THE REPORT

The Magazine of the International Institute of Marine Surveying

OCTOBER 2015
ISSUE 73

LONDON CONFERENCE FULL REPORT

ARE FUEL HOSES WHAT THEY SEEM?

CONTAINERISED CARGO MOISTURE DAMAGE

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Editor's Letter

I am writing this column just a few days after the IIMS London Conference 2015. And judging by the many positive emails and verbal communications I have had in the intervening days, it was clearly a memorable and worthwhile event for the majority of delegates. The venue itself made an impact on people too; The Old Library at Lloyd's is indeed one of the finest spaces in the city of London in which to meet. And to see the room filled with more than a hundred delegates with barely a chair to spare was stunning. Dinner aboard HMS Belfast was great fun too. You can read a full report on the Conference, Dinner and AGM with plenty of photos to enjoy from page 18.

One of my personal highlights during the event was to be able to present past President, Eur Ing Jeffrey Casciani-Wood with a lifetime achievement award. Jeffrey was truly shocked when he realised what was happening, but the humble and emotional look on his face when he accepted the award from President, Capt Bertrand Apperry, was a joy to behold. Congratulations Jeffrey on being recognised for a career spanning 70 years in the marine surveying and maritime world.

Another highlight worthy of note occurred at the Annual General Meeting that took place immediately after Conference when two Fellowships were announced. Adam Brancher was not able to be present to receive his Fellowship, but Capt Chris Kelly (Chairman of the Professional Assessment Committee) was. Congratulations to both for being recognised for their considerable contribution to the Institute over the years.

There have been changes at head office. After nearly 8 years with IIMS as an integral part of the education team, Anne Liversedge sadly announced her decision to leave her position to return to the National Health Service. Chloe Bruce has left on maternity leave and her baby is due imminently. We welcome Elle Hardham and Elly Bryant to the IIMS team in their place. There is lots more member news to read, including full reports on the IIMS Australia Technical workshop in Adelaide and the amalgamation that took place between the Association of Marine Surveyors British Columbia and IIMS in smog bound Vancouver in July.

Whilst a lot of this issue has been turned over to reporting and covering the recent Conference, there is plenty of other editorial content that is sure to be of interest. I tracked down Capt Andrew Korek, the new IIMS Canada Regional Director and subject of the 'A Day in the Life of' article on pages 56-58. Sadly since writing the article, Drew is recovering from a serious traffic accident. All at head office wish him well for a speedy recovery.

Capt Ruchin Dayal presented a thought provoking paper at Conference on the changes to the IMSBC code. Given the potentially dangerous issues associated with iron ore fines cargoes, Ruchin has produced a well researched and written article on the subject (page 32) to update members who are engaged in surveying this type of hazardous cargo.

Also in this issue of The Report magazine is an interesting technical article entitled 'Fuel hoses for petrol inboard vessels' by Symon Thomas (page 46). And as part of our occasional series on business tips, you may find the article about giving good customer service starting on page 52 of use in your business.

Happy surveying

Mike Schwarz
Chief Executive Officer
International Institute of Marine Surveying

Tel: +44 (0) 23 9238 5223 | Email: info@iims.org.uk | IIMS, Murrills House, 48 East Street, Portchester, Hampshire, PO16 9XS, UK | **www.iims.org.uk**

The President's Column

We are facing a true process of change in the world of marine surveyor training.

Since 2000, new sectors have been opening up in our business; for example maritime security, management of ship's safety under the ISM code, occupational health and safety and even port security.

Although mainly concentrating on classic surveying, we have not missed tthe opportunity to these new sectors. Many of our members are working in these areas and are quite busy like myself.

Recently when our HNC/HND started to peak in interest among prospective students and members, the IIMS Board realised that we can delve into some more areas included in the above sectors.

Some years ago, I was asked by our former CEO to prepare a specialist course on the famous ISPS code and its implementation. I have to say, I was not really very enthusiastic at that time to do so, but soon found out I was working more and more on this subject on ships first and now in ports ! My mistake.

In fact, to prepare a ship's security assessment and plan was so easy. I was persuaded that any officer could do the job without any help of a specialised consultant! And whilst I believe that is definetely the case for ships, it appears rapidly that the port sector is a more complex task and would need our input as maritime security specialists. Port security has become a huge challenge and is no longer exclusively for former military port specialists only. Indeed, it is true to say that today I work more for commercial ports or port facilities security than for ships security.

Preparing a brand new port for ISPS conformity is not complicated. Organizing an effective security management for an existing general cargo port with pleasure marinas, or fishing pontoons and fish selling areas included in the port boundaries is not easy and sometimes requires a thorough analysis to find financially acceptable solutions. This job is valid for the facilities and the port. This is an example of a new sector where surveyors coming from the merchant navy can find business.

On the other hand, after a very slow start, the ISM sector also requires our expertise more and more. The extension of compulsory management systems in small companies, as well as the training of the individuals having responsibilities in the management of safety in shipping companies creates business opportunities for specialists.

Associated systems are also in fashion ; environmental management systems as well as occupational health and safety and finally their integration in an unique system made possible by BS 99.

IIMS could in my opinion start to create a complete set of these specific courses through e learning (at IIMS we know how to do that well) backed up with practical courses too.

This is an option, a proposition to adapt the new ways of training in our industry. IIMS should not miss this opportunity and I feel the subject will be one of the main topics which we will study during the coming years.

Being a pioneer in these matters, I will be very happy to see IIMS doing what I have been preaching for 20 years now!

Capt Bertrand Apperry *President*
International Institute of Marine Surveying
FMIIMS, AFEXMAR President ISM/ISPS specialist

IIMS Organisation & Structure

Directors of IIMS and Management Board Members

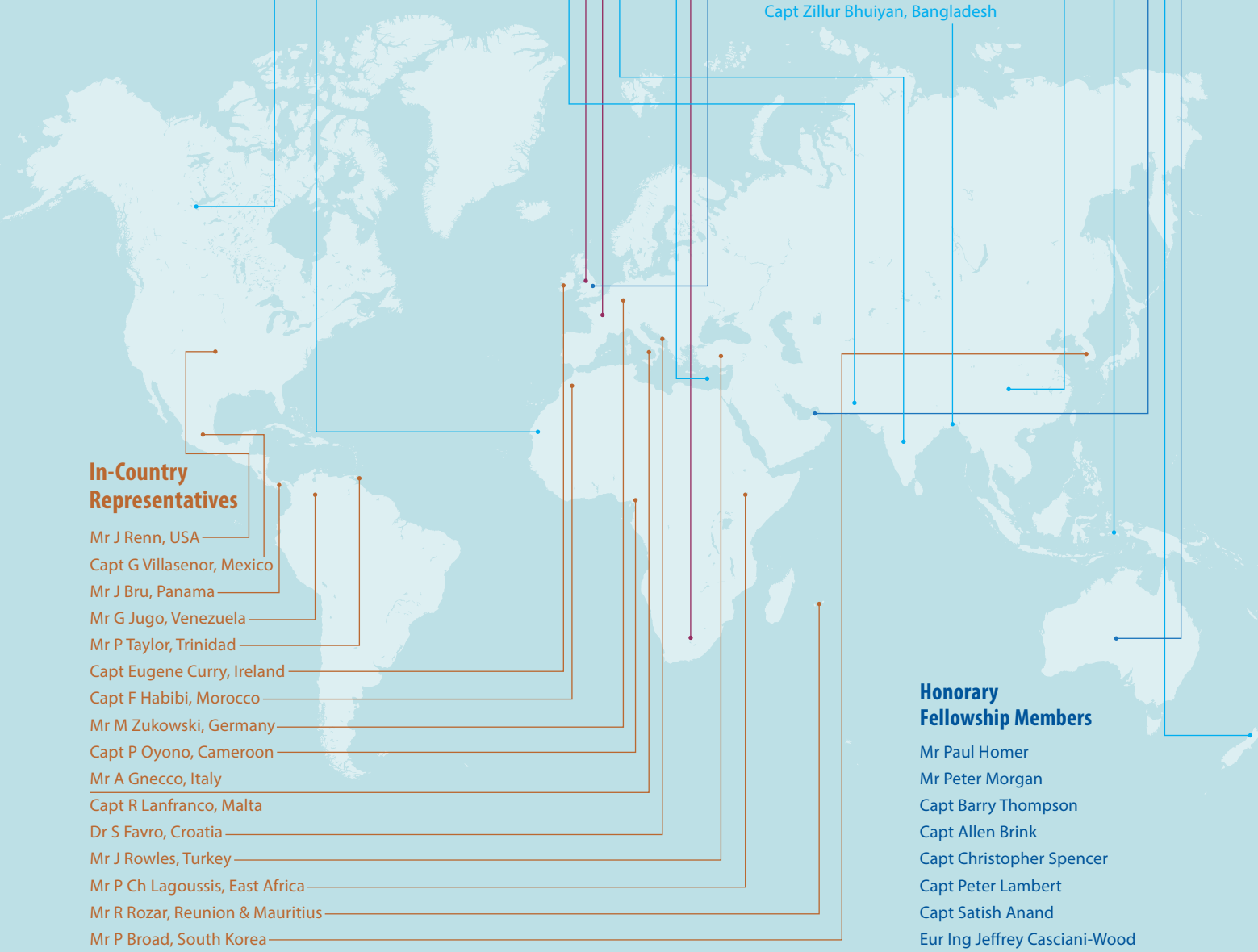
Capt Allen Brink, Regional Director
Capt Bertrand Apperry, President
Capt Chris Kelly, Chairman Professional Assessment Committee
Mr Fraser Noble, Chairman Certifying Authority & Finance
Mr John Heath, Technical Response Team
Mr Geoff Waddington

Other Management Board Members

Capt John Noble, Chairman Administration & Education
Mr Paul Homer , Chairman Standards
Mr John Excell, Chairman of Small Craft Surveying
Mr Adam Brancher, Vice President
Capt Zarir Irani, Deputy Vice President, Regional Director

Regional Directors

Capt Andrew Korek, Canada
Mr Monday Ogadina, West Africa
Mr Milind Tambe, India
Capt K U R Khan, Pakistan
Eng. Dimitris Spanos, Eastern Mediterranean
Capt Barry Thompson, New Zealand
Capt Irawan Alwi, Indonesia
Mr Zennon Cheng, China
Capt Zillur Bhuiyan, Bangladesh



In-Country Representatives

Mr J Renn, USA
Capt G Villasenor, Mexico
Mr J Bru, Panama
Mr G Jugo, Venezuela
Mr P Taylor, Trinidad
Capt Eugene Curry, Ireland
Capt F Habibi, Morocco
Mr M Zukowski, Germany
Capt P Oyono, Cameroon
Mr A Gnecco, Italy
Capt R Lanfranco, Malta
Dr S Favro, Croatia
Mr J Rowles, Turkey
Mr P Ch Lagoussis, East Africa
Mr R Rozar, Reunion & Mauritius
Mr P Broad, South Korea

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Mr Peter Morgan
Capt Barry Thompson
Capt Allen Brink
Capt Christopher Spencer
Capt Peter Lambert
Capt Satish Anand
Eur Ing Jeffrey Casciani-Wood

Honorary Members

Mr Hugo DuPlessis
Capt Syed Khalid Humail
Mr Jorge Sanidos
Dr David Lawrence
Dr Satish Agnihotri
Mr Hans van Bodegraven
Dr Paula Giliker
Capt Ian Wilkins
Capt J.C. Anand
Mr Anthony Beck
Capt Andrew Cross
Mr Parthasarathy Sridharan
Mr Brian Williamson
Capt Jens Andersen
Mr John Guy
Capt David Green
Capt Jean Paul Le Coz
Capt Matthew Greenen
Capt Gopalkrishna Khanna
Mr Ian Nicolson
Mr Peter Clements
Capt Rodger MacDonald
Ms Evie Kinane
Ms Dee Davison
Cdr Terry Lilley
Capt M P Karanjia
Mr Ian Biles

Marine News

The MAIB Annual Report 2014 has been published

MAIB ANNUAL REPORT 2014 PUBLISHED

The Chief Inspector writes in the MAIB Annual Report 2014, just published, as follows: 2014 was another busy year for the MAIB. Thirty-one investigations were started and 33 investigation reports were published. Two Safety Digests and three Safety Bulletins were also published. In comparison to 2013, the average time taken to complete an investigation decreased slightly from 10.9 to 10.2 months.

For the fifth year in succession no UK merchant vessels of >100gt were lost. The overall accident rate for UK merchant vessels >100gt was unchanged from 2013 at 88 per 1000 vessels. There were no crew deaths on UK merchant vessels >100gt, and a review of available records from the last 50 years suggests this has never happened before. The average number of deaths over the last 10 years is 4 per year.

Six small UK vessels (<100gt) were lost in 2014 and five crew lost their lives. Four of these were lost in a single accident when the yacht Cheeki Rafiki suffered a detached keel and capsized in the North Atlantic.

Twelve commercial fishing vessels were lost in 2014 compared with 18 in 2013. This compares favourably with the average losses during the last 10 years (19 vessels per year). 75% of the losses were in the small < 15 metre sector. Eight fishermen lost their lives in 2014 compared with only four lives lost in 2013. The average number of fishermen who lost their lives over the last 10 years is 8.5.

RECOMMENDATIONS

59 recommendations were issued during 2014 to 63 addressees. 88.8% were accepted compared with 96.7% in 2013, although substantive responses are still awaited for some of these. The recipients of three MAIB recommendations, domiciled outside of the UK, have not provided a response.

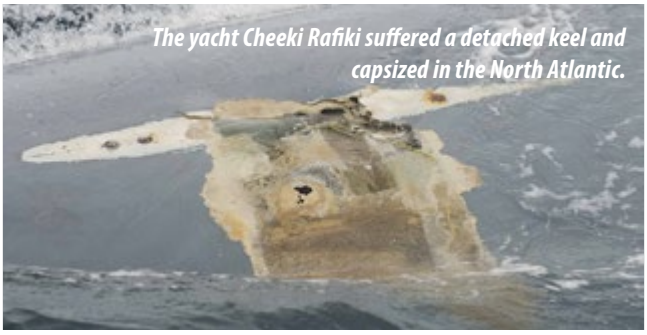
One recommendation was rejected. It was made to the manufacturer of the RIB "Milly" following a fatal accident in the Camel Estuary in Cornwall when six people were ejected from the boat, resulting in the loss of two lives and life-changing injuries to two others. Analysis of the handling characteristics of the boat when making high speed turns during trials conducted by the MAIB suggested the steep angle of heel adopted by the vessel during such turns, could be reduced through design changes to the hull. However, the manufacturer has concluded that the hull design is extremely safe "in all likely and realistic manoeuvres".

Two recommendations were partially accepted. The first, made as a consequence of the grounding of the cargo vessel Danio off the Farne Islands, seeks to address the scourge of seafarer fatigue, which continues to blight vessels trading in the short sea sector, by increasing the numbers of qualified watchkeepers on board such craft. A similar measure was proposed by the UK following the MAIB's 2004 Bridge Watchkeeping Safety Study, but the proposal met with considerable opposition from international partners. It is to the credit of the Maritime and Coastguard Agency (MCA) that it is prepared to take this important issue to the IMO again despite misgivings about the likely success of any new proposal due to continued international opposition. The second recommendation to be partially accepted was issued to the manufacturer of the ECDIS fitted to the tanker Ovit, which ran aground on the Varne Bank in September 2013. One of a number of safety issues identified during the MAIB's investigation relating to the display of safety critical information was the failure of an alarm function when the safety contour was about to be crossed. However, the manufacturer's observation that the failure was due to an installation, rather than a design, problem has been accepted and this recommendation has been closed.

WINDFARM ACCESS VESSELS: ARE CATAMARANS THE RIGHT SOLUTION?

The three day conference running alongside Seawork 2015 provided a range of panel discussions including 'Windfarm access vessels: are Catamarans the right solution?'

The panel discussion, located on board 'Ocean Scene' which was moored alongside the quay, delivered a lively debate that was relevant regarding hull designs for all professional sectors. Panellists looked at the latest cat designs and presented the merits of hull forms ranging from Very Slender Vessels (VSVs)


The yacht Cheeki Rafiki suffered a detached keel and capsized in the North Atlantic.

to Foil Assisted Multihulls. The discussion addressed the pros and cons of multihull versus monohull boats for the purposes of getting personnel out to offshore wind farms, either directly or using the mothership / daughter craft approach.

The discussion was chaired by John Haynes of Shock Mitigation who opened by saying, "There is no doubt that large catamarans in the 18-24m range are currently the vessel of choice for the windfarm support sector. As the industry moves further offshore it is a good time to take a step back and see what other solutions could be used in other parts of the world. In the North Sea areas such as the Dogger Bank, which is over 125km from land, present a very different operational scenario for building and maintaining wind farms."

The panellists representing catamaran boat builders for this session were Andy White from CTruk and Andy Page of Alicat Design & South Boats IOW. To set the scene for debate Andy White provided an incisive overview of how he has seen the market develop, including a graphical summary from 4C Offshore of hull types built to date. The current data shows that catamarans have the lion's share of this market.

Stephen Beadsmore from the Wave Access Project gave the background to a prototype VSV that has been built in Cumbria. At short notice Ulf Tudem of Effect Ships International stepped in to highlight the innovative technology behind Air Supported Vessels and their suitability for offshore personnel transport. Guy Whitaker from Missionkraft showed how the catamaran hull can be adapted with hydrofoils. Higher operating speeds, reduced fuel costs and improved sea keeping qualities were cited as benefits for considering Very Slender Vessels, Air Supported Vessels and Foil Assisted Multihulls.

The session covered a lot of points in a short space of time. John Haynes thanked all of the panellists saying, 'It is important to understand how the UK and North Sea Windfarm access vessels have rapidly evolved in not much over a decade. This was designed to be a fast moving session that cut to the meat of the question regarding catamarans. The objective was to raise challenging questions and consider that the US or other countries around the world may select different designs of Windfarm access vessels to service their wind farms.'

A conference at Seawork 2015 considered if catamarans are the best solution as windfarm access vessels

ThirtyC has revealed its dramatic looking exterior for its 50M yacht 'MAKO'

NEW 50M MAKO SUPERYACHT UNVEILED BY THIRTYC

The 50M yacht 'MAKO' Exterior is being developed by ThirtyC Design, in partnership with Baldwin Harris for the interior and what a beauty she looks too. The collaboration between the studios aims to provide a coherent balance between the dramatic exterior, focusing on large areas of glass and entertaining spaces with the cool contemporary, yet relaxed interior blending seamlessly throughout.

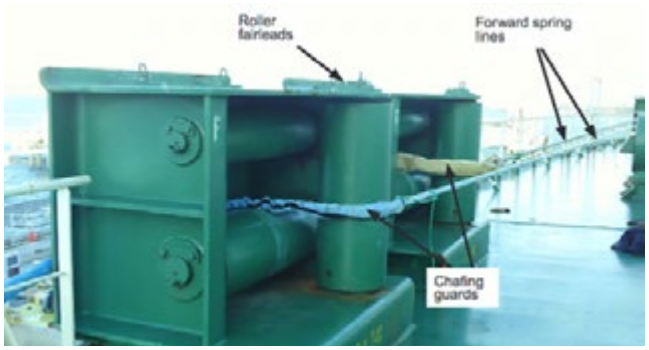
The bold statement area of glass forwards by ThirtyC provides a full height floor to ceiling outlook, flooding the space with light, and bringing the feel of the ocean on board.

The yacht has been developed with alternative layout options in mind; with either a full beam grand master cabin forward on main deck, taking advantage of the huge glazed areas or alternatively this space could be used as the main internal dining room, with the owner's cabin moving up one deck, utilising a full private terrace area aft.

In both configurations, there is comfortable external dining for ten, with bar and concealed pantry and easy access down to the aft swim platform. This in turn affords access to a full beam beach club on the lower deck, which when the transom is fully deployed provides a great lounge area, with bar and changing facilities.

The remainder of the lower deck is configured with four guest cabins, each with double stacked windows, providing superb light and views. Crew accommodation runs forward and up to the main deck above.

The Bridge deck behind the wheelhouse can be configured with either saloon area or owners cabin. The aft deck space leading from here provides the option of further exterior dining, built in sun-pads surrounded by sociable lounge seating groups. There is further access to the sun deck, which in turn can be configured in an open format, with sheltered bar area, and separate day head, or as an enclosed space with gym, day head and changing facilities. In both layouts, the forward area of the sun deck encompasses large sun-pads and Jacuzzi.



Mooring line failure on board LNG tanker, Zarga – MAIB issues urgent safety notice

MAIB RELEASES SAFETY WARNING FOLLOWING MOORING LINE FAILURE

The Marine Accident Investigation Branch (MAIB), has issued a safety bulletin to highlight urgent safety lessons that have arisen in the early stages of its investigation into the mooring line failure on board LNG tanker, Zarga.

Zarga was working alongside South Hook LNG terminal, Milford Haven, when the mooring line failure resulted in serious injury to a deck officer on 2nd March 2015. The mooring line parted during a berthing operation and resulted in the deck officer being struck and obtaining severe head trauma.

Following the accident, the MAIB commissioned a series of tests and trials designed to measure the elongation and snap-back characteristics of the mooring lines used on board Zarga. When sections of the UHMPE rope were loaded to the point of failure the average maximum elongation was about two percent and minimal snap-back was observed.

When the trial was repeated with the Euroflex tail2 attached the elongation was significantly increased.

Similar to the accident, it was the UHMPE section of the line that parted, and the failed end that was attached to the tail snapped back over 15m in less than one second. The other end of the UHMPE rope did not snap back.

MAIB suggested to following safety lessons:

- When connecting synthetic tails to UHMPE, HMPE and wire mooring lines, the energy introduced due to the elasticity of the tails can significantly increase the snap-back hazard.
- Elongation is proportional to the length of tail. Increasing the length of the tail will increase the amount of elongation and hence the amount of energy that can be stored in the line when under load.
- Ship owners/operators should ensure that the type of lines and tails used for mooring lines are suitable for the task and that the dangers of snap-back are fully considered.
- Mooring teams should be aware of the potential for snap-back in all types of mooring line, and the probable areas on the mooring deck that are not safe when lines are under load.
- Mooring lines led around roller pedestals and fairleads can lead to potentially complex snap-back zones. Ship operators and masters should conduct their own risk assessments to ensure potential snap-back zones are identified, and are reviewed at regular intervals.
- Notwithstanding the ongoing investigation into the nature of the failure of Zarga's spring line, where doubt exists on the continued use of a mooring line, the vessel operator should obtain guidance from the rope manufacturer on the conduct of detailed line inspections.

The causes and contributing factors of Zarga's mooring line failure are subject to an ongoing investigation and will be discussed in a full investigation report by the MAIB.

NORTH AMERICA'S FIRST LNG POWERED FERRY ENTERS SERVICE IN QUÉBEC

Société des traversiers du Québec, the Canadian ferry operator, has officially commissioned the NM F.-A. Gauthier. This is the first ferry to run on liquefied natural gas (LNG) in North America and is also the first ship of any kind to run on LNG in Canada.

NM F.-A. Gauthier has replaced the NM Camille-Marcoux on the Matane–Baie-Comeau–Godbout route.

Following an agreement concluded in 2013, Gaz Métro, through its subsidiary Gaz Métro LNG L.P., was chosen as the LNG supplier to fuel three new Société des traversiers du Québec ferries, including the NM F.-A.-Gauthier. The two other ships will be assigned to the Tadoussac–Baie-Sainte-Catherine crossing.

The use of liquefied natural gas makes it possible to reduce greenhouse gas emissions by up to 25%, compared with marine diesel, in addition to almost completely eliminating fine particle emissions and other air pollutants.

"It's extraordinary that this major first is happening here in Québec, and Gaz Métro is very proud to be a part of it," said Martin Imbleau, Vice President, Development and Renewable Energies at Gaz Métro.

"In support of Québec's Maritime Strategy, LNG is a concrete solution for fighting climate change and allows local shipowners to comply with the increasingly stringent standards regarding polluting emissions on North America's waterways."

The first ship of any kind to run on LNG power in North America has entered service

The Gibraltar superyacht industry has received a massive boost with the anouncement of two proposed new marina developments

GIBRALTAR SUPERYACHT INDUSTRY GETS A WELCOME BOOST

The Gibraltar superyacht industry is revelling in the news that there are two proposed new superyacht marinas coming to the area. This news will surely increase the popularity for Gibraltar as a superyacht destination.

The first announcement came as Ocean Village's proposed superyacht marina project and 102 waterside apartments was granted outline planning permission by the Development and Planning Commission. This decision represents a landmark victory for Ocean Village who have been strongly advocating the need for expansion in the marina's current superyacht facilities due to the fast growing number of superyachts calling at Gibraltar.

Sandra Lamplough of Ocean Village welcomed the news, emphasising that this development "will place Gibraltar firmly on the international map for superyachts, as a base rather than simply a place to refuel", and that this, in turn, "will have a positive impact for the local economy, in terms of restocking and repairing yachts, but also in increased visitor numbers from crew and owners who would not normally stay in Gibraltar very long." Lamplough highlights that Gibraltar boasts the lowest bunkering costs in the Mediterranean and a full-service shipyard, staffed by experienced English-speaking technicians and open 24/7 all year round, located within minutes of Marina Bay. This, she insists, coupled with the announcement that import duty on all vessels measuring over 18 metres is to be abolished and further reductions over the last year on import duty on pleasure craft and yachts, not to mention the port's fantastic location at the mouth of the Mediterranean and within walking distance of the Gibraltar International Airport, makes for a significant uplift in the fortunes of the Gibraltar superyacht industry.

Neil Crawford, Director of Ocean Village, echoed Lamplough's views on Gibraltar's advantageous positioning in the superyacht market, explaining that the plans for ten superyacht berths, a new pier office complete with executive crew lounges and sophisticated data networks, as well as an enhanced promenade and luxury apartment complex, will help Gibraltar tap into an extremely profitable industry and bring "outstanding benefits, not just for superyacht owners and captains, but for the community as a whole."

There has, however, been more good news very recently for the Gibraltar superyacht industry with the announcement of the Bluewater Gibraltar development. This development comes in the form of a huge £1.1 billion investment in Gibraltar's economy and will consist of a resort including a marina exclusively for superyachts, a seafront promenade with luxury cafes, restaurants and shopping facilities, and a five star hotel.

Leslie Allen-Vercoe, Chairman of Camoren Holdings Limited, the corporation which will develop the project, announced his delight at the award of the project to his company, expressing his confidence in the prospects for the Gibraltar economy, which is consistently showing strong and resilient growth. He confirmed that Camoren is now finalising the legal details for the award of the project and highlighted the exciting and mutually beneficial prospects for both his company and Gibraltar as a whole, asserting: "This investment will deliver important economic growth and will also offer opportunities for many Gibraltar businesses. This development will no doubt become both a landmark development in Gibraltar and indeed in the whole of the Mediterranean."

ASIA'S FIRST LNG-POWERED TUG LAUNCHED

China National Offshore Oil Corporation (CNOOC) has taken delivery of Asia's first tugboat Hai Yang Shi You 525, designed to operate solely on liquefied natural gas as ship's fuel.

Hai Yang Shi You 525, the first of two tugs built by the Zhenjiang shipyard for CNOOC, features a propulsion package based on twin Rolls-Royce Bergen C26:33L9PG engines and a pair of highly reliable Rolls-Royce US 205 CP azimuth thrusters to ensure the tugs have rapid manoeuvring and strong bollard pull capabilities.

A successful sea trial has proven an extra gain for both ship speed and bollard pull.

Richard Wang, Rolls-Royce, Senior Vice President – Commercial Marine, said: "We are proud to be powering Asia's first gas-powered tug so shortly after delivering Borgøy, the world's first LNG-powered tug, to Norwegian owner Buksèr og Berging.

"This order marks a new era for tugboat propulsion technology in China. As its shipbuilding

CNOOC has taken delivery of Asia's first LNG-powered tug Hai Yang Shi You 525

industry shifts focus from standard designs to more sophisticated tonnage, more owners and operators will see the benefit of using cleaner, more efficient fuelling solutions for their vessels."

John Knudsen, Rolls-Royce, President – Commercial Marine, said: "We congratulate CNOOC and the Zhenjiang shipyard on the completion of Asia's first gas-powered tug. China is one of the world's largest importers of natural gas and already has the LNG infrastructure in place. This is a pioneering project in Asia and its success has been dependent on the excellent cooperation between CNOOC, Shanghai Bestway Engineering, Zhenjiang Shipyard and Rolls-Royce."

The decision to operate on LNG follows the Chinese government's 2011 plan to strengthen its maritime base with the manufacture of high-end, ecologically-efficient ships and technology.

The Bergen C26:33 gas engines reduce CO2 emissions by 25 per cent and NOx emissions by up to 90 per cent. Oxides of sulphur and particulate are also removed, minimising emissions along coasts and inland waterways.

Designed to operate solely on liquefied natural gas as ship's fuel

PALMER JOHNSON YACHTS TO MOVE MANUFACTURING TO THE NETHERLANDS

In an official statement, American superyacht builder, Palmer Johnson Yachts has announced their plans to relocate their manufacturing facilities to the Netherlands, confirming that their American facility will close its doors by the end of October with the loss of 100 jobs.

The relocation of the Palmer Johnson facility comes as part of the yard's strategic plan to increase its production of the new carbon SuperSport series. Declining sales and escalating offshore competition also contributed to the closure of the Sturgeon Bay shipyard.

The company reports that the second hull of the PJ48 carbon series, currently located in Norway, is due to be moved to the Netherlands to be completed. Hull number three will follow in April 2016, with construction of the moulds for the first 42m in the series already underway for delivery in late 2017.

In the statement, Palmer Johnson Yachts said, "There has been strong interest in the SuperSport range, and the company will gain significant competitive advantages by building the next generation of yachts in Europe."

The Sturgeon Bay facility will close upon the completion of hull number three of the PJ170 yacht, which is currently under construction at the yard. With this, it is thought that some of the yard's

Palmer Johnson Yachts has signalled its intention to close its American yard and to transfer manufacturing to the Netherlands

current employees will be included in the move to the Netherlands in order to retain build standards and make the relocation as seamless as possible.

Palmer Johnson Yachts continued, "We are disappointed and saddened by this business closing, and yet realise there is not alternative. We estimate complete closure of the facilities in the fourth quarter of this year, and obviously no bumping rates will be in effect."

NEW ENERGY SAVING WINDSHIELD ON CONTAINERSHIP BEING TESTED

News has been announced by Mitsui O.S.K. Lines Ltd that the company has started demonstration tests on a new energy saving windshield for containerships, which has the potential to reduce wind resistance, save fuel, and reduce CO2 emissions. MOL jointly developed the device with MOL Techno-Trade, Ltd.

The new energy saving windshield was installed on the bow of the MOL operated containership MOL MARVEL. A demonstration test of its effectiveness in reducing CO2 emissions is under way.

With today's larger containerships, the height of the containers loaded on their decks has increased, subjecting the vessels to greater wind resistance. MOL recognised the need to address this issue in a cost effective way. Development of the new device began with an examination of the bow's aerodynamic form through wind tunnel testing. This led to the adoption of a horseshoe shaped design, which encloses the front line of the stacked containers to maximize the wind resistance reducing effect while minimizing the weight of the main unit. The new windshield has enough design strength to meet the ClassNK rules concerning wave impact pressure. In addition, by obliquely setting the containers placed along the sides of the vessel behind the windshield, the sides of the vessel will be more streamlined, further reducing wind resistance.

With those measures, MOL expects an annual average reduction of 2% in CO2 emissions, assuming the device is mounted on a 6,700 TEU containership plying the North Pacific Ocean route at speed of

The new MOL energy saving windshield on the containership "MOL MARVEL"

17 knots. The new energy saving windshield is also expected to protect ships from green water on the bow deck when sailing in bad weather.

To realise the goal of 'solid growth through innovative changes stated in the midterm management plan STEER FOR 2020, the MOL Group has worked to develop next generation vessel concepts to reduce environmental impact through the Senpaku ISHIN project. The MOL Group's ongoing efforts to develop and refine various environmental technologies contribute to environmental protection by reducing CO2 emissions from vessels.

NEW TECHNOLOGY FOR CONTAINER SHIPS BEING DEVELOPED BY LR

LR's lashings specialists have been using state-of-the-art analysis techniques that will enable owners of ultra-large container ships to extend their vessels' cargo-carrying capabilities.

LR is classing the world's largest-ever container ships – led by a recent contract to oversee the building of six ultra-large container ships (ULCS) of more than 20,000 teu.

Four ULCS vessels of 20,150 teu will be built for the Japanese company Mitsui O.S.K. Lines (MOL) at Samsung Heavy Industries' (SHI) shipyard at Geoje Island, South Korea, while two 20,050 teu ships are being built for Shoei Kisen Kaisha on long charter to MOL at Shoei's affiliate company Imabari Shipbuilding at Saijo shipyard, Japan.

These giants of the sea are due to be delivered in 2017 and have been earmarked to operate on the Asia-to-Europe service.

LR's experience, expertise and technical know-how of container ships, container ship delivery and the current market has enabled them to produce a series of proposals and guidelines on the safest, most cost-effective methods of stowing and lashing container cargos.

LR's technical teams have investigated the rising heights and weights of the container stacks that today's ULCSs can carry and produced new guidelines to help designers, owners and masters handle these ever-growing cargos.

One of their key findings is based on vessel speed. Their research demonstrates that the speed at which a ship is sailing has a significant and predictable effect on the rolling motions; this is a crucial factor in cargo-carrying. So instead of designing container stows as if a ship is sailing at full speed in the harshest seas of the Atlantic or Pacific oceans they have produced a methodology based on a combination of ship speed and stability and the height and direction of the prevailing waves.

Another crucial factor is the development of lashing twistlocks. Operators who use the latest fully automatic twistlocks (FATs) will have the advantage of securing their cargos safely and effectively with minimum intervention from the stevedores. Combined with the introduction of high lashing bridges, they will be able to safely carry stacks of 10 or more tiers of containers on deck.

NEW PYC COMPLIANT GLASS FOR SUPER-YACHTS DEVELOPED BY GLASS DECO

In response to increasingly demanding fire safety and fuel economy rules present within the superyacht industry, Glass Deco has announced a new compliant, weight-saving glass development. The new, patented lamination method meets the new fire requirements as laid down in the Passenger Yacht Code (PYC) and IMO regulation.

In addition, the European glass manufacturer has also announced the development of various techniques to save weight with the use of ultrathin glass; an advanced technique that the business states will be welcomed within the superyacht industry to compensate for the increasing popularity and weight of intricate glass design on board.

With this, Glass Deco has invented lightweight and unbreakable glass that is suitable for the superyacht industry through thermal tempering of two and three millimetre thick glass – a technique that was previously only possible on glass with a thickness of four millimetres and over. According to Glass Deco, this allows for direct weight savings of 50% without compromising on strength or appearance.

Frans van Hapert, CEO of Glass Deco Corporation B.V. explained, "Glass Deco has always excelled in realising various projects involving glass. Experience and skills built up over decades are today used to produce high-end glass objects and sculptures which often form the centrepiece of a larger project."

Glass Deco has developed new PYC compliant glass for superyachts

Members' News

OBITUARY CAPT PAUL TOWNSEND FIIMS

News has reached the IIMS head office of the sad death of Capt Paul Townsend, who passed away after a long illness fought with courage and fortitude. He died on 28 August 2015 at a hospice on the Isle of Wight, UK. He was 76 years old.

Paul was a Fellow of the Institute and an active member of the IIMS Management Board. Until recent months, he was a regular contributor to that forum. He also regularly attended Certifying Authority training days. He joined IIMS in 2002 and was made a Fellow in 2010.

Paul joined the Merchant Navy as a Cadet with Clan Line, studying at Warsash Maritime College, Hampshire, UK and obtained his Master's Certificate in 1969.

In 1971, he came ashore to join the Southampton Harbour Board, which later became part of Associated British Ports, as Marine Officer. In the early 1980's, Paul moved to Kuwait as a Lloyd's Surveyor and became an advisor to the Kuwaiti Royal Family, assisting in the successful acquisition of a Royal Yacht.

Paul then returned to the UK, revalidated his Master's Ticket and joined Stena Line as Master for their High Speed Passenger Catamarans. Paul developed a keen interest in the new technology which led him into High Speed Routes

Capt Paul Townsend FIIMS who has sadly passed away

worldwide, including Italy to Sicily, Airport to Hawaii City and Vancouver to Victoria Island. Research into a proposed new route took Paul to Gibraltar, where he and his family decided to settle.

Paul subsequently joined the Gibraltar Port Department as Port Surveyor, deputising as Captain of the Port as and when required. Having qualified as an ISM Lead Auditor, he introduced Port State Control into Gibraltar. He was a qualified ISPS Compliant and was particularly conversant with ILO Maritime Labour Convention (2006). He was asked to attend IMO in his capacity as a Fellow of the International Institute of Marine Surveying.

Paul's cheery, friendly, positive demeanour and wealth of maritime knowledge made him popular with all those who met him. He will be missed by all who knew him.

On a warm and sunny, early autumn day, the funeral of Capt Paul Townsend took place on 23 September 2015 at the Holy Trinity Church at Cowes on the Isle of Wight in the UK, followed by private cremation. The Institute was represented in person by Capt John Noble, John Excell and Mike Schwarz. The IIMS made a donation to the Royal National Life Boat Institute, a charity and cause that had been dear to Paul's heart given his involvement in establishing the Cowes Lifeboat Station some years ago.

In the region of 150 people came to pay their respects to a man who was clearly much loved and very popular in the local area too, as well as to celebrate a life well lived.

The beautiful service featured tributes by three of his grandchildren, Luke, Oscar and Lucy – all of whom spoke eloquently with their fond memories of their Grandpa. The Reverend Andrew Poppe gave the Homily. Paul's friend of 50 years, Anthony Ireland, gave his personal reflections on their lifelong friendship; and Mark Southwell from the Lifeboat Station read the RNLI prayer.

Rest in peace
Paul Townsend.

IIMS AND THE NAUTICAL INSTITUTE JOIN FORCES AT SEAWORK

The Nautical Institute and the International Institute of Marine Surveying jointly presented 'The surveyor and the surveyed – on board interaction' on MV Ocean Scene on 17th June 2015 at Seawork 2015, Southampton

A senior commercial shipping surveyor; a senior recently retired shipmaster and a senior small craft surveyor tackled the topic 'The surveyor and the surveyed – on board interaction'. Each speaker was invited to address the attendees for about 10 to 15 minutes then the floor was opened up for open discussion.

Captain Ian Odd
Captain Odd was shipmaster for some 30 years, having spent his entire working life at sea. His experiences in dealing with surveyors ranged from their being basically incompetent to first class. To give an example, while on a 40,000 ton tanker, the first question he was asked by the regulatory surveyor was "Captain, is this ship a tanker?" One recent trend that has developed as the result of the survey regimes intensifying is the much improved standards on board ships. However

Seawork International 2015

there is a trend that where surveyors feel they must find and report on even very minor non-operational defects just for the sake of justifying their existence. On the other side of the coin, many ship crew are very good at "hoodwinking" attending surveyors and a good surveyor will be able to deal with such behaviour.

Captain Odd reflected the sometimes misguided approach taken by surveyors when requesting, or demanding, his and the crew's time when wishing to perform a survey. After a difficult sea passage when everyone on board was fatigued very often the demands of surveyors were unreasonable; never more so when several surveyors wanted to receive instant access to the Master at the same time. As Master Captain Odd suggested there is a pecking order for survey priorities and this reflects the level of statutory authority they hold!

As a final point, there was room for more mutual respect between attending surveyors and the Master and crew. Don't crack jokes; what is funny in one culture may be highly offensive in another. Finally, on board there must be reciprocated respect for the different cultures of the crew and surveyors.

Alan Bloor
Alan is a very experienced marine engineer and surveyor. In presenting the surveyor's view point Alan drew on his 30 year surveying experience to recount how he came to early judgements when conducting ship condition surveys. The first pointer was access. Was the gangway properly rigged and safe? What was the demeanour of the crew when they met or accompanied the surveyor? Any shipboard inspection will be a combination of the required paperwork (Condition survey forms), the actual condition of the ship and the surveyor's subjective judgement.

Many surveyors, in Alan's experience, took a confrontational approach when dealing with issues on board. This is counterproductive in Alan's opinion; much better to try and be helpful as there is a better chance of getting the information or evidence sought. If a survey is required as the result of a casualty many crew members will be traumatised and it is important that any attending surveyor must take this into consideration when dealing with issues on board.

Geoff Waddington
Geoff is one of the most experienced and respected "small craft" surveyors in the Southampton vicinity. The presentation addressed two major points. The first was the willingness of owners to interpret the regulations incorrectly to suit their own agenda. Giving an example of a pre-purchase survey where a seemingly uncooperative approach by brokers to finding the paperwork for a vessel resulted in weeks of uncertainty and delay in completing the survey.

Another feature when dealing with small craft seemed to be the willingness of some owners or operators to get round the applicable regulations. Geoff pointed out that compliance was often the subject of loose interpretation of the rules rather than putting safety first. The small craft surveyor was often put under pressure to compromise.

IIMS SOCIAL MEDIA PLATFORMS CONTINUE TO GROW

The IIMS social media platforms have continued to grow this year and are becoming increasingly popular.

The Twitter feed @ IIMSmarine now has around 600 followers and has grown exponentially in 2015. Tweets are broadcast most days and cover a mix of topics from the serious and technical to the more frivilous. New followers are joining daily.

The IIMS LinkedIn discussion group now boasts more than 250 followers. It is good to see a variety of people starting threads and even more so to see people replying and engaging in dialogue.

The IIMS YouTube channel is also proving to be a valuable and well used resource. Videos can also be accessed directly via the IIMS web site and these ra eproving to be amongst some of the most viewed pages on the site.

THE PROCEDURES FOR TONNAGE SURVEYS

There has been a steady increase in interest from IIMS members wishing to undertake tonnage surveys. If this is an area of business you with to operate in, please read this to understand who may and who may not undertake such work.

The IIMS' authority to undertake tonnage surveys is through the Certifying Authority contract with the Maritime and Coastguard Agency (MCA). The Institute is required by the MCA to authorise and control tonnage. To do this we have created a category of 'tonnage only' Certifying Authority surveyor, not authorised to do MCA coding work but ok'd for tonnage.

These tonnage surveyors do not pay a Certifying Authority annual fee but pay the normal fee per tonnage survey they do. A tonnage surveyor needs to be a full member as before but also needs to submit sufficient information to show the Certifying Authority Committee that they understand tonnage measurement and rules before being authorised.

If in doubt please contact IIMS head office on **info@iims.org.uk**

4th Biennial IIMS UAE Branch Conference 2015

Dubai Conference 2015

UAE Branch

Tuesday 24 & Wednesday 25 November 2015

IIMS - UAE BRANCH PRESENTS

"MARINE LOSS PREVENTION & WARRANTY"

IN ASSOCIATION WITH DGS MARINE GROUP AS TITLE & PLATINUM SPONSORS




www.iimsmideast.com | secretary@iimsmideast.com

Venue: **The Jumeirah Beach Hotel** along the Arabian Gulf shoreline

The Mission to Seafarers was the venue for the amalgamation meeting of AMSBC with IIMS

AMSBC SUCCESSFULLY AMALGAMATES WITH IIMS

A ceremony and meeting was held at the splendid Mission to Seafarers building in the heart of Port of Vancouver on 8 July to formally amalgamate the Association of Marine Surveyors British Columbia (AMSBC) with the UK headquartered International Institute of Marine Surveying (IIMS). As a consequence, a new regional branch of IIMS was created, IIMS Canada.

The event was comprised delegates who were existing IIMS members, AMSBC members and others from the maritime sector in the British Columbia area and further afield.

Richard Smith, President of AMSBC, welcomed guests and spoke about how the association had grown and developed since its inception in 1969. He then stressed that in the best interests of the members of AMSBC, it was time to merge in with an internationally recognised and better resourced organisation that would help members grow and develop further. After a couple of years of soul searching and negotiations, it had been decided that IIMS was the best and most suitable fit.

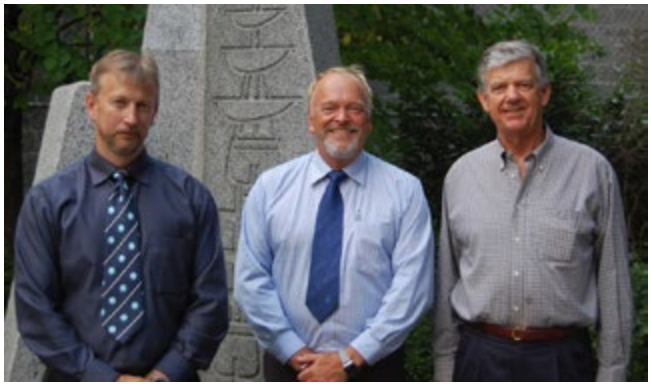
Richard invited Capt. Ieuan Lampshire-Jones, the guest of honour at the function and one of the original founding members of AMSBC, (now in his nineties), to step forward and take a round of applause.

Capt. Andrew Korek, past President of AMSBC and the new Regional Director of IIMS Canada

Richard introduced Capt. Andrew Korek, past President of AMSBC and the new Regional Director of IIMS Canada, to say a few words. Andrew thanked the guests for coming, endorsed RIchards's words and then welcomed and introduced Mike Schwarz, the IIMS CEO, to address the audience.

In his comprehensive presentation about the amalgamation process itself, Mike also took the opportunity to showcase the many and varied activities that IIMS and its subsidiary, the Marine Surveying Academy, are engaged with both in the UK and worldwide. He stressed the importance of educating marine surveyors and bringing the next generation of professionals through. In his 'sales pitch' to existing AMSBC members Mike also talked about the benefits of membership of the Institute.

Over the coming weeks, existing AMSBC members will be invited to formally make their application to transfer into IIMS. It is anticipated that the around 40 AMSBC members will want to become members of IIMS.



From left to right: Capt Andrew Korek, Richard Smith and Tim Ellis who will form the heart of the new IIMS Canada committee

At the end of the event, Capt. Lampshire-Jones and Mike Schwarz joined together to cut the specially prepared cake featuring the IIMS Canada logo on it to formally mark the occasion.

Capt. Lampshire-Jones and Mike Schwarz cut the specially prepared cake

Australian Fisheries & Maritime Academy at Port Adelaide

Delegates onboard one of the Academy's vessels

IIMS AUSTRALIA TECHNICAL WORKSHOP VOTED A GREAT SUCCESS

Nearly 60 delegates came together for the first IIMS Australia technical workshop in a while, which was held on 17/18 June at the Australian Fisheries & Maritime Academy at Port Adelaide.

Adam Brancher, who has been acting as Regional Director, welcomed delegates to the event, which proved to be popular as the two day programme rolled out.

Adam Brancher, Acting Regional Director, Australia Branch (left)

First to speak on day one was IIMS CEO, Mike Schwarz. In his presentation, Mike talked about the many activities that the Institute is currently involved with and invited delegates to get involved. Russ Fraser then provided a comprehensive overview of the latest NDT equipment on the market available to surveyors. Next up was Bob Miller, CEO of the Australian Fisheries & Maritime Academy, who spoke eloquently about seafarer training in Australia.

After lunch, Alison from AMSA tackled the subject of becoming an AMSA accredited domestic commercial vessel surveyor and explained what's involved. Next to speak was Kevin Jones, who talked passionately about the challenges of keeping volunteer run heritage vessels in survey and operation. Day one concluded with an hour's panel discussion about running a survey business in Australia in 2015. Thanks to all panel members for their insightful comments and contribution.

A pleasant evening ensued as delegates took to the British Hotel in Port Adelaide for some cordials and nourishment!

Day two dawned, fortunately to a pleasant day given that delegates were headed out onboard one of the Academy's vessels. Capt Peter Lambert opened proceedings talking in the classroom about the theory of compass adjusting. Delegates then moved onboard to get some practical tips and advice from Peter. Delegates were then brought back to earth with a bump as Professor Gary Wittert delivered a splendid and insightful presentation into men's health issues! After a healthy morning break, Wes Ozwin from AMSA talked about the surveyor's role in safety management systems. This was followed by Michelle Greech, who dealt with the thorny subject of risk, fatigue and bridge management.

The programme was videoed and all presentations will soon be available to watch on the IIMS YouTube channel, or via the web site soon. More details will be made available once the content is ready to view.

All in all a great event and thanks are due to the organising team for their effort and to the speakers who contributed hugely to its success.

Left: Delegates - Day One; Below: Day Two

Report on the IIMS London Conference 2015

The Old Library at Lloyd's of London - full to capacity on the opening morning

The IIMS London Conference 2015 was one of, if not the best attended events ever organised by the Institute. It was pleasing to see the most fitting of venues in which to meet for a group of marine surveyors - The Old Library at Lloyd's of London - full to capacity on the opening morning of what proved to be a day and a half of captivating, informative and in some cases, downright thought provoking presentations.

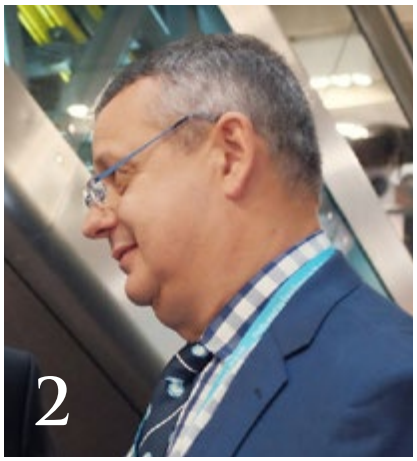
Around 120 IIMS members, combined with others from the maritime industry, from all over the world had booked to attend the event. The Conference organisers have been delighted by the wealth of positive feedback they have received since the event via various social media platforms and direct to the head office.

1. Lloyd's of London

2. Mike Schwarz

3. Chris Baldwin: Why accreditation and standards matter

4. Ken Hickling: This Boat needs Painting! How the survey can help outline the alternatives



Day One

Session One

The first day was opened by IIMS Chief Executive Officer, Mike Schwarz, who spoke about the changing face of the Institute and some of the current initiatives being rolled out by the organisation. Next to speak was Chris Baldwin from IMCA. He promoted the need for accreditation and standards with particular reference to the CMID vessel inspector programme. Ken Hickling kept the attention of the audience as he gave a passionate presentation about coatings and the challenges of surveying the paint job!

Session Two

Bill McNamee, representing lead sponsors DGS Marine Group, called upon his 50 years of surveying experience to deliver a talk on surveying for P&I Clubs, but from a crew perspective. Uday Moorthi followed him to the podium and spoke in depth about the role of the surveyor in new build projects. To close the session, Kevin Clarke covered the topic of the Lloyd's Open Form before introducing Capt Nick Sloane to speak about the role of a Special Casualty Representative.

5. *Bill McNamee: Surveying for P&I Clubs - from a crew perspective*
6. *Uday Moorthi: The marine surveyor's role in new build supervision*
7. *Kevin Clarke: Lloyd's Open Form and the role of a Special Casualty Representative*

Session Three

Karen Brain and Amanda Ridd of Matrix Insurance drew the short straw to deliver the after luncheon slot. They gave a concise and informative presentation about the benefits of meditation. Ian Millen took to the speaker podium and spoke eloquently about the importance of maritime security, something of a necessity in today's modern world. Capt Zarir Irani brought session 3 to a close in his usual inimitable style, as he talked about building and developing a surveying company in today's complex and competitive business world.

8, 9. Karen Brain & Amanda Ridd: Mediation and the marine surveyor

10. Ian Millen: The importance of maritime security and intelligence

11. Capt Zarir Irani: Marine surveying today from a businessman's perspective

Session Four

This session proved to be very absorbing with two thoroughly interesting presentations back to back. Capt Nick Sloane gave a most fascinating insight into the complexities of the parbuckling project of the Costa Concordia. And it fell to Capt Ruchin Dayal to bring the first day to a conclusion. He did so talking about the changes to the IMSBC code and what surveyors should be aware of relating to the challenges of cargo of iron ore fines.

12. *Capt Nick Sloane: Costa Concordia 'The Parbuckling Project'*
13. *Capt Ruchin Dayal: Iron ore fines - new challenges in using the Code*
14. *Eur Ing Jeffrey Casciani-Wood*
15. *Bertrand Apperry, IIMS President*

The HMS Belfast berthed in the River Thames

DINNER ONBOARD HMS BELFAST

The Conference dinner aboard HMS Belfast on the Monday evening, sponsored by Britannia Maritime Security, proved to be a great success. The intimate surroundings of the old ship, berthed in the River Thames, created a pleasant ambience and atmosphere in which to dine and network with colleagues.

HMS Belfast itself was opened specially before dinner and a number of guests took the opportunity to give themselves a self guided tour around the ship, enjoying the many artefacts that are to be seen. The weather was kind that evening and just after 19.00hrs, guests started to assemble and mingle on the aft deck for a drinks reception prior to dinner as Tower Bridge glistened behind in the setting sun.

Immediately prior to dinner being served, Eur Ing Jeffrey Casciani-Wood gave the remembrance address, a poem entitled 'The Lifeboat'. Mike Schwarz invited guests to remember Capt Paul Townsend FIIMS, who had sadly passed away in recent weeks and also Andrew Ashman, who had tragically lost his life during the Clipper round the world yacht race. Peter Morgan said Grace and IIMS President, Bertrand Apperry, made the loyal toast to The Queen.

The first of three after dinner speeches was given by Mike Schwarz (A). As he addressed guests, he paid tribute to a number of Directors, Officers and head office staff of the Institute, all of whom have given sterling service to the organisation. He announced several presentations, the first of which was to Anne Liversedge (B) who has decided to leave IIMS after nearly 8 years in the education department. Geoff Waddington (C) was given a small gift to recognise his work as Education Committee Chairman, a role he held for three years before standing down earlier this year. Past President, Peter Morgan (D), was presented with an engraved weather system as a memento and to acknowledge all he has done for the Institute following his decision to formally retire and stand down. Mike then moved on to announce two Blue Water Awards. These are presented to people outside the IIMS who have made a significant impact on the organisation.
The first of the recipients was Chris Baldwin (E) from IMCA, who has given immense help and support as the new CMID vessel inspector accreditation scheme has been rolled out. The second Blue Water Award was presented to Ken Hickling (F) of Akzo Nobel to recognise the substantial help and support he has provided to support the new Registered Marine Coatings Inspectors Course.


B


C


D


E


F


G

The final presentation of the evening was a Lifetime Achievement Award, which was given to Eur Ing Jeffrey Casciani-Wood (G) to celebrate 70 years in the surveying and maritime world. Jeffrey has had a varied, successful and colourful career and although no longer a practicing marine surveyor, he continues to keep his hand in. He is a Chartered Engineer with the additional title of European Engineer. Also, he is a Fellow of RINA, Hon. Fellow of IIMS and a past President and a Fellow of SCMS. Furthermore, Jeffrey is a Fellow of the Institute of Diagnostic Engineers and its current President. He is also on the IMO list of Marine Consultants (through IIMS) and holds an ONC, HNC and endorsements in naval architecture, plus the IIMS Diploma in Marine Surveying.

Jeffrey Casciani-Wood began his career in January 1945 when he worked at the London Graving Dock Ltd on a pre-apprenticeship training course. To date he has worked in over fifty countries and from 1973 to 2005 practiced as a freelance marine surveyor mainly on small craft until retiring. Jeffrey continues to act as mentor to a number of junior surveyors. The dinner guests rose as one to salute and applaud Jeffrey as he came forward to accept the Award in what was a truly emotional moment.

H

I

Thanks are due to the guest speakers - Capt Andy Winbow (H), Assistant Secretary-General of IMO and also the Director of the Maritime Safety Division, who spoke about the work of the IMO. It was left to 'funny man' Peter Hancock (I) to bring the evening to a close and he did so in spectacular fashion keeping the guests in fits of laughter.

During the evening, guests contributed to The President's chosen charity, Les Sauvateurs en Mer. A total of £600 was raised and IIMS would like to thank all those who generously donated.

Day Two

Session Five

The second day was opened by Bruno Bouckaert from Hull Vane. He spoke about the new technology and the savings the Hull Vane system can make. The very recognisable figure of Milind Tambe took to the podium and he presented on the integrity of digital images. Capt John Noble followed and gave an insightful case study on the Hoegh Osaka incident that took place off the UK south coast earlier this year. Barbara Spiller then turned the focus sharply on to business and discussed knowing when and how to engage a business coach or mentor. Dr Risto Talas concluded the conference with a thought provoking presentation on the use of drones in surveying and moving to a paperless system.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16. Bruno Bouckaert: Hull Vane; a new energy saving device for fast displacement vessels
17. Milind Tambe: The integrity of digital images – what marine surveyors ought to know
18. Capt John Noble: The Hoegh Osaka Incident
19. Barbara Spiller: Why and how to engage a business coach or mentor
20. Dr Risto Talas: The application of technology in marine surveying and auditing


16


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The organisers of the IIMS Conference wish to thank the following for their help and support.

- **The Conference sponsors (lead sponsors: DGS Marine Group; Platinum sponsors: Constellation Marine Services and Dinner sponsors: Britannia Maritime Security for their generous support.**
- **The speakers who presented eloquently and passionately, enthusing the audience with their specialist knowledge.**
- **The team at Lloyd's of London for their help and support both before and during the event.**
- **The IIMS head office team for their immense support and dedication in ensuring the event came together successfully.**
- **And finally all the delegates who attended Conference and helped to make it such a success.**

The IIMS 2015 AGM

Members converged on Watermen's Hall in the city of London for the 2015 Annual General Meeting at 14.00hrs on 8 September.
In his opening remarks, IIMS President, Capt Bertrand Apperry welcomed members to the AGM. He said how pleasing it was to report that the Institute had overcome its challenging trading conditions and recorded his thanks on behalf of the members to the head office team for their diligence.

Bertrand made reference to the forthcoming important changes that will be made to the education programme – more on this to follow soon. He mentioned the growing importance of the Marine Surveying Academy activity. Finally, Bertrand said how much he was enjoying his time as President of the Institute and is very much looking forward to his second year in office.

Bertrand handed over to Mike Schwarz, who gave a shortened verbal presentation from his full written Chief Executive Officer's report, which had been published on the IIMS web site a month before the meeting.

Those attending the AGM were:

Jeffrey Casciani-Wood
Paul Homer
Bertrand Apperry
John Excell
Fraser Noble
Milind Tambe
Mehmet Ali Albayrak
Sergey Batmanov
Alan Broomfield
Graham Burt
Emeraku Ijioma
Pervez Kaikobad
Chris Kelly
Mariusz Lapinski
Paul Lockhart
Harry Martinez
Sujith Mathew
Gennadiy Mazanko
Uday Moorthi
Monday Ogadina
Tammy Potter
Paul Fahy
Joseph Salema
Alexander Shchurov
Ursula Smith
Fred Utley
Robertas Vjuzaninas
Simon Yardley
John Heath
Nigel Hartley

Also in attendance:

Mike Schwarz, Chief Executive Officer
Jan Cox recorded the AGM minutes
From head office: Anne Liversedge, Vicky Lawrence, Elle Hardham, Hilary Excell, Tania Bernice, Sam Legg, Craig Williams and Elly Bryant.

A vote was taken on the proposal to offer a 50% membership reduction to retired and members. The votes cast (including proxy votes carried by the President) were 49 in favour; 1 against; 0 abstentions and 1 spoiled proxy voting paper). The motion was carried.

At their September meeting, the management board had agreed a membership increase of c.5% (slight variations from one grade to another) to be brought forward for approval at the AGM. The votes cast were 42 in favour (including proxy votes carried by the President); 3 against and 1 abstention. The motion was carried.

Two new Fellowships announced
At the IIMS AGM on Tuesday 8 September at Watermen's Hall in London, two IIMS Fellowships were announced. Congratulations are due to Adam Brancher, Vice President, and Capt Chris Kelly, Chairman of the Professional Assessment Committee. Due to other commitments, Adam was not available to attend in person. Chris Kelly was presented with his Fellowship Award by President, Capt Bertrand Apperry.

An open letter from Jeffrey Casciani-Wood

To the President, CEO, Members of the Board and General IIMS Membership

Ladies and Gentlemen

I would like to take this opportunity of saying a heartfelt "Thank You" for the gift of the Lifetime Achievement Award which I received at the Institute's dinner aboard HMS Belfast last Monday evening. I was taken completely by surprise and the award was unexpected. I am very proud of my membership of the Institute and of the part that I have been able to play with so many others in its development. I have to admit that I felt like crying as I walked (hobbled with a stick) up to receive the award from Captain Apperry at the standing ovation that was afforded to me. The crystal now has pride of place on the mantlepiece in my living room and has become a family talking point.

Once again, thank you all for your support and highly valued friendship over the years.

Jeffrey Casciani-Wood aka MOG

BEHIND THE SCENES AT DGS Marine Group

Those IIMS members who attended the recent London Conference 2015 at Lloyd's of London will be aware of the name DGS Marine Group as they were the lead sponsors of the event.

The Report magazine wanted to understand more about how their business operates and the service they provide to the maritime world.

Since the 2008 financial crisis, Ship owners and Operators have identified the necessity of finding more cost efficient services to lower operating costs. One area in particular has been Insurance. With Insurance premiums being one of the largest costs a Ship Owner has to bear, Owners and Operators have looked towards alternative covers within the Fixed Premium market. Fixed Premium Insurance gives Owners and Operators "budgeting security" whereby there is no exposure to unforeseen and additional costs. Consequently, due to the heightened interest in Fixed Premium Facilities, the market has become heavily laden with Facilities offering similar products to only a select number of vessels.

However, DGS Marine Group (DGS Marine) have been able to emerge as a leading player within the marine insurance industry, providing seamless, full or tailor-made covers to all types of vessels coupled with an unrivalled level of service 24/7. DGS Marine is amongst the very few Fixed Premium Insurance providers who can match the required oil pollution limits of up to 1 billion USD and thus can cater to all sizes of vessels.

Since its inception, DGS Marine has gradually increased the size of their covered fleet to an impressive 2000 vessels and even with the recent oil crisis the percentage of tankers on cover increased by 5% over the past year, reiterating DGS Marine's strength in the Fixed Premium P&I market.

One of DGS Marine's business units is DGS Marine Management Services, who are exclusive agents to the managers of the British European & Overseas P&I / FD&D Facility (BE&O) and run the daily operations of the BE&O, its administration, advises their Assured on risk management/loss prevention matters and claims handling.

In order to maintain and manage their ever-growing fleet, DGS Marine rely heavily on their considerably experienced pool of employees who are able to understand and sympathise with Ship-owners on the commercial pressures they undergo in the unrelenting economic climate. With this in mind, DGS Marine's Risk Management / Loss Prevention team conducts an initial desk top risk assessment of the covered fleet / vessels. During this assessment, if the documentation and photographs provided indicate a well maintained fleet / vessel and is of a satisfactory standard in accordance to the Facility's entry requirements, the survey itself is normally waived. Therefore, saving the Assured on Surveyor fees that they would have incurred if the Surveys had been carried out.

Their Risk Management / Loss Prevention team consists of experienced Master Mariners and Naval Architects, who have hands-on experience on various types of vessels, all of which are covered. They endeavour to "think one step ahead". Each vessel is considered on a case by case basis with using the relevant loss mitigation provisions

allowing BE&O P&I Facility to instantly mitigate any risk that may arise; hence avoiding any potential losses for their Assured.

As part of their Loss Prevention process, if a vessel is surveyed DGS Marine has developed a further analysing tool for all vessels whether under full P&I risk or a tailor-made covers regarding the vessels condition. A scoring system which is in the form of a risk profile is implemented covering a total of 21 areas ranging from the condition of the hull, machinery and equipment on board to other items such as class and flag performance. Once completed, it allows DGS Marine to identify the high, medium and low risks for that particular vessel. Additionally, DGS Marine are also able to use the data collected to identify trends and make comparative analysis for their overall fleet.

With the above in place, DGS Marine are able to assist their Assured with practical and effective advice from the outset, communicating to their Assured ways they can upgrade their vessels offering realistic targets and indications from an insurance perspective. The recent successful handling of a large fleet of inter-island Ro-Ro ferries in the Far East is testament to that as they educated their Assured on several occasions, highlighting the high risk nature of the trade and the maintenance of these types of vessels.

DGS Marine not only provides a depth analysis of vessels surveyed by third party surveyors in relation to their covered fleet but also provide their own Surveying Service. Their service includes but is not limited to; pre-entry/ condition surveys, accident investigation surveys and pre-purchase condition surveys.

Their Surveying team, led by their Chief Surveyor & Consultant, a highly experienced and qualified Naval Architect, aims to not only bring out the real picture, but also provide guidance on operational and maintenance issues to the Assured when attending the vessel. It is a well-known fact that changes to on-board procedures whether it big or small, can prevent major losses. DGS Marine's field Surveyors are the Group's eyes and ears and strongly believe a true picture of a vessel can only be presented if the survey itself is carried out by competent and experienced surveyors on that particular type of vessel. By combining experienced surveyors and utilising the expertise carried by the Surveying and the Risk Management / Loss Prevention teams, DGS Marine is able to cover the entire spectrum of loss prevention issues to prevent potential claims.

In the event of an unfortunate incident which leads to a claim, be it within the BE&O or from a third party, DGS Marine Management & DGS Marine Claims Services consist of highly trained individuals who are able to offer a high level of service 24/7. They are able to provide advice and guidance on a wide range of legal and operational matters and act quickly as soon as an incident is reported. An emergency team has also been set up within the Facility which allows instant response to a casualty.

An example of DGS Marine acting promptly was in a potentially large claim whereby a barge collided with a Well Head Tower (WHT). The barge was being towed from the UAE to Qatar with favourable weather, winds less than 10 knots and sea swell less than 1 metre. However, the weather deteriorated dramatically during the night with winds reaching 40 knots westerly and long swell between 2-3 metres. Two days into her voyage, the Tug boat starboard engine failed and towing wire parted, the bollard of the barge detached from the barge main deck connection and the control of its cargo barge was lost. The barge was drifting towards oilfields 4 miles south west of her location and after several attempts to tow the barge away from the oil fields, the barge hit Well Head Tower (WHT), which caused damage to the WHT fenders and boat landing. After the incident the barge continued drifting and once connected was later towed to a Port of Refuge a day after without further incident.

Due to the severity of the potential claim to their Assured, DGS Marine had to act swiftly in arranging the best course of action. With DGS Marine having a representative office within the region they were able to appoint a local, experienced and reputable surveying company,

to carry out the initial inspection. Additionally, DGS Marine rightly appointed local lawyers from the outset in order to provide legal advices to their Assured and in particular aspects regarding local regulations concerning the pending claim. However given the inclement weather conditions and with the threat of having to wait for 1-2 days for a vessel to hire, DGS Marine arranged a Helicopter to travel to the point of incident for the relevant parties to access the situation.

Upon the finalisation of the inspection/survey and resulting investigation, DGS Marine worked together with their appointed surveyors and lawyers and were able to successfully limit the claim amount to just over 1% of the original figure claimed, which ventured into several millions USD. The work of DGS Marine's quick acting team and utilisation of resources enabled a true picture to be presented – avoiding the possibility of fraudulent claims and consequently allowing an amicable settlement between the two parties to take place.

In addition to Management, Surveys and Claims business units, DGS Marine also offers consulting services to Assured regarding technically challenging situations in the maritime industry, ranging from loading project cargoes to building new ships. Furthermore, diversification of business is another key component of DGS Marine's success. In addition to offering the abovementioned Services, DGS Marine have recently ventured into the cargo recovery market – acting on behalf of third party claimants in order to recover monetary losses. They operate at around an 80% recovery rate utilising their experience in all areas of marine sector on a "no cure, no pay" basis.

DGS Marine is often approached by their Assured or potential Clients for case specific queries (as long as it does not breach conflicts of interest); ranging from operational queries to understanding local regulations, which they provide on an ad-hoc basis. DGS Marine is of the impression that educating and informing their Assured is an absolute necessity for overall best business practice with the sharing of knowledge greatly encouraged not only within their business units but similarly with their Assured. They promote this through a number of publications be it a quarterly newsletter or monthly circulars (posted on their website and hard copies distributed to their Assured) and provide updates via an "Alert" tab on their website relating to the latest information on various world activities which currently affect the shipping industry. In addition they regularly update their Twitter feed with links to the above as well as informing their followers of up and coming events hosted or sponsored by DGS Marine.

DGS Marine's motto "Quality first - No Matter How Small or Big the Issues, We Are Here for You" continues to be a mainstay in DGS Marine's Top Management's strategy. DGS Marine sees staying connected an integral part of their business. They have consolidated the number of offices this year and built on foundations laid in previous years. They have a total of 10 offices strategically placed in mainland Europe, Middle East and the Far East, which allow DGS Marine to offer and provide quality, uninterrupted Service 24/7. This philosophy of "staying connected" forms a large proportion of their fundamental strategy which has undoubtedly attributed to their success within the marine insurance market.

Quality First – *No matter how small or big the issue, we are here for you*

The IMSBC Code 2013

Immediate challenges and beyond

BY **CAPT RUCHIN C DAYAL**
MMI, AFNI, MIIMS, MAIMS
CEO, eDOT Solutions, Goa

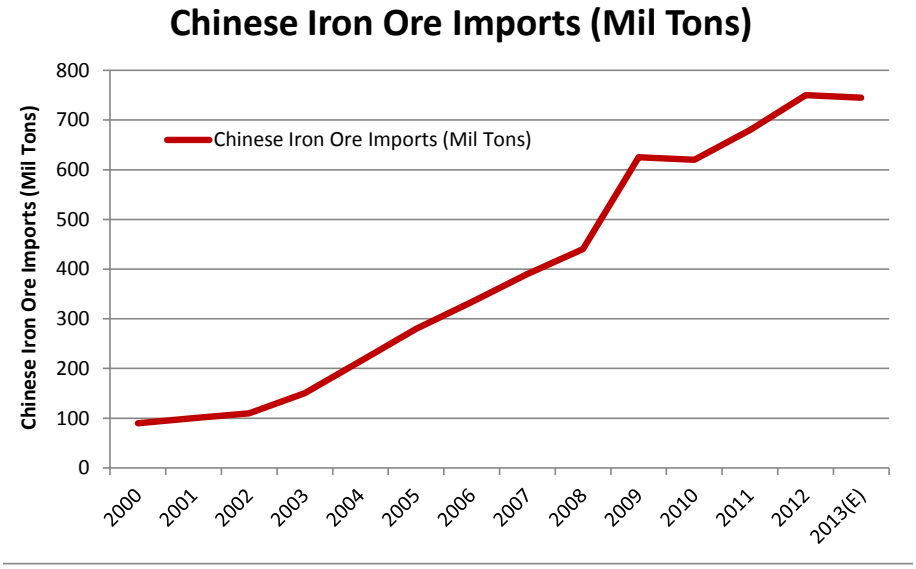
THE BACKGROUND

Iron ore and iron ore fines have been a subject of much deliberation over the last decade or so; What are fines? What is the percentage of "fine" material in iron ore lumps, which may necessitate them to be termed as fines? Is there a difference between concentrates and fines? what are category "A" cargoes and so on ;well these are the usual questions which may intrigue a seafarer today. But the challenges are getting bigger. We need to build our own perspective on the interpretation of the changes in the IMSBC Code while keeping its sanctity and spirit intact.

The International Maritime Solid Bulk Cargo Code (IMSBC Code) governs the carriage of solid bulk cargo (except grain) and is mandatory under the SOLAS convention.

To start with we need to rewind a little and ask what is the big deal anyway? We have been carrying iron ore for ages!! Iron ore and iron ore fines are two separate cargoes. While iron ore may be considered to be largely comprising of lumpy material resembling small rocks or stones of 10-25 mm, iron ore fines is largely made up of powdery material below 10 mm in size. Iron ore fines may be produced by sieving the natural ore into various sizes and belongs to category "A" in the IMSBC Code. Cat "A" cargoes are defined as cargoes which may liquefy if shipped at a moisture content in excess of their TML, i.e. their Transportable Moisture Limit. Iron ore (lumpy material as described earlier) is a Cat "C" cargo – not liable to liquefy. The big deal is that the scale of actual transportation of iron ore "fines" has changed through the years with the process of sintering coming of age in the late 20th century. Sintering may be defined as a process to coagulate the fines with coke to enable their use into the blast furnace. In layman's terms, make lump like material to be introduced into the blast furnace for making of steel.

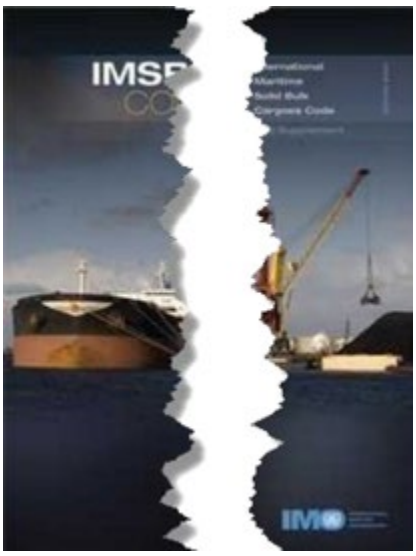
One has to only understand that during the pre-sintering days where 10-20% of ore was used for production or export and the rest wasted or "dumped" as waste



(fines/micro-fines); suddenly with the sintering process, there was a market for the so called "dumps". Having a market is in-fact an understatement; suddenly the wasted dumps were worth as much as the so called iron ore lumps. The demand of ore has exponentially multiplied since; prompting the trade to keep up. India herself exported over 100 Million MT annually to China in the years 2009-2011.

With the multiplying demand from China, there was so much margin and so much money involved in the iron ore trade that middlemen and traders became the name of the game. "Export at all cost" became the moto; because whatever the "cost", there was so much of margin that there was always more money to be made. Hence, like it always happens in India, everybody, from barbers to shop-keepers, from politicians to TV stars, from NRI's to builders; anybody and everybody invested in a business of export of iron ore fines. This was not limited to India. Australia and Brazil also saw similar chaos. Traders in Singapore and Hong-Kong became billionaires literally overnight.

Gentlemen, because of the utter chaos and complete disregard for anything else but business, many seafarers like you and me lost their lives.



The recently sunk Bulk Jupiter in Jan 2015, MV Harita Bauxite in 2013, MV Jian Fu Star, MV Nasco Diamond and MV Hong Wei in 2010 and the MV Asian Forest in 2009 are only a few of the vessels affected by liquefaction. The understanding that liquefaction will kill is not new. There has been plenty of work in this regard since 2004. The BC Code having been replaced by the IMSBC Code, adopted in 2008 and mandatory from 2011. The IG Clubs have been working hard to keep members abreast of the latest developments.

Particular case studies and actual causes of liquefaction have been sufficiently deliberated upon in detail in the past and are not the scope of this article.

THE IMSBC CODE

The IMSBC Code is considered the Bible of carriage of bulk solid cargo. It is mandatory under the SOLAS Convention. While the code is widely available and comprehended fairly well within the surveyor/sailing/seafarer community, there exists a fair amount of debate upon its actual compliance and implementation. Let us attack the main problems we are faced with in the last decade or half a decade in regard to implementation of the code:

Poor understanding of the code (IMSBC) and its applicability by Shippers World-wide

- Shippers are unable to understand their obligations under the code. Ignorance coupled with commercial pressure leading to unprofessional (mal) practices. Essential and mandatory information being treated as cumbersome paper exercise.
- Owners, guided by clubs and associated surveyors, in direct confrontation with the shippers. Shippers not co-operating with owner's representatives and most often than not, getting away because of the prevailing market conditions (such high demand for ore – seller's market).
- Shippers and traders (conveniently) not ready to believe in the consequences of liquefaction.
- Their common moto being "We have transported ore for the last 50 years without a mishap"

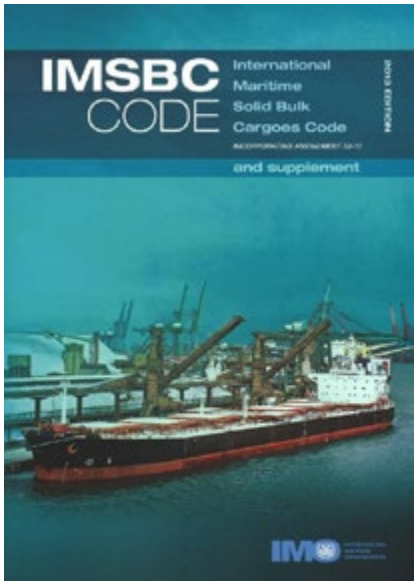
Ambiguity in the code or Different interpretations of the English language?

- No separate schedule for iron ore fines as yet. While DSC.1/Circ.71 addresses this issue, it becomes mandatory only from 1st Jan 2017. Hence Iron ore fines being shipped as "iron concentrates"
- The word "concentrate" encompasses a wide range of mineral ores. Very generalised definition of a "concentrate".

Iron ore fines before and after liquefaction.

The trade is of the opinion that Iron ore fines may not be generalised with other minerals like Nickle ore or other similar ore concentrates.

- The quantities being referred to in the Code are very ambiguous; for e.g. how much quantity is "substantial quantity"? The context has not been set!!! Or what does "certain proportion" mean? Or how much rain is "significant rain"?
- "Poor understanding" of the English language. This may seem unreal but while generally the overall command over English in the seafaring world is improving, making specific interpretations considering a range of information remains a challenge for many nationalities.



THE CURRENT CODE
IMSBC CODE 2013
Since the code became mandatory in 2011, specific amendments have been made to address some of the issues above; few of which may be relevant are listed below

Section 1.7 – Definitions
The definition of a "Competent Authority" now includes a requirement for the Competent Authority to operate independently of the shipper.

Section 4 – Assessment of acceptability of consignments for safe shipment

Sub-section 4.3 – Certificates of test to be issued by an entity recognised by the Competent Authority at the port of loading.

A new paragraph 4.3.3 has been added requiring the shipper to have in place procedures for sampling, testing and controlling the moisture content of the cargo to ensure it is below the TML. These procedures are to be approved by the Competent Authority at the port of loading. A copy of the approved document issued by the Competent Authority is to be provided to the Master or his representative.

Ref - MSC.1/Circ1454 ***on Guidelines for developing and approving procedures for sampling, testing and controlling the moisture content for solid bulk cargoes which may liquefy."***

A new paragraph 4.3.4 addressing the problem of uncovered barges with low freeboard transporting Group A cargoes to other vessels has been added; shippers are to include measures to protect cargo on barges from precipitation and water ingress in the procedures required by paragraph 4.3.3.

This amendment will have major impact on the loading in Goa, where nearly all cargo is transported by open barges and loaded by either ships own cranes or by trans-shippers.

Sub-section 4.4 – Sampling procedures; there is a new paragraph 4.4.3 requiring shippers to facilitate access to stockpiles by the ship's nominated representative for the purposes of inspection and sampling for subsequent testing.

This amendment is of particular significance as between 2009 and 2013, a practice of blacklisting of particular surveyors by shippers had become common place in India. A provision was included in the C/P barring owners from appointing specific surveyors and even if owners managed to get their way and appointed their surveyors, seldom were they allowed to access the stockpiles of the shippers.

Section 8 – Test procedures for cargoes which may liquefy Sub-section 8.4 – The section has been divided into two with sub-sections; 8.4.1 retaining the Complementary test procedures for determining the possibility of liquefaction – the Can-Test, while an additional sub-section 8.4.2 has been added; advising that if a sample remains dry following a Can-test, the moisture content of the material may still exceed the TML.

This amendment is particularly intriguing and needs to be discussed in greater detail.

So what does the new section 8.4 mean?

There may be a natural case to argue that if there is a Section 8.4.2 which says that the moisture content may still exceed the TML even if the cargo remains dry on can-testing; then what is the point of having sec 8.4.1 – Masters use of an auxiliary method for determining the possibility of flow.

To start with, extremely important to reiterate that the can-test cannot be mixed up with section 4 of the IMSBC Code.

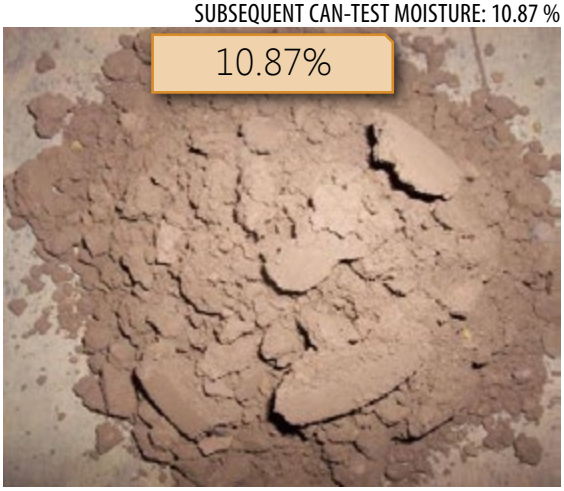
The can-test cannot be used as a criteria for accepting cargo for shipment! Cargo needs to be assessed as per the requirements of the IMSBC Code Section 4 for acceptability for shipment.

However, the can-test can be an extremely important tool, if not the only one, in the Masters hands. The can-test can give a lot more information than what may have been imagined earlier. eDOT Marine Lab, based in Goa has analysed over 100 different samples by all methods in the IMSBC Code including the type "D" test and compared the results with that of the can-test and there is unquestionably a recognizable evidence of how the physical attributes of the cargo change when close to its TML/FMP.

For example, say for Sample Ref 80

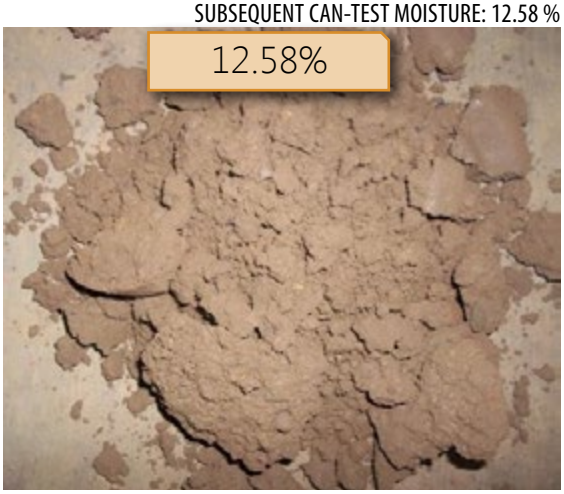
METHOD AS PER THE IMSBC CODE	RESULT TML
FLOW TABLE TEST	**13.1 %**

SUBSEQUENT CAN-TEST MOISTURE: 10.87 %



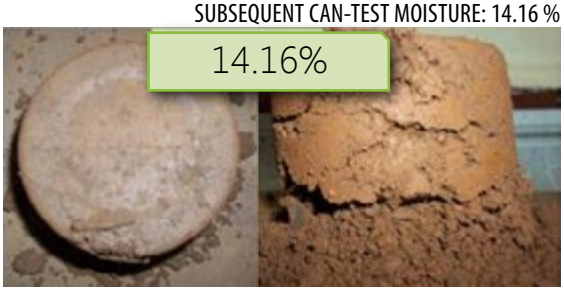
PENETRATION TEST	**13.3 %**

SUBSEQUENT CAN-TEST MOISTURE: 12.58 %



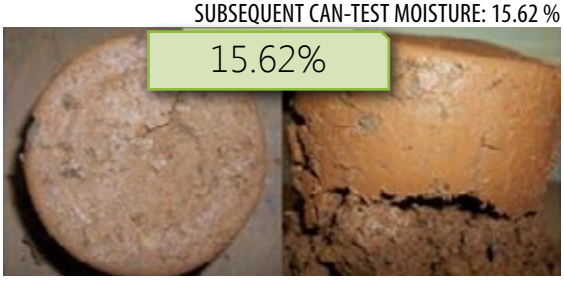
PROCTOR & FAGERBERG TEST, TYPE "C"	**13.0 %**

SUBSEQUENT CAN-TEST MOISTURE: 14.16 %



PROCTOR & FAGERBERG TEST, TYPE "D"	**14.9 %**

SUBSEQUENT CAN-TEST MOISTURE: 15.62 %



Ref the pictures of the cargo after the can-test, please note the extent of compaction of cargo and compare the moisture contents. It can be deduced quite safely that the compaction of the cargo began between the moistures 12.58 and 14.16 % {as the cargo at 14.16% is compacted quite nicely}. Hence, if the Master or his representative was carrying out can-test of the cargo being loaded; assuming that he has accepted the cargo for loading as per the provisions of Sec 4 of the IMSBC Code 2013; loading could be halted as soon as significant compaction begins. Significant meaning when the cargo stops to crumble as shown in the first couple of pics and starts forming a hard jelly like mass. The moisture at that point would have to be around the 13-13.5% mark; i.e. very close to the TML obtained by the three older methods and quite clearly well below the TML obtained from the new type "D" method. This will negate the possibility of loading any unsafe cargo into the ships holds.

Please try and understand the significance of this.

The role of the can-test becomes even more important in the Indian context; where cargo is often loaded at the anchorages from barges.

Challenges – The Indian Context

The reason we are talking mainly of the Indian context is because Brazil and Australia are claiming to comply fully, not only with the IMSBC Code 2013, but also with the amendments scheduled for mandatory entry in 2017.

The challenges in safe loading of iron ore fines have been divided into two:

1. Compliance with the present regime – IMSBC Code 2013
2. Compliance with Circ 71 – amendments to be mandatory from 2017

Compliance with the IMSBC Code 2013

Requirement in the Code	State of compliance
Competent Authority to operate independently of the shipper	In place
Certificates of test to be issued by an entity recognised by the Competent Authority at the port of loading.	In place – DGS, India has implemented an excellent laboratory inspection and certification program all over India.
The shipper to have in place procedures for sampling, testing and controlling the moisture content of the cargo to ensure it is below the TML. These procedures are to be approved by the Competent Authority at the port of loading. A copy of the approved document issued by the Competent Authority is to be provided to the Master or his representative. (MSC1/Circ 1454)	A major challenge. None of the shippers have this in place. Owners have asked their agents/shippers to provide a certificate in the form of the Circ 1454 appendix, which essentially is the proforma for the certificate issued to the shipper by the Competent Authority certifying that his procedures have been approved; this needs to be given to the Master prior loading. Vessels are already facing delays on account of this.
Shippers are to include measures to protect cargo on barges from precipitation and water ingress.	Another challenge in conjunction to the above. Clubs may not accept mere tarpaulin for covering the ore. Different interpretations are expected to create chaos when the export from Goa restarts. Goa has in excess of 350 open barges for carriage of ore from the mines to ships.
Shippers to facilitate access to stockpiles by the ship's nominated representative for the purposes of inspection and sampling	Few shippers have indeed started opening up their stockpiles for inspection and sampling but due to such limited export presently, the real picture will have to wait until export resumes – mainly from Goa.
Introduction of Section 8.4.2 if a sample remains dry following a Can-test, the moisture content of the material may still exceed the TML	Cargo consignment once sampled, tested and certified may be transported via barges to the vessels at the anchorage where loading takes place using either vessel's own cranes or by deploying a trans-shipper. Master MUST perform the can-test to check whether cargo resembles the description in the test certificate; he must have sufficient data in way of guidance to reasonably guage the existing condition of the cargo. Majority of the clubs and experts world-wide believe that every barge arriving a/s a vessel must be sampled and tested again. Presently the Can-test procedure is poorly understood.

Compliance with Circ.71 amendments: The IMSBC Code 2017

These amendments will have extremely big ramifications on the existing culture. Brazil and Australia are already complying with these amendments.

New schedule for iron ore fines The provisions of this schedule shall apply to iron ore cargoes containing **both**: 1.10% or more of fine particles less than 1 mm (D10 ≤ 1 mm); and 2. 50% or more of particles less than 10 mm (D50 ≤ 10 mm). Notwithstanding the above provision, iron ore fines where the total goethite content is 35% or more by mass may be carried in accordance with the individual schedule for "IRON ORE", provided the Master receives from the Shipper a declaration of the goethite content of the cargo which has been determined according to internationally or nationally accepted standard procedures.	Presently no standard for determination of the goethite content. It is widely feared that unscrupulous Shippers may try and ship group "A" cargoes as group "C" by declaring a goethite content which may be incorrect. Goethite content is determined by XRD technology – X-Ray Diffraction.
Modified Proctor/Fagerberg test procedure for Iron Ore Fines (Type "D" test) The existing Proctor/Fagerberg test method has been modified to reduce the weight of the hammer to 150 gms. The TML of Iron Ore Fines is taken as equal to the critical moisture content at 80% degree of saturation. The test procedure is applicable when the degree of saturation corresponding to Optimum Moisture Content (OMC) is 90% or higher.	The eDOT Marine Lab in Goa has conducted exhaustive research on the test and compared the results of nearly 100 samples, wherein each sample was tested by all methods in the code. The new method gives a TML of + 1.75 %. This is an average and individual results may vary between +1.2% and +2%

The way forward

While there are all the right noises in the right places for the exports to resume from Goa in India as well as from Karnataka, there may be a spoiler in the form of international iron ore price which has been looking south for some time now. Hence, while exports may be permitted to resume in the near future, it may be a while before we see volumes like before.

Having said that, this article is not about the commercial viability of ore export but about safety of the lives of fellow seafarers. It is important that we understand the code, gear up for it and use it for overall advantage. I hope this article reaches many of us who are sitting in decision making positions and it helps in the general understanding of the laws that Govern the carriage of fines and why they are there in the first place.

Written in good faith without prejudice to any other point of view. Good Luck & God Bless!!

INSURED PERIL OR NOT INSURED PERIL: THAT IS THE QUESTION!

The effect of water moisture damage on containerised cargo

BY **NEALE CAWSE** MIIMS,
Marine Surveyor & Adjuster,
McLarens Marine

In this article, IIMS Australian member, Neale Cawse, looks at when water, or moisture damage to cargo in a container is covered by insurance. He also considers how and why condensation and moisture occurs in this environment and steps that can be taken to reduce it.

We have all heard stories of import cargo arriving with water or moisture damage and the Insured/Consignee complaining bitterly when their claim is denied, believing that they have paid a lot of money for insurance that is worthless. It is even more frustrating when we come across these claims with Insureds/ Consignees that are regularly importing (or exporting) goods.

INSURED PERIL

So when is Water or Moisture Damage to Cargo in a Container covered by Insurance? Firstly, let's make a few assumptions to keep this simple: we will consider the cargo as being a Full Container Load (FCL) and that the Policy coverage is *Institute Cargo Clauses (A) [ICC (A)]*, which is All Risks.

So what does "***All Risks***" mean? Well "All Risks" covers things that happen unexpectedly, by accident or chance, also described as "***Fortuitous***". It DOES NOT cover things that are inevitable or almost certain to happen, or things that would be in control of the Assured to prevent.

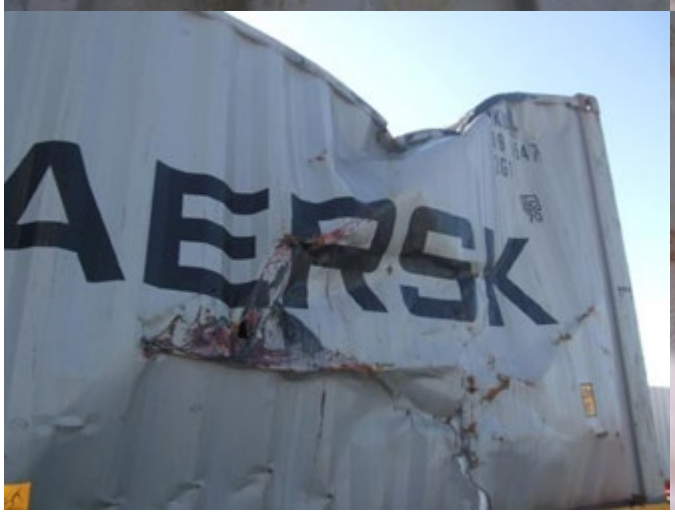
When is water or moisture damage to containerised cargo considered "fortuitous" and covered under ICC (A)?

Well, when there is obvious damage to a container that can allow water ingress inside the container affecting the cargo inside. This damage normally occurs as a result of incorrect or poor handling during loading and unloading operations, as a result of severe weather events during sea voyages, or a road transport accident.

Other ways water or moisture can enter a container is if the container is sitting in water where it could enter from underneath through the container floor or through the container doors. This can occur for example if water enters the hold of a ship, or when there is torrential rainfall and flooding while the container is at a wharf waiting for loading onto a ship. When this occurs, there is normally a "high tide" mark around the container indicating the water depth.

NOT INSURED PERIL

So how does cargo inside a container that has not been damaged, holed or been affected by rising water, get wet? ***Condensation***.



External "Tide Line" on container and subsequent wetting of cargo inside.

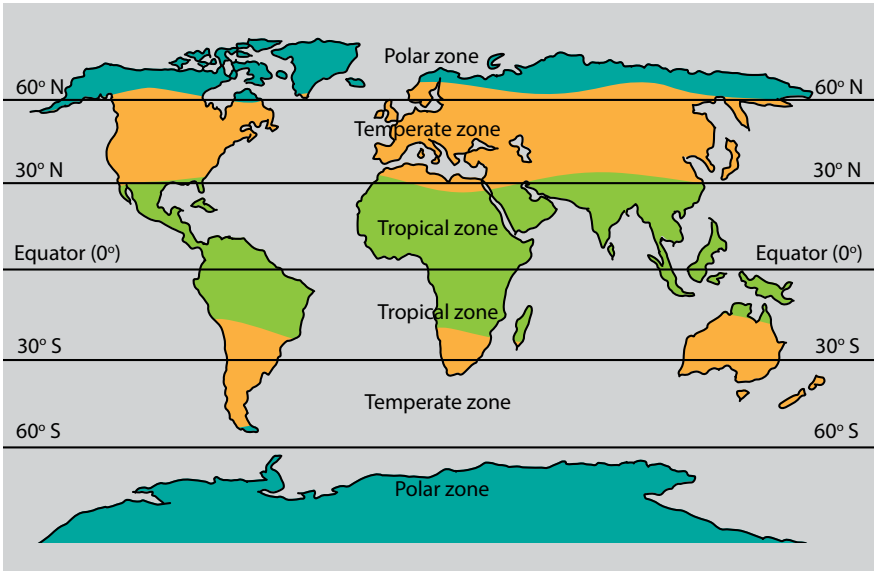
While containers are an efficient and economical method of transporting almost any kind of cargo, placing cargo inside a steel box carries the risk of moisture damage no matter what the cargo or how it is being transported as a result of condensation.

Condensation on the ceilings and walls of a container is known as "container rain", and "cargo sweat" when on the cargo itself. There are many factors that affect the amount of condensation and therefore the potential damage to cargo, but one thing that does not change is that there will always be condensation.

Very small differences in the cargo and voyage conditions can have a huge effect on the outcome. That is why you may have 4 perfectly safe shipments and the 5th may be a disaster. This means that there is always a risk of moisture damage in the next shipment, even if the last one was ok; and this is why water damage by condensation is not considered a "*Fortuity*" by Insurers.

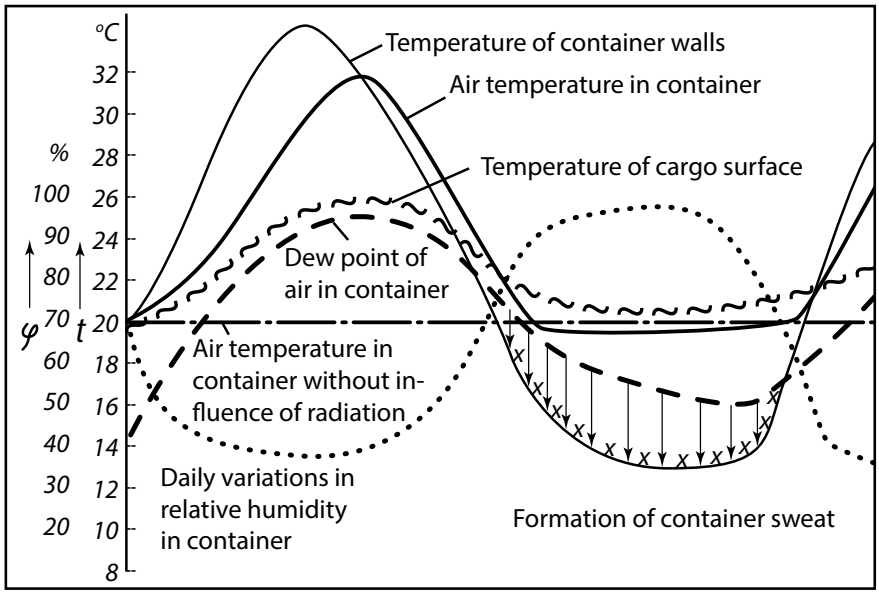
HOW DOES CONDENSATION OCCUR?

All containers contain moisture from the time of loading and in the cargo itself. No container is airtight.
Changes in the climate during transport by road, inland waterway vessel or rail, and particularly when on board an ocean-going vessel as it passes through various climatic zones, affect the amount of condensation.
Extreme climatic conditions can occur in winter at temperatures below freezing point, when passing through tropical climatic zones or when moving from the tropics to temperate climatic zones. Remember that almost every container that enters and leaves Australia goes through at least one of the tropical climates.



Container condensation occurs when the skin of the container is cooled to a temperature below the "dewpoint" of the air inside the container, causing water droplets to form on the inside walls and roof, which may run down the walls or "rain" onto the top of cargo.

Cargo sweating occurs when the surface of the cargo is cooler than the dew point of the air outside the container, causing water droplets to form (condense) on the cooler areas of the cargo itself.



The temperature changes during transit are fairly straight forward, direct solar heating of the container during the day and cooling at night, combined with high humidity when passing through tropical zones. But the other important ingredient for condensation/sweating to occur is water content in the container; how does it get there?

Moisture is present in timber dunnage and pallets, the cargo itself, as well as the air inside the container, remembering that the more humid the conditions during loading, the more moisture contained in the air in the container.

Timber used in packaging and dunnage can contain a considerable amount of moisture, especially if the timber is green or has not been stored in a dry covered area.

For condensation to occur in a container, 3 specific conditions must exist simultaneously:

1. A source of water vapour must be present
2. A temperature difference must occur
3. A pathway must exist to move water vapour to the cold surface.

Main sources of water vapour:

- Water left in the container after cleaning
- Ambient air
- Wooden pallets;
- Timber flooring, dunnage, etc.

Main causes of temperature differentiation:

- Different temperatures of individual cargo pieces in the stow
- Different temperatures between cargo pieces and containers during loading
- Changes of temperature and/or air flow inside the container
- Changes of temperature outside the container

Condensation inside shrink wrapping and directly on cargo surfaces.

Contributing factors to temperature differentiation:

- Exposure of the container to direct sunlight
- Exposure of the container to a clear night sky
- Dew or frost on the outside of the container
- Stowing the container near a source of heat
- Stowing the container near a refrigerated space
- Different temperatures between cargo pieces and ambient air at the time of unloading (opening of the doors)
- Moving a container from a shaded area to sunlight exposure
- Moving a container from an open area to a shaded area, where extreme changes in ambient temperature can occur.

Poorly stored pallets.

Mould growth on container and cargo surfaces as a result of moisture inside container.

Pathway for migration of water vapour:

- In the container itself
- Between the cargo pieces and the container wall
- Between adjacent cargo pieces

HOW TO REDUCE CONDENSATION?

While it is almost impossible to completely eradicate moisture from a container during shipping, there are many things that can be addressed to minimise condensation, and to protect the cargo:

- Containers must be completely dried after cleaning.
- Only use dry pallets and dunnage.
- Pallets should be stored in a dry, covered area before loading.
- Pallets stored outside, even under tarps, can quickly absorb significant moisture.
- Where possible, load GP containers under cover.
- Avoid loading a cool cargo under warm and moist conditions.
- A moisture containing warm cargo loaded into a cold container, eg a reefer, is also a problem.
- Avoid land transits during severe cold weather conditions.
- Commodities sensitive to moisture, should be stowed underdeck or in a protected stow whilst being transported by ship.
- De-vanning of containers should occur as soon as possible after container doors are opened
- De-vanned palletised cargo should be broken down immediately.
- Determine if container requires to be ventilated or not.
- Use of adequate moisture absorbing products or dehumidifiers.

Prior planning and preparation can go a long way to avoiding damage to cargo during shipping in a container. Knowing the characteristics of the cargo, the expected route to be taken, and discussing the shipment with your freight forwarder and an experienced marine cargo surveyor, can save a lot of frustration, heartache and expense, and see your cargo arrive safely in good condition.

SKIN FITTINGS

BY **EUGENE CURRY** MIIMS

In the last month I have come across two situations which highlight the potential problems with skin fittings. One vessel, a GRP sea angling charter boat, was a licenced Passenger Boat (12 passengers and 2 crew) permitted to operate up to 40 nautical miles offshore. The other vessel was an aluminium hulled yacht undergoing inspection for renewal of its passenger Boat Licence and permitted to operate up to 30 nautical miles offshore. In both instances the owners grumbled about the additional expense involved but changed their tune when problems were found.

Without revealing too much data the following is pertinent:

SEA ANGLER:

The vessel was approx. 33' 04" in length, of GRP Hull and Superstructure, built in the UK in 1992. All underwater skin fittings were of bronze. The vessel had twin inboard diesels and was sub-dived into 6 compartments below the main deck. In 2011 and 2012 the owner had replaced the original bronze sea valves as a matter of routine. The replacement valves were stainless steel. Electrical services were 12 Volt DC with 220 volt AC inverters. The sea valves had no bonding wires.

All the through hull fittings removed had started to turn pink from dezincification. Some were wasted sufficiently to run the risk of failing suddenly.

YACHT:

The vessel was approx. 49 feet in length and of aluminium hull and superstructure built in the UK in 1979. Mast was triple spreader with keel step. Vessel was fitted with an inboard diesel. Electrical systems were 12 and 24 volt DC. For licencing purposes all internal fuel lines were of stainless steel. All through hull fittings were of aluminium. These were specially designed screw down units. The vessel had been rewired in or around 2000.

The sea valves were original to the vessel and the government surveyor insisted on their being opened up for inspection. The valve seat had no rubber washer but relied completely on forming a seal with the shape, similar principal to engine valve design. On one the seat had wasted completely meaning that even when the screw was in the closed position the valve was ineffective.

Figure 1 - Valve seat wasted

All members should be aware of the dangers in mixing materials, the lack of correct bonding between skin fittings and the vessel's earth system.

Those engaged in coding of commercial vessel, in particular, should carefully consider the risks to the public and their and their certifying bodies reputations should an incident occur to a vessel they have considered compliant.

The information should also be considered by those involved in conduction Pre-Purchase and Insurance Condition Survey Reports. In the event of a casualty, a court considers you liable for loss.

Figure 2 - Threaded element for lever & spindle sheared

Figure 3 - Hose end turned pink

FUEL HOSES FOR PETROL INBOARD VESSELS

SOME FUEL HOSES AREN'T FUEL HOSES

BY **SYMON THOMAS** MIIMS

The context of this article is in relation to improving the safety of operators and crew of **existing** inboard petrol powered vessels including auxiliary petrol motors from the possibility of explosion resulting in death or injury.

As one of our clients stated

"THIS VESSEL HAS ONLY EXPLODED ONCE IN ALL MY 40 YEARS OF FISHING. THE EXPLOSION THROWING ME BACKWARDS ONTO THE NET BOARD, SO MY VESSEL IS PERFECTLY SAFE!"

This particular case was the result of the fuel tank breather line falling off the fuel tank connection with the resulting fumes allowing free passage through the open boat structure as no bulkheads were included in the construction of the vessel finally allowed to gathering in the bilge under the motor.

This nearly resulted in a personal space shuttle, he was lucky.

MATERIAL SAFETY DATA SHEET

The CSR material safety data sheet for E-85 Fuel Ethanol 2009 describes unleaded petrol/ ethanol blended fuels having a; Lower explosive limit of just 1% Upper explosive limit of 8%

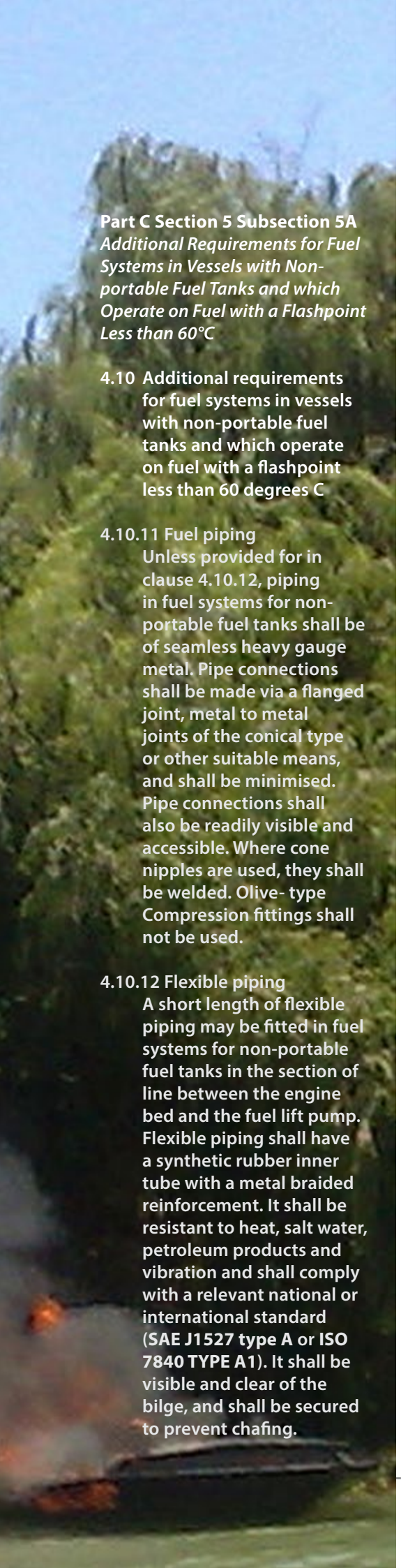
CURRENT

National Standards for Commercial Vessels (NSCV)

Part C Subsection 5A 2.14.3
Vessels where fuel having a flash point less than 60°C is permitted.
Fuel having a flash point less than 60°C may be used in the following applications:

a) **Outboard engines in classes C, D and E vessels**
b) **Internal combustion engines in class 2C, 2D,2E,3C, 3D and 3E vessels that are not located below decks.**

NOTE: An engine is considered to be "below decks" if fuel or fumes emanating from the engine installation could result in the accumulation of fuel or explosive mixtures within any space on the vessel. Fuel and fumes from the engine must be able to drain rapidly and directly overboard without the assistance of fan forced ventilation or wind-induced air movement.



Part C Section 5 Subsection 5A *Additional Requirements for Fuel Systems in Vessels with Non-portable Fuel Tanks and which Operate on Fuel with a Flashpoint Less than 60°C*

4.10 Additional requirements for fuel systems in vessels with non-portable fuel tanks and which operate on fuel with a flashpoint less than 60 degrees C

4.10.11 Fuel piping
Unless provided for in clause 4.10.12, piping in fuel systems for non-portable fuel tanks shall be of seamless heavy gauge metal. Pipe connections shall be made via a flanged joint, metal to metal joints of the conical type or other suitable means, and shall be minimised. Pipe connections shall also be readily visible and accessible. Where cone nipples are used, they shall be welded. Olive- type Compression fittings shall not be used.

4.10.12 Flexible piping
A short length of flexible piping may be fitted in fuel systems for non-portable fuel tanks in the section of line between the engine bed and the fuel lift pump. Flexible piping shall have a synthetic rubber inner tube with a metal braided reinforcement. It shall be resistant to heat, salt water, petroleum products and vibration and shall comply with a relevant national or international standard (SAE J1527 type A or ISO 7840 TYPE A1). It shall be visible and clear of the bilge, and shall be secured to prevent chafing.

As you can see from the last two statements the NSCV specifies only a short length of flexible fuel hose is permitted on the fuel system to adsorb the vibrations from the engine movements. How often have we seen flexible fuel hoses installed for the entire run from the petrol tank to the motor?

Our current NSCV standards refers to the use of fuel hoses to the **Society of Automotive Engineers (SAE) J30 code** *Fuel and Oil Hose*
J30 refers to

1. **SAE J1527**
   Marine Fuel Hose 2007-01
2. **SAE J1942**
   Hoses and Hose Assemblies for Marine Applications 2007-04

SAE J30 FUEL AND OIL HOSE

Historically the older version of **SAE J30** code (pre 1998) was ratified in the USL code before the introduction of Ethanol or alcohol additives to the petrol (E10 fuel) that we use today. Either **SAE J30** standards (pre1998 or the post dated standard) will not be ratified in the new NSCV code its downfall being that there is no fire protection requirements specified to the exterior of the hoses.
The **SAE J30 1998** code is being replaced with **SAE J1527 Type A Jan 2007** or **ISO 7840 Type A1 2004** codes.

SAE J1527 MARINE FUEL HOSES

The SAE J30 references to the more recent code **SAE J1527 Jan 2007** standards. SAE J1527 code refers directly to the American **Code of Federal Regulations 183.558** who takes onboard the **United States Coast Guard (USCG) 183.558** standards for fuel hoses. Both **United States Coast Guard (USCG)** standards and the proposed **National Standards for Commercial Vessels (NSCV).**

Equivalent standard **ISO 7840-2004** *Small Craft- Fire- resistant Fuel Hoses* specifications, identify the different classifications of hoses and there testing procedures for

- Fire resistance
- Abrasive resistance
- Burst pressures
- Cold conditions flexibility
- Dry heat resistance
- Oil proof resistance
- Ozone and UV resistance
- Delamination of the internal components of the hose.
- Fuel permeation (fuel leaching through the hose structure)
- Markings and the ID of hoses (every 300mm)

The USCG, ISO and the SAE codes do not describe the application for the different hoses identified.

SAE J1942 HOSE AND HOSE ASSEMBLIES FOR MARINE APPLICATIONS

This standard refers to the application of hoses certified by **SAE J 1527 type A** and the USCG standards.

In relation to our subject of petrol fuel hoses the hose and fittings are described as:

Flexible fuel hoses
Lube oil and Fuel Systems

- has the construction that includes plies or braids of steel wire with or without textile with reference to the working pressure of the system i.e. fuel pump or fuel injection pressures. (**SAE J1942** section 3 Table 1)

Fuel Hose Fittings

- **Fittings not accepted** are,
  - Push on fittings
  - Quick disconnect couplings
  - A single worm drive clamp
  - A single band around the hose

Only hose to SAE J 1527 type A and fitting combinations SAE J1942 that have been tested and passed the requirements' of this

document as hose assemblies are acceptable. The tests performed on these assemblies include,

- Fire resistance
- Abrasive resistance
- Burst pressures
- Salt water permutation
- Cold conditions flexibility
- Dry heat resistance
- Oil proof resistance
- Ozone and UV resistance
- Delamination of the internal components of the hose.
- Fuel permeation (fuel leaching through the hose structures)
- Markings and the ID of hoses (every 300mm)

Hose Identification

The identification of the approved type fuel hoses will display some form of Standards mark. The approved types of hoses are required by all standards to be permanently marked every 300 mm with either

- SAE J1527 Type A
- USCG TYPE A1
- Underwriters Laboratories Inc (UL) standard 1114
- ISO 7840 type A1 standard with or without C.E. (Conformite Europeenne) certification

SURVEYING PETROL INBOARD VESSELS

With this in mind in the inspection of these petrol inboard vessels we have to assess not only the fuel system and lines but engine compartment ventilation and potential sources of ignition both from electrical sources, heat sources, and any potential engine misfire/backfires thought the carburettor throttle bodies as well as the leaking of fuel from the float chambers and vents of carburettor type fuel fed motors. (**SAE J1223 - 1993** *Marine Carburettors and Fuel Injection Throttle Bodies*).

The Risk Assessment process should include the scenario of one or a series of conditions that occur simultaneously, an assessment should be based on the elements of the fire triangle.

The fire triangle requires the presence of the three elements:

1. The presence of a fuel
2. The presence of oxygen
3. The presence of a ignition source

If you have ever studied the Mercruiser petrol inboard engines you can see how they have tackled the problems of petrol motors in fuel and ignition sources.

- Most motors are fuel injected engines but even the carburettor motors conform to the SAE J1223 1993 Marine Carburettors and Fuel Injection Throttle Bodies standard.
- The factory engines have all swaged fuel fittings on heavy braided or steel braided certified fuel hoses and fuel assemblies.
- intrinsically safe spark shielded starter motors and brushless alternators to SAE J1171 2004 External Ignition Protection of Marine Electrical Devices
- All exposed electrical terminals are covered and insulated.
- The engine air intake filter has a spark proof gauze on its exterior

DEGRADATION OF FUEL HOSES

Degradation of the fuel hoses can be caused not only by mechanical damage but the permutation or weeping of fuel through the pores of the internal fuel hose causing the hose to become spongy by feel and

EXAMPLES OF BRANDED CERTIFIED FUEL HOSES:

in the case of non approved hoses the breakdown of the outer cover by UV light. The biggest problem we face is this non approved hose. These types of hoses may include the transparent type with a few plies of nylon reinforcing through them. These hoses are sold as food and petrochemical hose but they don't carry any standards marking. The outside layer of this hose is not UV stable or more important fire proof to satisfy the **SAE 1527 type A** standards.

CARBURETTOR TRAY

NSCV Part C section 5 subsection 5A 4.10.13 specifies that the carburettor should be installed with a flame proof removable catch tray to catch any leaks of fuel from the carburettors.

VESSEL VENTILATION

Vessel ventilation will have to be assessed. It could be natural or power operated. If we look at the **ISO 11105-1997** standard *Small Craft- Ventilation of Petrol Engine and/or Petrol Tank Compartments*. The standard defines open air ventilation as:

3.1 Open to the atmosphere
Compartment or space having at least 0.34 metre square of permanent open area directly exposed to the atmosphere for each cubic metre of net compartment volume.

There is also the question of just where in the engine compartment the exhaust vent should originate from. The **ISO 11105** standard specified in 5.2 that the exhaust vent shall originate from the lower one third of the compartment above the normal level of accumulated bilge water. This should also echo for the origin of any fan forced bilge blower system installed.

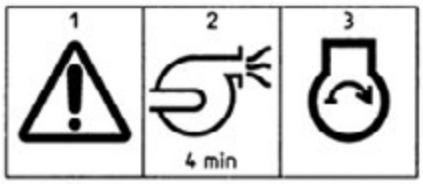
BILGE BLOWERS

NSCV Part C section 5 subsection 5A 2.21 *Ventilation of Machinery Spaces.* Refer to this section to ascertain the size of the apertures required and size of the bilge blowers required.

The operational procedure that the vessel operators must adhere to [small ship management procedures (SSM)] can be found in **ISO 11105: 1997-05-15** *Small Craft- Ventilation of Petrol Engine and/or Petrol Tank Compartments 1997*.

6 Powered ventilation Systems
6.1 Unless open to the atmosphere, each compartment containing a permanently installed petrol engine shall be vented by removing air from the compartment to the atmosphere outside the craft by an exhaust blower system.
6.5 Each craft that is required to have an exhaust blower shall have a label that
- is located as close as practicable to each ignition switch;
- is in plain view of the operator;
- Has the symbols in accordance with ISO 11192, depicted in the figure below, or at least the following information in the language acceptable in the country of sale:

WARNING - Operate blower for 4 min before starting engine.



NOTE "4 min" shall be at least 5 mm high.

The issues associated with bilge blowers are;

1. The blower units are to be installed to evacuate fumes out of the compartment and not to blow air from the atmosphere outside the compartment into the engine space.
2. The blower units themselves are to be intrinsically safe types.
3. Is the blower installed to remove the fumes outside of the vessel and not just transferring them outside of the space to create other potential explosive hazards?

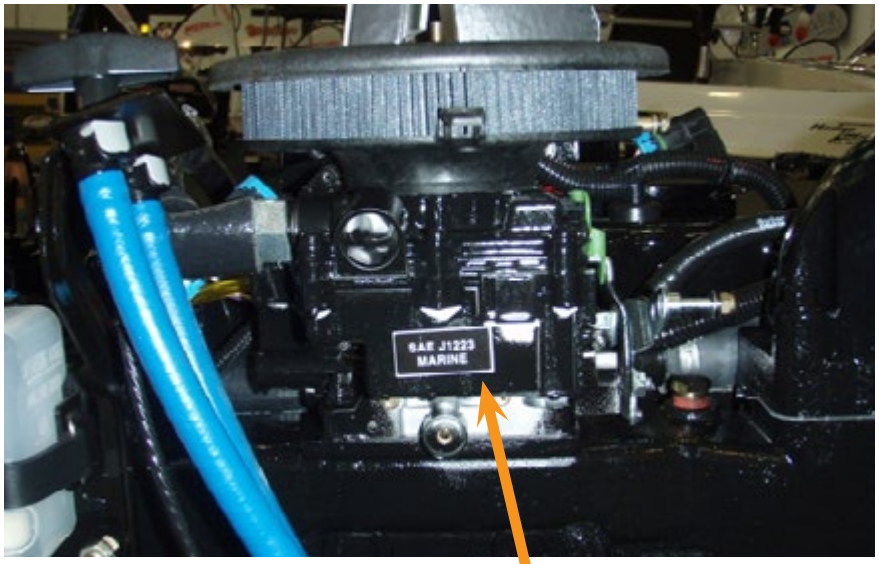
ELECTRICAL ASSESSMENT

An assessment of the vessel's wiring in the high risk areas and in the engine space where the considerations' for the condition and state of the installation.

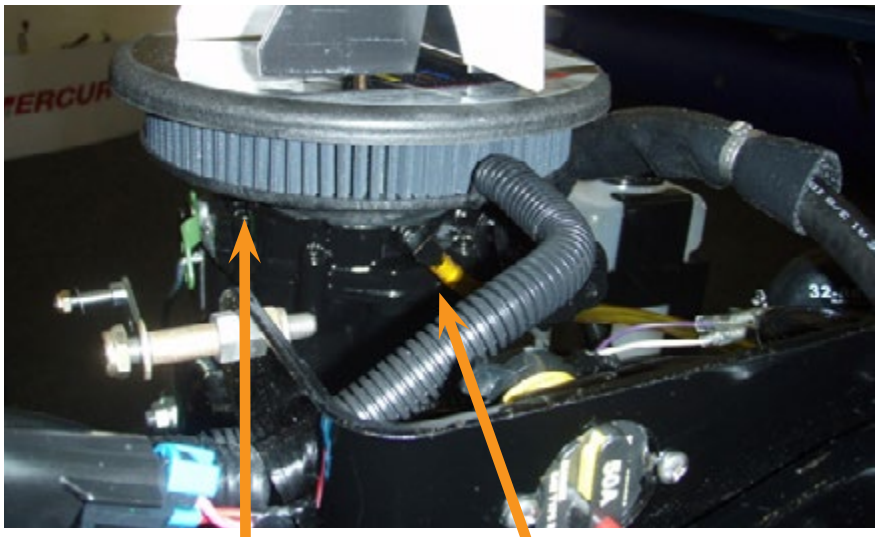
- **NSCV Part C section 5 subsection 5B 3.8.4.2** *Mechanical protection* specifying the protection of wiring
- **NSCV Part C section 5 subsection 5B 3.8.4.3** *Battery boxes* specifying on the installation and security of batteries
- **SAE J1171 2004** *External Ignition Protection of Marine Electrical Devices* or **ISO 8846 1990 (E)** *Small Craft- Electrical devices- Protection Against Ignition of Surrounding Flammable Gasses* Specifying the installation of electrical devices are intrinsically safe items such as starters, starter solenoids, alternators/generators, bilge pumps, high water alarm, ignition coils, distributors, high tension wires, radio interference suppression devises

As you can see the issues of petrol engines is quite technical, but it is the outcome that is most important to create a safe vessel.

As you can see from the Mercruiser solution...

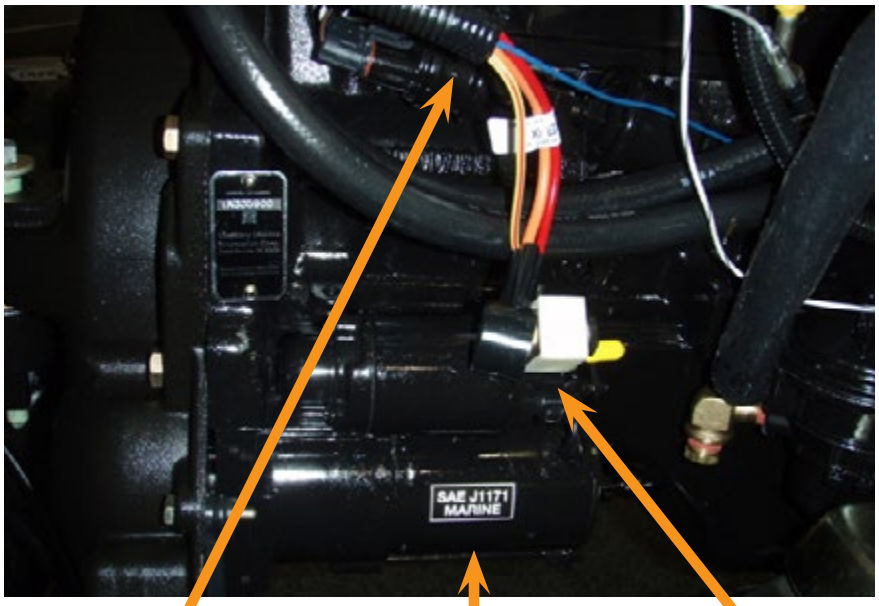


SAE J1223 certified Carburettor



Anti flashback gauze on filter

Carburettor fuel bowl breather (hose returns to fuel pump)



Electrical loom double insulated

Intrinsically safe starter

Insulated terminals

CONFEDERATION OF AUSTRALIAN MOTOR SPORT

The CAMS solution
The CAMS solution looks to be on the right track in specifying that any installation outside of what the engine manufacturer has installed to the engine is to be installed to a superior standard than the manufacturer has installed on the engine.

RECOMMENDATIONS:

1. Check that the installed electrical devices are intrinsically safe items such as starters, starter solenoids, alternators/ generators, bilge pumps, high water alarm, ignition coils, distributors, high tension wires, radio interference suppression devises. **SAE J1171 2004** *External Ignition Protection of Marine Electrical Devices* or **ISO 8846 1990 (E)** *Small Craft- Electrical devices- Protection Against Ignition of Surrounding Flammable Gasses*

2. The battery is not to be installed under the engine cowling and should be contained within its own dedicated battery box. The battery box should be secured to the vessel to prevent battery movement and be installed in a location where battery vapours will not gather in concentration in the bilges of the vessel. **NSCV Part C section 5 subsection 5B 3.8.4.2** *Mechanical protection* and **NSCV Part C section 5 subsection 5B 3.8.4.3** *Battery boxes*

3. All terminals' and connectors' are to be clean and tightly secured as not to cause any resistance between the connections. This will cause heat to build up in the joint.

4. Any non essential wiring not required to run the engine or bilge system shall be removed from within the engine space.

5. All essential wiring within the engine space is to be of the standard of;
   - In one continuous length, with no unnecessary electrical connections or joins just to increase the length of the wiring.
   - All wiring should be contained within a wiring loom and be double insulated being contained in split corrugated conduit or simular.
   - Any necessary connections should be first insulated with electrical insulation tape then wrapped in self vulcanizing rubber tape e.g. 3M Scotch 42 tape.
   - They should be run in a way as to be secured clear of sources of heat, abrasive and sharp edges with secure clips to the vessel.
6. The fuel hoses are to meet the standards for ethanol fuel proof, steel braided and possess a fireproof standard to meet the **SAE J1527 type A** or **USCG type A-1** or **ISO 7840 type A1**. The hoses should be as short as possible and only installed to adsorb motor vibration at the engine mounts. All other hoses should be constructed of solid seamless pipe have commercially swaged fittings with no unnecessary joins and be adequately clipped clear of sources of heat, abrasive and sharp edges with secure clips to the vessel from the engine to the fuel tank.
7. Install a suitable fuel shut off valve that can be operated from an accessible position outside of the engine enclosure or tank to enable the fuel supply to the motor to be isolated in an emergency.
8. Electrically earth all metal fuel filler necks to the fuel tank to prevent the risk of kinetic sparking from the potential difference between the fuel tank and fitting.
9. Install a suitable intrinsically safe bilge blower to the **ISO 11105** standard taking into account the enclosed volume in the engine space. The blower is to be rated for continuous operation as stated in the standard. Install ducting using heat proof hose. The intake for the duct shall be in the lowest one- third of the bilge and above the normal level of accumulated bilge water. The blower is to be installed to exhaust fumes (remove air) out the engine space and not blow air into the space. Note the standard **ISO 11105** requires the ISO signage at the helm stating that the blower to be activated four minutes before starting the vessels petrol engine.

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253-2010 article 3

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Giving Excellent Customer Service

"Every day we're saying, 'How can we keep the customer happy? How can we get ahead in innovation by doing this?'... because if we don't, somebody else will."

– Bill Gates

In the next part of our occasional series on business management skills and techniques, we look at the importance of providing good customer care and services to clients and offer some tips and advice. One study reveals that 70% of buying experiences are influenced by how the customer feels he/she is being treated. It is really that high. How do you get it right?

Think about it for a moment or two. If you provide excellent customer service it will likely create loyal customers for life in some cases, many of whom will be willing to refer your business to friends, family and other people they know. So it pays to get it right first time every time; and why would you not do it anyway?

Providing excellent customer service starts with more than just a genuine desire to delight your clients. You have to think beyond just selling your service and marine surveying expertise.

1. Know your service and what you can offer

In order to provide good customer service, you need to know what exactly you're selling from top to bottom. Understand the most likely common questions potential clients will ask about your service and know how to give the answers in a courteous and helpful fashion they can understand, bearing in mind they will be technically challenged!

2. Be friendly (and be yourself)

Someone once said that customer service starts with a smile. When you are in a face to face situation, a warm greeting should be the first thing your customers see and hear when they ask for help, coupled with a smile. And remember that even on the telephone a smile can come through in your voice. If you sound disinterested to the client they are sure to pick up on that and it reflects badly on you. Equally important is to be yourself too at all times.

3. Don't Make Your Customers Wait

Patience is a virtue for sure, but don't depend on it when interacting with clients. In one survey conducted, 69% of those interviewed defined good customer service as receiving a quick resolution to a reported problem or issue.

4. Always say thank you

Now here is an easy way to leave your mark on your potential client. Say thank you. It costs nothing and goes a long way to making you stand out from the crowd. Showing gratitude is memorable. So no matter what line of marine surveying you operate in, saying a big thank you after each and every transaction is one of the easiest ways to start a habit of good customer service.

5. Show respect and emotional nous

Customer service can and often does involve emotions. Make sure you are aware of this. Handle your clients in a courteous and respectful fashion at all times. Never let your own emotions overtake your desire to see your customer walk away happy.

6. Listen attentively

One of the simplest secrets of customer service is listening to your clients. Listening means hearing what they are saying out loud, as well as what they are communicating non-verbally. The ability to listen without interrupting your client is a valuable skill.

7. Use the feedback you receive

You need to do something with the feedback you receive from customers in order to make it meaningful. You should regularly review feedback given to you. Identify areas for improvement and make specific changes in your business.

8. Make your clients feel important

Not only making your clients important but make them feel appreciated too. Remember to treat them as individuals. Always use their name and find ways to compliment them, but be sincere at the same time. People value sincerity. It creates good feeling and trust. As a rule, clients can be sensitive creatures. They will know if you really care about them.

9. Understand the power of the yes word

Appreciate and understand the power of the word "Yes". Make sure you are always looking for ways to help your clients. When they have a request (as long as it is reasonable) tell them that you can do it. Figure out how afterwards. Look for ways to make doing business with you easy. Always do what you say you are going to do.

10. Managing your client's expectations

Now here is a big one. Always ensure that you manage your client's expectation every step of the way. Tell them it will take ten days and deliver it in eight – never the other way round!

11. Know how and when to apologise

Should something go wrong at your end – apologise! It is not hard to do and your client will appreciate it greatly. Of course the client is not always right, but he/she wants to feel he/she has won. Make it simple for customers to complain and value any complaints they make. As much as we dislike getting complaints it does provide the chance to review and improve things.

12. Treat your clients fairly

This may sound obvious, but always treat your clients in a fair way – even if they do not deserve it. Remember they have the last word and can enhance or damage your reputation as a marine surveyor and as a business by what they say and to whom they say it.

13. Maintain regular customer contact

Staying close to your clients gives you the opportunity to develop relationships, to further demonstrate your expertise and increase confidence in you and your business.

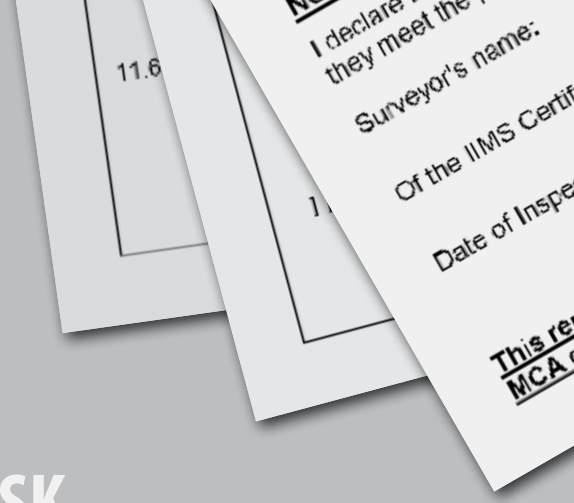
Small firms have the advantage of providing personal contact, usually with the same person. Get to know customers' names, find out about their interests and ask them how they are getting on.

14. How do you know when you have given excellent customer service?

1. Clients come back to you again and place further business with you
2. They write and send you a testimonial about your service and organisation saying how good it was
3. They post on social media extolling your business
4. They refer you on to others in their network

But here's a thing to remember. When someone receives good customer service they are likely to tell a few and recommend you. However, when someone receives bad customer service they will tell many more about their experience – and you will most probably be none the wiser. And finally, so much of giving good customer service is about good old fashioned common sense.

Fifty Shades of Insurance: Chapter Six



THE THREE S'S - CONTROL YOUR RISK, CONTROL YOUR DESIRES

Continuing to control your risk:

Chapter 4 was headed "control your risks" and signed off with a "to be continued…" Chapter 5 duly took a significant detour to outline the effects of the new Insurance Act 2015. We return now, then, to the continuation of risk control…

We have already outlined some of the "what not to do's": the "walk through survey"; sign off unseen work; favours; undertake work without Terms & Conditions the list goes on… This article, then, will attempt to take a more positive stance with a few "do's" rather than "don'ts".

Some of what follows may be obvious to you, but a few practical suggestions may nonetheless be helpful to consolidate what you already know. If, on the other hand, you are just starting out on your marine surveying career this may help you avoid early mistakes and start you off on a good footing.

Your report:

Having carried out the survey to your client's written instructions and expectations you now need to write your report. Do this with care. Write exactly what you have done and seen, and just as importantly what you have not done and seen and why. If a survey should have taken two days, but it in fact was completed in one, explain why; if it was at the client's request say so and state any concerns that may arise as result of a too short a survey time.

Use clear language that is meaningful and avoid where possible, comments such as "good for her age". What one person believes represents "good for age" another may not. You may decide to use a coding system to explain the condition of parts of a vessel i.e. to identify what is new or used but serviceable or what is used but requires checking again within a time period.

Once written read the report thoroughly, this is best done after a break from writing a report so if possible walk away from it and go back to it later with a fresh eye to (re)consider what you have written and how it will be interpreted by your client or any other reader. If there is a dispute ultimately the content of your report may be interpreted by a judge!

So have you given a true representation of your findings? Will the client understand your comments and understand any action(s) they should be taking now or within a certain time period. Keep all your notes and photographs whether you use them in a report or not and check and reconsider them again before you sign off your report. This is always a worthwhile exercise as it is easy to miss something first time around, and when you are constantly reading and checking, something in the "brain" can read what it thinks the report should say and not what it does.

Your Terms and Conditions and Activities:

Always provide your Terms and Conditions to your client before starting work and best practice, although not always possible, is to obtain written confirmation that your client agrees to those Terms and Conditions applying. Check your terms and conditions regularly to ensure they are up to date, especially if you are offering new services. Send a copy of any updated terms and conditions to your broker or insurer as they will normally need to know about any changes you have made and in particular advise them of any changes of business activities; you are normally only insured for the business activities that you are undertaking that you declared to your insurers.

If you are required to provide your services under a third party's contractual terms and conditions, read the contract carefully and consider whether you need legal advice. Are there any onerous terms in the contractor or indemnity or limitation clauses?

Again notify your broker or insurer (if you arrange your insurance direct with insurers) and find out if they require a copy of the contract; always check the confidentiality issue. Insurers will need to be made aware of a contract that may affect your liabilities and/or the insurance policy cover, so a good rule of thumb is to liaise with them while negotiations are proceeding. Insurers are always concerned, amongst other things, that a contract may increase an insured's liabilities or perhaps waive insurer's rights of subrogation.

Rights of Subrogation What is this?

In simple terms this mean that if an insurer indemnifies an insured under the terms of an insurance policy the indemnifying insurer has the right to seek recourse against the person who caused the loss to the insured (and hence the insurer) in order to recover the amount paid out under the policy terms and conditions. They "step into the shoes of an insured". They are in essence the insured as they have no more rights or remedies than an insured they have indemnified. So if a contract between an insured and a third party prevents recourse against a party that has a caused a loss, the insurers would have lost their right of subrogation and may not provide indemnity.

The rights of subrogation is something that should ALWAYS be considered when you are signing contracts with third parties or dealing with a client who has a complaint as you may have a problem with obtaining indemnity under your insurance policy if insurers can prove that without their consent you waived their rights of subrogation; you may have also prejudiced their ability to defend you. So think carefully before you act.

In summary, we would suggest that a part of controlling your risk requires controlling your desires!

- **Supress the urge to rush home from a survey, dash off your report and press "send".**
- **Smother the desire to respond without thought.**
- **Stifle your temptation not to advise your broker or insurers of changes.**

We call these the "3 S's"!

Amanda Ridd & Karen Brain
Matrix Insurance Services Ltd
Tel: **01892 724060**
enquiries@matrix-ins.co.uk

A day in the life of Capt. Andrew Korek

Mike Schwarz poses the questions to Capt. Andrew (Drew) Korek, who is the newest IIMS Regional Director, having been appointed following the amalgamation of the Association of Marine Surveyors British Columbia with IIMS to form IIMS Canada in July.

Capt. Andrew Korek is past President of AMSBC and the new Regional Director of IIMS Canada.

Q1. How long have you been an active practising marine surveyor and what brought you into the business?

I started practising marine surveying back in 1995 so it is 20 years now. I was working back then for SGS and Intertek Testing Services, later known as Inchcape Pkb. Scania parallel to my seagoing contracts with Jardine Ships Management at that time. What brought me into the business? Well, as a deep sea master I always had a keen interest in expanding my professional knowledge and wanted to continue working within the marine industry on shore, either full time or casually, in between my seagoing engagements. Additionally shortly after my immigration to Vancouver, Canada in 1994 my younger daughter was born. That became a rather motivating factor to stay a wee bit longer on shore to support my family at home. Marine surveying gave me a great deal of satisfaction and a tangible contact with ships and cargoes on a daily basis without going to sea. A seafarer needs to feel the deck under his feet otherwise he feels like a fish out of the water!

Q2. Have you seen many changes over the years in the industry?

Changes? Oh yes! Many moons ago, there was a saying of "iron man on wooden ships than wooden man on steel vessels". Now it is computer generated applied science. I came across surveyors who go nowhere and can't do much without their laptops loaded with fancy software. God forbid that one forget some exotic power outlet adaptor and the battery goes dead – that's total disaster! No draft survey, no grain stability, not even a bunker survey could be carried out by some of those new age and techno gigs. It is rather sad and somewhat worrisome. Changes are also highly visible with on shore side personnel backgrounds. You see less and less people coming from ship management with strong previous sea going experience. I have met port captains and marine superintendents who never been to sea, yet they have powers to make decisions for those who sail rough seas and oceans. I had the displeasure of witnessing the manifestation of over inflated superiority exhibited recently by a freshly tailored deck superintendent who bluntly raked the ship's master on the open deck for the ordering of facials tissues without his approval. Definitely many changes!

Q3. I know you work in some quite specialist areas of surveying. Can you give examples of some of these areas?

Well, thanks to my military career with the British MOD I was able to apply some of my skills gained from my service to my civilian job. My underwater training allowed me to enter the field of offshore, subsea, sonars, ROV and in-water marine surveys of either ships, dock facilities or mobile offshore structures. Also, my experience from the Royal Marines enabled me to share my knowledge in the field of anti piracy consulting. As far as typical marine work goes I would say that I consider myself specialised in heavy lifts and projects cargoes, bulk and break bulk cargoes, containers, steel and forest products.

Q4. What do you most enjoy about your day to day job and what do you dislike?

I most enjoy the stepping on board a vessel and immersing myself in the task at hand and I most dislike when I have to leave knowing the job is done.

Q5. I know you are keen on seeing others in the marine surveying world develop new skills. Please give an idea of how highly you rate education and training in this sector and why.

I believe that John Kilhams answered that question most accurately in his article from the April Report magazine this year and I quote him here; "You can practice without a marine surveying qualification as the profession is largely unregulated, but it is not in your best interest to do so. Insurance companies may well insist that you are qualified to carry out the work you undertake, even though you may have many years of experience in the field and have lots of practical experience. Without this, or a recognized qualification, it will be difficult if not impossible to get PI cover (professional indemnity). If you are unfortunate enough to find yourself in a more serious situation in court defending your position, you may be able to say that you have worked in the industry for the last forty years and have a good working knowledge of the issues involved. However, it would help your situation greatly to be able to say that you have passed an HND with distinction in marine surveying." I only wish to add to John's statement that it is impossible to stay stagnant in a rapidly advancing marine world and technology. One needs to learn now about gas powered vessels, wind-farms, fibre-optics, AUVs, state of the art coatings, advanced navigation equipment, machinery and so on. We have to either adapt to growing demands or we will be certainly left behind.

Q6. I understand the Discovery Channel made a documentary for their series 'Mighty Ships' as they followed the heavy lift project you were surveying at the turn of the year (see Report magazine March issue). That must be quite an honour? What can you tell Report magazine readers about that experience?

It was the second time I had the pleasure to work with the Discovery Channel crew and yes, they are masters of their craft; but to be perfectly honest it is almost an invasive presence which sometimes becoming a wee bit of a hindrance to the surveyor's work. The secret is to find someone who loves to be

in the middle of the camera lens and with a fluffy microphone in their face as they go about their business. Funnily enough at the discharging point of that project in Sept Iles, Quebec the weather factor of -40c with added wind chill was unquestionably my ally in keeping the Discovery Channel crew indoors and thus making my job easier, if work in -40c weather could be considered a pleasure!

Q7. Following the recent amalgamation of AMSBC with IIMS, do you have a message for the wider surveying community as to what this means for west coast Canadian marine surveyors?

I will allow myself to quote Richard Smith, President of AMSBC, who very accurately said; "Looking to the future I am convinced that this will prove to be a very positive and beneficial move for both our members and the profession at large here in British Columbia.

Our access to an association with a sizeable realm of national and international knowledge, combined with the considerable educational resources that will now be available to us will be of great value and help us to elevate the status of our profession and thus the level of service that we will bring to the marine industry in BC". I only can add to Richard's statement that I am very proud to be part of this process and to lend my hand in making those valuable changes.

Q8. From talking with you when we met recently, I know you have a military background and also a keen interest in collecting militaria and military history. Can you tell readers something about what you collect?

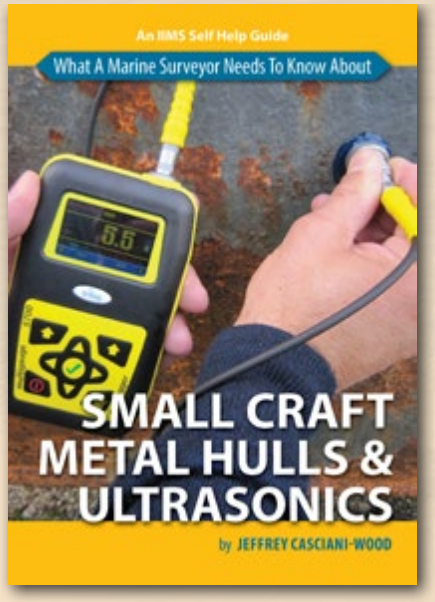
Glad you have noticed, even though I had no time to show you some of my hidden treasures! But at least you have seen the 'Holy Grail' and my pride and glory - the authentic Baker rifle from the Waterloo era.

I do collect British, Canadian and US army firearms and relevant accessories from circa 1700 up to WW2. I truly enjoy the restoration process and bringing some of those relics back to life and by doing so preserving history.

Q9. What other hobbies do you pursue when you are not hard at work?

Hobbies you say? If I only had some more time because as you know I am still part of the Royal Marines Reserve (at least for another 5 years I hope). Because I am currently residing in Canada I am posted and attached to the Canadian Forces where I am engaged in a military instructor role and it takes most of my free time. I take a pleasure in marksmanship and long distance shooting, but I do not hunt. I also enjoy playing classic guitar and the bagpipes (just please don't ask the neighbours about that though) - so I mainly have to settle for the wee chanter. I play traditional Scottish, Irish music and sea shanties. I do love sailing when time allows me to do so, but because it happens so rarely I didn't even bother to look for a boat. I do however (again thanks to the MOD) own a military collapsible Klepper canoe with the sailing package. So I do at least have some options.

IIMS handy guides...



What a marine surveyor needs to know about **small craft metal hulls and ultrasonics**

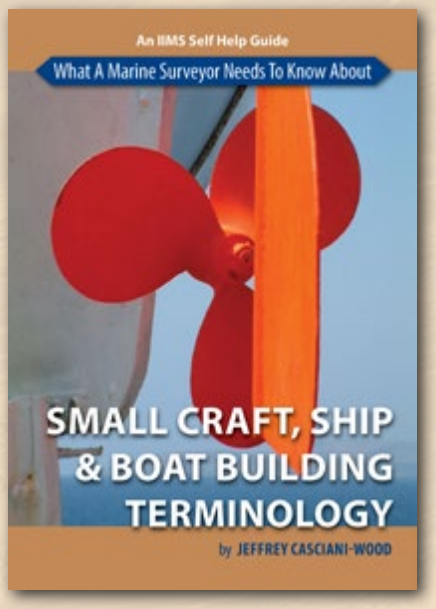
Hull survey methods are the means and procedures necessary to detect defects and damage at an early stage in order to prevent failure and/or breakdown. They are, therefore, not only a comprehensive means of detecting such deficiencies and/or monitoring the vessel's structural condition, but also defining schemes for inspection between the last overhaul and before the occurrence of failure. This handy guide give a clear and concise into the topic. **Published at £25.00**

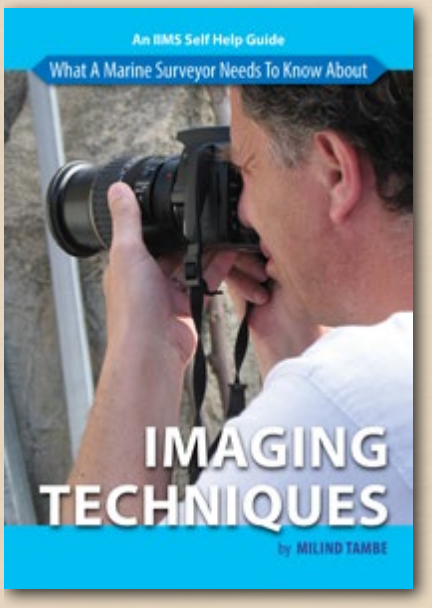
What a marine surveyor needs to know about **working in enclosed spaces**

It is generally accepted that the definition of 'an enclosed space' is a space which has limited openings for entry and exit and it not intended for continuous worker occupancy, which inevitably leads them being hazardous environments. Too many surveyors (and other maritime crew and workers) have come to harm because of a lack of knowledge about how to operate safely in enclosed spaces. In Working in Enclosed Space, the authors Capt Michael Lloyd and Adam Allan, (who are both highly experienced in this field of operation), have written a concise, technical reference for surveyor personnel involved in entering enclosed spaces for inspection purposes. **Published at £25.00**

What a marine surveyor needs to know about **small craft, ship and boat-building terminology**

For 70 years Jeffrey Casciani-Wood has been 'messing about with and on boats and ships.' He has devoted a life time to his profession and craft as well as to the art of marine surveying. This unique book is the culmination of his 70 years' knowledge and experience. In What a Marine Surveyor Needs to Know About Small Craft, Ship and Boatbuilding Terminology, the author has pulled together a glossary of terms for literally hundreds of words relating to wood and steel boats, timber, fibre reinforced plastic boats, rigid inflatable and ferro-cement boats. This book is quite simply an essential resource and reference guide for marine surveyors. **Published at £30.00**





What a marine surveyor needs to know about **imaging techniques**

Milind Tambe sets out to explain the science and aesthetics of photography which would benefit a marine surveyor. His aim is not to teach photography, but to help surveyors understand their cameras better and then create better images, and if possible artistic ones that speak for themselves of the situation and condition that the surveyor has seen on board the ship or boat. Milind is an established marine surveyor with a strong interest in photography and practices this as an art form for pleasure. He is a Fellow of the International Institute of Marine Surveying and a Life Member of The Photographic Society of India. **Published at £27.00**

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NEW….Enclosed space training aimed specifically at Marine Surveyors..

WHY HAVE MINES RESCUE MARINE CREATED THIS COURSE?

IIMS are committed to the safety of their people, therefore, this course was created to help marine surveyors become aware of the potential dangers associated with entering and exiting enclosed spaces on board ships whilst carrying out their routine work.

COURSE CONTENT…

This bespoke one day course is drafted inline with the requirements of the UK national occupational standard for entering an enclosed medium risk area (tank, double bottoms, cargo holds, void spaces etc.) and can be assessed to that standard. Included in the course will be a review of main procedural documentation such as risk assessments, action plan (SSOW), permit to work and emergency procedures.

It also identifies Personal Protective Equipment and offers a 'hands on' learning approach in relation to monitoring equipment, EEBD's and other entry & rescue equipment.

The course also discusses the involvement of personnel positioned outside the enclosed space who have designated responsibilities for controlling the entry and dealing with an emergency situation should that occur.

In line with the national occupational standard identified above, there is a practical element to the course which may involve self rescue techniques to be demonstrated from both vertical and horizontal entry points.

Mines Rescue Marine

HEAD OFFICE:

HETTON ROAD

HOUGHTION-LE -SPRING

TYNE AND WEAR

Co DURHAM

UNITED KINGDOM

DH5 8PB

Tel: +44 (0)191 584 0144

For more information please call - +44 (0)191 584 0144

or Email: marine@minesrescue.com