LOCAL VESSELS ADVISORY COMMITTEE

Amendments to Survey Requirements for Permanent Ballast

Purpose

This paper sets out the Marine Department (MD)'s proposed amendments to the survey requirements for permanent ballast specified in the Code of Practice – Safety Standards for Class I Vessels and the Code of Practice – Safety Standards for Class II Vessels (collectively referred as "CoPs").

Background

2. In Table 7-3 "Final Inspection" in Chapter II of the CoPs (January 2018 edition), "permanent ballast – confirmation of amount and position" is a specified survey item. While the existing survey requirements briefly prescribe in a remark that "in addition to the visual inspection, owner's declaration on the amount and disposition of the ballast weights shall be furnished to Marine Department for record", there is no further elaboration on the materials of permanent ballast, the survey requirements for different survey cycles and the contents of owner's declaration, etc.

Proposal

- 3. To enhance consistency in survey work, MD, after reviewing the feedback from the industry on vessel surveys, considers it necessary to standardise the survey requirements for permanent ballast as follows:
 - (1) to specify the intervals and methods for survey of permanent ballast to facilitate the survey of ship hull;
 - (2) to require the submission of records on the locations of permanent ballast on a vessel, etc.; and
 - (3) to specify the shapes, materials and markers of permanent ballast. For example, every piece of permanent ballast should be in square, rectangular or any other shapes recognised by MD, be made of durable materials like cast iron or concrete block, and have its serial number either engraved or permanently painted on its surface.
- 4. **Annex I** sets out the draft amendments to the CoPs for implementation of the proposal stated in paragraph 3 above.

Way forward

5. The above proposal was endorsed in its meeting of the Sub-committee on Class I and Class II Vessels on 19 June 2018. Members are invited to comment on and endorse the proposal set out in this Paper. Upon endorsement by the LVAC, the MD will amend the CoPs as shown in *Annex I* accordingly.

Local Vessels Safety Section Marine Department June 2018

(Note: *Annex I* was updated on 20 July 2018)

Code of Practice –
Safety Standards
for Class I Vessels
(Extract)

[Updated on 20 July 2018]

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 Organization (AO)(see definition at 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 ^(*1)				
(b)	Re-commissioned laid-up vessel ^(*2)	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 1st 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	PLANS AND DATA
(A)	GENERAL ARRANGEMENTS, ACCOMMODATION LAYOUTS, PASSENGER SPACE, SEATING ARRANGEMENTS, NUMBER OF PASSENGERS AND ESCAPE ROUTES
(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)	SAFETY EQUIPMENT INCLUDING LIFE-SAVING APPLIANCES, FIRE-FIGHTING APPARATUS, LIGHTS, SHAPES AND SOUND SIGNALS; EMERGENCY CONTROLS, STRUCTURAL FIRE PROTECTION
(1)	Safety Planshowing 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

Table 5-1 No.	PLANS AND DATA
(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)	STABILITY, FREEBOARD CALCULATIONS; ARRANGEMENTS RELATING TO WATERTIGHTNESS, WEATHERTIGHTNESS, BULKHEADS, HATCHWAYS, COAMINGS, SIDE SCUTTLES, AIR VENTS, FREEING PORTS, SCUPPERS, INLETS AND DISCHARGES
(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) (*2)
(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)	STRUCTURES AND SCANTLINGS
(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)	FUEL, MACHINERY, SHAFTING
(1)	Engine Room Arrangement
(2)	Propeller Shafting, Stern Tube and Coupling
(3)	Main engine and Gear Box Certificates (*3)
(4)	Aux. diesel engine Certificates ^(*3)
(5)	Fuel Oil System (incl. tanks, piping
(6)	Fire-fighting Piping Arrangement (incl. fire main, fixed fire extinguishing system,etc)

Table 5-1 No.	PLANS AND DATA
(7)	Bilge Pumping Arrangement
(8)	Compressed Air Piping System (for pressure ≥10 bar)
(9)	Air Receiver (Ch. IIIA/15 refers)
(10)	Filling, Sounding and Air Vent System
(F)	ELECTRICAL SYSTEMS (including Emergency Power System)
(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
(G)	PREVENTION AND CONTROL OF POLLUTION
(1)	Prevention of Oil Pollution Installation (Ch. IIIA/19.2 refers)
(2)	Prevention of Air Pollution Installation (refer to Annex I-10, etc)
(H)	NAVIGATIONAL AND COMMUNICATION EQUIPMENT
(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 Note1 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 16 megapixels 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 I-10 of this Code or MARPOL Annex VI.

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).

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Note1 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 "xx.xx. 2018".

- 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 firex-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.>
- 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

	Category of Vessel										
Table 7-1 No.	Survey Item	A	В								
(A)	CONSTRUCTION – GENERAL, SHIP STABILITY										
(1)	Draft Marks – verification	√	✓								
(2)	Measurement of Principal Dimensions	√ (*9)	√ (*9)								
(3)	Inclining Experiment (*1)	√									
(4)	Lightship Verification (*2)	√									
(5)	Simple Inclining Test (for Kaito with C _{np} ≥0.35)		✓								
(B)	FIRE-FIGHTING APPARATUS, STRUCTURAL FIRE FOR PREVENTION OF COLLISION	PROTECTION,	APPLIANCES								
(1)	CO ₂ Pipe - inspection, hydraulic test and blowing test	✓	✓ ^(*8)								
(2)	Fire Main - inspection and hydraulic test	✓	✓ ^(*8)								
(3)	Structural Fire Protection (Ch. VI/13 refers) - inspection	✓									
(4)	Position of Navigational Light and its Foundation – verification	✓	✓								
(C)	CARRIAGE OF PASSENGERS										
(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	✓	✓								

Table 7-1	Category of Vessel Survey Item	A	В					
(D)	CONSTRUCTION – HULL; CONDITIONS OF ASSIGNMENT							
(D)	Material test	/ILIVI						
(1)	- Steel Plate ^(*3) /Aluminium Plate ^(*3) /GRP Polyester Resin	✓						
(2)	- Propeller Shaft, Coupling, Rudder Stock (*4)	\checkmark	✓ (*8)					
(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 ^(*5)	✓						
(6)	Structural Tanks - internal inspection	✓						
(7)	- hydraulic test/air test ^(*5)	✓						
(8)	Watertight / Weathertight Appliances - inspection	✓						
(9)	- hose test ^(*5)	✓						
(10)	Permanent Ballast Weights - inspection ^(*10)	✓	✓					
(E)	CONSTRUCTION - FUEL, MACHINERY, SHAFTING							
(1)	Main Engine (*6) (*7), Gear Box - Type Approval Certificate /inspection	✓	✓ ^(*8)					
(2)	Generator Diesel Engine - Certificate ^(*6) / inspection	✓	✓ ^(*8)					
(3)	Tail Shafts and Coupling - verification of dimensions	✓	✓ (*8)					
(4)	- taper bedding test	✓	✓ (*8)					
(5)	Stern Tube - verification of dimension and hydraulic test	✓	✓ (*8)					
(6)	Independent Fuel Oil Tanks - internal inspection and hydraulic test	✓	✓ (*8)					
(7)	Verification of No. and Volume of Structural and Independent Fuel Oil Tanks	✓	✓ (*8)					
(8)	Bilge Line - inspection and hydraulic test	✓	✓ (*8)					
(9)	Sea Suction valve – inspection and hydraulic test	✓	✓ ^(*8)					
(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					
(F)	CONSTRUCTION - ELECTRICAL SYSTEMS							

Table 7-1 No.	Category of Vessel Survey Item	A	В
(1)	Electrical Wiring/installation - inspection	✓	✓
(2)	Generator circuit breaker load test (vessels with GenSet power > 50 kW)	√	
(G)	PREVENTION AND CONTROL OF POLLUTION		
(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 Note1 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/Shi	pyard Responsible for	Tasks Inspecting Personnel			
Documents Submission	Inspection Arrangement	Responsible for			
 (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. (2) Photo records (hard copyprints in 1612 megapixels or above and hard copy prints in 1200 x 1200 dpi or above) - which shall clearly show the following conditions of PBWs stowage: (a) ship structure prior to 	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.	 (1) Inspect vessel's structure with regard to PBWs stowage; (2) verify all PBWs; and (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. 			

PBWs being stowed;		
(b) 50% of PBWs stowed;		
(c) 100% of PBWs stowed; and	and	
(d) fittings used for securing the PBWs.	g	

Table 7-2 Periodical Survey

Table 7-2	Survey	Class/Category/Type of Vessel		Class I Passen Vessel	gers		Class I Passen Vessel	gers	(Class I Vesse	
No.	Item	Survey Intervals (*1)	1	2	4 (full survey)	1	2	4 (full survey)	1	2	4 (full survey)
(A)	LIFE-SAVI	NG APPLIANCES, FIRE-FIO	GHTI	NG A	PPAI	RATU	S				
(1)	Fixed Fire Ext. Installation CO ₂ system - blowing test Sprinkler System - spraying test			✓			✓				
(2)		- hydraulic test			(*)	°2)					
(3)	Fire Extinguish hydraulic test	er, CO ₂ Bottle - refill and	√ (*3)			√ (*3)					
(4)	Buoyant Appara	atus - submerging test (*4)			✓			✓			
(B)	CONSTRUCTION – HULL; CONDITIONS OF ASSIGNMENT										•
(1)	Hull - externa	al (incl. ship bottom) inspection	✓				✓			√ (*5)	
(2)	internal (excl. oil, water tanks and void spaces) visual inspection						✓				
(3)		l (incl. oil, water tanks and void) inspection ^(*6)		✓				√			√ (*5)
(4)	gaugin - bulkhe	g thickness of deck, shell and ad plating (*6) (*7)			✓			✓			√ (*5)
(5)	Sea Suctions, D down inspection	ischarging Valves - stripped		√			√ (*14)	✓			√ (*5)
(6)	Anchors, Cable inspection (*6) (*)	es, Wire Ropes - ranged out for		✓				✓			
(7)	Permanent Ba	allast Weights - inspection ^(*16)	✓			✓			✓		
(C)	CONSTRUC	CTION - FUEL, MACHINER	Y, SI	IAFT	ING,	ELE(CTRIC	CAL S	SYST	EMS	
(1)	Main Engine	test of coolers (incl. air. lub. oil		✓				✓			
	hydraulic test of coolers (incl. air, lub. oil, cooling water), cylinder head and water jacket					(b wo	y engi rkshop	ne) ^(*8)			
(2)	- overhaul o	of fuel oil pump, fuel nozzles		√				✓			
	- Overnaur of fuel on pump, fuel nozzies			(by e	ngine v	vorksh	op) (*8)				
(3)	Main Engine an inspection (*9)(*1	d Gear Box - stripped down for		√ (*11)		(t	oy engi rkshop	ne)(*8)			

Table 7-2	Survey	Class/Category/Type of Vessel		Class IA >60 Passengers Vessel Class IA ≤60 Passengers Vessel				gers	Class I B Vessel			
No.	Item	Survey Intervals (*1)	1	2	4 (full survey)	1	2	4 (full survey)	1	2	4 (full survey)	
(4)	Generator engir	ne, auxiliary machinery engine -			✓	(b	ov engi	ne v				
		•				WOI	y engi rkshop	(*8)				
(5)		, emergency fire pump, bilge - stripped down for inspection		✓				✓				
(6)	Air Receiver (P<17.2 bar) - internal inspection				✓			✓			√	
(7)	- hydraul	ic test ^(*6)			√			√			√	
(8)	Air Receiver (P≥17.2 bar) - internal inspection			✓			✓			√		
(9)	- hydraul	ic test (*6)		✓			✓			✓		
(10)	Tail Shaft, Prop drawn out for ir	eller, Rudder, Rudder Stock ^(*6) - aspection		√ (*11)				✓				
(11)	Independent Fu & hydraulic tes	uel Oil Tank – internal inspection			✓			✓				
(12)	AC electrical ci	rcuit – main circuit breaker load			√ (*13)							
(D)	PREVENTI	ON AND CONTROL OF PO	DLLUTION									
(1)		Prevention Installation th HKOPP certificate	(*12)									
(2)	hydraulic t	thout HKOPP certificate: est of independent bilge ge 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 CO₂ 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 CO₂ system high pressure manifold shall not be less than 125 bar.
- *3 Inspection for portable and non-portable type fire extinguishers and CO₂ 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			er, Bottle	
TYPE OF TEST	Refill / Hydraulic Weighting (*a) (*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

CO₂ bottles/propellant cartridges - 10 years

- (*c) MD officers may examine the owner's competence on carrying out the servicing and conduct random checks including function test of the portable fire extinguishers.
- *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 xx.xx.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:

		Tooks Inspecting Personnel						
Item	Survey Year	Documents Submission	Inspection/Maintenance Arrangement	Tasks Inspecting Personnel Responsible for				
(A)	Note: The PBWs inspections described below shall be carried out in the quadrennial full surve 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 every special survey thereafter), commencing one year after the enforcement of this code (if on or after xx.xx.2019). The first one will be a Grade A inspection, followed by a Grade inspection, alternating at 4-year intervals (for classed vessels, 5-year intervals, i.e. the specture survey). If it is found during a Grade B inspection that the vessel's bottom and interrestructural members with regard to PBWs stowage show no excessive corrosion (receding 1/2 or more of the limit set down in Annex M of this Code) and the coating is good condition with no significant deterioration, MD may consider the shipowner application for having a Grade B inspection in the subsequent full survey, followed a Grade A inspection in the next quadrennial full survey (for classed vessels, the next 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. (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				

		Tasks Shipowne	r Responsible for	Tasks Inspecting Personnel
Item	Survey Year	Documents Submission	Inspection/Maintenance Arrangement	Responsible for
				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. (5) If heavy wastage of hull material is found, the adjoining cement PBWs (if any) shall be removed to facilitate the hull inspection.
	Grade B Inspection	(1) Declaration (2) Upon the completion of inspection and repair (if applicable), submit to MD a copy of the photo records which shall include: (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 (ii) the condition of the PBWs after they are 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.	(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. (2) carry out task items (2) and (3) of Grade A inspection.	(1) Instruct the owner to remove PBWs for hull structure inspection. At least 25% Notes (i) & (ii) of the total area of hull structure covered by PBWs in each compartment shall be inspected. Note: (i) The quantity of the randomly checked PBWs shall be based on the number of PBWs removed for inspection. (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 *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.

		Tasks Shipowne	r Responsible for	Tasks Inspecting Personnel	
Item Survey Year Documents Submi		Documents Submission	Inspection/Maintenance Arrangement		
(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 (*1)

Table 7-3 No.	Survey Item (*2)					
(A)	LIFE-SAVING APPLIANCES, FIRE-FIGHTING APPARATUS, APPLIANCES FOR PREVENTION OF COLLISION					
(1)	Life Saving Appliances - inspection and function test (*3)					
(2)	Fire Fighting apparatus (incl. CO_2 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 (*10)					
(B)	CARRIAGE OF PASSENGERS					
(1)	Passenger Space, Crew Space, Cabin Escape Arrangement, Bulwarks and Rails - general inspection					
(2)	Passenger seats and their attachment - inspection (*4)					
(3)	Signage within Passenger Space, incl. Exits Signage, Lifejacket Donning Instructions, Plan on Escape Arrangement and Fire-fighting Plan - general inspection					
(C)	CONSTRUCTION – HULL, CONDITIONS OF ASSIGNMENT					
(1)	Watertight / Weathertight Closing Appliances (incl. Door, Ventilator, Air Pipe, etc.) - inspection					
(2)	Permanent ballast - confirmation of amount and position (*9)					
(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					
(D)	CONSTRUCTION - FUEL, MACHINERY, SHAFTING, ELECTRICAL SYSTEMS					
(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					

Table 7-3	Survey Item (*2)
(4)	Bilge and Oily Water Pumping System - function test
(5)	Electrical Circuit - earthing test
(6)	- insulation resistance test (*6)
(7)	- Main circuit breaker function test (*7)
(8)	Location of emergency source of electrical power shall be outside machinery space and above waterline – verification (*8)
(9)	Meters on Switchboard - function test
(E)	PREVENTION AND CONTROL OF POLLUTION
(1)	Air Emission Assessment (*5)
(2)	Prevention of Oil Pollution Installation - function test
(F)	NAVIGATIONAL, COMMUNICATION EQUIPMENTAND OTHERS
(1)	Radio Communication Equipment
(2)	Navigational Equipment
(3)	Certificates of Competency of Master and Engineer (if manoeuvring trial required) - verification
(4)	Ship Manoeuvring Trial (*11)
(5)	Operational and Safety Trial (FMEA items) (*12) (*13)
(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 In addition to the visual inspection, owner's declaration on the amount and disposition of the ballast weights to be furnished to Marine Department for record. Refer to the requirements of remark *10 of Table 7-1 or remark *16 of Table 7-2.
- *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.

Note: You must fill in the information required and sign the owner's declaration below the table.

This is to certify that the positions of all permanent ballast installed on board this vessel are:

- as shown in the table below and the sketch on a separate sheet.
- as shown in the approved permanent ballast plan enclosed.

Note: ① The positions, quantity, materials, unit weight, etc. of permanent ballast should be the same as the information stated in the stability information booklet (the owner may seek advice or assistance from the Marine Department). Inclining experiment or other methods for confirming the installation positions and quantity of permanent ballast may be required.

② The positions of permanent ballast should be the same as those shown in the photos submitted earlier.

	Position									
No.	Longitudinal: The frame number or forward bulkhead frame number of the position of the front point of the ballast	edge of the ballast and	Vertical: Distance between the bottom of the ballast and the bottom of the vessel (m)	Tier	Material	Unit Weight (kg)	Quantity (Pcs)	Total Weight (kg)	Serial Number	Remarks
1										
2										
3										
4										
5										

The owner should ensure that the correct quantity of ballast is fixed (or stowed in a way that it is not movable while at sea) at the positions specified above at all times.

Owner's Declaration

	Signature of the owner/ owner's representative	Grade of survey	Date
1st year		A/B/Others	
2nd year		A/B/Others	
3rd year		A/B/Others	
4th year		A/B/Others	
5th year		A/B/Others	
(Endorsement	t in the 5th year is only applicable to		

Application for Grade B survey for the vessel's next full survey (if applicable)

This is to certify that in the Grade B survey of this vessel, no excessive corrosion (1/2 or above of the corrosion limit stated in Annex M of the Code of Practice) was found at the bottom of the hull where the ballast was stowed and on the internal structural members, etc., and the coating was in good condition with no obvious damage.

Signature of the owner/owner's representative and date

[This part is applicable to vessels surveyed by competent surveyors]

Name of the surveying officer and his/her organisation/company

Signature and date confirm that the above is true

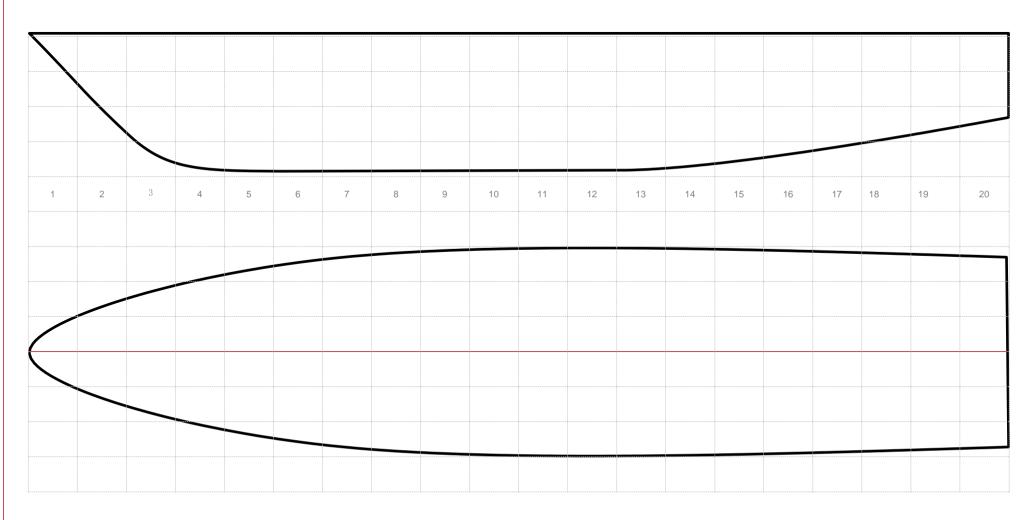
Comments of the Marine Department [Approve/Not Approve]

Signature and date

COO/AIP No.	

Owner's Declaration of Permanent Ballast

Annex Y



Please mark the positions of permanent ballast on the sketch

Code of Practice – Safety Standards for Class II Vessels (Extract)

[Updated on 20 July 2018]

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 Note not exceeding 25 are not subject to any survey:

Class	Types	Material of construction	Minimum requirements for life-saving appliances and fire-fighting apparatus
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 Organization (AO)/Recognized Authority (RA)(see definition at 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	Classed	AO
at I/3.1)	Not classed	AS/AO/RA
High Risk Vessel	Classed	AO (except items marked with 'MD'
(refer to definition at I/3.1)	Not classed	and items of Table 7-3)

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 (*1)	All	MD
(2)	Survey Record of Safety Equipment	(i) Any dry cargo vessel of L≥24m operating within RTL (ii) Any vessel of L≥24m operating within HKW or RTL: high risk vessel (as defined in Ch. I/1.3) or special purpose vessel	MD/AO ^(*2)
(3)	Hong Kong Load Line Certificate / Freeboard Assignment Certificate	Part 1 of Schedule 5 of Survey Regulation refers	MD/AO (*2)
(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.	СЕ

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 ^(*1)
(b)	Re-commissioned laid-up vessel ^(*2)		FID + 12 months
(c)	Exis	ting 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. $(11) \sim (13)$ 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 1st 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 1st and 2nd 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 1st 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)	GENERAL ARRANGEMENTS, ACCOMMODATION LAYOUTS, PASSENGER SPACE, SEATING ARRANGEMENTS, NUMBER OF PASSENGERS AND ESCAPE ROUTES				
(1)	General Arrangement (*8)	✓	√ (*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)	✓			
(B)	SAFETY EQUIPMENT INCLUDING LIFE-SAVING APPLIANCES, FIRE-FIGHTING APPARATUS, LIGHTS, SHAPES AND SOUND SIGNALS; EMERGENCY CONTROLS, STRUCTURAL FIRE PROTECTION				
(1)	Safety Plan showing arrangement of - (a) life saving appliances,	√	✓ (*1)	√	
	(b) fire fighting apparatus	✓	✓ (*1)	✓	

Table 5-1	VESSEL CATEGORY		В	В
No.	PLANS AND DATA	A	(L≥8m)	(L<8m)
	(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)	STABILITY, FREEBOARD CALCULATIONS, AR TO WATERTIGHTNESS, WEATHERTIGHTNESS HATCHWAYS, COAMINGS, SIDE SCUTTLES, A SCUPPERS, INLETS AND DISCHARGES	S, BULKHE	ADS,	
(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)	✓	√ (*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)	TONNAGE MEASUREMENTS AND CALCULATI	ONS		
(1)	Tonnage Measurement and Calculation (*4) (for Hong Kong registered vessel)	✓		
(E)	STRUCTURES AND SCANTLINGS			
(1)	Midship Sections	✓	√ (*2)	
(2)	Scantling Calculation	✓	✓ (*2)	
	II.	II	İ	1

Table 5-1	VESSEL CATEGORY		В	В
No.	PLANS AND DATA	A	(L≥8m)	(L<8m)
(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)	√		
(F)	FUEL, MACHINERY, SHAFTING			
(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)	
(G)	ELECTRICAL SYSTEMS (including Emergency Pov)		
(1)	Electrical System Line diagram	✓	√ (*7)	✓
(2)	Wiring Diagram of Main Switchboard	✓	√ (*7)	
(3)	Layout of Main Switchboard	✓	√ (*7)	
(4)	Electrical Arrangement	✓	√ (*7)	
(5)	Wiring Diagram of Distribution Boxes	✓	√ (*7)	
(H)	PREVENTION AND CONTROL OF POLLUTION	L		
(1)	Prevention of Oil Pollution Installation (Ch. IIIA/19.2 refers)	MD/AO	MD/AO	

Table 5-1	VESSEL CATEGORY		В	В	
No.	PLANS AND DATA	A	(L≥8m)	(L<8m)	
(2)	Prevention of Air Pollution Installation (Annex I-10 refers)	MD/AO	MD/AO		
(I)	NAVIGATIONAL AND COMMUNICATION EQUI	PMENT			
(1)	Radio Communication equipment and arrangement	✓			
(2)	Navigational equipment and arrangement	✓			
(3)	Visibility Calculation (for oil carriers)	✓			
(J)	MEASURES AGAINST POTENTIAL HAZARDS TO THE SAFETY OF THE VESSEL AND ANY PERSON OR PROPERTY ON BOARD THE VESSEL				
(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)	✓	✓		
(K)	LIFTING APPLIANCES (including derrick cranes, ext crane etc.)	ensible jib c	ranes and fi	xed-jib	
(1)	Strength calculations for the stress members (*9)				
(2)	Rigging diagrams	Competent Examiner (*10) (*11)			
(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 Note1 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 dpi16 megapixels 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. >
- 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	Category and Vessel Length (m) Survey Item	A (All Lengths)	B (L≥8m)	B (L<8m)
(A)	CONSTRUCTION – GENERAL, SHIP STABILITY			
(1)	Draft Marks – verification	√	✓	
(2)	Measurement of Principal Dimensions	✓ (*1)	✓	✓
(3)	Inclining Experiment (*2)	√	✓ ^(*4)	
(4)	Lightship Verification (*3)	✓	✓ (*4)	

Note1 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 "xx.xx. 2018".

Table 7-1	Category and Vessel Length (m)	Α.	В	В
No.	Survey Item	(All Lengths)	(L≥8m)	(L<8m)
(5)	Rolling Period Test (for Category B dry cargo vessel)		✓	
(6)	Simple Inclining Test			✓
(B)	FIRE-FIGHTING APPARATUS, STRUCTURAL FIRE APPLIANCES FOR PREVENTION OF COLLISION	PROTEC	ΓΙΟΝ,	
(1)	CO ₂ Pipe - inspection, hydraulic test and blowing test	✓	✓ ^(*8)	
(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	✓	✓	
(C)	CARRIAGE OF PASSENGERS			
(1)	Measurement of Passenger Space / Seating (for transportation boat and transportation sampan)	√		√
(2)	Means of Escape in Accommodation Space and Machinery Spaces - inspection	✓	√	
(D)	CONSTRUCTION – HULL; CONDITIONS OF ASSIGNATIONS OF ASSIGNATION OF	NMENT, L	OAD LINI	ES /
(1)	Material test - Steel Plate/Aluminium Plate (*5)/GRP Polyester Resin	√	√ ^(*6)	
(2)	- Propeller Shaft, Coupling, Rudder Stock (*5) (*7)	✓	✓ (*8)	
(3)	Hull Scantlings - verification	✓	√ ^(*6)	✓
(4)	Welding / GRP Lamination and Finishing - inspection	✓	√ ^(*6)	√
(5)	Below Main Deck W.T. bulkhead and W.T. door fitted thereon - Hose test (*9)	√	✓ ^(*4)	
(6)	Structural and Independent Tanks - internal inspection	✓	√ ^(*6)	
(7)	- hydraulic test/air test (*9)	✓	✓ (*4)	
(8)	Watertight / Weathertight Appliances - inspection	✓	√ (*6)	
(9)	- hose test ^(*9)	✓	✓ (*4)	
(10)	Load Line /Freeboard Assignment Certificate Items incl. Freeboard Marks -inspection	✓	√	
(11)	Permanent Ballast Weights - inspection (*11)	✓	✓	
(E)	CONSTRUCTION - FUEL, MACHINERY, SHAFTING	G, ELECTR	ICAL SYS	TEMS
(1)	Main Engine, Gear Box - Type Approval Certificate (*10) - inspection	✓	✓ (*8)	√
(2)	Generator Diesel Engine Certificate (*10) / inspection	✓	√ (*8)	
(3)	Tail Shafts and Coupling - verification of dimensions	✓	✓ ^(*8)	
(4)	- taper bedding test	✓	✓ (*8)	

Table 7-1	Category and Vessel Length (m)	A	В	В
No.	Survey Item	(All Lengths)	(L≥8m)	(L<8m)
(5)	Stern Tube - verification of dimension and hydraulic test	✓	✓ ^(*8)	
(6)	Independent Fuel Oil Tanks - internal inspection and hydraulic test (*9)	✓	✓ ^(*8)	
(7)	Verification of no. and volume of fuel oil tanks (incl. structural and independent tanks)	✓	√ ^(*8)	✓
(8)	Bilge Line - inspection and hydraulic test	✓	✓ ^(*8)	
(9)	Sea Suction valve – inspection and hydraulic test	✓	✓ (*8)	
(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 / Cement Tank - verification of wall thickness/dimensions	✓	✓	
(14)	- hydraulic test ^(*9)	✓	✓	
(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	✓	✓	
(F)	PREVENTION AND CONTROL OF POLLUTION			
(1)	Prevention of Oil Pollution Installation - Inspection	MD/AO	MD/AO	
(2)	- hydraulic test of independent bilge water / sludge holding tank	√	√	
(G)	STRUCTURES, EQUIPMENTS AND ARRANGEMEN DANGEROUS GOODS	TS FOR CA	ARRYING	
(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 pefers) - 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 Note1 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/Shi	Tasks Shipowner/Shipyard Responsible for		
Documents Submission	Inspection Arrangement	Responsible for	
 (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. (2) Photo records (hard copy prints in 1612 megapixels or above and hard copy prints in 1200 x 1200 dpi or above) - which shall clearly show the following conditions of PBWs stowage: (a) ship structure prior to PBWs being stowed; (b) 50% of PBWs stowed; (c) 100% of PBWs stowed; and (d) fittings used for securing the PBWs. 	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.	(1) Inspect vessel's structure with regard to PBWs stowage; (2) verify all PBWs; and (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.	

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)
	Mech. Propel	led Vessel				
(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≥8	-	(Cat. A) 2	Annual
(6)	Wood	Existing Vessel of other than item (4)	L≥24	-	(Cat. B) 4 (full survey)	Annual
(7)	Wood	Existing Vessel	8≤L<24	-	(Cat. A, 6 (full B) survey)	Annual
(8)	Wood	New Vessel Transportation Sampan	L < 8	-	(Cat. B) 4 (full survey)	Annual
(9)	Wood	New vessel of other than item (8), Existing Vessel	L < 8	-	-	Annual
	Non-Mech.	Propelled Vessel				
(10)	Steel	Existing - Crane Barge, Work Boat, Flat Top Work Barge	Any Length	-	(Cat. B) 6 (full (Cat. B) survey) (Cat. A)	Annual
(11)	Steel	Passenger use Landing Pontoon	Any Length	Annual	(Cat. B) 6 (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 \le 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 6th anniversary (for new transportation sampan, the 4th 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) From1 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	Survey Item	Class/Category/Type of Vessel	Class IIA DG/Oil/NLS Carrier		Class IIA Vessel other than DG/Oil/NLS Carrier			Clas	Class IIB Vessel		
No.		Survey Intervals (*1)(*2)	1	2	4 (full survey)	1	2	4 (full survey)	1	2or 3	4 or 6 (full survey)
(A)	LIFE-SAV	VING APPLIANCES, FIRE-	FIGH	TING	S APP.	ARA	ГUS				
(1)	Fixed Fire Ext. Installation CO ₂ system - blowing test Sprinkler System - spraying test			✓				✓			
(2)	- hydraulic test				(*3)						
(3)	Fire Extingu hydraulic te	uisher, CO ₂ Bottle - refill and st	√ (*4)						(*4, *5)		
(4)		paratus (without buoyant led) - submerging test			√						
(B)	CONSTR	UCTION – HULL, CONDIT	IONS	OF A	SSIG	NME	NT				
(1)	Hull - external (incl. ship bottom) inspection			√ (*1)			√ (*1)			(√ *1)
(2)	inspection internal (excl. oil, water tanks - and void spaces) visual inspection			√			√			√ (*5)	

Table 7-2	Survey Item	Class/Category/Type of Vessel	DO	Class II G/Oil/N Carrie	NLS	01 D(s IIA \ ther th G/Oil/N	an NLS	Cla	ss IIB	Vessel
No.		Survey Intervals (*1)(*2)	1	2	4 (full survey)	1	2	4 (full survey)	1	2or 3	4 or 6 (full survey)
(3)	- an	ternal (incl. oil, water tanks d void spaces) inspection			✓			✓			✓
(4)	- ga an	uging thickness of deck, shell d bulkhead plating (*8)(*9)			✓			√			✓
(5)		s, Discharging Valves - wn inspection		√ (*13)	✓		√ (*13)	✓		(*5,*13)	✓
(6)	Anchors, Caranged out f	ables, Steel Wire Ropes - for inspection ^(*8)			✓			✓			√ (*5)
(7)	Permanent 1	Ballast Weights - inspection ^(*17)			✓			✓			✓
(C)	CONSTR	UCTION - FUEL, MACHIN	ERY,	SHA	FTIN(G, EL	ECTI	RICAI	LSYS	STEM	S
(1)	Main Engir	ne lic test of coolers (incl. air,			√			✓			
	lub. oil	(by engine workshop) (*10)									
(2)	- ov			✓			✓				
(2)				(by er	ngine w	orksho	p) (*10)				
(3)		ne and Gear Box – own for inspection (*11)				1 1	\ (*10)	✓			
				(by er	ngine w	orksho	(p) (***/				√
(4)	(incl. wind	engine, auxiliary machinery lass, lifting appliance) engine lown for inspection			(by eng	ine wo	orkshop) (*10)			(*5)
(5)	Main fire p	oump, emergency fire pump, o, windlass - stripped down for			✓			✓			
(6)		er (P<17.2 bar)			✓			✓			✓
(7)	- hydrauli	c test (*8)			√			√			✓
(8)	Air Receiv	er (P≥17.2 bar) inspection		✓			√			√	
(9)	- hydrauli	c 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)	Independer inspection	nt Fuel Oil Tank – internal and hydraulic test ^(*8)			✓			✓			√ (*5, *16)
(14)	Independer Boat only)							√			

Table 7-2	Survey Class/Category/Type of Vessel Item		Class IIA DG/Oil/NLS Carrier			Class IIA Vessel other than DG/Oil/NLS Carrier			Class IIB Vessel		
No.		Survey Intervals (*1)(*2)	1	2	4 (full survey)	1	2	4 (full survey)	1	2or 3	4 or 6 (full survey)
(D)	PREVEN	TION AND CONTROL OF I	POLL	UTIC	N						
(15)	0 0	on Prevention Installation law with HKOPP certificate	(*12)								
(16)	 vessel without HKOPP certificate: hydraulic test of independent bilge water/sludge holding tank 				✓			✓			✓
(E)		URES, EQUIPMENTS AND OUS GOODS	ARR	ANGI	EMEN	TS F	OR C	ARRY	YING		
(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 CO₂ 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 CO₂ system high pressure manifold shall not be less than 125 bar.
- *4 Inspection for portable and non-portable type fire extinguishers and CO₂ 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		/Dry Powder nguisher	CO ₂ Fire Extinguisher, CO ₂ Fixed Installation Bottle					
TYPE OF TEST	Refill / Hydraulic Weighting (*a) (*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

CO₂ bottles/propellant cartridges - 10 years

- (*c) MD officers may examine the owner's competence on carrying out the servicing and conduct random checks including function test of the portable fire extinguishers.
- *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 xx.xx.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:

		Tasks Shipowne	Tasks Inspecting Personnel			
tem	Survey Year	Documents Submission	Inspection/Maintenance Arrangement	Responsible for		
A)	when a a classe every sp on or af inspecti survey). structur exceedi good co applica a Grade	Ws inspections described vessel has reached 8 years d vessel, in the special survected survey thereafter), ceter xx.xx.2019). The first on, alternating at 4-year in If it is found during a Cal members with regard to 1/2 or more of the limit andition with no significant tion for having a Grade 2	s of age, and in every quadrey when the vessel has recommending one year after one will be a Grade A instatervals (for classed vessel Grade B inspection that to PBWs stowage show not set down in Annex M of at deterioration, MD may B inspection in the subse	r in the quadrennial full survey drennial full survey thereafter (for eached 10 years of age, and in the enforcement of this code (i.e. pection, followed by a Grade B ls, 5-year intervals, i.e. the special he vessel's bottom and internal of excessive corrosion (not this Code) and the coating is in y consider the shipowner's equent full survey, followed by (for classed vessels, the next		
	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 vesse 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		

		Tasks Shipowne	er Responsible for	Tasks Inspecting Personnel
Item	Survey Year	Documents Submission	Inspection/Maintenance Arrangement	Responsible for
				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.
				(5) If heavy wastage of hull material is found, the adjoining cement PBWs (if any) shall be removed to facilitate the hull inspection.
	Grade B Inspection	(1) Declaration (2) Upon the completion of inspection and repair (if applicable), submit to MD a copy of the photo records which shall include: (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 (ii) the condition of the PBWs after they are restored to their original positions. (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.	(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. (2) carry out task items (2) and (3) of Grade A inspection.	(1) Instruct the owner to remove PBWs for hull structure inspection. At least 25% Notes (i)&(ii) of the total area of hull structure covered by PBWs in each compartment shall be inspected. Note: (i) The quantity of the randomly checked PBWs shall be based on the number of PBWs removed for inspection. (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. (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.

		Tasks Shipowne	r Responsible for	Tasks Inspecting Personnel
Item	Survey Year	Documents Submission	Inspection/Maintenance Arrangement	Responsible for
(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 7-3Final Inspection (*1)(*4)

"✓" means applicable

Table 7-3	Category of Vessel			
No.	Survey Item (*2)	A	В	
(A)	LIFE-SAVING APPLIANCES, FIRE-FIGHTING APPARATUS PREVENTION OF COLLISION	, APPLIAN	ICES FOR	
(1)	Life Saving Appliances - inspection and function test (*3)	✓	✓	
(2)	Fire Fighting apparatus (incl. CO ₂ 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 (*11)	✓	√	
(B)	CARRIAGE OF PASSENGERS			
(1)	Passenger Space, Crew Space, Cabin Escape Arrangement, Bulwarks and Rails - general inspection	✓		
(C)	CONSTRUCTION – HULL, CONDITIONS OF ASSIGNMENT, FREEBOARD MARK	, LOAD LIN	NES /	
(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	✓	✓ ^(*5)	
(3)	Permanent ballast - confirmation of amount and position (*10)	✓		
(4)	Freeboard Mark / Load Line Mark - verification	✓	√ ^(*5)	
(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	√	✓	
(D)	CONSTRUCTION - FUEL, MACHINERY, SHAFTING, ELEC	TRICAL SY	STEMS	
(1)	Main Engines, Generator Engines, Steering Gears, Windlass ^(*13) - running test	√	✓	
(2)	Unattended Machinery Space Installation (Ch. IIIA/18 and IIIB/13 refer) - function test	✓	✓	

Table 7-3	Category of Vessel		
No.	Survey Item (*2)	A	В
(3)	Air Receiver / Cement Tank Safety Valves - function test	✓	✓
(4)	Bilge and Oily Water Pumping System - function test	✓	✓
(5)	Electrical Circuit - earthing test	✓	✓
(6)	- insulation resistance test	√	✓ (*7)
(7)	- Main circuit breaker function test (*8)	✓	✓
(8)	Location of emergency source of electrical power shall be outside machinery space and above waterline – verification (*9)	✓	
(9)	Meters on Switchboard - function test	✓	
(E)	PREVENTION AND CONTROL OF POLLUTION		
(1)	Air Emission Assessment (*6)	✓	✓
(2)	Prevention of Oil Pollution Installation - function test	✓	✓
(F)	NAVIGATIONAL, COMMUNICATION EQUIPMENTAND OT	HERS	
(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 (*12)	✓	√
(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.
- *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 In addition to the visual inspection, owner's declaration on the amount and disposition of the ballast weights to be furnished to Marine Department for record. Refer to the requirements of remark *11 of Table 7-1 or remark *17 of Table 7-2.
- *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 inclinator.

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

Note: You must fill in the information required and sign the owner's declaration below the table.

This is to certify that the positions of all permanent ballast installed on board this vessel are:

- as shown in the table below and the sketch on a separate sheet.
- as shown in the approved permanent ballast plan enclosed.

Note: ① The positions, quantity, materials, unit weight, etc. of permanent ballast should be the same as the information stated in the stability information booklet (the owner may seek advice or assistance from the Marine Department). Inclining experiment or other methods for confirming the installation positions and quantity of permanent ballast may be required.

② The positions of permanent ballast should be the same as those shown in the photos submitted earlier.

		Position								
No.	Longitudinal: The frame number or forward bulkhead frame number of the position of the front point of the ballast	edge of the ballast and	Vertical: Distance between the bottom of the ballast and the bottom of the vessel (m)	Tier	Material	Unit Weight (kg)	Quantity (Pcs)	Total Weight (kg)	Serial Number	Remarks
1										
2										
3										
4										
5										

The owner should ensure that the correct quantity of ballast is fixed (or stowed in a way that it is not movable while at sea) at the positions specified above at all times.

Owner's Declaration

	Signature of the owner/ owner's representative	Grade of survey	Date
1st year		A/B/Others	
2nd year		A/B/Others	
3rd year		A/B/Others	
4th year		A/B/Others	
5th year		A/B/Others	
(Endorsement in the 5th year is only applicable to classed vessels)			

Application for Grade B survey for the vessel's next full survey (if applicable)

This is to certify that in the Grade B survey of this vessel, no excessive corrosion (1/2 or above of the corrosion limit stated in Annex M of the Code of Practice) was found at the bottom of the hull where the ballast was stowed and on the internal structural members, etc., and the coating was in good condition with no obvious damage.

Signature of the owner/owner's representative and date

[This part is applicable to vessels surveyed by competent surveyors]

Name of the surveying officer and his/her organisation/company

Signature and date confirm that the above is true

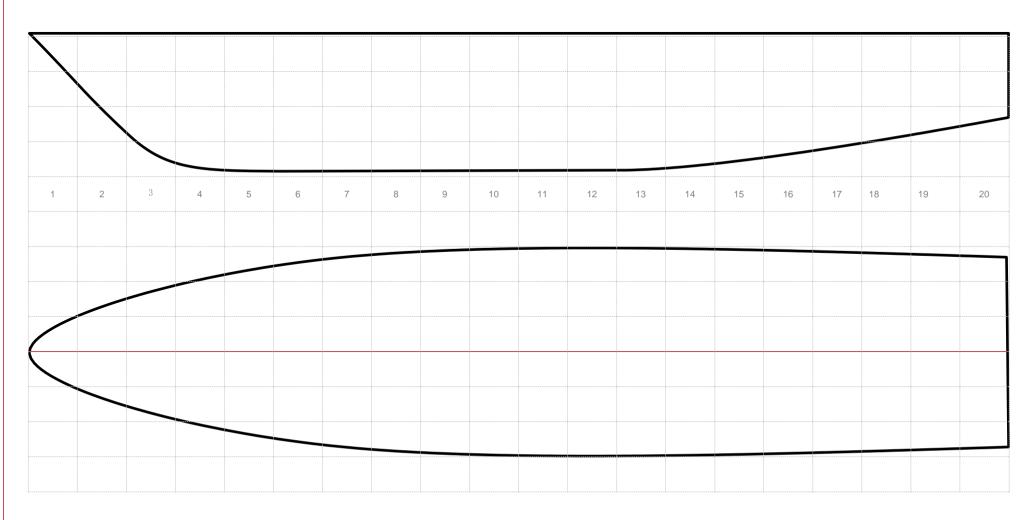
Comments of the Marine Department [Approve/Not Approve]

Signature and date

COO/AIP No.	

Owner's Declaration of Permanent Ballast

Annex Y



Please mark the positions of permanent ballast on the sketch