

**TECHNICAL INSTRUCTIONS FOR THE REGISTRATION OF
SPECIAL SERVICE - COMMERCIAL YACHTS OR
COMMERCIAL VESSELS**

MAR

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1. FOREWORD

1. International Shipping Register of Madeira (MAR)

The International Shipping Register of Madeira (MAR) was created under the framework of the IBCM, aimed at giving the island of Madeira a predominant role in shipping and, as Portugal's second and international shipping register, to contribute to reduce the country's "flagging out" process, attracting new shipowners and vessels.

MAR has a Technical Commission composed of a President, directly appointed by the Portuguese Ministry of Transportation, a representative of the Madeira Autonomous Region and a representative of the IPTM – The Portuguese Institute for Ports and Maritime Transportation. The maritime background and technical expertise of the members of the Technical Commission assures the full understanding of the maritime transportation business and the implementation of fast procedures.

The duties of the Technical Commission of MAR include the registration process of commercial vessels, oil-rig platforms and yachts, as well as the establishment of the crew composition. The Technical Commission is also responsible for the issue of on-board documentation and recognizes certificates issued by IPTM and classification societies.

MAR requires commercial vessels to be classified and accepts the surveys carried out by Recognized Organizations under the provisions of Decreto-Lei nº 115/96, of 6 August, as amended by Decreto-Lei nº 403/98, of 18 December.

Yachts have become increasingly important for the International Shipping Register of Madeira, with the registration of a significant number of units with a hull length between 7 and 50 meters and maximum capacity of 12 passengers both as commercial yachts or commercial vessels.

The present Technical Instructions sets the required standards of safety and pollution prevention which are appropriate for the type and size of yachts registered as Special Service - Commercial Yachts or Special Service-Commercial Vessels. Yachts complying with these Technical Instructions are also required to comply with relevant parts of the Rules officially approved Classification Society.

2. APPLICABLE RULES AND REGULATIONS

1. These Technical Instructions apply to yachts commercially registered as Special Service – Commercial Yachts or Special Service – Commercial Vessels, which do not carry cargo and which do not carry more than 12 passengers.
2. Applicability covers both yachts of not less than 7 metres in length overall and not more than 24 metres in length and yachts between 24 metres and 50 metres in length and less than 500 GT.
3. Yachts, for the purpose of these Technical Instructions, shall have a hull built of steel, aluminium or composite materials. Other hull materials may be accepted under special consideration.
4. Yachts, for the purpose of these technical instructions, are intended to be motor yachts. Sailing yachts may be accepted under special consideration.
5. The applicable Classification Rules and Statutory Regulations are specified in Table 1 below.
6. Surveys are carried out according with Classification Rules.
7. The documents to be submitted by Owner are listed in Annex A.
8. The certification includes the issuing of the documents listed in Annex C.
9. Materials and equipment employed in the yachts are to be safe, suitable for the marine environment and approved. Due attention should also be paid to the requirements of the Marine Equipment Directive 96/98/CE as amended, when this directive is applicable as defined in Annex D.
10. For the purpose of application of the requirements of these Technical Instructions:

- a) a yacht is assigned the category **Coastal Area** when intended to operate only within 20 nautical miles from the shore and with a maximum sailing time of 6 hours from a port of refuge or safe sheltered anchorage.
- b) a yacht is assigned the category **Unrestricted Navigation** when intended to operate in any area and any period of the year.
- c) a yacht is assigned the additional category **Temporary Unrestricted Navigation** when intended to undertake voyages, in favourable weather conditions, such that the yacht can be put in a port or sheltered anchorage in about 12 hours from any point of its route.
- 11.** Recreational craft under 100GT and under 24m can be registered as Special Service - Commercial Yachts but are eligible only for category Coastal Area. No Temporary Unrestricted Navigation is allowed in this case.
- 12.** Recreational craft under 100GT and under 24m which are to be accepted as Special Service - Commercial Yachts should have a Yard Declaration of Conformity evidencing a design category B.
- 13.** Authorizations for Temporary Unrestricted Navigation may be granted on a case-by-case basis for repositioning voyages without passengers. Request to be submitted.
- 14.** Exemptions to the requirements below may be given on a case-by-case basis. Request to be submitted and accepted by MAR.

Table 1 – Application of Classification Rules and Statutory Regulations ^{(1) (2)}

	Special service – commercial yacht			Special service – commercial vessel		
	L≤24m	L>24m		L≤24m	L>24m	
		GT<400	400≤GT<500		GT<400	400≤GT<500
Class	NR500	NR500	NR500	NR500	NR500	NR500
Tonnage		ITC69	ITC69		ITC69	ITC69
Freeboard and Weathertight Integrity	(4.2.2)	LL66	LL66	(4.1.2)	LL66	LL66
Intact Stability	(5.2)	(5.2)	(5.2)	(5.1)	(5.1)	(5.1)
Damage Stability	(5.2)	(5.2)	(5.2)	(5.1)	(5.1)	(5.1)
Fire Safety (Non-convention)	(6.2)	(6.2)	(6.2)	(6.1)	(6.1)	(6.1)
Life-Saving Appliances (Non-convention)	(7.2)	(7.2)	(7.2)	(7.1)	(7.1)	(7.1)
Radio communication Equipment (Non-convention)	(8.2)	(8.2)	(8.2)	(8.1)	(8.1)	(8.1)
Navigation Equipment (Non-convention)	(9.2)	(9.2)	(9.2)	(9.1)	(9.1)	(9.1)
Navigation Lights, Shapes and Sound Signals (3)	COLREG72	COLREG72	COLREG72	COLREG72	COLREG72	COLREG72
Prevention of Pollution by Oil			MARPOL-I			MARPOL-I
Prevention of Pollution by Sewage	MARPOL-IV (4)	MARPOL-IV (4)	MARPOL-IV	MARPOL-IV (4)	MARPOL-IV (4)	MARPOL-IV
Prevention of Pollution by Garbage	MARPOL-V (6)	MARPOL-V (6)	MARPOL-V	MARPOL-V (6)	MARPOL-V (6)	MARPOL-V
Prevention of Air Pollution	MARPOL-VI (5)	MARPOL-VI (5)	MARPOL-VI	MARPOL-VI (5)	MARPOL-VI (5)	MARPOL-VI
Prevention of Pollution by Anti-Fouling			AFS			AFS

(1) When NR500 Rules for Classification and Certification of Yachts is mentioned, compliance is as charter yacht, to the latest version in force.

(2) When SOLAS is mentioned, compliance is as cargo ship, to the latest version in force.

(3) According to the ship's length (L>12m, L>20m, L>100m).

(4) Applicable if carrying more than 15 persons.

(5) Only EIAPP required for main and auxiliary engines with more than 130 kW.

(6) Applicable if carrying 15 persons or more, except for garbage placards.

3. TONNAGE

3.1 Yachts registered as Commercial Vessels/Commercial Yachts

1. The International Tonnage Convention applies if $L \geq 24$ m. The tonnage calculation shall be submitted for approval.

3.2 Commercial Yachts under 100 GT and under 24m

1. Yachts under 100GT and under 24m are to be issued a national tonnage certificate as per Decreto-Lei N° 245/94 and Portaria N° 1035/94.

4. FREEBOARD AND WEATHERTIGHT INTEGRITY

4.1 Yachts registered as Commercial Vessels

1. If $L \geq 24$ the yacht is to be provided with an International Load Line Certificate issued upon compliance with the requirements below.
2. The freeboard calculation is to be submitted for approval and Record of Conditions for Assignment to be issued.
2. Openings exposed to sea and giving direct or indirect access below the freeboard deck are to be weathertight.
3. Closing means are to be permanent, lockable and opening outward.
4. Openings not directly exposed to sea but giving access below the freeboard deck are to be fitted with portable weathertight covers.
5. Doors, hatches and companionways are to be fitted with sills or coamings having the following minimum heights:
 - fore deck: 600mm,
 - first tier in fore deck: 150mm,
 - aft:
 - 300 mm for doors, hatches, companionways directly exposed to sea,
 - 200 mm for doors in side walls,
 - 100 mm for doors, hatches, companionways in aft wall,
 - Access to machinery spaces: 600mm,
 - Access to machinery spaces not directly exposed and in aft area: 380mm.

where fore area means the area extending on the forward 1/4 of the yacht's rule length from the forward perpendicular and aft area means the area extending abaft the fore area.
6. Doors not used in deep sea may be without sill. Warning to be fitted in the concerned doors. When these doors give access to machinery spaces or steering gear room, this is possible only if second access exists. The same applies for deck hatchways.
7. Removable sills may provide a maximum of half the required sill heights.
8. For Coastal Area – Temporary unrestricted navigation, the sill heights may be reduced at maximum by half, except that for accesses to machinery spaces the minimum sill heights are 450mm and 200mm. No removable sills can be used for achieving these reduced values.
9. Ventilation openings for spaces located below deck are to have sills with 900mm in fore area and 760mm in aft area.
10. Ventilation openings to machinery spaces to have the same sill height as in 9.
11. For Coastal Area – Temporary unrestricted navigation, the sill heights may be reduced at maximum by half.
12. Smaller height of sills may be accepted if ventilation openings are in protected area and fitted with systems for limiting direct water ingress.

13. Air pipes are to be fitted with permanently attached means of weathertight closure and its coaming shall be 760mm in freeboard deck and 450mm in superstructure deck.
14. For Coastal Area – Temporary unrestricted navigation, the sill heights for air pipes may be reduced at maximum by half.
15. Sidescuttles and windows are to be fitted at least 500mm above the waterline.
16. Sidescuttles below the freeboard deck are to be fitted with portable deadlights.
17. Windows below the freeboard deck are to be fitted with portable deadlights.
18. Where bulwarks on freeboard deck or in superstructure deck form wells, freeing ports are to be provided.
19. Minimum section area of freeing ports to be as per Rules PtB, Ch.2, Sec.3, [5.1.2].
20. Lower edge of freeing ports to be as close to deck as possible.
21. Freeing ports are to be protected by rails or bars spaced approximately 230mm.
22. Bulwarks and guard rails are to be fitted around all exposed decks. The minimum height shall be 1.0m.
23. For new constructions, garage doors giving access to spaces below the freeboard deck shall be watertight and provided with at least 8 securing devices. Distance between adjacent securing devices (hinges may be accepted as securing devices) is not to exceed 800mm. Each side is to be provided with at least two clips. Alternative arrangements for ensuring watertightness may be accepted.
24. The requirements above are to be applied also to yachts less than 24 m, as far as practicable.
25. Evidence of compliance with the MCA Large Yacht Code is considered equivalent to the requirements above.

4.2 Yachts registered as Commercial Yachts

1. Yachts in this category need not comply with requirements in paragraphs 4, 9, 10, 16, 17, 22.
2. Bulwarks or guard rails with a height of less than 1.0m may be accepted provided signs are posted near indicating that no standing is allowed in those areas while underway.
3. Compliance with Directive 94/25/CE, as amended, is to be considered as far as practicable.

4.3 Commercial Yachts under 100GT and under 24m

1. Yachts in this category do not need to comply with the International Load Line Convention. No freeboard mark is necessary.
2. Openings exposed to sea and giving direct or indirect access below the freeboard deck are to be weathertight. Closing means are to be permanent, lockable and opening outward.
3. Doors, hatches and companionways in freeboard deck may be flush but are to have a warning sign "To be kept closed at sea."
4. Where bulwarks on freeboard deck or in superstructure deck form wells, means of draining water are to be provided.
5. Bulwarks and guard rails are to be fitted around all exposed decks. The minimum height shall be 1.0m. Height of less than 1.0m may be accepted provided signs are posted near indicating that no standing is allowed in those areas while underway
6. For new constructions, garage doors giving access to spaces below the freeboard deck shall be watertight. Alternative arrangements for ensuring watertightness may be accepted.

5. INTACT AND DAMAGE STABILITY

5.1 Yachts registered as Commercial Vessels

1. Intact Stability according with the Intact Stability Code (MSC.267(85)).
2. Guidelines for Inclining Experiment (Appendix D) and Guidelines for Trim and Stability Booklet (Appendix E) are to be applied.
3. Draught marks are not mandatory but if used the following applies:
 - i) Numbers are to have 100mm in height when projected in a vertical plan and thickness of 15mm.
 - ii) Numbers are to indicate the number of decimetres and its lower limit shall indicate the draught.
 - iii) The draught marks are to be made in plate or painted. If painted contour on welding. In FRP vessels, paint is to be used.
4. Sketch of marks details and location to be included in Trim and Stability Booklet.
5. Damage stability requirements not applicable for Coastal Area category.
6. Damage stability as per Classification Rules is applicable for Unrestricted Navigation category.

5.2 Yachts registered as Commercial Yachts

1. Intact stability according with the Rules for the Classification and Certification of Yachts.
2. Guidelines for Inclining Experiment (Appendix D) and Guidelines for Trim and Stability Booklet (Appendix E) are to be applied.
3. Draught marks are not mandatory but if used the following applies:
 - i) Numbers are to have 100mm in height when projected in a vertical plane and thickness of 15mm.
 - ii) Numbers are to indicate the number of decimetres and its lower limit shall indicate the draught.
 - iii) The draught marks are to be made in plate or painted. If painted contour on welding. In FRP yachts paint is to be used.
4. Sketch of marks details and location, if existing, to be included in Trim and Stability Booklet.
5. Damage stability requirements not applicable for Coastal Area category.
6. Damage stability as per Classification Rules is applicable for Unrestricted Navigation category.

5.3 Yachts registered as Commercial Vessels/Commercial Yachts

1. Yachts may operate temporarily with more than 12 passengers, provided all the following conditions are met:
 - a) Navigation is restricted to day time with maximum duration of 8 hours.
 - b) Navigation is restricted to coastal domestic voyages up to 3 miles from shore and conditioned to wind conditions up to BF 5 and waves up to 2 meters.
 - c) Vessel's freeboard mark should, in no circumstance, be submerged.
 - d) Stability is satisfactory.
 - e) Life-saving appliances are provided onboard in sufficient number for all persons.
2. The maximum allowed number of passengers onboard, under the conditions in paragraph 1, is to be submitted for approval.

5.4 Commercial Yachts under 100GT and under 24m

1. Intact stability according with the Rules for the Classification and Certification of Yachts. Weather criterion not mandatory.

2. Guidelines for Inclining Experiment (Appendix D) and Guidelines for Trim and Stability Booklet (Appendix E) are to be applied.
3. Draught marks are not mandatory but if used the following applies:
 - i) Numbers are to have 100mm in height when projected in a vertical plane and thickness of 15mm.
 - ii) Numbers are to indicate the number of decimetres and its lower limit shall indicate the draught.
 - iii) The draught marks are to be made in plate or painted. If painted contour on welding. In FRP yachts paint is to be used.
4. Sketch of marks details and location, if existing, to be included in Trim and Stability Booklet.
5. Damage stability requirements not applicable.

6. FIRE SAFETY

6.1 Yachts registered as Commercial Vessels

1. The engine room shall be provided with one fixed fire fighting system with the possibility of being released outside the protected space and being provided with alarm in case of use.
2. The vessel shall be equipped with at least the following number of portable extinguishers (min. 2kg/6 l):
 - If $L \geq 24$ m: Accommodations: 4
Engine room: 2
Galley: 1
 - If $L < 24$ m: Accommodations: 3
Engine room: 2
Galley: 1
3. The vessel shall be equipped with at least 2 (two) fire pumps (independent power driven).
4. Fire hydrants in satisfactory number and placed in such way that all yacht is covered.
5. Fire hoses: in satisfactory number (minimum 3) and placed in such way that all yacht is covered. The hoses shall have at least 15 meters (12 m, inside engine room) and the nozzle shall be of double effect (spray and jet)
6. The vessel to be provided with a fire detection and alarm system in accommodation and service spaces.
7. Fireman outfit (N/A to wood or FRP construction):
 - If $GT < 150$: 1 (one)
 - If $GT > 150$: 2 (two)
8. The vessel to be provided with a fire plan which shall be posted one outside and one inside near the bridge and/or crew accommodations.
9. 1 (one) international shore connection, as shown in Annex B.
10. The ventilation of the engine room must have the possibility of being stopped outside the engine room.
11. The fuel and oil pumps shall be capable of being remotely stopped from outside the Engine Room.
12. The fuel tanks located inside engine room above double bottom shall be provided with quick closing valves remotely controlled from outside the engine room.

6.2 Yachts registered as Commercial Yachts

1. The engine room shall be provide with fixed fire fighting installation.
2. The vessel shall be equipped with at least 3 (three) portable extinguishers (min. 2kg/6 l) at the accommodation areas, 2 (two) portable extinguishers at the engine room, 1 (one) at galley.
3. The galley shall be provided with a fire blanket.
4. The vessel shall be equipped with at least 2 (two) fire pumps (one power pump, and one hand pump).
5. Fire hydrants in satisfactory number and placed in such way that all yacht is covered.
6. Fire hoses: in satisfactory number (minimum 3, if $L \geq 24$ m) and placed in such way that all yacht is covered. The hoses shall have at least 15 meters (12 m, inside engine room) and the nozzle shall be of double effect (spray and jet).
7. The vessel to be provided with a fire detection and alarm system if $L \geq 24$ m, in accommodation and service spaces.
8. The vessel to be provided with a fire plan which shall be posted one outside and one inside near the bridge and/or crew accommodations area.
9. The ventilation of the engine room must have the possibility of being stopped outside the engine room.
10. The fuel and oil pumps shall be capable of being remotely stopped from outside the Engine Room.
11. The fuel tanks located inside engine room above double bottom shall be provided with quick closing valves remotely controlled from outside the engine room.

6.3 Commercial Yachts under 100GT and under 24m

1. The engine room shall be provided with a fixed fire fighting installation.
2. The vessel shall be equipped with at least 3 (three) portable extinguishers (min. 2kg/6 l) at the accommodation areas, 2 (two) portable extinguishers at the engine room, 1 (one) at galley. Engine room portable fire extinguishers may be located at its entrance.
3. The galley shall be provided with a fire blanket.
4. The vessel shall be equipped with at least 2 (two) fire pumps (one power pump, and one hand pump).
5. Fire hydrants in satisfactory number and placed in such way that all yacht is covered.
6. Fire hoses: in satisfactory number and placed in such way that all yacht is covered.
7. The vessel to be provided with a fire plan which shall be posted one outside and one inside near the bridge and/or crew accommodations area.
8. The ventilation of the engine room must have the possibility of being stopped outside the engine room.
9. The fuel and oil pumps shall be capable of being remotely stopped from outside the Engine Room.
10. The fuel tanks located inside engine room above double bottom shall be provided with quick closing valves remotely controlled from outside the engine room.

7. MEANS OF ESCAPE

Stairways, ladders, hatches and corridors serving all spaces normally accessible are to be so arranged as to provide ready means of escape to a deck from which embarkation into survival craft may be effected.

7.1 Yachts registered as Commercial Vessels/Commercial Yachts

1. At all levels of accommodation, at least two widely separated means of escape from each restricted space or group of spaces are to be provided.
2. The means of escape from accommodation and service spaces below the open deck is to be arranged so that it is possible to reach the open deck without passing through a galley or a machinery space of category A or other space with a high fire risk, wherever practicable.
3. As a rule, dead-end corridors are not accepted in accommodation and service spaces.
4. One of the means of escape may be dispensed with, for service spaces that are entered only occasionally, if the required escape route does not pass through a galley, machinery space or watertight door.
5. All doors (and hatches) in escape routes from accommodation and service spaces are to be openable from either side. All handles on the inside of weathertight doors and hatches are to be non-removable.
6. Category A machinery spaces should normally be provided with at least two means of escape, as widely separated as possible. Exceptionally, only one means of escape may be provided, if it is not possible for a person to walk in the space more than 5 m in any direction.
7. All means of escape shall be adequately marked for the guidance of the persons onboard and visible in case of an emergency.

7.2 Commercial Yachts under 100GT and under 24m

1. Requirements in section 7.1 are applicable.

8. LIFE-SAVING APPLIANCES

All life-saving equipment covered by this Part shall be safe to operate and use, suitable for the marine environment and approved.

8.1 Yachts registered as Commercial Vessels

1. All Safety Equipment's storing and/or stowing positions shall be marked with IMO symbols.
2. The vessel to be provided with a safety plan which shall be posted one outside and one inside near the bridge and/or crew accommodations area.
3. One or more liferaft(s) (Approved 96/98/EC) capable of being launched into water by both sides of the yacht, with an aggregate capacity of 110% the total number of persons on board (crew and passengers). Each liferaft shall be provided with an automatic hydrostatic release unit of an approved type.

4. The vessel shall be equipped with 1 (one) rescue boat, equipped according to the LSA Code.

4.1 In case of emergency the davit shall have a secondary means of operation, independent from the main switch board (manual or other).

4.2 The davit shall be equipped with a Quick Releasing Hook duly certified

4.3 Rescue boat equipment:

- Sufficient buoyant oars and crutches or equivalent arrangements for each oar.
- 1 (one) buoyant bailer
- 1 (one) magnetic compass
- 1 (one) sea anchor with hawser and tripping line
- 1 (one) painter
- 1 (one) waterproof torch with one spare bulb
- 1 (one) whistle
- 1 (one) first aid outfit in waterproof case.
- 2 (two) buoyant rescue quoits, attached to 30 m buoyant lines.
- 1 (one) search light with battery
- 1 (one) radar reflector
- 2 (two) thermal protective aids
- 1 (one) portable fire extinguisher

In addition, for every rigid rescue boat

- 1 (one) Boat hook
- 1 (one) bucket
- 1 (one) knife or hatchet

In addition, for inflated rescue boat:

- 1 (one) buoyant safety knife
- 2 (two) sponges
- 1 (one) manual bilge pump
- 1 (one) repair kit for repairing punctures
- 1 (one) boat-hook

5. Lifejackets for 110% of persons on board and in addition 10% for children, minimum 2.

6. Lifebuoys:

If $L \geq 24$ m: 2 with light and smoke signals – manoverboards
 2 with lights,
 2 with line of 30 meters
 2 without accessories.

If $L < 24$ m: 2 w/ light and smoke signals – manoverboards
 2/ with lights,

7. 3 (three) immersion suits.

8. Thermal protective aids for 100% of persons on board.
9. 12 (twelve) rocket parachute flares
10. 1 (one) 1 line throwing appliance with 4 (four) projectiles and 4 (four) lines of 230 meters.
11. 2 (two) emergency portable VHF GMDSS including 2 (two) spare batteries.
12. 1 (one) radar transponder 9 GHz.

8.2 Yachts registered as Commercial Yachts

1. The vessel to be provided with a safety plan which shall be posted one outside and one inside near the bridge and/or crew accommodations).
2. One or more lifteraft(s) capable of being launched into water by both sides of the yacht, with an aggregate capacity of 110% the total number of persons on board (crew and passengers). Each liferaft shall be provided with an automatic hydrostatic release unit of an approved type. Lifterafts to be able to free float.
3. The vessel shall be equipped with 1 (one) tender boat.
4. Lifejackets for 100% of persons on board and in addition 10% for children, minimum 2.
5. Lifebuoys: 2 (two) with lights and 2 (two) with line of 30 meters.
6. Thermal protective aids for 100% of persons on board.
7. 6 (six) rocket parachute flares .
8. 3 (three) smoke signals.
9. 3 (three) hand flares.
10. 1 (one) emergency portable VHF GMDSS including 1 (one) spare battery.
11. 1 (one) radar transponder 9 GHz.

8.3 Commercial yachts under 100GT and under 24m

1. Requirements in section 8.2 are applicable.

9. RADIOCOMMUNICATIONS

All radiocommunications equipment and systems covered by this Chapter shall be safe, suitable for use in the marine environment and approved.

9.1 Yachts registered as Commercial Vessels

1. Every yacht registered as commercial vessel shall be provided with radio installations capable of complying with the requirements of SOLAS Ch. IV, for the sea area or areas through which it will pass during the intended voyage.

9.2 Yachts registered as Commercial Yachts

1. Equipments for vessels engaged on voyages at sea area A1:

1. A VHF radio installation capable of transmitting and receiving:

- 1.1 Radiotelephony on the frequencies 156.300 MHz (channel 6), 156.650 MHz (channel 13) and 156.800 MHz (channel 16) and also capable of transmitting and receiving general radiocommunications.
- 1.2 DSC on the frequency 156.525 MHz (channel 70), Class B or D, as defined in ITU-R recommendation 493.

- 2 A radio installation capable of maintaining a continuous DSC watch on VHF channel 70 which may be separate from, or combined with, that required in 1.1.2.
- 3 An EPIRB 406 MHz equipped with of hydrostatic release.
- 4 An emergency portable VHF GMDSS.
- 5 A radar transponder 9 GHz.

2. Equipments for vessels engaged on voyages other than A1:

In addition to those referred in 1 above, the vessels shall be equipped with:

- 1 An MF/HF installation capable of transmitting and receiving, for distress and safety purposes, on the frequencies between 1605 kHz e 4000 kHz and between 4000 kHz and 27500 kHz, through:
 - 2.1.1 DSC, Class A or E, as defined in ITU-R recommendation 493.
 - 2.1.2 Radiotelephony.
- 2 A radio installation capable of maintaining a continuous DSC watch on the frequencies 2187.5 kHz and 8414.5 kHz and on, at least, one of the distress and safety DSC frequencies 4207.5 kHz, 6312 kHz, 12577 kHz or 16804.5 kHz and at any time, it shall be possible to select any of these DSC distress and safety frequencies.
- 3 An equipment capable of transmitting and receiving general radio communications through radiotelephony or direct printing telegraphy by an MF/HF radio installation operating on working frequencies in the bands between 1605 kHz and 4000 kHz and between 4000 kHz and 27500 kHz. This requirement may be fulfilled by the addition of this capability to the equipment referred in 2.1 above.
- 4 An international NAVTEX receiver.
- 5 A GPS radio navigation receiver.
- 6 Alternatively to the equipments referred in 2.1, 2.2 and 2.3 above, vessels can be fitted with an INMARSAT earth station (A, B or C).

3. Sources of energy

- 1 The equipments referred in 1.1, 1.2, 2.1, 2.2 and 2.6 above, shall be supplied through an exclusive source of electrical power (reserve source of energy), located above main deck, the highest possible, with the capacity to supply all associated circuits for at least 6 hours.
- 2 When the reserve source of energy is supplied by rechargeable accumulator batteries, means of automatically charging such batteries shall be provided which shall be capable of recharging them to minimum capacity requirements within 10 hours.
- 3 The reserve source of power shall be calculated considering a working cycle for the transreceivers of 50% transmitting time and 50% watch time.

- 4 The reserve source of power shall also supply one emergency lighting point, located close to the equipments.

9.3 Yachts registered as Commercial Vessels/Commercial Yachts

1. Yachts above 300 GT are to undertake annually the Radio Survey necessary for the Cargo Ship Safety Radio Certificate.
2. Yachts under 300 GT are recommended to undertake annually the Radio Survey. EPIRB annual test is mandatory. AIS annual test is also mandatory if yacht is fitted with such equipment.

9.4 Commercial Yachts under 100GT and under 24m

1. A VHF radio installation capable of transmitting and receiving:
 - 1.1 Radiotelephony on the frequencies 156.300 MHz (channel 6), 156.650 MHz (channel 13) and 156.800 MHz (channel 16) and also capable of transmitting and receiving general radiocommunications.
 - 1.2 DSC on the frequency 156.525 MHz (channel 70), Class B or D, as defined in ITU-R recommendation 493.
 - 1.3 A radio installation capable of maintaining a continuous DSC watch on VHF channel 70 which may be separate from, or combined with, that required in 1.1.2.
2. An EPIRB 406 MHz equipped with of hydrostatic release.
3. An emergency portable VHF GMDSS.
4. A radar transponder 9 GHz.
5. The equipments above, shall be supplied through an exclusive source of electrical power (reserve source of energy).
6. Yachts are recommended to undertake annually the Radio Survey. EPIRB annual test is mandatory. AIS annual test is also mandatory if yacht is fitted with such equipment.

10. SAFETY OF NAVIGATION

All navigational equipment and systems covered by this Chapter shall be safe, suitable for use in the marine environment and approved.

10.1 Yachts registered as Commercial Vessels

1. Every yacht registered as commercial vessel shall be provided with navigational systems and equipment in accordance with SOLAS Ch. V, as detailed below.

2. A properly adjusted standard magnetic compass at main steering position;

3. A pelorus or compass bearing device, or other means, independent of any power supply, to take bearings over an arc of the horizon of 360°.

4. Curve or table of residual deviations for each magnetic compass.

5. Nautical charts and nautical publications to plan and display the yacht's route for the intended voyage and to plot and monitor positions throughout the voyage. An electronic chart display and information system (ECDIS) may be accepted as meeting the chart carriage requirements of this subparagraph. Back-up arrangements shall be provided if using only electronic means. Nautical charts and nautical publications, all up-to-date for the intended areas of navigation, are to include:

- (a) International Code of Signals,
- (b) Mariners Handbook,
- (c) Notices to Mariners,
- (d) Nautical Almanac,
- (e) Navigation Tables,
- (f) List of Radio Signals,
- (g) List of Lights,
- (h) Tide Tables,
- (i) Operating and Maintenance instructions for navigational aids carried by the yacht.

6. A GPS

7. Means of communication to communicate heading information to the emergency steering

8. Spare magnetic compass, unless gyro-compass is fitted.

9. ALDIS lamp.

10. An echo-sounding device.

11. 9 GHz radar.

12. An electronic plotting aid, or other means, to plot electronically the range and bearing of targets to determine collision risk.

13. A speed and distance measuring device.

14. AIS (if GT > 300) and LRIT (if operating outside sea area A1).

15. For vessels of less than 300GT, the magnetic compass, echo-sounding device, GPS, spare magnetic compass or gyro-compass, speed and distance measuring device and 9 GHz radar need not be of an approved type.

16. At the first survey after 1 July 2014, yachts of 150 GT and upwards constructed after 1 July 2002, are to be fitted with a bridge navigational watch alarm system (BNWAS).

10.2 Yachts registered as Commercial Yachts

1. Every yacht registered as commercial yacht shall be provided with navigational systems and equipment in accordance with SOLAS Ch. V, as detailed below.

2. A properly adjusted standard magnetic compass at main steering position;

3. A pelorus or compass bearing device, or other means, independent of any power supply, to take bearings over an arc of the horizon of 360°.

4. Curve or table of residual deviations for each magnetic compass.

5. Nautical charts and nautical publications to plan and display the yacht's route for the intended voyage and to plot and monitor positions throughout the voyage. An electronic chart display and information system (ECDIS) may be accepted as meeting the chart carriage requirements of this subparagraph.

6. A GPS.

7. Means of communication to communicate heading information to the emergency steering.

8. 9 GHz radar.

9. AIS (if GT > 300) and LRIT (if operating outside sea area A1).

10. For vessels of less than 300GT, the magnetic compass, GPS and 9 GHz radar need not be of an approved type.

11. At the first survey after 1 July 2014, yachts of 150 GT and upwards constructed after 1 July 2002, are to be fitted with a bridge navigational watch alarm system (BNWAS).

10.3 Commercial Yachts under 100GT and under 24m

1. Every yacht registered as commercial yacht shall be provided with navigational systems and equipment in accordance with the requirements below.

2. A properly adjusted standard magnetic compass at main steering position.

3. Curve or table of residual deviations for each magnetic compass.

4. Nautical charts and nautical publications to plan and display the yacht's route for the intended voyage and to plot and monitor positions throughout the voyage.

5. A GPS.

6. 9 GHz radar.

7. AIS and LRIT are not applicable.

11. PREVENTION OF POLLUTION

11.1 Yachts registered as Commercial Vessels/Commercial Yachts

1. Every yacht is to comply with MARPOL Annex I (Prevention of pollution by oil) if GT > 400.
2. In this case, the yacht is to be provided with Sludge tank, Standard discharge connection for oily water (as shown in Annex B), Oily water separator, Oil record book and SOPEP Manual.
3. Every yacht is to comply with MARPOL Annex IV (Prevention of pollution by sewage) if GT > 400 or no. of persons > 15.
4. In this case, the yacht is to be provided with sewage treatment plant or sewage comminuting and disinfecting system or holding tank with sounding means and standard discharge connection for sewage (as shown in Annex B).
5. Every yacht is to comply with MARPOL Annex V (Prevention of pollution by garbage).
6. In this case the yacht is to have placards (if L ≥ 12m), Garbage management plan (if GT > 400 or no. of persons ≥ 15) and Garbage record book (if GT > 400 or no. of persons ≥ 15).
7. Every yacht is to comply with MARPOL Annex VI (Prevention of air pollution) if GT > 400 as regards ozone depleting substances, NO_x and SO_x. Yachts less than 400 GT only EIAPP required for main and auxiliary engines with more than 130 kW.

11.2 Commercial yachts under 100GT and under 24m

1. Yacht is to comply with MARPOL Annex IV (Prevention of pollution by sewage) if number of persons > 15.
2. In this case, the yacht is to be provided with sewage treatment plant or sewage comminuting and disinfecting system or holding tank with sounding means and standard discharge connection for sewage (as shown in Annex B).
3. Yacht is to comply with MARPOL Annex V (Prevention of pollution by garbage), namely having placards (if L ≥ 12m). Garbage management plan and garbage record book if number of persons ≥ 15.
4. Every yacht is to comply with MARPOL Annex VI (Prevention of air pollution) as regards ozone depleting substances, NO_x and SO_x. Exemptions to be requested and accepted by MAR.

12. Navigation Lights, Shapes and Sound Signals

12.1 Yachts registered as Commercial Vessels/Commercial Yachts

1. Every vessel should comply with the requirements of the International Regulations for Preventing Collisions At Sea, 1972, (COLREG72) as amended.

2. All navigation lights should be provided with main and emergency power supply.

3. With due regard to accessibility, the requirement for duplication for navigation lights required to be shown whilst underway may be satisfied by having a spare lamp that can be easily fitted within three minutes.

4. For vessels where compliance is impracticable, alternatives are to be submitted for approval.

5. (a) The following lights are to be carried:

(i) a masthead light forward;

(ii) a second masthead light abaft of and higher than the forward one; except that a vessel of less than 50 metres in length shall not be obliged to exhibit such light but may do so;

(iii) two sidelights;

(iv) a sternlight;

(v) a towing light in a vertical line above the sternlight;

(vi) two all-round red lights in a vertical line where they can best be seen;

(vii) three all-round lights in a vertical line where they can best be seen. The highest and lowest of these lights shall be red and the middle light shall be white.

(b) The lights are to be visible, for vessels of 12 metres or more in length but less than 50 metres in length, at the following minimum ranges:

(i) a masthead light, 5 miles; except that where the length of the vessel is less than 20 metres, 3 miles;

(ii) a sidelight, 2 miles;

(iii) a sternlight, 2 miles;

(iv) a towing light, 2 miles;

(v) a white, red, green or yellow all-round light, 2 miles.

(c) The positioning and technical details of lights are to be as per Annex I of COLREG72.

6. The following black shapes are to be carried:

(i) three ball shapes;

(ii) one diamond shape.

(b) In a vessel of less than 20 metres in length shapes of lesser dimensions but commensurate with the size of the vessel may be used and the distance apart may be correspondingly reduced.

(c) The positioning and technical details of shapes are to be as per Annex I of COLREG72.

7. The following equipment for sound signals is to be carried:

(a) A vessel of 12 metres or more in length shall be provided with a whistle and a bell.

(b) A vessel of 100 metres or more in length shall be provided with a whistle, a bell and a gong. The tone and sound of the gong cannot be confused with that of the bell.

(c) The whistle, bell and gong technical details are to be as per Annex III of COLREG72.

(d) The bell or gong or both may be replaced by other equipment having the same respective sound characteristics, provided that manual sounding of the required signals shall always be possible.

12.2 Commercial yachts under 100GT and under 24m

1. All navigation lights should be provided with main and emergency power supply.

2. For vessels where compliance is impracticable, alternatives are to be submitted for approval.
3. (a) The following lights are to be carried:
- (i) a masthead light forward;
 - (ii) a second masthead light abaft of and higher than the forward one; except that a vessel of less than 50 metres in length shall not be obliged to exhibit such light but may do so;
 - (iii) two sidelights;
 - (iv) a sternlight.
- (b) The lights are to be visible, for vessels of 12 metres or more in length but less than 50 metres in length, at the following minimum ranges:
- (i) a masthead light, 5 miles; except that where the length of the vessel is less than 20 metres, 3 miles;
 - (ii) a sidelight, 2 miles;
 - (iii) a sternlight, 2 miles.
4. The following black shapes are to be carried:
- (i) three ball shapes;
 - (ii) one diamond shape.
- (b) In a vessel of less than 20 metres in length shapes of lesser dimensions but commensurate with the size of the vessel may be used and the distance apart may be correspondingly reduced.
5. The following equipment for sound signals is to be carried:
- (a) A vessel of 12 metres or more in length shall be provided with a whistle.

13. Anti-Fouling Systems

13.1 Yachts registered as Commercial Vessels/Commercial Yachts

1. For vessels with 400 GT and above engaged in international voyages the application, re-application, installation, or use of harmful anti-fouling systems specified in Annex 1 to the International Convention on the Control of Harmful Anti-Fouling Systems on Ships (AFS Convention) is prohibited and/or restricted.
2. Vessels of 24 metres or more in length but less than 400 GT engaged in international voyages will have to carry a Declaration on Anti-fouling Systems signed by the owner or authorized agent. The Declaration will have to be accompanied by appropriate documentation such as a paint receipt or contractor invoice.

13.2 Commercial yachts under 100GT and under 24

1. Yachts in this class are not required to comply with AFS convention.

ANNEX A – DOCUMENTATION TO BE SUBMITTED

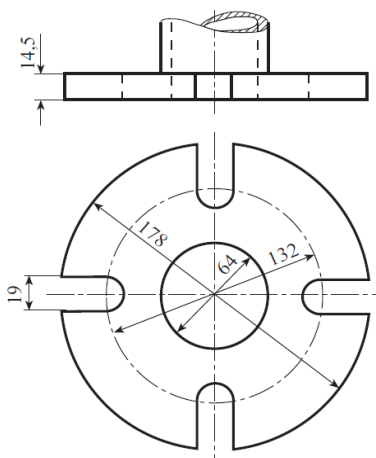
Yachts registered as Commercial Vessels/Commercial Yachts

The following relevant plans and documents shall be submitted for approval/reviewing:

	Commercial Vessels/Commercial Yachts	Commercial Yachts under 100GT and under 24m
0. General		
- Classification Certificate	X	
- Class Status (updated)	X	
- 94/25/CE Type Examination Certificate (if L < 24 m)	X	X
- Yard Declaration of Conformity (if L < 24 m)	X	X
- Registry Certificate	X	X
- Tonnage Certificate	X	
1. Hull		
- General arrangement	X	X
- Lines plan	X	X
- Shell expansion	X	
- Transverse sections, including main section	X	
- Longitudinal section and decks	X	
- Transverse bulkheads	X	
- Superstructures and deckhouses	X	
- Rudder and steering gear	X	
- Technical specification of anchors and anchor chains including type and material	X	
- Foundations of engines, steering gear, thrusters, windlass, winches, etc	X	
- Capacity Plan	X	X
2. Machinery and systems		
- Engine room general arrangement	X	X
- Shaft lines	X	X
- Propellers	X	
- Steering system	X	X
- Bilge system	X	X
- Fire fighting and detection systems	X	X
- Air, sounding and overflow piping arrangements	X	
- Ventilation system	X	
- Fuel and lubricating oil system	X	
- Cooling system	X	
- Exhaust system	X	
- Compressed air system	X	
- Sanitary and scuppers system	X	
3. Electricity		
- General arrangement plan showing location of the electrical equipment.	X	
- General diagram of the electrical installation.	X	X
- Single line diagrams of main/distribution/lighting/emergency switchboards.	X	
- Power consumption balance.	X	
- Navigation lights.	X	
4. Statutory		
- Stability booklet	X	X
- Fire and safety plan	X	X
- Tonnage calculation (L > 24 m)	X	
- SOPEP (GT > 400)	X	
- EIAPP (P > 130 kW)	X	X

ANNEX B – INTERNATIONAL STANDARD CONNECTIONS

1. Shore Fire Connection (SOLAS)

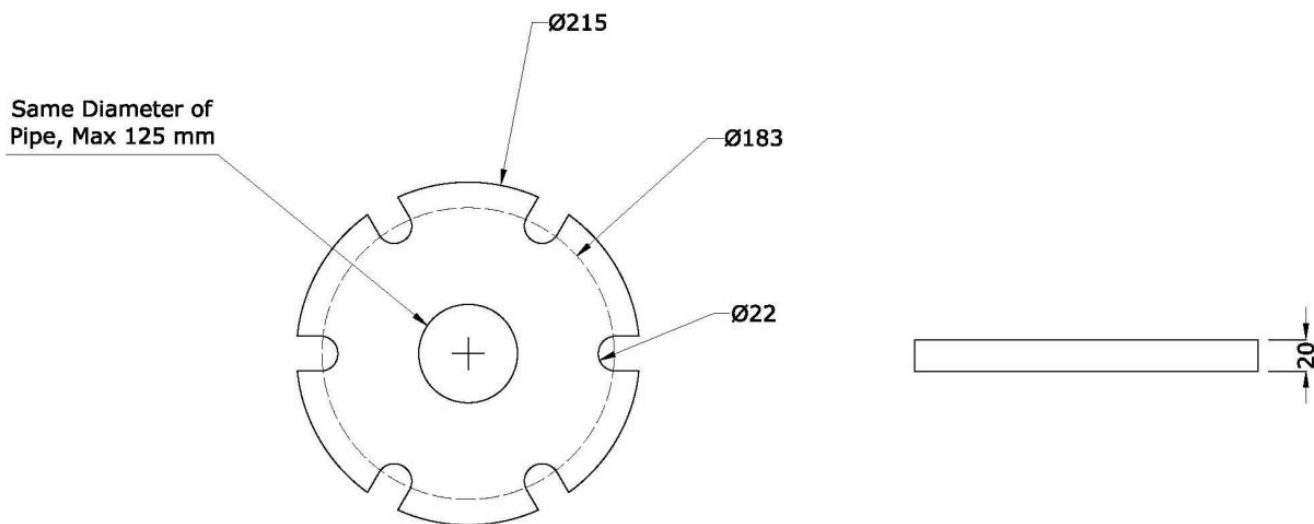


2. Oily Water Discharge Connection (MARPOL Annex I)

STANDARD BILGE CONNECTION (Dim. In mm)

Top View

Side View



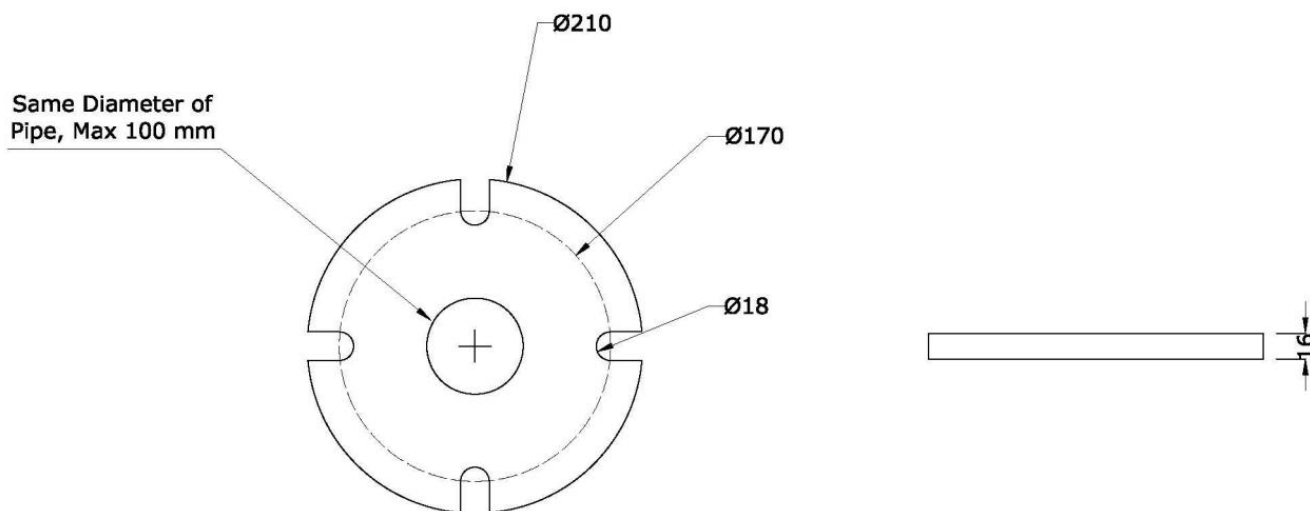
06 Bolts of 20 mm Diameter & Oil Proof Gasket are required

3. Sewage Discharge Connection (MARPOL Annex IV)

STANDARD SEWAGE CONNECTION (Dim. In mm)

Top View

Side View



04 Bolts of 16 mm Diameter & Suitable Gasket are required

ANNEX C – LIST OF CERTIFICATES TO BE ISSUED

Special service – commercial yacht				Special service – commercial vessel		
GT<100	L≤24m	L>24m		L≤24m	L>24m	
		GT<400	400≤GT<500		GT<400	400≤GT<500
Safety Certificate (non-convention) International Sewage Pollution Prevention Certificate (1)	Safety Certificate (non-convention) International Sewage Pollution Prevention Certificate (1)	Safety Certificate (non-convention) Cargo Ship Safety Radio Certificate (3) International Load Line Certificate International Tonnage Certificate (1969) International Sewage Pollution Prevention Certificate (1) Declaration on Anti-fouling System	Safety Certificate (non-convention) Cargo Ship Safety Radio Certificate International Load Line Certificate International Tonnage Certificate (1969) International Oil Pollution Prevention Certificate (IOPP) International Sewage Pollution Prevention Certificate International Anti-fouling System Certificate	Safety Certificate (non-convention) International Sewage Pollution Prevention Certificate (1)	Safety Certificate (non-convention) Cargo Ship Safety Radio Certificate (3) International Load Line Certificate International Tonnage Certificate (1969) International Sewage Pollution Prevention Certificate (1) Declaration on Anti-fouling System	Safety Certificate (non-convention) Cargo Ship Safety Radio Certificate International Load Line Certificate International Tonnage Certificate (1969) International Oil Pollution Prevention Certificate (IOPP) International Sewage Pollution Prevention Certificate International Anti-fouling System Certificate
Garbage disposal placards (2) Garbage management plan (4) Garbage record book (4)	Log Book Oil Record Book Garbage disposal placards Garbage management plan (4) Garbage record book (4)	Log Book Oil Record Book Shipboard Oil Pollution Emergency Plan (SOPEP) Garbage disposal placards Garbage management plan Garbage record book	Log Book Oil Record Book Shipboard Oil Pollution Emergency Plan (SOPEP) Garbage disposal placards Garbage management plan Garbage record book	Garbage disposal placards (2) Garbage management plan (4) Garbage record book (4)	Log Book Oil Record Book Garbage disposal placards Garbage management plan (4) Garbage record book (4)	Log Book Oil Record Book Shipboard Oil Pollution Emergency Plan (SOPEP) Garbage disposal placards Garbage management plan Garbage record book

(1) If certified to carry more than 15 persons.
 (2) If not less than 12m in length.
 (3) If above 300GT.
 (4) If certified to carry 15 persons or more.

ANNEX D – MATERIAL AND EQUIPMENT CERTIFICATION

Special service – commercial yacht / vessel				
L≤24m	L>24m			
	GT<300	300≤GT<400	400≤GT<500	GT≥500
Materials and equipments are to be safe, suitable for the marine environment and approved. Subject to the mandatory requirements given below, MED compliance is recommended for material and equipment.				
<p>MED applies for equipment required under: Marpol Annex IV: Sewage treatment plant (1)</p>	<p>MED applies for equipment required under: Marpol Annex IV: Sewage treatment plant (1)</p>	<p>MED applies for equipment required under: SOLAS Chapter IV: Radio-communications equipment as applicable SOLAS Chapter V: Navigational equipment as applicable Marpol Annex IV: Sewage treatment plant (1)</p>	<p>MED applies for equipment required under: SOLAS Chapter IV: Radio-communications equipment as applicable SOLAS Chapter V: Navigational equipment as applicable Marpol Annex I: Oil-filtering equipment Oil/water interface detectors Oil-content meters Marpol Annex IV: Sewage treatment plant (1) Marpol Annex VI: Shipboard incinerators On board NOx monitoring and recording devices Other technological methods to limit SOx emissions On board exhaust gas cleaning systems</p>	<p>MED applies fully.</p>

(1) If certified to carry more than 15 persons.

ANNEX E – GUIDELINES FOR THE INCLINING EXPERIMENT

The inclining experiment is to follow, as applicable, the following guidelines:

- Report of inclining experiment to be signed by Society Surveyor,
- Favourable weather conditions,
- Trim is to be not more than 1% of Lpp,
- List is to be not more than 0.5°,
- Lifesaving appliances secured,
- Systems which include piping filled,
- Bilge and decks dried,
- All tanks empty or full,
- All cross connections closed,
- No works onboard and only personnel directly involved in experiment,
- Yacht to be as complete as possible,
- Yacht is to be surveyed to identify weights to be removed, added or relocated (kept to a minimum) and its weight and location recorded,
- Lifting keels located in highest position,
- Canting keels upright,
- Inclination to be between two and four degrees (one degree minimum for sailing yachts), to be verified by surveyor during inclining and verification evidenced in report of inclining experiment,
- Inclining weights to be compact weighted and accurately located,
- Water ballast not to be used as inclining weight,
- One pendulum can be accepted for yachts of length equal or less than 35m,
- Pendulum is to be long enough to give a deflection to each side of at least 10cm,
- Pendulum is to be protected from wind,
- Two-way means of communication to be provided,
- Plans to be available: hydrostatics, general arrangement, capacity plan, tank sounding tables, draught mark plan,
- Draught readings to be taken aft and port (both sides),
- Hydrometer to be used to determine the specific gravity of the water,
- All tanks are to be checked for liquid contents,
- Solid permanent ballast to be clearly identified and listed,
- Inclining weights to be moved transversely, not longitudinally in order not to change trim,
- Distances which the weights move are to be accurately measured,
- During readings of the pendulum personnel is not allowed to move,
- For yachts of length equal or less than 35m six distinct weight movements may be accepted.

ANNEX F – GUIDELINES FOR THE TRIM AND STABILITY BOOKLET

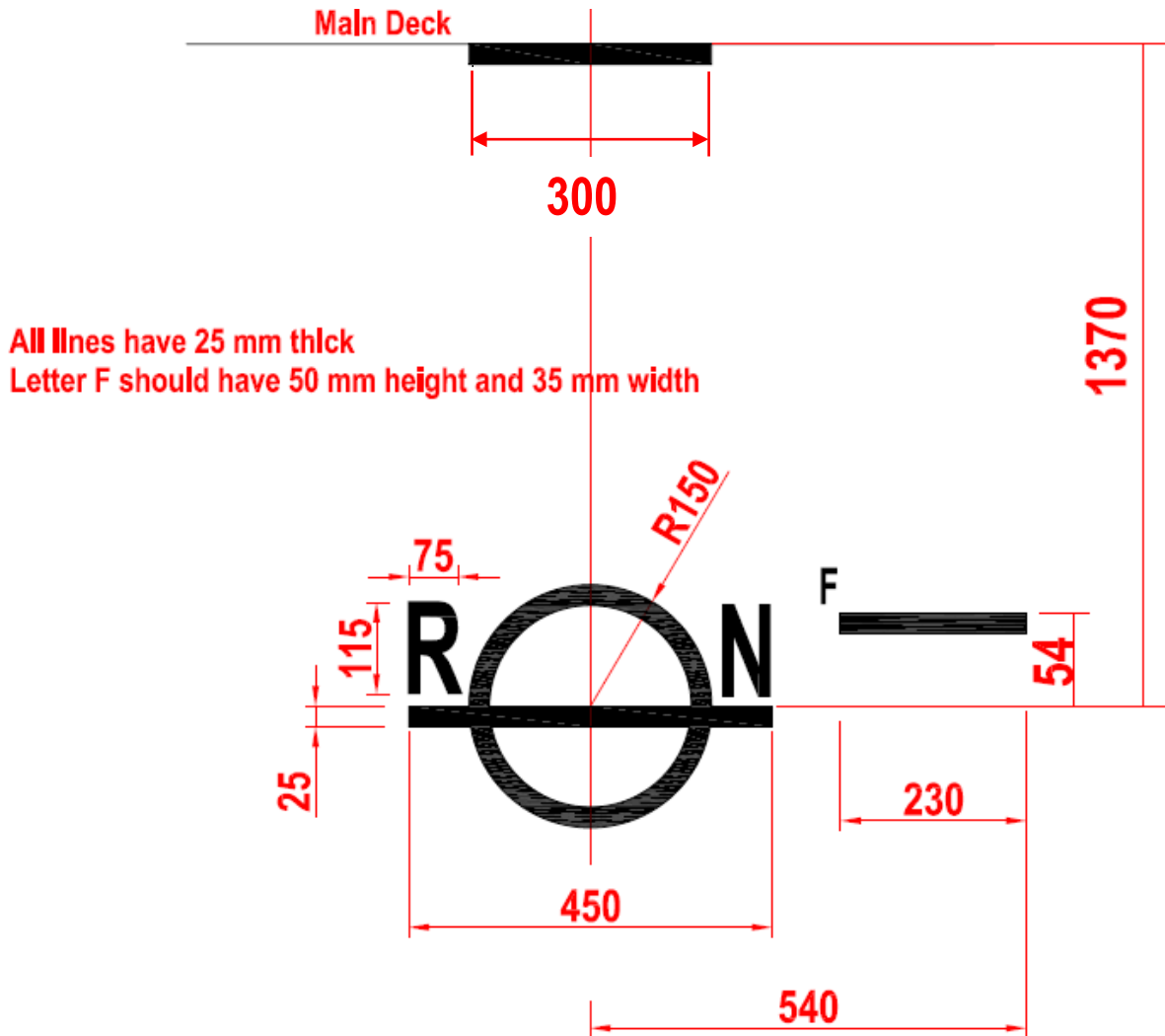
The trim and stability booklet is to follow, as applicable, the following guidelines:

- Table of Contents,
- A general description of the yacht, including the yacht's name and the Society classification number, the yacht type and service notation, the class notations, the yard, the hull number and the year of delivery, the moulded dimensions, the draught corresponding to the summer load line, the displacement corresponding to the above-mentioned draught,
- Clear instructions on the use of the booklet (including operation limitations, if any, regarding sea state, area, or other) and form to allow master to develop and assess loading condition,
- General arrangement, capacity plan and other relevant drawings including date and revision number (reference to these documents is sufficient),
- Information about openings (location, tightness, means of closure), pipes or other progressive flooding sources (these to cut short the stability curve) and flooding angles,
- Information about centre of lateral exposed area and assessed wind pressure,
- Enclosed superstructures which have been taken as buoyant,
- Draught marks location sketch,
- Hydrostatics and cross curves covering the range of draughts and operational trims,
- Indication of volumes considered in calculating the hydrostatics (seachests, tunnels deducted and appendages added, as applicable),
- Indication of volumes considered in calculating the cross curves,
- Tank sounding tables and summary table of tank capacities (including free-surface moment),
- Lightship data from inclining experiment with place and date,
- Standard loading conditions,
- Intact stability results for loading conditions with actual and required values and indicating compliance,
- Damage stability results for loading conditions with actual and required values and indicating compliance, if applicable,
- Maximum KG or minimum GM curve or table to determine compliance with intact and damage stability, if applicable,
- Information concerning the use of cross-flooding fittings with indication of damage conditions requiring cross-flooding, if applicable.

ANNEX G – FREEBOARD ASSIGNMENT

Freeboard Assignment

Vessel Name: _____ Class Number: _____ Freeboard Length: _____	Marks to follow the plan below. Marks shall be permanently marked on the sides of the ship. Marks shall be plainly visible.
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The upper edge of the deck-line from which these freeboards are measured is _____ mm _____ deck at side.	The centre of the ring shall be placed amidships and at a distance equal to the assigned summer freeboard measured vertically below the upper edge of the deck line.
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ISSUED SUBJECT TO COMPLIANCE WITH CONDITIONS OF ASSIGNMENT & STABILITY APPROVAL
 FREEBOARD DISK TO BE PLACED _____