AUSTRALASIAN INSTITUTE
OF MARINE SURVEYORS

Shipshape

December 2024

LOOKING BACK ON A BUSY YEAR

AUSTRALASIAN INSTITUTE OF MARINE SURVEYORS

International Diploma of Marine Surveying (Working Boats)™

This qualification is most suited to people who want to become an AIMS Certified Commercial Marine Surveyor™ (CCMS) surveyor and go on to apply to AMSA for accreditation to survey Domestic Commercial Vessels under the National Law. It is open to those who are already working in, or hold qualifications in, a related marine industry profession.

DURATION:

It is expected that you will complete the course within 18-month period.

PRICE: AU$3,950.00 +GST

Industry Diploma of Recreational Vessel Survey™

This qualification is most suited to people who want to become an AIMS CCMS™ for recreational vessels under 25 metres. The qualification does not cover the requirements for Super Yachts.

DURATION:

It is expected that you will complete the course within 12-month period.

PRICE: AU$3,000.00 +GST

Advanced Diploma of Commercial Marine Surveying™

This qualification is most suited to people who want to become an AIMS CCMS surveyor working in the shipping sector of the industry. Candidates must meet the eligibility requirements for enrolment.

DURATION:

It is expected that you will complete the course within 24-month period.

PRICE: AU$6,000.00 +GST

METHOD OF STUDY

Units delivered by distance learning. Online study and 1:1 sessions with assessors and industry experts. You may also be required to undertake practical survey tasks as part of the assessment process. If you are working in the industry, we can tailor practical tasks to suit your workplace environment however you must organise your own access to a vessel.

ENROLMENT

You can enrol online at any time, the whole process only takes few minutes.

Scan the QR or visit www.aimsurveyors.com.au/Diploma-Courses
Email us on training@aimsurveyors.com.au
or call us on + 61 2 6232 6555

AUSTRALASIAN INSTITUTE OF MARINE SURVEYORS

Shipshape

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FRONT COVER: The bulk carrier Navios Sol, 289 metre long, 90,000 gross tonnes, loading coal in the Port of Gladstone.

From the Bridge. (Page 4.)

A busy year. (P6)

Cargo measurement. (P11)

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Work on Penguin. *(P17)*

Vessel documents. (P28)

ADVERTISING AVAILABLE
Advertising is now available in *Shipshape*, the official journal of the Australasian Institute of Marine Surveyors (AIMS). For all the information about advertising in our quarterly magazine, contact AIMS CEO Eric Perez at gm@aimsurveyors.com.au or on +61 492 881 737.

Reflection

AFTER thinking my previous "From the Bridge" article for *Shipshape* would be my last as Chair of the Board, I find myself back for an encore and an opportunity to review the recent AIMS Conference held in Brisbane.

Throughout the day of the conference, despite fulfilling the usual speaking duties, introductions and thanks to presenters, I had time to catch up with a number of delegates and members to discuss the state of marine surveying and, amongst other issues, to gain feedback on the events of the day. The conference theme "Embracing Change and Uncertainty" was addressed across a broad range of subject matter and topics providing something for all attendees. For the most part, attendees' feedback was very positive.

I must congratulate our CEO, Dr Eric Perez, the AIMS business management team and Board members for their efforts in assembling a quality panel of presenters who all demonstrated a wealth of knowledge through a variety of educational, innovative and thought-provoking presentations.

The opening address by Acting CEO of the Gladstone Ports Corporation, Mr Kim Gebers, highlighted future challenges and directions of Australian ports thorough the lens of how the Ports of Gladstone, Port Alma and Bundaberg are tackling change and uncertainty.

Following my Chairman's Review, Dr Luke van der Laan, Professor of Leadership and Foresight at USQ, provided his audience with an innovative, alternative approach to strategic thinking and foresight, through considering ideas such as the use of "digital twins" to model future scenarios.

These main presentations held in the Grand Ballroom would continue throughout the day, interspersed with breakout sessions run across three different venues and providing opportunities for delegates to attend focussed sessions of special interest.

If I can make one criticism, it would be the dilemma of choosing which breakout sessions to attend – attendees were certainly spoilt for choice. As such, I was unable to check out all sessions in person; however, with all sessions being recorded, our membership can review all presentations in their own time, and I thoroughly recommend they take advantage of this fantastic member benefit. A big thanks to the videography team for their efforts on the day.

Without cherry-picking any particular sessions, I believe the variety of technical, statutory and business-focused subjects proved equally popular, with areas such as employment law and liability insurance proving popular with surveying business owners and managers.

I believe the inclusion of these sessions to be evidence of how the AIMS takes an overview of not just marine surveying technical practices, but also considers these important operational issues faced by members in the day-to-day running of their businesses.

It is worth noting that breakout sessions one and two saw the two attending regulatory authorities, AMSA and MNZ both presenting. I believe this demonstrates the AIMS commitment to closer working ties with both the Australian Maritime Safety Authority and Maritime New Zealand in efforts to foster relationships and regulatory standards oversight across the Australia Pacific region.

If there was a common thread binding the majority of presentations throughout the conference, I would have to say Artificial Intelligence! AI is certainly impacting upon almost all parts of marine surveying and, for that matter, our lives in general.

Several presentations directly relating to AI were both educational and confronting, challenging many of the traditions that underpin our profession and the shipping, maritime and boating industries.

It appears that our world is facing huge challenges posed by the use of AI, with the overarching view presented during the conference being that humanity must remain in control – will this prove to be our greatest challenge to date?

I have not specifically mentioned each and every one of the conference presenters; needless to say, I found all those which I attended to be most informative, thought-provoking and, on occasion, entertaining.

I believe it is important that all these elements assembled to make the conference a winner in overall terms and urge members to get online and view the presentations. I hope that our next conference will attract greater numbers of members and guests to support this ongoing biennial event for the Australasian Institute of Marine Surveyors.

I cannot, however, stop here!

The Awards for Excellence Dinner held the evening of the conference also proved to be a great event. I would like to congratulate the awards winners!

The quality of the nominees made for very difficult decisions on the part of the judging panels, so it is important that we acknowledge all nominees for their efforts and urge future nominations as a way to demonstrate your commitment to excellence within the profession of marine surveying.

John Holden
Retiring Chair of the AIMS Board of Directors

Productive and busy year for the Institute

THIS year has been an extremely busy and productive one for our Institute.

I am grateful for the level of engagement from members, which has helped me deliver value for your membership and support.

1. Member Engagement and Industry Representation

Some key highlights over the past 12 months are:

- ❏continued production on industry workshops;
- ❏member meetings held in 2023-24 in Sydney, Melbourne, Newcastle, Adelaide and Fremantle;
- ❏attendance and AIMS representation at the Sanctuary Cove International Boat Show and Melbourne Boat Show;
- ❏the training sector continues to be extremely busy, with strong local enrolments signalling an ongoing interest in the marine survey industry;
- ❏completion of the Review of the Working Boat and Recreational Vessel qualifications;
- ❏continued application of self-regulation;
- ❏ongoing member compliance with Continuing Professional Development policy;
- ❏meetings with the Australian Recreational Boating Safety Committee (ARBSC), and Standards Australia; and
- ❏meetings with Maritime New Zealand (NZ) and NZ-based marine surveyors.

2. Melbourne Boat Show

I would like to thank Michael Fitzallen (AIMS member) of Seaworthy Inspections, Stephen Ferris of Tracket, Mario de Villiers, Margot de Villiers and Razzak Syed (AIMS Director) for flying the flag for the profession at the 2024 Melbourne Boat Show.

3. Industry Workshops and Webinars

The AIMS continues to provide workshop and webinar content for members to engage with continuing professional development (CPD).

Recent workshops include:

- ❏Surveying HMPE Synthetic Rigging (Part 3) [Lifelines & Soft Attachments] – Nick Parkyn – 26 August;
- ❏Surveying HMPE Synthetic Rigging (Part 4) [Virtual Survey] – Nick Parkyn – 9 September;
- ❏2024 Biennial Conference – Official Opening and Welcome Address – Kim Gebers – 14 October;
- ❏2024 AIMS Biennial Conference – Chairman's Review – John Holden – 15 October;
- ❏2024 AIMS Biennial Conference – Keynote Address – Professor Luke van der Laan – 16 October;
- ❏2024 AIMS Biennial Conference – Marine Brokers – Andrew Fielding – 17 October;
- ❏2024 AIMS Biennial Conference – Rules, New Technologies and Third Party Oversight – Kenny Crawford – 22 October;
- ❏2024 AIMS Biennial Conference – BEVs and the Future of Shipping – Kerryn Woonings – 24 October;
- ❏2024 AIMS Biennial Conference – Termination of Employment – Jonathan Mamaril – 29 October;
- ❏Surveying HMPE Synthetic Rigging (Part 4) [Virtual Survey Part 2] – Nick Parkyn – 30 October;
- ❏2024 AIMS Biennial Conference – Developments in P&I – James Neil – 31 October;
- ❏2024 AIMS Biennial Conference – Impact of alternative fuels on ship design – Curtis Florager – 7 November; and
- ❏2024 AIMS Biennial Conference – Fire suppression systems – Nick Best – 8 November.

4. Conference

The successful delivery of the AIMS conference was based in the significant support of our sponsors. My thanks to the speakers for delivering engaging presentations and sharing their insights on a range of topics.

I would also like to thank the support of the Board, and my colleague Sue Brown.

For anyone organising an event, the day can be derailed without the help of a professional admin team. My thanks to Sally Perez and Wayne Craven for helping deliver an amazing event. I would also like to thank Martin Bowerman and the team at Bowerman Ventures, the Queensland Maritime Museum, the volunteers from the Penguin Restoration Project and, finally, the team at the Stamford Plaza Brisbane.

5. AIMS Awards for Excellence

The AIMS Awards for Excellence was a great opportunity to celebrate and recognise the work of members.

Mike Bozier Award

The award recognises his achievements for the AIMS and the industry generally through his tenacity, innovative approach, and futuristic thinking. Nominees for the award included – Capt. Peter Murday, MCC Marine Pty Ltd, Capt. Norman Maningo, Hunter Marine Surveyors, Mark Smith, SET Maritime & Electrical and David Burn, Safe Haven Shipwrights.

Winner – Capt. Norman Maningo from Hunter Marine Surveyors.

Marine Survey Practice Award

The Marine Survey Practice Award is open to all AIMS members in a marine survey practice of any size and is in recognition of excellence. Nominees for the award included – David Burn, Safe Haven Shipwrights, Rod Twitchin, Rod Twitchin Marine Pty Ltd, Sedgwick and Crawford & Company (Australia) Pty Ltd.

Winner – Sedgwick. The award was accepted by Margot De Villiers on behalf of Sedgwick.

Marine Surveyor Specialist Field Award

The Marine Surveyor Specialist Field Award is open to all AIMS members that display leadership in their specialty, foster and encourage ongoing professional development and contribute to the industry. Nominees for the award included – Gregory Marsden, Marsden Marine Services Ltd and Crawford & Company (Australia) Pty Ltd.

Winner – Gregory Marsden. The award was accepted by Kenny Crawford on behalf of Greg.

Technology or Business Services Award

The Technology or Business Services Award is open to both members and non-members and congratulates leadership through the practical application of technological solutions for new and existing marine survey needs resulting in a commercial, environmental, and/or social benefit to the industry. Nominees for the award included – Capt. Louis Koutelas, Hunter Marine Surveyors, Andrew Laughlin, Marine-Survey.com.au and MCC Marine Pty Ltd.

Winner – Capt. Louis Koutelas from Hunter Marine Surveyors.

Student of the Year Award

The Student of the Year Award is open to any AIMS member who are currently undertaking an AIMS training package, have completed their course in the last 12 months or any other recognised training relevant to marine surveying. Nominees for the award included – Maike Fritz Ligan, Howells Maritime Services, Rahul Unnikrishnan, Sinasta Maritime and Guy Howard, Maritime Safety Queensland.

Winner – Maike Fritz Ligan from Howells Maritime Services.

President's Rising Star Award

The President's Rising Star Award is open to any AIMS member. A key element in the future of the marine survey industry will be the calibre of the leaders that we are developing in our businesses today. Nominees for the award included – Kieran Torti, Maritime Survey Australia, and Cameron Boddy, MCC Marine Pty Ltd.

Winner – Cameron Boddy from the MCC Group.

6. Newsletter Contributions

I encourage members to make a contribution on a marine survey issue to the newsletter or contact me if there is a particular issue you want covered.

Thank-you to the members that contributed to this edition of the newsletter and for members who do contribute your article can be used as evidence of continuing professional development.

7. Your Institute

Please contact me on +61 2 6232 6555 or send me an email with feedback, and ideas at gm@aimsurveyors.com.au.

8. Final Thought

Sergiy Streletskyy, Branch Manager Melbourne at the AmSpec Group and AIMS Member, posted a great reminder about finding a degree of balance in your work and personal life.

Finding the Perfect Work-Life Balance: Recharge and Thrive

In our fast-paced world, it's easy to get lost in the daily grind and forget how crucial it is to maintain a balance between work and personal life. But if you feel worn out and need to recharge, sometimes the best remedy is simple: gather your family, hop in the car, and search for a nearby park on Google. Spend a few hours enjoying nature with your loved ones. Walk together, smell the flowers, play games, and talk about everything under the sun.

Just recently, we visited a beautiful rose garden here in Melbourne, and the time spent there energised us for the whole week. These moments of connection with nature and family are incredibly restorative. This time away from work isn't just a break – it's an investment in your well-being and a key to sustainable progress. The only way to truly grow and improve each day is by respecting the need for work-life balance.

Taking time with loved ones doesn't just re-energise us; it reminds us what we're working so hard for. So, the next time you feel your energy slipping, remember: balance is essential, and family time is at the heart of it.

I wish members a great Christmas and New Year break and my thanks to members that have helped me deliver positive outcomes for the Institute.

Dr Eric Perez
Chief Executive Officer

Merchant Navy National Commemorative Ceremony

ON behalf of the Board, I thank Chief Emmanuel Ezekiel-Hart, AIMS member, for representing the Institute at the Merchant Navy National Commemorative Ceremony at the Merchant Navy National War Memorial in Canberra on October 20.

Here, Chief Emmanuel shares his thoughts.

Laying of wreaths today at the National Memorial for the Merchant Navy. We served as unsung heroes; some of us did not return to our families, making the seas the last resting place at the seabed or in the ship under the sea.

The nation forgets them because they bear no arms for the nation, yet they face more dangers and risk to their lives supplying, receiving and transporting ... That is the Merchant Navy story.

While I represented the Australasia Institute of Marine Surveyors, I recalled my service to the freedom and peace today in Liberia and Sierra Leone, supplying relief to Nigeria-led Economic Community of West African States (ECOWAS) peace-keeping mission as part of the Economic Community of West African States Monitoring Group (ECOMOG).

Our ship in Monrovia faced attack by rebel forces but was timely let go and sent offshore to Freetown before heading safely to Lagos! I never was paid a cent for that sacrifice, but I am happy that Liberia and Sierra Leone regained peace and freedom.

Chief Dr Emmanuel Ezekiel-Hart
AIMS member

Accurate cargo measurement and pre-inspections

Sergiy Streletskyy, Branch Manager Melbourne from the AmSpec Group and AIMS member, posted his views regarding accurate cargo measurement and pre-inspections on his LinkedIn page and shared here for the benefit of members.

THE Draft Survey method plays a critical role in determining the precise quantity of cargo loaded or discharged from a vessel. This technique relies on measuring the vessel's draft (the distance between the waterline and the bottom of the hull) before and after loading, calculating changes in displacement to yield highly accurate cargo weight.

Accurate Draft Surveys are essential for several reasons.

Financial Accountability

Cargo measurements directly impact billing and payment accuracy for shippers, charterers, and receivers. Precise calculations ensure transparency, reducing the likelihood of disputes and financial discrepancies.

Compliance and Regulations

Various international guidelines, including those from the International Maritime Organization (IMO), mandate proper cargo measurements to ensure the vessel operates within safe load limits. Accurate Draft Surveys help in meeting these regulatory requirements.

Operational Efficiency

Knowing the exact amount of cargo assists in efficient stowage planning and optimal ballast management, improving vessel stability and fuel efficiency.

Environmental Considerations

Precise measurements reduce unnecessary ballast adjustments, which can minimise fuel consumption and emissions, contributing to eco-friendly operations.

Overall, a well-executed Draft Survey provides a reliable, repeatable, and internationally recognised approach to cargo measurement, benefiting financial transparency, regulatory compliance, operational efficiency, and environmental responsibility.

Importance of pre-Inspection for vessels prior to official port inspections

As a marine surveyor, I have witnessed firsthand the value of a thorough pre-inspection for vessels before the official port inspection, particularly at the loading port.

In many cases, the condition of a vessel may appear satisfactory through photographs provided by the crew or owner. However, these images often fail to represent the true state of the holds, leading to unforeseen complications during the final inspection.

The role of pre-Inspection

A pre-inspection serves as an essential checkpoint to ensure that the vessel's holds, equipment, and overall cleanliness meet the

rigorous standards required for safe cargo transport.

By identifying issues early, vessel owners and crew have the opportunity to address any deficiencies before the official inspection takes place. This proactive approach helps prevent delays, financial penalties, or rejections that can arise if the vessel fails the final inspection.

Challenges in relying on photographic evidence

Photographs and videos provided by the crew may offer a glimpse into the vessel's condition but they are rarely sufficient to make a comprehensive assessment. Lighting conditions, angles or even selective photography can obscure problems like corrosion, residue build-up, or structural damage within the holds.

It is not uncommon for surveyors, myself included, to arrive on-site only to discover that the actual state of the holds differs significantly from what was depicted.

When these issues are uncovered during the official inspection, they can come as an unpleasant surprise for all involved. Not only do such surprises disrupt operations, but also can strain relationships with port authorities and clients who rely on timely, smooth loading and transport.

Benefits of a pre-Inspection

Minimising Risk: By conducting a pre-inspection, potential issues can be addressed before they escalate. This helps maintain a seamless loading process and reduces the risk of failing the official inspection.

Saving Time and Costs

Rectifying deficiencies discovered during the official inspection often requires costly delays. Pre-inspections allow for any necessary cleaning, repairs, or adjustments to be made without impacting the loading schedule.

Ensuring Cargo Safety

A vessel in optimal condition is essential for protecting cargo integrity, particularly for sensitive or bulk goods. Pre-inspections confirm that holds and tanks are ready to meet the cargo's specific requirements, ensuring safe transport.

Building Trust

Clients and port authorities appreciate a vessel that passes inspection without issues. Regular pre-inspections demonstrate a commitment to quality and reliability, reinforcing trust with stakeholders.

Conclusion

In the maritime industry, the smallest oversight can lead to significant disruptions and costs. As a marine surveyor, I strongly advocate for pre-inspections as a critical step in preparing vessels for their official inspections at loading ports.

By thoroughly assessing the true condition of a vessel, we can avoid unpleasant surprises, safeguard our operations, and strengthen our relationships with clients and regulatory bodies alike.

Sergiy Streletskyy
Branch Manager Melbourne
AmSpec Group
AIMS Member

Synthetic HMPE lifelines

LIFELINES are critical to the safety of the crew and, governed by class and yacht racing body rules, the application and adherence to best practices is essential.

HMPE (Dyneema™ / Spectra™) has some unique characteristics which make it highly suitable for use as lifelines on yachts. Some of its unique characteristics require special techniques and care for optimal performance. We will explore these and best practices related to the use of Dyneema™ for lifelines.

Dyneema™ lifelines are approved for offshore use by US Sailing and ISAF (International Sailing Federation), however it is essential to interact with any relevant regulatory bodies, class associations and race requirements to ensure that Dyneema™ / Spectra™ lifelines are approved.

1. What type / size of line to use

Dyneema™ / Spectra™ line is available in both covered and uncovered form. (See Figure 1.)

- ❏ Class and yacht racing body rules often define:
- ❏ use of covered or uncovered Dyneema™ / Spectra™ rope; and
- ❏ minimum diameter of the uncovered rope or core if covered rope is used.

When not defined, minimum core or uncovered Dyneema™ rope diameter is 5mm.

Covered line has the added chafe protection of the cover and the author has found covered line to be more practical than uncovered line. For covered line with a 5mm core, the overall diameter is 7mm.

Dyneema SK-75 was the typical choice for lifelines; however, since Dyneema™ SK75 exhibits creep and consequently lifelines required re-tensioning at regular intervals, a new Dyneema™ variant (DM20) has recently become available which exhibits almost zero creep, making it more suitable for lifeline application than SK75.

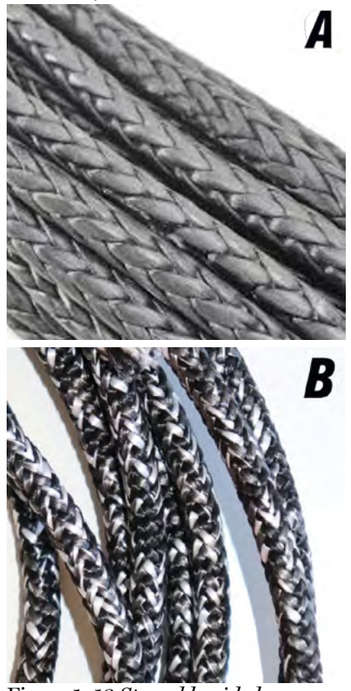

Figure 1. *12 Strand braided Dyneema rope of a 12-strand braided construction uncovered (A) and covered (B).*

2. Good practice

HMPE (Dyneema™ / Spectra™) line does not tolerate tight bends, as tight bends increase fibre fatigue and reduce the strength of the rope.

The industry uses a formula to express the tightness of the curve, called the D/d ratio, based on the diameter of the fixing around which the rope is bent (D) and the rope diameter (d). (See Figure 2.)

There is a trade-off with terminator size and D/d ratio. With lifeline attachment, good D/d ratio (5.0 or greater) is difficult to achieve but a reasonable trade-off for lifelines and running rigging is a D/d greater than or equal to 2.0.

Since lifelines are typically attached (terminated) to bales fabricated from small diameter stainless-steel rod (typically 3mm diameter or less), which are welded onto the pulpit or pushpit, acceptable D/d is very difficult to achieve.

If we attach the lifelines directly to the bales, the D/d would be 3mm / 5mm = 0.6 – well below the target D/d. Selection of terminators and type of attachment must be carefully considered and designed.

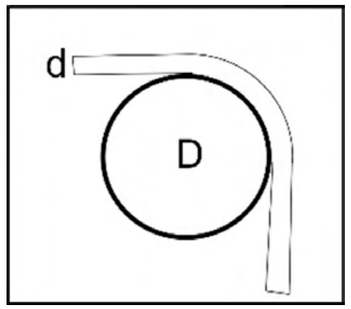

Figure 2. *D/d ratio*

3. Terminators

A number of different types of terminators are typically used which can provide a D/d of 2.0 or greater:

- Line Terminator (Colligo Marine – Figure 3)
- Splice Line fitting (CS Johnsonson Marine – Figure 4)
- Low Friction Ring (Ropeye - Figure 5)

Figure 3. *Colligo Marine Line Terminator. (Picture courtesy Colligo Marine)*

Figure 4. *Splice Line fitting (CS Johnson Marine).*

Figure 5. *Low friction ring.*

Figure 6. *Sailmakers Thimble*

4. Terminations

Dyneema™ / Spectra™ line should never be knotted, as knots decrease the breaking strength of the line by more than 50 per cent. (See Figure 7.) A Brummel or locked Brummel splice is used for splicing the Dyneema™ / Spectra™ line.

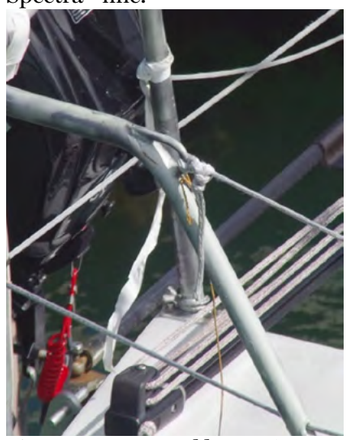

Figure 7. *Unacceptable practice knots and very poor D/d.*

A splice bury of at least 50 times the line diameter (250mm for 5mm diameter lifelines) is required, but best practice suggests a bury as high as 72 times the line diameter (360mm for 5mm diameter lifelines). Tapering of the splice tail is essential to reduce stress concentration which promotes failure. Sewing the splices adds an additional level of protection.

The end termination fittings on the Dyneema™ / Spectra™ must maintain the largest possible bending radius to reduce fibre fatigue ensure service life.

5. Attachments

Depending on the terminations used, one end of the lifeline has an adjustable lashing or rigging / turnbuckle screw with Splice Line fitting (CS Johnson Marine) to allow tensioning of the lifelines, while the other end would typically have a lashed attachment or specialised fitting like the Splice Line fitting (CS Johnson Marine) with clevis pin attachment. (See Figure 8.)

Figure 8. *Splice Line fitting with clevis pin attachment by CS Johnson Marine.*

D/d for lashings is always a compromise and while the highest D/d (always greater than 2.0) should always be strived for, lashings are considered sacrificial and have a shorter service life that the lifelines. Lashings are replaced multiple times within the service life of the lifelines.

Lifeline lashing around the entire pulpit, pushpit or stanchion is a technique to increases D/d in an attempt to achieve acceptable D/d. (See Figure 9.)

For lashings, Dyneema™ SK75 variant is typically used and is readily available at low cost. All lashing knots must be taped with rigger's tape to ensure that they do not unfasten. (See Figure 9.)

Figure 9. *Lifeline lashing around the entire pulpit.*

6. Lifeline gates

Lifeline gates are segments of lifeline typically between two stanchions where one end is attached to a ring or sailmakers thimble using a Pelican Hooks.

The other end of this segment of line can be tensioned using a stop knot When the gates are "closed" the Pelican hooks are attached to rings or sailmakers thimbles at the stanchion (Figure 10).

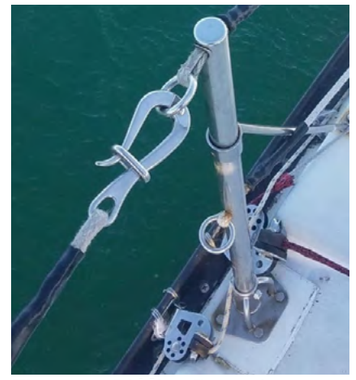

Figure 10. *Lifeline Gate using Pelican Hook & Ring. (Picture courtesy Colligo Marine)*

7. Chafe

Lifelines are a high chafe area. The highest chafe area is where the Dyneema™ line passes through the holes in the stanchions. (See Figure 11.) Prior to fitting Dyneema™ lifelines, ensure the stanchion holes are smooth. If the stanchions have

previously had wire lifelines running through them, they are probably rough inside.

Figure 11. *High chafe area.*

There are two options:

- smooth and polish the inside of the stanchion holes; and
- fit grommets into the station holes (eg, Stanchion Grommet - CS Johnson Marine).

Even when the holes have been smoothed and polished or grommets have been fitted, chafe protection should also be fitted to the lifelines where the pass through the stanchions.

Chafe protection sleeving or whippings should be used on both covered and uncovered Dyneema lifelines. (See Figure 12.)

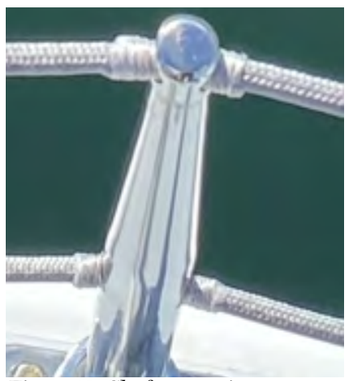

Figure 12. Chafe protection at stanchion.

8. Further innovation

Lumina Lifeline Rope by Amare is lifeline rope with luminescence inserts that make the lifeline visible even at night, improving safety and making easier the movements on the deck during night-time navigation. (See Figure 13.)

With a suitable charge from any sufficient light source, this rope will glow in dark conditions for 8 to 10 hours.

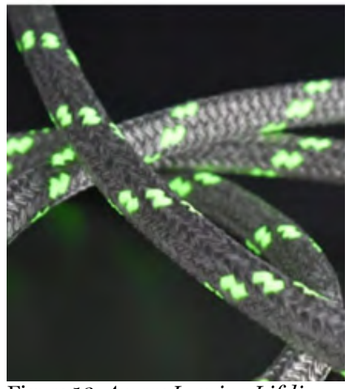

Figure 13. *Amare Lumina Lifeline Rope.*

9. Service life

Since lifelines are critical to the safety of the crew:

- replace the lashings every two years; and
- replace the lifelines every four years.

Ensure that you have and retain adequate documentation regarding date fitted and products used for your synthetic lifelines fitted to your craft.

When a marine survey is conducted, if accurate and reliable documentation is not available, a marine surveyor would not be able to determine remaining service life.

Since lifelines are critical to the safety of the crew, if no documentation is available, the marine surveyor would have to strongly recommend replacement of the lifelines and lashings.

10. Resources

The IIMS Marine Surveying Reference Guidebook *What a marine surveyor needs to know about synthetic (composite) yacht rigging* - https://www.iims.org.uk/product/what-a-marine-surveyor-needs-to-know-about-synthetic-yacht-rigging/

- Colligo Marine https://www.colligomarine.com/
- Online Ropes https://onlineropes.com/history-of-rope.html
- Locked Brummel splice - *Polman, Jan-Willem (2016). Splicing Modern Ropes. London, New York: Bloomsbury. p. 39. ISBN 978-1-4729-2320-2*
- New England Ropes https://www.neropes.com/wp-content/uploads/2024/10/Pleasure-Marine-Catalog-2017-WEB.pdf
- Harken - https://www.harken.com/en/
- Nodus Factory - https://www.nodusfactory.com/fr/
- Tye Tec - https://www.tyetec-loop-products.com/
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- Amare Ropes - https://www.armareropes.com/en/news/

11. Trademarks

- *Dyneema™ tradename which is a trademark of* Royal DSM N.V. *https://www.dsm.com/dyneema*
- *Spectra™ is a tradename of Allied Signal Inc USA now* Honeywell International Inc.
- Dynice Dux is a trademark of Hampidjan.
- Fineline 2.0 – Fineline New Zealand.

Nick Parkyn
Marine Surveyor / Director
Nick Parkyn Consulting & Design Pty Ltd

Penguin: a work in progress

Queensland Maritime Museum. Vessel: PENGUIN. *Dated 24 May 22*

THE basis of our current work is a marine surveyor's report from May 2022 which identified the following:

- the present condition of the vessel;
- the viability of restoring the vessel; and
- the standards we need to achieve.

Following is what the report told us.

Vessel Name: 'PENGUIN'
AMSA Unique Vessel Identifier (UVI): 460689
CLIENT: Queensland Maritime Museum
Survey Activity Report: 24 May 2022
Russ Behan
Australian Maritime Safety Authority Accredited Marine Surveyor No 128931
Fellow, Australasian Institute of Marine Surveyors No 370
Life Member Class 1A, Marine Surveyors Association No 109
Inspection Type: Survey Activity Report 24 May 22

This report has been prepared and submitted without bias by Marine Matters Pty Ltd (Marine Matters) for the sole use of The Penguin Project, Queensland Maritime Museum, 412 Stanley St, South Brisbane 4101, and may not be: (a) transmitted or disclosed to any other person; or (b) used or relied upon by any other person; or (c) used or relied upon for any purpose other than set out in this report without the prior written consent of Marine Matters. This report has been prepared with all due reasonable care; however, it is subject to the following disclaimers:

1 We have not sighted any contractual signed agreements.
2 We have not compiled an inventory.
3 We have not sighted any of the vessel's drawings.
4 We have inspected parts of the vessel during the build process.
5 We did not conduct any testing, destructive or otherwise, of the hull or structure of the vessel.
6 We make no comment about the operation or performance of the proposed vessel.
7 We have not hose tested the vessel for leaks.
8 We have not tested any equipment.
9 We have not carried out a stability test.
10 We have not tested for osmosis, toxins, asbestos, mould, fungi, animal infestations or material degradation.
11 We have not checked that the vessel complies with

all current standards and regulations.

12 We have not removed any protective type coatings from any surfaces for this inspection.

13 The vessel should be reinspected or tested if recommended.

14 This report and inspection are for the day of 24 May 22 only.

15 We have not inspected woodwork or other parts of the structure, which are covered, unexposed or any parts of the vessel which are inaccessible, therefore we are unable to comment on whether any such part of the structure or vessel is free from defect or imperfection.

The Owners and Masters of commercial vessels are reminded of their obligations under the Marine Safety (Domestic Commercial Vessel) National Law Act 2012, (National Law) and in particular the General Safety Duties Required of Owners, Masters, Crew and Passengers, to ensure the safety of vessels, marine safety equipment, and operations.

This report and its contents were prepared by Marine Matters and as such remains the sole copyright of Marine Matters. Any reproduction of this report requires the express written consent of Marine Matters.

Whilst all reasonable endeavours have been made to discover by inspection any faults, defects or infestations that may exist in the vessel, we must inform you that there can always exist defects or hidden defects that cannot be discovered upon a reasonable examination without interfering with the vessel's structure, surfaces, composition or fittings.

If any other details or services are required in respect of the vessel a new inspection and report will be necessary from us. Please contact our office immediately so that we can attend to that inspection and report.

If there is anything that is not clearly understood by you in relation to any aspect of this report or enclosed documentation please contact our office immediately.

Reinspection required? Yes
Was the vessel prepared for the inspection? Yes
Dated: 26 May 22
Russ Behan AMSA No 128931
Director / Marine Surveyor
VESSEL: 'PENGUIN'

SURVEY ACTIVITY REPORT: 24 MAY 2022

Introduction

The information provided in this report is objective and represents what was reasonably visible to our surveyor during this inspection.

Whilst all reasonable endeavours have been made to discover any faults, defects, or infestations that may exist in the vessel, it is pointed out that there can always exist defects or hidden defects that cannot be discovered at a reasonable examination without interfering with the vessel's structure, surfaces, or fittings.

Surveyor's Comments and Recommendations

The following comments and recommendations are not in any order of priority.

1. Cut out the decayed timber that has been marked out on the stern post and keel. Surveyor to reinspect. Refer to photo 1 below.

Photo 1. *Example of decayed timber.*

Inspection Details		
Marine Matters Surveyor:	Russ Behan, AMSA ID No 128931	
Inspection Location:	Queensland Maritime Museum 412 Stanley Street South Brisbane, Qld, 4101	
Date of Inspection:	24 May 2022	
Vessel Name and Type:	'PENGUIN'. Ex Torres Strait pearling lugger. Monohull, timber, gaff rigged ketch with a single screw.	
Marks:	Pearling Number A61 with the Star emblem of the Dauan Islands (Cornwallis Islands), located off the southern coast of Papua New Guinea. Hull No 121564, (carved into a deck beam).	
AMSA Identification:	AMSA Unique Vessel Identifier (UVI): 460689	
Reported Builder:	Tsugitaro Furuta, Thursday Island, Australia.	
Construction:	Timber monohull, carvel planked, round bilge, with straight deadwood keel.	
Port of Registry:	Townsville, (On transom)	
Reported Built:	1907	
Measured Dimensions:	Hull Length	19.93m
	Beam	4.85m
	Depth	2.20m
	Draft	2.05m
Power:	Single, 4-cylinder, Gardner diesel engine. Not operational.	

2. Remove all the copper sheathing that has been marked out on the rudder stock, rudder blade, rudder post and hull aperture. Surveyor to reinspect. Photo 2.

Photo 2. *Marked timber sheathing.*

3. Remove and save the timber sampson post. Clean the surrounding bilge timbers back to a sound timber surface. Surveyor to reinspect. Photo 3.

Photo 3. *Sampson post.*

4. Remove the timber box on the aft deck from around the rudder stock then remove the metal tiller cap and the tiller before replacing the timber box. Surveyor to reinspect when parts have been removed. Photo 4.

Photo 4. *Timber box, tiller cap, and tiller.*

5. Where the timber sawn frames/ribs have had the decay removed and have been cleaned back to timber that has an acceptable colour, as shown in Photo 5 below, the surfaces can be prepared to accept the graving/inserts of timber, but secure the sawn frames/ribs with hot dipped galvanised bolts approximately 300mm apart in a horizontal position before the graving/inserts of timber are fitted, fastened, and epoxy glued. Surveyor to inspect when the bolts have been fitted.

Photo 5. *Example of cleaned back frames/ribs*

6. The Backing Block Port, Deck Beam Port, Sawn Ribs Port and Sheer Hull Plank, located under the deck planking, have been labelled. Refer to photo 6. These parts appear to be only aged timbers and not decayed so they can be saved by cleaning back the surfaces, treating them with wood preserver, and firming up all the fasteners before using horizontal fasteners in the sawn ribs. Surveyor to reinspect when bolts have been fitted.

Photo 6. *Labelled parts*

7. The existing and the new hull timber planking needs to be butt joined, with the use of timber butt blocks. Refer to Photos 8 below. Guidance for this procedure can be found in the USL Code, Section 5, Subsection 4, Paragraph M.16 'Hull Planking' and Paragraph M.16.1 'Timber', in the points 'a' to 'i, but points particularly points c, d, e, f, and g. Surveyor to inspect when the butt blocks have been fitted but not fastened.

Photo 7. *Example of timber needing butt joins*

8. The removal of the external coatings on the: hull; garboard; rabbit; transom; and the hood ends of the stern hull planking, is ongoing. Photo 8 and 9. Surveyor to reinspect.

Photo 8. *Coatings to be removed.*

Photo 9. *Coatings to be removed.*

Russ Behan AMSA No 128931
Director / Marine Surveyor
Marine Matters Pty Ltd

Accredited Marine Surveyors, Valuers, Consultants and Project Managers.
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BIA says events are key to showcasing the boating lifestyle

THE past couple of weeks have highlighted the value of public events promoting boating and the boating lifestyle, with the Boating Industry Association (BIA) represented at boat shows in South Australia and Victoria.

I had the pleasure of attending the Adelaide 4WD and Adventure Show, which incorporated the Club Marine Boat Show, and it was great to see some 20,000 people in attendance and a good number of marine exhibitors on show.

The SA event was a good demonstration of effective collaboration in promotion of the outdoor lifestyle, with exhibits spanning boats and marine, caravan and camping, vehicles and 4WD, and lots of accessories.

It was also good to be able to host a function for 65 industry members on the Club Marine stand to provide a platform for catching up with new friends and old, and networking across our valued marine sector in SA.

BIA also recently attended the Melbourne Boat Show, where we were able to meet with industry colleagues and members for what was their 62nd show. Boating Industry Association Victoria (BIAV) put the total exhibitor numbers at more than 100 and attendance at almost 39,000.

It was also good to catch up with BIAV President Scott O'Hare and CEO Steve Walker to discuss industry issues of mutual interest. Congratulations to both Scott and Steve on the event.

Such events are opportunities to address our key priorities which include growing participation in boating and help drive take up in marine careers. These are just some of the reasons why we are planning to attend a number of upcoming events.

BIA will be at the Timber Boat Festival at the Royal Motor Yacht Club over 2-3 November 2024 and at the Australian Wooden Boat Festival in Hobart in February 2025, where we are currently negotiating an event partnership opportunity.

We have a number of members in Tasmania and our plan is to hold marine industry events in and around the Festival, whilst also engaging with key stakeholders such as Marine and Safety Tasmania.

Perhaps the major opportunity to fly the flag for BIA is at the world's largest trade exhibition of marine equipment, materials and systems that is METSTRADE in November, where I will be attending a variety of meetings with ICOMIA, such as Sustainability and Grow Boating meetings, as well as meetings of the International Federation of Boat Show Organisers (IFBSO) in my capacity as Treasurer of that group.

From left to right: Andrew Scott (BIA CEO), Scott O'Hare (BIAV President), Adam Smith (BIA President) and Steve Walker (BIAV CEO).

For more information on IFBSO, members can check out https://www.ifbso.com

We are also well advanced in development of a series of events in 2025 across both Queensland and New South Wales to support and promote Marine Jobs. Much more on this program in upcoming issues of eNews.

And of course preparation for the Sydney International Boat Show is underway, with both BIA and its event delivery partner, Mulpha Events, taking on board lessons learnt and developing event plans including expansion of the marine conference element.

Meanwhile, BIA is actively engaged with the NSW Government to ensure full appreciation of the social and economic benefits arising from the show in Sydney. The benefits included $353 million in total economic output for the economy.

We are right now gearing up to launch the new CRM to provide a more effective and efficient service to our members across Australia. Look out for more details being released over the coming weeks.

See you on the water.

Andrew Scott
CEO
Boating industry Association

Note: This article has been reproduced from the Boating Industry Association website.

Professional indemnity and public liability insurance for AIMS members

THE Australasian Institute of Marine Surveyors (AIMS) is pleased to announce a partnership with Austbrokers Countrywide to provide insurance products and services to its members.

Austbrokers Countrywide is a leading insurance broker providing services to professional associations with specialised insurance products for thousands of consulting professionals right across Australia.

If you would like to arrange an insurance quote or simply have a discussion with Austbrokers Countrywide for professional indemnity, public liability or any other insurance product, please click on the link below. It will take you to the Austbrokers Countrywide website, where you can find forms and additional information relating to the insurance offerings tailored for AIMS members.

Members can access a quote here: Insurance Quote

1. What is the professional liability of a marine surveyor?

In Australia, professionals have a legal duty to do their work to the standard of their profession. Where they perform work without due care, resulting in damage, the consultant (or their employer) can be held liable to pay compensation.

"Professional liability" is the term used to describe the liability professionals have for any act or omission that is in breach of a duty of care that they owe. It is also known as professional negligence.

The potential liability is to compensate for damage caused by negligence. The damage may be physical damage (damage to a vessel), economic loss (money lost by a person who no longer has use of the vessel or debt over a vessel) and physical injury (caused to a person due to professional negligence).

2. What is professional indemnity insurance and what does it cover?

Professional indemnity (PI) insurance is designed to cover a marine surveyor for errors and omissions associated with the advice and services provided to clients including advice included in reports and surveys.

PI insurance covers your legal liability for claims arising out of an actual or alleged breach of professional duty. PI will not just provide cover for the damage caused by the mistake, but also the legal costs and expenses of investigating and defending the consulting advice and conduct. Payment of the legal costs associated with defending an allegation of negligence or similar is often the part of the insurance cover most appreciated by the Marine Surveyor.

It would be fair to say that a good 50 per cent of costs incurred by insurers in defending marine surveyors in professional negligence claims is purely the cost of legal fees.

In a number of circumstances, it is legal fees incurred to clear the marine surveyor's name and get them extracted from ongoing litigation. Legal defence costs are a large part of PI insurance claim costs.

Professional indemnity insurance can also include extensions that provide additional protection for:

- reconstituting a client's documents if lost or destroyed ("loss of documents cover");
- loss of money due to fraud or dishonesty committed by an employers employees; or
- the costs of appearing in official investigations by tribunals, ombudsman bodies or even royal commissions ("Inquiries costs cover").

3. What is public liability insurance?

Public liability insurance covers you against legal liability for any unexpected and unintended event that results in damage to property or bodily injury to third parties. The majority of claims arise out of "negligence", which has been defined as the omission to do something which a reasonable person would do. While the majority of claims arise from negligence, they sometimes arise out of nuisance, which is the "interference with the enjoyment of the land".

We often refer to public liability insurance as cover for accidents. An example might be a member of the public slips over a surface which has become wet or been washed and is injured as a result. This policy covers the costs of the bodily injury or property damage caused as a result of the accident.

4. What is run-off cover insurance?

Run-off insurance applies to "claims made" insurance. If your PI Insurance is allowed to lapse or cease, and a claim is made against you after the lapse date, the insurer will not cover the claim and argue they have been notified after the policy has lapsed. This is even if the claim arises from work completed while the policy was active. PI insurance is known as a "claims made" policy where claims can only be notified and accepted by the insurer on a current and active policy.

Run-off insurance is essentially a continuation of insurance (even after retirement) in order to maintain protection against past consulting work. It is common for marine surveyors to purchase "run off cover" professional indemnity insurance, which commonly runs for six years after they cease offering marine surveying services. It is important marine surveyors are aware of this additional cost of insurance after they stop consultancy work, so they need to include additional charges whilst consulting to save for the cost of run off cover insurance once they cease consultancy work.

Public liability insurance is an "occurrence-based" insurance policy. This insurance covers loss arising from an act that took place at the time the policy was in effect, regardless of when the claim is made.

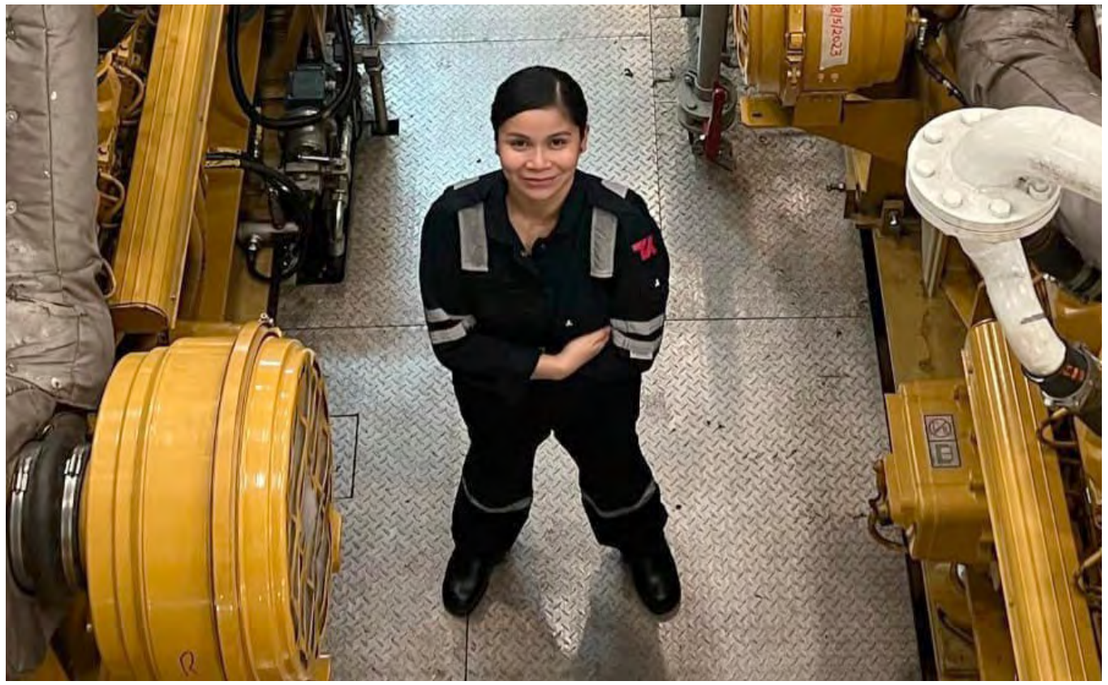
Due to this fact, you are able to let your Public Liability Insurance lapse as soon as your consulting work has been finished and you are not planning any future work. The existing policy will still be able to be notified of future claims from events that took place while the policy was in place.

It is only the PI insurance (claims-made policy) which requires run off cover insurance to be purchased once you cease the marine surveying work.

For more information, please contact Greg Hansen on (03) 9835 1310, mobile 0437 410 810 or email gregh@abcountrywide.com.au

Greg Hansen
Manager, Professional Risks
Austbrokers Countrywide

A career journey from the Philippines



I AM Maike Fritz Ligan, a marine surveyor from the Philippines, with a Bachelor of Science in Marine Engineering from the University of Cebu, Lapulapu and Mandaue. My journey in the maritime industry began with a scholarship from the Norwegian Shipowners Association – an opportunity that laid the foundation for my education and early career.

Before receiving the scholarship, I went through a rigorous selection process that included multiple rounds of testing, interviews, medical exam and physical exam. With only 300 scholars chosen from across the Philippines, securing this scholarship was both a great honour and a responsibility.

At the university, I faced new challenges, including a semi-military training environment that required resilience and discipline. I was one of only four women in a group of 300 scholars, and, though it was daunting, it was also deeply rewarding. Graduating with honours was a milestone, representing the hard work and dedication needed to overcome both academic and physical demands.

Entering the professional world as an engine cadet, I quickly became aware of the gender gap in this male-dominated industry. Working alongside mostly male colleagues, I encountered both subtle and direct scepticism.

These moments taught me the importance of staying grounded and focused, regardless of external doubts. I often felt I needed to prove my competence continually but, rather than discouraging me, these experiences only deepened my commitment to my goals. I was determined not to let outdated prejudices hold me back from pursuing a career I believed in.

Teaching has also played an important role in my journey. I have had the opportunity to serve as both a university instructor and a training instructor, roles that allowed me to give back to the community while reinforcing my own knowledge. Helping students navigate their paths has been incredibly fulfilling, and I feel fortunate to support others as they begin their own maritime careers.

Additionally, my volunteer work with the Philippine Coast Guard Auxiliary, where I serve as a Lieutenant Senior Grade, has broadened my perspective on maritime safety and operations.

These experiences have been humbling and serve as a constant reminder of our collective responsibility to uphold safety in this field.

Later in my career, I worked as a Planned Maintenance Systems Engineer for Teekay Shipping Australia. Through close collaboration and frequent visits to the country, I developed a deep appreciation for the country's high safety standards, a critical aspect of maritime operations.

Even earlier, when I was sailing as an engineer on vessels traveling to Australia, our teams made every effort to comply with their rigorous inspections. This experience instilled in me a profound respect for Australia's safety culture and strengthened my desire to work here one day.

However, reaching this goal of working and staying in Australia permanently came with its own obstacles. Navigating the visa process and preparing for the Australian Maritime Safety Authority assessment required patience and persistence.

While there were setbacks, I chose to see each attempt as a valuable learning experience. With continued preparation and support from those around me, I eventually succeeded, and the AMSA certificate of recognition opened new doors in my career.

Today, I am pursuing a Diploma in Marine Surveying at the Australasian Institute of Marine Surveyors and gaining valuable hands-on experience as a trainee surveyor at Howells Maritime Services.

Under the mentorship of Mr Zac Howells, a seasoned industry professional, I am learning essential skills in vessel inspection and safety adherence. Each day reminds me of how much I still must learn, and I'm incredibly grateful for the support and guidance I receive.

Looking ahead, my goal is to become an AMSA Accredited Surveyor. I am committed to upholding high safety standards and promoting positive change in maritime operations.

While I know the journey may present new challenges, I am determined to persevere. My hope is to make a meaningful contribution to the maritime industry, promoting a culture of safety and continuous improvement, not only here in Australia but, hopefully, in the Philippines as well.

Maike Fritz Ligan
Howells Maritime Services

What on earth?

I AM Cameron Boddy, and if you had told me when I graduated university that in 10 years' time, I would become a marine surveyor for one of the most prestigious maritime companies in Australia, I would have had about a hundred questions.

The first one, and the one all marine surveyors are used to hearing: "What on earth is a marine surveyor?" Like anyone outside the industry, I had no idea what a marine surveyor was. Fast-forward 10 years, and I live and breathe marine surveying and am proud to be part of the industry.

When I left university with my Bachelor of Science in 2014, I had every intention of becoming an analytical chemist. That is a role that's typically nine-to-five hours and no weekend work. (Wouldn't that be nice!). In April 2015, I got my start in my career at Commodity Inspection Services (now CIS-Control Union Australia) in a laboratory role that was meant to only be for six weeks to cover for someone's leave.

By the time I moved on from CIS, I had been there for seven-and-a-half years. In that time, I had gone from a sample preparation officer to analytical chemist, to trainee surveyor and finally to cargo surveyor.

After two months of preparing agricultural samples for analysis, I was offered the opportunity to assist the survey team at CIS with some fish oil isotank surveys and shore tank sampling and gauging for bulk tallow vessels. Shortly after, I got the opportunity to attend my first vessel, the M.T. *Stolt Ajisai*, to assist with survey of a bulk tallow parcel loaded for export.

Right from the start, I was hooked on surveying and, after a year of assisting the survey team on the side while plying my trade as an analytical chemist, I made the decision to switch to surveying full-time and never looked back.

I spent the next six years fine-tuning my skills as a marine surveyor and sought as many opportunities to further my knowledge as possible. I completed AIMS short courses on dry bulk cargoes and conducting draft surveys and had begun my journey in learning the dark art of draft surveying.

I started attending bulk carriers for superintendence of sugar and grain cargoes and it was at these grain vessels that I started running into CEO & Managing Director of The MCC Group, Roger Weiller.

After a few vessels, I was fortunate enough to be offered a role as a marine surveyor with MCC Marine and, in September 2022, I joined the team at MCC. It was an honour to join the company that I considered to be the best of the best in marine surveying. But it was also an eye-opener.

When I joined MCC, I thought I was decent at draft surveys, but it didn't take long for former director of The MCC Group, Capt. Peter Murday, to bring me down to earth!

Thanks to the guidance and support from the MCC team, I brushed up on my draft survey technique and gained experience in other surveys including hold surveys, bunker and condition surveys and breakbulk surveys.

After six months, I was promoted to Assistant Manager, a sign of how fast I had hit my strides at MCC. In the two years since I joined, my competency has grown exponentially, and I'm now proud to call myself a guru in the dark art of draft surveying (just ask my coworkers, it's all I want to talk about) and have added DAFF AO bulk vessel inspection accreditation to my list of expertise.

In my 10 years in the industry, I've learnt many things, but the biggest lesson I've learnt is that anyone with the right attitude can make it as a marine surveyor. It's no longer an industry for master mariners looking to secure jobs ashore and I'm proud to be part of this movement.

It also helps to be a little crazy, because who in their right mind would think that going to ships in the middle of the night on weekends is a smart career move. (I'm still trying to explain this one to my fiancé!)

The other main lesson I've learnt is that with the right team and with the right attitude, anything is possible and there's always a way to get the job done. This is one of my favourite attributes about the mentality at MCC Marine. The whole team is committed to a mindset of "never say no" and doing whatever it takes to get the job done.

The 10-year journey from university graduate to marine surveyor has been a whirlwind but also incredibly rewarding. I'm especially proud of how much I've grown since joining MCC Marine, a journey which has culminated in me being awarded the AIMS President's Rising Star at this year's AIMS Awards for Excellence Dinner. It was an incredible honour to receive this award but, for me, the journey is only beginning.

Cameron Boddy
Asst. Manager – BNE
MCC Marine Pty Ltd

The views of an "outsider"Stuart Marra

I AM Stuart Marra, and I find that whenever you usually tell someone who asks "What do you do?" that you are a marine surveyor, they usually assume that you are off somewhere discovering some new coral reef, swimming with sharks, or searching for Columbus' lost *Flor de La Mar*. I would have probably thought the same thing myself 15 years ago.

When I took a chance and left the UK in 2014 heading for Australia, I left behind what some would call a "promising" job in government, a well-established routine, and a very recent ex-partner who would have been very happy to help me pack my bags.

What I arrived to was the overbearing Perth summer heat (insert whinging Pom comment here), an office full of people who called themselves 'Captain', Jack Sparrow I presumed, and the beginning of an exciting new adventure in the marine industry.

I didn't know it at the time but I was about to embark on a new journey in marine surveying. It was a journey which would introduce me to a world I had no idea even existed, meeting and working with interesting and amazing people from all over the world, and realising that some jobs are very far from your typical nine-to-five. The marine industry is the very definition of a global industry.

When I first came to Australia and joined a marine surveying company based in Perth, I came filling an office-based role – creating and analysing documents, procedures, reports and other back-office work.

It was not long, however, before I saw what was going on around me and, reading the detail of the reports sent through by the surveyors, wanted a better understanding of the work we were performing out in the field. With this interest, I began to join some of our surveyors out on vessels, watching and learning as they performed all manner of marine survey work.

Through the generous guidance

and patience of our surveying team, I began to learn and understand a variety of marine and cargo surveys. Starting with the smaller and simpler work.

I spent many days when I first started out, at the port counting vehicles and equipment coming off vessels or travelling to the middle of nowhere delving into shipping containers checking that the thousands of items inside matched the packing list and categorising them all accordingly.

As I got more experience, I began to attend with our surveyors for more complex jobs such as hold inspections, project cargo operations, draft surveys, damage surveys and the like.

It had become quickly clear that I wanted to pursue a career in marine surveying and wanted to focus more of my time outside of the office and in the field. I enrolled in Lloyd's Maritime Academy and over a period of a year completed their course in marine surveying.

Later on, I also enrolled in the DAFF Authorised Officer Programme and became a qualified AO. I also joined AIMS, which is the key voice and community for professional marine surveyors in Australia.

Fast forward to 2024 and I am still here working in the industry with many surveys completed, many last-minute callouts, many late nights, many problems and many new grey hairs. Maybe I am a glutton for punishment or maybe it's that working in this industry is so rewarding. Understanding that you can play a part, all be it a very small one, in one of the most critical global industries.

Even in a modern and globalised world, 90 per cent of all cargo still travels as it did hundreds of years ago, by sea. Marine surveyors play a key role in this industry by conducting all manner of critical surveys on vessels and their cargo.

So, what have I learned from my experience coming into the industry as an outsider? That the marine surveying industry is changing and evolving all the time. Although the more traditional routes into marine surveying will always be there, from sailing Captain to marine surveyor, there is more opportunity than ever for people from all walks of life to come into the industry.

All that you need to get started is a keen interest and a desire for something outside of the regular nine to five. There are many marine surveying courses available, most of which can be undertaken online and at the student's own pace. AIMS offers a variety of excellent courses for those looking to get qualified as a marine surveyor. AIMS is also the key body representing the marine surveying industry in Australia and brings its members together as one community.

I have also discovered that this industry is full of like-minded people who are looking out for each other. It really does feel like you are a part of something bigger when you are working side-by-side with other people in the industry. Even though we are often representing different companies with different needs, there is a feeling of mutual respect and camaraderie between marine surveyors and within the industry as a whole.

For anyone who has the remotest interest or curiosity regarding marine surveying, or perhaps has seen ships coming and going at a port and wondered for a few minutes what are they actually doing, then go and enquire, get in touch with AIMS, send an email to a local marine surveying company, pop in and say hello.

I can guarantee you will get a warm welcome and it could be the start of an exciting and rewarding career that you never imagined ... and, whenever someone asks you what you do, just tell them to go and watch *Jaws*.

"The maritime world is a testament to human collaboration, where different flags unite under the banner of trade and connection" – Author unknown

Stuart Marra
Assistant General Manager – Marine
AmSpec LLC

Vessel documents – enough paperwork to sink the ship

SHOULD we as marine surveyors check recreational vessel documents during pre-purchase or insurance condition surveys? And, if so, what should we look for?

The general purpose of these surveys is to visually examine a vessel for defects that could affect safety and comment on the general condition as sighted. Without viewing the maintenance log, we can't really state the vessel is well maintained.

From my exposure to insurance claim marine incidents, I see instances where the loss of life has occurred due to inadequate maintenance, incorrect operation, design inadequacies or modifications and lack of safety drills.

There are some noteworthy examples involved in the recent *Bayesian* superyacht sinking, after it experienced a knockdown capsize from a strong down draft and resulting down flooding leading to the sinking within minutes. (See References 1 and 2.)

Six people died as a result of being unable to escape from the vessel lying on its starboard side on the sea floor 50 metres below the surface. While the MAIB (see Reference 3) investigation is underway, and with no determinations published at this stage, it is too early to draw any conclusions.

There is possible inadequacy of design, standards, operational procedures and escape drills. The MAIB investigation will no doubt be of interest to the association members. It is sure to consider stability and down flooding aspects, and we will learn from this tragic incident.

Another noteworthy example to consider is the loss of two lives when *AWESOME*, an adventure go-fast style offshore powerboat, tripped from a loss of steering resulting from a driveshaft failure resulting from inadequate maintenance. Its occupants were violently ejected from the craft, (See Reference 4.)

Links to these incidents are referenced below and very interesting.

In both the above examples, the importance of regular maintenance, familiarity of vessel operational limits and safety operational procedures can be considered.

Vessel documents in the form of the Owners (operators) Manual can be considered critical in providing the information necessary for safe vessel operation and maintenance and reducing insurer risk.

Recreational craft placed on the market in Europe must comply to the RCD and ISO 10240 (2020) - Small Craft - Owners Manual provides a vessel document standard for CE marked vessels.

Preparing and maintaining the Owners Manual is a significant amount of work. I know from personal experience. The payback is easy to find information necessary for safe vessel operation.

It's also worth noting that the manual is not necessary as hardcopy and most content is best in electronic format. Critical safety information is best duplicated in print for when the vessel loses power or the computer crashes.

The superyacht Bayesian*, knocked down and sunk in the Mediterranean Sea.*

ISO 10240 content excerpt as below follows the typical layout of standards generated by the ISO Technical TC 188 Committee. The notes in italics are from the author.

Foreword

1. Scope
2. Normative References
3. Terms and Definitions
4. General Requirements
5. Content of owner's manual
   - 5.1. General
   - 5.2. Introduction to the manual
   - 5.3. General information and craft data
     - *The design category and operational limits with regards wind speed and wave heights*
     - *Vessel mass in various load conditions*
     - *Vessel dimensions and drafts*
     - *Sailing vessel rig and sail dimensions*
     - *Tank capacities*
   - 5.4. Maximum number of persons
   - 5.5. Loading
   - 5.6. Engine information
   - 5.7. Information connected with the risk of flooding and stability
     - 5.7.1. General
     - 5.7.2. Openings in the hull
       - *Locations and operation in various operational modes and conditions.*
     - 5.7.3. Bilge pumps and bailing
       - *Locations and operation instructions*
     - 5.7.4. Stability and buoyancy
     - 5.7.5. Capsize recovery
     - 5.7.6. Habitable multihull susceptible to inversion
     - 5.7.7. Grounding
   - 5.8. Information connected with the risk of fire or explosion
     - 5.8.1. General
     - 5.8.2. Propulsion engines, generator sets, etc
     - 5.8.3. Gas system
       - *AS/NZS 5601.2:2020, Gas installations, Part 2: LP Gas installations in caravans and boats for non-propulsive purposes*
     - 5.8.4. Other fuel-burning systems
     - 5.8.5. Fire prevention and fire-fighting equipment
     - 5.8.6. Means of fire escape
   - 5.9. Electrical systems Risks of fire, explosion or electric shocks
   - 5.10. Handling characteristics
     - 5.10.1. Motor craft
     - 5.10.2. Engine starting
     - 5.10.3. Emergency steering
   - 5.11. Handling characteristics Proper operation - Other recommendations and information
     - 5.11.1. Man-overboard prevention and recovery
     - 5.11.2. Liferaft stowage
     - 5.11.3. Danger from moving parts of machinery
     - 5.11.4. Ventilation when using a combustion device
     - 5.11.5. Securing of loose equipment
     - 5.11.6. Respect for environment
     - 5.11.7. Use of holding tanks
     - 5.11.8. Anchoring, mooring and towing
     - 5.11.9. Trailering (if relevant)
     - 5.11.10. Sailboat spars and rigging

Whilst ISO 10240 provides a useful template at a practical level I would include:

- Vessel Specification – A more detailed description of the vessel listing all major equipment, vessel dimensions etc
- Equipment Inventory – A full updated list of all equipment by manufacturer, model, serial number
- Maintenance Schedule – A full maintenance schedule for all equipment per inventory list including first line pre-operation and in-operation inspections by the vessel operator
- Maintenance log – A complete list of all completed maintenance
- Repair and Modification log
- Safety Management plan

References

https://en.wikipedia.org/wiki/Bayesian_(yacht)

The Yacht Report YouTube Channel: https://www.youtube.com/@YachtReport

MAIB Bayesian https://www.gov.uk/government/publications/marine-accident-investigation-branch-current-investigations/marine-accident-investigation-branch-current-investigations

MAIB Awesome: https://www.gov.uk/maib-reports/loss-of-control-of-powerboat-awesome-with-loss-of-2-lives

BS EN ISO 10240-2020 - Small Craft - Owners Manual – Recreational craft placed on the market in Europe must comply to the RCD and ISO 10240 (2020) - Small Craft - Owners Manual provides a vessel document standard for CE marked vessels.

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