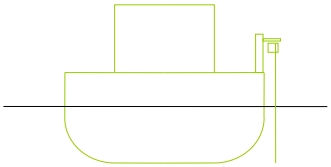
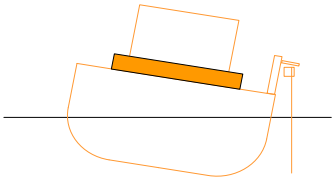
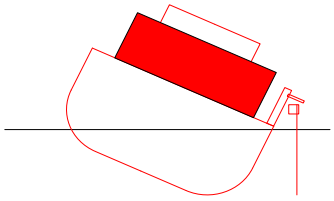
Annex A

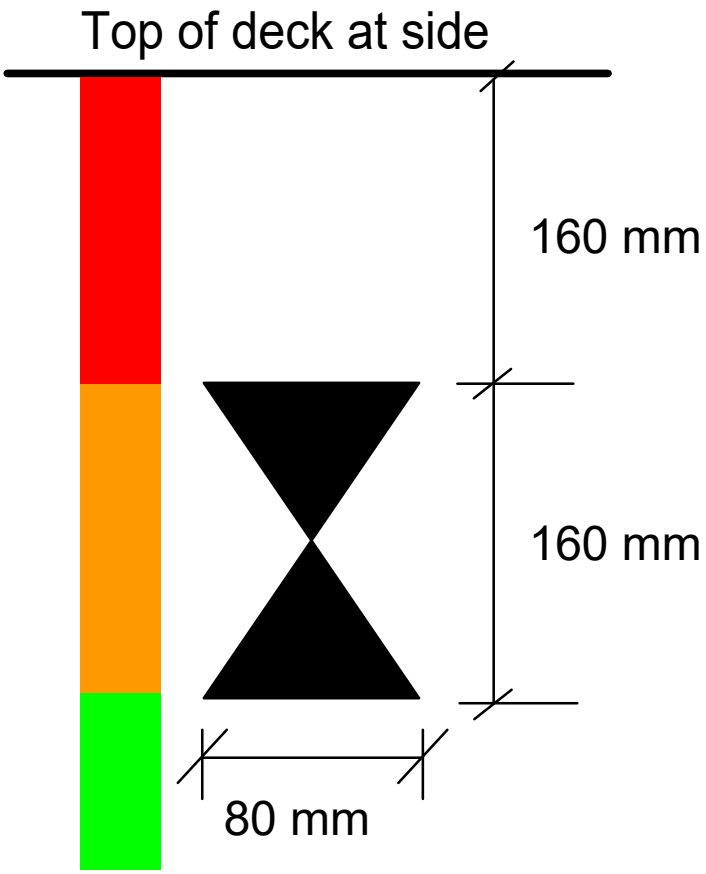
Wolfson Guidance Marks for *Laura Jane*

WOLFSON UNIT
FOR MARINE TECHNOLOGY & INDUSTRIAL AERODYNAMICS

STABILITY NOTICE [decked vessels]

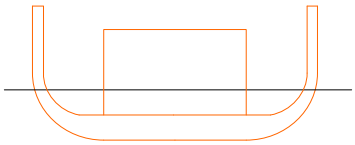
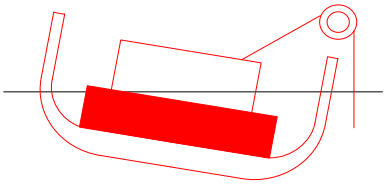
Name **Laura Jane** No. **SE80** Owner **0** Length **6.1 metres** Beam **2.26 metres**	**Loading & Lifting Guidance**	**Safety Zone**	**Minimum Freeboard**	**Maximum Recommended Seastate**
	Good margin of residual freeboard	**Good margin of safety**	At least 32 cm	
	Loading or lifting reduces minimum freeboard to less than 32 cm	**Low level of safety**	16 to 32 cm	0.9 metres
	Excessive loading or lifting reduces minimum freeboard to less than 16 cm	**Danger of capsize**	Less than 16 cm	0.4 metres

Freeboard Guidance Mark - size and location

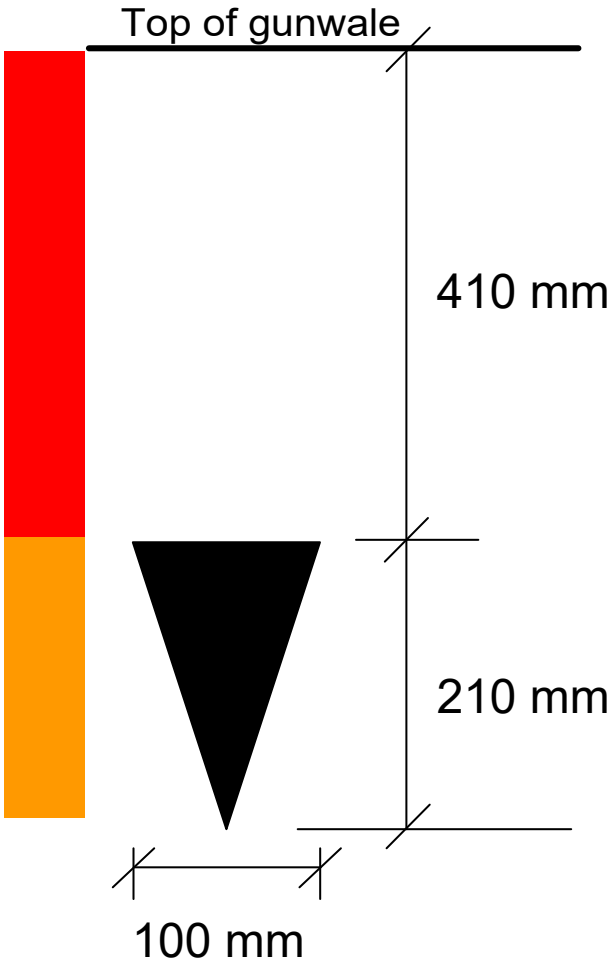


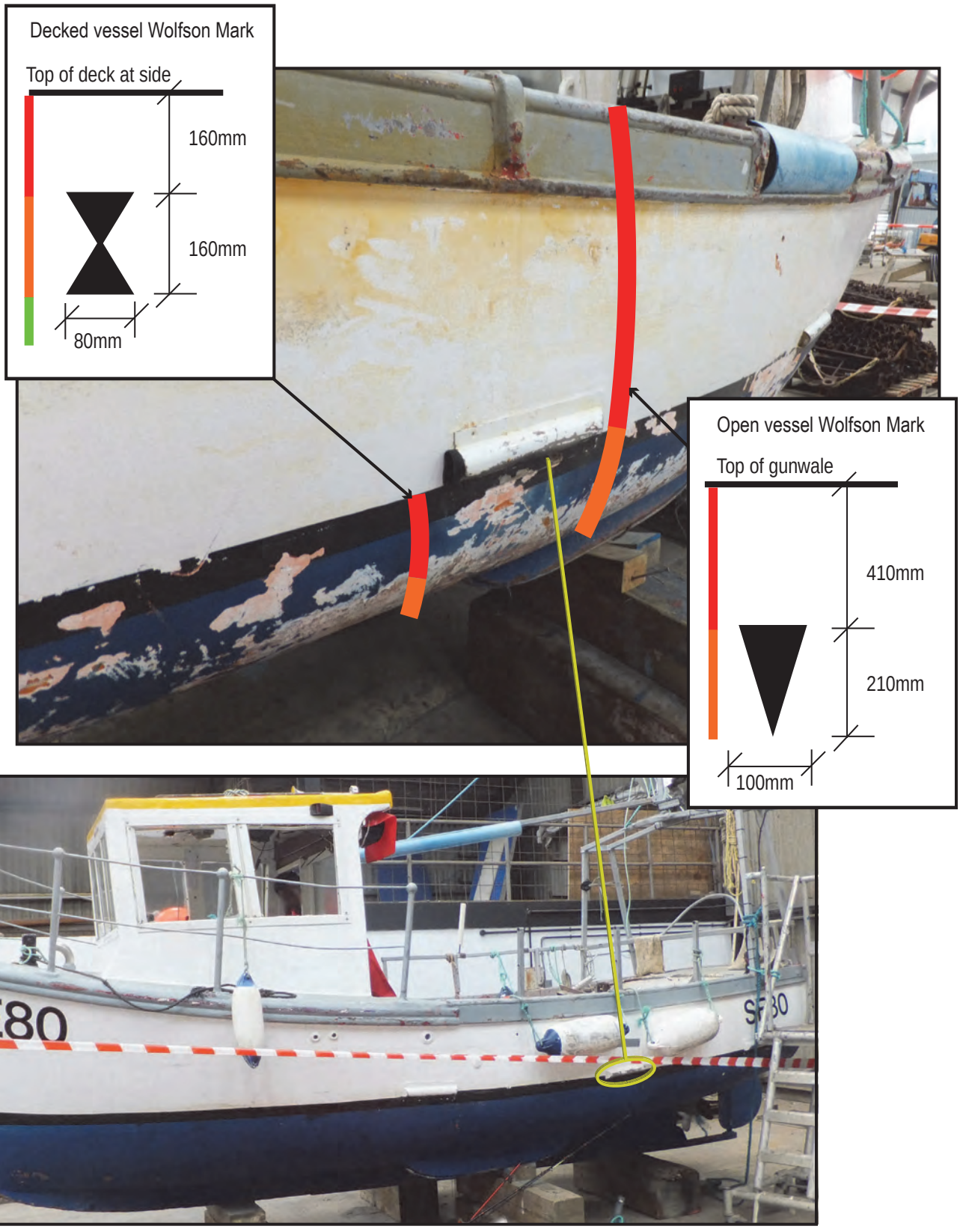
WOLFSON UNIT
FOR MARINE TECHNOLOGY & INDUSTRIAL AERODYNAMICS

STABILITY NOTICE [open vessels]

Name **Laura Jane** No. **SE80** Owner **0** Length **6.1 metres** Beam **2.26 metres**	**Loading & Lifting Guidance**	**Safety Zone**	**Minimum Freeboard**	**Maximum Recommended Seastate**
	Even with a freeboard of at least 41 cm, swamping may be a hazard	**Low level of safety**	At least 41 cm	
	Excessive loading or lifting reduces minimum freeboard to less than 41 cm	**Danger of capsize**	Less than 41 cm	0.4 metres

Freeboard Guidance Mark - size and location





Illustrative purpose only - not to scale

Extract from MSN 1871(F)

ANNEX 5

ADDITIONAL STABILITY GUIDANCE FOR ALL VESSELS

Capsizing due to insufficient stability is a major cause of fatalities for boats under 24m length, especially those under 15m. The risk of capsize increases as:

- the effective centre-of-gravity increases in height, and
- the freeboard is reduced due to overloading.

CENTRE OF GRAVITY (CG)

This is the name given to the theoretical position through which the weight of the vessel and everything it is loaded with reacts with the buoyancy of the hull, to create a righting moment that resists capsize.

EVERY VESSEL WILL CAPSIZE WHEN THE CG BECOMES TOO HIGH!

BE AWARE THAT ACTIONS YOU TAKE BOTH ON SHORE AND AT SEA CAN AFFECT THE CG AND THEREFORE THE HEIGHT OF THE CG.

The main causes of the CG increasing are:

- weight growth over time created by any weights added above the deck, such as: masts, gantries, derricks, net drums, gutting shelters, pots, creels, etc, THEREFORE:
  - consider the effect of any vessel modifications on the stability before *and especially after* making them;
  - check the drafts or freeboards at annual intervals so see if the vessel has got significantly heavier.
- too much catch being loaded on deck instead of being stowed in the fish room,

  THEREFORE:
  - stow fish below as soon as practicable

HIDDEN DANGERS WHILST FISHING: two factors cause a substantial rise in the *effective* CG whilst fishing:

- when lifting with a crane or derrick, the effective CG of the load is at the head of the lifting device, even when the load is only just above the deck, THEREFORE:
  - do not exceed the safe working load of any lifting device;
  - if you have a Stability Book, check for stability limits before you sail on safe lifting capacity;
  - stop any lifting operation *well before* any part of the deck is submerged.
- “free-surface effect” caused by loose water (or fish) rushing from side to side as soon as the vessel heels. This is true of both water-on-deck and liquids in tanks that are not empty or completely full, THEREFORE:

- keep all scuppers and freeing ports clear at all times;
- use pound boards to limit the movement of loose fish, whether on deck or stowed below;
- keep tanks either pressed full or empty whenever possible;
- divide wide tanks by installing longitudinal watertight divisions (NOT baffles);
- keep the level of bilge water low.

Swamping of the working deck is particularly dangerous because:

- the weight of water in itself raises the *actual* CG, and
- it also creates a massive free-surface raising the *effective* CG, and
- the weight of water reduces the freeboard and so increases the vulnerability to further swamping.

Effective freeing ports and scuppers are vital for quickly removing shipped water and so maintaining stability.

OVERLOADING:

EVERY VESSEL WILL CAPSIZE IF IT IS OVERLOADED!

The main causes of overloading are:

- weight growth of the vessel itself, causing it to float deeper in the water, THEREFORE:
  - check the drafts or freeboards at annual intervals to see if the vessel has got heavier and,
  - if it has, either remove the extra weight or reduce the catch you take on board.

  Note: Freeboard is the distance between the water and the working deck of the vessel.
- taking on board so much catch that the freeboard is substantially reduced, THEREFORE:
  - know your minimum safe freeboard and stick to it. Don't be tempted to load too big a catch – you may not live to land it!
  - fit a Freeboard Guidance Mark, it's FREE – see MGN 427(F) or any superseding document, or http://www.safetyfolder.co.uk/freeboard.php
- lifting an excessive load or heaving back too hard on fouled fishing gear, THEREFORE:
  - stop any lifting operation well *before* any part of the deck is submerged.

FREEBOARD GUIDANCE MARK

The Safety Folder contained in http://www.safetyfolder.co.uk/freeboard.php contains guidance information which is intended to provide fishermen with some indication of their level of safety in terms of their loading and lifting, and in relation to the seastate. The method was developed in Research Project 559 conducted for the MCA. Although it is simple for the user, the development incorporated the findings of extensive model tests on a wide range of hull forms and loading cases, and may be applied to any type of vessel.

The only vessel dimensions required for the calculation are the overall length and beam. The freeboards and associated sea states will then be calculated for your vessel, and a Stability Notice is automatically generated ready to be placed on board. It also provides the dimensions of and a template for the Freeboard Guidance Mark.

The basic recommendation is for all vessels to display a Stability Notice in a prominent position in the wheelhouse. This notice provides guidance on how certain loading or lifting operations will reduce the safety of the vessel, and on the limiting seastates in which such operations should be conducted. Three safety zones are defined, and assigned the colours green, amber and red on the Stability Notice to represent their relative levels of safety.

Intended for vessels with no stability information the guidance is based on the residual freeboard when loaded or lifting heavy loads, and the freeboards referred to on the Stability Notice should be marked on the side of the vessel using a standard Freeboard Guidance Mark. The mark should be positioned at the lowest freeboard, or where the freeboard becomes lowest when lifting, or mid-way between the two where these positions are very different.

The freeboard mark shows the degree of risk of capsizing in relation to the sea state. The risk level is indicated whether or not over-side loads are being lifted. It is NOT a load line mark such as is used on merchant ships only when the vessel is upright.

It is not expected that fishermen will attempt to view the freeboard guidance marks when loading at sea, but that they will become familiar with their location to increase their awareness of how the residual freeboard affects their level of safety. Capsize prediction cannot be precise because there are too many changing factors. This approximate method of guidance should help to increase awareness of the dangers of low freeboard, and of heeling vessels to large angles by lifting heavy loads.

REMEMBER:

WHEN YOUR FREEBOARD IS GONE – SO IS YOUR SURVIVABILITY*!*

BECAUSE:

As the effective CG height is increased, AND as the freeboard is reduced the ability of the vessel to resist the energy of the waves is rapidly reduced. Both dangers have capsized fishing vessels even in flat calm conditions, often resulting in fatalities.

When the freeboard is zero (i.e.: the weather deck is on the waterline), the slightest disturbance will capsize the vessel.

LEARN MORE ABOUT STABILITY

Attend a one-day Basic Stability Awareness Course at Seafish – for details visit
http://seafishonlinetraining.co.uk/course/index.php?categoryid=10

How to check your freeboard and stability: refer to MGNs 503 (F) and 427(F). MGNs are available at:
https://www.gov.uk/government/collections/marine-guidance-notices-mgns

Extract from Fishermen’s Safety Guide

Maritime &
Coastguard
Agency

FISHERMEN'S SAFETY GUIDE

A guide to safe working practices and emergency procedures for fishermen

The main causes of the Centre of Gravity being too high are:

- weight growth over time created by any weights added above the deck, such as: masts, gantries, derricks, net drums, gutting shelters, pots, creels, etc.; or
- less weight lower down the vessel, for instance changing a heavy engine for a lighter one, THEREFORE:
  - consider the effect of any vessel modifications on the stability before and especially after making them; and
  - check the drafts or freeboards at annual intervals so see if the vessel has got significantly heavier.
- too much catch being loaded on deck instead of being stowed in the fish room, **THEREFORE:**
  - stow fish below as soon as practicable

HIDDEN DANGERS: two factors cause a substantial rise in the effective Centre of Gravity:

- when lifting with a crane or derrick, the effective Centre of Gravity of the load is at the head of the lifting device, even when the load is only just above the deck, THEREFORE:
  - do not exceed the safe working load of any lifting device;
  - check the Stability Book for stability limits on safe lifting capacity; and
  - stop any lifting operation well before any part of the deck is submerged.
- 'free-surface effect' caused by loose water (or fish) rushing from side to side as soon as the vessel heels. This is true of both water-on-deck and liquids in tanks that are not empty or completely full, THEREFORE:
  - keep all scuppers and freeing ports clear at all times;
  - use pound boards to limit the movement of loose fish, whether on deck or stowed below;
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  - divide wide tanks by installing longitudinal watertight divisions (NOT baffles); and
  - keep the level of bilge water low.

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  Note: Freeboard is the distance between the water and the working deck of the vessel.
- taking on board so much catch that the freeboard is substantially reduced, THEREFORE:
  - know your minimum safe freeboard and stick to it. Don't be tempted to load too big a catch – you may not live to land it!
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    www.safetyfolder.co.uk/freeboard.php
- lifting an excessive load or heaving back too hard on fouled fishing gear, THEREFORE:
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REMEMBER:

WHEN YOUR FREEBOARD IS GONE – SO IS YOUR SURVIVABILITY!

BECAUSE:

As the effective Centre of Gravity is increased, AND as the freeboard is reduced the ability of the vessel to resist the energy of the waves is rapidly reduced. Both dangers have capsized fishing vessels even in flat calm conditions, often resulting in fatalities.

Annex D

Aide-mémoire (MSF 5549) in respect of *Laura Jane* completed in May 2017

OTHER RELEVANT ITEMS – NON MANDATORY - RECOMMENDED

	Y	N
Hull		
Stability, condition of vessel		
Hull condition, external, internal	✓	
Mooring and anchoring arrangements	✓	
Decks	✓	
Watertight hatches/coamings		✓
Bulwarks condition and height	✓	
Freeing port areas – clear of obstructions/blockages Area recommended to be minimum 3% of Bulwark area	✓	✓
REMARKS		
Wheelhouse/Cabin		
Windows, condition	✓	
Doors, condition	✓	
Record of LSA equipment examined		✓
Crew have received appropriate onboard training		✓
Instructions for on-board maintenance of LSA are on board. Inspect any immersion suits, thermal protective aids etc.		✓
Table or curve of residual deviations for magnetic compass may be provided		✓
Operational and, where appropriate, maintenance manuals for all navigational equipment provided		✓
Emergency instructions available for each person on board. Copies of suitably up-dated muster list may be posted in conspicuous places and in a language understood by all persons on board and posters or signs in the vicinity of survival craft and their launching stations as applicable		✓
As appropriate, the magnetic compass, gyro compass, radar installation, automatic radar plotting aid, echo-sounding device, speed and distance indicator, rudder angle indicator, propeller rate of revolution indicator, variable pitch propeller pitch and operational mode indicator. Automatic identification system, voyage data recorder, ECDIS, GPS.	✓	
Vessel complies with MGN 314 – If not ensure visibility is adequate	✓	
Any accommodation facilities meets the requirements of MGN 413		✓
REMARKS		

COMPLETION OF SURVEY

Should there be any doubt before completion of the survey/inspection contact the local Marine Office or Principal Fishing Vessel Surveyor for advice		
DECAL (or equivalent) issued or endorsed;		✓
Record of Equipment (check list) left with owner		✓
REMARKS		

SURVEYORS TO RECORD THE FOLLOWING ON THE FILE

BEAMTRAWLERS	
Towing Height Above Deck	
Length of Booms	
Length of Beams	
No of Scallop Bags per side	
TRAWLERS	
Towing Heights	

mca Maritime and Coastguard Agency

ANNEX 17 UNDER 15 METRE FV SURVEY/INSPECTION AIDE-MEMOIR

(Based on MSN 1813)

No **MSF 5549**

Revision **10/10/13**

Name of Vessel	Kevi-Jor-Ru
Date	10/5/17

CERTIFICATES AND RECORDS

	YES[1]	NO
Validity of DECAL		
Self Certification form Signed annually by the owner		✓
Validity of Certificate of Registry Note; change of ownership and/or modifications to the vessel such as change of length, engine etc. will require that the Certificate of Registry be renewed/amended	✓	
Validity of crew training certificates Basic Health and Safety, Basic Sea Survival Basic Fire Fighting, Basic First Aid Safety Awareness and Risk Assessment (if applicable) Navigation Watchkeeping Engine Room Watchkeeping Stability Awareness	✓	
Check MMSI		✓
One crew holding:- Short Range Radio Certificate (Area A1) Restricted GMDSS (Area A2)	✓	
Validity of Servicing certificates for Fire Appliances, Life Rafts, etc		✓
Risk Assessments Copies on board/available in Risk Assessment folder Note; change of ownership or change of mode of fishing will require amended/new Risk Assessments		✓
Any new equipment fitted meets current rules/fit for purpose etc.		✓
Has any fire occurred on board necessitating the operation of the fixed fire-extinguishing systems or the portable fire extinguishers since the last survey;		✓
Any requirements for Concentrated campaign or inspection have been confirmed – see any separate instructions	✓	
List of crew, signed by crew verifying received induction and risk assessment explanation		✓
Written Health & Safety Policy if more than 5 employees.		✓
Hours of Rest records		✓

[1] Yes means item has been seen, No means not seen. This is not confirmation that the item was satisfactory.

INSPECTION ITEMS REQUIRED

)pen Vessels Inder 7 m Registered Length m to 12 m Registered Length)ecked Vessels Inder 10 m Registered Length 0 m to 12 m Registered Length ıll Vessels 2 m RL to 15 m Overall Length	OPEN VESSELS			DECKED VESSELS		
	Under 7 m	7 to 12 m	12 to 15 m	Under 10 m	10 to 12 m	12 to 15 m
ifejackets, with lights	1 per person					
iferafts ‡ Recommended	‡	‡	‡	‡	1	1
:PIRB ‡ Recommended	‡	‡	‡	‡	‡	‡
ifebuoys (1 with 18 m buoyant line)	(1)	2*	2*	2*	2*	2*
* or 1 Lifebuoy (with 18 m buoyant line) + 1 Rescue Quoit						
arachute Flares	(2)	3	3	3	3	3
land held flares	(2)	2	2	2	2	2
moke Signal (buoyant or hand held)	(1)	1	1	1	1	1
Multi purpose Fire Extinguisher Rating 5A/34B) *(if inboard engine)	(1*)	1	1	1		
ire Bucket + lanyard	(1)					
Gas Detector				1	1	1
ire Blanket (if galley or cooking area)	(1)	1	1	1	1	1
moke Alarms (Accom & Engine spaces)				Y	Y	Y
ire Pump and hose		1	1	1	1	1
r Fire Bucket + lanyard		1	1	1		
r Fire Bucket + lanyard + 1 Multi purpose xtinguisher (5A/34B) + Fixed fire fighting ystem for machinery space					Y	Y
Multi purpose Fire Extinguisher for oil fire Rating 13A/113B) – See also Note 1		1	1	1	1	1
VHF Radio Fixed (DSC) or Hand Held	(1)	1	1	1	1	1
Bilge Pump		1	1	1	1	1
Bilge Alarm				1	1	1
Bailer	(1)					
Navigation Lights and Sound signals	(1)	1	1	1	1	1
Radar Reflector : Recommended for Wood/GRP vessels	‡	1	‡	‡	‡	‡
Anchor and Cable/Warp	(1)	1	1	1	1	1
Compass	(1)	1	1	1	1	1
Waterproof Torch	(1)	1	1	1	1	1
Medical Kit	(1)	1	1	1	1	1
Stability Book ‡ Recommended			‡			‡

1 = Number to be supplied, 0 = not required, * = Alternative
Y = Required, ‡ = Recommended, NA = Not Applicable

Note 1; for portable fire extinguishers, if a larger extinguisher is too cumbersome then small or smaller extinguishers may be substituted provided that the sum of the substitutes equals the total requirement of the larger extinguisher

Check with Code requirements for any variations which may be allowed

SURVEY/INSPECTION – MANDATORY ITEMS

	Y	N
Lifejackets (inc, whistles, retro-reflective material and lights) Inflatable lifejackets to comply with BS EN 396 or 399, auto inflation and 150 Newtons buoyancy	✓	
Each inflatable liferaft, the hydrostatic release unit and/or float-free arrangements. Note; reduced strength HRU may be used for smaller Liferafts. Annual service as required		✓
Lifebuoys, self-igniting lights, self-activating smoke signals and buoyant lines, correctly marked with name/POR and Reflective tape	✓	
Parachute flares in date	✓	
Hand-held flares in date	✓	
Smoke signal/s in date	✓	
Portable and non-portable fire extinguishers – correct type, condition, adequately maintained (annual service), location	✓	
Fire Blanket, in galley if applicable		✓
Fire pump/s, Fire main, Hydrants, hoses and nozzles, Each pump, operated separately - jet of water produced at any part of the ship whilst required pressure is maintained in fire main		✓
Fire bucket with lanyard as applicable	✓	
Fixed fire fighting system for machinery spaces, as appropriate, and means of operation clearly marked		✓
Fixed fire fighting system for machinery: CO2 capacity has been checked. Distribution pipework proved clear		✓
Examining and testing Fire detection and alarm system, if fitted		✓
Examining and testing Gas detection and alarm system, if fitted		✓
Bilge pumping – test of bilge pump/s	✓	
Bilge alarms – if watertight bulkhead require 1in Fish Room and 1 in Machinery space		
Navigation lights, shapes and sound signalling equipment	✓	
Charts and nautical publications necessary for intended voyage available and up-dated.		✓
Radar Reflector condition, if applicable	✓	
Operation of two-way VHF radiotelephone apparatus	✓	
Safety of operation of fishing gear, winches, wires, blocks, nets, lines etc. (LOLER & PUWER Regs)		✓
Anchor and cable/warp, condition	✓	
Previously open SIAS deficiencies closed or reopened		✓
Photographs of vessels principal features	✓	

REMARKS
2 persons

OTHER RELEVANT ITEMS

	Y	N
Machinery Spaces		
Main and Auxiliary engines, condition, guards, exhaust, no exposed high temperature surfaces, fuel lines	✓	
Bilges, condition, no oil being pumped overboard	✓	
Condition of pipework, securing clips, skin fittings, sea cocks and their ease of operation		
Electrical cables – condition, securely clipped, electrically safe		
Batteries, condition		
Bulkheads, frames, condition	✓	✓
Fire doors, flaps etc. condition		✓
Steering gear, condition, operational test	✓	
Fire risks and hazards		✓
Arrangements for oil fuel, lubricating oil and other flammable oils. Operation of remote means of closing valves on tanks that contain oil fuel, lubricating oil and other flammable oils		✓
Fire extinguishing and special arrangements in the machinery spaces. Operation of the remote means of control provided for: - opening and closing of the skylights, release of smoke, closure of the funnel and ventilation openings, closure of doors, stopping of ventilation fans, stopping of oil fuel and other pumps that discharge flammable liquids		✓
REMARKS		
Deck		
Decks, condition	✓	
Watertight doors, condition and operation	✗	✓
Watertight hatches/coamings, condition and operation	✓	
Bulwarks condition and height	✓	
Freeing port areas – clear of obstructions/blockages	✓	
Embarkation arrangements and launching appliances for each survival craft including relevant tests		✓
Ease of access to safety equipment	✓	
Encourage owners and crew to wear working lifejackets at all times	✓	
Discuss use of lifelines/ harnesses and belts	✓	
REMARKS		

Revised version of MSF 5549

Fishing Vessel; Open Under 7 metres Registered Length	**MSF5576** **Rev 06/18**
RSS Number; **PLN;** **Vessel Name;**	**Owner;** **Skipper;** **Surveyor;**
Date;	**Reason for Inspection (circle);** New registration/ New owner/ 5 yearly/ Modification/ other (specify);

Aide Memoire Sections;

1. **Vessel Documentation.**
2. **Skipper & Crew.**
3. **Vessel Structural Condition.**
4. **Vessel Stability.**
5. **Machinery.**
6. **Safety Equipment.**
7. **Recommended Safety Equipment.**
8. **Fishing Gear.**
9. **CiC.**
10. **Declaration.**

This Aide Memoire is to be used in conjunction with Checklist MSF5549 and lists requirements and gives practical guidance on complying with the Code of Practice for the Safety of Fishing Vessels less than 15 metres length overall (referred to as the 'Code' in this Aide Memoire), available online;

- **https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/656001/MSN_1871_Complete.pdf**

The Aide Memoire also takes into account guidance on standards from;

Seafish Construction Standards for Fishing Vessels less than 15 metres length overall (the standard required of new build Fishing Vessels less than 15 metres length overall); available on line;

- **http://www.seafish.org/industry-support/marine-survey/construction-standards**

Maritime & Coastguard Agency Instruction to Surveyors for Fishing vessels available online;

- **https://www.gov.uk/government/publications/survey-and-inspection-of-fishing-vessels-chapters-1-to-17-msis-27**

1. New vessels; where the Aide Memoire talks about a; "New vessel" that means a fishing vessel, the keel of which was laid or the construction commenced on or after 23 October 2017 or wishes to join, or re-join, the UK Register as a Fishing Vessel on or after that date.

2. What is an Open vessel? An open vessel is one where water coming into the vessel normally drains to the bilge.

3. When may an Inspection be required? A registered Fishing Vessel under 15 metres in length overall can be inspected at any time by the Maritime & Coastguard Agency to check for compliance. Routine Inspections are required; at first registration, every 5 years, at change of ownership, and at any major modification or alteration to the vessel. Owners can also request an inspection.

1. Vessel Documentation			
Item	**Regulatory/Guidance reference**	**Advice/ Remarks**	**Comments/ Expiry dates**
Certificate of Registry	SI 1988 No. 1926 - The Merchant Shipping (Registration of Fishing Vessels) Regulations 1988 - Part II.	For vessels already registered the Certificate of Registry should be available. MCA Surveyor will wish to see the certificate and will take details from it including; Registered length, length overall, Engine details, ownership details and the expiry date of the Certificate of Registry. If the vessel is new, or registering for the first time as an existing vessel the certificate may not have already been issued.	Registered length; Length Overall; Expiry Date: Engine KW;
MCA Safety Certificate	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/656001/MSN_1871_Complete.pdf Paragraphs 3.2 – 3.5.	Certificate is issued on completion of a satisfactory inspection. The certificate is normally valid for 5 years and states; max number of crew, area of operation (A1/A2 etc, ownership and type of fishing). Owners should be aware that if a vessel is modified, changes number of crew, or fishing method then the MCA Safety certificate will be invalid and need to be re issued.	Certificate expiry date; Number of Crew = Sea Area of operation; = A1/ A2 / A3 / A4 (delete as appropriate). Fishing method;
Annual self-declaration	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/656001/MSN_1871_Complete.pdf Code paragraph 3.6	1. Should be completed by the owner annually within one month of the vessel's registration, and retained. The self - declaration verifies that; a. Safety equipment required by the 'Code' is carried on board the vessel has been suitably maintained and serviced in accordance with the manufacturer's instructions; and b. A Risk Assessment has been completed and given or explained to the crew.	Date last completed; /
Ships Radio Licence or Ship Portable Radio Licence	All vessels fitted with a radio must have a radio licence. 'Code' paragraphs 4.40 – 4.42. See statutory requirement in International Telecommunications Union International Regulations at link; http://life.itu.int/radioclub/rr/art18.htm	All vessels fitted with a radio must have a radio licence, which can be obtained from: It can be done online at; http://licensing.ofcom.org.uk/radiocommunication-licences/ships-radio/ Alternative methods of obtaining the licence are available, see 'code' paragraph 4.40-42.	Record vessels MMSI;

1. Vessel Documentation (continued)			
Item	**Regulatory/Guidance reference**	**Advice/ Remarks**	**Comments/ Expiry dates**
Risk/ Safety Assessment	The Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997. Marine Guidance Note (MGN) 20.	1. It is recommended that these are recorded (i.e. written) although there is no legal requirement to do so. A written Risk Assessment demonstrates that safety is taken seriously and will be effective in not only preventing accidents but in also showing the regulatory bodies that risks had been assessed. Note if there are more than 5 employed crew then there needs to be a written Health and Safety Policy. 2. As a minimum risks covered should include; boarding/leaving, general vessel safety, and cover the fish; hauling, stowage, and landing. The assessment should include how to deal with basic emergencies (fire/flood/man overboard/ snagging). There are online and written guidance available for safety assessments. 4. Whether written or not is to be recorded on the MCA Safety Certificate and regardless of whether the Risk Assessment is written or not the owner should consider maintaining a crew list stating that an induction has been completed and the Risk Assessment understood. 5. The Risk Assessment must be reviewed at least annually, or whenever there is a major change (i.e. change in fishing method, modification, etc.	Surveyor should verbally discuss owner/skipper/crew assessment of their risks by looking in detail at the most dangerous on board operation. Date assessed;
Man Overboard Risk Review	The Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997. MGN571(F) Marine Guidance Note (MGN) 20	The Skipper should be provided with a Risk Review document and the vessel assessed for areas where the crew may go overboard. The skipper should requested to consider putting in place mitigation to eliminate the risk or wear PFDs if the risk cannot be eliminated.	If the skipper has already done this, ask to view risk assessment.
Hours of Work records for employed crew	The Fishing Vessels (Working Time: Sea-fishermen) Regulations 2004 SI No 1713. MSN 1786 (F) Application of the Fishing Vessels (Working Time: Seafishermen) Regulations 2004;	Key points from the regulations are: 1. They apply to United Kingdom fishing vessels wherever they may be; 2. Specify that a worker's working time shall not exceed 48 hours per seven-day period averaged over 52 weeks and entitle a worker to adequate rest, and the total hours of rest are to be not less than 10 hours in any 24 hour period and 77 hours for each seven days;	If the crew are employed, then hours of work/ rest are required to be maintained and surveyor should record evidence. If they are share fishermen, then the owner should be able to explain to the surveyor how adequate rest is considered in fishing operations. In this instance Surveyor should

		3. Permit exceptions to the limits on hours of rest for objective and technical reasons or reasons concerning the organisation of work; and 4. Permit a skipper to require a worker to work any hours of work in an emergency.	record that the owner /skipper understands this and operates his vessel accordingly.
1. Vessel Documentation (Continued)			
Item	**Regulatory/Guidance reference**	**Advice/ Remarks**	**Comments/ Expiry dates**
Record of Drills	Code; paragraph 3.19-3.21.	1. The skipper and crew shall ensure that they are familiar in the use of all lifesaving and fire appliances and equipment with which the vessel is provided and shall ensure that all members of the crew know where the equipment is stowed. Related training shall be carried out in drills, including flooding drills, held in port or at sea, at intervals of not more than one month 2. Drills should demonstrate that there is a common working language on board. 3. Drills to be recorded in a log (a simple notebook will suffice) or online. 4. Further information is contained in MGN 570 (F). Fishing Vessels: Emergency Drills and MGN 571 (F) Fishing Vessels: Prevention of Man Overboard 5. A Man Overboard drill should always be conducted	Surveyor should randomly test knowledge; for instance, LSA locations. Knowledge tested (list what is discussed/ covered); Record date of last drill; /

2. Skipper and Crew		
Item	**Regulatory/Guidance reference**	**Advice/ Remarks**
One-day basic safety course certificates	Regulation; SI 1989 No. 0126 - The Fishing Vessels (Safety Training) Regulations amended by S.I. 2004 No. 2169. Guidance; MGN 411 (M+F) - Training and Certification Requirements for the Crew of Fishing Vessels and their Applicability to Small Commercial Vessels and Large Yachts.	1. Before starting work as a fishermen basic Sea Survival one-day course is required. Within 3 months all fisherman must have completed basic First Aid, basic Firefighting, basic Health and Safety. Experienced fishermen (fishing for over 2 years) must also hold the Seafish Safety Awareness course. 2. These regulations apply for all crew regardless of nationality. If crew have STCW basic safety courses, these currently (2017) cannot include Safety Awareness, in that instance if they are inexperienced fishermen then they should complete the basic Health and Safety course, and if experienced fishermen the Safety Awareness course. 3. For courses which are acceptable see; MGN 411. 4. Record for skipper and each crew member; Full name/ Date of Birth/ Course/ Date taken on spreadsheet overleaf.
Short Range Radio Certificate	Code' paragraph 4.25 and annex 2. MSN 1864; Training & Certification Guidance: UK Requirements for Radio Operators.	1. The Short Range Certificate is the minimum qualification required by law to control the operation of VHF and VHF Digital Selective Calling (DSC) equipment in sea area A1 on any British flagged vessel fitted with a radio. This includes both fixed and hand held equipment using International channels. 2. The issue of this Certificate is delegated to The Royal Yachting Association. For further information, visit their website: www.rya.org.uk 3. If the vessel is fishing outside Sea Area A1, then seek further advice in MSN 1864. 4. There must be one SRC holder onboard.

2. Skipper and Crew (Continued)				
Position	**Name**	**DoB**	**Course**	**Date Taken**
Skipper			Sea Survival	
			First Aid	
			Firefighting	
			Basic Health & Safety or Safety Awareness	
			SRC (one required onboard)	
			Other; 16.5m Skippers certificate, Seafish 4 in 1 card, stability etc.	
Crew 1			Sea Survival	
			First Aid	
			Firefighting	
			Basic Health & Safety or Safety Awareness	
			SRC (one required onboard)	
			Other; 16.5m Skippers certificate, Seafish 4 in 1 card, stability etc.	
Crew 2			Sea Survival	
			First Aid	
			Firefighting	
			Basic Health & Safety or Safety Awareness	
			SRC (one required onboard)	
			Other; 16.5m Skippers certificate, Seafish 4 in 1 card, stability etc.	
Crew 3			Sea Survival	
			First Aid	
			Firefighting	
			Basic Health & Safety or Safety Awareness	
			SRC (one required onboard)	
			Other; 16.5m Skippers certificate, Seafish 4 in 1 card, stability etc.	
Crew 4			Sea Survival	
			First Aid	
			Firefighting	
			Basic Health & Safety or Safety Awareness	
			SRC (one required onboard)	
			Other; 16.5m Skippers certificate, Seafish 4 in 1 card, stability etc.	

3. Vessel Structural Condition			
Item	**Regulatory/Guidance reference**	**Advice/ Remarks**	**Comments/ Expiry dates**
Construction & Structural Strength	Regulation; 'Code' paragraphs; 3.9-3.16. Guidance; Seafish Construction Standards for Fishing Vessels less than 15 metres overall.	**Once a vessel is registered, owners and skippers have a duty to maintain the construction and structural strength of the vessel and the Seafish Construction Standards for Fishing Vessels under 15 metres LOA gives the most comprehensive standard to which a comparison can be made.** Surveyors will be looking for evidence of good maintenance, and no degradation (through unauthorised modification/damage or otherwise) of the vessels build state. Note; Windows should not be fitted in any part of the hull.	Confirm there has been no unauthorised modifications? …… Confirm there has been no damage …….. Other issues/ comments/notes;
Perimeter of the exposed deck (whether bulwark, guard rail, hand hold or grab rail).		1. Should be a min of one metre. This may be reduced where it interferes with the fishing operation but even then there must be temporary guard rail provision. This is particularly important where there are shooting gates. 2. Measure and record height and inspect general condition. Seafish Construction Standards for Fishing Vessels less than 15 metres overall. Section 11.11	Bulwark height; ……Metres.
Decks/Sole		Check over for perforations/ damage/ unplugged holes. Are decks on-slip?	Condition?
Doors		1. Coamings/ sill height min 200mm. Dogs should be functional and secure the space watertight. Seafish Construction Standards for Fishing Vessels less than 15 metres overall. Para 3.1.	Confirm door coaming height;…..

3. Vessel Structural Condition (continued)			
Item	**Regulatory/Guidance reference**	**Advice/ Remarks**	**Comments/ Expiry dates**
Hatches	Regulation; 'Code' paragraphs; 3.7 and 3.9-3.16. Guidance; Seafish Construction Standards for Fishing Vessels less than 15 metres overall Chapter 3.	1. Coamings min 300mm, may be less if interferes with fishing operation. Hatches should preferably be secured by hinges on the forward side or permanently attached to the structure of the vessel by means of wire/ chain. 2. Dogs – working and secure the space watertight. Guidance; Seafish Construction Standards for Fishing Vessels less than 15 metres overall. Para 3.1.	Confirm coaming height;
Bulkheads/ Buoyancy Tanks		Bulkheads and or buoyancy tanks must be intact with no damage. Seafish requires all vessels under 7m to have at least one watertight bulkhead.	Confirm bulkheads and buoyancy tanks are intact with no damage.
Discharges		Discharges in open boats are to be at least 300mm above the design waterline. Exhaust pipes penetrating the hull below deck should be fitted with a non-return valve, device or flap to prevent ingress of water. Seafish Construction Standards for Fishing Vessels less than 15 metres overall. Section 3.7.	Confirm height of discharges? Confirm non return valves (or equivalent) fitted on exhaust where penetrating the hull.

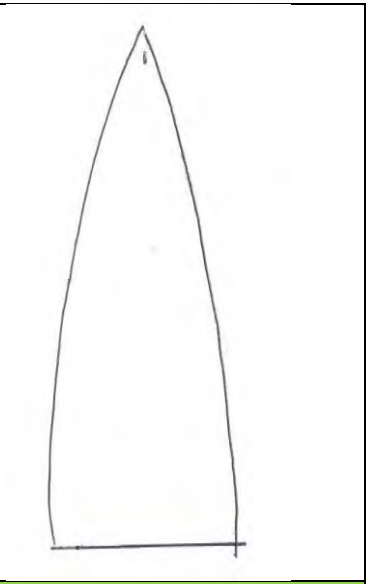
4. Vessel Stability			
Item	**Regulatory/Guidance reference**	**Advice/ Remarks**	**Comments/ Expiry dates**
Stability Assessment	MGN 503. MGN 427. Code Annex 5.	1. Guidance on Stability is contained in the Code and in MGN 503 and MGN 427, or any subsequent documents. In the absence of specific statutory requirements for stability and its subsequent approval of stability, owners may use other methods to assess stability and support skippers and fishermen to meet their health and safety general duties and responsibilities. **It is not acceptable to do nothing and assume the vessel's stability is satisfactory.** **Methods to assess;** - **Roll Test** - **Heel test** - **Wolfson method** - **Full stability Assessment** 2. A discussion should also be held around the pros and cons of each stability assessment method and may be able to identify specific risks/ similar vessels/ fishing methods which may assist owners/skippers and crews in coming to a decision on which stability assessment method best fits their vessel. Discussion should include; - what is the vessel's loading (crew, fish and ice), and where? - how is freeboard assessed? **Freeboard is the lowest point of the gunnel top to the design waterline. Seafish require a minimum of 400mm.** - free surface effects and what is being done to reduce/ eliminate? 3. Particular attention should be paid to bulk fish stowage and the need to minimise free surface effect. There should be no tarpaulin stowage. 4. Modifications should be listed and verification discussed / provided that their effect on stability has been considered.	Record stability assessment method. Has there been any modifications affecting stability? Check how skipper/crew assess freeboard/ loading. **Freeboard ……..mm** List expected loading; Crew …….. Fish……. Ice……. Are there any Free Surface Risks? If so what is done to reduce them?
Water Freeing Arrangements		1. Sole/ floor/ deck must be positioned so as to ensure stability is not compromised. See advice in Seafish Construction Standards. 2. Freeing ports are not to be fitted in Open boats. 3. Bilge pumping area/ bailer area must be readily accessible.	List water freeing arrangements. Confirm no freeing ports.

5. Machinery			
Item	**Regulatory/Guidance reference**	**Advice/ Remarks**	**Comments/ Expiry dates**
Engine		Surveyor will need to record basic details for passing to licencing authorities. Is engine securely mounted? Exhaust system protected? If inboard is High Pressure fuel lines sheathed or shielded?	Make …… Model….. HP/ KW…. Outboard/ Inboard……. Means of starting? Other; ……..
Fuel		Petrol or Diesel? Stowage/ Signage? Shut off/ Jettisonable? Fuel Safety issues;	Petrol or Diesel?..... Stowage, where? Fuel Safety issues; Clearly marked? Ventilation? Jettisionable for portable tanks
Battery		Is the battery in a separate container? Is the container ventilated?	Confirm ventilation and container?
Engine Structural Fire Protection		If engine is an inboard type, is there basic Structural Fire Protection (SFP) in situ?	Confirm SFP
Bilge System		Open vessels are to fitted with bilge pumps. Seafish Construction Standards for Fishing Vessels less than 15 metres overall Section 9.3;	Confirm bilge system checked?

6. Safety Equipment (Equipment must be for the vessel being inspected)				
Area	**Item**	**Regulatory/Guidance reference**	**Advice/ Remarks**	**Comments/ Expiry dates**
Lifesaving equipment	Lifejackets		1. One per person. 2. Must be fitted with a light (note expiry opposite) and whistle and comply with either BS EN 396 or 399. 2. Can be auto inflation Personal Floatation Devices (PFDs) providing a minimum of 150N and fitted with a light and comply with ISO 12402.	Light expiry; LJ1; / LJ2; / LJ3; / LJ4: / LJ5; /
	1 x Lifebuoy with 18 metres of buoyant line attached.		1. Should be marked with the vessel name and port of registry or fishing vessel number and fitted with reflective tape and may be circular or horseshoe or torpedo in shape. 2. The lifebuoy should be so placed as to be readily accessible to the persons on board and shall always be capable of being rapidly cast loose and shall not be permanently secured in any way.	
	Re boarding ladder	Seafish Construction Standards for fishing vessels less than 15 metres length overall; Section 11.1.	1. Requirement for new vessels. 2. For existing vessels consideration of re boarding must be addressed, this is particularly relevant for single handed vessels.	Confirm for new vessels re boarding ladder is fitted, for existing vessels reboarding has been discussed.
	Distress flares: 2 x Parachute 2 x Hand held 1 x Smoke signal (buoyant or handheld)		1. Must be in date; Note expiry date opposite. 2. Should be of an approved type and stored in a water proof container.	Distress flares expiry Dates; 2 x Parachute expires; / 2 x Hand held expires; / 1 x Smoke signal expires; /
	Satellite EPIRB	The Merchant Shipping (EPIRB Registration) Regulations SI 2000, No. 1850, Merchant Shipping Notice 1816 (M&F) and Marine Guidance Note (MGN) 267.	1. Vessels may replace PLBs with an EPIRB if preferred. 2. Must be float free. 3. Where is the EPIRB stowed? If the vessel capsizes/ sinks will it float clear of fishing gear/ rigging?	EPIRB Srl no; Batt expiry; HRU expiry; Stowage;

	Personal Locator Beacon (PLB)	The Merchant Shipping (EPIRB Registration) Regulations SI 2000, No. 1850 and Merchant Shipping Notice 1816 (M&F).	1. Mandatory from 23 October 2019 for existing vessels. Mandatory for new vessels from 23 October 2017. One per person. 2. If an EPIRB is not carried, or the vessel has an EPIRB but is operating single handed, PLBs should comply with EN 302 152 and registered at the EPRIB Registry. If an EPIRB is carried and the vessel has two or more crew, then the PLBs are considered additional items of equipment they can be either satellite 406GHz PLBs or AIS. AIS EPIRBs do not need to be Registered. 3. When not being worn they should be stowed either in a deckhouse or other dry and readily accessible position. 4. An EPIRB can be carried in lieu of PLBs.	Battery Expiry; PLBSkipper; / PLB crew1; / PLB crew 2; / PLB crew 3; / PLB crew 4; /
	6. Safety Equipment (Continued)			
Area	**Item**	**Regulatory/Guidance reference**	**Advice/ Remarks**	**Comments/ Expiry dates**
Firefighting Equipment	1 x Fire bucket & Lanyard		1. Should be heavy duty with a Lanyard. Buckets need not be made of steel.	-
	1 x multipurpose fire extinguisher (only for inboard engine vessels). Minimum Fire rating; Fire rating 5A/34B.		1. Extinguishers should comply with BS EN 3, 1996, or the Marine Equipment Directive (96/98/EC as amended by 2002/75/EC). If Dry Powder; 1 Kg ABC Dry powder, If Foam; 1.75 Litre. AFFF. 2. Extinguishers should be serviced and maintained at the manufacturer's recommended service intervals by a formal service station approved by the manufacturer. Sealed units should be replaced when they reach their expiry date.	Service expiry; /
	1 x light duty fire blanket (if vessel has galley/ cooking area).		1. For the galley or cooking appliance should be of light duty to BS EN 7944 or a recognised equivalent BS EN 1869.	
Medical	Medical Kit	MSN 1768 (M+F) provides guidance on the contents which should be included.	1. A first aid kit should be of Category 'C' standard for vessels staying up to 60 nautical miles from shore and Category 'B' for vessels operating between 60 and 175 Nautical miles from the nearest port. 2. First Aid kit should be marked with an expiry date (note opposite). 3. In very small vessels (less than 5 metres) a sealed waterproof container with appropriate medical supplies will suffice.	Expiry /
General	Bailer/ Pumping system.		If a hand pump is fitted, is it fitted with a non-return valve at the discharge?	Bailer/ Pumping system.
	Waterproof torch		1 x Waterproof torch required	Prove torch operation.

	Carbon Monoxide Alarm in every space that has a fired cooking or heating appliance or where engine exhausts penetrate the wheelhouse/ crew space (except those appliances which are electrically powered).		1. Fired Cooking and heating Appliances should meet the latest standards and be suitable for use on boats and be installed and serviced regularly (at least annually) by qualified persons. Repairs should only be undertaken using proprietary components. Vents and flues should be checked for damage and blockages. 2. CO Alarms should be of the Lithium Battery type and installed, regularly tested, maintained and replaced in accordance with the manufacturers guidance. 3. Carbon Monoxide Alarms must meet current safety standards (BS EN 50291) and carry the Kitemark.	Check and carry out function test on alarm.
	6. Safety Equipment (Continued)			
Area	**Item**	**Regulatory/Guidance reference**	**Advice/ Remarks**	**Comments/ Expiry dates**
Navigation	Charts/ Nautical Almanac		In small (under 7m) vessels tide tables should be carried and the owner/ skipper should either have a Nautical Almanac/ Chart or in very straightforward operating areas demonstrate sufficient practical knowledge of the area (buoyage/ hazards).	Chart or in date Nautical Almanac OR verbal navigation discussion.
	Navigational Compass		Hand held or fixed are both suitable	Surveyor to conduct a basic compass check.
	VHF DSC Radio		1. Fixed or hand held. 2. MMSI to be registered and MMSI posted up on vessel/radio. 3. Skipper or crew to demonstrate with a test call.	Test call completed. Date /
	Sound Signals	MSN 1781	All vessels must have a means of making sound signals. For an under 7m vessel a portable fog horn or similar will suffice.	Skipper to demonstrate to surveyor.
	Radar Reflector		A radar reflector or other means to enable detection by ships navigating by radar at both 9 and 3 GHz.	
	Navigation Lights	Merchant Shipping Notice (MSN) 1781, MGN 393 (M&F) - Navigation Light Units: Maintenance and the Use of New Technology Light Sources, such as Light Emitting Diodes (LEDs), as Navigation Lights on SOLAS and non-SOLAS Vessels provides guidance on the	For an under 7m LOA vessel the requirements and positioning of lights is laid out in the code. Minimum requirements are; 1. For a vessel with speed less than 7 knots one all-round white light of 2 mile range and if practical, sidelights or a combination lantern. 2. For all other vessels less than 7 metres, a masthead light or all round white light of 2-miles range, Sidelights of 1 mile range, a Stern light of 2-mile range if a masthead light is carried, and fishing lights; - An all-round white light of 2 mile range when trawling or fishing - An all-round light (green if trawling, red if fishing other than	Test navigation lights, record what lights exist on the vessel by marking on diagram;

		requirements and performance standards.	trawling) of 2 mile range. Any vessel that operates between sunset and sunrise or in times of restricted visibility must exhibit the navigation and fishing lights which are required It is no good saying that a vessel does not operate at night and therefore does not need lights! Restricted visibility could occur at any time.	
	6. Safety Equipment (Continued)			
Area	**Item**	**Regulatory/Guidance reference**	**Advice/ Remarks**	**Comments/ Expiry dates**
Vessel safety	Anchor & Cable/warp		1. For new vessels these should be in accordance with the most recent version of Certifying Authority construction standards. An example is Seafish Construction Standard Paragraph 11.17/ 11.18. 2. An existing vessel should carry a suitable means of anchoring and chain cable or warp of a length suitable for the intended area of operation, attached and ready for use. As a guide 3 x depth of water where vessel may have to anchor is deemed sufficient.	Surveyor should record anchor type and length of chain/ warp, ranging the equipment if required. Anchor type…… Chain/ warp length…….

	7. Recommended Safety Equipment			
Area	**Item**	**Regulatory/Guidance reference**	**Advice/ Remarks**	**Comments/ Expiry dates**
Lifesaving Equipment	Liferaft		1. Recommendation only. 2. Service in accordance with manufacturers recommendations. 3. Where is liferaft stowed? If the vessel capsizes/ sinks will it float clear of fishing gear/ rigging? 4. Valise arrangements are strongly advised against. 5. Handheld VHF for Liferaft	Float free system; HRU …… Where is liferaft stowed? Will it snag on activation? Service Expiry / HRU Expiry /
	Personal Floatation Devices (PFDs)		All crew, whilst working on the open decks of fishing vessels at sea are strongly recommended to wear Personal Flotation Devices and/or use Safety Lines. Open Decks means anywhere on a sea going vessel that is exposed and not within a weathertight or watertight area or within the shelterdeck area of a vessel. Sea" in the context of 'at sea' means all waters outside a safe haven and "safe haven" means a harbour or shelter of any kind which affords entry, subject to prudence in the weather conditions prevailing, and protection from the forces of weather. Considerations; Inflatable or fixed foam? Newton support? Inspection / servicing requirements?	PFDs held? Service dates; PFD Skipper; PFD crew 1; PFD crew 2; PFD crew 3; PFD crew 4;
Communications	Satellite EPIRB		1. Where is EPIRB stowed? If the vessel capsizes/ sinks will it float clear of fishing gear/ rigging?	EPIRB Location Battery Expiry / HRU Expiry /

8. Fishing Gear/ Method; Note: the aim in this section is to consider from a safety perspective the fishing method. Hauling and shooting carries particular risks. The below items should prompt owners/skippers/crew to think through their fishing and how they can improve safety.		
Vessel type;	**Item**	**Advice/ Remarks**
All vessels	**Photo;** Photograph vessel	To clearly show fishing method.
All vessels	**Emergency stops fitted on each hydraulically operated deck equipment locally and at the helm position.**	Function test required on each emergency stop.
Trawlers	Measure and record Towing height; Crew position on shooting/ hauling?	Towing height = metres Where do crew stand?
Beamers/ Scalloper	Measure and record length of beams; Count and record number of dredges per side. Crew position on shooting/ hauling?	Length of beams= M No of dredges per side = Where do crew stand?
Netters	Where are bins stored? Confirm fish is pounded? (It must be) Crew position on shooting/ hauling?	Bin storage= Confirm shooting/ hauling has been discussed/ planned. Confirm bulk stowage is safe (no tarpaulins). Where do crew stand?
Static Gear; Potters/ Creelers e.t.c.	Shooting/ hauling method. Crew position on shooting/ hauling?	Confirm shooting hatch/gate can fit pot/creel in all directions. Confirm crew positioned clear of back rope in shooting and record where they do stand; Confirm position of knives in shooting operation;

9. Concentrated Inspection campaign (CiC)		
Item	**Regulatory/Guidance reference**	**Advice/ Remarks**

10. SURVEYORS AIDE MEMOIRE DECLARATION

By the Surveyor.

I have examined the vessel (name): ……(RSS Number)……

At …….. on ……../……/……..

I believe that the vessel complies with the requirements of the **Code of Practice for the Safety of Fishing Vessels less than 15 metres length overall**

The following alternatives have been accepted as 'equivalent provisions'.

Code Section.	Alternative Provision.
……...	……..……..
……	……
……	……
……	……..……..
……	……..…..

Name of MCA Nominated Surveyor ……

Signature …… Date ……../……./20……

Document to be retained as follows;

Copy 1; Owner/skipper
Copy 2; MCA; vessels CM file

Any deficiencies must be recorded separately on MCA form MSF 1602/3.

Seafish stability training guidance

SEAFISH
the authority on seafood

Seafish

Stability Training

Guidance for Instructors 2016

3. Course Aims

It is important to recognise that there is a shared aim for the programme of three courses which is:

- To reduce the number of stability related fishing vessel casualties

In addition, each course has its own specific aim as described below:

1. **Stability Awareness for New Entrant Fishermen:** - For new entrants to the industry they will be aware of how the stability of a fishing vessel is maintained.
2. **Stability Awareness for Experienced Fishermen:** - For crew members to understand how the stability of a fishing vessel is maintained.
3. **Advanced Stability Awareness course**: - For fishing skippers to be able to create a fishing vessel operation that is undertaken by an informed and conscientious crew, working on a vessel that has risks minimised at all times.

4. Course objectives

Each course has its own objectives as described below.

1. By the end of the Stability Awareness for New Entrant Fishermen course participants will understand:

1. How poor vessel stability contributes to deaths in the fishing industry
2. The differences between stability hazards and risk
3. Risk analysis and the event chains
4. The forces that affect the stability of a vessel
5. What is meant by stability and the basic stability terms
6. The basic principles of stability
7. The principal hazards that affect stability of a fishing vessel
8. How to minimise stability risks from personal actions taken on board vessel
9. The relevant Regulations, Codes of Practice and other guidance issued to minimise stability risks

2. By the end of the Stability Awareness for Experienced Fishermen course participants will understand:

1. The extent of the effects of poor vessel stability to deaths in the fishing industry
2. Stability hazards, risk and the risk equation
3. How to mitigate against risk and the risk spectrum
4. The forces that affect the stability of fishing vessels
5. Stability and the terms used to describe vessel stability
6. How external forces, the transverse movement of weight, the FSE and the up-ward movement of weights form stability hazards
7. How the principles of stability apply to deck and below deck operations
8. How to minimise the risks associated with deck and below deck operations
9. How vessel watertight and weathertight integrity is maintained
10. How to monitor vessel stability using the Wolfson Guidance Mark
11. The stability implications of alternative deck procedures.

12. How the application of the relevant Regulations, Codes of Practice and guidance helps maintain vessel stability

3. By the end of the Advanced Stability Awareness course participants will understand:

1. How poor vessel stability links to deaths in the fishing industry
2. Risk, the ALARP principal, 'Event and Consequence' and the Risk Spectrum
3. The responsibilities of the skipper in respect to managing stability risks
4. Event chains using event and consequence diagrams
5. How weight and the shape of a vessel contributes to vessel stability
6. The stability of both ballast stable and form stable boats
7. Initial (GM) and static stability (GZ)
8. The methods used to monitor risks to stability
9. The risks posed by external forces, the transverse movement of weight, the FSE and the upward movement of weights and the condition of a vessel are managed
10. How vessel watertight and weathertight integrity is managed to minimise risk
11. How vessel condition and modifications are managed to maintain stability
12. How to monitor and maintain the stability of a vessel during fishing operations
13. How fishing vessel stability books manage the stability risk on fishing vessels
14. The role of regulation and the regulatory organisations concerned with fishing vessel stability

5. Timing

Each course has its own specific timings. All courses must be delivered according to the overall timings but you have flexibility within the day to vary the session lengths to fit in with your own lesson plans.

- **Stability Awareness for New Entrant Fishermen course** – This is a half day course of not less than 3 hours.
- **Stability Awareness for Experienced Fishermen**– This is a full day course and must be completed in not less than 6 hours.
- **Advanced Stability Awareness**– This is a full day course and must be completed in not less than 6 hours.

6. Resources

To be able to deliver these courses you will need to have access to the following resources.

6.1 The PowerPoint Presentations

The course PowerPoint presentation is formed of a series of sessions. Each session comprises of a number of slides introducing the course content. The sessions themselves have been created as sections within PowerPoint to help facilitate navigation. It is important to view the presentation with the sections in collapsed mode to ensure easy access and assist with navigation.

MAIB safety flyer to the fishing industry

MAIB

MARINE ACCIDENT INVESTIGATION BRANCH

SAFETY FLYER TO THE FISHING INDUSTRY

Fishing vessel *Laura Jane* (SE80) capsize with the loss of one life

Fishing vessel *Laura Jane*

Narrative

At 1311 on 7 May 2018, the single-handed fishing vessel *Laura Jane* capsized off Mount Batten Breakwater in Plymouth and remained floating on its starboard side. Although around 20 vessels converged at the scene immediately, there was no sign of the skipper, who was in the wheelhouse at the time of the accident. An RNLI lifeboat towed *Laura Jane* to Batten Bay beach and, at around 1400, two lifeboat crew members broke a wheelhouse window and extracted the skipper from the vessel. He was unconscious and not breathing. Despite resuscitation attempts by the lifeboat crew and paramedics, and transfer to the local hospital, the skipper did not survive.

Analysis

The MAIB investigation established the following:

- The weight of the fishing gear on *Laura Jane* reduced its freeboard to the extent that water entered the vessel through its freeing ports, causing it to capsize.
- In 2012, the Maritime and Coastguard Agency (MCA) had inspected and categorized *Laura Jane* as a decked vessel without knowledge of its freeboard. During its next inspection in 2016, *Laura Jane* was recategorised as an open vessel because it did not meet the recommended minimum freeboard for a decked vessel. Despite the recategorisation, the vessel's freeing ports were allowed to remain.

- The existence of freeing ports on an open vessel went unchallenged during subsequent MCA inspections of *Laura Jane* due, in part, to a misinterpretation by surveyors as to what was required to be inspected.
- The skipper had not completed the mandatory Safety Awareness and Risk Assessment training course or any stability awareness training.

Safety lessons

1. Open fishing boats are not permitted to have freeing ports. A low freeboard significantly reduces the stability reserve of small vessels, increasing the risk of capsize.

2. Any vessel will capsize if overloaded. It is important to recognise the safe loading limits of the vessel and never to load it beyond these limits.

3. It is the owner and skipper's responsibility to maintain the seaworthiness and safety of their vessel.

4. Owners are advised to assess the stability of their vessels in accordance with MSN 1871(F), MGN 503(F) and MGN 526(F), and display stability guidance notice (Wolfson Guidance Mark) in a prominent place in the wheelhouse as well as on either side on the hull.

This safety flyer and the MAIB's investigation report are on our website: www.gov.uk/maib

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