

Welcome to the second issue of *In Survey* – Maritime New Zealand's (MNZ's) first surveyor newsletter.

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This newsletter is for people directly linked to safe ship management (SSM) – SSM companies, marine surveyors, radio surveyors and inspectors, boat builders and maritime safety inspectors (MSIs).



your contributions and photos. Believe me, without your contributions I would soon run out of material.

Recently, when I was standing on a cold beach watching the sea wreak havoc and turn a once sound ship into driftwood, it brought home the realisation of what safe ship management really means.

No matter what our jobs are, we are all part of a team that should do its best to keep all those who brave the seas, in whatever vessel and enterprise they have chosen, as safe as humanly possible, and convince them that safety and marine protection is very much their responsibility.

Although it's important that owners and operators can make a good profit and support their families through a variety of occupations at sea and ashore, it is vital that they return home safe and well from each voyage, and that they leave the sea safe and clean.

Ken Wyatt (Technical Advisor – Marine Survey)

Editor's intro

I want to thank all the people who have contacted MNZ with positive feedback on the first *In Survey* newsletter. Hopefully this newsletter will be a useful source of information for surveyors, boat builders, MSIs and other key stakeholders in the industry.

In Survey is designed to relay MNZ's policies and views, and to share interesting news on new builds and survey-related problems. There will always, one hopes, be time for a little light-hearted humour and letters to the editor are encouraged, as are

Letters to the editor

Question: When a surveyor signs a Fit for Purpose (FFP) Certificate, he is making a declaration that a vessel complies with the applicable maritime and marine protection rules and is fit for the purpose described.

What happens when a surveyor signs a FFP Certificate for a vessel that has been brought into SSM under the grandfather clause?

Answer: Please refer to Maritime Rules 40A.7(3), 40C.7(3) and 40D.7(3) which state, “an existing ship that has a certificate of survey that was issued before 1 February 1998 is considered to have had its design approved for the operating limits and number of passengers indicated on the certificate of survey.

The grandfather clause is for design approval only, and the vessel must comply with all applicable maritime rules.

Question: I have a topic for you which might be premature for the newsletter, but something we would like you to consider seriously. As you will be well aware, there is a serious shortage looming in respect to marine surveyors. We have a plan worth considering.

Presently there is no entry point acceptance procedure in MNZ’s safe ship management (SSM) system for trainee surveyor’s fit and proper person assessment process.

We are one survey company faced with the retirement of several personnel in the next couple of years, if not sooner – myself being one.

We currently have a young man with boat building experience, suitably qualified, and who recently sat the IIMS graduate diploma in marine surveying. We are introducing him to the SSM system by taking him with us on survey jobs.

In short, what we need to know is – what length of time and number of jobs would this person (or any other candidate) be required to complete before he would be eligible for acceptance by MNZ?

As you know, in the past, and even to this day, a surveyor needs to be an ex-mariner (deck or engine) with considerable skills before he or she would be considered a fit and proper person. Ex-mariners are few and far between and, even if they become available, demand high salaries, which we and the industry cannot afford.

Your thoughts on the matter would be appreciated.

Answer: Please refer to *Advisory Circular No 46 -3 Annex 2 Qualifications and experience*, which lists the qualifications and experience required.

It would appear the trainee you describe could well be an ideal candidate if he has undergone a formal apprenticeship in boat building and holds an Advanced Trade Certificate. The IILM Diploma in Marine Surveying would be a huge advantage as well. Initial restrictions on the length of time he has spent in the industry would apply, but as his experience grows he will be able to apply for scope extension.

The personnel shortage problem in the maritime industry is worldwide, and is one all governments will need to address. How do we encourage younger people into the industry? Let us know your views on this subject.

(The fit and proper person reference in the question is directed at the qualification and experience side only.)

A spanner in the works – curly questions from maritime rules

Last month’s one from Minnie Locke:

A passenger vessel has a SSM Certificate for inshore limits, 11 passengers, 1 crew and total Life Saving Appliances for 13 persons. It was reported that the vessel has sailed with a skipper and 13 passengers around the harbour. The local MSI waited for the boat to arrive and inspected it. He subsequently took no action, as he determined full compliance had been met. Can you explain if he was correct and, if so, the rule he used?

Answer:

Correct answers from last month’s question came from a number of people, but the first one we received came from marine surveyor Vern Wilson.

The answer was that the MSI was quite right, the person reporting the vessel had counted 13 people but one was a child aged under 1 year, and, as described in Maritime Rule Part 40A.2, the definition of a passenger is any person carried on a ship, other than a child under the age of 1.

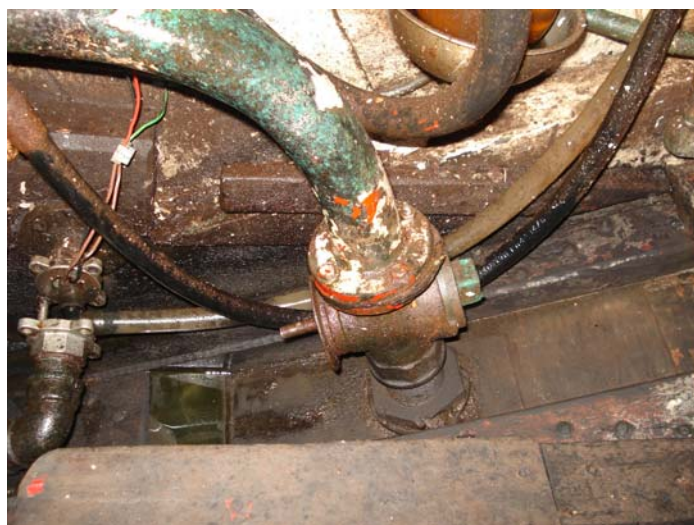
Here’s a new question, from Phil Norman:

If a chartered fishing boat skipper holds a Commercial Launch Master (CLM) Certificate, are there any circumstances in which he is allowed to operate beyond the 12 nautical mile limit?

Please email your answer, quoting any appropriate rule, to ken.wyatt@maritimenz.govt.nz. The answer will appear in the next issue, along with the name of the first person who correctly answered our curly question.

If you have a curly question about rules, please email it to Ken at the address above.

Just for the hull of it



Sea cock on a fishing vessel. The valve had been “temporarily” repaired by fitting the end of the valve with a stud and a mild steel plate to hold the tapered cock in. The surveyor correctly told the owner to permanently repair the valve or replace it.

An interesting photo from John Dickinson. Do you know what it is?



SSM company seminar

A SSM company seminar was held at MNZ's Wellington office on 20 May 2009. MNZ's Director addressed the SSM company representatives on MNZ's views on the future of SSM, and a robust discussion followed on a wide range of issues.

Two important points were agreed on. Firstly, that where a vessel owner decides to undertake a 4- or 5-yearly survey for the renewal of the vessel's SSM Certificate up to 3 months earlier than the expiry date, the new certificate will be issued with an expiry date calculated from the date of expiry of the old certificate, and not the date of the survey. This allows owners to plan and manage survey dates.

Secondly, that any SSM company that uses its own surveyor checklists, rather than the MNZ provided checklists, must have those checklists approved by MNZ. The agreed deadline for this is 1 September 2009, so if this applies to you, please submit full blank checklists as soon as possible, along with any comments you feel are useful in explaining or clarifying the checklists.

Seminar discussions

This section will be dedicated to addressing the key issues that were raised at the surveyor seminars. A number of issues were raised at every seminar, so these issues will be discussed first.

We would appreciate your feedback.

Sailing vessels – which rule is used for charter yachts?

Rule 40E covers charter yachts, and is in the final stages of being drafted. You can use this draft rule for reference, but you can't certify a vessel against it because the rule is not yet in force.

Rule 40A specifically excludes sailing vessels, so you should not be asking for an exemption if a charter yacht does not comply with any provision in Rule 40A.

When you sign the FFP Certificate, you should certify that the vessel meets the applicable provisions of Rule 20, Rule 22 (collision prevention, navigation lights etc). Rule 42A & B, Rule 43 9 (radio), Rule 45 (navigation), Rule 31B (manning), the environmental protection rules, and the rules for garbage and sewage.

Check if Rule 40A requires the vessel's electrical systems to be design-approved by a surveyor who has been authorised to approve designs for electrical systems.

Please ensure all new builds comply with the applicable design approval and survey requirements for electrical installations.

Useful links

Marine Accident Investigation Branch – Fishing 2009 Safety Digest

http://www.maib.gov.uk/cms_resources/MAIB%20Fishing%202009.pdf

Marine Accident Investigation Branch – Safety Digest – Lessons from marine accident reports 1/2009

[http://www.maib.gov.uk/cms_resources/Safety%20Digest%2001_09%20\(WEB\).pdf](http://www.maib.gov.uk/cms_resources/Safety%20Digest%2001_09%20(WEB).pdf)

Navigator's impact on SSM companies and surveyors

MNZ is nearing the completion of Phase 1 in the development of the Navigator software application. Navigator is being delivered under the Vessels and Maritime Documents project, under workstream 2 of the overarching Poseidon Project.

Navigator replaces core Mainstay functionality, namely vessels, SOP, ship registration and associated invoicing. In addition, the design of Navigator encompasses the use of a centralised database, which will be accessed and updated internally by MNZ staff, as well as externally by staff and contractors of SSM companies.

SSM companies and surveyors will have the ability to:

- enter and maintain data for vessel inspections, SSM Certificates and vessel information
- view a complete list of current and historic certificates, inspections and owners of a vessel.

SSM companies will only have access to information about vessels that they own. If a surveyor works for more than one SSM company, they will be able to see the vessels for each of the SSM companies they work for.

Navigator timeline

- Development due for completion ~ end of May 2009
- MNZ initial testing due for completion ~ end of June/early July 2009
- Acceptance testing due for completion ~ end of July/early August 2009
- Training for MNZ staff ~ mid to late August 2009
- System goes live at MNZ ~ September 2009
- System goes live and training for SSM companies and surveyors ~ incrementally between September 2009 and March 2010, in the following proposed order:
 1. Stork Cooper Heat
 2. MMS
 3. SNL
 4. Others, except SGS
 5. SGS.

Where a surveyor works for more than one company, training will coincide with the earliest SSM company to go live with Navigator. The project team is working with Ken to optimise the training to the surveyors.

Approximately 30 days before each SSM company's nominated go-live date, MNZ will be in touch to obtain a copy of the SSM company's vessel data, to ensure that the data in Navigator and the SSM company's system is in alignment. If it is not, there will be an opportunity to cleanse the data before the system goes live.

We are excited by the imminent delivery of Navigator into the business, and hope that you will see its usage in a positive light.

If you have any queries about this, please contact one of the team:

- Tracey Carter (Poseidon Project Manager) 04 471 5362
- Karen Chapman (Business Analyst) 04 494 1207
- Barry Duffell-Canham (Business Analyst) 04 494 1208

In addition to contacting SSM companies about the proposed training and go-live dates, we will continue to provide regular updates through *In Survey*.

Changes in legislation affecting gas volumes and competence

This issue may be of interest, as it could impact on a variety of people in the industry. The below email was forwarded to me by Robin Williams.

This email is to the members of GANZ-GES Group and to those others generally known as the mobile market, as changes in legislation are about to impact on you. Some of those changes are within the Gas Act as it pertains to gas certificates, and the others are around competence within the Plumbers, Gasfitters and Drainlayers (PGD) Act. The reason for contacting you is so that you can consider these matters within your industry and prepare yourself accordingly.

Changes to the PGD Act will impact on organisations supplying and installing appliances in boats, caravans and kitchens that are connected to LPG cylinders with less than 15kg capacity. The changes are:

- the installation work has been reclassified under the 2006 Amendment to the Act as "gas fitting"
- the work will therefore only be able to be done by persons authorised by the Board
- the categories of licence are about to be reviewed by the PGD Board.
- limited certificates to do gas fitting will disappear
- certification requirements for these installations have yet to be determined, but these will be set under the new Gas Safety and Measurement Regulations.

All of the above are expected to come into force over the next 6 months.

Stephen Parker (Executive Director, Gas Association of New Zealand)

Phone: 04 472 9220

Email: s.parker@ganz.org.nz

Compass adjusters meeting

A meeting for compass adjusters was held at MNZ's Wellington office on 7 May 2009, and was well attended by a wide range of members from the Compass Adjusters Association of New Zealand. Some interesting topics and ideas were discussed, and these will be investigated. It was agreed that there is not a shortage of compass adjusters in New Zealand, but the problem in obtaining compass adjusters' services appears to be cost-related in most instances.

Page 10 of this newsletter has a list of New Zealand compass adjusters' contact details and operational areas.

Health and safety



Marking of lifebuoys

The marking of Non-SOLAS lifebuoys is covered in Rule Part 42A.17 (4), which states that lifebuoys must be marked, in block capitals of the Roman alphabet, with the name and port of registry of the ship on which it is carried.

Rule 42A.3 Application (2) does not apply to a life-saving appliance that:

(a) was placed on a ship before 1 February 2001, as required by the legislation in force at the time of its placement; and

(b) complies with the applicable standard for that appliance prescribed by the legislation in force at the time of its placement on the ship; and

(c) remains fit for purpose to the satisfaction of a surveyor.

Prior to 1998, the New Zealand Gazette also required lifebuoys to be marked in the same way. If a lifebuoy were to be found either at sea or ashore, it would raise concerns and authorities would be advised, which would result in some form of action.

Hazard identification and control

Hazard identification is an integral part of any safety system, no matter where you are – on land, at sea, or in the air.

Identifying hazards is a major component of any safe ship management system.

Below are some examples of hazards found on vessels, and ways of managing these hazards using the “hierarchy of controls”. Using this three-graded system, hazards are assessed according to the level of risk each hazard presents, and how each hazard can be effectively managed.

When identifying hazards for the first time on a boat, do a “walk through” hazard assessment. This means taking a clipboard and pen and, while walking around all the areas of the vessel, making a note of anything that could cause injury. Then assess the level of risk for each hazard.

For example, a shackle hanging loosely over a working deck would be assessed as high risk and very likely to cause serious injury, whereas lines neatly coiled and stored would be assessed as being low risk.

The hazards that are assessed as being high risk and likely to cause serious injury must be controlled. Below are your options (this is where common sense prevails).

Hierarchy of controls

The hierarchy of controls are listed in the order of most effective to least effective. Elimination and isolation are the most effective ways to prevent accidents and injuries.

1. Eliminate the hazard

Rating: most effective

- By design or substitution
- Prevents injuries and accidents
- Usually not possible to remove hazard from vessel
- Eliminates human interaction
- Automatic machinery handling

2. Isolate the hazard

- Technology
- Barrier guards
- Secure areas
- Insulation (eg for hot pipes)

3. Minimise the hazard

- Raise awareness
- Use good housekeeping practices
- Put in clear warning signs, horns, rails

4. Implement training and administrative controls

- Safe operating procedures (SOP)
- Safety inspections
- Training

5. Wear personal protective equipment (PPE)

Rating: less effective

- Monitoring (eg annual hearing tests)
- Fatigue and stress policies
- Gloves, hearing protection, overalls, safety boots
- Safety glasses, sunscreen, warm clothing, beanies
- Less effective and higher risk of injury



Hazard: Equipment loosely stored, difficult to access in a hurry or rough seas. Loose lines.

Control: Eliminate hazards by storing loose brooms, boat hook, shovel etc in a place that is easier to reach. Look at the Dan buoy – is this easy to reach in an emergency?

Hazard: Life rings in poor condition, illegible name. This is a safety/survival issue, rather than an injury issue, but very important for emergencies.

Control: Eliminate. Test and label. Also if the buoyancy equipment is in poor condition, it should raise alarm bells that other safety equipment may not be up to scratch. Check flares, first aid box etc.



Hazard: Access blocked around vessel, both starboard and port sides. Plus the metal edges are thin and could cause very nasty injuries.

Control: Eliminate. Design fault. This hazard needs to be eliminated, it cannot be isolated.

Hazard: Loose chain, not secure.

Control: Minimise: All loose metal chains must be secured, so that they do not swing around, and do not block access. Should be an easy fix.

Spot the hazards



List three hazards in the above photo.

- 1.
- 2.
- 3.

What controls would you use?

Contact us if you need help to identify and control hazards.

Lynn Irving (Health and Safety Co-ordinator)

Phone: 07 547 4192

Email: lynn.irving@maritimenz.govt.nz

Darren Guard (Technical Trainer)

Phone: 03 548 2438

Email: darren.guard@maritimenz.govt.nz

Nuts & bolts – technical section

Application for a load line certificate

By now you should have received the new surveyors' load line check sheet, load line application, and form of record of condition of assignment.

Load Line Certificates

The maximum period of validity for a Load Line Certificate is 5 years. Following consultation with industry participants, MNZ has decided to link the issue of all certificates to the period of the vessel's SSM Certificate.

Survey periods

Vessels 24 metres and over – Section 1 of Rule 47 applies.

- Certificates are issued with a validity of a maximum period of 5 years.
- An annual load line inspection is required for these vessels.
- Certificates may be New Zealand Load Line Certificates for ships plying domestically or International Load Line if proceeding overseas.

Vessels less than 24 metres – Section 2 of Rule 47 applies.

- Survey every 5 years.

Barges 24 metres and over – Section 3 of Rule 47 applies.

- Survey every 5 years.

Making an application for a Load Line Certificate

When making an application for a Load Line Certificate, the following documentation will be required:

1. The surveyor's check sheet

Used when carrying out the survey. A copy must be forwarded with the application.

2. Completed load line application form

There are four application forms:

- International Load Line.
- Vessels 24 metres and over; barges 24 metres or over carrying persons during the course of a voyage; and barges 24m or over operating beyond coastal limits.
- Decked vessels less than 24 metres carrying cargo and barges of less than 24 metres carrying persons during the course of a voyage.
- Barges over 24 metres operating within the coastal area.

Surveyors should note the details of the information that should appear on the certificate. The load line marks are intentionally blank so that the surveyor can record those marks that show on the side of the vessel. Guidance notes on making an application for a Load Line Certificate are also included on the application forms.

3. Form of record of condition of assignment

This form must be completed following an initial load line survey, and a copy kept on-board.

A copy should be left on-board the vessel for the attending surveyor, and a copy forwarded to MNZ with the application for a load line.

Where a copy is on-board, the attending surveyor must use it as a reference during the renewal survey.

Photographs

Photographs showing the vessel with name, load line markings, and, where appropriate, the draft marks, must be included in the application. These photographs must be checked at every subsequent load line survey.

Load line calculations

Where a naval architect is required to calculate the freeboard for a vessel, the results of the calculation should be returned to the vessel's SSM company, not forwarded to MNZ. Copies of the calculation should be forwarded to MNZ with the SSM company's application for a load line.

John Whiteley (Nautical Advisor)

Phone: 04 494 1215

Email: john.whiteley@maritimenz.govt.nz

Liferafts and their release mechanisms



I recently took the photo above. I could have offered a prize to those who identified the issues, but I felt it was too easy. See below a list of the issues from John Roberts, Project Manager, RFD NZ Ltd.

- The painter line is not attached to the hydrostat weak link.
- There is no manual quick release.
- The tie-down rope could stop a hydrostatic release of the life raft.
- The cradle is not suitable.
- Using rope or wire as tie-down can be a problem, as the rope or wire can roll under the load.
- From the photo it would appear the raft was secured with polypropylene rope which suffers UV damage in the sun and also stretches badly. Using 50mm polyester webbing gives a far greater contact area on the raft and has only a small amount of stretch. Polyester webbing also has some UV stabilisation to ensure the strap lasts longer in exposed conditions.

Safety bulletin issue 16, 2008 – Liferafts and their release mechanisms

The below information is from *Safety Bulletin 16, 2008 – Liferafts and their release mechanisms*, which supersedes safety bulletin issue 10, and shows the correct HRU attachment.

This safety bulletin is attached to this newsletter. Please ensure all commercial operators are aware of the correct method of installing liferafts.

Safety bulletins can be downloaded from the MNZ website www.maritimenz.govt.nz.

The following may also be of interest, from RFD information on the new HRU for small craft.

Hammar H20 hydrostatic release – small rafts model (green colour)

This model is designed for liferafts from 4 up to 12 persons and outside SOLAS regulations. (For liferafts for fewer than 4 persons, please contact the liferaft manufacturer or C M Hammar AB.)

The Hammar H20 for small rafts consists of a double looped white rope line, a release mechanism and a red weak link, with a green lower thimble (breaking strength 1,2 +/- 0,4 kN).

The white strong rope of Hammar H20 is secured to the deck or liferaft cradle and attached to the liferaft lashing with a sliphook. If the ship sinks, the water pressure will, within approximately 4m, activate a sharp knife that cuts the white strong rope and the liferaft will float free.

As the ship sinks, the liferaft painter line will be stretched and the liferaft will start to inflate. The red weak link will break and survivors will be able to board the floating liferaft.

The Hammar H20 needs no annual service, maintenance or spare parts, but must be replaced after 2 years of use on a ship (it has a weaker link). It is more compact as regards the lines, to suit a smaller raft better.



EPIRB battery expiry

At the battery change date on some EPIRBs it may not be possible to simply replace the batteries. On some models it may be necessary to either purchase a new EPIRB, or purchase a less expensive exchange unit (where available).

The major manufacturers and distributors have been contacted and the Australian Maritime Safety Authority (AMSA) has also responded.

The important issue is that owners are aware of the service offered by the manufacturer/distributor of the model they have, and to check if unsure. It is imperative that owners always have the correct registration, and EPIRB registration should be on surveyor checklists.

When a vessel owner takes an exchange unit they must let MNZ know the new details.

Listed here are the major manufacturers of EPIRBs in New Zealand, with the service they offer for battery replacement:

- ACR – will not change battery after 12 years, new unit required, will require de-registration, and re-registration
- GME – renew EPIRB at battery exchange date, will require de-registration, and re-registration
- SALCOM – batteries exchanged at renewal date
- Kannard – batteries exchanged at renewal date
- McMurdo – batteries exchanged at renewal date
- Jotron – batteries exchanged at renewal date.

The following is from AMSA.

All EPIRB brands/models must be replaced after the third battery service, eg 12-15 years. This is due to the obvious reasons eg UV, environmental exposure, and the plastic will simply deteriorate over time and become brittle.

GME is currently the only manufacturer who, instead of servicing the beacon with a new battery (making the client wait), will immediately supply a replacement beacon (refurnished). The beacon owner then has to ensure their registration details held in the New Zealand database are updated with the new HEX ID.

The returned EPIRB will be serviced and put back into the pool of beacons for future exchange. This approach was implemented due to the quantity and demand on servicing, and clients wanting immediate turn-around.

KTI are looking at the following GME's approach with servicing their beacons also. ACR, McMurdo, Kannad (anything imported) are quite expensive to service, as battery replacements in Australia cost approximately \$400-\$1,000 – depending on the model. It is cheaper for beacon owners to just buy a new EPIRB.

The GME and KTI beacons are the cheapest for battery replacement, at around \$200.

The following is from GME.

Thanks for the enquiry regarding GME's beacon exchange programme. The way it will work in New Zealand is as follows:

GME will have in place a beacon replacement service for EPIRBs, when the unit is required to have its batteries exchanged. What this means to the customer is that their old beacon should be sent to or dropped into the GME office in Auckland and, after the paperwork has been completed and the service fee paid, the customer will walk away with a service exchange EPIRB.

This exchange beacon will look like a brand new unit and will have a 6-year battery life. The exchange unit will be considerably cheaper than a new beacon, because we will be recycling some of the expensive electronic components that go into making an EPIRB. Each exchange unit will have been through rigorous checks in our manufacturing facility in Sydney.

We will be using exchange units so that the exchange process will only take minutes, as opposed to taking days if we were to pull apart a unit and replace the batteries, and then do all the checks on the unit as well. This system will get the customer back on the water with minimal delay.

To ensure that the EPIRB will be fit for another 6 years in the marine environment, we are happy to supply a complete new outer-housing and battery pack.

The customer does have to de-register their old EPIRB and register their new beacon with the appropriate authority, and this is clearly explained in the paperwork supplied with the exchange unit.

GME is offering the beacon exchange service to all customers who have a GME beacon that has reached the battery expiry date.

Note: ACR have indicated that their EPIRB should not be packed into liferafts, due to damage occurring.

Rule Part 130A shipboard marine oil spill contingency plans

Further to last month's *In Survey* article on International Oil Pollution Prevention (IOPP), please take note of **Rule Part 130A.17 New Zealand ships – New Zealand shipboard marine oil spill contingency plan approval.**

It has been found that there are a number of vessels that are not fully compliant with Rule 130A.17.

Advisory circular Part 130A Shipboard marine oil spill contingency plans, issue no. 130A-1, December 1998, explains how certain classification societies have been delegated powers to approve shipboard marine pollution emergency plan (SOPEP) manuals.

This circular also explains the reasons why paper and electronic copies must be lodged with the Director of MNZ, through the Marine Pollution Response Service (MPRS).

At present MPRS have only 15 copies on file, out of 115 vessels that have been identified as requiring plans, which are New Zealand oil tankers of 150 tonnes gross tonnage or more, and other New Zealand ships of 400 gross tonnage or more.

For more information, contact

Dayne Maxwell (MPRS response planning officer)

Phone: 09 839 1037

Email: dayne.maxwell@maritimenz.govt.nz

The Maritime Safety Systems Team



The team:

(Back row, from left to right)

Sharyn Forsyth, General Manager Maritime Safety Systems; Darren Guard, Technical Trainer; Sharon Whittaker, Administration Assistant; Phil Norman, Exemptions; Minnie Locke, Data Administrator; Ken Wyatt, Technical Advisor; Arthur Jobard, Manager Safety Management Systems.

(Front row, from left to right)

John Whiteley, Nautical Advisor; Murray Fairweather, Consultant; Briar Foster, Administrator.

Absent: Lynn Irving, Health and Safety Co-ordinator.

List of compass adjusters

Name	Port	Phone	Cellphone	Email	Operational area
C M Anderson	Lyttelton	03 355 9797	021 131 5049	morton.anderson@clear.net.nz	Lyttelton only
J A Brown	Wellington	04 384 7992	027 602 7654	john@johnbrown.co.nz	Worldwide
P A Chalmers	Greymouth	03 789 7587			West coast, South Island
L D Collins	Wellington	04 902 1692	021 160 8780	lcollins@paradise.net.nz	New Zealand wide
B M Commons	Rotorua	07 362 0776	027 438 3193		Worldwide
R Coute	Bluff	03 212 8999			Bluff
A P Hepburn	Mt Maunganui	07 575 2523	027 472 8568		New Zealand wide
F R Keer-Keer	Lyttelton	03 376 6112		pzx@xtra.co.nz	Lyttelton
R A King	Nelson	03 548 7605	021 426 264		New Zealand wide
J S S Mackinnon	Katikati	07 552 0990	021 423 627		Worldwide
G G Mattson	Napier	06 835 8841	021 918 881		Hawke's Bay
P R Petherbridge	Nelson	03 540 3020	021 973 226	peterpeth@igrin.co.nz	New Zealand wide
T J Ridge	Auckland	09 358 5619	021 0274 0760	crew@boathooks.co.nz	New Zealand wide
P D Robinson	Auckland	09 424 5081	027 477 0119	pd.robinson@xtra.co.nz	Auckland/Northland
D Walker	Nelson	03 574 1160	027 4248 8633	driftwood@paradise.net.nz	Christchurch/Upper South Island
G R Walkinsaw	Whangarei	09 438 4250	027 484 3018	whgpilot@igrin.co.nz	Northland
T J Wood	Tauranga	07 552 6400	027 459 9489	kay.alan@xtra.co.nz	New Zealand wide



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New Zealand Government

Maritime New Zealand Guidelines

SAFETY BULLETIN ISSUE 16 2008 (Supersedes Issue 10)

June 2008

LIFERAFTS AND THEIR RELEASE MECHANISMS

This safety bulletin is for:

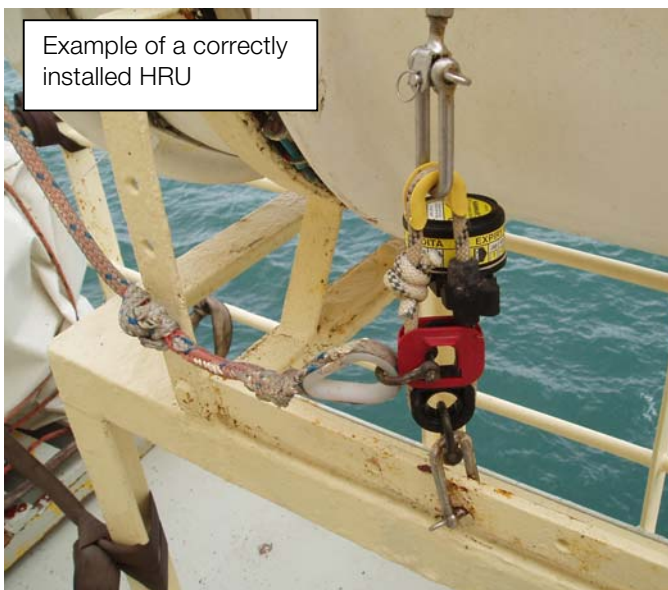
- owners and operators
- skippers and crew
- ship surveyors
- safe ship management companies
- Maritime Safety Inspectors
- liferaft servicing stations.

Will your liferaft save your life?

It is blowing 40 knots, raining, night-time; your vessel is sinking and you have to abandon ship. Your best chance of survival in the freezing sea is a liferaft.

If your vessel capsizes, can the liferaft be released? Make sure the:

- hydrostatic release unit (HRU) is connected correctly
- liferaft is not prevented from release by extra lashings or rigging on the vessel, or by a cover on the liferaft



Common problems with liferafts

Make sure the following happens on your vessel:

- the liferaft is **NOT** stowed in an area where rigging will prevent the liferaft being able to leave the vessel
- the liferaft is **NOT** stowed in a cradle that is too tight to release the liferaft in an emergency
- there is **NO** cover over the liferaft that may stop it from inflating
- gear is **NOT** stowed around the liferaft, making manual operation difficult and reducing the liferafts ability to deploy
- easy access **IS** provided to the liferaft when it is stored in a difficult location, e.g. the wheelhouse roof.

Manual release liferafts

The manual release on a liferaft is more likely to be used in an emergency than waiting for the hydrostatic release unit to deploy.

Common problems

- Manual release is difficult to operate due to lack of maintenance or seized parts.
- The liferaft is difficult to get over the side of the vessel as it is obstructed by guardrails or rigging.

Float-free liferafts and the hydrostatic release unit (HRU)

Float-free launching is the method of launching a liferaft whereby it is automatically released from a sinking ship and is ready for use. Float-free arrangements may either be an HRU or some other means. Whatever type it is, if your vessel capsizes too quickly for you to release the liferaft manually the float-free arrangement may be your only chance of survival.

Please see the diagrams at the end of the safety bulletin on the correct installation of an HRU.

Common problems

- The painter is connected to the ship and not the weak link, so the liferaft inflates but goes down with the ship.
- The disposable HRU is out-of-date and will not work.
- The serviceable HRU has not been serviced and will not work.
- The expiry date is not marked on the HRU when it is replaced so there is no record of when to replace it.

Liferaft cradles

A liferaft cradle is used to store your liferaft on the deck. Whether the liferaft cradle is “off-the-shelf” or homemade, it is vital for you and the safety of your crew, as well as being a legal requirement in Maritime Rules 40A, 40C and 40D, that the liferaft can float free in the event of the ship sinking.

Cradles made by manufacturers are specifically designed to fit a particular size of liferaft.

Common problems

- Squeezing a large liferaft into a small cradle.
- Fitting a small liferaft into a large cradle and filling it with padding to stop the liferaft falling out.
- Using cradles that have high sides.

Any of these problems may prevent the liferaft from deploying in an emergency.

Suitable cradles

The most suitable cradle is the one supplied by the manufacturer of the liferaft because both the cradle and the raft have been designed to work together as a storage and release system.

However, if a home-made liferaft cradle is to be used make sure that:

- the liferaft correctly fits into the cradle
- the cradle has a strong point to which the HRU is attached and that the tie-down strap from the HRU is also attached to a strong point on the other side of the cradle
- the cradle has low sides so the liferaft can escape, no matter the angle of the capsizing vessel.

Conclusion

In the event of capsizing and/or sinking the liferaft is your best chance of survival.

It is important that:

- every crewmember is trained in how to stow and deploy the liferaft
- the liferaft is easy to get to for manual release
- the liferaft is stowed in an area clear of rigging and in a cradle that will allow the liferaft to release
- on float-free liferafts the HRU is up-to-date regarding service and expiry dates.

Recommendations/actions

- During maintenance checks make sure your liferaft and its connections comply with the advice in this safety bulletin.
- The procedure for connecting each of your liferafts and how to care for them should be in your SSM safety management plan (ie manual).
- Use an “off-the-shelf” liferaft cradle that suits your type and size of liferaft whenever possible.

Further Information

For further information, please contact:

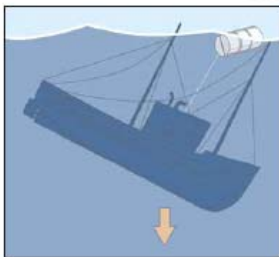
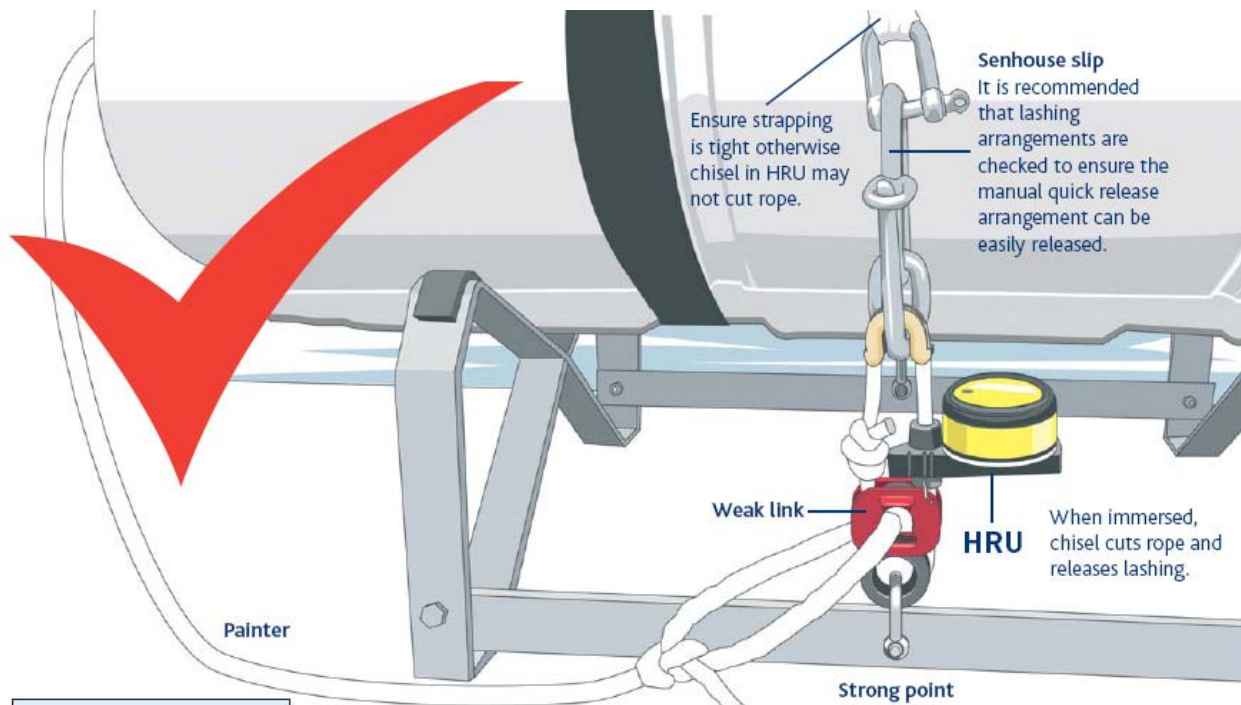
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CORRECT INSTALLATION OF HYDROSTATIC RELEASE UNIT (HRU)



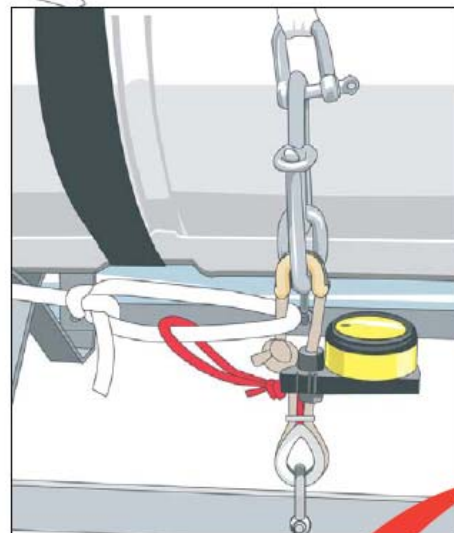
1. If vessel sinks, Hydrostatic Release Unit activates, and liferaft attempts to float to surface



2. Tension on painter will cause liferaft to inflate



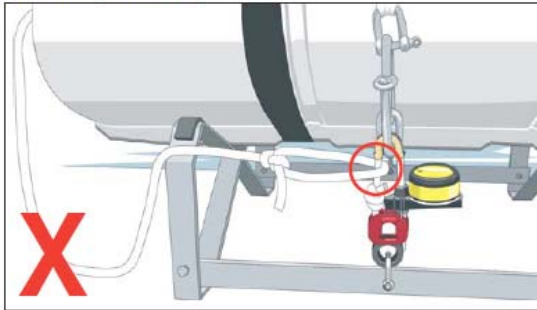
3. Tension on weak link will cause it to break ensuring liferaft does not go down with the boat



Correct installation of older version HRU

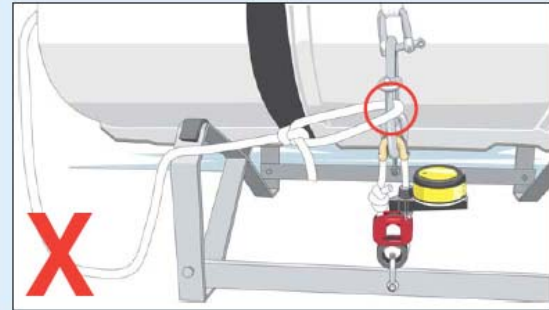
INCORRECT INSTALLATION OF HRU

Painter secured to HRU
(not through weak link)



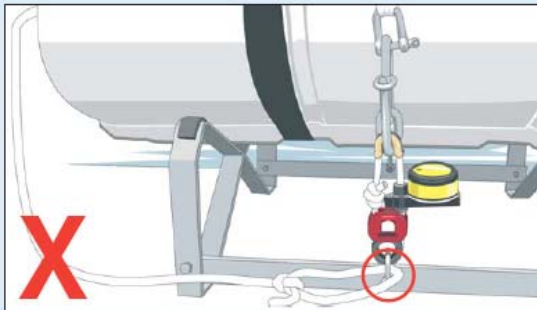
1. HRU will activate
2. Liferaft will be released but will not inflate and will sink

Painter secured to senhouse slip



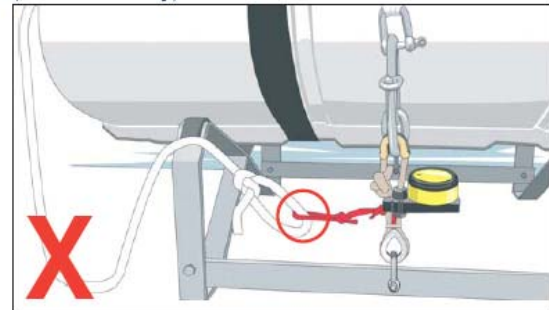
1. HRU will activate
2. Liferaft will float free and eventually inflate
3. Because the painter is secured to the slip, the liferaft will **NOT** be released to the surface

Painter secured directly to strong point



1. HRU will activate
2. Liferaft will float free and eventually inflate
3. Because the painter is secured directly to the strong point, the liferaft will **NOT** be released to the surface **EVEN IF** it is attached to the weak link as well

Painter secured only to weak link
(older version only)



1. Will work correctly for automatic release, but:
2. If liferaft is thrown overboard in an emergency (or comes adrift at sea) it may be lost

Diagram provided by the UK's Royal National Lifeboat Institution (RNLI)