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Editorial | CEO's Note

Welcome on Board and to our first Quarterly Edition of Arcadia LeaderSea! A corporate magazine exclusively designed to meet the demands of bluesea leaders and to exceed the expectations of grow thinkers.

This issue shall be the beginning of an experiential voyage that we wish you, our Arcadia people namely our seafarers, shore-based employees, associates, clients and suppliers to join and enjoy as our fellow travelers along this course.

Our commitment is to offer you an enjoyable reading and to capture your attention and interest by sharing knowledge, rising awareness, promoting storytelling, highlighting reflections and views of inspiring personalities and profound executives who serve the global Shipping community.

As a pioneering company, Arcadia, applies the innovative business model h2h (human2human) aiming to one main objective: successful human performance at all levels. It all starts and ends to our people that is why we unceasingly invest in our priceless human capital on board and ashore; we cultivate a leadership mindset among our people, we develop both their technical knowledge and interpersonal skills but above all we empower their commitment to perform at the highest levels essential for efficient and effective operations always pursuing excellence!

Our commitment reflects our vision and ensures Arcadia's future sustainable growth. And since 'sustainability' is a key word for the current decade 2020-2030, taking into consideration the United Nations' 17 Sustainable Development Goals (SDGs) and this year's IMO World Maritime Day campaign "Sustainable shipping for a sustainable planet," I chose my CEO-Log in this first issue to be 'Sustainable Leadership | Shaping the future of Shipping".

The shipping industry, with the support of the IMO regulatory framework, has already started the transition towards this sustainable future. IMO has adopted and will continue to develop measures to cut greenhouse gas emissions, reduce the sulphur content of ships' fuel oil, implement the Ballast Water Management Convention, protect the polar regions, reduce marine litter, improve the efficiency of shipping through the electronic exchange of information, meet the challenges of the digitalization of shipping and enhance the participation of women in the maritime community.

Of course, we cannot fail to mention the COVID-19 pandemic that has highlighted the professionalism and sacrifice of the two million seafarers who serve on the world's merchant fleet. During the pandemic, Shipping has continued to transport more than 80% of world trade, including vital medical supplies, food and other basic goods that are critical for the COVID-19 response and recovery – while hundreds of thousands of seafarers face a humanitarian crisis as they have been stranded at sea, unable to get off the ships they operate.

Global crises can change history by transforming populations, states, societies, economies, norms, and governing structures. However, these particular crises can be the challenges turned to opportunities that can bring out the best in people and can help us emerge stronger and smarter.

We -in ARCADIA- are taking steps forward, remaining at the forefront, leading the way and preparing the future through our people, for our people. LeaderSea is a product, an intellectual journey, designed, created and navigated by Arcadia people, the Leaders in Global Shipping, who know the way, go the way, and show the way!

Welcome on Board!

Dimitrios Mattheou CFO

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PERFORMANCE STATISTICS

VETTING ANALYSIS



07

NAME	AEGEAN FREEDOM	MARATHA	AEGEAN ANGEL	AEGEAN DIGNITY	AEGEAN MYTH	AEGEAN NOBILITY	EGEAN HARMONY	AEGEAN POWER	AEGEAN HORIZON	EGEAN MARATHON	AEGEAN UNITY	AEGEAN DREAM
VESSEL TYPE	AFRAMAX OIL TANKER	AFRAMAX OIL TANKER	SUEZMAX OIL TANKER	SUEZMAX OIL TANKER	AFRAMAX OIL TANKER	AFRAMAX OIL TANKER	AFRAMAX OIL TANKER	AFRAMAX OIL TANKER	SUEZMAX OIL TANKER	SUEZMAX OIL TANKER	SUEZMAX OIL TANKER	SUEZMAX OIL TANKER
OMI	9232876	9252371	9290323	9290335	9348479	9345441	9338917	9338905	9326811	9745225	9745237	9645425
YEAR	2003	2003	2004	2004	2006	2007	2007	2007	2007	2016	2016	2016
CLASS	DNV	DNV	ABS	ABS	DNV	DNV	DNV	DNV	ABS	ABS	ABS	ABS
FLAG	₩	WI	₩	WI	<u>₩</u>	₩I	<u>₩</u>	₩I	₩	₩I	₩I	WI
DWT	106,074	105,995	159,100	159,081	115,833	115,814	115,824	115,753	158,783	159,000	159,000	159,000
BUILT	Ħ	ΗH	ΗH	ΗH	SHI	SHI	SHI	SHI	IH	ΗH	IH	IH

FLEET LIST ARCADIA

Honoring the Loyalty of our People

Congratulations on reaching a service milestone with Arcadia/Aegean Bulk team! Our values and principles are excellence in service, through innovation, by people who care. The successful growth of our company is the direct result of all of you and especially of our valued employees who have reached this significant service milestone of 18, 15 and 10 years. It is a token of appreciation for the part you have played in making the company what it is today. Your talents and efforts already have helped us achieve excellence in many areas. Your dedication and commitment serve as a vital link in the chain which drives our operation. In recognition of that commitment, we are

pleased to present our Priceless List of the Long Service Milestone.

We look forward to your ongoing contributions and a bright and successful future together as a team!

	NAME	RANK	Years in company
1	Zygouris Nikolaos	MASTER	20
2	Lochaitis Evangelos	2/E	18
3	Kotselis Emmanouil	MASTER	18
4	Stergiou Stylianos	MASTER	18
5	Mallis Fragkoulis	C/E	18
6	Vitoratos Gerasimos	C/E	18
7	Kakavogiannis Michail	MASTER	17
8	Vlachakis Ioannis	MASTER	17
9	Zilakakis Isaak	MASTER	17
10	Saralotidis Dimitrios	MASTER	17
11	Perdikis Alexandros	C/E	17
12	Alexandrou Stavros	C/E	17
13	Barogiannis Dimosthenis	MASTER	16
14	Panagiotou Georgios	MASTER	16
15	Andrianos Nikolaos	MASTER	16
16	Karakasis Dimitrios	MASTER	16
17	Triantafyllidis Ilias	MASTER	16
18	Rossidis Christos	MASTER	16
19	Karapetsas Athanasios	C/O	16
20	Anthopoulos Ioannis	C/O	16
21	Athanasiou Stamatios	C/O	16
22	Tzannetoulakos Petros	C/E	16
23	Giannakoulakos Nikolaos	C/E	16
24	Stefanidis Stefanos	C/E	16
25	Chalkias Theodoros	C/E	16
26	Papadopoulos Georgios	C/E	16
27	Athanasakos Nikos	2/E	16

OVER 15 YEARS OF SERVICE

	OVER TO TEARS O	JERVICE	-
	NAME	RANK	Years in Company
1	Nikolaou Stavros	MASTER	15
2	Aleiferis Spyridon	MASTER	15
3	Sakellaris Nikolaos	MASTER	15
4	Athanasiou Konstantinos	MASTER	15
5	Kampouris Nikolaos	2/E	15
6	Karafas Kostantinos	MASTER	13
7	Ventouris Nikolaos	MASTER	13
8	Politis Panagiotis	MASTER	13
9	Agathos Theodoros	MASTER	13
10	Kanellopoulos Georgios	MASTER	13
11	Xanthopoulos Andreas	MASTER	13
12	Charitos Ioannis	С/О	13
13	Zarnavelis Nikolaos	С/О	13
14	Nakis Vasileios	С/О	13
15	Chartoularis Nikolaos	C/E	13
16	Doxiadis Ioannis	C/E	13
17	Loukataris Ioannis	C/E	13
18	Christou Dimitrios	3/E	13
19	Papoutsis Georgios	MASTER	12
20	Panagiotopoulos Emmanouil	MASTER	12
21	Stergiou Achillefs	MASTER	12
22	Theodoropoulos Agamemnon	MASTER	12
23	Anargyrou Nikolaos	C/O	12
24	Papoutsis Christos	C/O	12
25	Nikolis Nikos	2/0	12
26	Vazaios Markos	C/E	12
27	Moustakis Dimitrios	C/E	12
28	Andreadis Eleftherios	C/E	12
29	Giannakoulakos Athanasios	C/E	12
30	Krikelis Valiseios-Dimitrios	C/E	12
31	Mastoras Pantelis	C/E	12
32	Ntalis Nikolaos	2/E	12
33	Varelis Nikolaos	2/E	12
34	Giannakoulakos Ioannis	2/E	12
35	Lagaros Ioannis	C/O	11
36	Georgousopoulos Efstathios	MASTER	10
37	Karageorgiou Nikolaos	C/E	10

OVER 10 YEARS OF SERVICE

QUICK GUIDE TO CLASSIFICATION AND STATUTORY SURVEYS



The aim of this topic is to explain the role of classification societies, develop an understanding of the relationship between classification and statutory requirements and finally explore the periodical survey cycle.

Let's first start with the origin of the classification societies, which stem from the commercial need to reduce losses of ships and cargoes.

They provide a guide to the condition of a given ship, based on the certificates they issue, combined with memorandums and conditions of class or statutory recorded against it.

While, their surveyors are dedicated to ensure that ships are built and maintained according to clearly defined rules (IACS-International Association of Classification Societies) and international regulations (IMO, ILO, PSC, EMSA etc.).

We will try to shed some light on the term Statutory, which as per the dictionary means: enacted, created, or regulated by statute (An established law, act, bill). The sequence is a follow, firstly, the International Maritime Organisation (IMO) introduces regulations, in the form of conventions, codes, resolutions and circulars and the Flag (of the ship) i.e. country of registration then ratifies and adopts these conventions, codes, resolutions and circulars.

Flag may, in addition, have its own national requirements known commonly as "flag **requirements**". They then become a statutory requirement - **national** 'law' upon the ship.

In most of the cases compliance with statutory requirements is delegated by the flag to the classification society (acting as a Recognized Organization, or RO, to and on behalf of the Flag).

At hereunder diagram we will try and illustrate the relationship between Class and Statutory requirements.



It must be highlighted that classification is a partnership between:



Classification system aims to ensure that the ship remains fit to operate from the day of delivery and the issuing of the ship's first certificate of class, until the day the ship is taken out of service. As a requirement of maintaining class, the owner/operator must advise the society for approval, any modifications or conversions during the ship's life. Only then classification as a process will make provisions for adequate structural strength of all essential parts of the hull and its appendages; safety and reliability of the propulsion and steering systems; and effectiveness of those features and auxiliary systems that have been built into the ship in order to establish and maintain basic conditions on board, so that cargoes and personnel can be safely carried while the ship is at sea, at anchor, or moored in harbor. Class ensures these provisions through periodical visits to the ship by its surveyors.

Ships normally enter class either as new ships constructed and/or classed under the same society, or as ships in operation, which the owner for commercial reasons, decides to change from one society to another. Before a new building yard delivers the ship, the surveyor must verify that all the class and statutory requirements have been met and complied with.

Where the class society is authorized to carry out the statutory surveys on behalf of the Flag administration chosen by the owner for the ships' registration, it will

issue both class and statutory certificates on delivery and these will be valid for a five-year period from the date of delivery.

The day of delivery is deemed to be the same as the date of completion of ship's built.



MT Aegean Vision delivery ceremony at HHI Syard

For a ship to remain in class throughout its life, the owner/operators should make sure the conditions of classification are met. This includes:

• the ship being maintained to a standard where it meets the required rule requirements when examined at the prescribed periodical surveys;

• reporting all damages, defects, breakdowns or instances of groundings to class;

• the ship having on board valid convention certificates

• the ship being properly loaded and operated at all times.

• the ship having on board loading guidance in the form of a loading manual and loading instrument as required by the rules.

• the ship being operated only in the environmental conditions used as the basis for its design, unless prior agreement was agreed with class;

As already mentioned, a condition of classification is that the ship meets the rule requirements at the time of periodical surveys, which comprises the Annual Survey, Intermediate Survey, Docking Survey and Special Survey.

In addition to periodical class survey, the Classification Society may perform statutory surveys such as safety equipment, safety construction, Load Line and MARPOL on behalf of the Flag Administration, in which case they will be conducted at the same time as the class surveys.

The Main Class surveys are divided to:

A) Hull

- Special Survey (SS)
- Intermediate Survey (ITSS/ITMS)
- Annual Survey (AS)

- Docking (Bottom) Survey (DS)
- B) Machinery
- Engine Survey (ES) or Continuous Survey Machinery (CSM)
- Tailshaft (Screwshaft) Survey
- Boilers main, auxiliary, domestic survey
- Steampipes Survey

The main statutory surveys are:

- Safety Construction (SOLAS)
- Load line (Load Line)
- Safety Equipment (SOLAS)
- Safety Radio (SOLAS)
- Marine Pollution (oil, air, sewage etc) (MARPOL)
- Ballast water management
- Lifting Appliances/Loading/Cargo gear including elevator, assuming vessel's Flag has ratified ILO 152
- International Safety Management (ISM)
- International Ship & Port Facility Security (ISPS)
- Maritime Labour convention (MLC)

The survey cycle applied to a specific ship takes two forms:

- "Continuous survey cycle" for structural items (plus anchoring and mooring equipment), and 'Continuous Survey Machinery' (CSM) for propulsion and essential auxiliary machinery. Which is spread across the ship's five-year survey cycle i.e. 20% of Special Survey items per year.

- "Special Survey Cycle" for hull machinery surveys. During which all special survey items are examined over a short period of time at a single Special Survey held every five years.

While "ESP-Enhanced survey program" requires closeup survey of defined structures in addition to an overall survey.

It is also requiring an enhanced number of scantling thickness measurements.

It should be noted that associated thickness measurements should be carried out by a Classification Society-approved thickness measurement company, with a Society surveyor on board for sufficient time to control the process.

Survey Cycle

Nue I 2 I 4 5 35 ITEX or ITMS 32 33 45 <t

ARCADIA PEOPLE VIEWS | TECHNICAL DEPT.

ANNUAL SURVEY (AS): An annual survey is carried out at each anniversary after the ships delivery, one for each year in the five year survey cycle, however, of these one will be incorporated with the Intermediate Survey and one with the Special Survey. For practical reasons, Annual Surveys may be carried out in a period spanning three months before and three months after the anniversary date, effectively giving owners a six-month window. No extension is permitted to the Annual Surveys range date. If these surveys are not completed by the end of the six-month range, then class will be automatically suspended, with no postponements permitted. One obvious effect of class to insurers is no longer possible should an incident occur in this period.

INTERMEDIATE SURVEY (ITSS): An Intermediate Survey is carried out either at and/or between the range dates of the second and third Annual Surveys. It can be started as early as three months before the second anniversary of the ships completion date or last Special Survey date and can be completed any time up until three months after the third anniversary. No postponements are permitted. The survey requirements for the intermediate survey are the same as for the Annual Survey but extended to include additional basic requirement across all ship types such as electrical generating sets being examined under working conditions. However, below are requirements for all ship types of different ages:

• For vessels over five years old: a general, internal examination of representative spaces used for salt water ballast is carried out. If there is no protective coating, soft coating, or POOR coating condition, the examination is extended to other ballast spaces of the same type.

• For vessels over 10 years old: anchors are partially lowered and then raised satisfactorily using the ship's windlass. A general internal examination of all spaces used for salt water ballast is also carried out. If such examinations reveal no visible structural defects, the examination may be limited to a verification that the protective coating remains effective.

• For ESP ship types: there are enhanced intermediate survey requirements for oil tankers, combination carriers, chemical tankers and dry bulk cargo ships, which become more onerous as the ship gets older. Once the ship is over 10 years of age then the Intermediate Survey will be extended so that it is carried out to the same extend as the previous Special Survey.

DOCKING SURVEY: Two Docking Surveys must be completed within any five-year survey cycle, with the maximum period between two successive dockings not exceeding three years. One of the two Docking Surveys should coincide with the Special Survey. The intermediate Docking Survey between Special Survey dockings may be replaced by an In-water Survey (IWS) where the ship meets the requirements and has been assigned relevant class notation. For oil tankers, chemical tankers and bulk carriers over 15 years of age, the intermediate docking between Special Survey will be held in dry-dock.

SPECIAL SURVEY (SS): A Special Survey is carried out every five years of a ship's operational life, allowing the Certificate of Class to be renewed for a further five years. In addition to Annual Survey requirements, the Special Survey includes examination, tests and checks, which are sufficient enough to ensure the hull, equipment and related piping are in satisfactory condition. The ship must be fit for its intended purpose for the next five-year period of class, subject to proper maintenance, operation and the periodical surveys being carried out at the due dates. In exceptional circumstances, the Classification Society may grant an extension of class, limited to a maximum of three months beyond the end of the fifth year. The Special Survey may begin at the fourth Annual Survey, with a view to completion by the fifth anniversary date. When the Special Survey is started before the fourth Annual Survey, the entire survey must be completed within 15 months, if such work is to be credited to the Special Survey.

We will finalize the topic by pointing out what will happen in case a ship fails to meet rule requirements at a survey?

• it would rarely have its class withdrawn immediately, regardless of the seriousness of the non-compliance.

• If a defect is considered major enough, then the ship may have its class suspended. This would make the class certificate invalid until the necessary corrective action had been taken. Class suspension effectively stops the ship from trading because of the insurance implications for both the ship and its cargo.

• In many instances where a defect, damage or wasted part that may seriously affect the ship's maintenance of class is found, a condition of class or a statutory condition is recorded on the class certificate and against the ship. Which will recommend a suitable time for an examination, repair of replacement to be carried out in order for class to be maintained.

• Apart from the conditions of class or/and statutory conditions, significant notes are held in the form of a memoranda/ an additional requirement/ a recording etc. Such an item being noted can be basically cosmetic and hence it can be repaired at the owner's convenience or it may be of informative nature and may relate to a forthcoming statutory requirement.

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Definition of terms, related to the shipping of the future



Cpt. Apostolos Skempes Training Manager, Arcadia Shipmanagement CO LTD

Preamble

The Maritime industry has come a long way compared to a decade back, in terms of technology innovation and adoption of automation into the shipping operations. Being the most preferred and cost-effective mode of transport, maritime has become the critical part of every other industry and indeed the global economy. But, despite being the most preferred mode of transport and being responsible for more than 90% of international trade transportation, shipping industry was the slowest to respond to the digital advancements. Technology change is faster than ever, providing the choice for the shipping-involved companies to become more responsive to the customer demands and the dynamic market changes. Technology has brought in, automation processes and connecting possibilities through the "orchestration" of multiple solutions, such as:

- Human-to-Machine (Interface devices, Mobile connection/communication, PC)

- Machine-to-Machine (Sensors, Cloud, Big Data and Analytics, Enterprise systems interacting in harmony)

- Machine-to-Human (Visualization tools, Smart sensors, Hand held devices for ship inspection, Smart documents).

Various "modern" terms

Autonomous, automated, self-operating, unmanned vessels of the future, "intelligent" with advanced connectivity, remotely operated with extended data management capability, all these definitions and distinctions are hard to grasp and for the most of the people are leading to confusion.

Very often, into our urge to visualize the next-generation ships, we are talking about different things. Autonomous is not equivalent to un-manned. Automated systems are designed to operate with, or without human intervention, but have limited capability to handle unforeseen conditions. A fully autonomous system, as scientists proclaim, will have the ability to react without human intervention.

But remote maintenance of heavy machinery systems, such as the ones installed into the modern vessels' engine rooms, would be extremely expensive, as it would require continual live streaming of multiple cameras, consuming masses of megabytes of data.

Connectivity consists of the Internet of Things (explained below), combined with the networks needed for the data traverses. The data created, consumed and shared, need to be processed and managed for the provision of a quality data management and compliance to organizational and regulatory standards.

Autonomous Control implies satisfactory performance with significant uncertainties in the environment and the ability to compensate for system failures without external intervention. This is a longtime dream, which seems to become more feasible with digitalization – i.e. the availability of sensors, the capacity to handle the related amount of data and the processing capacity and methods to run the necessary decision algorithms.

The Internet of Things (IoT) term, refers to the interconnection of everyday maritime devices, enabling them to send and receive data. Sensors and communication networks will enable for remote and autonomous operations. Sensors are the "eyes and ears" of autonomous systems and as such, are the keys to successful autonomous control systems. But this leads to the fact that, a remotely controlled ship with no seafarers on it, which will be operated entirely from a distant location, would not tolerate any loss of connectivity, as it would then be out of control. Therefore, remotely controlled deep-sea going ships should be retaining seafarers on board, who will be called to take over, if connectivity fails. Artificial intelligence is the development of systems able to perform tasks which are normally requiring human intelligence. Autonomous technology and robotics is an advanced technology that allows a machine to accomplish defined tasks, without operator (human) interaction. Big data process helps into examining large and varied data sets, to make more informed business decisions. All the above will result to an autonomous vessel not being cheap at all to construct and additionally, a significant amount of "crew" will be required to be standing-by onshore, instead of being onboard. The diversification of responsibilities, with ship monitoring and operation from onshore is one thing, but corrective maintenance and service/assistance in need, is another.

Technology trends

Applicable to the Maritime industry, but also into other – related – industries, such as Oil and Gas, Energy, Healthcare and Food, the following technologies will be influential and will create the largest expected economic and societal impact.

- Enabling and fostering: acceleration of digitalization, virtualization and automation across the lifecycle and, precision materials.

- Transformative: transport and logistics, low carbon energy systems, health data, precision food and space.

- Technologies that help to sustain our biosphere: the ocean space and other natural ecosystems.

We all must understand and accept that digitization doesn't simply mean the replacing of manual processes with sophisticated software applications or autonomous robots. The things to come, is the development and nurturing of a modern digitalfriendly environment in the Company and its fleet, through the implementation of new ways to improve operations. Training and development of the shore-based staff and crew members is as important as ever, as they are the ones who will be the ultimate drivers and agents in the digital transformation process.

The hype around autonomous shipping has settled down a little. Progress continues to be made only with smaller vessels and in coastal waters. 2025 is supposed to be the year of the autonomous ship. Yes, we shall see short distance transfers through sea to become unmanned (vessels/crafts mostly fuelled by electricity and communicating / monitored through sensors). What seems feasible for the moment is the following:

- Ferries between nearby ports of opposing islands,
- Offshore supply vessels between nearby installations,
- Tugs / fire-fighting boats / supply launches within port limits,

- Very short distance dry cargo vessels (not liquid cargo, because any source of pollution will create huge claims).

Synopsis

What the industry expects, are systems that will raise efficiency, enhance safety, enable improved decision-making both ashore and onboard and, ideally lighten the seafarers' workload. Not systems which are promising to replace the human factor and instead, create bigger and unresolved issues.



NEGOTIATION IN PROCUREMENT (Create value from negotiations)



Ioannis Dimitriou

Purchasing Manager, Arcadia Shipmanagement CO LTD

In buyers' daily routine, negotiation has a profound and critical role. In their effort to bargain for lower prices and more favorable contracts, purchasers very often apply negotiation practices to create value for their businesses. Some of the most common and effective practices to create value are being described below:

1. **Identify the BATNA** (Best Alternative To a Negotiated Agreement). Consider a purchaser who wants to buy a tank cleaning chemical. The existing supplier offers a chemical for \$8.10/liter when a new supplier offers a more competitive price of \$7.5/liter plus free transportation for three major ports. The offer of the new supplier is the BATNA of the purchaser who can use it in order to find his reservation point. This is the highest price where buyer is willing to buy. On the other side, there is the seller's BATNA and his reservation point is the lowest price at which he will agree to sell. Both parties should not reveal their reservation points for any reason.

2. Establish trust and build a relationship.

Although the win-win situation is quite difficult to be achieved, the concerned parties should aim to mutual benefits from an agreement. It is very important for negotiators to be rational, trustful and well prepared for what they will request and for the things they are willing to offer to the opposite party. Compromise is not the target but it's the next preferable option after win-win.

3. **Use creativity for problem solving.** Most negotiation situations appear to contain a single issue. Fractionating negotiation issue into solvable parts and creating several issues from what

appear to be single-issue negotiations is probably the most important aspect of creativity negotiation. For example, consider how difficult would it be for an employer and his employee to solve their difference about the wage increase without discussing the issues of job security, overtime costs, insurance, etc.

4. **Developing a negotiating style.** It is very useful sometimes to self-assess and understand our behavior, our limits and finally our strengths. There are a lot of diagnostic tools available for this reason. Each one of us has a unique character with some special skills to use in a negotiation. Some other features of us may not match with the picture of a good negotiator. Furthermore, understand our counterparty helps us to see his orientation and preferences, calculate his reactions and identify his limits.

5. Earn the advantages of information technology. Although physical presence is sometimes necessary, teleconference enhance negotiation outcome, saves time, and promotes more equal pie-slices than do face-to-face meetings. More participants from different locations can participate and information is more widely distributed.

We saw that everyone can negotiate effectively if can avoid negotiation traps and try to have a serious knowledge and preparation about limits, potential alternatives, how the pie can be expanded and leave behind egocentrism (walking away from the table). Risk is also useful but not always a prerequisite.

References: Leigh L. Thompson "The mind and heart of the negotiator" 2012 Roger Fisher, William Ury, Bruce Patton "Getting to yes" 1991

¹ Lax, D.A., & Sebenius J.K. (1986). The manager as negotiator. New York: Free Press



" Due to COVID precautionary measures implemented worldwide, many seafarers remained on board, serving for prolonged periods of time. Do you consider such seafarer to become less efficient, due to physical and emotional fatigue/stress? "



Serving at sea for prolonged time on board, in view of the pandemic Covid-19, works negatively for a seafarer.

A seafarer's mental fatigue or stress is a direct result of the environment that he operates. Any traumatic events, cause negative results on mental health. Covid-19 pandemic is no different.

This has created huge uncertainty for every aspect of life. The seafarer is not afraid for his own safety. He/she is afraid for his/her family.

The combination of increased workload, extended contracts bringing continued and prolonged isolation, drives the majority of seafarers feeling stressed, anxious and exhausted, with negative results such as reduced quality of work and inevitably, affects safety standards.

The seafarer is by choice a seafarer. Always must be strong and backbone and, now is the time to show our bravery, good will, heartsease and sanity.

The way we work every day as a team, the same way we fight as one fist against an invisible and "airborne" enemy.



Seafarers have faced difficulties regarding repatriation and not returning to their homes timely as they intended to. Reasons include: reliever not available, country's authorities needed extended time/days to issue a visa, limitations for passports expiration date, unsafe countries for transportations etc.

COVID-19 new reality is difficult for everyone to adapt. Almost all countries forbid the seafarers' transportation (mostly through airports) while at the same time, same countries continue accepting the vessels to their Ports. This pandemic is creating extra emotional stress to the crew. As a Master, I was requested by the crew to give some explanations for this matter. So I expressed my positive feelings to the crew, explaining them the meaningfulness to remain calm and patient on board, especially for COVID-19 which is concerning the worldwide community. This optimism in conjunction with consecutively briefings was pivotal for the crew's emotional stability at these times.

However, my point of view is that any Seafarer, who remains on Board beyond his will, becomes less efficient due to physical and emotional fatigue/stress. Crew repatriation must be a priority in order to avoid undesirably results! Seafarers are a special category of workers and they need a special attention too.



The outburst of the pandemic has affected the life on board the ships. The fear of danger that this virus may cause to the seafarers or their beloved ones, have led to increased levels of stress and psychological pressure. In many cases the crew is forced to extend their serving period, sometimes up to a point that is against the MLC rules.

Therefore, the physical fatigue, combined with the mental stress, are the main causes of reduced productivity and less efficiency during work. Under these circumstances, it is more challenging for the seafarers to guarantee the high operating standards.

In order to preserve the levels of efficiency, it is crucial to invest more in communication and to respect the ethical system under which the vessel operates. During this difficult time, empathy, understanding and dedication, are the key elements to achieve a smooth cooperation and effectiveness.



Karafas Konstantinos Master M/T Aegean Harmony

Covid-19 is not just a virus but a global pandemic which have affected the whole population. Due to the worldwide restrictions that have been implemented in order to minimize the spread and the risk of the disease to be increased, the seafarers are stranded on board waiting to repatriated, missing their home and beloved ones.

I consider that such situation has make and is making the seafarers less efficient to their professional life on board. Working and living at sea requires mental resilience, which most seafarers learn and get better at, with experience. Every seafarer has his own coping mechanisms, to deal with feelings of anxiety, loneliness, helplessness and depression.

During the staying of the seafarers on board, away from their home and relatives, the physical, emotional effects are a common impact. Fatigue and stress due to the vessels' operational needs is developing, so now with the Covid-19 situation and restrictions, I believe that all those effects are affecting the seafarers, making them less efficient.





Nikolakis Emmanouil Master M/V Arkas

We are facing unprecedented worldwide lockdown and severe travel restrictions, caused by the Covid–19. Hundreds of thousands of seafarers stuck at sea for endless months, in some cases more than a year and have already expressed their exhaustion, fatigue, anxiety and mental stress.

"Alongside the pandemic crisis, has come a mental health crisis." By staying for prolonged periods of time seafarers are brought into a very precarious position. Being "trapped" onboard or on shore, away from loved ones and with limited contact, creates a huge impact in term of physical and emotional strain. As a result, stress and anxiety has undermined mental well-being. Lack of motivation has been a big factor onboard. Levels of risk and safety change in each individual's circumstance and, it is not something we can predict or foresee. Anyhow throughout this situation, the seafarers are doing their best to maintain the efficiency of transporting 80% of the global trade, including vital medical supplies needed during the pandemic, despite the strain brought by uncertainty and lack of control, over one's own destiny.



The world is a dynamic entity that is evolving and affects humans with new challenges. The latest challenge that humanity has to cope with is COVID19.

The precautionary measures as implemented worldwide, have negative side effects, both physical and emotional on humanity. These measures in general, are restricting people's freedom in life's activities and human interaction.

Seafarers - a special breed among others - have learned to cope better with hardships of life and be more tolerant. They have developed a much better "survivability" in tough times and adverse conditions.

It's obvious though, that in tough times efficiency diminishes even for seafarers, due to physical fatigue and emotional stress arising out of prolonged service time.

Country authorities around the world need to take this parameter into serious consideration and do something about it.

Corona virus is a huge, non-discriminatory crisis which affects and defines daily life, physical and mental health both on land and at sea. The preventing measures which are implemented worldwide have affect the merchant marine and particularly the part of human resource, as many of the seafarers remained onboard serving for prolonged period of time, resulting into put-

ting those onboard at risk of depression and possible injury. Fatigue and issues with mental health are increasing, not only from excessive length of time the seafarers have spent at sea, but also with the additional stress they are under, from worrying about their family and relatives at home and the effect which the pandemic is having on them. All the above are introducing a growing risk over safety. Therefore, for safety, regulatory and humanitarian reasons, crew changes should not be postponed indefinitely.



"An autonomous vessel (NOT unmanned), will bring a significant reduce to the manning (deck and engine). In cases of engine failure, will it be possible to apply repairs (at sea) with limited man power?"

Liapodimitris Nikolaos Chief Engineer M/T Aegean Vision

As technology advances, an autonomous vessel is a project that lies in the horizon. Even with this technological achievement, weaknesses are occurring.

One of them is the reduction of man power on engine and deck department. Artificial intelligence needs a lot of years to surpass the human capabilities in order to replace humans completely.

Another one is, that in case of a failure in engine or any machinery on engine and deck, with limited man power in engine department, the repairs cannot be possible or, will take a lot of time, meaning money loss for ship owners.

The worst scenario: vessel is manned with computer engineers and the repairs in an engine or a machinery will be "de facto" impossible, because engine and maintenance are different from repairing hardware and software of the vessels' computers.

The result is that reducing man power, will bring delays and some tasks will become completely unresolved.



The shipping industry, slowly but steadily, is marching towards autonomous vessels with reduced man power. In such a case, a limited number of seafarers, will be employed to just monitor the performance of the vessels and its automations, performing minimum maintenance, where and when required.

Although this seems fine for the "day to day" operation, it will be a great challenge when a vital component (such as M/E or A/E) suffers a breakdown, which will require more manpower for the overhauling / repairs to be carried out, than the normal need.

Let's also not forget that besides the repairs, mostly the job of the on-board personnel is preventative maintenance, which due to lack of man power will be less sufficient, resulting in more chances for any machinery to have breakdown / malfunction.



Although autonomous vessels technology might not seem mature enough to be put into practice at the present time, it is certain that this technological advancement will be implemented in the future.

However, with the current set of engines a vessel is equipped with, autonomous shipping is unlikely to be achieved for open ocean navigation. The complexity and frequency of maintenance along with the difficulty of resolving emergency situations regarding these engines, would be an unsolvable problem for autonomy. The tendency of engineering both at land and sea, dictates that the future transportation will evolve from internal combustion engines to something simpler and somehow maintenance-free like the electric propulsion.

In that case, autonomous shipping will be achieved and repairs will be possible to be applied during engine failures with minimum crew. Other new technologies like Artificial Intelligence, low satellite latency and undisrupted coverage for onshore monitoring, will be also a valuable assistant.

Sustainable Leadership Shaping the future of Shipping



Capt. Dimitrios Mattheou Chief Executive Officer, Arcadia Shipmanagement Co Ltd.

Acknowledgement

The world we live has become an increasingly uncertain place. In the wake of a Covid-19 pandemic, a global economic downturn and a social disorder, the political systems and institutions capable of addressing the complex global issues we all face, seem to be fragile.

Against this background of uncertainty, organizations are increasingly expected to take responsibility for the ways in which their activities impact both their micro and macro environment, namely their employees, clients, associates, suppliers, investors, the wider society and the natural environment—as well as seeking to maximize profits.

A global call for actions

The private sector is expected to play a crucial role in the realization of the United Nations' Sustainable Development Goals. In 2015, 193 countries adopted the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs). This Agenda calls for action by all countries to eradicate poverty and achieve sustainable development by 2030 world-wide – and the SDGs are seen as an opportunity to transform the world for the better.

As part of the United Nations family, IMO is actively working towards the 2030 Agenda for Sustainable Development and the associated SDGs. Indeed,



most of the elements of the 2030 Agenda will only be realized with a sustainable transport sector supporting world trade and facilitating global economy. The Sustainable Development Goals provide a blueprint for the transition to a healthier planet and a more just world - for present and future generations. With concrete targets, the Goals aim to end poverty and hunger, expand access to health, education, justice and jobs and promote inclusive and sustained economic growth, while protecting our planet from environmental degradation. The decade 2020-2030 needs to be a decade of action and delivery on these goals. In order to achieve this, the Secretary General of the United Nations, Antonio Guterres, has asked for all world leaders to focus on the Sustainable Development Goals. The International Maritime Organization, in line with the IMO Secretariat's SDG Strategy and with the 2020 World Maritime Theme of "Sustainable shipping for a sustainable planet" is ready to further raise awareness of the United Nations' Sustainable Development Goals and to support Member

States in their efforts to implement the 2030 Agenda and make 2020-2030 a decade of action. This interactive campaign provides an excellent opportunity to showcase the work that the Shipping Industry is undertaking to achieve the targets. It will provide opportunities for leaders in shipping, to both reflect on the work done and the urgent steps they further plan towards a sustainable future.

Taking an alternative path in Shipping Introducing Sustainable Leadership

Leadership is about envisioning and shaping the future. The key step is to begin with the end in mind. As they say, the future is a better place to start. Think of a construction of a home, for example. You create it in every detail before you ever hammer the first nail into place. Leadership, in our business world, helps us define our goals, visualize, have a very clear sense of what kind of Shipping we want and what are the things we want to accomplish. Shipping Management, on the other hand, is a bottom-line focus, because management is about doing things right; leadership is doing the right things. American author, Stephen R. Covey describes it perfectly: "The Management is efficiency in climbing the ladder of success; leadership determines whether the ladder is leaning against the right wall." Therefore, leaders in shipping have an important part to play in making the right strategic choices (choose the right wall) in order to create this sustainable future.

But taking these into account, the urgent need arises for a new type of leadership—one that makes the long-term sustainability of our industry a **top priority. It is called 'Sustainable Leadership'** and it is already applied in various sectors by leaders of businesses (often CEOs) manage companies with environment, society, and long-term sustainable development goals. To be more specific, sustainable leaders set strategies and ensure the delivery of results that meet the triple bottom line of social, environmental and financial performance oftentimes referred to as the 3Ps: People-Planet-Profit.

Sustainable leadership demands a fundamentally different approach towards people and systems. It requires a change in mindset on the part of boards of directors to start operating according to this logic. Current human resources practices in large corporations typically adopt a more short-term outlook, which by no means support sustainability. The winners of the future will be those companies that are proactively embracing sustainability as a business opportunity instead of seeing it as a matter of compliance or a way to defend themselves against critical stakeholders.

Sustainable leaders look beyond immediate, shortterm gains to see the role their company plays in a larger context. Complex, transnational issues- the global impact of the pandemic COVID-19, the pressure on natural and food resources, our ecological footprint and climate change, regional instability, various security/safety issues, access to healthcare, training requirements, social disruption and technological change—cannot be solved by external forces nor addressed by international bodies, governments and political systems only. Nowadays, there is growing social pressure on companies-including the shipping companies- to consider as first priority "People, Planet and Profit" and to respond to the concerns of multiple stakeholders.

In particular, every company, no matter the sector, is now accountable and is obliged to assist in dealing with these three global issues, initially by improving its internal environment; the employees and the applied corporate systems are called to become part of this transformation journey to



CEO'S COVER STORY

sustainable development. The desired result is a state of society where living conditions and resources are used to continue to meet human needs without undermining the integrity and stability of the natural system.

A Sustainable Leadership model

An ideal model of sustainable leadership was first introduced by *Russell Reynolds Associates* that successfully brings together my thinking in this article, as well as highlighting the need for a fundamental change in approach toward sustainability in the Maritime world in order to facilitate adoption. The model is based on 3 competency domains:

Developing a sustainability mindset Moving from 'me' to 'we'

The mindset is the foundation of sustainable leadership. Organizations striving for sustainability should encourage a mindset of interdependence within the organization in its leadership development programs. Possible initiatives could include leadership assessments, coaching, international project work and leadership journeys, which take leaders out of the workplace and put them into the natural world.

2. Systems thinking | Zooming in and out

It reflects competency domain of 'Situational Awareness'. System thinking is the intellectual flexibility to see the bigger picture, as well as to appreciate the details—and to shift perspective between competing interests in order to develop a strategy that inspires people involved in an organization, employees, suppliers, associates etc. Most importantly, is the ability to always be alert and willing to zoom in as required to get to the root cause of an issue and zoom out equally fast to regain the big-picture perspective.

3. Relationship building | Connecting and collaborating with people

It refers to the ability to understand people across culture and perform as an advocate of diversity for the establishment of productive, long-term relationships with key stakeholders through effective communication and empathy, leading to concrete and positive results.

Sustainable Leadership – the game changer at Shipping

Shipping is a vital cell of the Global Economy, engaged on a journey of transformation towards this sustainable future. Sustainable Leadership as an adopted mindset provides the opportunity to leaders and managers to work together, to grow and develop both their organizations and the people involved, in a healthy and vigorous way in order to synchronise in a world that is constantly changing. After all, as the saying goes, "It is not the strongest or the most intelligent of the species that survives. It is the one that is most adaptable to change."

Game on, for Sustainable Shipping! And Sustainable Leaders won't just play the game, they will change the game!

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Capt. Eleftherios Makris, Captain of vessel M/T AEGEAN MARATHON of **ARCADIA SHIPMANAGEMENT** participated in the international photography competition "The Watch" and won the second prize with his photo "Thunderstorm". The competition was organised for second consecutive year by Isalos.net (the Naftika Chronika educational initiative for young people in shipping) and aimed at showing how much shiftduty and the conditions of life at sea have changed over the past decades. The photos that participated in the competition were exhibited in the atrium of the Benaki



Museum during the Efkranti 2020 Awards event. The title and theme of the exhibition were inspired by the homonymous novel by Nikos Kavvadias.



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DNV GL: Service delivery to keep shipping on the move



Mr Ioannis Chiotopoulos

DNV GL VP & Regional Manager South East Europe, Middle East & Africa

At DNV GL we worked to ensure business continuity and keep delivering despite the challenges of the COVID-19 crisis. Our offices have remained fully operational around the world and our employees remain on the job, either in the office, on location, or at home, to help keep vessels and business running. For DNV GL, one of the key areas was keeping the fleet in service running, by making sure that wherever possible surveys could continue to be delivered - even when a surveyor could not attend the vessel. During the pandemic DNV GL has used our remote survey scheme through the globally available 24/7 DATE (Direct Access to Technical Experts) services. This unique DNV GL service has proven to be of significant value to our customers in these challenging times and allowed to ensure safety and regulatory compliance through the use of modern technology.

So, rather than scrambling to invent something new, DNV GL was able to ramp up an already successful existing service. With the first trials in 2018 and full fleet wide access from February 2019, DNV GL has pioneered this service in ship classification. By March of this year, the service had already been rapidly adopted by customers, with over 15,000 remote surveys conducted and almost 25% of all surveys being delivered remotely. During the crisis, remote survey requests have ramped up significantly, with half of all vessels now having used the service and the number of remote surveys increasing 33%, to over 300 a week. DNV GL also worked to provide component and material certification (CMC) services remotely where needed during the pandemic. The service has also expanded to trial the first

remote periodic surveys, even though most remain for minor conditions of class. Not all surveys can be completed remotely, but DNV GL's survey request system on Veracity can automatically indicate whether a survey can be executed remotely or not. Delivered from specialists in one of DNV GL's operational centres in Hamburg, Oslo, Houston, Piraeus and Singapore, coverage is ensured around the clock. Remote surveys result in considerable savings in operational downtime as well as travel time and expenses.

Alongside remote surveys generally, DNV GL launched Machinery Maintenance Connect (MMC) a new, remote approach to the machinery planned maintenance system (MPMS). Instead of requiring surveyors to travel to each individual vessel and go onboard, machinery data can be processed via algorithms and presented to customers in a digital dashboard – enabling the survey of a complete fleet in one process and unlocking new insights into vessel and fleet performance.

In addition, the launch of the new CIP-M certification helped vessel owners and operators resume safer operations and enabled them to demonstrate they have procedures and systems in place for the proper prevention, control, and mitigation of infection, to protect their customers and crews. Through annual surveys on board and company audits ashore, DNV GL verifies that a company maintains a detailed operational plan in compliance with the CIP-M requirements. CIP-M certification for a vessel is a demonstration of proper prevention, control, and mitigation of infection.

WE DREAM THE CHANGE, WE BRING THE CHANGE



Chrysoula Vasiliki Patrikiou Founder, Chief Executive Officer Potentia

"Be the change you want to see in the world," said Mahatma Gandhi. But change is primarily a responsibility towards ourselves. We, the people of Potentia, have taken on our responsibility, dared to bring a Change in the maritime world and see it shaping, happening, and taking on flesh and blood.

In Potentia, we are specialized in empowering people to become resilient and capable to respond to challenges. Based on the human-2-human (h2h) business model, Potentia team applies a holistic management system built on 3 pillars:

1. Assessment: Sessions that help people discover the masterpiece of resilience and become adaptable to changes. Counseling and psychological support applied with the use of reliable and worldwide recognized psychometric instruments.

2. Empowerment: Personal and professional growth sessions aiming to the development of key soft (interpersonal) skills achieved through adaptable learning and development work-shops, and

3. Wellness: sessions that encourage employees to adopt healthier lifestyle through indoor / outdoor sports activities, healthy eating seminars and group cooking sessions.

Considering the two years of presence in the maritime industry, Potentia has already achieved, a respectable clientele, quality to the detail and quantity of service covering all aspects and realistic clients' needs.

Before COVID-19, Potentia team provided the requested services in-house using training

models adjusted to the needs of shore-based employees and disembarked seafarers. Through the challenging period of COVID 19 when all inhouse workshops and services were banned, Potentia was at the forefront leading the way and preparing the future; only this time onboard & at home.

We believe that training is about developing people to creators, innovators and pioneers, not conformists. We are at the forefront, leading the way and preparing the future by designing and implementing new training models for seafarers and shipping executives based on the adaptive learning model; a methodology that breaks down traditional models of training and allows people to learn in their own way and rhythm!

Based on the adaptive learning model, Potentia team designed the #RISE-GROW-LEAD project incorporating two new innovative training systems Potentia-On-Board® and Potentia@home® aiming to bring a Change and create a new training culture in Shipping.

-Potentia@home is a training system that provides live and on-demand services to shipping executives and disembarked seafarers. With the use of technology and through the available tele-platforms (i.e. zoom, Skype) individuals or groups of people attend soft skills learning and development workshops, coaching and counseling sessions, wellness sessions or psychological support sessions from their home or office.

-Potentia-On-Board® has turned to be a groundbreaking tool for the empowerment and psychological support of seafarers while they are on board. For the first time in the history of global shipping, people on land and at sea are

connected live with the use of technology and the appropriate tele-platforms (i.e. zoom, Skype).

Potentia has been an authentic paradigm, a success story in the Shipping industry.

Potentia is a group of intelligent and competent people, who are inspired by people, interact with people, and are committed to serve people ethically, fairly and wisely. Our golden Spiral is more than just our symbol; it is our compass to an experiential learning and development journey along with our clients, aiming to exceed their expectations and achieve substantial growth, empowerment and development of their people at all levels. We wish to thank all our valuable clients for their continuous trust and their excellent cooperation, especially during this challenging period.

Given the critical circumstances our seafarers have been experiencing on account of the pandemic we have focused all our efforts on them; our primary concern has been their prolonged stay on board the vessels causing a profound effect on their psychosynthesis which endangers their on-board-performance and of course challenges the safety of the ship.

Under the prime sponsorship of The International Propeller Club of the United States- International Port of Piraeus, our innovative project PotentiaOnBoard® RISE-GROW-LEAD has already been applied with exceptional results on more than 300 Seafarers, both Greek and foreign officers, serving tankers and bulk carriers.

We continue to assist the Seafarers of the World and provide them with the psychological support and empowerment they need in order to maintain a positive mindset, to help them rise again and grow further for what is necessary; their mental and physical health, welfare and constant care of their selves and their teams.

The beacons and navigators of the PotentiaOnBoard® RISE-GROW-LEAD project have been my executive team of experts, namely, Spyros Kottoris Learning & Development Manager | Trainer & Executive Coach, Naoum Karaminas, Psychologist | Psychometrics & Assessment Executive, Dennis Christodoulatos | Wellness Coach, and Iakovos Apergis | Cooking & Nutritional Coach. It has been a great honor for us all to experience these live sessions with the seafarers and share knowledge but most of all share feelings and thoughts with them. Their contribution has been extremely valuable to us. For the last 7 months we have been here for them, always by their side, to listen to them and learn from them.

Seafarers of the World! You have chosen to serve an extremely critical work environment, the oceans. You have chosen to deal with risks and critical situations on a daily basis. You have **absolutely gained world's respect. Thank you for** managing the world trade, Thank you for being the navigators of the world. The world would have been so much different if it were not for you, the Seafarers! We are all so proud of you and I can assure you that we -the Potentia team- will continue to do our best and help you Rise, Grow and Lead! This is a promise and an ethical commitment of my people and myself to each one of you.

However, as a proud Greek Woman, I praise my homeland, my country, my Greece. We – the Hellenes- are the leaders in Global shipping. We master the Sea. It is a fact. And the main reason is because we are surrounded by the sea. The Sea is our home.

So I wish to welcome you all again to our home and invite you to join Potentia world for many more experiential learning and development voyages!



POTENTIA TEAM IS ON-BOARD!

RISE

3

A brand-new, people-centered, innovative holistic approach to constant improvement!



Empowering coaching

Achieve self-awareness, build a positive mindset and encourage empathetic listening. Cultivate healthy working environment and establish functional, harmonious relationships within your team.



Resilience

Access and improve your ability to bounce back and regain control, in challenging times.



Wellness

Be proactive, preventive and self-responsible, towards optimal holistic health, through an interactive pursuit associated with your body, mind and spint. Establish an everlasting wellness culture and achieve your highest potential for Physical and nutritional well-being.

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Implement simple rules of international Branding methodology. Improve your communication and presentation skills, both professionally and personally, and gain self-confidence.



potentia ON-BOARD



Welcome to our World. Join Potentia on board, today! Contact mr. Spyros Kottoris, Potentia Learning and Development Manager at: sk@potentia.gr or (+30) 6974409862



During the time of deep economic crisis in Greece, but also the time of opportunities and of possibilities, Mr.Lambros D. Sarbanes an electronic and mechanical engineer, after his career of many years in a major ship engine manufacturer and especially in the division of engine governors and marine automation, has naturally shown a keen interest to develop his new idea, the portable test bench for hydraulic governors which has been awarded with patent application from the Industrial Property Organization. His excitation and trust to the potential of his portable test bench, proved to be motivational for him by founding the Sarenco P.C company.

Adapting to the real needs of the market, the main target of the Sarenco P.C company is the hydraulic governor servicing by providing fast, reliable and economic solutions. The innovative custom made portable governor test bench, is designed to fit to most of the hydraulic governor models from all governor manufacturers, is lightweight so that can be placed in tools' suitcases along with all necessary hand tools, special tools, spare parts and can be travelled globally any time together with the service engineer of Sarenco P.C company. A Sarenco P.C expert service engineer is in charge of all the stages of the service and other third-party technicians are not involved. Within several hours, after the complete disassembling, cleaning, evaluation and re-assembling, the governor can be quickly and accurately calibrated, using the portable test bench, on the spot. Finally, it is installed and running again, good as new. After the appearance of the Woodward UG-25+P3 governor in the market, an electronically controlled hydraulic governor, which can replace the globally known Woodward UG8D model on the diesel engines as well as on the cargo turbines, the R&D department of Sarenco P.C's company, was made various upgrades to the electronics of its portable test bench, so that it can provide reliable and accurate calibration to the UG-25+P3 governor on the spot.

At the very first steps, the company could provide field service attendance for governor servicing but each passing month, major funds were invested with result to the general booming of the company. Calendar station was the founding of our strategically located facilities in Piraeus - Greece. The Sarenco P.C's management was able to make the right decisions to establish an expert technical team by hiring service engineers with exceptional passion for engineering and future vision. Into the Sarenco P.C's state of the art workshop, each arriving governor follows specific overhauling route from the pre-testing wherever needed, the complete disassembling, the thorough cleaning, the measuring and evaluating of the parts, the replacement of the defective parts with new from the warehouse, the complete assembling, the testing-calibrating, the painting, the marking with decals and finally the packing in order to be ready for dispatching to the client. During the aforementioned process, lots of photos are taken which are finally used to produce a detailed service report for the company's and the customer's archive. Significant department of the company is the warehouse, where all the spare parts from all governor models are kept. Appropriate trained personnel are in charge to prepare all necessary spare parts for the workshop and the on-board jobs. The high equipped warehouse allows not only the consumables but also all other spare parts and governor motors, to be available for selling to every client. Due to COVID-19 situation, this difficult and demanding period, Sarenco P.C company is one step ahead the competition thanks to a huge stock of various governor models which can be provided to the customer, directly from stock in exchange basis program. Apart from the standard fast moving models such as Woodward UG8D, UG8L, UG40D, UG40L, PSG, SG, EG3P, PGA58, 3161, Yan-mar NZ-61, Zexel RHD6-MC, RHD10-MC Diesel Kiki, Regulators Europa, the company owns rare models such as Woodward PG-PL, PGA200, PG Actuator, PGD, 3161 CATERPIL-LAR, EGB58, UG8 Actuator, UG40 Actuator, UG8-PL, TG13, Zexel RHD Actuator and many more.

Sarenco P.C has implemented a quality management system in which all processes and procedures have been carefully designed and quality-tested according to international standards therefore has been granted ISO 9001:2015 by Bureau Veritas. Furthermore, the portable test bench, has been also audited and awarded by Bureau Veritas Greece for its good and effective operation during a governor servicing.

Over the last years, thanks to our high-quality services, we are proud to cooperate with the biggest Greek Maritime companies which have exclusively trusted us for their engine's governor servicing. The R&D department of the company, is already studying, designing and constructing new ideas and patents giving a clear view towards the future of engineering.

Where others think it's impossible We make it possible...

Sarenco P.C. company is a leading maritime provider for diesel engine governor servicing. Expert service engineers using a patented, innovative, custom made equipment, can proceed to overhauling and calibration of a governor on the spot within several hours.

WHY CHOOSE SARENCO

- On site attedance by expert Service Engineers who can evaluate, troubleshoot and service on the spot.
- 2 Variety stock of spare parts are kept and used on all services. Spares & Repair Kits for various governor models are available.
- 3 Following standard guidelines for servicing each unit/model, reliability & accurate results can be ensured.
 - Exchange basis program. Various types of Governors on exchange - basis can be offered, meeting customer's demand.















Effective

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Our Service Engineer is present when the servicing is carried out, in order to test the behaviour of the Governor on real-time conditions. Dur expert team is in charge of all the stages of the Service and other third party technicians are not involved.

Efficient

We will the site where the Governor needs attedance with our innovative equipment. In the traditional way, a servicing requires several days, while with our way a servicing can be completed within several hours on the spot!

Economic

Fixed-cost solution is provided with minor adjustments from initial quotation, depending on the condition of the governor and the space parts to be used. Maintenance and Servicing is done on the spot without additional Financial costs that can occur if traditional way was preferred (i.e. transportation costs, curtors costs, significant dislays etc.)



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STOP S.A. | PERSONAL PROTECTIVE EQUIPMENT



PERSONAL PROTECTIVE EQUIPMENT

STOP was established in Piraeus in 1978. It is a 100% Greek organization specializing in Personal Protective Equipment.

We produce and distribute quality equipment such as work wear, footwear, gloves, safety equipment, head protection, fall protection, breathing protection and gas detectors.

In STOP we believe safety is culture, not obligation. Our goal is to communicate this culture to the people around us.

We hear your needs and propose reliable solutions for your safety and the safety of your personnel.

Our vision is to be top of mind brand when it comes to personal protective equipment and the maintenance of safety at work.

Since the very first day of operation back in 1978 our mission is to provide safety through high quality equipment, training and support to every worker.

Through our facilities in Piraeus, Thessaloniki and Rotterdam we provide our customers with training, consulting, technical support and engineered solutions so that choosing the right safety equipment is an easy task.

With a storage capacity of 3.900 m2 and a complete range of more than 7.000 first level SKUs of personal protective equipment we achieve over 150 daily packed orders with the latest technology WMS and provide fast and efficient delivery of your order worldwide.

We achieve optimum customization through the latest printing and embroidering machines.

We sell worldwide through our logistics centers in Piraeus and Rotterdam as well as through 3rd party

hubs in Singapore, Manila, UAE, Nigeria and Cyprus.

We manufacture our own brands of high - quality technical garments such as FR/ AS coveralls, FR/ AS parka, leather – FR garments, firefighting equipment, welding and foundry equipment, food industry garments, health care garments.

Continuous tests in the produced equipment, close monitor in the products we trade, customer feedback and user experience drive our operations towards the development of new products and the introduction of new solutions for our customers' needs.

Well reputed international organizations from the maritime industry as well as from the offshore and on shore industry worldwide, outfit their staff with the STOP brand.

STOP Service Center in Piraeus ensures full service of your Honeywell gas detector, 3M Scott and Sündstrom breathing systems through inspection, maintenance, service, calibration and certification.

We are an organization continuously developing, learning, monitoring, improving and certifying our procedures through ISO 9001, ISO 14001, ISO 45001 and OEKO-TEX® Standard 100.

• We are certified with ISO 9001:2015, ISO 14001:2015 and ISO 45001:2015 by Lloyds

• We are OEKO-TEX® certified to produce textile garments free from harmful substances

• We are members of the BTTGTM Personal Protective Equipment Club

• We are member suppliers of the International Marine Purchasing Association (IMPA)

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• We are members of W.I.M.A. (Worldwide Industrial & Marine Association)

• We are members of AITEX (The Textile Industry Research Association)





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Monitor onboard Main Engine Cylinder Liners' Wear (Iron) – Parker Kittiwake "Ferrous Wear Meter"

Writers: Mr. Scott Herring, Regional Account Manager, Parker Kittiwake Mr. Andreas Angelidis, Electrical Engineer, Project Dept, Technava.



Since the beginning of 2020, Parker Kittiwake and Technava have been accumulating feedback from Greek shipowners ref their experience with new 0,5% Sulphur Fuels and two stroke Engines' Cylinder Liners' wear.

Lack of sufficient Detergency* in a low BN (e.g 40BN) Cylinder Oil can be one reason for accelerated abrasive (mechanical) wear (even Scuffing) on the two stroke Main Engine Cylinder Liners, due to deposition of Carbon on the Liners and piston rings.

Parker Kittiwake "Ferrous Wear Meter" (FWM) enables crew onboard to easily (within 2sec, no reagents) and accurately (+/- 10ppm) measure the Abrasive IRON concentration (ppm) in the Scrapedown Cylinder Oil (known also as: Drip Oil or Drain Oil analysis).

This solution enables crew onboard to real time monitor and support the safe operation of the Main Engine.

The benefits of onboard scrapedown Oil analysis (Iron, BN) are widely accepted by the market and OEMs and include adjusting the Cylinder Oil feed-rate, so as to protect the cylinder liners/piston rings or achieve important savings from the Cyl. Oil consumption.

How it works:

- FWM determines (metallic) iron content (ppm) by magnetometry.
- Ferrous iron causes a disturbance in a magnetic field.
- This disturbance is measured by a sense coil.



• Extent of disturbance is determined by iron level (ppm of Abrasive Iron).

Very easy test:

- 5 ml oil sample.
- 2 seconds measurement time.



Ferrous Wear Meter (FWM)

*DETERGENCY: It is a chemical additive which has a property of preventing the deposition of carbon on the Cylinder Liner and washes it away with the lube oil.

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COMPANY PROFILE

Technava was founded in 1968 aiming to supply marine equipment and technical support to the Greek Shipping Industry. Today, it is one of the leading companies in the supply, installation and service of equipment on board all types of ships. Technava's scope also includes services and equipment for the industrial sector and in particular for power plants, city municipalities and the oilfield industry.

Technava sails on a crew of 90 highly skilled individuals including marine, chemical, mechanical and electrical engineers. Our many years of experience in the supply and the service allows us to set customer satisfaction as our primary goal. Our service staff is available 7 days a week, around the clock.

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Digital fleet operations need data-driven decisions

The digital transformation of shipping requires consolidating data across a broad spectrum of inputs writes Kashif Mahmood, ABS



Kashif Mahmood Senior Vice President, Digital Solutions ABS

The biggest challenge to the advance of digitalisation in shipping is not COVID-19 or the pace of technology adoption relative to other industries.

The biggest challenge for shipowners is bringing together disparate data sources from across a fleet into a single dashboard that drives faster decision-making.

Digitalization is the key enabler for asset management, sustainability and regulatory compliance strategies. Yet data silos and disparate systems have, until now, prevented owners and operators from realizing the safety and operational potential of their data.

This is a problem at vessel level, thanks to different data formats and sources and the need to collect some data manually, relying on crew intervention. The problem is many times magnified at fleet level with impacts on safety, performance, morale and compliance.

Despite the best efforts of shipmanagers and software start-ups over the years, many shipowners are still at the mercy of the noon report. This artefact of another era is so unreliable that some have debates as to what the data contained in it actually means. Often the only choice is to go back out to superintendents and masters for clarification and a clear and actionable response can take days.

Owners know they need better data; the problem is that many don't know where to start in adopting digital solutions. For the most part, it makes no sense to try and build their own. However a 'do nothing' strategy risks not being able to retain or grow their market share in future. Shipowners already know how hard it is to capture and process this amount of data, what they need is a simpler way to understand the performance of their vessels – and even their shipmanagers – across a fleet. They can use that analysis to maximise operational and financial performance to understand how the assumptions in their financial models are holding up.

Building a Platform

If the industry is to make progress towards a safer more efficient and digitalised way of working, then this welter of operational, class and regulatory data needs to be brought together with the external inputs such as performance against charter party to provide insights into how maximise potential asset earnings. By digitalising core operations around reporting, integration and fleet insights, owners can refine the way they engage with their managers and improve decision-making. The transformation process is designed around better asset management with inputs on environmental and vessel performance; improving compliance and driving up standards.

The reason that similar ventures have tended to fail is because their creators cannot harness the data that resides in systems and processes without the buy-in of a trusted and neutral third party.

Plenty of platforms take input on equipment performance or availability but often this is where they stop; the owner gets some operational bullet points but little more. In fact, OEMs are just one of the data sources that helps to create the full digital picture.


MY DIGITAL FLEET[™]

Connect Your Data. Reduce Your Risks.

The ABS My Digital Fleet[™] is the only customizable risk management platform that provides real-time data-driven insights to improve fleet efficiency, reduce costs and manage risks.



To create a platform that can meet the needs of digital shipowners requires some rethinking of the processes involved. It also requires a design using component-based architecture, not something that can be bought off the shelf, using very hi-tech 'Lego blocks' that can be swapped in and out as needed. Design a system this way and an owner can quickly start to see the data they need.

The Digital Solution

For owners looking for a way to accelerate their digital transformation ABS has created My Digital Fleet, a platform that collects data from some 160 different sources and provides realtime, risk-based analysis of vessel performance and compliance.

The ABS My Digital Fleet web-based platform aggregates these data sources into one, centralized online environment and derives valuable insights by leveraging emerging technology such as artificial intelligence. ABS is leading the industry by delivering a suite of solutions that quickly facilitate improvements in daily operations and support long-term business goals through improved risk management.It's fast, scalable and highly configurable to a user's business and fleet needs. It represents the next phase of ABS' commitment to delivering the safety, environmental and economic benefits of digitalization for the industry.

ABS My Digital Fleet is the only customizable risk management platform that provides real-time data-driven insights to improve fleet efficiency, reduce costs and manage risks.

All these different data elements can be absorbed into a single system to enable faster decision-making against predetermined operational and risk profile. Having a dynamic understanding of asset performance has benefits across the business; customer relationships, safety, compliance and financial performance and support an evolution to a fully digital business model. Class is able to successfully bring together the technical and commercial aspects with safety and compliance data and host all securely. By connecting all the available data, shipowners can reduce their risks, make smarter decisions and achieve real time results.

The industry has not seen this level of data integration before; in fact, the capability to ingest and analyse data in a standardised way has only become available in the last few years. This level of operational data provides a much more accurate picture of vessel position and performance, not just where the owner expects or hopes it will be. They will have a live view of compliance and a risk score that can advise on direct and indirect cyber vulnerability. Understanding risk profile clearly has direct benefits for safety and it also means the owner can keep the asset commercially available and competitive. Data driven safety and maintenance moves the process from the present into predictive condition-based data making it possible to forecast machinery health and likely performance.

Users have the ability to be provided with an unprecedented level of visibility at the equipment, asset, and fleet level. The flexible nature of the platform allows rapid systems integration and fast-tracking delivery of a comprehensive fleet overview for better risk management among other safety and operational benefits.

Real-time alerts, an easy to understand interface and the flexibility to use it anytime and anywhere means users can see an asset's performance in terms of regulatory compliance, fuel efficiency, structural and mechanical integrity or any other system the user chooses to integrate through My Digital Fleet platform.

This degree of process efficiency will maximise asset utilisation, positively impact the top line and also drive compliance to support the bottom line. Common tools such as AIS data and weather forecasts can start to add real value because they enable the owner to be proactive and reduce both risk and operating costs.



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REFLECTIONS OF SHIPPING



Prevention Through People: An Overview

Author: Cdr Bryan Remond | Chief, Human Element and Ship Design Division United States Coast Guard

Since 1994, the U.S. Coast Guard, in cooperation with the maritime industry, has been working to refocus accident prevention efforts toward the human element. Prevention Through People (PTP) is the US Coast Guard's cornerstone strategy for guiding efforts in pursuit of safety, security, and environmental protection. PTP systematically addresses the root cause of most accidents and incidents - the human element. PTP also recognizes that a major portion of mishaps comes from organizational errors, and that a safe and profitable operation requires a balanced interaction between management, the work environment, the behaviour of people, and the technology available. Therefore, PTP promotes positive cultural changes within organizations. An organization with a solid safety culture can identify and manage current risks, greatly reducing the risk of incidents that may lead to severe losses, costly or arduous reforms, or loss of public image. Over the past decade, the PTP approach enabled the development of many non-regulatory programs, with the following guiding principles:

- Honor the mariner
- Take a Quality approach
- Seek non-regulatory solutions
- Share commitment
- Manage risks

PTP has also enabled the development of our Risk-Based Decision-Making resources. These resources help decision makers make more informed management choices by providing methods to calculate the possibility of unwanted outcomes. PTP also made possible the development of the Crew Endurance Management (CEM) program. More than just fatigue management, CEM provides a systematic method for an organization to optimize crew productivity and take charge of its safety culture. PTP is a systematic, people-focused approach to reducing security threats, casualties, and pollution. Working together, PTP is helping us make the seas cleaner, safer, and more secure.



You may find more about "Advancing the Principles of The Prevention Through People Program" by visiting the National Academy Press: https://www.nap.edu/read/9150/chapter/4

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An A to Z of maritime education and training

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particulation www.rcs. it2.input NOWLEDGE, SKILLS & ATTRIBUTES

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Increased Security Threats for vessels operating in the Gulf of Guinea

Reference:

A. BMP West Africa.B. UKHO Security Chart Q6114 / SHOM Chart 8801CSD.

As the dry season approaches and sea conditions abate, an increase in attacks has traditionally been seen, so maritime security risks to vessels operating in the Gulf of Guinea require renewed attention. Masters and crews need to be extra vigilant and ensure all security measures are taken.



Vigilance, Surveillance, Assurance

To ensure the safety of all vessels and afford best protection to global trade, the following is vital:

• Comply with Flag State Requirements and Guidance.

• CSOs and Masters apply the recommendations within BMP West Africa.

• The citadel is equipped with a satellite telephone (BMP WA Page 22).

• Masters to familiarize themselves with BMP WA Section 7 (Ships under Attack).

• Masters register with MDAT-GOG when entering the West African VRA (Ref A & B) and if operating inside the VRA, report daily.

• Any significant changes to ETAs should be reflected in Line 6 (Other important Info) of the Daily/Transit Position Report to MDAT-GOG (BMP WA Annex D).

• The AIS Policy is clearly defined (BMP WA Page 13). It should be noted the Nigerian Navy arrests any ship found to have switched off their AIS. A decision to switch off AIS should therefore be based on concerns over safety and/or security and recorded in the vessel's logbook to inform subsequent legal proceedings.

CSOs ensure all contact numbers for MDAT-GOG are correct - watchkeepers@mdat-gog.org and Emergency Tel: +33(0) 298 22 88 88.

• Information is protected (BMP WA Page 11).

• In the event of any incident or being concerned, Masters should call MDAT-GOG immediately.



• If Voyage Plans permit, wait at distance offshore and transit at high speed to arrive at any rendezvous point 'Just in Time' including STS and/or Offshore Terminals.

• Attacks have previously occurred 200Nm from the coast and the past location of attacks should be considered. Whilst waiting offshore, engines must be ready for immediate manoeuvre.

• Some vessels tender a virtual Notice of Readiness (NOR) whilst staying safely offshore, both tendering a virtual NOR and waiting offshore are accepted practice for many vessels operating in the GoG (BMP WA Page 13).

CSOs and Masters should note, pirate gangs also attack in harbour and on loading installations. In addition to Covid-19 restrictions, crew should only leave the vessel if necessary, during their duties. Gangway staff should be briefed and instructed to keep a good look out for suspicious activity.

MDAT-GOG will share information of vessels being attacked with the navies operating in the region. Questions regarding information sharing can be directed to MDAT-GOG.

> Useful BMP Contact details: MDAT-GoG: Email: watchkeepers@mdat-gog.org Telephone (24hrs): +33 298 228888 Website: https://gog-mdat.org/home



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EMSA preliminary annual overview of Marine Casualties and Incidents | March 2020



Based on reports received from the national accident investigation bodies of the EU, 2019 was a positive year for maritime safety, with a 9% reduction in the overall number of accidents and a 40% reduction in the number of fatalities, when compared with the average over the past six years.

There was also a 10% reduction in the number of persons injured. While the number of passenger vessels involved in marine accidents remained stable in 2019, the number of ships in all other categories of accidents fell. This was particularly significant for cargo ships, which experienced a 17% drop compared to 2018.

Over the period 2014-2019, almost half the casualties to ships were navigational in nature, including contact, collision and grounding or stranding. About one third of all the marine casualties recorded were occupational accidents, i.e. affecting only persons. Of these, the main cause was stumbling and falling, which accounted for 35% of all cases. 57% of the ships lost over the period were fishing vessels. On a more positive note, pollution resulting from marine casualties has also dropped significantly since 2015. It fell by almost half from 2018 to 2019.

Accident investigation bodies of the EU have launched approximately 800 investigations in the past six years, of which 627 have been concluded. This has led to 1780 safety recommendations mainly targeting the area of Ship Related Procedures. Before the end of each year, EMSA prepares the "Annual Overview of Marine Casualties and Incidents" publication, which gives much more detailed information on the statistics gathered from the accident investigation bodies of the EU.

ABOUT THE EUROPEAN MARITIME SAFETY AGENCY (EMSA)

The European Maritime Safety Agency is one of the European Union's decentralized agencies. Based in Lisbon, the Agency's mission is to ensure a high level of maritime safety, maritime security, prevention of and response to pollution from ships, as well as response to marine pollution from oil and gas installations. The overall purpose is to promote a safe, clean and economically viable maritime sector in the EU.







Consequences to persons



European Marine Casualty Information Platform – EMCIP

Operational starting from June 2011, the European Marine Casualty Information Platform (EMCIP) is a database and a data distribution system operated by EMSA, the European Commission and the EU/EEA Member States. EMCIP aims to deliver a range of potential benefits at national and European relevance by:

• Improving the information background about marine casualties and incidents;

• Widening and deepening the analysis of the results of casualty investigations;

• Providing at-a-glance information, enabling general risk identification and profiling;

• Sharing lessons learned and safety issues detected in the course of safety investigations.

Member States notification of marine casualties and incidents, and reporting of data resulting from safety investigations in EMCIP, has been mandatory since 17 June 2011. This has allowed the Agency to assist the Commission and Member States with analysis of such data, the development of trend monitoring mechanisms, proposals for safety recommendations, the improvement of existing European legislation and promotion of new technical requirements.

EMCIP provides the means to store data and information related to marine casualties and incidents involving all types of ships including occupational accidents related to ship operations. It also enables the production of statistics and analysis of the technical, human, environmental and organizational factors involved in accidents at sea.



Causes of accidents to persons

EMCIP is also connected to the Global Integrated Shipping Information System (GISIS) managed by the International Maritime Organization, thus supporting the dissemination of investigation data reported by the EU/EEA MS at a global level without any duplication of effort.

The database's taxonomy has been developed by EMSA in consultation with the Member States, on the basis of European research and international recommended practice and procedures.

Causes of accidents to ships

Information about marine casualties and incidents is also made accessible to the public, such as the investigation reports published by the accident investigation bodies and "anonymized" data about casualties and incidents notified by Member States authorities.

EMSA as EMCIP manager

EMSA manages EMCIP on behalf of the Commission, hosting, providing maintenance and



Loss of ships



Total losses of ships 2014-2019



Investigations launched and safety recommendations



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IMO and EU Requirements from March 2020 to December 2021 by DNV GL

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IMO AND EU REQUIREMENTS FROM MARCH 2020 TO DECEMBER 2021

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JULY 2020

This statutory news summarizes the most important IMO and EU requirements entering into force after 1 March 2020 to 31 December 2021.

CONV/ CORE	REGULATION	ENTRYINITO FORCE		SUBJECT	IMO RES
MARPOL	Annex VI, Reg. 14	2020-03-01	All cargo vessels, HSC/DSC and passenger vessels. Not applicable to ships with acrubben.	Fuel oil used or carried for use on board a ship shall not exceed a sulphur limit of 0,50% m/m. The supplement to the IAPP certificate is up- dated accordingly.	MEPC.305(73)
MARPOL	Annes VI, Ch. 4/ Reg. 22A (new reg.) & Appendix IX (new)	2020-03-31	All cargo vessels, HSC/ DSC and passenger vessels, GT >= 5000.	Final date of the first fuel consumption report to be submitted for verification. Gata as specified in Appendix IX.	MEPC 278(70)
MARPOL	Annex VI, Ch.2/ Reg.6.& Appen- dix X (new)	2020-05-31	All cargo vessels, HSC/ DSC and passenger vessels, GT >= 5000.	Final date of the first issuance of the Statement of Compliance after the annual report is verified and submitted to the Administration. Validity date to be 31 May the next year.	MEPC.278(70)
MARPOL	Annex (, II, IV and V	2020-10-01	All cargo vessels, HSC/ DSC and passenger vessels.	Electronic Record Books (eRB) as an alternative method to hard copy record books approved by the Administration in accordance with Guide- lines, Res. MEPC.312(74) is accepted. This applies to the MARPOL record books.	MEPC.314(74) MEPC.316(74)
NOx Tech- nical Code 2008	Reg. 1,3	2020-10-01	All cargo vessels, HSC/ DSC and passenger vessels, GT >= 400.	Electronic Record Books (eRB) as an alternative method to hard copy record books approved by the Administration in accordance with Guidelines, Res. MEPC.312(74) is accepted. This applies to the Record Book of Engine Parameters (NOs Technical Code).	MEPC.317(74)
BWM	A-1 (new pera.8) & D-3	2020-10-28 Installations on or after.	All cargo vessels and passen- ger vessels. Also applicable to floating platforms, FSUs and FPSOs, If with ballast water capacity and subject to Article 3 of the BWM Conven- tion.	Ballast water management systems installed on or after 2020-10-28 shall be in compliance with the 8WMS Code (Res. MEPC, 300(72)). An UL of Appendix L clarifies that the "installed" means the contractual date of delivery of the ballast water management system. In absence of this date, actual date of delivery may be used.	MEPC-296(72)

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CONV. COOL	BIGULATION	ENTRY INTO FORCE	APRICALLETO	Samoer	IMMO RES
EU Ship Recycling Regula- tion	Artide 5.2	2020-12-31 Implementation date.	All cargo vessels, HSC/ DSC and passenger vessels, GT >+ 500. If non-EU/EEA flag.	Non-EU-Bagged/ third-country flagged vessels calling at a port or anchorage of an EU member state shall have on board a Statement of Compli- ance on Inventory of Hazardous Materials (IHM) by 31 December 2020.	EU (1257/2013)
EU Ship Recycling Regule- tion	Article 5.2	2020-12-31 Implementation date.	All cargo vessels, HSC/ DSC and passenger vessels, GT >= 500. If EU/ EEA flag.	Vessels in operation and flying the flag of an EU/ EEA member state shall have on board Certifi- cate on Inventory of Hazardous Materials (IHM) by 31 December 2020.	EU (1257/2013)
IBC Code		2021-01-01	Chemical tankers, keel-laid >+ 1986-07-01. Tankers hold- ing NLS Certificate or Interna- tional Certificate of Fitness.	The carriage requirements for all IBC products will change, consequently vessels holding a certificate of fitness or a NLS certificate will need to be provided with a new certificate and corre- sponding product list based on the new carriage requirements. The new certificate will be issued prior to 1 January 2020 and will supersede the existing certificates on this date.	MEPC.318(74)
BCH Code		2021-01-01	Chemical tankers, keel-laid <= 1986-06-30. Ships holding Certificate of Fitness for the Carriage of Dangerous Chemi- cals in Bulk.	The carriage requirements for all IBC products will change, consequently vessels holding a certificate of fitness or a NLS certificate will need to be provided with a new certificate and corre- sponding product list based on the new carriage requirements. The new certificate will be issued prior to 1 January 2020 and will supersede the existing certificates on this date.	MEPC-319(74)
MARPOL	Annex II, Reg. 13 (new para. 7.1.4 & ?)	2021-01-01	All chemical tankers.	A prewash will be mandatory in North Europe ports when unloading certain high viscosity or low melting point persistent floating products. The effected products, mainly vegetable oils and paraffin was, will be identified in Ch. 17 og the revised IBC Code due to enter into force of the same date.	MEPC 315(74)
MARPOL	28.6 (new pera.)	2021-01-01 Final date for complying.	Ol tankers, keel-laid <- 2015 12-31.	All ships shall be fitted with an approved stability instrument, capable of verifying compliance with intact and damage stability requirements. Existing instruments needs no replacement if satisfactory to the Administration. There are some conditions for exemptions. Paragraph 5.7.5 and 5.7.6 of the KOPP Certificate and Supplements, Form B are inserted accordingly.	MEPC.248(66)
GC Code	Ch. 11/2.2.4 & 5 (new sub-para.s)	2021-01-01 Final date for complying.	Gas carriers, keel-laid <= 1986-06-30,	All ships shall be fitted with an approved stability instrument, capable of verifying compliance with intact and damage stability requirements. Existing instruments needs no replacement if satisfactory to the Administration. There are some conditions for exemptions. Paragraph 6 of Certificate of Fit- ness is updated accordingly.	MSC.377(93)
IBC Code	2.2.6 & 2.2.7 (new sub-pera.s.)	2021-01-01 Final date for complying.	Chemical tankers, keel-laid >= 1986-07-01, keel-laid <= 2015-12-31.	All ships shall be fitted with an approved stability instrument, capable of verifying compliance with intact and damage stability requirements. Existing instruments needs no replacement if satisfectory to the Administration. There are some conditions for exemptions. Paragraph 6 of Certificate of Fitness is updated accordingly.	MEPC 250(669 MEPC 369(93)

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CODE	RECOURTION.	ENTRY INTO FORCE	APPLICABLETO	AND REAL	IMO RES.
BCH Code	Ch.II, 2.2.1 (re- placed)	2021-01-01 Final date for complying.	Chemical tankers, keel-laid <= 1986-06-30.	All ships shall be fitted with an approved stability instrument, capable of verifying compliance with intact and damage stability requirements. Existing instruments needs no replacement if satisfactory to the Administration. There are some conditions for exemptions. Paragraph 6 of Certificate of Fitness is updated accordingly.	MEPC.249(66)/ MSC.376(93)
2011 ESP Code	June 2019	2021-01-01	All bulk carriers and oil tankers.	The complete text of the Code is replaced to align the Code with the survey an certification requirements of the IACS UR Z Series.	MSC,461(101)
IMSBC Code	June 2019	2021-01-01 Implementation date.	All cargo vesselo, GT >+ 500.	Amendments providing updated information on the shipment of certain types of solid bulk cargoes. Consequential amendments to MSC.1/ Circ.1395/Rev.3 on 'Lists of solid bulk cargoes for which a fixed gas fire-extinguishing system is effective' where approved accordingly.	M5C.462(101)
ISM Code		2021-01-01 First annual verification of DOC after	All cargo vessels, HSC/ DSC and passenger vessels.	The new Res. 428(98) encourages Administra- tions to ensure that cyber risks are appropriately addressed in safety management systems.	MSC.428(98)
MARPOL	Annex IV (see- ege), Reg. 1, 11 & 13	2021-06-01 (expected) Implementation date.	Passenger vessels, contract date <= 2019-05-30. This regulation applies if build- ing contract < 2019-06-01, or in the absence of building contract, if keel-laid < 2019- 06-01. Delivery date is not relevant in this respect.	Annex IV has been amended introducing Special Area (the Baltic Sea) regulating the discharge of sewage from passenger ships. Discharge is prohibited in this area except for ships that have an operative approved sewage treatment plant (STP), type approved to the new standard, Res. MEPC.227(64), pars. 4.2	MEPC 274(69)
IGC Code	Ch.2, 2.2.6 (in nevised code)	2021-07-01 Final date for complying.	Gas carriers, keel-laid >= 1986-01-01, keel-laid <= 2016-06-30	All ships shall be fitted with an approved stability instrument, capable of verifying compliance with intact and damage stability requirements. Existing instruments needs no replacement if satisfactory to the Administration. There are some conditions for exemptions. Paragraph 6 of	MSC.370(93)





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IHM: EU Guidelines on enforcement of obligations under EU SRR



ARCADIA has effectively managed to tackle all the issues related to the implementation of the upcoming EU SRR regulation and especially related to the Inventory of Hazardous Materials (IHM). EU has just published the attached Guidelines regarding the enforcement and the required actions by all parties. We would like to emphasize on the detailed/discrete steps that are stated within the attached and we urge you to timely act and avoid any costly delays.

INFORMATION FROM EUROPEAN UNION INSTITUTIONS, BODIES, OFFICES AND AGENCIES

EUROPEAN COMMISSION

Commission Notice Guidelines on the enforcement of obligations under the EU Ship Recycling Regulation relating to the Inventory of Hazardous Materials of vessels oper

Introduction

As of 31 December 2020, the EU Ship Recycling Regulation (1) requires all existing EU flagged ships and non-EU flagged ships calling to an EU port or anchorage to carry on-board an Inventory of Hazardous Materials (IHM) with a certificate or statement of compliance as appropriate.

The Commission has received reports from industry stakeholders that Covid-19 restrictions have led to significant difficulties in surveying ships and producing certified IHMs. The lockdown measures and widespread travel restrictions which were introduced to control Covid-19 have reportedly prevented many ship owners (or their agents) from producing the IHM in the first instance, but also inhibited flag State surveyors and recognised organisations from verifying and certifying the IHMs.

As a consequence, industry stakeholders estimate that several thousand ships are likely to be unable to comply with the IHM obligations and may not have the required certification by the deadline of 31 December 2020.

Therefore, considering the disruptions caused by Covid-19, it is desirable to establish some common guidelines in order to ensure a harmonised approach towards enforcement by the EU port States authorities during ship inspections as of 1 January 2021.

General guiding principles

As a basic principle, the primary responsibility regarding compliance with the IHM-related obligations remains with the ship owner, and monitoring compliance with these legal obligations is the responsibility of the authorities of the EU port States. Nevertheless, it may be necessary to take into account the exceptional circumstances linked to the Covid-19 crisis in the enforcement of those obligations by Member States, where those circumstances create situations where the compliance with these obligations is temporarily not possible, or excessively difficult.

Because of its links with the principle of proportionality (2), force majeure can be considered a general principle of EU law, which can be invoked even in the absence of explicit provisions. (3) Concerning the content of the notion of force majeure, the case law of the Court of Justice defined the notion as follows:

(1) Regulation (EU) No 1257/2013 of the European Parliament and of the Council of 20 November 2013 on ship recycling and amending Regulation



IC: Inventory Certificate; RfRC: Ready of Recycling Certificate; SoC: Statement of Compliance

(EC) No 1013/2006 and Directive 2009/16/EC (OJ L 330, 10.12.2013, p. 1).

(2) See already, to that effect, the Commission notice of 1988 concerning force majeure in European agricultural law, C(88) 1696 (OJ C 259, 6.10.1988, p. 10).

(3) See Case 71/87, Inter-Kom, EU:C:1988:186, paragraphs 10 to 17 and Case C-12/92, Huygen and Others, EU:C:1993:914, paragraph 31, repeatedly followed by the General Court, in particular in Case T-220/04, Spain v Commission, EU: T:2007:97, paragraphs 165 to 172. See also Opinion of AG Trstenjak, in Case C-101/08, Audilux, EU:C:2009:410, paragraph 71.

'It is apparent from settled case-law, established in various spheres of EU law, that the concept of force majeure must be understood as referring to abnormal and unforeseeable circumstances which were outside the control of the party by whom it is pleaded and the consequences of which could not have been avoided in spite of the exercise of all due care.'(4)

In the particular case of the enforcement of obligations stemming from the EU Ship Recycling Regulation, however, no automatic recourse to the notion of force majeure can be made.

In this context, Member States are invited to carefully assess the specific circumstances of each ship owner and the degree to which this case-law might apply. In their assessment, Member States are also invited to take due account of the length of the period

between the entry into force of the Ship Recycling Regulation and the applicability date of the IHM deadline and consider whether and to what extent that period was used by the particular ship owner to prepare for compliance with those obligations.

It must be further recalled that in October 2019 the European Maritime Safety Agency (EMSA) published guidance on inspections carried out by EU port States to enforce provisions of the Ship Recycling Regulation (5). The aim of this EMSA guidance is to assist the Member States and their designated inspectors in their efforts to fulfil the requirements of Ship Recycling Regulation and the port State control Directive (6), in relation to inspections covering the respective requirements of these two instruments. It is a non-binding, reference document that provides both technical information and procedural guidance, thus contributing to harmonised implementation and enforcement of the provisions of the Ship Recycling Regulation and the port State control Directive. During inspections from the EU port States, it is therefore generally recommended to follow this EMSA guidance.

In this context, specific reference is made to the general considerations referred to in the EMSA guidance (under Section 6.3.2) in relation to the enforcement actions to be taken in the event of non-compliances. The guidance reads: 'if SR [ship recycling-related] non-compliances are found;

the inspector should decide on the appropriate action to be taken. The inspector should be satisfied that any ship recycling-related non-compliances confirmed or revealed by the inspection are, or will be, rectified in accordance with the SRR [Ship Recycling Regulation]'. The EMSA guidance furthermore emphasises that 'the inspector should use professional judgement in order to decide the appropriate action(s) to be taken for any identified SR [ship recycling-related] non-compliance.'. These general guiding principles should also be followed in relation to any identified non-compliances with respect to the IHM obligations which may result from the Covid-19 crisis.

Specific scenarios due to Covid-19

In relation to the enforcement of the Ship Recycling Regulation, the EU port States authorities are likely to be confronted with two specific Covid-19 related scenarios that may require a more harmonised approach during inspections building on the general guiding principles referred to above. It is suggested to apply this harmonised approach temporarily for a limited period of 6 months after the entry into application of the IHM-related obligations for existing EU flagged vessels and non-EU flagged vessels calling at EU ports (i.e. until 30 June 2021).

1) Vessels without a valid IHM and/or accompanying certificate

In this case the vessel may arrive at an EU port after 31 December 2020 without carrying on board a valid IHM and/or accompanying certificate (Inventory Certificate or Ready for Recycling certificate for EU flagged vessel or Statement of Compliance for non-EU flagged vessel) and the ship owner/master claims that this non-compliance is due to the Covid- 19 situation.

In all such cases where the failure to carry a valid IHM and/or the necessary certificate is involved, there is a burden of proof on the owner/master, who needs to provide evidence that all possible measures were taken to undertake the work and get the certification required. Such evidence of compliance efforts may include e.g. a service contract for sampling or a survey. It may also include a justification why it was not possible to obtain a semi-completed IHM and associated certificate as referred to in Section 2, including evidence of impossibility to comply with other elements of the certification than the onboard inspection. It is then for the inspector to decide whether this is acceptable on a case- bycase basis depending on the specific circumstances of the vessel in question and using his professional judgement.

(4) Case C-640/15, Vilkas, EU:C:2017:39, paragraph 53.

(5) http://www.emsa.europa.eu/news-a-presscentre/external-news/item/3721-guidance-on-inspections-of-shipsby-the-port-states-in- accordance-with-regulation-eu-1257-2013-on-ship-recycling.html

(6) Directive 2009/16/EC of the European Parliament and of the Council of 23 April 2009 on port State control (OJ L 131, 28.5.2009, p. 57).

If the inspector decides to accept the evidence provided by the owner/master, then for the Inventory Certificate or Statement of Compliance the inspector should specify that the documents should be completed and approved within 4 months after the inspection.

In addition, a warning should be given to the vessel and the inspection result and warning should be registered in the ship recycling module of THETIS – EU.

If these plans have to be amended further after the inspection, due to continuing travel or access restrictions, then the owner/master needs to provide sufficient written evidence from the IHM inspectors that it has not been feasible to meet the initial plans.

Again, it is then for the inspector undertaking the next inspection to decide whether this evidence is acceptable on a case-by-case basis depending on the specific circumstances of the vessel in question and using his professional judgement.

For the Ready for Recycling Certificate, if the inspector accepts the evidence after evaluation on





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a case-by-case basis, the owner/master of the vessel should be warned that they are required to obtain the Ready for Recycling Certificate before entering the ship recycling facility. As the Ready for Recycling Certificate is only valid for 3 months, it should be completed and approved at the earliest possible opportunity prior to the vessel undertaking its last voyage.

The inspection result and warning should be registered in the ship recycling module of THETIS – EU.

2) Vessels with a semi-completed IHM with an associated approved Inventory Certificate or Ready for Recycling Certificate (for EU flagged ships) or the Statement of Compliance (for non-EU Flagged ships), that does not contain on-board (either targeted or random) sampling.

In this case the vessel may call at an EU port or anchorage after 31 December 2020 with an IHM and associated certificate on-board, but the IHM was prepared remotely without any on-board sampling.

This situation may arise as the on-board surveys that should have been undertaken to support the IHM could not be done because of the restrictions on inspecting a vessel during the Covid-19 pandemic.

In all such cases where a certificate is based on an IHM without the on-board sampling element, the IHM should in principle not be acceptable as it is not complete (7).

However, considering that since March 2020 there has been little or no opportunity for surveyors to go on-board ships and undertake these surveys, such a remote survey/sampling could be exceptionally accepted, if there is evidence that the flag State has agreed to this (8).

Furthermore, in this case, there would also have to be documented plans and arrangements kept onboard the ship indicating when it will be feasible for qualified samplers to complete the IHM with respect to limitations caused by the Covid-19 pandemic. It is then for the inspector to decide whether this evidence is acceptable on a case-by-case basis depending on the specific circumstances of the vessel in question and using his professional judgement.

If the inspector does accept the evidence provided by the owner/master, then for the Inventory Certificate or Statement of Compliance the inspector should specify that the IHM should be completed and approved within 4 months after the inspection. In addition, a warning should be given to the vessel and the inspection result and warning should registered in the ship recycling module of THETIS – EU.

If these plans have to be amended further after the inspection, due to continuing travel or access restrictions, then the owner/master needs to provide sufficient written evidence from the IHM inspectors that it has not been feasible to meet the initial plans.

Again, it is then for the inspector undertaking the next inspection to decide whether this evidence is acceptable on a case-by-case basis depending on the specific circumstances of the vessel in question and using his professional judgement.

For the Ready for Recycling Certificate, if the inspector does accept this evidence after evaluation on a case-by-case basis, the owner/master of the vessel should be warned that it is required to complete the IHM and obtain an updated Ready for Recycling Certificate before entering the ship recycling facility.

The inspection result and warning should be registered in the ship recycling module of THETIS – EU.

(7) According to Article 5(3)(c) of the Regulation, the IHM shall be compiled taking into account the relevant IMO guidelines. If the sampling element has not been completed then the IHM is not in line with the said guidelines.

(8) It is understood that this is also the solution that the International Association of Classification Societies (IACS) is recommending to their members, adding that the remaining sampling be done at a later date.



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Case Studies

1. Toxic Gas Inhalation, plus Severe Burns

The oily water separator on board a bulk carrier vessel was persistently registering high oil content in the treated water. This meant that the bilge holding tank on board the vessel could not be emptied. In consultation with the Chief Engineer, the Engineer on watch decided to open the bilge holding tank manhole door, intending to skim the oil from the tank into another one. The Engineer on watch went down into the bilges in the engine room and removed all but one of the bolts on the manhole cover. He then turned the cover 180° over this one bolt, to inspect the contents of the tank. At this moment he became aware of a very strong smell.

The Engineer on watch coughed, as he tried to make his way out of the bilges, but – being dizzy - lost his balance near the bottom of the access ladder, a short distance away from the open tank. He fell backwards onto an un-insulated steam pipe, injuring his back.



Access to bilge holding tank manhole cover

He recovered shortly afterwards and although being disorientated, made his way to the purifier room, where he was seen by another crew member. The crew member raised the alarm. **The ship's medical team immediately arrived** and provided first-aid. The Engineer was taken to hospital, where he was treated for gas inhalation and serious burns to his back. He was unable to return to work for a number of weeks.

Immediately after the accident, the ship's crew sampled the atmosphere in the bilge holding tank at the mouth of the sounding pipe. The hydrogen sulphide (H2S) content had crossed the upper limit of the instrument's measurement capability and the carbon monoxide content was 658 parts per million (ppm).



Multi-gas meter readings immediately after the incident

Contributing factors: The vessel had experienced blockage of sewage lines in the past and some sewage water had been discharged into the bilges, in an attempt to clear the lines. This water had then been pumped into the bilge holding tank.

Lessons learned:

1. Do not put yourself at risk by working alone in restricted spaces, especially if the task involves opening tanks.

2. Do not pump water from the sewage system into bilge tanks. Hydrogen sulphide gas could have been generated from the sewage water. 1

3. Hydrogen sulphide and carbon monoxide are both extremely toxic and are immediately dangerous to life above concentrations of 100 parts per million.

4. If possible, test the atmosphere of the tank before opening the manhole cover.

5. Carry out a thorough toolbox talk and discuss the risks before attempting to open tank manhole covers. Use of breathing apparatus and gas monitors should be considered as appropriate.

2. Very high frequency of radio conversations, created a significant distraction to Bridge Team Members

At 06.36 hrs a container vessel and a gas carrier collided 4 nautical miles south-east of Europa Point, Gibraltar. Both vessels were damaged but there was no pollution or injury. The collision occurred in darkness, dense fog and in an area of heavy shipping trafc. The container was stopped, having been given direction by Algeciras Pilots to wait outside Gibraltar Bay. The gas carrier was making way towards a boat transfer position inside Gibraltar Bay.



The gas carrier Master was conning the vessel and altered course to starboard, intending to pass astern of the container. The RADAR display was showing numerous contacts approaching from the east with three CPAs, below the alarm value and shown in red. By this time, the visibility was very poor in dense fog.

Although the gas carrier Master could not see the container in physical, his assessment of the situation was primarily based on automatic identification system data. However, the container was stopped in the water and not making way as the gas carrier Master had perceived. As a result, the decision to turn the gas carrier to starboard, actually had the effect of putting the vessels on a collision course.

During the VHF radio conversation with another approaching vessel, the gas carrier Master made an alteration of course to starboard to a heading of 300° intending to avoid the container by passing its stern. This course change was also intended to increase the CPA of the other approaching target, which was approaching to port. Noticing that the CPA of the container had not increased as expected, the gas carrier Master increased to full starboard rudder. At the same time, the OOW of the container noticed that the CPA of the gas carrier was reducing, so he used the VHF radio to attempt to establish communications with the gas carrier.



Detail of the gas carrier radar when called by another approaching target showing that, there were three vessels that could be assessed as 'ahead' of the gas carrier

When the gas carrier Master realized that a dangerous situation was developing, full starboard rudder was applied. However, this action came too late to prevent the collision. The container Officer of the watch was monitoring the

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situation, but took no action when it became apparent that a multiple close quarters situation was unfolding. Given his inexperience and the absence of the Master on the bridge, the developing dangerous shipping situation would have been stressful for the OOW.



Damage to the container port quarter



Damage to the gas carrier port bow

The causes: The accident happened because neither bridge team appreciated the risk of collision in sufficient time to take effective action to pass at a safe distance. The investigation also identified that very high frequency radio conversations were a significant distraction on board the gas carrier.

Additionally, although the collision occurred within a designated vessel traffic service area, neither vessel received a warning of the risk of collision from ashore. Lessons learned:

1. As an OOW, do not hesitate to take action to avoid collision, because of perception that other vessels will keep clear.

2. Use of AIS data for collision avoidance, brings risks of misunderstandings and potentially inaccurate data on the relative movements of other vessels.

3. Master taking the con himself in a very busy shipping area, without engaging Bridge Team members, reduced his ability to sustain full awareness of the situation.

4. Neither vessel was proceeding at a safe speed, for the prevailing circumstances and conditions.

5. When establishing communication through the VHF, be sure that you are talking to the intended target (other vessel) and provide simple and clear information. Additionally, always seek for confirmation of understanding, by the other party.

3. Serious injury to crew member, while testing the rescue boat crane

While the vessel was berthed and a Company's representative was on board in preparation for a vetting inspection, it was decided to test the limit switches of the crane on the second deck.







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The Chief Officer tried to lower the rescue boat attachment wire, by releasing the governor brake, however, the crew needed to pull down the wire so as to release the limit switch. Since at that **time, the crane's boom was at level with the** third deck, the Chief Engineer (also attending the process) thought of slewing the boom, towards the third deck for the crew to be able to grab and pull down the wire and thus release the limit switch.

At this stage, the bosun was on site and intervened in the operation. The bosun was concerned that the operation, as planned by the Chief Engineer, might cause damage to the wire. Therefore, he opted to use the hand crank to lower the rescue boat attachment. Since the **rescue boat's attachment needed to be low**ered further and the hand crank operation was taking some time, the bosun chose to engage the R/B winch.

As soon as he used the adjustable wrench to engage the R/B winch, the hand crank struck him on his back. This action threw the bosun forward onto the control box, from where he fell down. The crew members, who were close by, helped him onto the deck and provided assistance. The bosun was transferred to a local hospital via an ambulance, where he was diagnosed with two broken ribs. He was deemed unfit for duty and was discharged from the hospital to enable him to travel towards his home country.



A simulation of the bosun's position while handling the control box, with his back to the hand crank

The direct cause of the accident:

The system had several safety barriers, designed to prevent damage to the crane and / or protect the user from harm. In this case, the physical barriers had been by-passed.

Underline causes:

Familiarization with crane operations did not cover all the aspects of the crane's functions. The bosun, opted to lower the rescue boat attachment by the use of the hand crank and the R/B winch. Both the hand crank and the R/B winch, were designed only for hoisting the rescue boat. Lowering of the rescue boat was to be carried out by gravity and not power.

Lessons learned:

1. A risk assessment was not carried out, which could have served as another incorporeal safety barrier.

2. The bosun was unaware of the 'link' between the disabling valve and the consequent free operation of the hand crank. No symbolic barrier systems, in the form of warnings or posters, were posted next to the switch disabling valve to indicate its function.

Neither were any warnings posted to inform operators that joystick was only meant for hoisting the rescue boat attachment.

3. A sense of urgency was induced in the attending crew members, due to the presence of a Company representative.

4. No one intervened while the bosun was attempting to reset the rescue boat limit switch. The crew members may have relied on him, given that he was the only one of the crew members authorized to operate the crane.

5. In accordance with the manufacturer's manual, the correct cranking direction should have been marked with an arrow. However, upon investigating, no arrow marking could be found.

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NATIONAL SHIP CHANDLERS www.natship.net 6. No elaborate guidance for testing of limit switches was available on board. The manufacturer's manual indicated that in order to check the reliability of the governor brake functions, the hand crank should be engaged onto the squared spindle and turned in the opposite direction, as if to lower the rescue boat attachment. The manual specified that the hand crank should not turn in this direction, even under heavy effort. However, in this case, the bosun was able to turn the hand crank in the opposite direction, and successfully lower the rescue boat attachment wire.

4. Tanker, while loading, broke away from the berth resulting to oil spill

The ship was scheduled to load gas oil and the weather forecast and did not expect any adverse weather during the port stay.

During berthing operation, the 3rd Officer on the aft mooring station informed the Master that the two mooring lines, which were intended to be used as aft breast lines, had to be directed aftwards and fastened to the mooring hooks located aft of the ship. This meant that they would not have a perpendicular orientation to the longitudinal centre line of the ship.

The pilot informed the Master that the location of mooring hooks and bollards on the terminal did not make it possible to have breast lines as planned. The Master discussed the inexpedient direction of the breast lines with the pilot and accepted that it was not possible to use an alternative mooring configuration.

Later, when loading was still ongoing, a sudden and forceful increase of the wind speed occurred, exceeding the terminal's wind criteria for the loading operation (limit of 20 m/s was agreed with the terminal to be the maximum limit for stopping the loading operation). The Chief Officer immediately called the Master and asked for permission to initiate an emergency stop of the loading operation, which the Master immediately approved.

At that time a loud noise from the manifold area was heard and oil started gushing from a crack between the loading arms and vessel's manifold. The ship was engulfed in a hailstorm, resulting to the ship's stern drifting 5-10 m. away from the jetty. Simultaneously, the Master received information from the deck crew that one of the aft spring lines had parted.

Officers and A/Bs rushed to the forward and aft mooring stations, but realized that it was possible to safely approach the mooring winches, as the mooring ropes payed-out uncontrollably and the brake bands developed heavy smoke. Both loading arms from the jetty broke off the ship's manifold and gas oil gushed onto the ship and into the water.



Jetty CCTV footage of loading arms breaking off and oil gushing out



Master's view from bridge

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Direct cause:

From the terminal's CCTV recordings of the accident it was apparent that the aft part of the vessel had drifted from the jetty, because the mooring winches gave way when a sudden gust of wind acted on the ship's port side.

Underline cause:

The wind direction and location of the accommodation, exposed the aft part of the ship to a higher lateral force than on the forward.

An examination of the mooring configuration showed that it differed from the mooring configuration, which the Master had initially planned, from the mooring pattern described in the ship's mooring management plan and from Oil Terminals' mooring pattern.

The main difference was that the intended breast lines on the aft deck had an angle of approx. 35° instead of the ideal 90°. In comparison, the stern lines had an angle of 50 approx. and was hence leading in a more perpendicular direction than the breast lines.



Lessons learned:

1. The combination of the ship's mooring layout, the jetty's layout and the alignment between the jetty's loading arms and the ship's manifolds, made it impossible to fasten the aft breast lines in any other way than leading them significantly aftwards. Neither the terminal employees, the ship's crew nor the pilot found any reason to call the configuration into question.

The availability of a tug boat standing-by, is an option which should be considered into such circumstances.



2. Emergency preparedness on board and on shore was based on monitoring a progressive increase in wind speed, which would render sufficient time for initiating emergency measures in case of sudden changes in the wind.

However, on the day of the accident, the change in weather conditions did not develop progressively and once it was apparent that the wind speed limit was reached, it was too late to avoid the drifting of the ship and the subsequent oil spill.

A study on sudden weather changes in the area, would lead to the conclusion that such sudden hailstorms were suffered also in the past, at that time of the year.

3. When a fleet vessel visits a port where the mooring configuration differs significantly from the original and an optimal mooring pattern is **not achievable**, then Company's operation dept should be notified and the specific port / berth to be listed as not fulfilling all safety requirements.
Wellness | Body, Mind and Spirit

"Wellness is the complete integration of body, mind, and spirit; the realization that everything we do, think, feel and believe has an effect on our state of well-being."

Greg Anderson



The **International Seafarers' Welfare and Assistance** Network (ISWAN) is a membership organization running a number of projects and campaigns to promote and support the welfare of seafarers all over the world.

The **Seafarers' Health Information Programme** (SHIP) is one of the ISWAN long-running projects which aim to offer -both shipping companies and seafarers- information on how to stay fit and well on board. Over the past decade, SHIP has continued to produce and distribute guidance on different health related topics. Most topics include detailed information on how to run a health intervention on board as well as useful information aimed directly at seafarers. A ship is not only a place of work but also a seafarer's home for a number of months, which means it can be an excellent place for a health intervention.

Although subject to periodic health checks, vaccinations and international health regulations, seafarers may be unprepared for some of the lifestyle risks that continuous travelling and life at sea can encompass. SHIP can help prepare seafarers for some of these risks, and provide shipping companies with useful resources for a whole crew focusing on certain categories as shown on the diagram below.



WELLNESS



With great pleasure the LeaderSea team, aiming at the holistic -body, mind and spirit- empowerment of the seafarers, will share information concerning the wellness and well-being of our people while they are on board.



WELLNESS





Healthy Food pyramid !

There should be sufficient protein for the formation and repair of body tissues, adequate supply of minerals to reinforce body tissues, sufficient carbohydrates and the right amount of fats for energy and vitamins to keep the brain, nerves and other vital organs functioning.

- . Eat a variety of foods or a varied dist, balance is the key message
- Eat plenty of fruit (3 servings / day), vegetables (300 g / day) and potatoes (3-5 / day): choose more dark green and bright coloured vegetables and orange fruits
- Reduce the amount of meat (+/- 100 g / day), fat (< 359(i), oil, sugar and sat you eat
- Drink prenty of safe drinking water
 1.5 litres / day or 6 to 8 glasses / day)





It is vital that you look after your own health and wellbeing at sea and ashore. Make healthy, nutritious food choices and ensure a balanced diet consisting of carbohydrates, protein, fat and fiber, vitamins and minerals with minimum levels of salt, fat and sugar. Proper nutrition along with adequate rest and sleep, regular exercise and good hygiene, help to prevent diseases and improve health overall. Access to healthy food options and variation are cornerstones of healthy food onboard.

Strength

To measure strength, several tests can be used. Estimate your level of training and do the test according to that category (see "Table – page **").

Push-ups (upper body strength)

Untrained



Stand 60 cm away from a wall and face the wall. Stand with your feet slightly apart. Keep your back straight, chest out and stomach pulled in. Place your hands fl at on the wall at shoulder level with fingers pointing upwards. Bend your elbows and breathe in. Keep back and legs straight while bending. Touch the wall with your nose and hold this position for a short while. Breathe out as you push your arms away from the wall. Read the results in "Table – page 77".

Beginner



Kneel down and place your hands on the floor with your fingers pointing forwards and head in a straight line with your back. Keep your knees directly under your hips and your hands under your shoulders.

Bend your elbows while breathing in. Touch the floor with your nose and hold this position for a short while. Breathe out as you push up again. Read the results in "Table - page 77".

-

Advanced



Lay down on your stomach with your elbows bent. Place your hands flat on the floor directly under your shoulders with your knees slightly apart. Bend your knees and hook your feet together. Breathe out while pushing up with your arms. Hold this position for a short while and breathe out as soon as you bend your arms again. Touch the floor with your chest. Keep your head and back in a straight line during the exercise! Read the results in "Table".

Sportsmen



Lay down on your stomach. Place your feet slightly apart and your hands directly under your shoulders. Your hands should be flat on the floor. Push up on hands and toes. Breathe in as you lower your chest to the floor again. Hold this position a short while and breathe out as you push up again. Read the results in "Table".

Power upper body					
LEVEL		Weak	Medium	Good	Excellent
Untrained	Push up against the wall	1-5	6-10	11-19	20+
Beginners	1/2 push ups	1-5	6-10	11-19	20+
Advanced	3/4 push ups	1-5	6-10	11-19	20+
Sporters	full push up	1-5	6-10	11-19	20+

Photography Competition

Dear all,

In view of the second issue of our company's magazine ARCADIA LeaderSea" we would like to invite you to participate in our photography competition titled "Life moments on board".

Within the next two months (submission deadline 26/12), you are invited to send us snapshots from your maritime life (i.e. from your daily shifts on vessel's bridge, engine rooms or deck, photos of

the marine environment etc.), many of which will be included in the next issues of company's magazine. The winner of the competition will also be announced in the next issue of ARCADIA LeaderSea.

We would like to thank you in advance for your interest in our attempt to show to people on shore, the different aspects of life at sea and we look forward to receiving your photos.



Life moments on board

MT Maratha at Bosporus



MT Aegean Nobility at Bosporus



Aegean Freedom at Kalamata anchorage

IMO Day of the Seafarer Photo Competition Winner



03 October 2018, IMO Day of the Seafarer photo competition. Winning entry by Zay Yar Lin, a Master from Myanmar. It is a bold geometric composition, focusing on the deck of a ship and the blue ocean beneath.

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