.2 The final condition of the vessel after damage shall satisfy the following requirements –

- (a) in the case of symmetrical flooding, there shall be a positive residual metacentric height of at least 50mm as calculated by the constant displacement method;
- (b) in the case of asymmetrical flooding, the angle of heel for one-compartment flooding shall not exceed 7°;
- (c) in no case shall the main deck be submerged in the intermediate stages or final stage of flooding.

**6 Watertight Bulkheads, Closing Appliances**

6.1 A vessel to which Part 1A applies shall be fitted with the following watertight bulkheads:

- (a) collision bulkhead;
- (b) fore and after bulkheads of engine room;
- (c) watertight doors below the main deck (if any) shall be fitted with visual and audio alarms to the wheelhouse to give alerts when watertight doors are open.

6.2 On every vessel, air pipes, ventilators, small hatchways, manholes, skylights and doors

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<sup>Note1</sup> Refer to the definition under section 3 of Chapter I of this Code.



leading to a space below the main deck shall be fitted with weathertight or watertight closing appliances. If they are of weathertight design, the sills, coamings, etc. shall be of a suitable height to avoid ingress of water.

## **7 Emergency Controls**

7.1 Means for stopping machinery, shutting off oil fuel suction pipes and closing of openings.

7.1.1 In every vessel there shall be provided with –

- (a) means for stopping ventilation fans serving machinery and accommodation spaces; and
- (b) means for closing all skylights, doorways, ventilators and other openings to such spaces.

Such means shall be capable of being operated from positions outside the said spaces which would not be made inaccessible by a fire within such spaces.

7.1.2 Power driven forced and induced draught fans, oil fuel transfer pumps and other similar fuel pumps shall be fitted with remote controls situated outside the spaces in which such machinery or pumps are situated, and which would not be made inaccessible by a fire within such spaces. The controls shall be capable of stopping such machinery or pumps in the event of fire in the said spaces.

7.1.3 A pipe connected to any oil fuel or lubricating oil storage tank, not being a double bottom tank, which if damaged would permit discharge of the contents and pose a fire hazard, shall be fitted with a valve or cock which shall be secured to the tank to which it is connected and be capable of being closed from a readily accessible position outside the space in which the tank is situated.

## **8 Structural Fire Protection, Escape Installations, Etc.**

8.1 In all spaces –

- (a) paints, varnishes and other finishes used on exposed surfaces shall not contain highly flammable base products, including nitrocellulose, and shall not be capable of producing toxic gases or excessive quantities of smoke;
- (b) insulating materials shall be of non-combustible materials; and
- (c) any means of escape shall lead to the open deck.

8.2 In accommodation, service spaces and control stations –

- (a) all exposed surfaces in corridors, exposed surfaces of ceilings and surfaces in concealed or inaccessible spaces shall have low flame spread characteristics;
- (b) primary deck coverings shall be of a material which will not readily ignite or give rise to toxic or explosive hazards at elevated temperatures;
- (c) the doorways and stairways for escape purpose shall be evenly distributed and arranged so as to avoid congestion in any part of a vessel. Every door and hatch cover shall be operable from either side; and
- (d) dead-end corridor shall not be more than 7m in length.

8.3 For vessels with hull constructed of non-steel materials, fire retarding material shall be

used in the hull, deck and bulkhead structures of engine room boundaries so that the required strength could be maintained for a period of 30 minutes or more. For hull structures below the waterline, the insulation shall extend to at least 300mm below the lightest waterline.

- 8.4 Any part of a deck or bulkhead, which separates a crew space from any machinery space, galley, or spaces used for the storage of flammable substances, shall be of gastight construction.

## **9 Stairways, Passageways, Doors and Exits in Passenger Spaces**

- 9.1 Any stairways and passageways forming part of an escape route shall be kept unobstructed at all times, with a minimum width of 400mm or of a design (including the width) meeting the standards of a maritime institution recognized by Marine Department (e.g. Australia AMSA or CE).
- 9.2 The clear width of every passageway, door and exit forming part of an escape route shall at least be the same as the width of the stairway and passageway.
- 9.3 The doors of any enclosed passenger space shall be opened in such a direction so as not to obstruct the route of escape. The doors shall not be locked during a voyage.

## **PART 1B**

This part applies to new open cruisers<sup>1.8.2020</sup> that are let for hire and carry not more than 12 passengers.

### **1 Hull Construction**

The design and construction of the vessel shall:

- (a) provide structural strength sufficient for the intended use of the vessel;
- (b) maintain adequate freeboard and stability;
- (c) prevent the ready ingress of sea water; and
- (d) not be fitted with a false bottom or concealed space.

### **2 Vessel Construction Standards**

- 2.1 Apart from the requirements in this Code, present rules and standards of classification societies recognized by Marine Department or other equivalent standards may be used as assessment standards.
- 2.2 Relevant certificates, documents or declarations provided by the ship builder/shipyard or other certification bodies are acceptable.

### **3 Ship Builder/Shipyard**

- 3.1 Shipyards shall be recognized by relevant authorities or international certification bodies; obtain ship building approval documents endorsed by classification societies, relevant authorities, quality certification bodies; or be inspected by an AS who shall submit a relevant report (see the sample report in Annex 16) upon satisfactory inspection of the

following:

- (1) **workshop facilities & equipment:** e.g. workshop scale, ventilation system, dust extracting system, illumination, lifting appliances, fire-fighting system;
- (2) **quality control:** e.g. humidity control (or an equivalent measure), material storage, quality monitoring and reporting, material certificates (resin, fibre-glass, paint, etc.);
- (3) **production process:** e.g. types of tools and methods used, hull inspection and repair records, the method statement of mould loft, transportation process from mould loft to sea; and
- (4) **competency of management staff and technicians:** e.g. qualification of management staff and technicians (professional/training certificates, relevant experience, etc.).

3.2 A copy of the supporting documents mentioned in section 3.1 above shall be provided to Marine Department for record purposes.

#### **4 Submission of Plans and Data for Approval**

- 4.1 Plans and data for the items listed in the table below shall be submitted for approval.
- 4.2 For plans and data submitted to Marine Department for approval, 3 copies of each plan shall be submitted for the first of a series of sister ships and 2 copies for the remaining sister ships. For plans and data submitted to the AO/AS for approval, 1 copy of the approved plans and data shall be submitted to Marine Department for record.
- 4.3 Computer drawings or hand sketches must be clear and concise. Plans shall be drawn to scale and of legible quality as far as possible.
- 4.4 The plans and data may be submitted to Marine Department, AO or AS for approval.

<b>No.</b>	<b>Plans and Data</b> (reference can be made to the simple plans in Annex 6)
(1)	General arrangement (including installations of lights, shapes & sound signals)
(2)	Life Saving Appliance and Fire Fighting Appliance installation and arrangement diagram (incl. escape routes)
(3)	Vessel particulars and basic hull and deck plate thickness diagram <sup>*1</sup>
(4)	Machinery/electrical installation plans
(5)	Inclining test report/simple inclining test report

#### **Note**

\*1 For hull and deck plate thickness, reference can be made to the information provided by the ship builder/shipyard or other certification bodies.

#### **5 Stability**

- 5.1 Any open cruisers that are let for hire and carry not more than 12 passengers shall

conduct a simple inclination test. The test is to ascertain that no angle of heel exceeding 7° will arise when having 2/3 of the passengers distributed on one side of the vessel and 1/3 on the other (see Annex 5 of this Code).

For a new vessel of less than 6m length, an immersion test which proves its adequacy of buoyancy is also acceptable as an alternative.

- 5.2 As an alternative to satisfying the requirement set out in section 5.1 above, an inclining test or calculation conducted in accordance with the standards of an authorized classification society or equivalent, or the provision of relevant certificates (such as class certificates or CE certificates), documents or declarations issued by an authorized classification society or certification bodies is also acceptable.

## **PART 2 (Other Requirements)**

### **1 Additional Requirements for Life-saving Appliances** (this section will come to effect on 1 April 2021) *(Amendment No. 53)*

- 1.1 For (a) any existing pleasure vessels<sup>1.8.2020</sup> (except open cruisers) let for hire; or (b) existing pleasure vessels<sup>1.8.2020</sup> of more than 150 gross tonnage (GT>150) (whether let for hire or not), the quantity of life-saving appliances shall be appropriately increased to facilitate speedy escape of the crew and passengers on board in case the vessels are in distress. The total quantity of life-saving appliances, such as lifebuoys<sup>Note</sup>, after the increase (i.e. including the number of lifebuoys required to be provided on board the vessels in accordance with the vessel length as stipulated in the Survey Regulation) shall be adequate for use by the maximum number of persons to be carried as specified in the operating licence.

- 1.2 Any (new or existing) open cruiser carrying not more than 60 passengers that are let for hire shall comply with the following requirement:

- (i) as per the requirements set out in section 1.1 above, to provide lifebuoys<sup>Note</sup> adequate for use by the maximum number of persons to be carried as specified in the operating licence; or
- (ii) all passengers on board shall wear a suitable lifejacket when the vessel is underway. Section 1.1A in Chapter VI of this Code shall be referred to for the standards and requirements for the lifejacket.

(Note: Lifebuoys can be substituted by inflatable liferafts, buoyant apparatus, lifebuoys or its combination. Each lifebuoy which complies with the standards is taken to be for use by two persons).

### **2 VHF Radio Equipment**

(Note: this section applies to any pleasure vessel that is —

- (a) licensed to carry more than 12 but not more than 60 passengers and is let for hire;
- (b) licensed to carry more than 60 passengers, whether let for hire or not.

(Note: This section will come into operation on a day to be appointed by notice published in the Gazette). *(Amendment No. 53)*

- 2.1 A vessel to which this section applies shall be fitted with a piece of VHF radio equipment. A relevant licence issued by the Communications Authority (CA) shall be obtained for

the equipment.

- 2.2 The operator of the VHF radio equipment must have received training in the use of the equipment and obtained an operator certificate issued by the CA. An operator certificate issued by the authorities in the Mainland or other countries will also be recognized.

- 3 **AIS** (this section applies to any pleasure vessel that is licensed to carry more than 100 passengers) *(Amendment No. 53)*

A vessel to which this section applies shall be fitted with an AIS. For specifications of the AIS, the Code of Practice – Safety Standards for Class I Vessels shall be referred to.

- 4 **Radar** (this section applies to any pleasure vessel that is licensed to carry more than 100 passengers) *(Amendment No. 53)*

A vessel to which this section applies shall be fitted with a piece of radar equipment that is capable of determining any risk of collision exists, including equipment that can, by long-range scanning, give early warning of any risk of collision. For specifications of the radar, Annex I-4 of the Code of Practice – Safety Standards for Class I Vessels shall be referred to. The vessel is required to have on board, at all times when underway, a radar operator who has successfully completed a radar training course approved by the Director for the operation of the radar.

- 5 **First Aid Kit** (this section applies to any pleasure vessels carrying more than 12 passengers that are let for hire, effective from 1 April 2021) *(Amendment No. 53)*

A vessel to which this section applies shall be provided with a first aid box that contains the medical items as listed in the following table.

	<b>Name</b>	<b>Specification</b>	<b>Quantity required</b>
1	Triangular of calico	110cm x 110cm x 127cm	8 pieces
2	Pressure bandage	5cm x 2m	2 rolls
3	Bandage (ordinary or elastic)	5cm x 5.5m	2 rolls
4	Bandage (ordinary or elastic)	7.5cm x 5.5m	2 rolls
5	Plaster	Assorted, sterile, adhesive	20 pieces
6	Gauze	Sterile paraffin gauze	10 pieces
7	Tape	2.5cm x 5m	2 rolls
8	Absorbent cotton wool	35g	2 packs
9	Safety pin	Rustless, size 5cm	1 dozen
10	Scissors	Stainless steel throughout	1 pair
11	Disinfectant		0.2 litre

## Approximate Determination of Stability by Simple Inclining Test

### Part 1

(Amendment No. 48)

#### 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 the weight of the **passengers** (W) multiplied by the extreme breadth (B) of the vessel and divided by 12 (=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 centre gravity of the whole being maintained. The weights and the distance they are moved together with the angle of heel should be recorded for each of the 3 moves.
  - (d) Restore all the weights to their original positions and record angle of heel when they are restored,
  - (e) Repeat (c) moving weights from opposite side,
  - (f) Repeat (d),
  - (g) If the angle of heel exceeds 7° during the test, the owner might add ballast weight and to repeat the test procedures (c), (d), (e) and (f). The weight and position of such ballast should be recorded.

### **3 Acceptance of Stability**

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

### **4 Determination of weight of passengers and crew**

- 4.1 The following information should be used for the consideration of the effects of passenger and crew weight:
- (1) The distribution of persons is 4 persons per square metre;
  - (2) Each person has a mass of 68 kg or <75 kg>;
  - (3) Vertical centre gravity of seated persons is 0.3 m above seat;
  - (4) Vertical centre gravity of standing persons is 1.0 m above deck;
  - (5) Persons and luggage should be considered to be in the space normally at their disposal

Note: < > applicable for new vessels<sup>2.1.2007</sup> calculation only.

*(Amendment No. 39)*

### **Part 2**

According to the procedure described in Part 1, with the value of the heeling moment equal to WB, to ensure that the ship's heel angle will not exceed 10° when all (100%) **passengers** are distributed on one side of the ship. For safety's sake, the test shall be carried out from one side of the vessel to the other side in three equal increments as described in paragraph 2.3(c) above, until the final heeling moment equals WB/2.

*(Amendment No. 48)*

**A rolling period test to derive the vertical center of gravity can replace the requirements in Part 1 or Part 2:**

**General**

The rolling period is the duration for one complete oscillation, i.e. starting from the extreme end of a roll to one side of the vessel, i.e. moves right across to the other extreme side and returns to the original starting point.

**Test Procedure**

- (a) The test should be conducted in harbour, in smooth waters with the minimum interference from wind and tide.
- (b) The mooring should be slack. A reasonable clearance at the sides of the vessel should be maintained to avoid making any contact during its rolling.
- (c) Weights which are liable to swing or liable to move (e.g. a drum) should be secured against such movement. The free surface effects of slack tanks should be kept as small as practicable.
- (d) The vessel is made to roll (e.g. by rhythmically lifting up and putting down a weight far off middle-line; by people running athwartships in unison; or by any other means). As soon as this forced rolling has commenced the vessel is allowed to roll freely and naturally.
- (e) By means of a stopwatch, the time is taken for not less than about five complete oscillations.
- (f) After allowing the roll to completely fade away, repeat the operations in paragraphs (d) and (e) twice with the time recorded.

**Determination of Metacentric Height (GM)**

- (a) From the total time for the total number of oscillations made, calculate the mean time (say T seconds) for one complete oscillation.
- (b) The metacentric height  $GM_0$  is to be determined from the following formula:

$$GM_0 = (0.77 B/T)^2$$

where

B = extreme breadth of vessel in metres

(Note: The formula is valid for vessels with length not more than 24 metres)

*(Amendment No. 48)*



**Periodic Survey Programme for Other Class IV Vessels that are issued with  
a Certificate of Survey or Certificate of Inspection**

*(Amendment No. 48)*

**Table 1 Periodic Survey Programme**

No	Survey Items	Vessel Carrying More Than 60 Passengers			New Vessel of L≥24m or Existing Vessel of GT > 150*and is Let for Hire or Reward; Any Vessel of Novel Type <i>(Amendment No. 48)</i>			New Vessel of L≥24m or Existing Vessel of GT > 150*and is NOT Let for Hire or Reward <i>(Amendment No. 48)</i>		
		1	2	4	1	2	4	1	2	4
<b>A</b>	<b>General and Safety Equipment</b>									
1	Fixed Fire Extinguishing Installation CO <sub>2</sub> system - blowing test Sprinkler System - function test		✓				✓ (*5d)			✓ (*5d)
2	Fixed Fire Extinguishing Installation - hydraulic test	(*4)								
3	Fire Extinguisher, CO <sub>2</sub> Bottle – refill and hydraulic test (*5)	✓			✓			✓		
4	Buoyancy Apparatus – submerging test (for air case not filled with buoyant material)			✓			✓ (*3)			✓ (*3)
<b>B</b>	<b>Hull and Fittings</b>									
1	Hull - external (incl. Ship bottom) inspection	✓				✓			✓	
2	Hull - internal (including oil tank, water tank and voids) inspection		✓				✓			✓
3	Gauging thickness of deck, shell and bulkhead plating (for steel/aluminium vessel) (*2)			✓			✓			✓ (*3)
4	Sea Suctions, Discharging Valves - stripped down inspection		✓				✓			✓ (*3)
5	Anchors, Cables - ranged out for inspection		✓				✓			✓ (*3)
<b>C</b>	<b>Machinery and Electrical Installation</b>									
1	Main Engine - hydraulic test of coolers (incl. air, lub. oil, cooling water), cylinder head and water jacket		✓				✓ (*3)			✓ (*10)
2	Main Engine - overhaul of fuel oil pump, fuel nozzles		✓ (*3)				✓ (*3)			✓ (*10)
3	Main Engine and Gear Box - stripped down for inspection)		✓ (*3a)			✓ (*3a)				✓ (*3a)

No	Survey Items	Vessel Carrying More Than 60 Passengers			New Vessel of L≥24m or Existing Vessel of GT > 150*and is Let for Hire or Reward; Any Vessel of Novel Type (Amendment No. 48)			New Vessel of L≥24m or Existing Vessel of GT > 150*and is NOT Let for Hire or Reward (Amendment No. 48)		
		1	2	4	1	2	4	1	2	4
4	Generator engine- stripped down for inspection			✓			✓ (*3)			✓ (*10)
5	Main fire pump and emergency fire pump		✓				✓ (*3)			✓ (*3)
6	Bilge pump and windlass - stripped down for inspection		✓				✓ (*3)			
7	Independent fuel oil tank – internal & hydraulic test			✓			✓ (*3)			✓ (*3)
8	Air Receiver (P<17.2 bar) - internal inspection (*11)			✓			✓			✓
9	Air Receiver (P<17.2 bar) - hydraulic test (*11)			✓			✓			✓
10	Air Receiver (P≥17.2 bar) - internal inspection (*11)		✓				✓			✓
11	Air Receiver (P≥17.2 bar) - hydraulic test (*11)		✓				✓			✓
12	Tail Shaft, Propeller, Rudder and Rudder Stock - inspection		✓ (*3b)				✓ (*3b)			✓ (*3b)
13	Steering System – stripped down for inspection			✓			✓ (*3)			✓ (*3)
14	AC electrical circuit –main circuit breaker load test (*7)			✓						
15	Oil Pollution Prevention Installation (for vessel with IOPP/HKOPP certificate)	(*9)								
16	Oil Pollution Prevention Installation (for vessel do not require IOPP/HKOPP certificate) – hydraulic test of independent sludge tank			✓			✓ (*3)			✓ (*3)
17	Relevant requirements of Merchant Shipping (Prevention of Air Pollution) Regulation (Cap. 413P)	(*8) and (*9)								

### Remarks in Table 1

\* The length (L) demarcation applies to new vessels <sup>1.8.2020</sup>; the Gross Tonnage (GT) demarcation applies to existing vessels <sup>1.8.2020</sup>. (Amendment No. 48)

\*1 Survey Intervals

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

- (a) The periodical survey should be carried out in subsequent order; i.e. a 1st year survey should be followed by a 2-yearly survey, a 3rd year survey should be followed by a 4-yearly survey, etc.
- (b) If a certificate of survey has expired and the certificate renewal inspection is carried out within one year from the date of the expiry of the certificate, the periodic survey that should be carried out will be the yearly survey due in accordance with the order as shown in (a). If the certificate had expired for more than one year, the 4-yearly survey shall apply for renewal of the certificate.
- \*2 Applicable to vessels of age exceeding 8 years. For classed vessel possessing Classification Society's Certificate, the gauging inspections may be arranged when in the renewals of the Classification Society's Certificate.
- \*3 Inspection record issued by engine workshop or shipyard as appropriate, should be submitted for reference.
- \*3a For the survey schedule and interval for medium speed engine (of 300~1400 rpm), ship owners can refer to Annex K-1 of the Code of Practice – Safety Standards for Class I Vessels "Survey Schedule for Medium Speed Engines". In addition, the survey interval of the engine may also be set in accordance with the original maintenance plan of the main engine and the gearbox (according to the operation time); and records and declarations shall be submitted.  
*(Amendment No. 48)*
- \*3b The ship owner may arrange for the inspection of the tail shaft and propeller in accordance with the maintenance and inspection plan of the recognized classification society or the plan accepted by Marine Department; and shall submit records and declarations.  
*(Amendment No. 48)*
- \*4 Hydraulic test for CO<sub>2</sub> and sprinkler systems should begin from the 10th anniversary the system is in service, and thereafter at intervals of 10 years. The hydraulic testing pressure for the CO<sub>2</sub> system high pressure manifold should not be less than 125 bar.
- \*5 Inspection for portable fire extinguishers and CO<sub>2</sub> bottles should be in accordance with the following table. The inspection record should be retained on board for examination; or each fire extinguisher is to be marked by paint or attached with a tag indicating the date and type of test.

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

**Abbreviation**

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

**Note**

- (\*a) The need for refilling should be in accordance with the instruction of manufacturer of fire extinguisher.
- (\*b) Intervals of hydraulic test:  
 Portable Fire Extinguishers - 5 years  
 CO<sub>2</sub> bottles/propellant cartridges - 10 years  
*(Amendment No. 45)*

- (\*c) Marine Department officers may examine the owner's competence on carrying out the servicing and conduct random checks including function test of the portable fire extinguishers.
- (\*d) Serviced by FSIC is acceptable.
- \*6 If the hull and machinery installation of a classed vessel are inspected by a surveyor of classification society, the inspection reports/certificates issued by classification society should be submitted for record.
- \*7 Applicable to vessel fitted with generator each of capacity exceeding 50 kW.
- \*8 Implementation of the requirements of Annex VI of MARPOL 73/78 to locally licensed vessels, refer to Annex 7 & 7A of this code of practice.
- \*9 For renewal of HKOPP or HKAPP certificate, surveys should be carried out by Marine Department officer only. For renewal/endorsement of IOPP or IAPP certificate, surveys to be conducted by relevant Classification Society only and report to be submitted for reference.
- \*10 For the survey interval for engine, maker's recommended maintenance practices can be referred. Inspection/maintenance records issued by the engine workshop or shipyard or ship owner as appropriate should be submitted for record purposes. *(Amendment No. 48)*
- \*11 If the air receiver complies with the national standards of the maritime authority or the classification society or other internationally recognized standards such as ASME Standards or CE Standards and is issued with the relevant certificate, it may also be inspected by a relevant maritime institution or authorized surveyor/person according to the inspection plan of the institution or standard inspection plan (including the interval). *(Amendment No. 48)*

**Table 2 Final Inspection** <sup>(\*1)</sup>

No.	Survey Items <sup>(*2)</sup>
<b>A</b>	<b>GENERAL, HULL &amp; SAFETY EQUIPMENT</b>
1	Life Saving Appliances - inspection and function test
2	Fire Fighting Apparatus (incl. CO <sub>2</sub> fixed fire extinguishing installation, emergency fire pump) - inspection and function test
3	Navigation Lights and Sound Signals - inspection and function test
4	Watertight / Weathertight Closing Appliances (incl. door, ventilator, air pipe, etc.) - inspection
5	Passenger Space (incl. escape signs, etc.), Crew Space, Escape Arrangement, Bulwarks and Rails - general inspection
6	General condition in Machinery Space (a) protection from injury of personnel (b) prevention of fire hazard (c) prevention of oil pollution hazard
7	Verification of principal dimensions, engine and major machinery particulars
<b>B</b>	<b>MACHINERY AND ELECTRICAL INSTALLATION</b>
1	Main Engines, Generator Engines, Steering Gears - running test
2	Air Emission Assessment
3	Air Receiver Safety Valves - function test
4	Bilge and Oily Water Pumping System - function test

No.	Survey Items <sup>(*2)</sup>
5	Prevention of Oil Pollution Installation - function test
6	Electrical Circuit - earthing test
7	- insulation resistance test <sup>(*3)</sup>
8	Meters on Switchboard - function test
9	Domestic L.P.G. Installation – inspection
<b>C</b>	<b>OTHERS</b>
1	Verifying Certificates of Competency of Master and Engineer (if manoeuvring test required)
2	Permanent ballast - confirmation of amount and position
3	Survey report issued by the competent surveyor - verification
4	Marking of Safe Working Load and Certificate of Lifting Appliances – verification <sup>(*4)</sup>

**Remarks in Table 2**

- \*1 The final inspection shall be carried out afloat annually. **Vessels of novel type shall be carried out** by Marine Department officer.
- \*2 Where practicable the listed items may be presented for inspection prior to the final inspection.
- \*3 A valid electrical system insulation test report (with the test being conducted by an EMSD registered electrical worker (REW) within 2 weeks prior to the final inspection) issued by an EMSD registered electrical contractor (REC) is acceptable in lieu of the insulation resistance test inspection conducted by Marine Department officers or authorized inspection personnel. A valid electrical system insulation test report shall include the relevant necessary information. A valid electrical system insulation test report issued by authorized inspection personnel is acceptable. *(Amendment No. 46, 48)*
- \*4 The following document / certificates certified by competent examiner should be presented in final inspection for verification of validity:
  - i) Register of Lifting Appliance & Lifting Gear (Form 1);
  - ii) Certificate of Test and Examination of Winches, Derricks and their Accessory Gear (Form 2);
  - iii) Certificate of Test and Examination of Lifting Appliance and their Accessory Gear other than Derricks (Form 3).