

INSTRUCTIONS FOR THE GUIDANCE OF SURVEYORS ON

FISHING VESSELS – CHAPTER 3 PART A STABILITY OF FISHING VESSELS OF LESS THAN 15M LOA

MSIS27

Rev 12.23



PREFACE

- 0.1 These Marine Survey Instructions for the Guidance of Surveyors (MSIS) are not legal requirements in themselves. They may refer to statutory requirements elsewhere. They do represent the MCA policy for MCA surveyors to follow.
- 0.2 If for reasons of practicality, for instance, these cannot be followed then the surveyor must seek at least an equivalent arrangement, based on information from the owner/operator. Whenever possible guidance should be sought from either Principal Consultant Surveyors or Survey Operation Branch, in order to maintain consistency between Marine Offices.

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RECENT AMENDMENTS

The amendments made in the most recent publication are shown below, amendments made in previous publications are shown in the document Amendment History.

Version Number	Status / Change	Date	Author Reviewer	Content Approver	Next Review Date/Expiry Date
09.21	• Updated Code to reflect new requirements of MSN1871 Amendment No.2	31/08/202 1	D Fenner	G Stone	01/09/2023
11.21	 Clarify MCA witness tests at inspection Form and content check of approved stability books Sets out requirements for new and existing Razor fishing multihulls 	09/11/21	D Fenner	G Stone	31/10/2023
01.22	 Clarify an Offset load test can be conducted after a Roll/Heel Test failure. Clarify that where vessel is a Category A vessel, the first step after failing a test is inclining. 	31/01/22	D Fenner	G Stone	31/01/2023
05.22	• Cat A vessels should be referred to the Technical Panel if they fail Roll Test to decide whether to undergo Offset Load Test or go straight to inclining	27/04/22	D Fenner	G Stone	31/05/2023
08.22	• Split Chapter 3 into new sections on Under 15m Vessels, 15m and over vessels and Freeboard, make direct reference to MGN503 for assessing stability of vessels of less than 15m and reference to MSIS27 Chapter 2 for deciding equivalencies for Freeboard	01/07/22	D Fenner	G Stone	01/07/2024
<u>10.22</u>	 Clarify G7 MO surveyors are to examine and confirm Roll Test (Minimum Metacentric Height) Forms Sharepoint minutes to consultant surveyors no longer required when additional stability criteria to be met in 	27/9/22	D Fenner	G Stone	01/10/24

	special circumstances (section				
	3.4.5)				
	 Section 3.8.1 – 				
	Consultant Surveyors need not				
	be informed when changes				
	affecting stability are found				
	during a general inspection				
11/22	• Vessels which meet the freeboard/positive clear height at side, waterfreeing requirements and stability requirements of MSN1871 Amendment 2 shall only have any restrictions applied as set out in MSN1871 Amendment	28/11/22	D Fenner	G Stone	28/11/24
	No.2				
12.22	• Surveyors should refer to Sections 1.23 and 1.24 of <u>MSIS27 Chapter 1</u> when reviewing modifications to vessels.	2/12/22	D Fenner	L Page	28/11/24
<u>04.23</u>	• FVCAs can conduct stability tests on new vessels intended for Cat B or Cat C fishing	02.23	D Fenner	L Page	28/12/24
<mark>12.23</mark>	Update links to Stability forms	12.23	D Fenner	L Page	30/11/24

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3.0 INTRODUCTION

3.0.1 This chapter should be read in conjunction with Chapter 3 <u>of MSN1871</u> <u>Amendment No.2, MGN503 https://www.gov.uk/government/publications/mgn-503-amendment-no1-f-procedure-for-carrying-out-small-fishing-vessel-stability-tests</u>, MSIS27 Chapter 2 Sections 2.25, 2.26 and Annexes 1 and 2 and MSIS27.3 Parts B and C.

3.1 STABILITY REQUIREMENTS

- 3.1.1 <u>MSN1871 Amendment No.2</u> sets out clear minimum requirements for fishing vessel stability. It is the skipper's responsibility to ensure that these requirements are met in all seagoing, sailing conditions. The requirements assign a set of minima to critical characteristics of the righting lever curve.
- 3.1.2 But the standard does not guarantee safety against all hazards. The overturning loads imposed by the fishing operations are not considered when stability books are approved. There is no requirement in the regulations that these loads should be considered. These effects are covered by the safety margin implicit, but unquantifiable, within the minimum criteria.
- 3.1.3 The MCA surveyors' contribution is to verify, that at the completion of the survey/inspection/approval, the safety margins on stability have not been eroded below the minimum required for all sailing conditions this is the main purpose of stability approval and verification.
- 3.1.4 There are Statutory Requirements for the carriage of Stability Information on board UK fishing vessels of 12 Metres Registered length or over. A recommended format gives consistency of presentation and therefore ease of reading for those using the Freeboard and Stability Information booklet which must be made available onboard the vessel, by the vessel owner, for the use of the skipper. <u>MGN 281</u> (F)¹ recommends a format for the Freeboard & Stability Information Booklet for use on board Fishing Vessels. <u>The recommended format for the Freeboard & Stability Information Booklet is available Adobe (PDF) for download^g.</u>
- 3.1.5 A vessel which undergoes "major" modifications should comply with the stability requirements for 'new' vessels as far as it is reasonable and practical to do so.
 The extent of proposed modifications should be discussed with the local Consultant Surveyor (FV) and Stability and Plan Approval Unit prior to any work being carried out. Major modifications are defined as:
 - any change that substantially alters the dimensions of a ship,
 - any change that substantially alters the cargo-carrying capacity of a ship,

¹ <u>https://www.gov.uk/government/publications/mgn-281-fishing-vessel-freeboard-and-stability-information-format</u>

- any change that substantially increases a ship's service life,
- 3.1.6 Surveyors should refer to Sections 1.23 and 1.24 of <u>MSIS27 Chapter 1</u> when reviewing modifications to vessels.

3.2 STABILITY FOR FISHING VESSELS OF LESS THAN 15M LOA

- 3.2.1 To determine the stability of fishing vessels of less than 15m, the vessels fishing method is taken into consideration.
- 3.2.2 The methods of fishing shall be recorded on the Small Fishing Vessel Certificate. The surveyor should ask the owner/skipper which methods of fishing he currently undertakes. The surveyor should decide, based on the evidence of gear and equipment and fitting out of the vessel whether the statement accurately reflects the fishing methods. If in doubt the surveyor should request further proof from the owner that the vessel has undertaken a method of fishing and has not been modified since that method of fishing last took place.
- 3.2.3 Vessels which meet the freeboard/positive clear height at side, waterfreeing requirements and stability requirements of MSN1871 Amendment 2 shall only have any restrictions applied as set out in MSN1871 Amendment No.2
- 3.2.4 The categories assigned to the fishing methods are as follows:

Category A

- Boom Trawl or Beam Trawl² (all gear beam mounted, open, chain matt etc)
- Stern³/Side⁴ Trawl, Demersal (bottom fishing) (Single or multi rig)
- Dredges⁵ (bottom fishing for mussels, scallops, razor fish etc)
- Beam Trawl using outrigger for towing and lifts with Scotch
 Poles and Gilson Winch⁶

² These trawlers use strong booms in derrick arrangement to tow their fishing gear. Double-rig beam trawlers tow two trawls, one from either side.

³ On stern trawlers the trawl is set and hauled over the stern. Stern trawlers are designed with or without a ramp, depending on the size of the vessel. Trawlers can work as single vessel in bottom or midwater trawling or as pair trawlers where two vessels tow one large trawl or a double trawl.

⁴ On side trawlers the trawl is set over the side and the trawl warps pass through blocks hanging from two gallows, one forward and one aft. This type of vessel has progressively being replaced by the stern trawler.

⁵ These vessels use a dredge for collecting molluscs from the bottom. The vessel drags the gear over the seabed digging the shellfish from the ground. The dredges are towed in a manner similar to beam trawlers.

⁶ For this type of vessel refer to MAIB report NO 15/2016 the capsize and foundering of the fishing vessel JMT (M99)

- Vessels with Vivier Tanks⁷
- Vessels with catch greater than 1000kg
- Vessels with Industrial Bulk Stowage⁸⁹

Category B

- Pair Trawling
- Seine Net (including Purse Seine)¹⁰
- Gill net and Trammel netting (bottom fishing)
- Potting fleets, mechanical haul

Category C

- Rod fishing
- Pots and Traps single pot, manual haul
- Gill and Trammel netting not bottom fishing;
- Line fishing.
- Drift netting
- 3.2.5 These categories are assigned when:
 - A vessel joins the Register for the first time; or
 - A vessel re-joins the Register having been off for a period of 6 months or more; or
 - The vessel is on the Register but chooses to undertake a fishing method of a higher category (i.e., uses Category C methods but wishes to undertake Category A or B fishing) that is not recorded on the Certificate (Note: although <u>MSN1871 Amendment No.2</u> provides a phase in period for existing vessels, this does not apply to Stability requirements when a vessel changes fishing method)
- 3.2.6 There may be instances where a vessel may wish to undertake a unique fishery or one that is not recorded in the methods above. In such circumstances, the vessel is accorded a Category A but due to the nature of the fishery, the vessel design,

¹⁰ <u>Basic Fishing Methods</u> A comprehensive guide to commercial fishing methods. This publication contains illustrations and descriptions of commonly used fishing methods, gears, and rigs.

⁷ Shellfish will generally be alive at the point of landing and will have been kept alive through stowage in onboard seawater tanks - vivier tanks- permanently filled and circulated with sea pumped sea water. Case study <u>https://www.gov.uk/maib-reports/sinking-of-vivier-creel-boat-louisa-with-loss-of-3-lives</u>

⁸ Bulk stowed fish are stored in the hold without containers in areas called pounds separated by vertical boards. Boxes normally hold between 10 and 50 kg and bins will hold up to 400 kg. They are normally made of plastic or occasionally metal. Ice will normally be added to the box.

⁹ <u>https://www.gov.uk/maib-reports/capsize-and-sinking-of-under-12m-ring-netter-heather-anne-in-gerrans-bay-</u> <u>cornwall-england-with-loss-of-1-life</u> - case study with respect bulk fish stowage.

location, or other reasons, the MCA may consider assigning either Category B or C. Such decisions should be referred to a Consultant Surveyor.

- 3.2.7 The following Categories have been applies to unique fisheries:
 - Category A
 - None to date
 - Category B
 - Razor fishing
 - Category C
 - o None to date

3.3 ROLL, HEEL AND OFFSET LOAD TESTS

- 3.3.1 When considering which test to apply, reference MUST be made to MGN503.
- 3.3.2 The requirements for the Heel Test (Offset Load), Roll Test and Heel Test (Suspended Load) are set out in <u>MGN503</u>.
- 3.3.3 The tests should be recorded using MSF1380 Heel Test (Offset Load) Measurement Report Form, MSF1378 Roll Test Measurement Report Form or MSF1382 Heel Test (Suspended Load) Measurement Report Form.
- 3.3.4 When conducting the Roll Test (Minimum Metacentric Height), the surveyor should complete additional sections and Annex B of MSF1378 Roll Test Measurement Report Form and with an accompanying minute on the SharePoint Vessel Stability file. A Grade 7 Surveyor shall then examine and confirm acceptance prior to issuing owner's documentation.
- 3.3.5 For new vessels of less than 15m LOA undertaking Category B or C fishing, the authorised Fishing Vessel Certifying Authority overseeing the construction may conduct the stability tests as set out in <u>MSN1871 Amendment 2</u>, these Instructions and <u>MGN503</u>. Records of these tests will be passed to MCA.
- 3.3.6 The Surveyor must always witness a test during the inspection for the Certificate conducted to their satisfaction (unless a satisfactory test has been conducted as set out in 3.3.5 above).
- 3.3.7 The owner or skipper should retain records of the Heel Test (Offset Load), Roll and/or Heel test (Suspended Load) and have them available at every inspection. These tests must be repeated at every renewal inspection, in the same vessel condition or when a vessel is being modified but not intending to undertake a fishing method considered to be a Category A method in <u>MSN1871 Amendment</u> <u>No.2</u>.
- 3.3.8 The criteria for a test pass are set out in <u>MGN503</u> together with actions to be taken should the vessel not pass a test.

3.3.9 If all options have been exhausted the owner should be advised to seek the advice of a competent person. A competent person would be an individual of good standing and experience in assessing the construction standards, freeboard, stability criteria etc. for a small fishing vessel and is appropriately qualified holding a relevant qualification.

3.4 STABILITY REQUIREMENTS FOR:

- VESSELS OF 12M REGISTERED LENGTH TO LESS THAN 15M LENGTH OVERALL BUILT AFTER 23 OCTOBER 2017; OR
- NEW FISHING VESSELS (2021) WHICH COME UNDER CATEGORY A FISHING METHODS AS SET OUT IN <u>MSN1871 AMENDMENT NO.2</u>; OR
- FISHING VESSELS ON THE REGISTER PRIOR TO THE INTRODUCTION OF <u>MSN1871 AMENDMENT NO.2</u> WHICH SUBSEQUENTLY WISH TO CARRY OUT CATEGORY A FISHING HAVING NOT PREVIOUSLY DONE SO; OR
- FISHING VESSELS ON THE REGISTER PRIOR TO THE INTRODUCTION OF <u>MSN1871 AMENDMENT NO.2</u> WHICH CURRENTLY CARRY OUT CATEGORY A FISHING BUT UNDERTAKE SUBSTANTIAL MODIFICATIONS¹¹ OR
- ANY FISHING VESSEL WHICH HAS BEEN DE-REGISTERED FOR MORE THAN 6 MONTHS WHICH APPLIES TO BE RE-REGISTERED TO CARRY OUT CATEGORY A FISHING.
- 3.4.1 The specific stability requirements for this category of vessel are set out in Chapter 3 Sections 3.4.7, 3.7.2, 3.8 and 3.12.8 of MSN 1871 Amendment No.2. The criteria are the same as those for 15-24m fishing vessels set out in MSIS27 Chapter 3 Part B.
- 3.4.2 For vessels with beam to depth ratio greater than 2.5, such as catamarans, which may not meet the stability criteria referenced in paragraph 3.4.1 above of this Chapter an alternative set of criteria is given in Section 3.5.2 of MSN 1871 Amendment No.2.
- 3.4.3 For vessels to which this section applies, engaged in single or twin boom fishing the requirements (excluding the angle of maximum GZ) are increased by 20% Section 3.5.3 of MSN 1871 Amendment No.2.

(Note: A boom fishing vessel is one which drags a beam trawl, or dredge bar, from a derrick boom which is lowered to extend outboard from the side of the vessel,

¹¹ substantial modifications- to extend life of vessel, see 3.15.2 of MSIS27 Chapter 3 Part B

usually on both sides [twin], these vessels are often referred to "beam" trawlers. A scallop fishing vessel which tows the dredge bar from short outriggers and recovers the bar in board using the Gilson pole is not considered to be a boom fishing vessel).

3.4.4 These vessels are required to carry an approved stability book demonstrating compliance with each of the stability criteria in all seagoing sailing conditions (see section on loading conditions in MGN281 The recommended format for the Freeboard & Stability Information Booklet is available Adobe (PDF) for download¹²). Vessels of less than 12m Registered Length with an approved Stability book shall have the form and content checked as defined in MSIS 9.

- 3.4.5 MSN 1871 Amendment No.2 states that "All fishing vessels of 12 metres (L) to less than 15 metres (LOA) vessels built after the date of entry into force of this Code shall be provided with approved stability information to the satisfaction of the MCA, in accordance with MGN 281(F) The recommended format for the Freeboard & Stability Information Booklet is available Adobe (PDF) for download¹³, for the vessels intended operation". This provides scope to require additional stability criteria to be met in special circumstances i.e. where a clear hazard to the stability of the vessel exists and which is not adequately addressed by meeting the standard stability criteria (see also MGN 281 page 32, first paragraph, The recommended format for the Freeboard & Stability Information Booklet is available Adobe (PDF) for download¹⁴). If a surveyor believes that such additional measures are necessary on a specific vessel the case should be set out in a minute on the vessel's SharePoint Stability file for consideration of a Consultant Surveyor (FV); who will decide on the appropriate course of action, if necessary after consultation with the members of focal point group C "Domestic Vessels" and/or the Head of the Stability and Plan Approval Unit.
- 3.4.6 It is recognised that small vessels less than 12m RL may have difficulty in complying fully with standard intact stability criteria by configuration of the load. Such cases shall be discussed with the Head of Stability and Plan Approval Unit. It is important that the non-dimensional nature of some standard stability criteria are considered when assessing the level of compliance a vessel displays. The effect

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¹²

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/ 302895/stability_inf_re_mgn281.pdf

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/ 302895/stability_inf_re_mgn281.pdf

¹⁴

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/ 302895/stability_inf_re_mgn281.pdf

of moments generated by launching and recovering gear may significantly reduce the margins indicated.

3.4.7 <u>MSN1871 Amendment No.2 paragraph 3.2.1</u> implies that the Wolfson Stability Guidance Notice is not required where a stability information book in accordance with <u>MGN 281</u> is provided, <u>The recommended format for the Freeboard & Stability</u> <u>Information Booklet is available Adobe (PDF) for download¹⁵.</u> For vessels under 12m RL it is recommended that the Wolfson Stability Guidance Notice is provided. This will provide guidance with respect to sea states. It is recommended that the Wolfson Mark is applied to the Vessel.

3.5 STABILITY REQUIREMENTS FOR:

- NEW FISHING VESSELS (2021) OF LESS THAN 12M RL WHICH COME UNDER CATEGORY B FISHING METHODS AS SET OUT IN <u>MSN1871</u> <u>AMENDMENT NO.2</u>; OR
- FISHING VESSELS ON THE REGISTER PRIOR TO THE INTRODUCTION OF <u>MSN1871 AMENDMENT NO.2</u> WHICH SUBSEQUENTLY WISH TO CARRY OUT CATEGORY B FISHING HAVING NOT PREVIOUSLY DONE SO (DOES NOT APPLY TO VESSELS UNDERTAKING CATEGORY A FISHING WHEN <u>MSN1871 AMENDMENT NO.2</u> WAS INTRODUCED); OR
- FISHING VESSELS ON THE REGISTER PRIOR TO THE INTRODUCTION OF <u>MSN1871 AMENDMENT NO.2</u> WHICH CURRENTLY CARRY OUT CATEGORY B FISHING, UNDERTAKE SUBSTANTIAL MODIFICATIONS (SEE PARAGRAPH 3.15.2 OF MSIS27 CHAPTER 3 PART B) BUT INTEND TO CONTINUE USING CATEGORY B FISHING METHODS; OR
- ANY FISHING VESSEL WHICH HAS BEEN DE-REGISTERED FOR MORE THAN 6 MONTHS WHICH APPLIES TO BE RE-REGISTERED TO CARRY OUT CATEGORY B FISHING.
- 3.5.1 Vessels to which these sections apply have two options for demonstrating suitable stability.
 - .1 Compliance with the requirements for vessels of 12m (RL) to less than 15m (LOA) built or joining the Register on or after 23 October 2017 i.e., full intact stability: or

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/ 302895/stability_inf_re_mgn281.pdf

.2

a. Decked Vessels: Maintaining a Freeboard of 300mm¹⁶ or more, an Offset load Test and, if Single Hull, a Roll Test;

b. Open Vessels: If Open, a positive clear height at side as required by Annex 8 of <u>MSN1871 Amendment No.2</u>¹⁷, an Offset load Test and, if Single Hull, a Roll Test,

- 3.5.2 The requirements for compliance with the requirements of vessels of 12m (RL) to less than 15(LOA) built or joining the Register on or after 23 October 2017 are set out in section 3.4 of this Chapter above
- 3.5.3 Owners must apply the Wolfson Method as set out in Annex 9 of <u>MSN1871</u> <u>Amendment No.2</u> and display the Wolfson Stability Notice in a prominent position on the vessel. It is not necessary for the mark to be placed on the vessel. The owner must produce a new Notice if the vessels dimensions are altered

3.6 STABILITY REQUIREMENTS FOR:

- NEW FISHING VESSELS (2021) OF LESS THAN 12M RL WHICH COME UNDER CATEGORY C FISHING METHODS AS SET OUT IN <u>MSN1871</u> <u>AMENDMENT NO.2</u>; OR
- FISHING VESSELS ON THE REGISTER PRIOR TO THE INTRODUCTION OF <u>MSN1871 AMENDMENT NO.2</u> WHICH CURRENTLY CARRY OUT CATEGORY C FISHING BUT UNDERTAKE SUBSTANTIAL MODIFICATIONS BUT REMAIN USING A CATEGORY C FISHING METHOD; OR
- ANY FISHING VESSEL WHICH HAS BEEN DE-REGISTERED FOR MORE THAN 6 MONTHS WHICH APPLIES TO BE RE-REGISTERED TO CARRY OUT CATEGORY C FISHING.
- 3.6.1 The options applicable to vessels to which this section applies are.
 - .1 Compliance with the requirements for vessels of 12m (RL) to less than 15m (LOA) built or joining the Register on or after 23 October 2017: or

¹⁶ <u>MGN 628</u> (M+F) Construction and outfit standards for fishing vessels of less than 15m length overall Part 3, Section 3.9 - Freeboard

¹⁷ The distance between the waterline (in an upright and fully loaded condition) and the lowest point on the gunwale is not less than 400mm for a Vessel of 7m (RL) or under and not less than 690mm for a Vessel of 14.99m in LOA. For a Vessel of intermediate length the clear height at side should be determined by linear interpolation

.2 a. Decked Vessels: Maintaining a Freeboard of 200mm¹⁸ or more, an Offset load Test and, if single Hull, a Roll Test; or

b. Open Vessels; a positive clear height at side as required by Annex 8 of <u>MSN1871 Amendment No,2</u>, an Offset load Test and, if Single Hull, a Roll Test at or

- .3 if less than 6m LOA, be constructed in compliance with ISO 12217-3 and a Roll Test; or
- .4 If 6m LOA to less than 12m RL, be constructed in accordance with ISO 12217-1 and a Roll Test.
- 3.6.2 The requirements for compliance with the requirements of vessels of 12m (RL) to less than 15(LOA) built or joining the Register on or after 23 October 2017 are set out in section 3.4 of this Chapter above.
- 3.6.3 When presenting a vessel for its first inspection the owner or skipper should provide the surveyor with proof of construction to ISO12217-1 or 12217-3 as appropriate.
- 3.6.4 Owners must apply the Wolfson Method as set out in Annex 9 of <u>MSN1871</u> <u>Amendment No.2</u> and display the Wolfson Stability Notice in a prominent position on the vessel. It is not necessary for the mark to be placed on the vessel. The owner must produce a new Notice if the vessels dimensions are altered.
- 3.7 STABILITY REQUIREMENTS FOR VESSELS OF LESS THAN 12M RL ON THE REGISTER PRIOR TO THE INTRODUCTION OF <u>MSN1871 AMENDMENT NO.2</u> AND VESSELS OF LESS THAN 15M LOA ON THE REGISTER BEFORE 23 OCTOBER 2017.
- 3.7.1 Vessels must apply the Wolfson Method as set out in Annex 9 of <u>MSN1871</u>
 <u>Amendment No.2</u> and display the Wolfson Stability Notice in a prominent position on the vessel. It is recommended that the Wolfson Freeboard Mark is displayed. The owner must produce a new Notice if the vessels dimensions are altered.
- 3.7.2 If vessels already possess an approved Stability book, this should be maintained. Owners of vessels to which this section applies should conduct a Test based on the information contained in <u>MGN503</u>. **MCA surveyors MUST consider the appropriateness of the Stability Test being demonstrated.**

¹⁸ Decked vessel freeboard standard accepted by the Brown Code 1998 and the Nordic Boat Standard1990 and DNVGL-ST-0342 Craft STANDARD to provide a certification service provided by DNV for the small craft industry; mainly for commercial craft, but also recreational craft outside scope of EU Directives

3.7.3 Vessels to which this section applies that carry out modifications or change fishing method to one that it has not previously been undertaken, as set out in section 1.6 of <u>MSN1871 Amendment No.2</u> must inform MCA to seek approval and, comply with the relevant stability requirements applicable to New Vessels (2021) employing the proposed Category of Fishing. This must be complied with regardless of the fishing methods the vessel currently undertakes.

3.8 STABILITY VERIFICATION - GENERAL

- 3.8.1 The purpose of this assessment is to satisfy the Surveyor and the MCA **that the fishing vessel continues to meet the minimum statutory requirements for stability and freeboard**; providing the evidence to back up the Surveyor's declaration made at survey. Stability assessments should be carried out at the following times during a vessel's life:
 - When new, on completion¹⁹;
 - At each renewal survey;
 - At flag-in or re-registration;
 - Following conversion work in which MCA has been involved, or;
 - When changes affecting stability are found during a general inspection [contact a Consultant Surveyor (FV) to agree the appropriate course of action].
- 3.8.2 It is important to ensure that all measurements and other records taken are agreed with the owner or his representative. References to breadth and moulded depth are references to Principal Breadth and Principal Depth as defined in <u>MGN 628</u>.

3.9 RECORDS

- 3.9.1 **Records to be taken**. Records should be maintained in the relevant MSF Test form,
- 3.9.2 **Records to be kept.** The following should be retained on file:
 - copies of all completed proforma;
 - all calculations carried out by the surveyor;
 - all photographs taken at time of test;

¹⁹ It may be acceptable to dispense with the need for an inclining test for some catamarans and other vessels with a high initial GM (where GM is more than 3 times the VCG) In such cases the LCG should be obtained by lightship survey or by weighing with two gauges. The lightship VCG may be obtained by an accurate weight estimate calculation with a suitable (pessimistic) margin added, in no case should the lightship VCG be taken below main deck. Details of the estimated lightship weight, LCG and VCG should be submitted to the MCA for verification, prior to completion.

- calculations and results from the consultant.
- 3.9.3 Consequences of incorrect measurement and time recording. It is important to ensure that all measurements and time recording are as accurate as possible.

3.10 VESSELS TRANSFERRING TO THE UK REGISTER

3.10.1 A vessel which transfers to the UK register from another flag state should comply with the stability requirements for 'new' vessels as far as it is reasonable and practical to do so. These cases should be discussed with the local Consultant Surveyor (FV) and Stability and Plan Approval Unit prior to agreement for change of flag being given

3.11 ADDITIONAL REQUIREMENTS ON SOME TYPES OF FISHING VESSELS

3.11.1 Due to the complex nature of the calculations which may be required to determine if certain types of vessel comply with the relevant statutory stability requirements, it is recommended that vessels of unusual or novel design are discussed in detail with the Stability and Plan Approval Unit before newbuild, flag-in or renewal surveys are carried out. See Section 3.17 of MSIS27 Chapter 3 Part B.

DOCUMENT AMENDMENT HISTORY

Version Number	Status / Change	Date	Author Reviewer	Content Approver	Next Review Date/Expiry Date
09.21	• Updated Code to reflect new requirements of MSN1871 Amendment No.2	31/08/202 1	D Fenner	G Stone	01/09/2023
11.21	 Clarify MCA witness tests at inspection Form and content check of approved stability books Sets out requirements for new and existing Razor fishing multihulls 	09/11/21	D Fenner	G Stone	31/10/2023
01.22	 Clarify an Offset load test can be conducted after a Roll/Heel Test failure. Clarify that where vessel is a Category A vessel, the first step after failing a test is inclining. 	31/01/22	D Fenner	G Stone	31/01/2023
05.22	• Cat A vessels should be referred to the Technical Panel if they fail Roll Test to decide whether to undergo Offset Load Test or go straight to inclining	27/04/22	D Fenner	G Stone	31/05/2023
08.22	• Split Chapter 3 into new sections on Under 15m Vessels, 15m and over vessels and Freeboard, make direct reference to MGN503 for assessing stability of vessels of less than 15m and reference to MSIS27 Chapter 2 for deciding equivalencies for Freeboard	01/07/22	D Fenner	G Stone	01/07/2024
10.22	 Clarify G7 MO surveyors are to examine and confirm Roll Test (Minimum Metacentric Height) Forms Sharepoint minutes to consultant surveyors no longer required when additional stability criteria to be met in special circumstances (section 3.4.5) Section 3.8.1 – Consultant Surveyors need not be informed when changes 	27/9/22	D Fenner	G Stone	01/10/24

	affecting stability are found during a general inspection				
11/22	• Vessels which meet the freeboard/positive clear height at side, waterfreeing requirements and stability requirements of MSN1871 Amendment 2 shall only have any restrictions applied as set out in MSN1871 Amendment No.2	28/11/22	D Fenner	G Stone	28/11/24
12.22	• Surveyors should refer to Sections 1.23 and 1.24 of <u>MSIS27 Chapter 1</u> when reviewing modifications to vessels.	2/12/22	D Fenner	L Page	28/11/24