



# Advisory Circular

ISSUE NO. 47-3, 16 MAY 2011

## Part 47: Load Lines

### 1. General

#### 1.1 Purpose of advisory circular

Maritime New Zealand (MNZ) advisory circulars are designed to give assistance and explanations about the standards and requirements set out in the Rules. However, the notes contained in advisory circulars should not be treated as a substitute for the Rules themselves, which are the law.

If an advisory circular sets out how a Rule can be satisfied then compliance with that advice ensures compliance with the Rule. Other methods of complying with the Rule may be possible; however MNZ would need to be satisfied that those alternative methods were to an equivalent standard to the advice in the advisory circular. The advisory circular would then be amended to include those equivalents.

This advisory circular for Part 47 supports Maritime Rule Part 47 and when a number reference such as rule 47.5 is used, it relates to a specific rule within Part 47. For explanation of some of the expressions used within the rule, which may be unfamiliar, please reference the Definitions section of the rule, or if not detailed there, the International Convention on Load Lines 1966.

#### 1.2 Application of Rule Part 47

It is important to note that Part 47 has general requirements and then three distinct sections. Each of these sections separately apply to specific types of vessels and contain rules that make requirements against the owners and masters of those vessels:

- Section 1: Ships of 24 meters or more in length
- Section 2: Ships of less than 24 meters in length
- Section 3: Barges that do not operate beyond the coastal limit

The exact application of the rules and requirements is detailed at the start of each section. Care should be taken to ensure the correct section is being considered for the vessel in question so that the correct requirements are considered and satisfied.

#### 1.3 Objective of Rule

Both the International Convention of Load Lines 1966 and this rule Part 47 focus on the following key principles, issues and areas of concern:

- the strength of the ship in relation to the loads it will carry
- the stability of the ship
- the reserves of stability and strength maintained through the setting of a minimum "freeboard"
- the watertight integrity of all openings, doors, ventilators, vent pipes and hatches on the ship

- the protection of the crew.

These basic principles are applied within all the sections of this rule Part.

## 2. Supportive guidance to the rule part

### 2.1 General

#### 2.1.1 Rule 47.2 Definitions

##### Fishing ship

The definition of fishing ship in Part 47 does not relate to the Fisheries Act (as with other rule parts) but comes from the definition used in the International Convention of Load Lines 1966 (the Load Line Convention). As this definition is applied in the application sections of these rules the slightly different wording should be kept in mind.

##### Length (Load Line Length)

The definition of “length” in Part 47 is a special definition which originates from the International Convention of Load Lines 1966. For this reason it needs to be noted that this length dimension is different to other “length” dimensions defined in other rules.

The dimension of load line length depends on the other dimensions of Moulded Depth ( $D_m$ ) and the longitudinal positions of the forward perpendicular (FP) and aft perpendicular (AP).

$D_m$  is the dimension of the inside depth of the hull of the ship and is from the upper inside face of the shell plate at the keel (but not any keel plate above the shell) to the underside of the freeboard deck plate (or stringer plate) at the side of the ship. Deck camber is not included in the moulded depth measurement. For wooden or composite ships the lower extent of the measurement is taken from a different point as shown below.

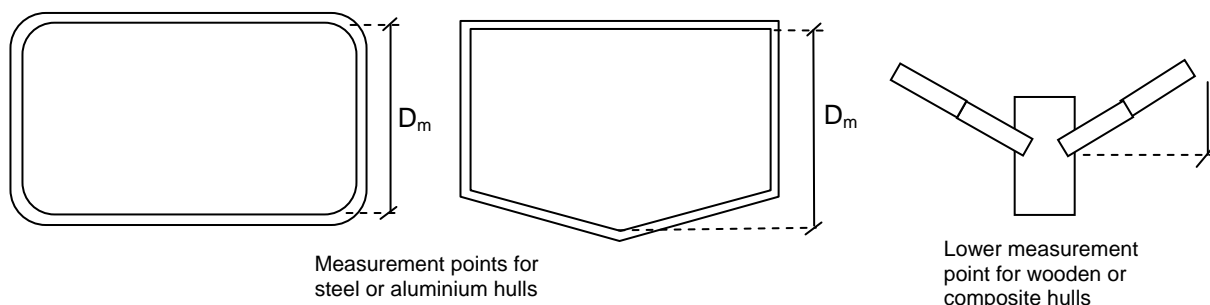
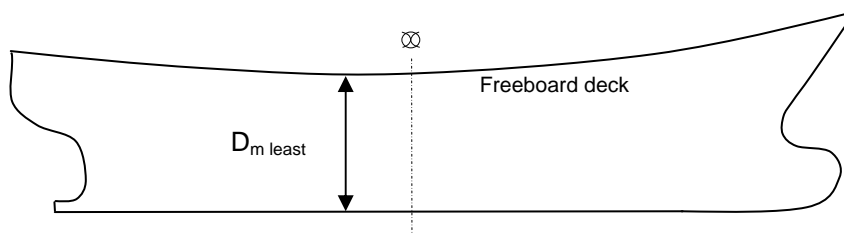


Figure 1: moulded depth ( $D_m$ ) measuring

This moulded depth has a minimum value as you move along the length of the ship. The minimum, due to the sheer line, the rake of keel or the line of the freeboard deck, may not be at amidships. It is this minimum or “least moulded depth” ( $D_{m\text{ least}}$ ) that should be applied.


 Figure 2:  $D_{m \text{ least}}$  measurement point

Once the least moulded depth is found, a waterline<sup>1</sup> at  $0.85 \times D_{m \text{ least}}$  is applied horizontally on the ship and projected forward to the bow and aft to the stern.

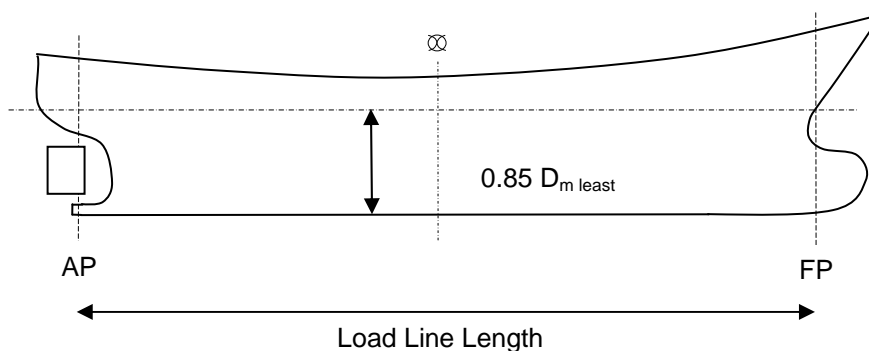


Figure 3: Load Line Length

At the height of  $0.85D_{m \text{ least}}$  the vertical line that intersects the fore side of the stem of the ship denotes the position of the forward perpendicular (FP). The FP shall coincide with the fore side of the stem on the waterline on which length is measured. If the FP intersects on the bulbous bow at  $0.85D_{m \text{ least}}$  the position of the FP is taken as the aftermost point on the stem's forward contour (ie. not at the bulb).

The Aft Perpendicular (AP) is the further aft of either the centre of the axis of the rudder stock or 96% of the total extreme length aft (measured at  $0.85D_{m \text{ least}}$  from FP), whichever is the larger.

This final dimension of length (between the FP and AP at  $0.85 D_{m \text{ least}}$ ) is the length applied in this rule Part. This is the "Load Line Length" (LL Length).

#### "Position 1" and "Position 2"

Critical to the requirements for hatch-coamings, ventilators, air pipes and door sills are the definitions of "position 1" and "position 2". This is because these positions determine the "exposed" position 1 areas of deck and those areas which are considered less exposed (position 2). In the less exposed areas the requirements are moderated from the values which are necessary to prevent flooding or failure in position 1 areas..

<sup>1</sup> Any horizontal line on the profile section of a ship's lines-plan (a technical drawing) is called a 'waterline'. Any vertical line on the same profile is called a 'perpendicular'. Even though there are many waterlines and perpendiculars used to describe the ship's hull shape, the waterline and perpendiculars discussed in the International Convention on Load Lines 1966 refer to those by which the length is calculated.

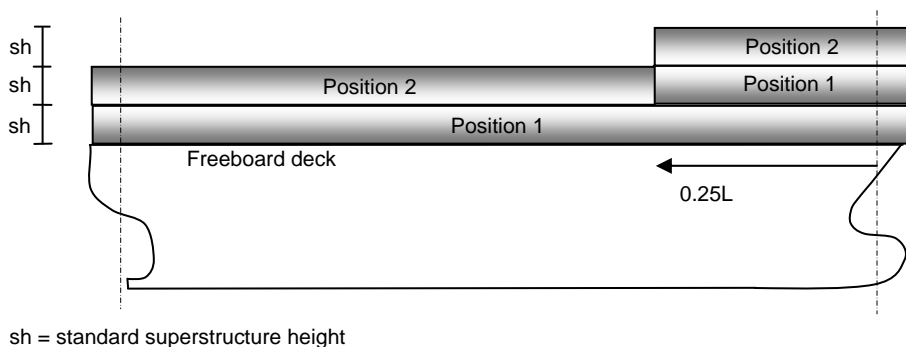


Figure 4: explanation of positions 1 and position 2

The above general rule is complicated when a ship has a poop-deck or a mid-ships bridge deck, but generally the simple model above is the easiest to consider. For more complicated arrangements seek advice from your Classification Society or Naval Architect.

### 2.1.2 Rule 47.5 – Draught Marks

Rule 47.5 requires that every New Zealand ship of 16 metres or more in length be provided with draught marks forward and aft.

These draught marks should be verified by the surveyor at the Initial Load Line Survey and prior to any ship entering into a safe ship management system. The draught marks should be maintained to the satisfaction of the surveyor and visually checked at each load line survey to ensure they are clear, legible and painted in a manner to provide clear contrast.

The forward draught marks may be in a line perpendicular to the waterline or may follow the line of the stem. There are advantages to having the draft marks vertically, for ease of calculation during loading and stability calculations, however, greater accuracy may be possible when they are marked on a diagonal in line with the stem. Both arrangements are acceptable but both must be measured from the line of the underside of the keel.

Where the keel is not parallel to the design waterline, the draft marks should be measured from a line that is parallel to the designed water line and passes through the point where the line of the underside of the keel meets the lowest point of curvature of the forefoot of the stem.

As each of the different types of vessels have very different arrangements some diagrams are offered for guidance in Appendix H to explain how best to apply draught mark datum.

## 2.2 Section 1: Ships of 24 meters or more in length

### 2.2.1 Rule 47.6 – Application

The definition of length that is applied within rule 47.6 is the load line length previously described.

Any ship with a load line length of 24m or more must comply with Section 1 of Part 47; with the exception of pleasure craft, fishing ships (LL definition), barges that do not carry people (or operate entirely within coastal limits) and the other exceptions detailed in rule 47.6(2).

## 2.2.2 Rule 47.8 – Owner’s and master’s obligations

### What is the “assignment of freeboard”?

The rule 47.8(1)(a) refers to the “assignment of freeboard”. This, for ships greater than 24m, is the application of the Load Line Convention tables that refer to type A and type B ships (as defined in the Load Line Convention). The value obtained can then be reduced by several corrections as detailed in the convention. The end value is then checked against the structural maximum draught of the ship (the “scantling draught” which is the structural limiting draught for the ship) and the larger of the two freeboards assigned.

The resultant minimum freeboard is applied in the Load Line Mark with the adjusted variations which depend on fresh or salt water and the seasonal zones.

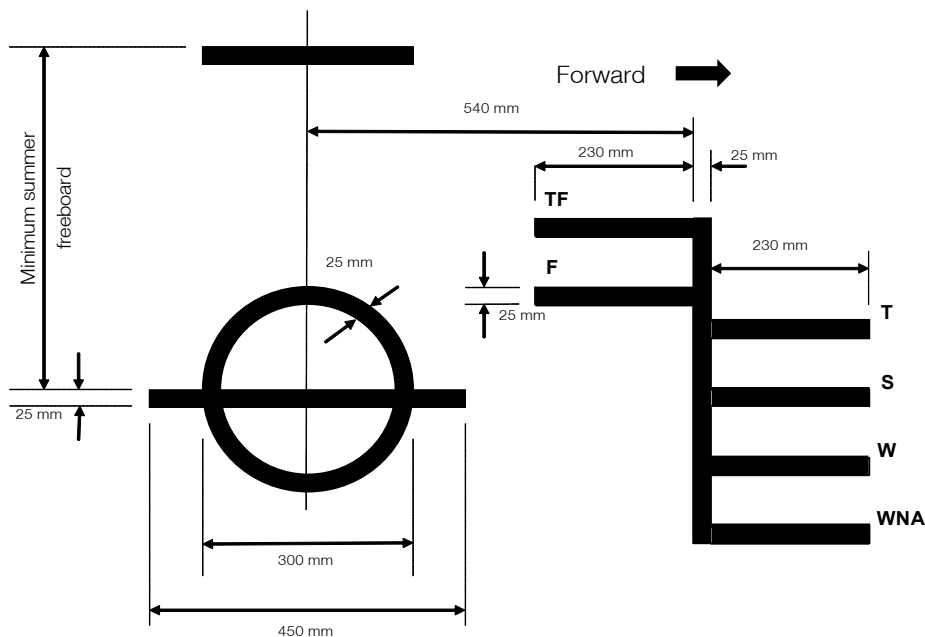


Figure 5 – Load Line Mark and lines to be used with this mark from the International Convention of Load Lines 1966, Annex 1, Regulation 6.

### What plans, drawings, specifications and other documents are required?

Rule 47.8(1)(b) details need for the provision of plans, drawings, specifications and other documents to the Director (or the assigning authority). For guidance on this your Classification Society will be able to assist if the ship is under Classification Society supervision. Typical to these are:

- the Freeboard Plan for the ship, if one is arranged
- a drawing clearly showing the sheer profile of the ship
- a drawing clearly showing the general arrangement of the ship
- the details required to complete Initial Load Line Survey’s “Record of particulars relating to the Conditions of Assignment”
- the details required to complete the “Record of Measurements for the Assignment of Freeboard”
- a copy of the Stability Book.

### **What is detailed in the articles and annexes of the Load Line Convention?**

Rule 47.8(2)(a) mentions several articles and annexes of the convention. For your overview please note the following:

Article 2: refers to the definitions which apply within the Convention

Article 3: refers to the general provisions that no ship shall proceed to sea without the required certification

Article 7: refers to 'force majeure'

Article 10: refer to repairs, alterations and modifications

Article 11: refers to the zones and areas

Article 12: refers to the submersion of the load lines

Article 13: refers to the surveys, inspections and markings

Article 14: refers to the initial and periodical surveys and inspections

Article 15: refers to maintenance of conditions after survey

Annex I: details all the regulations for determining load lines

Annex III: details the form of the international certificates

For more detail on the content of these please refer to the content of the Load Line Convention itself.

### **Initial, annual and renewal load line surveys**

Rule 47.8 requires (through Article 14) the owner and master of all ships to which section 1 applies to ensure that initial, annual and renewal surveys are undertaken:

The **initial survey** is to be undertaken before the ship is put in service, and shall include a complete inspection of its structure and equipment in so far as the ship is covered by the present Load Line Convention. The survey shall be such as to ensure that the arrangements, materials and scantlings fully comply with the requirements of the convention.

Article 14 details that an **annual survey** is to be undertaken within 3 months before or after each anniversary date of the certificate to ensure that:

- alterations have not been made to the hull or superstructures that would affect the calculations determining the position of the load line
- the fittings and appliances for the protection of openings guard rails, freeing ports and means of access to crew's quarters are maintained in an effective condition
- the freeboard marks are correctly and permanently indicated
- the information required by regulation 10 (approved loading and stability information) is available.

These annual survey endorsements (the date, name and signatures of the recognised surveyor) are to be made on the Load Line Certificate issued to the ship, regardless of whether it is an international certificate or a NZ certificate.

A **renewal survey** (5 yearly periodical survey) must ensure that the structure, equipment, arrangements, materials and scantlings fully comply with the requirements of the present Load Line Convention.

### **2.2.3 Rule 47.9 – Record of Particulars relating to the Conditions of Assignment**

Compliance to the regulations detailed in the Annex I of the Load Line Convention is required by both the International Convention of Load Lines 1966 and rule 47.8.

The "Record of Particulars relating to the Conditions of Assignment" is a form used to record the compliance to the regulations in Annex I. It is normally around 17 pages long and contains extensive detail on the dimensions of many items on the ship. If a "freeboard plan" is adequately laid out to detail the required information, a Class approved version of such a drawing can greatly assist in completing the record.

A version of this record is provided in Part 6 of the Load Line Convention and a version is provided for information in Appendix A of this advisory circular.

The information in this form is required by the surveyor undertaking the subsequent annual and renewal load line surveys. It documents the compliant condition of the ship when freeboard is assigned. For this reason it is an important record of the items and their required dimensions. Any alterations to the ship, detailed in this record, must be verified and approved by the surveyor acting on behalf of the flag administration for that ship.

### **Report of measurements for load lines (data necessary for the calculation of freeboards)**

Appendix B of this advisory circular contains a form "Report of measurements for Load Lines (data necessary for the calculation of freeboard)".

This form (or a report documenting the same information) is to be used by the assigning authorities to document the information involved in corrections to the freeboard that are made. This is required by rule 47.9.

### **Information supplied to the master**

The loading information referred to in regulation 10 may be incorporated with the trim and stability information of the stability book.

Approval of the intact stability information to be supplied under regulation 10 for new ships is generally to be in accordance with IMO Resolution (A749 (18)) as amended by Resolution MSC.75 (69). For new ships assigned timber freeboards reference should be made to Appendix C of the "Code of Practice for Ships carrying Timber Deck Cargoes" adopted by the IMO as Resolution A.715(17), for intact stability.

## **2.2.4 Guidance to the Annex I regulations for ships 24m or more in length**

### **Unified interpretations**

Over the years, the International Association of Classification Societies ("IACS") have developed unified interpretations of the regulations of the International Load Line Convention 1966, and these have subsequently been approved by the International Maritime Organization ("IMO"). These unified interpretations, as approved by the IMO, are updated and published from time to time in the form of IMO circulars. The last of these to be issued was LL.3/Circ162 dated 24 May 2005 which should be read in conjunction with LL.3/Circ. 155, LL3/130 dated 15 June 1999 (sixth set), LL3/Circ.77 dated 13 October 1986 (fifth set) and LL3/Circ. 69 which is a consolidation of the earlier four circulars covering approved unified interpretations.

### **Where the freeboard is required to be increased**

One of the unified interpretations (IACS Interpretation LL.51/Rev.1 (1986)) covers the situation where the freeboard is required to be increased because of considerations such as strength (regulation 1 relating to scantling draught), the location of shell doors (regulation 2) or sidescuttles (regulation 23) or other reasons. In those situations, alternatives are provided to offer some relaxation in the conditions of assignment for the protection of openings on the freeboard deck. See the unified interpretations of the

provisions of the International Convention on Load Lines 1966 (IACS Interpretation LL.51/Rev.1 (1986)) for details.

### **Hatch coaming heights**

Hatches in position 1 need to have a coaming height of at least 600mm

Hatches in position 2 need to have a coaming height of at least 450mm

### **Ventilators**

Ventilation openings (intake or exhaust) in position 1 with means of watertight closing need to have a minimum ingress height of 900mm

Ventilation openings (intake or exhaust) in position 1 **without** means of watertight closing need to have a minimum ingress height of 4500mm

Ventilation openings (intake or exhaust) in position 2 with means of watertight closing need to have a minimum ingress height of 760mm

Ventilation openings (intake or exhaust) in position 2 **without** means of watertight closing need to have a minimum ingress height of 2300mm

### **Air pipes (tank vent pipes)**

Air pipes in position 1 need to have a minimum ingress height of at least 760mm

Air pipes in position 2 need to have a minimum ingress height of at least 450mm

### **Door sill heights**

Doors in position 1 need to have a sill height of at least 600mm

Doors in position 2 need to have a sill height of at least 380mm

### **Sanitary discharge pipe arrangements**

Regulation 22 and the unified interpretations should be considered to gain the practical detail required. The valve requirements and substantial pipe thickness requirements should also be considered.

Classification societies often apply supportive rules, based on their interpretation of the load line requirements, that support the arrangement of sanitary discharge systems to prevent flooding and to ensure that the siphon effect does not back-flood the ship. For example; in addition to the valve requirements and pipe thickness requirements rule requirements for a loop in the sanitary pipe discharge, with a vacuum breaker or vent, at least 1% of the length of the ship higher than the summer water line (or 500mm – whichever is greater).

Arrangements of this nature should be considered at the design and construction stage (or modification) and advice sought from the ship's classification society.

### **Guard-rails and the protection of the crew**

The protection of the crew is often an area of the Load Line Convention requirements that is overlooked, or considered part of other requirements. The detail on the maximum permissible dimensions for guardrails, stays and the requirements on the use of chains in lieu of guard rails should be applied.

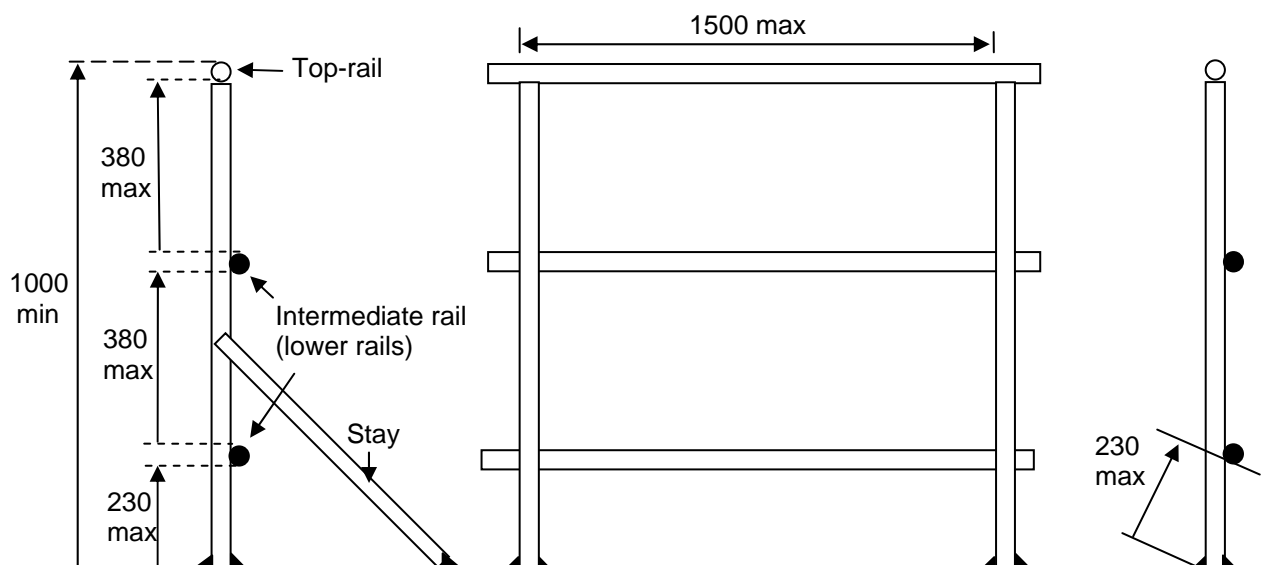


Figure 6: ordinary guard rails

### 2.2.5 47.56 – Certificates

The form of the two different types of certificates detailed in rule 47.56 can be seen in Appendix C and Appendix D of this advisory circular.

#### Harmonised System of Survey and Certification

For a detailed explanation of the harmonised system of survey and certification, reference should be made to paragraph 1.5 of the advisory circular for Part 46.

In paragraph 1.6 of the advisory circular for Part 46, it is indicated that the commencement date of the harmonised system of survey and certification is the renewal date of the Cargo (or Passenger) Ship Safety Construction Certificate. The International Load Line Certificate should be harmonised with this date.

## 2.3 Section 2: Ships of less than 24m in length

Section 2 of Part 47 applies safety requirements which are important for these smaller ships.

The intent of the rules in section 2 remains that described on page 1 of this document but the rules within it generally apply less stringent requirements (when compared to Section 1).

### 2.3.1 Rule 47.61 – Application of Section 2

The length of 24m applied in the application relates to the “Load Line length” as previously described. It is not the overall length or registered length.

It should also be noted that the definition of “fishing ship” is the one detailed at the start of Part 47 (that comes from the International Convention of Load Line 1966).

Fishing ships are not required to be assigned and marked with load lines in accordance with this section provided they do not carry cargoes other than the fish caught on the particular voyage they are undertaking ( see definition of “cargo” and the definition of “fishing ship”).

Some fishing ships, however, require to be marked with a line for compliance with stability/freeboard requirements under rule 40D.35. The mark required by that rule is referred to as a “load line mark” however this should be taken in its literal meaning as there is no link to requirements from the Load Line Convention. The requirements of rule 40D.35 relate specifically to stability and seaworthiness of fishing vessels not compliance to Part 47.

### **2.3.2 Rule 47.63 Determination of freeboard**

This rule applies a simplified version of the freeboard assignment applied by the Load Line Convention that is more appropriate to smaller ships. Appendix 1 of Part 47 has detail that supports the requirements of the rule and assists in undertaking the corrections accurately.

Similar to the larger ships, any ship less than 24m has to be assigned either the freeboard obtained from rule 47.63(1) and (2) or the resultant freeboard that relates to the maximum scantling draught assessed by the recognised surveyor approving the structure of the ship (rule 47.63(3)). If the strength of the ship’s structure limits the maximum draught of the ship then that resultant “freeboard” must be applied as the limiting criteria for determining the freeboard of the ship.

The recognised surveyor undertaking the determination of freeboard in compliance with this rule is required by MNZ to prepare a report documenting how the freeboard has been determined and to provide a copy to both the owner and MNZ. The “Report of measurements for Load Lines (data necessary for the calculation of freeboard)” in Appendix B of this advisory circular should be used. Full detail of the corrections applied should be recorded on that report and any considerations to the scantling draught noted in the ‘remarks’ field, if applicable.

The determination of freeboard to rule 47.63 is a separate and distinct process from reporting required under rules 40A.15 and 40C.15. Regardless of which value of freeboard is eventually found to be the largest, compliance to rule 47.63 needs to be confirmed and reported. If the values of minimum freeboard required for stability in rules 40A.15 or 40C.15 are then found to be greater, this information should be detailed at the end of this report and the reason for the resultant freeboard adequately documented.

### **2.3.3 Rule 47.64 - Marking**

With the simplified requirements and the limitations on how far these ships travel, the required marks are simpler than those required on ships 24m or more in length. Only the summer, winter and fresh marks are necessary. The form of these marks can be seen on the certificate that can be found in Appendix E of this advisory circular.

### **2.3.4 Rule 47.65 – Conditions of Assignment**

The purpose of these rule requirements is to prevent water ingress, ensure stability and to provide a standard on safety on board the ship that can be verified by the recognised surveyor undertaking the initial and renewal load line surveys required by rule 47.66.

To assist in recording this compliance and to help the surveyor in undertaking the renewal survey a “Record of Conditions of Assignment for Ships less than 24m” form is provided in Appendix F of this advisory circular.

The recognised surveyor undertaking the **initial load line survey** must complete this form, sign and date it and provide a copy to the Owner for retention with the Load Line Certificate. The surveyor is also required to send a copy of this form to MNZ as part of the newbuilding construction report.

## **Positions 1 and 2**

Please see the general section towards the start of this advisory circular that discusses these definitions.

### **2.3.5 Rule 47.66 – Surveys**

As mentioned above, the recognised surveyor undertaking the **initial load line survey** of the ship is required to confirm compliance with rule 47.65. MNZ requires the surveyor undertaking this initial survey to record this compliance by the completion and signing of the “Record of Conditions of Assignment for Ships less than 24m” form that is provided in Appendix F of this advisory circular.

A copy of this “Record of Conditions of Assignment for Ships less than 24m” form is to be provided to the owner to be kept with the Load Line Certificate. A copy of the initial form is also to be sent to MNZ.

Surveyors undertaking a subsequent **renewal survey** (5 years later) should request to see the “Record of Conditions of Assignment for Ships less than 24m” form to assist in their survey and to help consider if any un-approved alterations have been made to the ship. If any acceptable alterations (to rule 47.65) have been made the surveyor should make those updates to the owner’s copy of the form and sign, name and date those changes.

Surveyors should keep in mind that, dependant on when the initial survey was undertaken, this form may not be available for the ship in question, however, as time progresses more and more of these forms should be.

### **2.3.6 Rule 47.67 Certificates**

The version of the New Zealand Load Line Certificate mentioned in the rule 47.67 is specifically for ships of less than 24m in length. The form of the certificate can be reviewed on Appendix E of this advisory circular.

## **2.4 Section 3: Barges that do not operate beyond coastal limits**

### **2.4.1 Rule 47.71 Determination of freeboard**

This rule applies a simplified version of the freeboard assignment applied by the Load Line Convention that is more appropriate to the barges being discussed.

### **2.4.2 Rule 47.73 - Conditions of assignment**

Due to the simplicity of the requirements of this rule, a form to ‘record the conditions of assignment’ is not necessary or required.

### **2.4.3 Rule 47.75 – Certificates**

The version of the New Zealand Load Line Certificate mentioned in the rule 47.75 is specifically for barges of 24m or more in length. The form of the certificate can be reviewed on Appendix G of this advisory circular.

## 2.5 Quick Guide for issuing certificates and making Load Lines

For guidance on which load line certificate is to be issued for a ship or barge and how the load lines should be marked the following table is provided.

Type	Size/Limits	Certificate	Markings
Ship	24m or more in length and on international voyages. (Section 1 applies)	International Load Line Certificate	See sample in Appendix C
Ship	24m or more in length which are not undertaking international voyages (Section 1 applies)	New Zealand Load Line Certificate	See sample in Appendix D
Ship	Less than 24m in length which are decked ships that carry cargo (Section 2 applies)	New Zealand Load Line Certificate for ships less than 24m	See sample in Appendix E
Barge carrying passengers	Any passenger carrying barge 24m or more undertaking international voyages (Section 1 applies)	International Load Line Certificate	See sample in Appendix C
Barge carrying passengers	Any passenger carrying barge not undertaking international voyages (24m or more in length Section 1 applies) (24m or more in length Section 2 applies)	New Zealand Load Line Certificate	See sample in Appendix D
Barge not carrying passengers	24m or more in length which operates outside of the coastal limit undertaking international voyages (Section 1 applies)	International Load Line Certificate	See sample in Appendix C
Barge not carrying passengers	24m or more in length which operates outside of the coastal limit not undertaking international voyages (Section 1 applies)	New Zealand Load Line Certificate for barges of 24m or more in length	See sample in Appendix G
Barge not carrying passengers	24m or more in length which operate within the coastal limit (Section 3 applies)	New Zealand Load Line Certificate for barges of 24m or more in length	See sample in Appendix G

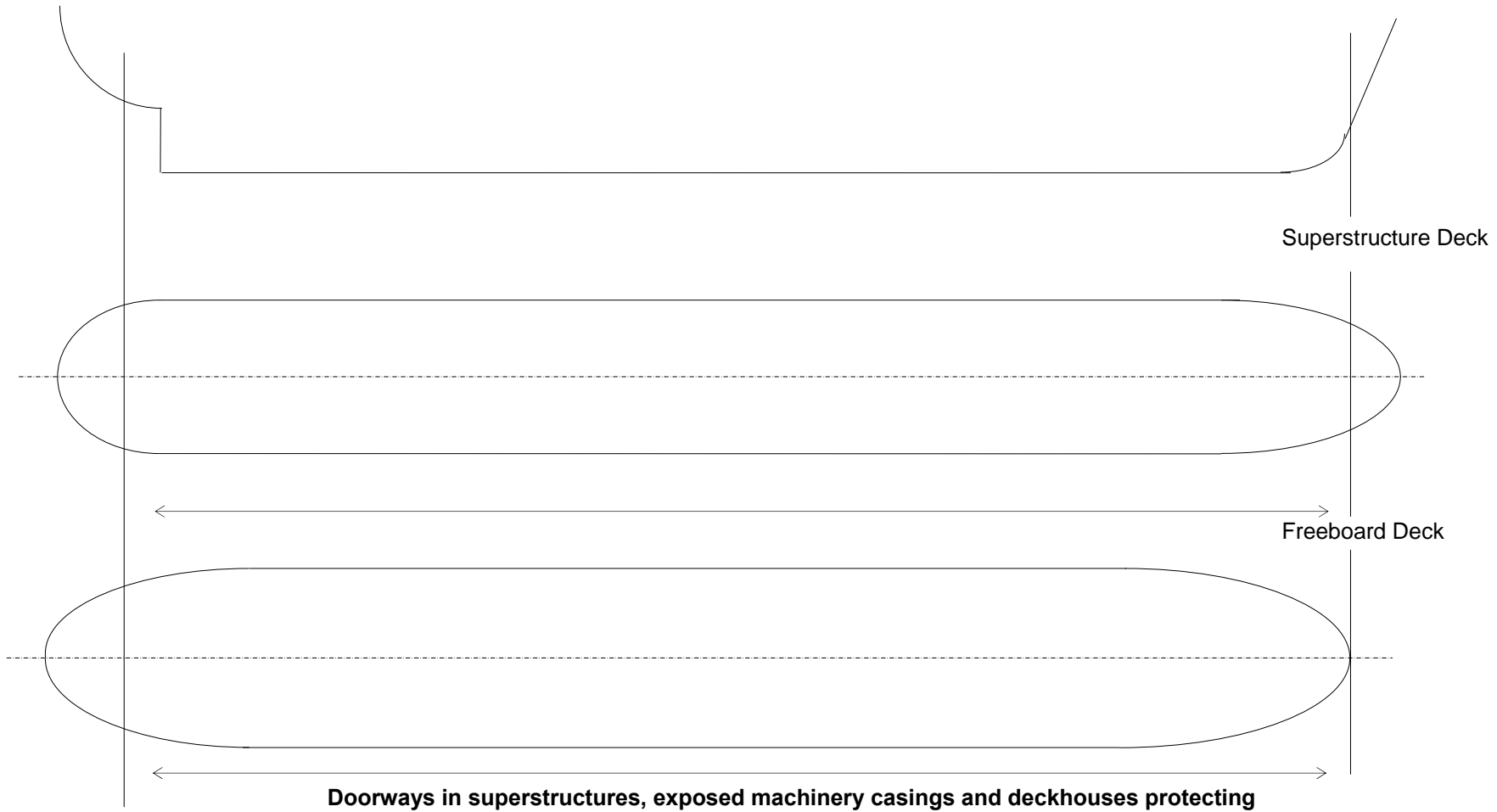
## 2.6 Appendix A – Form of the “Record of particulars relating to the Conditions of Assignment”

### INTERNATIONAL CONVENTION ON LOAD LINES, 1966 RECORD OF CONDITIONS OF ASSIGNMENT

Name of Ship	.....
MNZ Number	.....
Nationality	.....
Official Number	.....
Owners	.....
SSM Company	.....
Classification Society	.....
Date of Build/Conversion	.....
Freeboards Assigned as a Ship of Type	.....
Freeboard Length	.....
Gross Tonnage	.....
Date and Place of initial survey	.....
List of plans attached to this report	.....

A plan of suitable size may be attached to this Report in preference to sketches on this page.

Disposition and dimensions of superstructures, trunks, deckhouses, machinery casings; extent of bulwarks, guard rails and wood sheathing on exposed deck, to be inserted in the diagrams and tables following; together with positions of hatchways, gangways, and other means for the protection of the crew; cargo ports, bow and stern doors, side scuttles, scuppers, ventilators, air pipes, companionways, and other items relevant to the assigned load line(s).



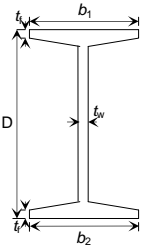
**openings in freeboard and superstructure decks (Regulations 12, 17 and 18)**

Location	Ref. No. on Sketch or Plan	Number and Size of Openings	Height of Sills	Closing Appliances	
				Type and Material	Number of Clips
In forecastle bulkhead					
In bridge forward bulkhead					
In bridge after bulkhead					
In raised quarter-deck bulkhead					
In poop bulkhead					

**Doorways in superstructures, exposed machinery casings and deckhouses protecting openings in freeboard and superstructure decks (Regulations 12, 17 and 18)**

Location	Ref. No. on Sketch or Plan	Number and Size of Openings	Height of Sills	Closing Appliances	
				Type and Material	Number of Clips
In exposed machinery casings on freeboard or raised quarter decks					
In exposed machinery casings on superstructure decks					
In machinery casings within superstructures or deckhouses on freeboard deck					
In deckhouses in Position 1 enclosing openings leading below freeboard deck					
In deckhouses in Position 2 enclosing openings leading within enclosed superstructures or below freeboard deck					
In exposed pump room casings					

**Hatchways at positions 1 and 2 closed by portable covers and secured weathertight  
by tarpaulins and battening devices (Regulation 15)**

Position and reference No. on sketch or plan							
Dimensions of clear opening at top of coaming							
Height of coaming above deck							
<p><b>PORTABLE BEAMS</b></p>  <p>Number</p> <p>Spacing</p> <p><math>b_1 \times t_1</math></p> <p><math>D \times t_w</math></p> <p><math>b_2 \times t_1</math></p> <p>Bearing surface</p> <p>Means of securing each beam</p>							
<p>{</p> <p>Material</p> <p>Thickness</p> <p>Direction fitted</p> <p>Bearing surface</p>							
Spacing of cleats							
<p>TARPAULINS {</p> <p>No. of layers</p> <p>Material</p>							

Means of securing each section of covers

Are wood covers fitted with galvanized bands?

**Hatchways at positions 1 and 2 closed by weathertight covers of steel (or other equivalent material)  
fitted with gaskets and clamping devices (Regulation 16)**

Position and Reference No. on Sketch or Plan						
Dimensions of clear opening at top of coaming						
Height of coaming above deck						
Type of cover or Patent Name						
Material						

Position and Reference No. on Sketch or Plan						
Dimensions of clear opening at top of coaming						
Height of coaming above deck						
Type of cover or Patent Name						
Material						

**Machinery space openings and miscellaneous openings in freeboard and superstructure decks (Regulations 17 and 18)**

Position and Reference No. on Sketch or Plan						
Dimensions						
Height of coaming						
COVER                    { Material { How attached						
Number and Spacing of Toggles						
Position and Reference No. on Sketch or Plan						
Dimensions						
Height of coaming						
COVER                    { Material { How attached						
Number and Spacing of Toggles						

**Ventilators on freeboard and superstructure decks (positions 1 and 2) (Regulation 19)**

Deck on which fitted	Number fitted	Coaming		Type (State Patent Name if any)	Closing Appliances
		Dimensions	Height		

**Air pipes on freeboard and superstructure decks (Regulation 20)**

Deck on which fitted	Number fitted	Coaming		Type (State Patent Name if any)	Closing Appliances
		Dimensions	Height		

**Cargo ports and other similar openings (Regulation 21)**

Position of port	Dimensions of opening	Distance of lower edge from freeboard deck	Securing devices	Remarks

**Scuppers, inlets and discharges (Regulation 22)**

State if Scupper or Discharge	Number	Pipe			From	Vertical distance above top of keel			Number, Type and Material of Discharge Valves	Position of Controls
		Diameter	Thickness	Material		Discharge		Uppermost Valve		
						Outlet in hull	Inboard End			

NOTE: In Ro-ro ships, indicate how ready accessibility to scupper valves is ensured when vehicle space is filled

S – Scupper  
D – Discharge

MS – Mild Steel  
CS – Cast Steel  
GM – Gun Metal  
Any other approved material to be designated

SD – Screw down  
ANR – Automatic non-return  
SD ANR – Screw down automatic non-return

**Side scuttles** (Regulation 23)

Position	Number Fitted	Clear Glass Size	Fixed or Opened	Material		Type of Glass And Thickness	Standards used and Type No.
				Frame	Deadlight		

Indicate the vertical distance between the freeboard deck and the lower sill of the side scuttle positioned at the greatest vertical distance below the freeboard deck.

**Freeing ports (Regulation 24)**

	Length of Bulwark	Height of Bulwark	Number and Size of Freeing Ports each side	Total Area each side	Required Area each side
Freeboard deck after well					
Forward well					
Superstructure Deck					

State fore and aft position of each freeing port in relation to superstructure end bulkheads

{ After Well  
Forward Well

Particulars of shutters, bars or rails fitted to freeing ports

Height of lower edge of freeing port above deck

**Protection of the crew** (Regulations 25 and 26)

State particulars of bulwarks or guardrails  
On freeboard and superstructure decks:

State details of lifelines, walkways,  
Gangways or underdeck passageways  
Where required to be fitted:

---

**Timber deck cargo fittings** (Regulation 44)

State particulars of uprights, sockets,  
Lashings, guardrails and lifelines:

---

**Other special features**

**MAIN AND AUXILIARY SEA INLETS AND DISCHARGES IN CONNECTION WITH THE OPERATION OF MACHINERY (Regulation 22(2))**

Are the controls accessible? .....

Are they provided with indicators showing whether the valves are open or closed? .....

**In Periodical Unmanned Machinery Spaces only:**

Inlet or outlet	Which System?	Valves		Pipe inside valve, diameter, thickness and material	Pipe outside valve, diameter and thickness
		Material <sup>1)</sup>	Position of Controls		

State the number and position of automatic bilge alarms

Where is alarm given?

1) MS = Mild Steel/CS = Cast steel/GM = Gun Metal/NCI = Nodular cast iron/ Any other material to be designated.

Has the calculation for the time of flooding the engineroom up to a level for operating the controls in case of pipe fracture been carried out?  
 ..... If yes, please state the flooding time ..... [min]

The condition of assignment shown on this form is a record of the arrangements and fittings provided on this ship and are in accordance with the requirements of the relevant regulations of the International Convention on Load Lines 1966, and the fittings and appliances used are in good condition and function satisfactorily.

Place ..... Date .....

(Seal)

.....

Surveyor

## 2.7 Appendix B – Form of the “Report of measurements for Load Lines (data necessary for the calculation of freeboard)”



### Maritime Safety Systems

#### REPORT ON MEASUREMENTS FOR LOAD LINES – MAR MSS

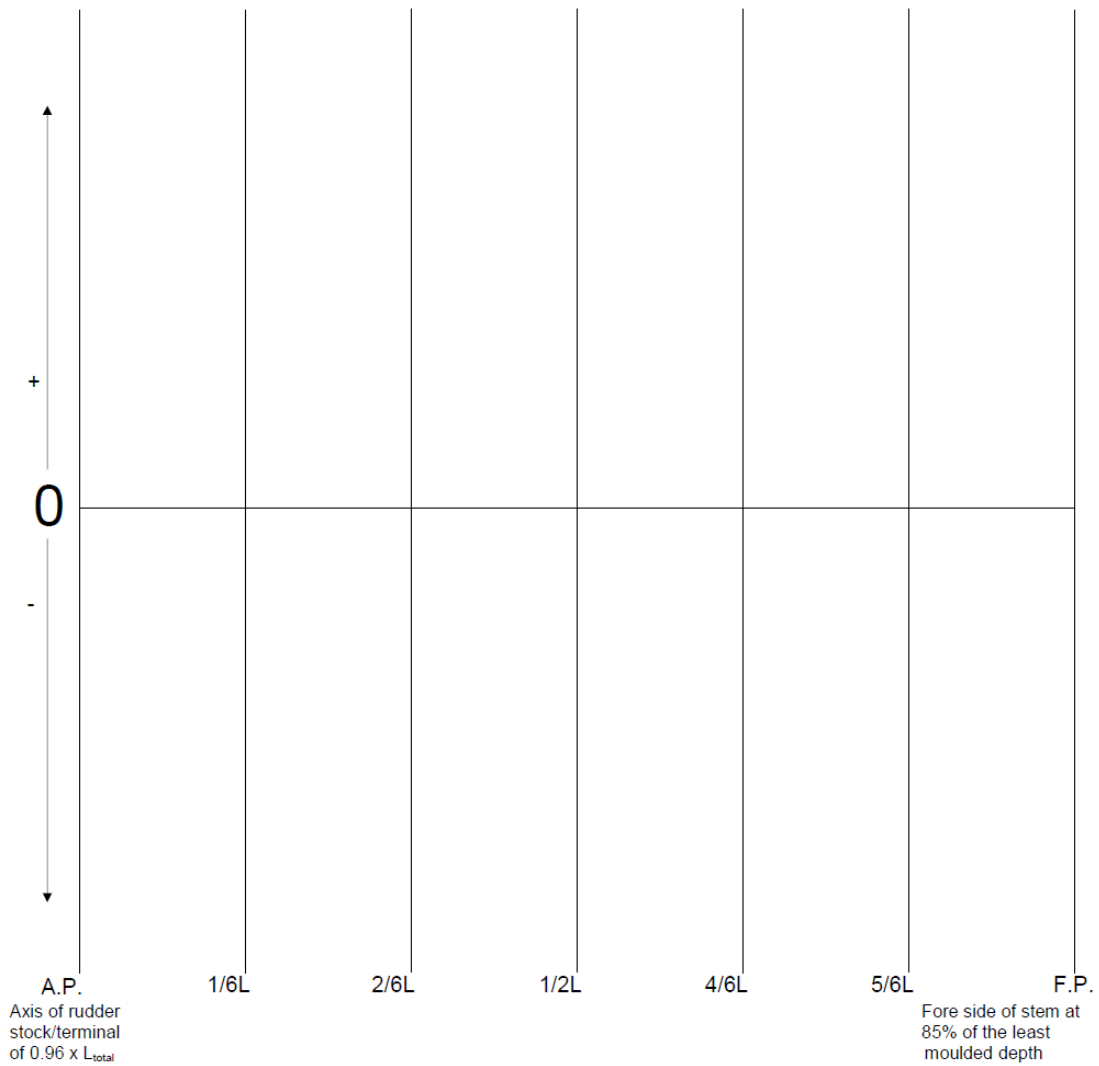
##### DATA NECESSARY FOR THE COMPUTAION OF FREEBOARDS

MNZ No.:		Shipbuilder:	
Name of Ship:		Yard Number:	
Nationality:		Port of Registry:	
Sistership:		Distinctive number or letters:	
Date of build or conversion:		Freeboard assigned as ship of type:	

<b>D</b>	Depth moulded amidships	m
	Least depth moulded	m
	Depth to the lower edge of keel rabbet:	m
	Make a sketch showing suitable position of deckline:	
<b>L</b>	a) length of the ship on the waterline at 85% of the least moulded depth measured from the fore side of the stem to centerline of rudder stock	m
	b) Total length on the same water line	m
<b>B</b>	Breadth moulded	m
	Breadth outside wood planking	m
<b>t</b>	Stringer plate thickness on freeboard deck	mm
	For open shelterdecker, also state stringer plate thickness on superstructure deck	mm
	Thickness of deckplating at F.P.	mm
<b>T</b>	If the exposed freeboard deck has a wooden sheathing, state the thickness of sheathing	mm
	State extent of wooden sheathing (both longitudinally and transversly)	
<b>k</b>	Thickness of keel plate at height of keel below the base line	mm

**Sheer** is the reference line from which the sheers measured parallel to the keel \_\_\_\_\_  
 or to the design water line \_\_\_\_\_  
 If parallel to the keel, which is not an even keel, state rake of keel from A.P. to F.P. \_\_\_\_\_

**Sheer Curve**



Also indicate distance from F.P. to the point where the sheer starts in the fore ship.

QDK	Length at side	m
	Length in CL	m
	Height at A.P.	mm
	Height at bhd.	mm
Midship superstructure (also covering 100% L (shelterdeck))	Length at side	m
	Length in CL	m
	Height	mm
	Breadth	m
Forecastle	Length at side	m
	Length in CL	m
	Height at F.P.	mm
	Height at bhd.	mm
Trunk	Length	m
	Breadth	m
	Height	m

**NOTE**

The heights of superstructures are to be measured at side  
 The length of the superstructures is to be measured from the end of the bulkheads up to the points between which the ship's length is measured.  
 Details of possible irregularities of superstructures are to be shown on drawing or sketch.

Are machinery and other working spaces inside of a midship superstructure or poop accessible by alternative means when bulkhead openings are closed? (Regulation 3(10)(b) .....

**The following data is to be supplied by the shipbuilder:**

- Volumes moulded at waterline at 85% of the least depth moulded m<sup>2</sup>
- Waterplane at the area forward of L/2 at 85% of the least depth moulded m<sup>2</sup>
- Requested moulded summer T m
- Projected area 0.15L abaft of forward perpendicular:
  - a) between summer load line and freeboard deck (sheer included) m<sup>2</sup>
  - b) of enclosed superstructure (if fitted) m<sup>2</sup>

Reference depth moulded D =		m	0.65xD	0.75xD	0.85xD	0.95xD	1.00xD
Displacement		tonnes					
		tonnes/cm					

**Remarks, if any**

Place .....  
(Seal)

Date .....

.....  
**Surveyor**

For report on conditions of assignment'  
See Form

NOTE: A drawing/plan should be worked out (preferably by the yard) showing the measures in this report

**2.8 Appendix C – Form of the “International Load Line Certificate”**

**Form of International Load Line Certificate**

**INTERNATIONAL LOAD LINE CERTIFICATE**

(Official Seal) New Zealand

Issued under the provisions of the  
INTERNATIONAL CONVENTION ON LOAD LINES, 1966,  
as modified by the Protocol of 1988 relating thereto  
under the authority of the Government of  
NEW ZEALAND  
by the Director of Maritime New Zealand

**Particulars of ship<sup>1</sup>**

Name of ship  
Distinctive number or letters  
Port of registry  
Length (L) as defined in article 2(8) (in metres)  
IMO Number<sup>2</sup>

Freeboard assigned as<sup>3</sup> Type of ship<sup>3</sup>

A new ship Type 'A'  
Type 'B'

An existing ship Type 'B' with reduced freeboard  
Type 'B' with increased freeboard

**Freeboard from deck line<sup>4</sup>** **Load Line**

Tropical	mm (T)	mm above (S)
Summer	mm (S)	Upper edge of line through centre of ring
Winter	mm (W)	mm below (S)
Winter North Atlantic	mm (WNA)	mm below (S)
Timber tropical	mm (LT)	mm above (LS)
Timber summer	mm (LS)	
Timber winter	mm (LW)	mm below (LS)
Timber winter north Atlantic	mm (LWNA)	mm below (LS)

Allowance for fresh water for all freeboards other than timber ..... mm. For timber freeboards ..... mm

The upper edge of the deck line from which these freeboards are measured is ..... mm .....deck at side

THIS IS TO CERTIFY:

1. That the ship has been surveyed in accordance with the requirements of article 14 of the convention.
2. That the survey showed that the freeboards have been assigned and load lines shown above have been marked in accordance with the convention.

This certificate is valid until .....<sup>5</sup> subject to annual surveys in accordance with article 14(1)(c) of the convention.

The provisions of the convention from which the ship is exempted under Article 6(2) are: .....

Issued at: .....  
(Place of issue)

.....  
(Date of Issue)

.....  
(Signature of authorised official  
Issuing the certificate)

(Seal or stamp of authority, as appropriate)

- NOTES:
- 1 When a ship departs from a port situated on a river or inland waters, deeper loading shall be permitted corresponding to the weight of fuel and all other materials required for consumption between point of departure and the sea.
  - 2 When a ship is in fresh water of unit density the appropriate load line may be submerged by the amount of fresh water allowance shown above. Where the density is other than unity, an allowance shall be made proportional to the difference between 1.025 and the actual density.

<sup>1</sup> Alternatively, the particulars of the ship may be placed horizontally in boxes

<sup>2</sup> In accordance with resolution A600(15) – IMO Ship Identification Number Scheme, this information may be included voluntarily.

<sup>3</sup> Delete as appropriate

<sup>4</sup> Freeboards and load lines which are not applicable need not be entered on the certificate. Subdivision load lines may be entered on the certificate on a voluntarily basis.

<sup>5</sup> Insert date of expiry as specified by the Administration

**Endorsement for annual surveys**

THIS IS TO CERTIFY that, at an annual survey required by article 14(1)(c) of the Convention, the ship was found to comply with the relevant requirements of the Convention.

Annual survey: Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as appropriate)

Annual survey: Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as appropriate)

Annual survey: Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as appropriate)

Annual survey: Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as appropriate)

**Annual Survey in accordance with article 19(8)(c)**

THIS IS TO CERTIFY that, at a survey required by article 19(8)(c) of the Convention, the ship was found to comply with the relevant requirements of the Convention.

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as appropriate)

**Endorsement to extend the certificate if valid for less than 5 years where article 19(3) applies**

The ship complies with the relevant requirements of the Convention, and this certificate shall, in accordance with article 19(3) of the Convention, be accepted as valid until .....

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as appropriate)

**Endorsement to where the renewal survey has been completed and article 19(4) applies**

The ship complies with the relevant requirements of the Convention, and this certificate shall, in accordance with article 19(4) of the Convention, be accepted as valid until .....

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as appropriate)

**Endorsement to extend the validity of the certificate until reaching the port of survey or for a period of grace where article 19(5) of 19(6) applies**

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as appropriate)

**Endorsement for advancement of anniversary date where article 19(8) applies**

In accordance with article 19(8) of the Convention the new anniversary date is .....

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as appropriate)

In accordance with article 19(8) of the Convention the new anniversary date is .....

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as appropriate)

## 2.9 Appendix D - Form of the “New Zealand Load Line Certificate”

Certificate Number: \_\_\_\_\_

### NEW ZEALAND LOAD LINE CERTIFICATE

Issued under the provisions of Section 41 of the Maritime Transport Act 1994  
In accordance with rule 47.54(3) of the Maritime Rules  
by the Director of Maritime New Zealand

**Particulars of ship**

Name of ship: \_\_\_\_\_

Distinctive number or letters: \_\_\_\_\_

Port of registry: \_\_\_\_\_

Length (L) as defined in article 2(8) (in metres): \_\_\_\_\_

MNZ Number: \_\_\_\_\_

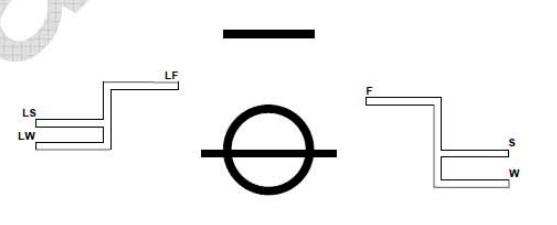
Freeboard assigned as	Type of ship
A new ship	Type 'A' Type 'B'
An existing ship	Type 'B' with reduced freeboard Type 'B' with increased freeboard

<b>Freeboard from deck line</b>		<b>Load Line</b>
Summer	mm (S)	Upper edge of line through centre of ring
Winter	mm (W)	mm below (S)
Timber summer	mm (LS)	above (S)
Timber winter	mm (LW)	mm below (LS)

Allowance for fresh water for all freeboards other than timber      mm.

For timber freeboards      mm

The upper edge of the deck line from which these freeboards are measured is      mm above /below/from deck at side



THIS IS TO CERTIFY:

1. That the ship has been surveyed in accordance with the requirements of article 14 of the convention.
2. That the survey showed that the freeboards have been assigned and load lines shown above have been marked in accordance with the convention.

The provisions of the convention from which the ship is exempted under Article 6(2) are:

This certificate is valid until                      subject to annual surveys in accordance with Article 14 (1)(c) of the Convention.

Issued at:

This    day of

*(Seal or stamp of authority, as appropriate)*

- NOTES:
1. When a ship departs from a port situated on a river or inland waters, deeper loading shall be permitted corresponding to the weight of fuel and all other materials required for consumption between point of departure and the sea.
  2. When a ship is in fresh water of unit density the appropriate load line may be submerged by the amount of fresh water allowance shown above. Where the density is other than unity, an allowance shall be made proportional to the difference between 1.025 and the actual density.

**Endorsement for annual surveys**

THIS IS TO CERTIFY that, at an annual survey required by article 14(1)(c) of the Convention, the ship was found to comply with the relevant requirements of the Convention.

Annual survey: Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as appropriate)

Annual survey: Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as appropriate)

Annual survey: Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as appropriate)

Annual survey: Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as appropriate)

**Annual Survey in accordance with article 19(8)(c)**

THIS IS TO CERTIFY that, at a survey required by article 19(8)(c) of the Convention, the ship was found to comply with the relevant requirements of the Convention.

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as appropriate)

**Endorsement to extend the certificate if valid for less than 5 years where article 19(3) applies**

The ship complies with the relevant requirements of the Convention, and this certificate shall, in accordance with article 19(3) of the Convention, be accepted as valid until .....

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as appropriate)

**Endorsement to where the renewal survey has been completed and article 19(4) applies**

The ship complies with the relevant requirements of the Convention, and this certificate shall, in accordance with article 19(4) of the Convention, be accepted as valid until .....

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as appropriate)

**Endorsement to extend the validity of the certificate until reaching the port of survey or for a period of grace where article 19(5) of 19(6) applies**

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as appropriate)

**Endorsement for advancement of anniversary date where article 19(8) applies**

In accordance with article 19(8) of the Convention the new anniversary date is .....

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as appropriate)

In accordance with article 19(8) of the Convention the new anniversary date is .....

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as appropriate)

**2.10 Appendix E: Form of “New Zealand Load Line Certificate for ships under 24m in length”**

Form of New Zealand Load Line Certificate  
Ships less than 24 metres

**NEW ZEALAND LOAD LINE CERTIFICATE**

Issued under the provisions of Section 41 of the Maritime Transport Act 1994  
in accordance with Rule 47.67 (1) of the maritime rules  
by THE DIRECTOR OF MARITIME NEW ZEALAND

*Particulars of Ship*

Name of Ship: .....

MNZ No: .....

Distinctive number or letters: .....

Port of registry: .....

Length (L) as defined in rule 47.2: .....


**Type of ship**

Ship of less than 24m length complying with Section 2 of Part 47 of the maritime rules

<b>Freeboard from deck line</b>	<b>Load line</b>
Summer ..... mm(S)	Upper edge of line
Winter ..... mm(W)	..... mm below (S)

Allowance for fresh water for all freeboards is ..... mm.

The upper edge of the deck line from which these freeboards are measured is mm above/below/from deck at the side.



THIS IS TO CERTIFY:

- That the ship/barge<sup>1</sup> has been surveyed in accordance with the requirements of Part 47.66(2) 47.66(4)<sup>1</sup> of the maritime rules
- That the survey showed that the freeboards have been assigned and the load lines shown above have been marked in accordance with Part 47 of the Maritime Rules.

Completion date of the survey on which this certificate is based: .....

This certificate is valid until ..... subject to Rule 47.66(5) of the maritime rules.

Issued at .....  
*(Place of issue of certificate)*

.....  
*(Date of issue)*

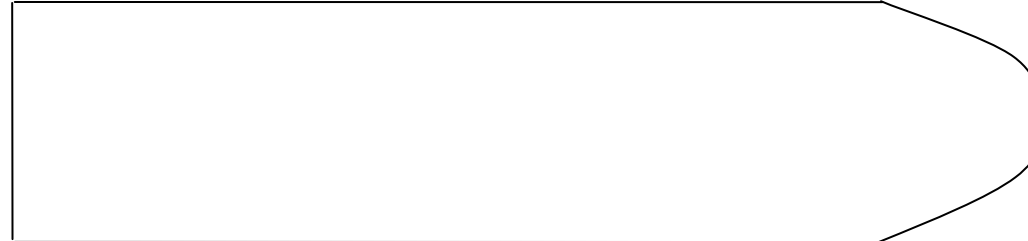
.....  
*(Signature of official acting under delegated authority)*

## 2.11 Appendix F: Form of “Record of Conditions of Assignment for Ships less than 24m in length”

Name of Ship		
MNZ Number		
Nationality		
Owners		
SSM Company		
Date of Build/Conversion		
Load Line Length		
Drawing Reference and revision of Freeboard Plan (if one provided)		
Number of pages (including duplicated pages where required)		
Date and Place of this Assignment Record		
Recognised Surveyor	Name:	Signature:

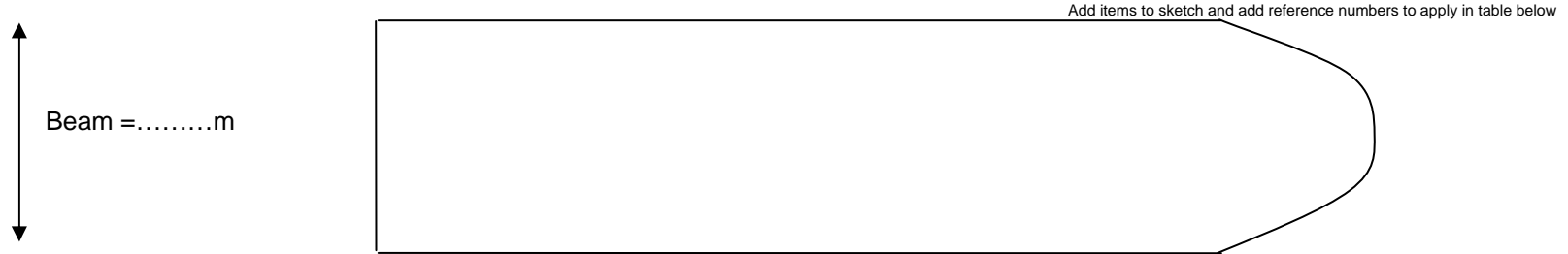
**2.11.1 Deck Sills in doorways of deckhouses - rule 47.65(1)**

Add items to sketch and add reference numbers to apply in table below



Load Line Length of ship:		18m or less <input type="checkbox"/>				
		Over 18m <input type="checkbox"/>				
Ref. No. on sketch above	Dimension of door opening (height x width)	Access to below weather deck (Y/N)	Height of Sills (mm)	Material of weathertight door	Closing Appliances	
					Type and Material	Number of Clips
Doors with direct access to spaces below weather deck						
Doors shielded from the full force of the sea (without access below weather deck), except direct access to machinery spaces						

### 2.11.2 Hatch Coamings - rule 47.65(2) and (3)



Load Line Length of ship: <input type="checkbox"/> 18m or less <input type="checkbox"/> Over 18m							
Ref. No. on sketch above	Dimension of hatch opening (LxB)	Position (1 or 2)	Height of Coaming (mm)	Material of hatch	Gaskets Y/N	Closing Appliances	
						Type and Material	Number of Clips

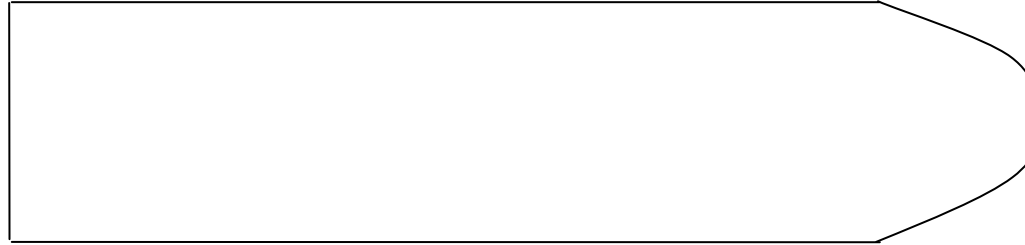
**2.11.3 Scuppers and Discharge Pipes – rule 47.65(4)(a)**

Add items to sketch and add reference numbers to apply in table below



Ref. No. on sketch above	Dimension internal diameter (mm)	Thickness (mm)	Material of Pipe	Height of lower edge of overboard opening above assigned Load Line mark (mm)	Bilge Alarm provided for space where item located (Y/N)	Piping system or scupper (give details of system or area for scupper)	Type of valve (NR, SD, SDNR)	Valve Material	Means of attachment of valve to hull

**2.11.4 Main propulsion machinery exhaust system overboard pipes – rule 47.65(4)(b)**

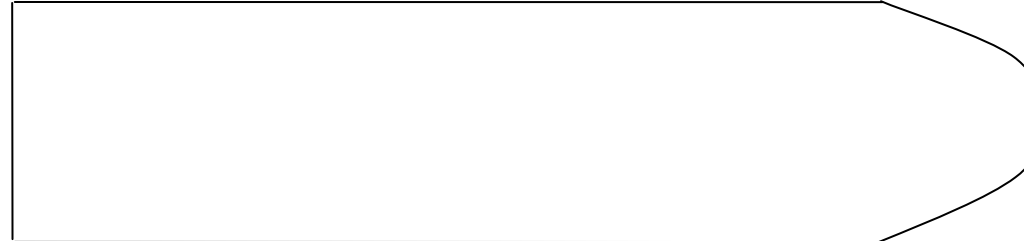


Add items to sketch and add reference numbers to apply in table below

<b>Ref. No. on sketch above</b>	
<b>Dimension of the internal diameter(mm)</b>	
<b>Aft peak bulkhead, extending to deck, fitted? (Y/N)</b>	
<b>Bulkhead fitting provided at each watertight bulkhead? (Y/N)</b>	
<b>Exhaust pipe-work fitted as close to underside of watertight deck as practical (Y/N)</b>	
<b>Thickness (mm)</b>	
<b>Material of Pipe</b>	
<b>Type of Hull fitting and material type</b>	
<b>Height of lower edge of overboard opening above assigned Load Line mark (mm)</b>	

**2.11.5 Minimum freeing port area – rule 47.65(5)**

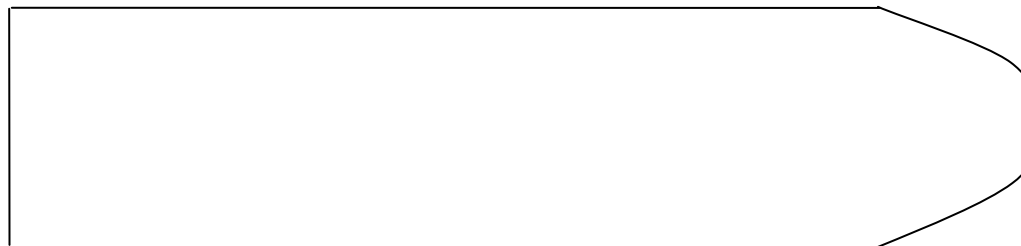
Add items to sketch and add reference numbers to apply in table below



Sheer: <input type="checkbox"/> Less than standard <input type="checkbox"/> Standard <input type="checkbox"/> Greater than standard    (see clause 8 of Appendix 1 of rule Part 47)				
Ref. No. on sketch	Dimension of Well Area (length x beam) (m)	Height of bulwark (m)	Location of Well (frame numbers and description)	Total Freeing port area required by rule 47.65(4)(a)
Ref. No. on sketch	Dimension of freeing port (length x height) (mm)	Protection to crew fitted? (Y/N/NA)	Location of freeing port (frame numbers and description)	

### 2.11.6 Stability Information – permissible loadings and limitations on the carriage of cargo (rule 47.65(6))

Add items to sketch and add reference numbers to apply in table below



Ref. No. on sketch above	Area dimensions (frame number and width)	Permissible loading (tonnes / m <sup>2</sup> )	Limit of deck cargo (height for a given density or tonnes / m <sup>2</sup> )

**2.12 Appendix G: Form of “New Zealand Load Line Certificate for Barges 24m or more in length”**

**Form of New Zealand Load Line Certificate  
Barges 24 metres or more in length**

**Certificate Number:** .....

**NEW ZEALAND LOAD LINE CERTIFICATE**

Issued under the provisions of Section 41 of the Maritime Transport Act 1994  
in accordance with rule 47.74(1) of the Maritime Rules  
by THE DIRECTOR OF MARITIME NEW ZEALAND


*Particulars of Ship:*  
Name of Barge: .....  
MNZ No: .....  
Length (L) as defined in rule 47.2: .....

**Type of ship**  
Barge 24 metres length or more complying with Section 3 of Part 47 of the maritime rules

Freeboard from deck line	Load line
Coastal: ..... mm	Upper edge of line
Inshore: ..... mm	Upper edge of line
Enclosed: ..... mm	Upper edge of line

Allowance for fresh water for all freeboards is ..... mm.

The upper edge of the deck line from which these freeboards are measured is ..... mm  
above/below from deck at the side.



**THIS IS TO CERTIFY:**

- That the ship has been surveyed in accordance with the requirements of Part 47.74(2)/47.74(3)<sup>1</sup> of the maritime rules
- That the survey showed that the freeboards have been assigned and the load lines shown above have been marked in accordance with Part 47 of the Maritime Rules.

Completion date of the survey on which this certificate is based:  
This certificate is valid until ..... subject to Rule 47.66(5) of the maritime rules.

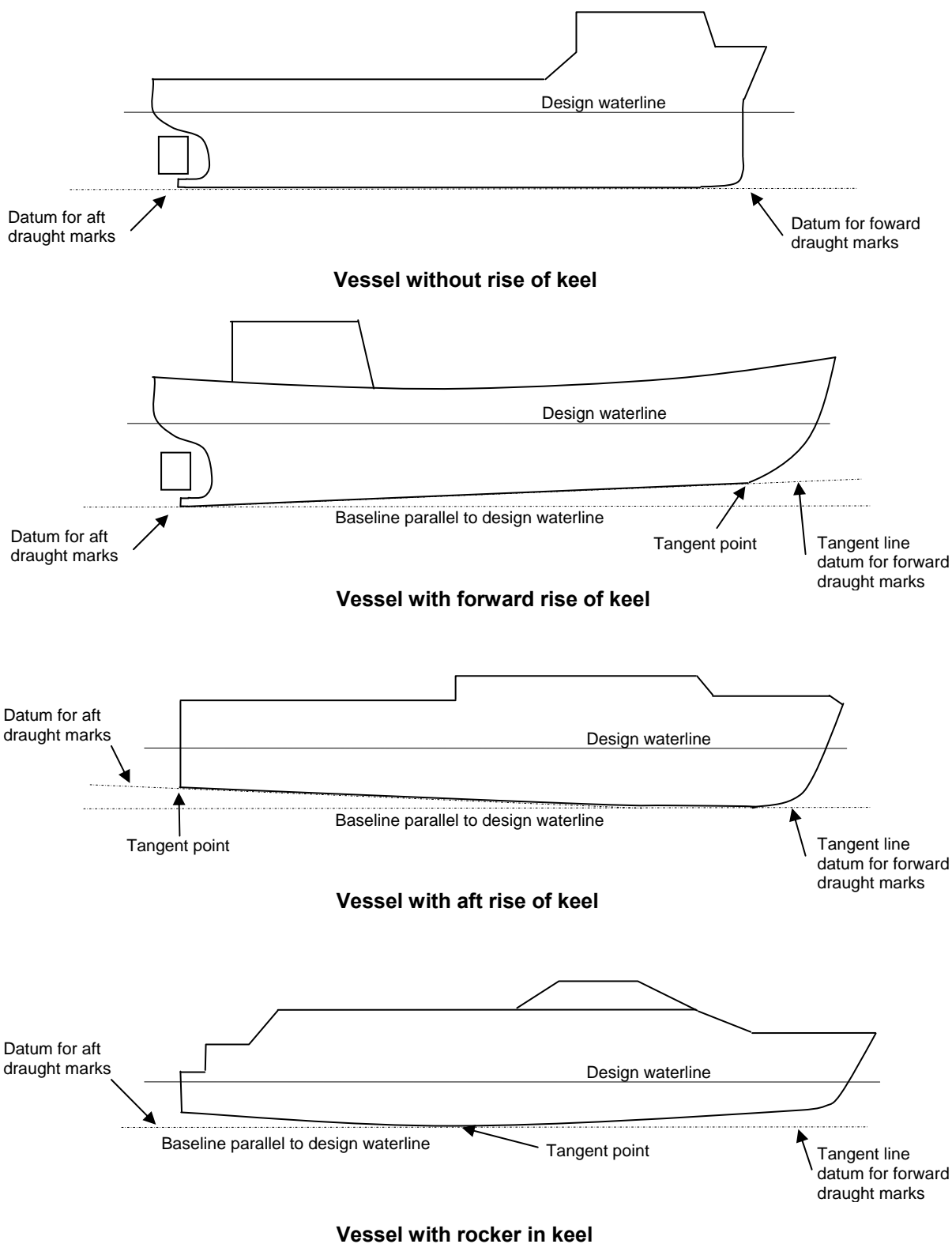
Issued at .....  
*(Place of issue of certificate)*

.....  
*(Date of issue)*

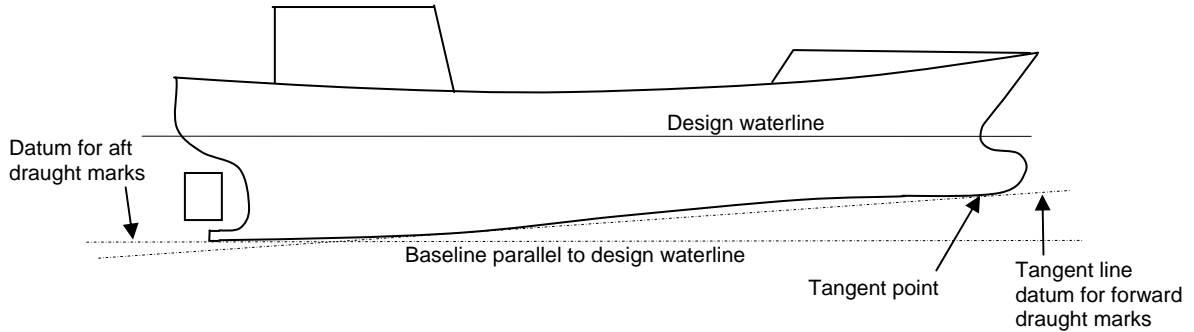
.....  
*(Signature of official acting under delegated authority)*

<sup>1</sup>. Delete as necessary

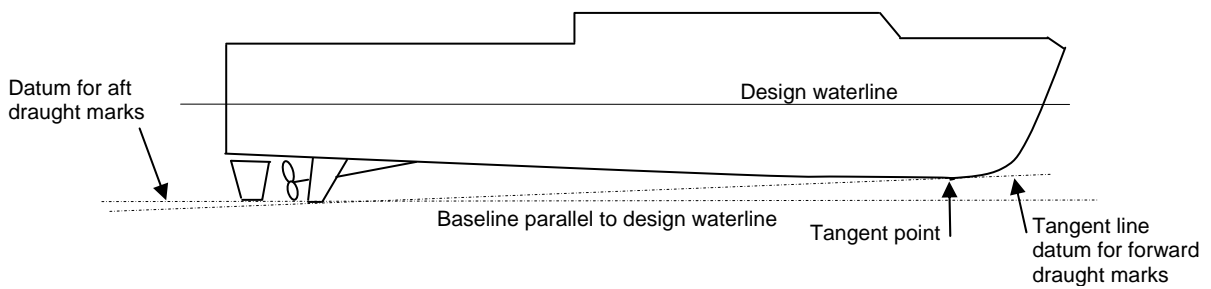
## 2.13 Appendix H: Diagrammatic explanation of draught mark datum for different types of vessel



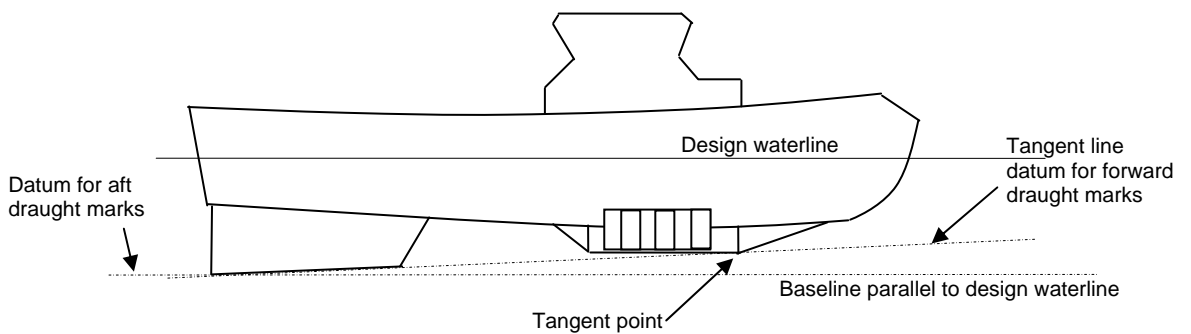
**Figure 1** Baseline and draught datum for typical keel configurations



**Vessel with crank in keel**



**Vessel with propeller, rudder or skeg as lowest points on hull**



**Tug thruster unit and skeg as lowest points**

**Figure 2** Baseline and draught datum for keel variations

## General Enquiries

If you have a general enquiry concerning the Load Line issues, please contact our Wellington office on:

Free phone: 0508 22 55 22 (New Zealand only)

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All of MNZ's current rules and advisory circulars can be found on our website [www.maritimenz.govt.nz](http://www.maritimenz.govt.nz).

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