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Mental Health at Sea: A Storm is Brewing

According to the latest statistics, over 25 percent of people will experience a mental health problem at some point in their lives and for those working offshore, this figure is significantly and potentially dangerously higher. What's more, the problem's growing.

So, what's causing the rise of mental health problems within our industry and why are seafarers more likely to suffer from these issues than those working on land? Most importantly, what can be done to solve the problem and establish a happier, healthier and safer workforce on the 51,000+ merchant ships that sail our seas?

The big debate: mental health issues - a growing problem, or just less taboo?

June 12 to June 18 this year marks Men's Mental Health Week: one of many calendar dates throughout the year aimed at raising awareness of mental health issues. According to a report commissioned by the anti-stigma program Time to Change and published by the charities behind the campaign, Mind and Rethink Mental Illness, results show public attitudes towards mental illness are moving in the right direction. It would seem that the stigma that once surrounded mental illness is slowly being chipped away and those suffering are more likely than ever before to speak out about their problems and seek help.

Taking this into account, it's easy to see why the question of whether mental health issues are in fact on the rise, or are simply better recorded splits opinion. Either way, one things for sure, there are a staggering number of people working on ships that are experiencing intense emotions of anxiety, hopelessness, negativity and helplessness for extended periods of time and what's more, the figure appears to be growing.

Why are mental health issues more common for off-shore workers?

Although psychological issues are very common amongst seafarers, the mental health of those working offshore has only recently started to receive the attention it deserves. So, why are seafarers more likely to suffer from mental health issues than those working on land?

Lack of communication with the outside world

Away from home between six months to a year, unable to see family and often with limited access to the internet to use communication platforms such as Skype or WhatsApp to keep in contact with loved ones: times can be very tough on a vessel and feelings of loneliness and isolation can soon start to creep in.

In this day and age, it's hard to believe that internet access is not readily available across the globe, but Seafarers' Trust recently reported that as many as 77 percent of seafarers have their internet access strictly limited, or have no access to internet whilst offshore at all.

Could lack of communication with the 'outside world' be to blame for the large numbers of seafarers suffering with mental health concerns? Physical demands: tiredness kills!

It's often said that seafaring is a physically demanding occupation. Nowhere has this been better expressed than by the International Maritime Health Association when it says, "It has been established that seafaring is one of the most physically demanding professions in one of the most dangerous work environments: the sea."

The fact that there is global evidence of misreported working hours on vessels, shows how cultural and commercial pressures are universally shared. Many seafarers blame the demands of split shift patterns for the high levels of fatigue they experience offshore, but whatever the cause one thing's for sure, fatigue is strongly linked to mental health problems and is considered one of the greatest contributing factors to mental illness.

Social isolation compounded by quick turnaround times in port

It's been said that an increase in social isolation, compounded by quick turnaround times in port, can make a seafarer's life very similar to that of a jailed inmate: the ship becoming a floating prison. As a result, and very sadly, depression, psychotic breakdown, and even suicide are relatively common, documented real-life consequences that result from social isolation of vulnerable crew.

The rise of multinational crews: making it difficult to form a strong bond

The majority of shipping companies employ multinational crew, which introduces its own set of problems such as the language barrier and group formation leading to cultural isolation. Reduced common language and shared culture means that it's becoming more difficult for crews to communicate with each other in a meaningful way. The happiness and mental welfare of a crew often depends on how well they get on and work together and if there are language barriers and a lack of shared cultural references, it can be very difficult for crews to form a strong bond. Sadly, as a result there's less familiarity working together and it's less likely that crew feel that they 'know' their colleagues.

Reduced crew numbers lead to increased physical and psychological stress

The reducing number of crew members onboard ships is generally seen as the main reason for increased levels in physical and psychological stress offshore: a major contributor to mental health problems. More than ever before, crew are become mentally and physically exhausted from their workload. Work related stress offshore can soon escalate, with common contributing factors, including; the demands of the job; the level of control seafarers have over their work; the support received from management and colleagues; relationships at work; the seafarers' role in the organisation; and change and how it is managed, all playing their part.

Drug and alcohol abuse: influencing behaviour and emotions AND a serious safety hazard

Over the last few years we have seen an alarming increase in the number of accidents at sea in which drugs have been a causative factor. In some areas of the world and on certain types of vessel drug abuse is becoming a serious safety hazard.

Alcohol and drugs influence behaviour and emotions and are therefore a major contributor to mental health problems. People under their influence react differently, cannot focus and concentrate and are not able to perform complex tasks adequately, which also poses serious safety risks on vessels.

What about when seafarers aren't working? Some people might argue that that the use of drugs whilst on leave is no business of the shipowner, operator or employer, but this argument does not stand. Why? Well, it's been proven that the majority of drugs have long term effects which continue long after the drugs were taken. It may also only be a matter of time before the seafarer develops a taste for the drugs and decide to take them when working too.

Bullying and harassment: experienced by almost 50% of seafarers!

Bullying and harassment at sea can have serious consequences for the physical and emotional health of a ship's crew, such as decreased motivation, increased absenteeism and a fall in productivity. What's more, bullying and harassment can also have negative effects for the companies themselves, resulting in a deterioration of working conditions with huge organisational, economic and potential legal consequences too. Given the serious consequences of bullying and harassment, it's shocking that according to research carried out by Nautilus International, almost 50% of seafarers have personally experienced bullying, harassment or discrimination at sea: this is a common problem. Harassment and bullying can take a wide variety of forms, ranging from verbal aggression, ill-treatment, cyber-bullying or sexual discrimination through to various forms of physical aggression resulting in serious injuries.

Aggression may take the form of body language, intimidation, contempt or disdain. While the physical effect of harassment and bullying is fairly easy to identify on account of the obvious external signs, the same cannot be said of the emotional effects of harassment and bullying which are often denied or distorted. Enhancing the problem, there's evidence to show that a large number of seafarers who've experienced bullying or harassment, don't feel able to make a complaint, for fear that it wouldn't be taken seriously.

Criminalization

The 'criminalization of seafarers' is used as a blanket term to describe the treatment of seafarers in the investigation and prosecution of maritime incidents. Arguably the most well-known case of criminalization of ship's officers is the case of the tanker **HEBEI SPIRIT**. Whilst at anchor in the Yellow Sea, the vessel was struck by an uncontrolled crane barge that collided and punctured three oil tanks. This caused a release of 12,547 kilolitres of oil, which hit nearby beaches ten days later. Master Jasprit Chawla and Chief Officer Syam Chetan were cleared of any wrongdoing at their first trial, but were kept in jail while the prosecutors appealed. A second trial found them guilty and sentenced them to three years in prison and a fine of $22,530. They finally returned to their homes in India after the case was dismissed and they had been in custody for 18 months. With many cases like this occurring, seafarers often describe that they 'live in fear' of being held responsible for an incident at sea and harbour feelings of anxiety in relation to the investigation and prosecution process that may ensue. This growing problem is a well-known contributing factor to the mental health issues in seafarers.

The cost of poor mental health

In a worst-case scenario, crew suffering with serious mental health issues resort to suicide. Unfortunately, crew 'going missing' from a vessel is common and seafarers that decide to take their own lives at sea are often never found.

A particular case in Australia highlights how a ship can lose several days and a large amount of money due to the disappearance of an officer in the case of suicide. The Korean Master of a 180,176 dead weight tonnage bulk carrier **OCEAN CEASAR** was reported missing at 4:15 p.m. about 40 nautical miles northeast of Sandy Cape, Queensland. Aircraft of the

Australian Maritime Safety Authority (AMSA) conducted a search throughout Saturday and Sunday, including using infra-red sensing equipment at night. Unfortunately, the Master was not found.
The vessel was forced to divert to a Queensland port while AMSA, the Australian Transport Safety Bureau, and local authorities conducted an investigation over several days.The unexpected economic loss to the shipping line of the bulker being diverted and then spending days in port may have been as high as $100,000, plus costs to bring a new master to Australia for the ship.

Solving the problem

According to a recent crew welfare survey by Nautilus International and maritime technology company Martek Marine, mental health was a key topic of concern for those that participated. 'We need to focus on mental health and wellbeing onboard. I have seen more over the recent years: seafarers not being able to talk to anyone onboard if they have problems from home or work-related problems. If this is not caught early it can lead to other things in the future,' said one seafarer. 'More in-depth training is required for a variety of health problems especially regarding mental health of seafarers onboard and to spot the signs,' said another.

An increasing number of support services and guidance resources are now available

Progress is being made, slowly, but we do seem to be heading in the right direction. Many ports now have ship-visiting teams and seafarers' centres that provide transport and help crew when they reach port. Charities and foundations such as Mission to Seafarers and the Seafarers Hospital Society provide excellent support and resources aimed at seafarers' mental health too. Further support services such as Big White Wall offer anonymous digital support to help people experiencing common mental health problems, such as depression and anxiety: helping them to manage their own mental health whilst at sea. Excellent targeted publications and guidance documents are also starting to emerge. In 2016, the publication titled 'Managing Traumatic Stress – Guidance for Maritime Organisations' was published. The guidance is authored by Professor Neil Greenberg, Professor of Defence Mental Health at King's College London and aims to provide top-level guidance to senior management to help improve the mental health of seafarers: offering education and evidence-based approaches specifically designed for the maritime industry.

What's lacking?

Getting guidance from a healthcare professional as early as possible is key to tacking mental illness according to the Mental Health Foundation. "If you are concerned that you are developing a mental health problem you should seek the advice and support of your GP as a matter of priority," they advise. That's all very well, but not all seafarers have the luxury of a company doctor. In fact, the vast majority of ships don't. So, what are the rules regarding access to professional healthcare offshore? Well, shipowners are obliged under MLC 2006, to ensure that they provide, 'access to prompt and adequate medical care whilst working on board.' Seafarers should also be provided, 'with medical care as comparable as possible to that which is generally available to workers ashore.That said, the average merchant vessel is staffed by less than 25 people, meaning it's not mandatory to have a doctor on the vessel and this being the case, the vast majority of ships don't benefit from having access to a medical professional offshore.

What needs to be done?

We must provide all seafarers with access to clinical professionals when they're offshore: to diagnose mental health problems early and to allow on-going clinical engagement to track, advise and assess the condition of those suffering with mental health issues. A new telemedicine solution called iVital could provide the answer, it gives seafarers access to top level healthcare at a small cost (under $10 per day), meaning it's an accessible way to safeguard the mental wellbeing of those at sea. A complete solution, it offers the necessary hardware, software and specialist clinical service, which provides access to an entire team of medical experts who specialise in the health of seafarers.

Telemedicine: a quick diagnosis & ongoing professional, specialist care

Foolproof, the medically certified hardware and software can be used by anyone. Wireless sensors are attached to the patient and vital signs data can be transmitted to the clinician onshore. The clinician then uses the data, combined with the persons medical history and one-to-one video consultation with them, to make a quick and accurate diagnosis. Following diagnosis, scheduled follow-up appointments ensure continuation of professional, specialist care whilst the patient effectively manages the condition, or works towards recovery. The impact on the mental health of those working at sea is huge, benefits include; increased patient engagement which enables the effective monitoring of mental health concerns whilst offshore; better patient care quality which is achieved through access to mental health clinical experts that specialise in seafarer health; quicker and more convenient clinical access which allows crew to have regular, scheduled as well as emergency mental health consultations; a reduction in lost time through mental illness thanks to early diagnosis and regular consultations to ensure the mental health of the patient does not deteriorate; & improved crew retention due to proper and thorough professional care delivered early and consistently which dramatically decreases the chances of the condition deteriorating and the crew member leaving employment. What's more, the solution dramatically reduces unnecessary patient evacuations and ship diversions due to mental health concerns. In fact, feedback from the International Maritime Health Association (IMHA) on telemedicine, outlines huge financial benefits to its use. According to their study of 23,299 commercial ships with 420,000 crew members, one in five ships are forced to divert due to crew illness each year and the average cost per ship diversion is $180,000. In addition, their feedback suggests that it is possible to obtain a 20 percent saving to the industry from the deployment of telemedicine. If the prediction of the IMHA is correct, then this will equate to an industry saving of $168 million per year

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Republic of Liberia : Report of the preliminary of Investigation Into the Sinking of the Liberian Tanker SALEM O.N. 5958

Which occurred off the coast of West African or about 16-17 January 1980
Published in Monrovia, Liberia

INTRODUCTION

On 18 January, 1980 a report was received from Lloyd's Intelligence advising that the Liberian tanker SALEM (O.N. 5958), a ship of about 215,000 tons deadweight, had foundered on 17 January, 1930 near Dakar, West Africa.

Further advice from Lloyd's Intelligence advised that the ship was laden with 193,000 tons of crude oil and had sunk in a position 12º 38' North,18º 34' West as a result of explosions.

The master and other crew members had been rescued by the United Kingdom tanker BRITISH TRIDENT and landed at Dakar. Between 18 and 29 January information received by the Marine Safety Department from the British Press and other sources indicated suspicion that the sinking of SALEM might not have been accidental. Some newspapers openly alleged that the sinking of the ship was deliberate and that no oil cargo was on board, it having been off-loaded at Durban, South Africa more than two weeks before the ship sank. It was also alleged that certain individual crew members of SALEM had previously been involved in the sinking of other ships. It was therefore in this highly

charged atmosphere of suspicion and allegation that the Preliminary Investigation into the casualty was organized.

AUTHORITY

In accordance with the provisions of Liberian Maritime Regulation 9.258, Fred T.Lininger, Senior Deputy Commissioner of Maritime Affairs, R.L. instructed the under noted persons to conduct the Preliminary Investigation.

Captain Alister Crombie, Deputy Commissioner of Maritime Affairs, R. L.

Captain A. I. Tzamtzis, Marine Safety Office (Mediterranean)

Kenneth H. Volk, Attorney at Law, Legal Advisor

The investigation was conducted primarily at the Port of Monrovia, Liberia in February and March, 1980. Valuable information was obtained elsewhere, however. Captain Tzamtzis interviewed eleven of the Greek crew members at Piraeus in February and obtained signed statements. Captain David J. F. Bruce, Officer-in-Charge of the Liberian Regional Marine Safety Office, London, interviewed and obtained signed statements from four officers and two deck cadets of the MV BRITISH TRIDENT, the vessel which rescued the survivors of the SALEM. Deputy Commissioner J. C. Montgomery proceeded to Dakar, Senegal where the SALEM's officers and crew had been put ashore by the BRITISH TRIDENT and there he interviewed and obtained a signed statement from Captain Dimitrios Georgoulis, Master of the SALEM. Finally, important assistance and valuable information were obtained from Detective Chief Superintendent Peter Griggs and Detective Inspector Reginald Golding of the Metropolitan Police (Scotland Yard) Fraud Squad.

DESCRIPTION OF SALEM

The S.S. SALEM (O.N. 5958), formerly the S.S. SOUTH SUN, was an oil tanker built in 1969 by Kockums Shipyard at Malmo, Sweden. Her length was 1037 feet, breadth 160 feet and depth 80 feet 4½ inches. She was of 92,228 gross tons with a deadweight of approximately 215,000 tons.

She was powered by a steam turbine developing 32,000 shaft horsepower to a single propeller, with her engine room and bridge structure aft.

Her hull was divided into sixteen main compartments, three abreast numbered 1 through 6, number 4 tank being a single large compartment. All tanks were designed for carriage of cargo with the exception of tanks 3 port and starboard which were permanent ballast tanks. She had four steam-driven main cargo pumps located in the pump room just forward of the engine room. In the engine room, there were two main boilers, with superheat, and an auxiliary boiler. There was one electrically driven bilge pump and two electrically driven general service pumps which could, in an emergency, take suction from the engine room bilges. The vessel was also equipped with one portable pump. There were two main generators, one diesel and one steam, and also an emergency diesel generator of less capacity. The manufacturer, size and capacity of these various pieces of equipment are presently unknown, our only source of information as of this report being the oral testimony of Chief Engineer Antonios Kalomiropoulos who was interviewed in Monrovia and whose version of the facts will be set out below. At the time of her loss the SALEM was classed to the highest standards of Lloyd's Register of Shipping and met all the requirements for registration under the laws of Liberia. All the Statutory Certificates required by International Conventions to which Liberia is a signatory were valid except the Safety Radio Telegraphy Certificate which had expired one month before the casualty. However, with the exception of Chief Engineer Kalomiropoulos, none of her officers was properly licensed.

VERSION OF FACTS AS GIVEN BY MASTER AND CHIEF ENGINEER

Pursuant to the request of the Ministry of Justice of the Republic of Liberia, the Republic of Senegal granted the extradition of Captain Dimitrios Georgoulis and Chief Engineer Antonios Kalomiropoulos, and these two officers were brought to Monrovia about 8 March, 1980.Because there was suspicion of criminal conduct on the part of these two men, prior to questioning by us they were advised of their rights to counsel pursuant to Section 5.4 of the Rules for Maritime Investigations. Both thereupon requested legal representation and informed us that their attorney from Greece, Mr. John Katsieris, was present in Monrovia. Mr. Katsieris was summoned and advised that while he himself could not act in a legal capacity, because he is not admitted to the Bar of Liberia, he was free to obtain Liberian counsel of his choosing. In due course The Findley Law Firm was engaged and though out the questioning of the two officers they were represented by Mr. A. Benedict Clark, Jr. of that firm. Although Captain Georgoulis speaks at least some English, he elected to testify in Greek and all questions and answers were interpreted through Captain Tzamtzis. Chief Engineer Kalomiropoulos speaks very little English and his testimony also was through Captain Tzamtzis. No stenographic minutes were maintained, nor were the witnesses sworn, this being only a Preliminary Investigation. The witnesses were interrogated separately, Georgoulis on 14 March and Kalomiropoulos on 15 March, 1980.Captain Georgoulis was born in Greece on 24 December, 1937. After graduating from high school in 1956 at the age of 18 he went to sea and made the sea his livelihood except for two years, 1969-1971, when he lived in Detroit, Michigan, U.S.A. assisting his brother in the operation of a food store. Prior to the SALEM, he had sailed on various vessels, including tankers, as an officer in every grade. The largest vessel upon which he had ever served was about 56,000 tons, whereas his largest vessel prior to the SALEM as master was only 12,000 tons. He does not hold and has never held either a Liberian or a Greek license in any capacity. In 1967 he obtained a chief mate's license from the Republic of Panama which, he states, is still in force. It was not produced for our inspection, however. Chief Engineer Antonios Kalomiropoulos was born in Greece on 22 January, 1947. After finishing his studies at a marine engineers school in Athens he went to sea in 1968 and had made the sea his livelihood ever since. He has sailed on both steam and motor vessels in all grades of engineering, including chief engineer, and holds valid licenses as chief engineer, steam and diesel, both from Greece and from Liberia (license No. 149711). Based upon the crew list and our examination of the pertinent records, Chief Engineer Kalomiropoulos was the only officer of the SALEM who was properly licensed and qualified under Liberian law. Both Captain Georgoulis and Chief Engineer Kalomiropoulos gave virtually identical accounts of events relating to the SALEM with only minor variations, which will be noted. Their version is as follows: Georgoulis and Kalomiropoulos were engaged to serve on the SALEM by Mitnizafir Navigation Company of Piraeus, Greece, acting on behalf of owners. They responded to a published notice and met Captain N. Mytakis of Mitnizafir at some time during the end of August or beginning of September. Neither man had known each other before nor had they ever previously obtained employment through Mytakis. They did not discuss with Mytakis the name of the ship or the owner. In fact they claim they never knew who the owner was. They were only told that the owner was negotiating for a large tanker and was looking for a crew. At one point, probably early September, when Georgoulis and Kalomiropoulos first met each other in the office of Mytakis, also present was a man introduced to them as Bert Stein, representing the owner. The conversation centred upon the type of ship and the amount of money they were to be paid, nothing more. Captain Georgoulis said that his pay was to be about $3,000 per month whereas Chief Engineer Kalomiropoulos said that he was to be paid about $3,500 per month. Georgoulis told Mytakis and Stein that he had no master's license, but apparently this made no difference. Georgoulis and Kalomiropoulos were then advised by

Mytakis that the owners were interested in buying a ship named the PAOLA, a steam tanker of about 210,000 tons deadweight registered under the laws of Liberia with an Italian crew. We have been unable to find any vessel of this name in Lloyd's Register of Ships. In early October the two men were sent by Mytakis to Gibraltar where they boarded the PAOLA which was then en route in ballast to Malta. Their instructions were to inspect the vessel to determine her condition and report to Mytakis. On reaching Malta a few days later the PAOLA went to anchor and Georgoulis and Kalomiropoulos came ashore. They telephoned Mytakis and reported that the ship was in apparent good condition and were told that the remainder of the crew would be arriving momentarily at Malta to take over the ship, further instructions to come later. About 26 officers and crew did arrive at Malta and they, with the Captain and Chief Engineer, stayed ashore at a hotel awaiting orders. After a few days Chief Engineer Kalomiropoulos, apparently concerned about the delay, returned to Athens and went to the offices of Mytakis for an explanation. It should be noted that both witnesses were vague about times, giving only estimates throughout. Mytakis told him that the planned purchase of the PAOLA had for some unknown reason been cancelled but that his principal was still searching for a suitable large tanker. Kalomiropoulos said that he would look for other employment unless Mytakis found him a position promptly. A few days later Mytakis called Kalomiropoulos at his home and told him that a second vessel had been located, the SOUTH SUN, and that he was to fly immediately to Dar Es Salaam, Tanzania to meet her. Kalomiropoulos went to Dar Es Salaam, as instructed, where he joined Captain Georgoulis and the other officers and crew members who arrived about the same time. There were 25 men altogether, 10 Tunisians and 15 Greeks, including the Master and Chief Engineer. They waited for about three weeks but the SOUTH SUN never arrived. Finally, Captain Georgoulis received instructions from Mytakis to proceed immediately to Dubai where the vessel was waiting. The crew arrived at Dubai about 27 November, 1979. The SOUTH SUN was then lying at anchor in ballast and next day the Captain and Chief Engineer went aboard to inspect her. However, the Master denied them permission to do so and the two men returned ashore where Georgoulis telephoned Mytakis for clarification. They were instructed to try again and next day Georgoulis and Kalomiropoulos proceeded to the SOUTH SUN where this time they were authorized to make a complete inspection which lasted into the late afternoon. Upon returning ashore they reported again to Mytakis advising that the ship appeared to be in good order, whereupon Mytakis instructed them to take the crew aboard and await further orders. When the new crew arrived the old crew departed except for the Chief Engineer and Chief Mate who remained aboard for a few days to assist in the transition of ownership. An inventory was taken of bunkers, diesel oil and lube oil and Kalomiropoulos signed a report acknowledging the quantities remaining on board, including approximately 5300 tons of fuel. As reflected in the records of the Office of Deputy Commissioner of Maritime Affairs, the certificate of registration of the vessel under the name of SALEM, owned by Oxford Shipping Company, Inc. organized under the laws of Liberia, was issued on 3 December, 1979.However, both Georgoulis and Kalomiropoulos deny that they knew that Oxford was the owner, or indeed that they ever knew the name of the owner. Captain Georgoulis also denied that he knew of any charter party. Anything at all which he learned, he learned from Mytakis, who relayed to him the voyage instructions from Shipomex, Inc., another Liberian company. Under these instructions the vessel was to proceed to Mina al Ahmadi, Kuwait, and load a cargo of light crude oil to be taken to Italy for the account of an oil broker named Pontoil giving estimated times of arrival off Capetown and off Gibraltar. Accordingly, about 6 December the vessel, under her new name SALEM, sailed from Dubai to Mina al Ahmadi with 27 people on board including the wives of the cook and the electrician, Papaleon. At Mina al Ahmadi three of the crew departed, Third Mate Tziranis, First Assistant Engineer Ktistakis and Pumpman Dzieris. According to Georgoulis all three left because they were "lazy" and did not want to

do the work. Kalomiropoulos said that Assistant Engineer Ktistakis was performing in a poor manner and when he was rebuked about this, he decided to leave. They were replaced by Third Mate Skiadopoulos and Third Assistant Engineer Noros. There was no replacement for the pumpman who was not required under Liberian manning regulations. Chief Engineer Kalomiropoulos said that Moros had been sent to the ship as an additional engineer, making four assistant engineers in all, and not as a replacement for Ktistakis. Liberian regulations require only three assistant engineers. Also at Mina al Ahmadi the two women left the ship and returned to Greece. Thus, the total number of persons on board upon leaving Mina al Ahmadi was 24, the original 10 Tunisians and 14 Greeks. The SALEM departed Mina al Ahmadi on 10 December having taken on board approximately 193,000 tons of light crude oil giving a draft fore and aft of approximately 61 feet. This was not quite a full load because of the draft restrictions at the loading berth. The SALEM also had on board approximately 5300 tons of bunkers. The Chief Engineer estimated that at a speed of approximately 12 knots this should be enough for the voyage but without the 5 day margin for safety which he felt desirable for this occasion. The SALEM, being too large for the Suez Canal, set her course for the Cape of Good Hope proceeding down the easterly coast of Africa at a speed of approximately 12 knots, between 75 and 80 revolutions per minute. This resulted in a consumption of between 135 and 140 tons of fuel per day. Georgoulis estimated the time of passing Capetown at 27 December and so advised Shipomex who were said to be the charterers. The voyage proceeded uneventfully until about a day before passing Capetown when a leak developed in the tubing in the port boiler. The Chief Engineer reported this to the Captain, recommending that the boiler be secured so that repairs could be made. The port boiler was shutdown and speed was reduced to about 7½ knots at 40 or 50 revolutions per minute and using approximately 70-80 tons of fuel per day. Upon inspection it was found that three tubes in the back of the superheat section of the boiler were leaking. These tubes were plugged and the boiler was then re-lighted and put on the line. However, the repairs took about 15 days and the boiler was not back in service until approximately 14 January when speed of 12 knots was resumed. On 16 January, 1980 at approximately 0355 the fire alarm sounded and Captain Georgoulis, who was in bed, immediately started toward the bridge. As he reached the bridge there was a muffled explosion which sounded as though it were just forward of the deck house in the vicinity of the pump room. When he entered the wheelhouse, where Chief Mate Anivas was on watch with seaman Mahmoud, Georgoulis could see smoke coming from the bow of the ship. We questioned him closely about this, but he could not describe the colour of the smoke, although he could see it because it was just breaking day. On the other hand Chief Engineer Kalomiropoulos, who had been awakened by the explosion and went immediately to the engine room, said that it was still very dark outside and indeed that it was still dark when the crew abandoned the vessel in lifeboats about a half hour later. At some later time he saw the smoke which he described as being dark grey to black. We have computed that sunrise at the scene of the casualty was at 0626 local time. Upon arriving in the engine room Kalomiropoulos observed that the engines had been stopped and learned from the First Assistant, who had just taken over the watch, that he had stopped the engines without orders as soon as the explosion occurred. Kalomiropoulos also was told that water was coming into the engine room apparently from the forward section where the bulkhead divides the engine room from the pump room. Kalomiropoulos immediately turned on the electric bilge pump and switched the general service pumps to the bilge suction. He then instructed the First Assistant to remain at his station while he, Kalomiropoulos, went to the bridge. There he reported to Georgoulis that the engine room was taking water and that every available pump was operating in an attempt to control the flooding. Georgoulis instructed the Chief Engineer to go back to the engine room to determine whether the flooding was under control; if not he was to turn on the emergency generator and proceed to his lifeboat

promptly. Georgoulis told Kalomiropoulos that he had already ordered the Chief Mate to prepare for abandoning the ship. At some time shortly thereafter the Master sounded the abandon ship signal on the whistle, seven short blasts followed by one long blast. When he returned to the engine room Kalomiropoulos could see that the water was rising above the floorplates, having come up about one meter during the time he had been to the bridge. Accordingly, he shut down the turbo generator, causing the emergency diesel to start automatically thus providing the ship with sufficient power for her navigation lights and other internal lights. He then secured the boilers and left the engine room preceded by the First Assistant whom he told to go directly to his lifeboat while he, Kalomiropoulos, checked on the auxiliary generator to see that it was functioning properly. From there Kalomiropoulos himself went to the boat deck where he could see that both boats were already in the water. The ship was at dead stop. He and the Captain entered the starboard boat with nine other men and Chief Mate Anivas was in the port boat with ten men. The radioman was in the Captain's boat. Prior to leaving the bridge Georgoulis instructed the radioman to send out an SOS, giving an approximate position of about 120 miles south westerly of Dakar which he could not remember. The radioman reported to the Captain that the message had been sent but that he had received no response. We have no record of this message having been received by any ship or coast station. Neither Georgoulis nor Kalomiropoulos took with them any personal possessions, explaining that they had no time. None of the ship's documents were saved with the exception of the registration certificate which had been delivered to the ship by the vessel's agent at Mina al Ahmadi. Chief Mate Anivas saved that document along with all passports which he had assembled in preparation for entering Tenerife, where Shipomex had instructed the vessel to proceed for bunkers. The SALEM was abandoned about 0430 16 January with smoke still coming from the bow and the engine room continuing to flood. The weather was good with wind from the northwest about 10 knots, moderate swells and fair visibility. The two lifeboats remained in the vicinity of the sinking SALEM throughout. About 0800 on 16 January a second explosion occurred on the ship but the location could not be determined since the boats were then about a mile or so distant from the ship. Although the radioman was sending out distress signals on a portable radio at regular intervals, no vessels were sighted or heard from throughout the day of 16 January. About 0400 on 17 January another much louder explosion was heard from the SALEM and it was noted that at this time the navigational lights went out. About 1030 or 1100 the radioman told Georgoulis that a ship had responded to their distress calls. This was the MV BRITISH TRIDENT, a large southbound tanker. An orange flare was sent up and about a half hour later the TRIDENT reached the two lifeboats. At approximately this time, perhaps 1100 or 1130, 17 January, the SALEM sank, rolling over to port and going down stern first. Although there was smoke, Georgoulis and Kalomiropoulos both said that at no time was any fire or flame ever sighted on the SALEM. However, there was some oil seen on the water which was presumed to be cargo. No one was injured, except for one man who bruised his nose while entering the lifeboat. Captain Georgoulis was questioned closely as to his reasons for abandoning ship so quickly. He said that he was concerned about the possibility of a second explosion and considered the safety of the crew to be of paramount importance. However, he made no attempt of any kind to determine the source of the explosion or its cause. No one was sent to look into the pump room nor was anyone sent forward to the bow to examine the source of the smoke. Georgoulis said he thought this might be too dangerous. The flooding of the engine room, while serious, was not his primary concern; he would have abandoned even had it been possible to control the flooding because of his fear of a second explosion. Nor did Chief Engineer Kalomiropoulos make any attempt to discover the source of the water entering the engine room. He gave no explanation except that he found it difficult to see. But he had a flashlight with him and still made no effort to look for the trouble. No one

else in the engine room bothered to look either. The fear of a second explosion was uppermost in the minds of the crew. Both Georgoulis and Kalomiropoulos strongly denied the SALEM ever stopped at Durban, South Africa. They also strongly denied any suggestion that the sinking of the SALEM was anything but accidental. The BRITISH TRIDENT took the two lifeboats aboard and proceeded to Dakar where the crew was put ashore. Georgoulis called Mytakis and requested money and a few days later a representative by the name of Hatzichristos from the office of Mytakis arrived with $47,000.The Captain disbursed this to the various crew members to enable them to buy clothes and pay for other necessaries. He said that most of the crew had been unable to save any clothes and at most they had just a few personal possessions with them when they entered the lifeboats. Georgoulis gave no strict accounting for the money and was unable to specify how much was retained by him.

VERSION OF OTHER GREEK CREW MEMBERS

As indicated earlier, Captain Tzamtzis interviewed eleven Greek officers and crew members at Piraeus in the early part of February. There are some discrepancies between their version and the version as given by Georgoulis and Kalomiropoulos. For example, several of the crew stated they saw not only smoke but fire. Chief Steward Molochas states: "From far away we saw smoke and fire like lightning in the bow." Electrician Papleon said that he saw the glow of flames from the vessel. Black smoke and flames were seen by Bosun Molohas and Third Mate Skiadopoulos also said he saw fire and smoke when he looked out his porthole. The significance of all this is that it makes it difficult to explain why there was no fire or smoke when the BRITISH TRIDENT arrived on the scene, The statements obtained by Captain Bruce declare that there was no sign of fire or explosion. Another point of inconsistency deals with the number and severity of the explosions which occurred on the SALEM. Second Mate Gerakoulis states that in addition to continuous smoke and flames from the bow, other explosions occurred followed by a great explosion about1000 on 17 January (only an hour before the arrival of the BRITISH TRIDENT). Others say there were a series of explosions continuing throughout the16th. One would expect that this would result in severe and obvious structural damage, yet those on the BRITISH TRIDENT saw none. Another point of inconsistency has to do with the speed of the vessel. The distance between Mina al Ahmadi and the point of sinking is approximately 8,634 nautical miles (5,104miles to Cape of Good Hope and 3,530 from the Cape to the point of sinking). At an average of 12 knots this would take 30 days so that the vessel should have been at the point of sinking on January 9 were it not for the reduced speed resulting from the trouble with the port boiler. However, Chief Mate Anivas and Third Assistant Engineer Moros told Captain Tzamtzis that the vessel was making an average of 13 knots, not 12 knots. This makes a difference of approximately 2½ days to cover the total distance of 8,634 miles. Further, when he was first interviewed First Assistant Mavros said that the repairs to the port boiler took only 7 or 8 days. Then he returned for a second interview by Captain Tzamtzis and changed his statement so as to agree with the version given by the Captain and Chief Engineer, i.e. repairs to the port boiler were not completed until 14 January, taking a total time of about 15 days for repairs. These discrepancies are of great importance in explaining why it took 38 days for the vessel to reach a point which normally should have required only 27 or 30 days. Some accounting must be given for the missing time of a week or ten days and the explanation given by Captain and Chief Engineer is that the vessel was forced to reduce speed by reason of the repairs to the port boiler. Others contend that the time was spent in Durban discharging the cargo.

SCOTLAND YARD INVESTIGATION

On 10 and 11 March, 1980 we met and conferred with Detective Chief Superintendent Griggs and Detective Inspector Golding of Scotland Yard who were then in Monrovia. They had spent considerable time and effort in South Africa assembling facts about the voyage of the SALEM and had come to Monrovia in the hope of interviewing Captain Georgoulis and Chief Engineer Kalomiropoulos. They expressed to us the interest of the British Authorities in prosecuting those who might be responsible for what they consider to be an international fraud against underwriters involving the discharge of the cargo at Durban and the subsequent deliberate sinking of the SALEM. The evidence which these two policemen have gathered regarding the discharge of the oil in Durban is indeed formidable. According to this evidence the vessel called at Durban under the name of LEMA between 27 December and 4 January. Captain Georgoulis spent two nights ashore at Durban staying at the Royal Hotel. We have seen copies of the hotel registration bearing the Captain's signature. He was accompanied by a woman who was the wife of the Electrician Papaleon. Arrangements were made for her return from Durban to Greece and copies of the airline bookings are in the possession of Mr. Griggs. While in Durban certain foodstuffs and other supplies were delivered to the LEMA pursuant to the request of Georgoulis and his name and signature appear on the delivery receipt now in the possession of Mr. Griggs. Signed statements have been obtained from witnesses who saw Georgoulis while he was ashore. Telephone calls to Greece and Switzerland have been traced from Durban and it is known that Georgoulis spoke with Mr. Mytakis during that time. One of the Tunisian crew members became ill from an apparent heart condition and was treated ashore in Durban. These records also are in the hands of Mr. Griggs. Finally, Mr.Griggs read to us portions of a statement by one of the Tunisian crew members (name unknown to us) which was given to the London solicitors representing the hull underwriters of the SALEM. This statement describes in considerable detail how the SALEM was deliberately scuttled by removing various large plates and manholes on deck and permitting water to enter into the engine room and other spaces. The Scotland Yard officers would not allow us to take copies of any of the documents which were shown to us, nor would they give us any further details about the Tunisian seaman who allegedly gave the statement admitting the scuttling. They advised us that this information was of a confidential nature and should not be released to anyone not involved in the Liberian investigation into this casualty. Since this evidence is of such critical importance we consider reference to it must be made in this report. We believe that a formal request from Liberia to the Director of Public prosecutions in London for access to these documents and other evidence for use in the prosecution which the Government of Liberia is undertaking would be favourably considered by the appropriate authorities in the United Kingdom.

OTHER EVIDENCE

On 24 March we conferred in New York with Mr. Hilliary Allen and Mr. Kenneth Boothman, senior surveyors for Lloyd's Register of Shipping. At our request they have undertaken a study to determine what flooding was necessary to cause the SALEM to sink. Their calculations were made upon two sets of assumptions. First, that the vessel was fully loaded to a draft of 19 metres (i.e., 62.32', slightly greater than the actual draft of approximately 61' given by Georgoulis) with a cargo of light crude and second, that the ship was in ballast. Under the first assumption, their calculations establish that the vessel would not sink even with the forward peak tanks, the engine room, the two slop tanks and cargo tanks 6 port, centre and starboard flooded. In this connection they also assumed that cargo was loaded in tanks 3 port and starboard, but if those tanks were permanent ballast tanks, as told to us by Georgoulis, then they would have been empty, providing even more buoyancy. On the second assumption, that the vessel was in ballast, they again assumed a 19 metre draft with all tanks filled except wing tanks 2, 3, and 5. Under these

conditions they concluded that the vessel would remain afloat even with the engine room and wing tanks 2 and 3 flooded. The point which these two surveyors stressed was that in no event could the vessel sink without substantial flooding of her cargo tanks meaning that, if there was indeed crude oil in those tanks, the oil must necessarily have been displaced by seawater. This raises the question of how or what caused the oil to escape? Explosions could have done it if the tanks were ruptured and opened to the sea but again there is no evidence that such is the case. Mr. Allen and Mr. Boothman have not yet concluded their studies and we expect further reports from them regarding the type of damage which might be expected from an explosion in the pump room and the type of flooding which would have been necessary to sink the vessel with an initial draft of 61' instead of 62.31', the vessel sinking by the stern.

THE OWNERSHIP OF THE SALEM

By an agreement dated 27 November, 1979 between Andrew Triandafilou and John Avgerinos and "all the shareholders of Oxford Shipping Company, Inc." and Frederick Ed Soudan, the company was to be sold to Soudan upon certain terms and conditions, including the agreement of Triandafilou and Avgerinos to elect Soudan as President and Director and Anna Maria Soudan as Secretary and Director, and then themselves to resign as officers and directors, as of 27 November, 1979. It was further provided that pending the contingency of arrival at Durban and commencement of discharging a cargo of crude oil, certain "papers and documents, corporate books and seal" were to be held in escrow by the lawyers representing Triandafilou and Avgerinos. On 30 November, 1979, before a notary public in London, a required document for the registration of a vessel under the Liberian Maritime Law, the Oath of Officer or Agent of an Incorporated Company, was executed by Frederick Ed Soudan as President of Oxford Shipping Company, Inc.; this document named Dimitrios Georgoulis as the present or prospective master of the vessel, describing him as a citizen of Greece. On 3 December the vessel was sold, renamed SALEM and re-registered in the ownership of Oxford Shipping Company, Inc. On 24 December, 1979, on the letterhead of Oxford Shipping Company, Inc., a letter was delivered to the Office of Deputy Commissioner of Maritime Affairs of Liberia in New York, stating: Please be advised that at a Special Meeting of the Shareholders of this company held on December 24, 1979, Mr. Frederick Ed Soudan was removed as President/Director and Anna Maria Soudan was removed as Secretary/Director of this company. The new officers and directors are Andrew Triandafilou, President, and John Avgerinos, Secretary/Treasurer. This letter is to place you on notice not to honour any corporate actions authorized by Mr. Soudan or Maria Soudan as of December 24, 1979.This letter was signed by Andrew Triandafilou as President of Oxford Shipping Company, Inc. On 4 January, 1980, in a telex from Geneva, Switzerland, to the Liberia n Bureau of Maritime Affairs Operations Centre at Reston, Virginia, Soudan stated he had "temporarily lost documents pertaining to my ownership of Oxford Shipping Company, Inc.", and further, "due to possibilities of fraud [in] transfer [of] registration please note that any request for change in the company status must be refused unless done in my absolute presence until documents are found." Upon the same date, 4 January, 1980, Soudan filed suit in the Supreme Court of the State of New York, New York County, against Triandafilou, Avgerinos, their lawyers and others alleging violation of the agreement of 27 November, 1979 and procured an Order to Show Cause why defendants should not be enjoined from transferring the stock of Oxford Shipping Company, Inc. to one Anton Reidel instead of Soudan. An affidavit signed by Soudan' s attorney alleges that there was an agreement between Soudan and the defendants under which Soudan was to purchase the SOUTH SUN, have the vessel registered in the name of Oxford Shipping, and thereafter the stock of Oxford Shipping was to be sold to Soudan. The affidavit further alleges that in violation of this agreement the defendants had taken

steps to transfer the stock to Reidel. Also included in the court papers was a copy of the written agreement dated 27 November, 1979, although the agreement was actually signed on 10 December, 1979, the day the SALEM sailed from Mina al Ahmadi with her cargo of Oil. It is entitled to Stock Purchase Agreement for the Shares of Oxford Shipping Company, Inc. Paragraph 3 reads as follows: Purchaser (Soudan) agreed to pay the purchase price of dollars 300,000 to Northern Ships Agency, Inc. or its nominee on or about December 27, 1979, upon arrival of the vessel SOUTH SUN off Durban, South Africa (closing date) or any other discharge port. Paragraph 14 of the agreement states in part as follows: This agreement is exclusively contingent upon and subject to the lifting of a cargo of crude oil by the vessel SOUTH SUN and the arrival of the vessel at Durban, South Africa and commencement of discharging. No copy of this agreement was seen by, nor were any of its terms disclosed to, any officer of the Liberian Bureau of Maritime Affairs until after the casualty. On 9 January, 1980 Oxford Shipping (Soudan) made application to the Office of Deputy Commissioner of Maritime Affairs of Liberia in New York City to transfer the ownership of the SALEM to Mota Holdings Limited and to re-register the vessel under Liberian flag. Because of the letter of 24 December, 1979 from Triandafilou, the Office of Deputy Commissioner consulted Admiralty Counsel to the Liberian Bureau of Maritime Affairs at the Operations Centre in Reston. After reviewing the file and talking by telephone with Soudan, Triandafilou and their lawyers, Admiralty Counsel advised the Office of Deputy Commissioner and the International Trust Company of Liberia and its correspondents to place an absolute freeze upon the status of the vessel and the registered owning corporation. Soudan, Triandafilou and their lawyers were advised by Admiralty Counsel that no applications for any change of status would be entertained until receipt of a certified copy of an appropriate order by a court of competent jurisdiction, resolving the dispute between the parties. On the same day, 9 January, 1980 the defendants in the suit procured a Temporary Restraining Order enjoining Soudan from selling, transferring or entering into a contract of sale of the tanker SALEM. On 14 January, 1980, Admiralty Counsel of the Bureau of Maritime Affairs was advised by Triandafilou that the dispute had been resolved and that Soudan was in complete control of Oxford Shipping, and further that a stipulation would be submitted on the following day to the Supreme Court of the State of New York withdrawing the complaint and settling the suit. This was followed by a notarised statement by Soudan on the letterhead of Oxford Shipping Company, Inc., executed before a notary public in Texas and dated 15 January, 1980, to the effect that he and Anna Maria Soudan 'tare the only two Directors authorized to sign on behalf of Oxford Shipping." Another official Liberian document dated 15 January, 1980, signed by Soudan and notarised in Texas acknowledges him as "President, owner and attorney in fact of the Liberian flag vessel SALEM." It was against this background that the Investigation Division of the Marine Safety Department of the Bureau of Maritime Affairs of Liberia learned of the loss of the SALEM on18 January, 1980. From that moment the Preliminary Investigation was based upon suspicion of fraud. When we questioned Georgoulis and Kalomiropoulos they denied knowing or meeting Soudan, Reidel or any of the persons named in the New York suit. They contend that they met Mr. Bert Stein only once, and that was at the offices of Mytakis in early September 1979.Another piece of evidence which we consider to be of importance is the inventory of the property found in the two SALEM lifeboats which was made by the Chief Mate of the BRITISH TRIDENT. This inventory covers some 151 items most of which would not normally be expected to be found as part of the lifeboat equipment. For example, there were such things as hacksaws, screwdrivers, paint brushes, hose clips, even two crowbars. In addition there was a sextant, binoculars, parallel rules and other navigational equipment normally found on the bridge of a vessel. No doubt all of this equipment had considerable value. Since, according to Georgoulis and Kalomiropoulos, there was no time to save even the vessel's log books, it must be assumed

that the equipment was placed in the lifeboats prior to the alleged explosion which occurred on the morning of 16 January. From this it might be concluded that the abandonment of the vessel had been anticipated prior to 16 January. Still another item of interest is information which has been obtained from Wallem Shipmanagement Ltd., representing the former owners of the SOUTH SUN. They report that the Chinese crew of the SOUTH SUN, numbering 42 in all, were somewhat surprised that they were being replaced with a much smaller crew of only 25. They were also surprised that many of the Greek crew members arrived with very few personal possessions. Lastly, we have received records of various radio telephone calls and radio telegrams showing charges for calls from a vessel identified only as LEMA but whose call letters were the same as those of the SALEM. These charges were incurred at the time the SALEM was in those waters. This clearly bears out earlier reports that the vessel did change her name to LEMA while calling at Durban.

CONCLUSIONS

Both Georgoulis and Kalomiropoulos strongly denied that SALEM ever stopped at Durban, South Africa. They also strongly denied any suggestion that the sinking of SALEM was anything but accidental. Although we are continuing to develop facts surrounding this casualty, it is our conclusion, based on all of the evidence at hand to date, that Captain Georgoulis and Chief Engineer Kalomiropoulos have not told us the truth. We believe that the SALEM, having changed her name to LEMA, did stop at Durban on or about 27 December, 1979 where she discharged approximately 180,000 tons of crude oil. We further believe that thereafter the ship was deliberately scuttled off Dakar on or about 16-17 January. We believe that these actions were planned by others prior to the departure of the vessel from Mina al Ahmadi. The identity of the others involved in this fraud is not known with any certainty but it may be expected that the facts will eventually come to light through further investigation and court proceedings.

RECOMMENDATIONS

At the conclusion of the interrogation of Captain Georgoulis he was formally served with charges of violation of Section 32 of the Liberian Maritime Law in that he knowingly acted as Master of a Liberian vessel without being properly licensed; knowingly failed to insure that the vessel had in her service properly licensed mates; and knowingly failed to insure that the vessel had in her service properly licensed engineers. It is recommended that these charges be transmitted to the Ministry of Justice and that Captain Georgoulis be prosecuted for these violations of law. It is also recommended that further charges be made against Captain Georgoulis for the wilful and deliberate sinking of the SALEM and that these charges be similarly transmitted to the Ministry of Justice for prosecution. At the conclusion of the questioning of Chief Engineer Antonios Kalomiropoulos he was formally served with a charge for violation of Section 32 of the Liberian Maritime Law in that he knowingly failed to insure that the vessel had in her service properly licensed engineers. It is recommended that these charges be forwarded to the Ministry of Justice for prosecution. It is further recommended that Chief Engineer Kalomiropoulos be also charged with participation in the wilful and deliberate sinking of the SALEM and that these charges be similarly transmitted to the Ministry of Justice for prosecution. The sinking of the SALEM was a major marine casualty with most serious consequences. If, as we believe, the vessel was deliberately scuttled, those responsible must be prosecuted and punished to the maximum extent of the law. The Republic of Liberia, with the largest merchant marine in the world, has a paramount interest in seeing that its laws are not violated and in demonstrating that such criminal activity will be dealt with swiftly and severely. Because of the international scope of the events leading up to the sinking of the ship, there should

be full cooperation between countries having an interest in the matter. Evidence material to criminal prosecution should be freely made available to any country having physical jurisdiction over the perpetrators. Since Liberia now has custody of the Master and Chief Engineer of the SALEM we would hope that the United Kingdom and other countries will make available such evidence as they may have to assist in the proceedings against these men and all others involved.

Captain Alister Croinbie Deputy Commissioner of Maritime Affairs, R.L.
Captain A. I. Tzamtzis, Officer- in-Charge, Regional Marine Safety Office (Mediterranean), Bureau of Maritime Affairs, R.L.
Kenneth H. Volk, Of Counsel to Bureau of Maritime Affairs, R.L.

Transcribed by
Raymond Forward

Inséré 02/03/19 BOEKEN LIVRES BOOKS Enlevé 02/04/19

WRNS: The Women's Royal Naval Service

by Neil R. Storey (Author)
Paperback, 20 Apr 2017 £7.99

From cooks and clerks to weapons analysts and air mechanics, generations of women have served in the Wrens (Women's Royal Naval Service or WRNS). The Royal Navy was the first of the UK armed services to admit women during the First World War with the purpose of freeing up a man to go to sea by giving his job to a trained female worker. Disbanded in 1919, the Wrens were reinstated on the outbreak of the Second World War. This book focuses on the work and experiences of Wrens during the two world wars, introducing the kinds of jobs they performed and the places where they served. It contains poignant accounts from the women themselves, along with contemporary images of the Wrens in action and modern photographs of their uniforms, badges and insignia.

Inséré 02/03/19 NIEUWS NOUVELLES Enlevé 02/04/19

Euronav tanker goes live with Sertica

Euronav has converted its first vessel to Sertica software.

The software will be rolled out across Euronav's fleet of more than 50 vessels, which is expected to be completed in four months.

Euronav has offices in both Antwerp and Athens. The tankers are managed from the Athens office whereas the FSO and VPLUS vessels are managed from Antwerp. It is therefore essential that Sertica can be operated from both offices without any problems.

Rudi Vander Eyken, Euronav's Group IT manager, said, "It is our ambition to be in greater control of our processes by creating an overview of the entire fleet in Sertica. We follow an

ambitious project plan and on top of this, we have just added six additional vessels acquired recently. However, converting to Sertica on the first vessel has been very efficient, so I am confident that Sertica is live on all vessels in four months as planned."

As Euronav is expanding and adding vessels on a regular basis, they need to control internal processes centrally. To align these processes, the tanker company is using the newly developed Master Data Management module, which allows the company to administrate data on jobs, spare parts, documentation and components.

Rasmus Hansen, Head of Projects at Logimatic says, "Administrating procurement of spare parts centrally, makes it possible for Euronav to use one central item list for all vessels. With the full package of Sertica fleet management system, Euronav ensures easy reporting and efficient communication between the office and vessels."

Maria Roussou, Technical Superintendent at Euronav, added, "Today, the seafarers must comply with regulations, follow specific processes and deliver reports. To do this, they need a simple tool for reporting and for gathering all this data. Luckily, Sertica is a user-friendly system, so the seafarers spend limited time on reporting and more time on performing their tasks."

Sertica is used across the maintenance, procurement and safety department, which creates a positive synergy at Euronav. Compared to the previous system, many new features have been added, which means that the users need training to operate Sertica optimally.

Roussou said, "One thing is the training of the system, another is deciding internal processes and workflows. Sometimes the system needs to adjust to our processes and other times it may be more efficient if we adjust our procedures to the system."

Inséré 03/03/19 NIEUWS NOUVELLES Enlevé 03/04/19

Melting Ice In the Arctic Is Opening a New Energy Trade Route

LNG shippers are taking advantage of open waters as ice caps stage one of their largest retreats on record. By Jeremy Hodges , Anna Shiryaevskaya , and Dina Khrennikova

A new trade route for energy supplies is opening up north of the Arctic Circle as some of the warmest temperatures on record shrink ice caps that used to lock ships out of the area. This year is likely to rank among the top 10 for the amount of sea ice melting in the Arctic Ocean after heat waves across the northern hemisphere this summer. While that's alarming to environmentalists concerned about global warming, ship owners carrying liquefied natural gas and other goods see it as an opportunity. Their cargoes have traversed the region for the first time this year without icebreakers, shaving days off shipping times and unlocking supplies from difficult-to-reach fields in Siberia. More navigable waters are a boost for Russian President Vladimir Putin's effort to expand his nation's reach in the gas market and for energy companies such as Total SA and Novatek PJSC, which are leading Arctic developments. They also help reduce shipping costs for LNG, benefiting buyers and traders of the fuel from PetroChina Co. to Gunvor Group Ltd. "There is a growth trend for volumes transported via the Northern Sea Route this year," said Sergei Balmasov, head of the Arctic Logistics Information Office, a consultancy in Murmansk, Russia. "The reason is an increase in LNG exports." While shorter shipping journeys reduce emissions,

environmentalists are concerned that more traffic through the Arctic will add to the amount of black carbon—particles of pure carbon—settling in the snow from tanker smokestacks. When that soot darkens the surface of the ice, it speeds up the warming process by absorbing more of the Sun's energy. And with the shipping season through the Arctic starting earlier and ending later, tankers will spend more time in the area and spew more of their pollution onto the ice.

Turbulent weather in the area also churns the seas, making it almost impossible to clean up anything that's spilled. The International Maritime Organization is considering rules that would ban burning heavy fuel oil in Arctic waters, extending restrictions already in place in the Antarctic. "It's a major concern for us because as the ice melts we are seeing more and more shipping," said Sian Prior, lead adviser for the Clean Arctic Alliance, an environmental group. Scientists are seeing a rapid change in the Arctic. The Bering Sea between Alaska and Russia lost about half its ice coverage during a two-week period in February, while the most northern weather station in Greenland recorded temperatures above freezing for 60 hours that month. The previous record was 16 hours by the end of April 2011. The mercury topped an unprecedented 30 degrees Celsius (86 degrees Fahrenheit) north of the Arctic Circle on July 30 in Banak, Norway. Ice begins melting in the Arctic as spring approaches in the northern hemisphere, and then it usually starts building again toward the end of September as the days grow shorter and cooler. A total of 5.7 million square kilometers (2.2 million square miles) of ice covered the Arctic in July, according to the Colorado-based National Snow & Ice Data Center. Through the first two weeks of August, ice extent declined by 65,000 square kilometers each day, according to the NSIDC. "The ice has been retreating by about 10 percent every decade during the last 30 years," said Miguel Angel Morales Maqueda, senior lecturer in Oceanography at Newcastle University in northern England. "There is no other known explanation than climatic change. If it isn't climactic change, then we don't know what it is." Sea ice decline could allow some shipping routes to be passable year-roundThis season is likely headed for the the ninth biggest retreat since satellite measurements began, not as extreme as bigger melting seasons in 2012 and 2007, according to Julienne Stroeve, Professor of Polar Observation & Modelling, University College London. "The total ice extent loss is being slowed by winds pushing the ice southwards," Stroeve said in a message sent from an Arctic research trip. "We likely still have a month of sea ice retreat. The ocean is still warm enough to melt some ice even if air temperatures cool." LNG exporters are taking advantage of the open waters, most notably around the Yamal LNG gas liquefaction plant in northern Siberia. The project owned by Total, Novatek and their Chinese partners has custom-built ARC 7 tankers rugged enough to cut through whatever ice remains in the area. That enables them to sail without help from icebreakers west to Europe year round and east to Asia during the summer months. In the coming years, more The Yamal venture's Christophe de Margerie was the world's first ice-breaking LNG tanker built and collected Yamal's first cargo to make the the trip westward through the Northern Sea Route. In early 2018 though, the Eduard Toll, became the first LNG tanker to ever use the full Northern Sea Route in the winter. It traveled from a South Korean shipyard to Sabetta and collected a cargo there from the Yamal LNG plant, then delivered it to France. That shaved about 3,000 nautical miles off the traditional route through the Suez Canal. In July China received two cargoes from Yamal from the first LNG ships to cross the Arctic without help from ice breakers. The net voyage time from the port of Sabetta through the Northern Sea Route to the destination the Chinese port of Jiangsu Rudong was completed in 19 days, compared with 35 days for the traditional eastern route via the Suez Canal and the Strait of Malacca. Routes like that may save Yamal $46 million in shipping costs for the remainder of the year, those savings could quadruple by 2023, Bloomberg NEF said in a note.Traffic is picking up. The Northern Sea Route saw 9.7 million tons of cargo shipped through it in

2017, according to the Russian Federal Agency for Maritime and River Transport. There were 615 voyages along the Northern Sea Route this year through July 15, about the same as in 2017, said Balmasov at Arctic Logistics. The Russian government is targeting cargo traffic through that route totaling 80 million tons by 2024. "The main difference to 2017 is LNG deliveries from the port of Sabetta," Balmasov said. "Our data show that as of early July, 34 tankers were dispatched from Sabetta towards European ports, and one voyage was east-bound." Since then, two more ships have moved from Yamal to Asian markets in the east, though the most icy part of the Northern Sea Route.

Source : Bloomberg

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Putting a value on ballast water management

One of the most important environmental developments in the marine sector in recent years, the Ballast Water Management Convention (BWMC) introduces new challenges for vessel owners and operators.

The challenges are not just the cost of upgrading their systems but also in managing the overheads incurred in the water treatment process. PSM's Mark Jones looks at how digital tank gauging systems can help.

Marine bio-invasion is a growing issue, with shipping identified as a major cause in the transfer and introduction of invasive new species and dangerous pathogens across the world's oceans. With the increase in traffic and use of water as ballast in steel-hulled vessels, the problem has increased exponentially in recent years, and according to the IMO may not yet have reached its peak. *

Ballast water is an essential component of ship operations in steel hulled vessels, with large vessels requiring many thousands of cubic metres of water to maintain stability and manoeuvrability, both at sea and in port.

The load may contain thousands of aquatic or marine microbes, plants and animals, which are then transported and released across the globe, with potentially devastating effects on local marine ecosystems. Threats include for example the European Green Crab which is a carnivore that preys upon clams, mussels, oysters and gastropods, as well as out competing them for food to the spread of bacteria such as cholera and the invasive Asian Kelp.**

Hidden price tag

The new ballast water standards will be phased in gradually. Over time, all ships in international traffic will be required to fit an approved water treatment system to minimise the uptake of organisms and to remove sediments and unnecessary discharge. In addition, ships will be required to carry a ballast water management plan and to record and report on ballast exchanges. Ships of 400 gt and above will also require appropriate certification.

However, the bill for compliance extends beyond the initial investment in treatment systems to the ongoing costs of processing the vast amounts of water involved. Water treatment systems operate at high voltage: depending on the treatment method, energy consumption can be considerable, to which the cost of additional consumables, such as chemicals, must be added.

The result is that ballast water can no longer effectively be considered as a free commodity but becomes an overhead that needs to be incorporated into already heavy operational costs. Moreover, older vessels may have limited space, restricting the power available to drive these systems, which makes it even more essential to manage their use carefully.

Controlling consumption

Modern tank level gauging systems can help cut costs by continuous measurement of ballast water levels to ensure that the treatment is run for only as long as required. In addition, they provide accurate data in real time to inform ship systems to comply with new recording and reporting standards, which require vessels to hold data in a ballast water record book.

Failure to product such data could lead to delays in port as well as the infringement of regulations.

The new legislation presents an opportunity to upgrade to the latest digital tank gauging systems. Although BWMS now being fitted to new ships may incorporate tank gauging equipment, where existing ships are being refitted this assumption cannot be made, with potentially up to 40,000 ships affected.

As with all new marine regulations, implicit also in the introduction of new standards is the issue of safety. Maintaining the ship's stability during ballast water exchange is paramount.

Tank level gauging systems enable the proces to be monitored and the correct sequencing of tanks to be observed, with automatic start/ stop and high/low alarm functions built in to prevent stresses on the hull which might lead to deformation. An equally important factor is the protection of the ship's propellers, with both outcomes having additional repair cost implications.

Ballasting a vessel is also essential during voyages to optimise its manageability and to ensure safe navigation during heavy weather conditions. The latest digital systems incorporate a range of transmitters, gauges and switches to enable balancing of the ship to compensate for weight loss due to consumption of water and fuel and to maximise fuel efficiency through control of the ship's draft and trim.

Where these tank gauging systems are part of a ship-wide system, such as PSM/Scanjet's Intelligent Tank Management System ITAMA, vessels also benefit from additional synergies to assist with satisfying these legal requirements while maximising efficiency and energy consumption.

* International Convention for the Control and Management ofShips' Ballast Water and Sediments (http://www. imo. org/en/About/Conventions/ ListOfConventions/Pages/International-Convention-for-the-Control-and-Management-of-Ships'-Ballast-Water-and-Sediments-(BWM).asp)

** Ballast water management - the control of harmful invasive species (http://www.imo.org/en/MediaCentre/ HotTopics/BWM/Pages/default.aspx)

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België zoekt stroomschepen tegen black-out

De Turkse marktleider Karadeniz kan in twintig dagen een drijvend stroomplatform uit de Middellandse Zee naar België slepen en heeft veertig dagen nodig om een stroomschip uit het Verre Oosten naar hier te varen. De Turkse marktleider Karadeniz kan in twintig dagen een drijvend stroomplatform uit de Middellandse Zee naar België slepen en heeft veertig dagen nodig om een stroomschip uit het Verre Oosten naar hier te varen Om het dreigende stroomtekort deze winter op te lossen is de energiegroep Engie Electrabel op zoek naar drijvende elektriciteitscentrales die in onze havens aan het elektriciteitsnet kunnen worden gekoppeld. Zulke stroomschepen worden nu vooral gebruikt als noodoplossing in ontwikkelingslanden. Het zou de allereerste keer zijn dat ze in Europa worden ingezet. Dat schrijft De Tijd vandaag. The Power Barge Corporation uit Houston, Texas heeft van Engie Electrabel de vraag gekregen of drijvende olie- en gascentrales ingeschakeld kunnen worden om het energietekort op te vullen. De groep heeft twee schepen beschikbaar, in de Dominicaanse Republiek en in India, maar zou zes maanden nodig hebben om die hier operationeel te krijgen.

De Turkse marktleider Karadeniz kan in twintig dagen een drijvend stroomplatform uit de Middellandse Zee naar België slepen en heeft veertig dagen nodig om een stroomschip uit het Verre Oosten naar hier te varen. Samen zijn de twee stroomschepen goed voor een capaciteit van 360 megawatt. De maanden nadien kan het bedrijf de capaciteit opdrijven tot 900 megawatt. "We hebben gesprekken met twee energieleveranciers en houden contact met de Belgische overheidsdienst van Energie", bevestigt John Cockin, vicepresident Europa bij Karadeniz, aan De Tijd. Engie Electrabel bevestigt dat de piste bekeken wordt, maar wil niet meer details kwijt.**Bron HLN**

Inséré 08/03/19 DOSSIER Enlevé 08/04/19

Global sulfur cap and charterparty issues

The forthcoming 0.5% global sulfur cap will doubtless throw up commercial challenges, as well as technical issues. Contracts and charterparties (c/ps) will likely be impacted unless the new fuel regulations are reflected in the clauses, especially spanning the changeover period of 1 st January, 2020 and beyond.

In a presentation and writing in North P&I Club's Signals magazine, deputy director FD&D, Tiejha Smyth, outlined the key problems and said that c/ps will require close attention.

In particular, challenges are expected on those vessels whose c/ps span the IMO' s enforcement date. She said that unfortunately, there is no single magic clause to deal with the issues that might arise.

For example, all bunker clauses will most certainly need to be reviewed but other clauses might also need to be looked at, depending on the owner's chosen method of compliance.

Some of the key issues were discussed including the carriage of non-compliant fuels come the cut off date. It is likely that the carriage of non-compliant fuels will come into force on 1 st March, 2020 for vessels not fitted with exhaust gas cleaning systems (EGCS) or scrubbers.

Non-compliant fuels will have to be removed to avoid fines and possible vessel detentions. Assuming that this fuel is not used up before the cut-off date, who will be legally obliged to arrange and pay for the removal of the fuel? This will depend upon the wording in the c/p's clause, so it is important to consider this when the c/p is drafted, Smyth warned.

She added that there maybe significant logistical difficulties in removing the non-complaint fuels and it is likely that the resale value will be less than the original purchase price. Issues might also revolve around who owns the non-compliant fuel and therefore, who has the right to remove it.

At present, vessels burn either 0.1 % maximum low sulfur fuel in ECAs or 3.5% maximum outside. However, in 2020 there will be three levels - 0.1% in ECAs, 0.5% everywhere else, or plus 0.5% by using a scrubber. This raises the question as to what will low sulfur fuel mean come 1 st January, 2020?

She advised moving away from descriptive terms such as low sulfur and high sulfur and instead specify the exact sulfur content of the fuel in the c/p.

Moving onto to 'bunkers on redelivery' (BOR), in a c/p, when a vessel is redelivered from a timecharter, it is usually stipulated that the vessel is redelivered with about the same amount of low sulfur and high sulfur fuel on board as at her delivery. The owner will often be required to buy the fuel back at the same price as at delivery.

Little value

However, high sulfur fuel bought back by the owner at redelivery will have little value unless the vessel is fitted with scrubbers. BOR c/p requirements might mean that the charterer is able to redeliver the vessel with insufficient compliant fuel on board to make the next bunkering port, therefore, owners might want BOR clauses to reflect this.

Some c/p bunker quality clauses require that the charterer provides fuel that complies with ISO 8217. However, not all fuels are covered by this standard, ie hybrids, thus the bunker

quality clause might need amending to ensure that the charterer supplies fuel of the correct specification, which is safe and suitable for the vessel and is in compliance with MARPOL and other relevant regulations.

Although it is anticipated that there will be enough compliant fuel available to meet the increased demand, it maybe geographically fragmented, A vessel might trade in areas where compliant fuel cannot be supplied or even be unable to trade in such areas, thus the trading limit clauses might need to be reviewed. The same is likely for the use of new hybrid blends, while LNG still has limited availability worldwide.

Bunker tank cleaning will be needed if switching from heavy fuels to hybrids, blends or distillates. Tank cleaning might also be required before switching between different products, depending on the advice given by the fuel supplier. To achieve, this cleaning products will be need, waste will need to be disposed of and tome might be lost during the cleaning. Again responsibility for all of these operations will depend on the c/p's way wording.

Different fuels contain different calorific values and energy densities. The vessel's performance could be affected by any of the chosen compliance methods, so the performance warranties might need to be amended. Smyth advised owners to check with their engine manufacturers.

It is unlikely that existing c/ps will state who will be responsible for installing a scrubber system. If the charterer is likely to benefit from fuel cost savings then there might be a case for a commercial agreement as to who will pay for the system and installation.

Addressing the question of whether owners can be compelled to install scrubbers, she highlighted a Court of Appeal deliberation on a dispute regarding this issue. In 2005, the then new MARPOL regulations came into force, which basically said it was unlawful for any ship to carry fuel oil as a cargo unless the vessel was either double hulled or double sided. Expensive modifications would therefore be required to allow the vessels in the case to be allowed to carry the fuel oil cargo.

The Court found that the owners were in breach of certain clauses in the particular c/p for not having carried out the necessary modifications - namely, a warranty relating to MARPOL compliance and a clause in the c/p requiring the vessel to have on board documents required by any applicable law to allow the vessel to trade.

An EGCS installation is only option for compliance and as is the situation today, it will be possible to meet the new sulfur regulations without installing a scrubber. Therefore, the absence of an EGCS on board will not necessarily mean the vessel is in breach of MARPOL, or impact on the vessel's documentation.

As for any fines, in the first instance, the owner will be responsible for paying any incurred penalties. However, they might be entitled to indemnification by the charterer depending on the c/p's terms. It might be less clear who is responsible for lost time and costs should the vessel be detained by Port State Control.

She stressed that early consideration of the above will be key to avoiding future headaches. The solutions will not be the same in every case and maybe best considered in the light of the vessel's intended trading pattern.

Additional problems could arise as the technologies develop and as the industry gets an idea of compliant fuels availability, etc. These could necessitate c/p terms review from time to time, she concluded.

A BIMCO sub-committee is currently looking at sub-clauses, either to add new ones, or to amend those already in place.

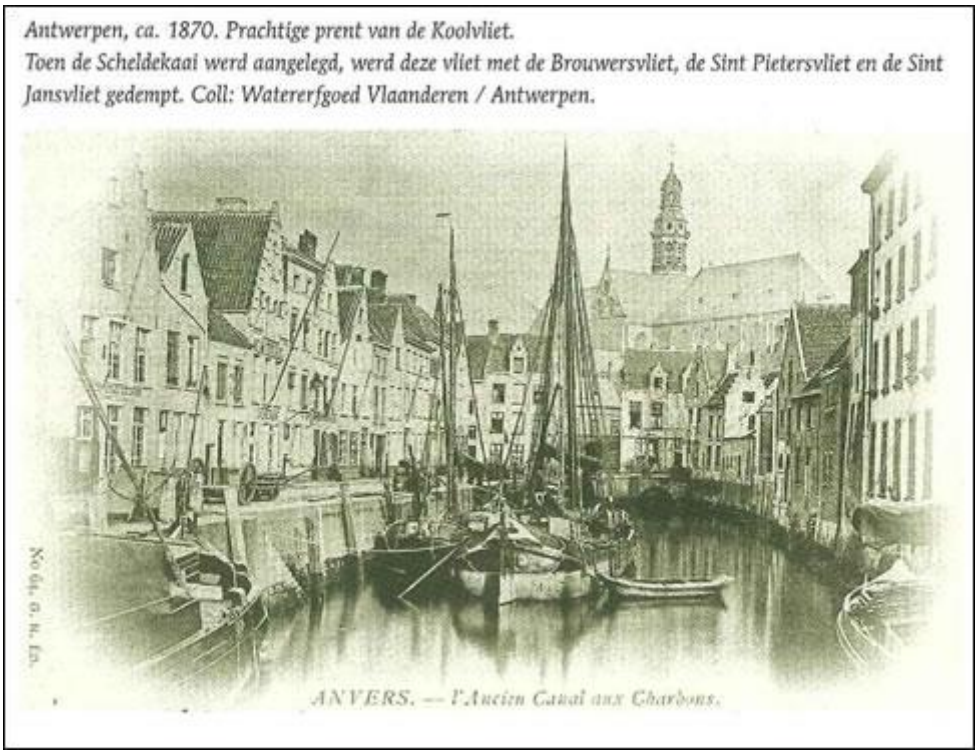
Antwerpen bouwt volop aan heden en verleden

DOOR A.R. KOPPFIAN

Antwerpen heeft een lange geschiedenis. Omstreeks 1400 was ze nog een betrekkelijk kleine stad met zo'n 10.000 inwoners. In 1500 steeg dat aantal naar 50.000 en omstreeks 1560 werd het aantal van 100.000 bereikt. Thans heeft de stad een inwonertal van iets meer dan een half miljoen. Tijdens de Spaanse overheersing heeft Antwerpen nogal wat te lijden gehad. Heel bekend; 'de val van Antwerpen' in 1585. Na een beleg van meer dan een jaar werd de stad door de Spanjaarden heroverd, waarbij bijna de helft(!) van de bewoners naar de Noordelijke Nederlanden vluchtte. Door de Zeeuwen en Hollanders werd toen de Scheldemonding versperd en was het voorlopig gedaan met de overzeese handel.

De komende twee eeuwen zou Antwerpen als handelsstad niet meer de bloei van weleer bereiken. Al sinds de Middeleeuwen maakten handels - en beurtschepen gebruik van `vlieten': kleine binnenhavens aan zijtakken van de Schelde. Tijdens de Franse overheersing (1795 - 1815) kwam hier verandering in. Vanwege de oorlog met Engeland zag Napoleon Bonaparte het belang van Antwerpen in als marinestad en vaardigde hij in 1803 een decreet uit om twee dokken te laten graven. In 1811 werd het 'petit bassin' geopend en in 1813 het 'grand bassin'. Was het niet Napoleon die Antwerpen `het pistool op de borst van Engeland' noemde? Pas in 1903 kregen beide dokken de namen van respectievelijk het Bonapartedok en het Willemdok. Het Willemdok heeft zijn naam te danken aan Koning Willem I, die na de Franse overheersing Koning der Nederlanden werd. Beide dokken zijn thans in gebruik als respectievelijk museumdok en jachthaven.

Meerdere dokken



Antwerpen, ca. 1870. Prachtige prent van de Koolvliet. Toen de Scheldekaai werd aangelegd, werd deze vliet met de Brouwersvliet, de Sint Pietersvliet en de Sint Jansvliet gedempt. Coll: Watererfgoed Vlaanderen / Antwerpen.

Om aan het toenemend scheepvaartverkeer met de daarmee gepaard gaande schaalvergroting, aan veranderde vervoersmethoden en de opkomst van industrieën, met hun specifieke logistieke wensen, te kunnen voldoen zouden er nog vele dokken gegraven worden en dat is anno 2013 nog niet gestopt! Om al die dokken tot in detail uit te werken zou ik wel drie Wimpels kunnen vullen en dàt gaat me te ver. De lezer moet maar genoegen nemen met een greep uit dit aantal: het Kattendijkdok, geopend in 1860, met toegang naar de Schelde via de Kattendijksluis, In verschillende stadia werd dit dok nog verder uitgebreid. Het Houtdok, geopend in 1869, het Kempisch dok en Asiadok, beiden geopend in 1873 en de Zuiderdokken, in 1874 aan begonnen en geopend in 1881. Het Amerikadok, geopend in 1887, het Albertdok, geopend in 1907 en het Leopolddok, geopend in 1928. Bovenstaande dokken stonden (staan) allemaal met elkaar in verbinding. Voor een vlottere afhandeling van de scheepvaart werd in 1907 de Royerssluis geopend.

Antwerpen, Scheldekaai, vorige eeuw, jaren zestig. Nog vol met traditionele Europese lijnschepen met diensten op de nog (meest) voormalige Europese koloniën. Hier de 'Celebes' (1943-1966) van de Stoomvaart Maatschappij Nederland. Het schip heeft de schoorsteenkleuren van de VNS, het betrof dus een charterreis voor de VNS. Coll: H. de Groot / Vries.

De Scheldekaai

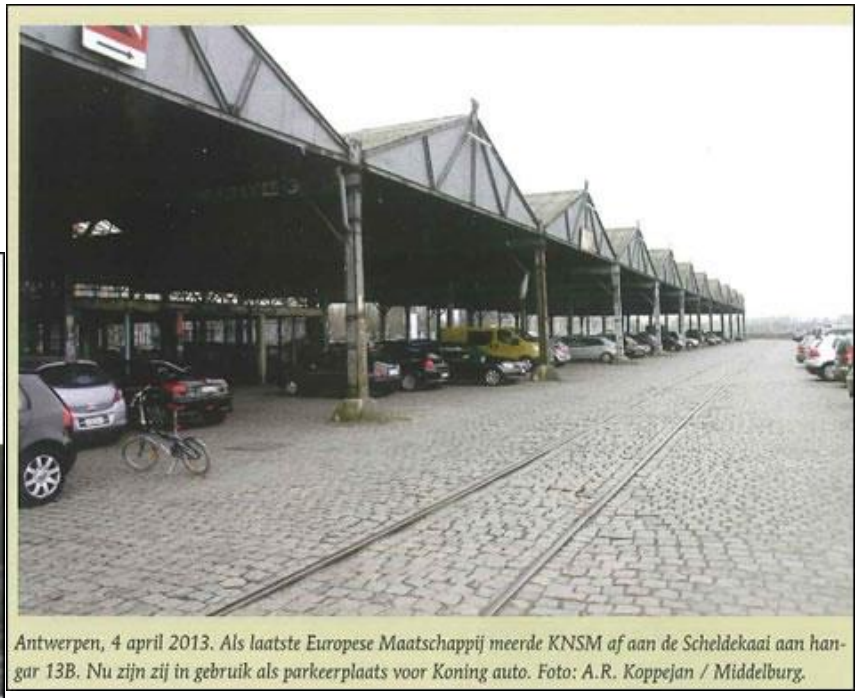
Antwerpen, Scheldekaai, vorige eeuw, jaren zestig. De 'Themis' (1957-1972) van de KNSM aan de Scheldekaai. In die jaren lag er wekelijks wel een KNSM-er aan die kaai. De KNSM voer vanuit West Europa op het Caribische gebied en Zuid Amerika. Coll: A. Roos / Zuid Scharwoude.

Met de aanleg van die eerste dokken werden min of meer tegelijkertijd de vlieten gedempt en werd de rechteroever in 1870 recht getrokken en van een kade met spoorlijnen voorzien: de beroemde Scheldekaai met de vele hangars werd aangelegd!

Over de Scheldekaai gesproken! Nu is een deel van de kaaimuur in verval en zijn er plannen om de gehele Scheldekaai een facelift te geven om er een prachtige flaneerboulevard van te maken.

De KNSM nog als traditionele Nederlandse Scheepvaartmaatschappij was in de jaren zeventig van de vorige eeuw nog zo'n beetje de enige Europese grote vaartmaatschappij die nog gebruik maakte van de Scheldekaai. Ik ben er in die tijd dan ook vele malen geweest. De lading stond opgesteld in open hangars en kostbare lading stond in kooien achter slot en grendel. Die open hangars waren uniek in Europa! Overal elders werd of wordt de stukgoedlading in gesloten loodsen opgeslagen. Wat konden ze daar bovendien hard werken, maar daar stonden de Antwerpse 'mannekens' in heel de wereld om bekend!

Antwerpen, 4 april 2013. Kostbare lading zoals drank, sigaretten, electronica en zakken post enz. werd in deze kooien opgeslagen. Aan boord verdween het op de tussendekken in 'lockers' en werd nauwkeurig in- en uitgeteld. Foto: A.R. Koppejan.



Antwerpen, 4 april 2013. Als laatste Europese Maatschappij meerde KNSM af aan de Scheldekaai aan hangar 13B. Nu zijn zij in gebruik als parkeerplaats voor Koning auto. Foto: A.R. Koppejan / Middelburg.

De linkeroever

Bovengenoemde dokken zijn gelegen op de rechteroever. Richting Nederlandse grens werden er, tot in de jaren zeventig van de vorige eeuw, nog

talloze dokken gegraven, totdat hier op een gegeven moment een eind aan kwam. Mede vanwege de schaalvergroting in de scheepvaart, de opkomst van het containervervoer en de invoer van - niet Europese - automerken en de verdere ontwikkeling van de petrochemische industrie moest er weer worden gezocht naar nieuwe havenuitbreidingen. Om het hele dokgebeuren verder uit te kunnen breiden moest de linkeroever er nu aan geloven. Het begon met de aanleg van het Vrasenedok, het Zuidelijk Insteekdok en het Waaslandkanaal, allemaal ongeveer tegelijkertijd geopend in 1983 en bereikbaar via de Kallosluis.

Hier stopte het echter niet mee, meerdere dokken werden er gegraven: het Noordelijk Insteekdok, geopend in 1984, het Doeldok, geopend in 1987 en het Deurganckdok, geopend in 2005. Het moge bekend zijn dat het dorpje Doel nog steeds moet wijken voor verdere uitbreidingen.

Samengevat kan gesteld worden dat Antwerpen al meer dan tweehonderd jaar bezig is met steeds maar nieuwe havenuitbreidingen. Om ook maar steeds te kunnen voldoen aan de wensen van België steeds grotere schepen tot Antwerpen toe te kunnen laten, heeft Nederland wel een aantal malen een aderlating moeten ondergaan in de vorm van uit-dieping van de Westerschelde. Zeker de laatste Scheldeverdieping heeft nogal wat stof doen opwaaien: de Zeeuwen moeten daarvoor, als natuurcompensatie, een polder onder water zetten; de Hertogin Hedwigepolder. Het moge bekend zijn dat daar heel wat politiek geharrewar over is geweest en dat deze storm nog niet geluwd is!

De Zuiderdokken

Antwerpen, de Zuiderdokken ca. 1920. Na opening in 1881 gelijk al zeer succesvol voor de binnen- en beurtvaart en de kleinere zeeschepen! Coll: Watererfgoed Vlaanderen / Antwerpen.

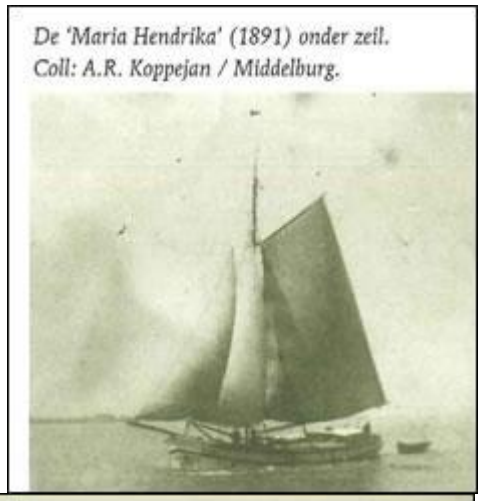
Waarom ik voor de Zuiderdokken een speciaal `tussenkopje' heb gemaakt zal later in dit artikel blijken. De 'vlieten' werden te klein, hadden te weinig opslagruimte en een snelle af - en aanvoer van de lading liet te wensen over. Ze waren dus voor de handel niet erg efficiënt meer en bovendien vielen ze met laagwater droog. De aanleg van de Zuiderdokken was bedoeld ter vervanging van de toen verouderde vlieten. Deze dokken waren voorbestemd voor de binnen - en beurtvaart en kleine zeeschepen. Het ontwerp bestond uit drie dokken die met elkaar verbonden waren: het Noorddok, Middendok en het Zuiddok. Het Middendok zou in verbinding komen, middels een sluis, met de Schelde. Later kregen de dokken de namen Kooldok, Schippersdok en Steendok en de sluis werd de Zuidersluis genoemd.

De zaken werden groots aangepakt. Daar waar de Zuiderdokken plus ook nog nieuwe woonwijken zouden verrijzen moest er eerst nog een oud fort gesloopt worden. Het stratenplan werd ontworpen volgens de ideeën van architect Haussmann, die de Parijse boulevards ontwierp. Ook verrees er een kerk, een Joodse synagoge, een nieuw museum en een sierlijk treinstation. Zodoende werd 'het nieuwe Zuid' later ook wel Petit Paris genoemd. Het stadsbestuur was er kennelijk zo trots op dat zij erin slaagde de Wereldtentoonstelling van 1885 naar zich toe te trekken. Toen die tentoonstelling gehouden werd, was de bouw van 'het nieuwe Zuid' nog niet helemaal gerealiseerd: de tentoonstelling vond plaats op een nog braakliggend stuk terrein.

De beurtdiensten

Aan het eind van de 19e eeuw voeren er vanuit Nederland maar weinig particuliere beurtschippers op Antwerpen. Voor de Afscheiding in 1839 zullen dat er ongetwijfeld wel meer geweest zijn.

Ook het feit dat er vanaf 1839 tot 1863 door de Noordelijke Nederlanden weer tol op de Westerschelde geheven werd, zal niet bijgedragen hebben aan de instandhouding van beurtdiensten! Wel is bekend dat schipper Pieter Vermeulen - als enige Zeeuwse particuliere beurtschipper - vanaf ongeveer 1875 een beurtdienst vanuit Middelburg op Antwerpen onderhield. In totaal voeren maar twee particuliere beurtschepen op Antwerpen. Dit in schril contrast met de ongeveer tachtig die verbindingen onderhielden met Dordrecht/Rotterdam. Vermeulen begon met een houten zeilscheepje, waarvan verder niets bekend is.



De 'Maria Hendrika' (1891) onder zeil.
Coll: A.R. Koppejan / Middelburg.

Bekend is dat er vanaf 1892 gezeild werd met de eenmastklippers 'Avontuur' en 'Maria Hendrika'. De `Avontuur' werd in 1915 vervangen door een nieuwe motorboot, ook een 'Avontuur'. Het was een voor die tijd zeer modern motorschip. Het heeft echter niet of nauwelijks in de beurt op Antwerpen gevaren en werd al spoedig aangepast voor de mosselvisserij. Speelden de oorlogshandelingen van 14 - 18 soms een rol?

In 1922 werd de 'Maria Hendrika' van een motor voorzien en werd er tevens een nieuwe motorboot besteld. De 'Maria Hendrika' kreeg de naam 'Jeannette' en de naam van de nieuwe motorboot werd weer 'Maria Hendrika'. Tot aan de tweede wereldoorlog voeren beide schepen wekelijks op Antwerpen. Ik heb de bewaard gebleven journalen uit 1909 van Jacob - een zoon van Pieter Vermeulen - geraadpleegd. Als vaste ligplaats komt inderdaad het Zuiderdok vaak aan de orde. Te lezen is ook dat er nogal wat in - en uitgeklaard moest worden: bij Bath en Lillo. Hij kreeg vaak opdracht van zijn agenten te Antwerpen om zijn schip te verhalen naar diverse weekbootjes op

Antwerpen, Zuiderdokken, ca. 1930. Op de achtergrond, de motorboot 'Maria Hendrika' (1922).
Er wordt geposeerd op een beurtschip van de West- Frieslandlijn, die op Amsterdam voer.
Coll: A.R. Koppejan / Middelburg.

Engeland om een partijtje bonen of erwten te lossen. De retourlading bestond vaak uit partijen mais, veevoer, salpeter (kunstmest aangevoerd uit Chili.) en metselsteen.

Van sporadische telefonische communicatie was in zijn journalen ook al sprake. Al die dokken en bruggen waar hij zich met z'n klappertje - al dan niet met sleephulp - door moest wurmen, komen regelmatig aan de orde.

Toch nam het aantal beurtdiensten op België begin 20-ste eeuw weer toe, maar dan met motor - en stoomboten. Bekend is mij dat er in 1909 geregelde diensten vanuit Middelburg op Brussel en Gent in het leven werden geroepen. Ik kan daarbij ook niet heen om de Fa. Braakman & Co uit Rotterdam, met hun bekende 'Telegraaf-schepen', die diensten voeren op Brussel, Gent en Antwerpen.

Een willekeurige pagina uit het journaal van beurtschipper J. Vermeulen. Het aantal reizen 'op de zeilen' bedroeg jaarlijks ongeveer vijfentwintig! Later 'op de motor' verdubbelde dat aantal en kon er letterlijk wekelijks gevaren worden. Coll: A.R. Koppejan / Middelburg.

Kunstdokken zuid

Vanwege verdere uitbouw van de dokken in de richting van de Nederlandse grens verloren de Zuiderdokken hun economisch belang. Op 1 juli 1967 werden de Zuiderdokken buiten gebruik gesteld om vanaf 15 juli 1968 gedempt te worden. De meerpalen verdwenen en tot één meter onder straatniveau werden de kaaimuren afgebroken. Een jaar later was het dempen voltooid en werd er een parkeer - en evenemententerrein aangelegd. Het treinstation verdween en met het wegvallen van al die bedrijvigheid begon Het Zuid langzaam te verpauperen, maar daar zou met de plannen van Watererfgoed Vlaanderen verandering in moeten komen! Ambitieuze plannen zijn ontwikkeld en ook becijferd om de dokken weer uit te graven om er een groots maritiem en cultureel centrum van te maken en als woon - en werkgebied moet hierdoor het Zuid ook weer aantrekkelijk gemaakt worden. Omdat de kaaimuren nog aanwezig zijn moet het redelijk makkelijk zijn om deze 'bassins' weer uit te graven.

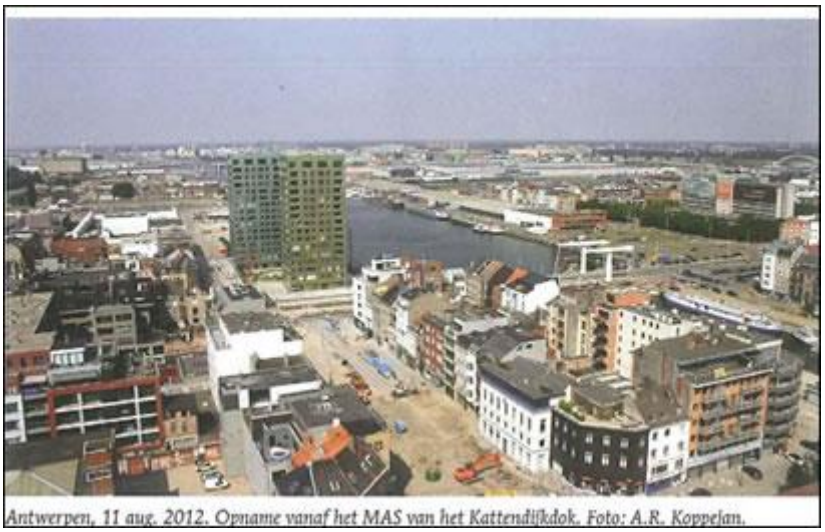
Het Panamarenkodok, het vroegere Kooldok, wordt voorzien van drijvende pontons, te gebruiken voor tijdelijke en/of permanente tentoonstellingen en om te kunnen flaneren, luieren en pootjebaden.

Het Decleirdok, het vroegere Schippersdok, gaat gebruikt worden als jacht- en museumhaven. Hetzelfde is men van plan met het Marimandok, het voormalige Steendok.

Het Decleirdok wordt toegankelijk gemaakt door de vroegere Zuidersluis weer uit te graven, met als nieuwe naam Crepainsluis. Maar voor het zover is moet eerst nog het oude gerechtsgebouw, het Hof van Beroep, gesloopt worden.

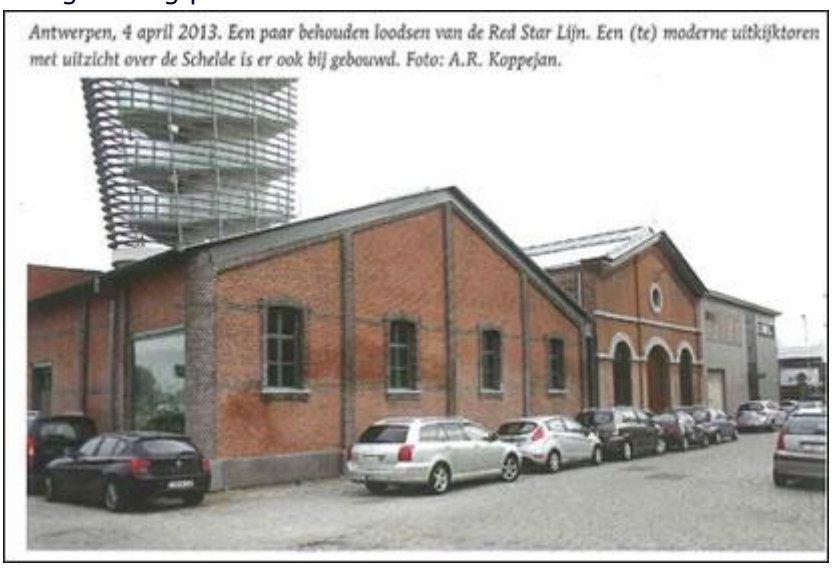
Kijk naar alle grotere havensteden in Europa: vrijwel allemaal hebben zij museumhavens met prachtige museumschepen en/of cultuurcentra in voormalige havengebieden. Bij Antwerpen ontbreekt het daar nog aan. Helaas heeft het stadsbestuur van Antwerpen nog geen goedkeuring aan de plannen gegeven en laten zij momenteel een eigen onderzoek uitvoeren om hun visie vast te leggen. Volgens Watererfgoed Vlaanderen worden de totale kosten geraamd op 54,9 miljoen euro. Na aftrek van geldelijke middelen uit andere fondsen zou er nog 'slechts' een kostenpost van 20 miljoen voor de stad Antwerpen zelf overblijven.

Het MAS, de Red Star Line en de 'Charlesville'



Antwerpen, 11 aug. 2012. Opname vanaf het MAS van het Kattendijkdok. Foto: A.R. Koppejan.

Nu we toch op de cultuurhistorische toer in Antwerpen zijn kunnen we niet zonder het MAS, de Red Star Lijn en de 'Charlesville'. Los van de plannen Kunstdokken Zuid staat het MAS, Museum Aan (de) Stroom, gelegen tussen het Bonapartedok en Willemdok. In feite is het MAS een samenvoeging van drie musea: het Nationaal Scheepvaartmuseum, vroeger in Het Steen gevestigd, het Volkskundemuseum en het Vleeshuis. Van dit nieuwe museum gingen de deuren in mei 2011 open. Ontzettend veel Antwerpse historie valt daar te bewonderen. Elke verdieping laat een bepaald thema zien en op het dak kan de bezoeker genieten van een geweldig panoramisch uitzicht over de Schelde en de stad Antwerpen.



Antwerpen, 4 april 2013. Een paar behouden loodsen van de Red Star Lijn. Een (te) moderne uitkijktoren met uitzicht over de Schelde is er ook bij gebouwd. Foto: A.R. Koppejan.

Een aantal loodsen van de Red Star Lijn werd gered van de sloop en wordt thans ingericht om als museum dienst te doen. De Red Star Lijn werd opgericht in 1872 met voornamelijk Amerikaans kapitaal voor het vervoer van landverhuizers. Als gevolg van de beurscrash van 1929 en het Amerikaanse beleid om het aantal immigranten in te perken, kwam de maatschappij in 1935 in een faillissement terecht. Vanaf 1873 tot 1934 werden er zo'n twee miljoen landverhuizers uit voornamelijk Oost en Centraal Europa naar Amerika vervoerd. De meeste schepen werden verkocht en in 1939 werd de Red Star Lijn met de nog twee overgebleven passagiersschepen 'Westernland' (1918-1943) en 'Pennland' (1922-1941) door de HAL overgenomen. De vaste ligplaats was aan een stukje Scheldekaai, dat merkwaardigerwijs Rijnkaai heet! Deze benaming zal ongetwijfeld wel een historische oorsprong hebben. Officieel wordt het museum dit jaar geopend op 28 september.

Het vrachtpassagiersschip de 'Charlesville' werd gebouwd in 1951 door John Cockerill SA te Hoboken in opdracht van de Compagnie Maritime Belge (CMB). De CMB werd opgericht in 1895 voor de vaart op Matadi in het toenmalige Belgische Congo. De ligplaats van de 'Congoboten' was aan hangar 22 aan de Scheldekaai.

De 'Charlesville' in de vaart als passagiers- en vrachtschip.
Coll: Watererfgoed Vlaanderen / Antwerpen.

De 'Charlesville' zoals ze er in Rostock als 'Georg Büchner' bij lag.
Coll: Watererfgoed Vlaanderen / Antwerpen.

De `Charlesville' was de laatste van vijf zusterschepen die vanaf 1947 werden gebouwd. De andere vier waren de 'Albertville', 'Leopoldville', 'Elisabethville' en de'Baudouinville'. Op 5 juli 1967 werd - als laatste schip -- de `Charlesville' verkocht naar Oost-Duitsland. Na een verbouwing kwam het in de vaart als vrachtschip 'Georg Büchner' op hoofdzakelijk lijndiensten tussen West-Europa, Cuba(!) en Mexico. De passagiers-accommodatie werd nog uitsluitend gebruikt voor reizen met studenten. In juli - augustus 1977 liet de staatsrederij het schip ombouwen tot een maritiem tentoonstellings - en opleidingsinstituut en werd het permanent te Rostock afgemeerd. Sinds 2003 werd het uitgebaat als jeugdherberg en hotel. Eind 2012 stopte men wegens faillissement met deze activiteiten en was de curator van plan het schip voor sloop te verkopen. De sloopprijs zou ongeveer E 900.000 bedragen. Op 3 januari 2013 bracht een delegatie uit Antwerpen een bezoek aan het schip en wees de Duitse autoriteiten op de monumentenstatus van dat schip. De Duitse deelstaat Mecklenburg- Voor-Pommeren erkende die status en verbood - voorlopig - het wegslepen en slopen en wilde het voor het symbolische bedrag van 1 DM aan de Belgen beschikbaar stellen, mits het behouden werd. De Gemeente Antwerpen zag er (voorlopig) niets in om geldelijke middelen beschikbaar te stellen voor terugkeer.

Om met de curator en de overheden van gedachten te wisselen werd er van 19 tot 21 april jl. weer een bezoek gebracht door een delegatie waar onder drie technische experts en privé investeerder Tom de Wilde, Tijdens dat bezoek bleek dat de curator, hierin merkwaardigerwijs gesteund door een vertegenwoordiger van de erfgoeddienst van de deelstaat, ineens hogere financiële eisen stelde en een onmogelijke deadline oplegde, waardoor de kans grater werd dat de koop niet door zou kunnen gaan. Als de `haalbaarheidsstudie' van de delegatie, de financiering voor terugkeer, het aanpassen en opknappen en de verdere exploitatie rond zou zijn gekomen, zouden de Belgen de `Charlesville' naar Antwerpen hebben kunnen laten halen. De bedoeling was om het permanent in het Kattendijkdok af te meren.

Maar... eind mei werd het schip ineens gereed gemaakt om naar Klaipeda gesleept te warden, waar het zeer zeker gesloopt zou worden. Vlak voor vertrek werd het schip nog even `geplunderd' door er vele kostbare interieurelementen af te halen. Waar al die spullen heen gaan, kunnen we alleen maar naar gissen. Gespeculeerd wordt dat die wellicht te koop komen op veilingen of via websites. Dit alles gebeurde onder toeziend oog van de havenmeester, allemaal heel verdacht I Nog verdachter is dat het schip op 30 mei omstreeks 18.00 uur plotseling zonk!

De oorzaak is niet bekend maar in de media is er druk over gespeculeerd. Gesproken werd over verzekeringsfraude, kopers die alleen op papier bestonden enz. Kortom maffiapraktijken.

Toch laat Watererfgoed Vlaanderen, en met name genoemd jurist Eric van Hooydonk, het er niet bij zitten. Hij onderzoekt de mogelijkheid tot berging. Dit prachtige initiatief, werd mede ondersteund door meer dan 75(!) Belgische organisaties. Het zal dus -als het er ooit van komt - nog wel even duren voor het schip permanent in Antwerpen afmeert.

Samengevat klopt het toch dat Antwerpen volop bouwt aan het heden en verleden?

Inséré 10/03/19 BOEKEN LIVRES BOOKS Enlevé 10/04/19

"South Wales tugs in colour"

B O O K R E V I E W by : Frank NEYTS

Recently Coastal Shipping Publications published "South Wales tugs in colour", written by Andrew Wiltshire. Tugs are the workhorses of the maritime world. Their main work is shiphandling but they have many other roles too. They are popular with enthusiasts and with the general public. In this book, the author takes a close look at tugs in the South Wales ports of Newport, Cardiff, Barry, Port Talbot and Swansea. He follows the changes as tug ownership has moved from local companies to national and multinational companies. The changes are illustrated by over 100 superb colour photographs, each with an informative caption. **Once again, we have to admit, like all books issued by Coastal Shipping Publications, value for money!**

"**South Wales tugs in colour**" (ISBN 978-1-902953-93-9) is a softback (landscape format) book of 96 pages, lavishly illustrated with over 100 colour images. The price is £9.95 plus £1.00 UK postage and £2.50 overseas postage via all good bookshops, or directly via the publisher, Coastal Shipping, 400 Nore Road, Portishead, Bristol BS20 8EZ, UK. Tel/Fax: +44(0)1275.846178, **www.coastalshipping.co.uk**, e-mail: **Bernard@coastalshipping.co.uk** .

Inséré 12/03/19 NIEUWS NOUVELLES Enlevé 12/04/19

Seafarers Won't Lose Jobs to Automation Yet, The International Chamber of Shipping (ICS)

The International Chamber of Shipping (ICS) has released a new study on the potential effects of autonomous ships on the role of seafarers, indicating that there will be no shortage of jobs for seafarers, especially officers, in the next two decades. The report, conducted by the Hamburg School of Business Administration, states: "If by 2025 very optimistically some 1,000 ships will be fully autonomous and some further 2,000 vessels semi-autonomous, this may possibly reduce demand for seafarers by 30,000 – 50,000. However, at the same time the need for highly skilled remote-operators, pilots of a new kind and riding gangs will be needed to keep ships operational." With an overall increase

of the world fleet, at least the number of officers on board will remain stable. At the same time the number of "crew" on shore in supporting functions will increase, possibly significantly. This leaves valuable time to adapt training patterns and re-train experienced seafarers with digital competencies.Many seafarers from developing countries may find it difficult to get work ashore in their home countries, states the report. Ratings rely on the remuneration they receive to support both their immediate and also extended families and therefore are extremely concerned that their jobs may disappear with automation. Many ratings join the profession following in the footsteps of their parents and grandparents and are therefore concerned that this career path may not become available for their offspring in the future. Labor unions have voiced their concern. The February issue of The Nautilus Telegraph reported on the feedback that it had received from a survey of over 1,000 members from 21 unions within the Nautilus Federation. The majority of feedback suggested that automation was seen a threat to maritime professional's jobs and that unmanned vessels presented a safety threat at sea. The study argued that the rush by manufacturers and maritime nations into investing capital and time into researching autonomous systems and digitalization for ships has meant that important social and human issues such as skills are being neglected. A paper published by the International Transport Federation and the International Federation of Shipmasters' Associations at MSC99 cited the risk of collision and unregulated activities. It indicated that over 80 percent of seafarers have voiced their anxiety about possible job losses. The ICS report notes that this shows that automation is likely to face opposition from seafarers and their unions if introduced in a manner which focuses primarily on the rush to be first and cost cutting for the sake of cost cutting. It also highlights that gaining public acceptance may also be an issue which will influence the decisions made by lawmakers and regulators. The relationship between seafarers and digitalization is anticipated to be one of the main topics for discussion during an International Labour Organization sectoral meeting on "Recruitment and Retention of Seafarers and the Promotion of Opportunities for Women Seafarers" to be held in Geneva in February 2019.

Source: ICS

Inséré 13/03/19 NIEUWS NOUVELLES Enlevé 13/04/19

Framo technology used to successfully install wind turbine foundations

Framo’s pump technology has been used to successfully anchor 20 wind turbines at the wind farm Burkum Riffgrund 2. A total of 60 suction buckets have been pumped in place as foundation for the 20 wind turbines in Ørsted's new wind farm Borkum Riffgrund 2. In June 2018, a team of specialists from Framo, the Norwegian Geotechnical Institute (NGI) and GeoSea installed the first of the 20 suction bucket jackets at the offshore wind farm. After periods of storm and high waves, the foundations of all 20 wind turbines were safely pumped into the seabed with the final jacket foundation installed on Monday, 30 July. The full commissioning of the wind farm is planned for early 2019. “It's a milestone for Framo. This is the first time our technology has been used to pump so many wind turbines in the same wind farm and is quite unique that so many wind turbines are anchored with suction anchors in one field.” says Jørgen Brandt Theodorsen, Area Sales Manager Framo “The suction bucket jacket technology for offshore wind farms has gone from concept to reality during the last five years. Besides lowering costs due to the increased installation speeds compared to traditionally piled jackets, the concept provides for easier decommissioning and practically noise free installation.” says Thomas Langford, Director for Offshore Energy at NGI. Framo is a sub-contractor to NGI in the installation of the 20 offshore wind turbines. NGI and Framo have collaborated on the installation of offshore anchoring and foundation elements using suction/vacuum since the 1990s.The technology of suction and bucket foundation has been used to secure and safely anchor platforms and offshore installations around the world. Now larger wind farms are being built with this technology. The foundation is installed by pumping water out of the buckets. This creates a suction/vacuum, which press the buckets into the seabed. The windfarm Borkum Riffgrund 2 is located 54 kilometers off the coast of Lower Saxony, in the German North Sea. In the installation of the 56 wind turbines, 20 will use the suction bucket technology as foundation and 36 will be supported using monopiles. The three-legged foundations measure more than 50 meters in height and weighing 950 tons each. “Compared with installing monopiles, suction anchor technology has a more environmentally friendly footprint. When pumped in place, the fish does not scare away during the installation process due to noise and it is easy to reverse the operation.” says Theodorsen. When the 8,5 megawatt giant turimages, are in place, they rise 109 meters above sea level and have a wing span of 164 meters. Theodorsen believes several companies will pump the anchoring into place. “An increasing number of companies invest in offshore wind to meet the future demand for energy, as well as to offer a more environmentally friendly energy alternative. It is a growing market where we are proactive to take part in this development. The Ørsted project opens up a new market for us in major

wind farm developments and is an alternative to traditional installation methods." concludes Theodorsen.

Inséré 14/03/19 DOSSIER Enlevé 14/04/19

Interest in wind power grows to help shipping achieve CO_2 emission targets

By : Paul Stuart-Smith, contributor

How best to comply with the requirements of the sulphur cap was one of the topics most hotly debated at Posidonia last week. Whether to fit scrubbers; the availability, cost and compatibility of high- and low-sulphur fuel oils; the role of liquefied natural gas (LNG), or perhaps liquefied petroleum gas (LPG), all featured prominently during panel discussions.

Finding solutions to the logistical and operational issues raised by these questions will be critical for the industry over the next 18 months. But looking beyond 2020, the longer term and more difficult technical challenge will be to reduce greenhouse gas (GHG) emissions from ships in line with the goals agreed at the meeting of the International Maritime Organization's (IMO's) Marine Environment Protection Committee (MEPC) in April. The key target is to reduce overall CO_2 emissions for the sector by at least 50% by 2050 with the further aim of phasing them out entirely as soon as possible thereafter. "Wind propulsion will have an important role to play in achieving the IMO's goals," predicts Gavin Allwright, speaking to Fairplay last Friday. Allwright runs the International Windship Association (IWSA), a membership organisation that promotes wind propulsion for commercial shipping. He said we are witnessing "the start of a transition from the question, 'is wind propulsion credible?' to an understanding that it will be part of the future propulsion mix". Allwright sees "the great opportunity wind propulsion has to reduce pressure on our dwindling carbon budget", and estimates that on average it will "knock at least 10–30% off fuel consumption and under the right conditions much more". According to Allwright, the potential importance of wind propulsion as part of the solution for achieving the IMO's GHG emission goals is underscored by the findings of a number of recent research papers setting out future fuel options for shipping. The most recent paper, from DNV GL, "Assessment of selected alternative fuels and technologies", published at the beginning of June, aims to help owners' decision making when selecting a fuel for new ships. The DNV GL report follows in the wake of the International Transport Forum (ITF) paper, 'Decarbonising Maritime Transport by 2035', published in March, and 'Zero Emission Vessels: What needs to be done?' issued by the Sustainable Shipping Initiative (SSI) in May. What is clear from all three research papers is that there are no easy solutions. The ITF report asserts that an almost complete decarbonisation of shipping could be achieved by 2035 using currently known technologies. This could see hydrogen and ammonia providing 70% of the fuel mix, biofuels 22%, and LNG 3% with a residual 3% coming from fossil fuels but, the report warns, financial incentives will be "essential to reduce the price gap between conventional and more sustainable fuel options".

The SSI report also sees potential for use of hydrogen and ammonia but places more emphasis on advanced biofuels, while acknowledging that there are serious questions about their availability and sustainability. The DNV GL report recognises that "all alternative fuel options are accompanied by benefits and challenges". Simon Bennett, deputy secretary-general of the International Chamber of Shipping (ICS), speaking at an ITF meeting in Leipzig recently, stated that, "[the IMO] targets can realistically only be achieved with the development and global roll-out of genuine zero CO_2 fuels," but that this would require "radical and as yet unproven technologies such as hydrogen fuel cells using ammonia or methanol, or batteries powered using renewable energy". He believes that "LNG or biofuels will play an important part in the transition" but that ICS only "really sees these as interim solutions that won't deliver the ambitious targets which IMO has now set for 2050". The DNV GL report sets out some of the challenges – alluded to by Bennett – of finding alternative fuels with significantly lower CO_2 emissions than existing fossil fuels. By far the best option would be hydrogen, but only if produced through electrolysis from water using cheap renewable energy. At present most hydrogen is produced from methane, which causes more "well to tank" CO_2 emissions (measured in grams per megajoule) than are emitted by producing and burning high-sulphur fuel oil, according to a chart in the DNV GL report. The same would be true for methanol produced from natural gas. Third generation biofuels produced by algae have the drawback of requiring large amounts of fertiliser to allow the algae to grow, thus undoing most of the environmental benefits of what would otherwise be a carbon neutral process (the algae 'eat' CO_2 to produce biodiesel or other fuels). The DNV GL report also views batteries as impractical based on current technology, while it sees "political, societal, and regulatory barriers" to nuclear propulsion. Regarding wind, the report states that "wind-assisted propulsion could potentially reduce fuel consumption, especially when used for slow ships". It references a major 2017 wind propulsion study by CE Delft, which "concludes that there is significant saving potential in wind-assisted propulsion on large tankers and bulk carriers", DNV GL concedes that "the business case [for wind] remains difficult", mostly due to uncertainty regarding "the availability of wind and therefore the operation area of wind-assisted vessels". Nevertheless, wind-assisted propulsion could achieve fuel "savings of 15–20%" or more, according to Gerd-Michael Würsig, business director, alternative fuels, at DNV

GL.

Allwright is encouraged by the increasing interest in researching and testing of wind propulsion solutions, particularly of Flettner Rotor Sails. In April, MS Viking Grace became the first passenger ferry to be fitted with the tube shaped technology. It followed in the footsteps of the ro-ro vessel **MV ESTRADEN** that operates with two Norsepower rotor sails fitted in November 2014 and November 2015. Flettner rotors have also been installed by Anemoi Marine Technologies on th**e MV AFROS**, a 64,000 dwt bulk carrier operating in the Pacific. Next up will be a 109,647 dwt **LONG RANGE 2** (LR2) product tanker owned by Maersk Tankers on which a 30 m tall, 5 m wide Norsepower rotor sail is being fitted. The project is run in conjunction with the United Kingdom's Energy Technologies Institute (ETI) and Shell Shipping & Maritime. Sea trials are expected to continue until the end of 2019.By November, Allwright expects a total of 14 Flettner rotor sails to be fitted on six different vessels around the world. A wide range of other research and development projects, not just for rotors but also for hard and soft sails, are currently under way, some of which are summarised in the CE Delft report. These include an Auxiliary Sail Propulsion System (a rigid sail) being designed in the United Kingdom for bulk carriers; the Wind Challenger Project, led by the University of Tokyo in conjunction with a number of large Japanese shipping companies to develop a large rigid sail system capable of driving a Capesize vessel; and the Norwegian Vindskip Project that is designing the hull of a vessel to act as an air foil. IWSA is keen to build on this momentum by encouraging a further expansion of the number of demonstration vessels. One of the barriers to uptake of wind propulsion cited in the CE Delft report is access to capital and a reluctance by owners to invest in unproven technologies.

To overcome this, IWSA members are looking to develop a system of lease financing that could see technology providers charging a performance-based fee for use of their equipment to avoid the need for upfront capital expenditure. Another key development, discussed at the IWSA Annual General Meeting held in Rotterdam two weeks ago, is the evolution of IWSA Hubs or centres of excellence to spur innovation. The first of these is expected to be "IWSA Europe Atlantique" based around the Port of Nantes Saint-Nazaire. Shipbuilder STX France is expected to be a key member. Other IWSA hubs are planned for the South Pacific and Northern Europe (Germany and Holland) with hubs in the United States and Asia to follow. Clearly, much work still needs to be done for wind to become a major means of propulsion for the shipping industry. However, given the scale of the challenges facing the development of alternative fuels and their potential costs, Allwright is confident that we are witnessing the dawn of a new Age of Sail.

Source: Fairplay-HIS

Inséré 16/03/19 NIEUWS NOUVELLES Enlevé 16/04/19

Fluxys, Titan LNG to Build LNG Bunkering Pontoon for Antwerp Port Region

Fluxys and Titan LNG have joined forces to build the FlexFueler 002, a bunkering pontoon to make liquefied natural gas (LNG) more widely available as shipping fuel in the Antwerp port and region.

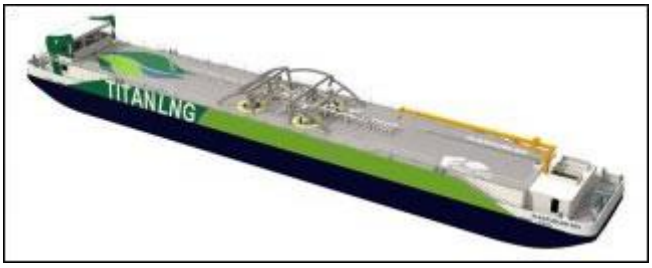
As informed, the pontoon will be commissioned by mid-2020 and support the shipping industry in its switch to cleaner operations.

The FlexFueler 002 LNG bunkering pontoon will have as its home location Quay 526/528 in the port of Antwerp. Last year, Fluxys obtained a concession to provide LNG bunkering services and currently accommodates truck-to-ship bunkering on the site.

"Our investment in the Antwerp LNG bunkering pontoon marks our commitment to offer concrete solutions to bring the energy transition forward and improve air quality. The pontoon is yet another link we are adding to the logistics chain in Belgium to make LNG

more widely available as alternative fuel for ships," Pascal de Buck, CEO of Fluxys, commented.

Dutch supplier Titan LNG will be the long-term operator of the pontoon.



"The use of LNG as a marine fuel is rapidly growing. We are convinced that the Titan LNG FlexFuelers are the missing link to safe, economical, and speedy LNG delivery in the ARA region. We feel strengthened by our Fluxys partnership and have identified ample opportunities to expand the cooperation in other geographies. With FlexFueler001 and 002 providing back-up for each other, we can provide the operational certainty that ship owners require," Niels den Nijs, CEO of Titan LNG, said.

FlexFueler 002 is the second Titan LNG developed pontoon of its sort and identical to FlexFueler 001, which will come into service in Amsterdam in approximately 3 months. From its home location, FlexFueler 002 will provide bunkering services throughout the Antwerp port and region to inland waterway vessels and small coasters.

The Port of Antwerp is actively supporting this development to improve local air quality and has commissioned an LNG bunker map showing where ship-to-ship bunkering in the harbor area is supported.

Next to Quay 526/528, G&V and Rolande LNG, Titan LNG's sister company, will build and operate an LNG fuelling station for heavy duty trucks. The infrastructure will also be used by Fluxys and Titan LNG to provide permanent LNG bunkering services for inland waterway vessels in addition to the current truck-to-ship bunkering option.

Inséré 18/03/19 BOEKEN LIVRES BOOKS Enlevé 18/04/19

Life and Death on Little Ross

B O E K B E S P R E K I N G by : Frank NEYTS

Recently Whittles Publishing released a maritime title, "Life and Death on Little Ross. The story of an island, a lighthouse and its keepers.", written by David R. Collin. Little Ross is an attractive and unspoiled island and its lighthouse, beautifully designed by the famous Stevenson family, is officially a 'lesser' light. The island was unknown to most people until 1960 when a murder in the lighthouse buildings brought it widespread notoriety, to the grief and consternation of all who were involved. The author was at the island on the day of the murder, and was a witness in the High Court trial that followed. Over the subsequent 57 years, he has repeatedly been asked to tell his story but the 117 years of diligent tending of the light by numerous lighthouse keepers and their families has been largely forgotten. In "Life and Death on Little Ross", the author has redressed the balance by telling the story of the island, its lighthouse and its people who lived and worked there including extracts from a detailed diary that has survived from WWI.

The process of automation began immediately after the event and the story of the restoration and conversion of the lighthouse keepers' derelict cottages is one of courage, patience, stamina, skill and resourcefulness which should inspire people who love wild, beautiful and unspoiled places like Little Ross Island and care about the future of buildings

of distinction. "Life and Death on Little Ross" (ISBN 978-1-84995-359-7) is issued as a paperback. The book counts 231 pages and costs £18.99 or $24.95. The book can be ordered via every good book shop, or directly with the publisher, Whittles Publishing, Dunbeath Mill, Dunbeath, Cairness IKW6 6EG, Scotland (UK), e-mail: info@whittlespublishing.com , www.whittlespublishing.com.

Inséré 18/03/19 DOSSIER Enlevé 18/04/19

Towards Zero Emissions: Environmental Outlook

While the world is struggling to live up to its commitment to limit climate emissions, new data indicate that climate change may be more severe and occur more rapidly than anticipated earlier. The IMO is looking for ways to make shipping climate-neutral over the next decades. DNV GL gives an overview of the status of the discussion and potential future measures When the Paris Agreement was adopted in 2015 in response to the increasing signs of global climate change, shipping and aviation were not included. Instead, the IMO and ICAO were asked to come up with greenhouse gas (GHG) emission reduction schemes of their own. At MEPC 72 the IMO has now adopted a strategy to reduce emissions from shipping. This aims to reduce total emissions from shipping by at least 50 per cent by 2050, and to reduce the average carbon intensity by at least 40 per cent by 2030 while aiming for 70 per cent in 2050, all figures compared to 2008. The ultimate vision of the IMO is to phase out greenhouse gas emissions entirely at the earliest time possible within this century. This initial strategy will be reviewed in 2023 based on information gathered from the IMO Data Collection System (DCS) as well as a fourth IMO GHG study to be undertaken in 2019. As it must be assumed that the global shipping activity will continue to grow towards 2050, the 50 per cent emission reduction target is quite ambitious and will most likely require widespread uptake of zero-carbon fuels in addition to other energy efficiency measures. However, there are no zero-carbon fuels available today. A concerted research and development effort is needed not only to develop such fuels but also to make them available in the required volumes.. To implement its ambitious strategy the IMO must develop new policy measures and regulations. The strategy contains a long list of options, such as strengthening the EEDI, applying operational indicators, reducing speeds, rolling out market-based measures, or developing zerocarbon fuels. Work on an action plan to kick-start the development of appropriate measures will start this fall. While limited immediate impact on ships is to be expected, the efforts required to reach the long-term goals will have to build over the coming years, with a real impact starting to materialize in the 2020s. In a long-term perspective, DNV GL expects this strategy to fundamentally change the way ships are designed and operated.

CO2 data collection in the EU and at the IMO

In the EU, regulations for monitoring, reporting and verification (MRV) of CO2 emissions have entered into force, requiring all ships above 5,000 GT sailing to or from European ports to report CO2 emissions, cargo data and average energy efficiency. 2018 is the first year of reporting, with data being published annually by the EU as of mid-2019. One purpose behind the EU MRV regulations was to encourage the IMO to work on a similar mechanism with global coverage. The EU regulation itself contains a provision for a review aimed at alignment with a future international system, if in place. It is therefore significant

that the IMO has adopted a global mechanism for mandatory monitoring, reporting and verification of fuel consumption data for all ships 5,000 GT and above. The scheme, known as the IMO Data Collection System (DCS) on fuel consumption, will have 2019 as its first year of operation. The IMO DCS differs from the EU MRV in several important aspects, including the confidentiality of data, the calculation of efficiency metrics, and the requirements for data verification. While these are all issues where the EU has a strong preference for the requirements of its own system, the European Commission has nevertheless initiated a formal review process aimed at aligning the EU MRV with the IMO DCS. There are encouraging signs of a legislative proposal to be published in May 2018, though it is expected to be challenging and likely time-consuming for the commission, the parliament and the council to come to an agreement. DNV GL believes that full alignment is unlikely, and that the industry may have to cater to both reporting regimes for the foreseeable future.

SOX regulations

IMO has agreed that the 0.5% global sulphur cap will be implemented from 1 January 2020. The decision is final and will not be subject to renegotiation, which gives certainty to the maritime and bunker industries. There were intense discussions on both the practicalities of implementation and on how to ensure robust enforcement and a level playing field. IMO is continuing to discuss implementation and supporting measures on a priority basis and is holding an intersessional meeting dedicated to the topic in July. The meeting is expected to provide robust guidelines for industry and authorities; these will be finalized at MEPC 73 in October and then circulated. Ship operators will have to choose their preferred compliance strategy, a decision with far-reaching operational and financial implications. There is no one-size-fits-all solution on the table; scrubbers, LNG, and "hybrid" fuels are all realistic options, but most vessels are expected to default to using 0.5% marine gas oil (MGO) and blends, at least initially. Local availability issues and price volatility are expected to result from the dramatic change of the fuel demand situation as of 1 January 2020, and the number of non-compliance cases, especially because of insufficient tank cleaning at bunker facilities and on board ships, is likely to be rather high during a transitional period. Enforcement remains a critical concern, especially on the high seas. Contrary to emission control areas (ECAs), where enforcement is up to the respective port state, monitoring of operations on the high seas is the responsibility of the flag state. Legitimate questions are being asked about the readiness of all flag states to provide uniform and robust enforcement to ensure a level playing field around the globe. To alleviate the enforcement issue to some extent, the IMO at MEPC 72 agreed to establish a ban on carriage of non-compliant fuels for all ships without scrubbers. This ban is likely to be adopted at MEPC 73 and will then take effect in March 2020. Ships without scrubbers will still be allowed to carry noncompliant fuel as cargo. Moving to regional and domestic matters, it should be noted that in the EU the Water Framework Directive is imposing restrictions on the discharge of scrubber water. Belgium and Germany have prohibited the discharge of scrubber water in most areas, thereby limiting the operability of open-loop scrubbers. Similar restrictions apply in some US coastal waters, e.g. off Connecticut. In Asia China's regulations for domestic SECA-like requirements are being rolled out in the sea areas outside Hong Kong/ Guangzhou and Shanghai as well as in the Bohai Sea. China is taking a staged approach, initially requiring a 0.5% maximum sulphur content in fuel burned in key ports in these areas, gradually expanding the coverage to finally apply fully to all fuels used in these sea areas from 2019 onwards. Conceivably the allowable sulphur content will be tightened to 0.1% by 2020, and China may eventually submit a formal ECA application to the IMO. In our view there is a real possibility of these zones being extended to include further Chinese sea areas.

NOX regulations

The NOX tier III requirements have entered into force in the North American ECAs for ships constructed on or after 1 January 2016. Anyone constructing a ship today needs to consider whether operation in the North American ECAs will be part of the operational pattern, whether upon delivery or at any time in the future. If so, NOX control technology will be required on board. When choosing an NOX control technology operators should consider how they intend to ensure compliance with the 2020 sulphur cap to avoid system integration issues. With respect to upcoming regulations, IMO has agreed to apply NOX Tier III requirements to ships constructed on or after 1 January 2021 when operating in the North Sea and Baltic Sea ECAs. There are presently no indications of plans for additional NOX Tier III areas.

Ballast water management

The Ballast Water Management (BWM) Convention entered into force on 8 September 2017, more than 27 years after the start of negotiations, and 13 years after its adoption in 2004. The implementation schedules was revised at MEPC 71 in July 2017. Briefly put, every ship in international trade will be obliged to comply at some point between 8 September 2017 and 8 September 2024. For ships from 400 GT upwards, the compliance date is linked to the renewal of the International Oil Pollution Prevention certificate, while ships below 400 GT must comply by 8 September 2024. By that date the entire world fleet must be in compliance. In the US, the domestic ballast water management regulations entered into force in 2013. New ships must comply upon delivery, while existing ships must comply by the first scheduled dry-docking after 1 January 2014 or 2016, depending on ballast water capacity. USCG type approval is required for ballast water treatment systems; six such approvals have been granted so far, with eleven more in the approval pipeline. The USCG's previously liberal extension policy granting deferred installation dates to more than 12,500 ships due to the unavailability of approved systems has changed since the first type approvals were issued. Presently the USCG is very restrictive on granting extensions and this policy is likely to tighten further. In practical terms, operators should now plan their installation dates based on the compliance dates in the regulation and not gamble on receiving an extension.

Emerging issues

There are a number of new environmental regulations under consideration at the IMO as well as in various countries. They cover a broad range of topics, such as plastic pollution from ships, the impact of noise on cetaceans, particle emissions, hull biofouling, and a ban on heavy fuel oil in the Arctic. The discussions are at various stages; New Zealand, for example, has introduced biofouling regulations in May this year. The noise issue is primarily a concern of a few isolated stakeholders, while plastics and an Arctic HFO ban are under consideration at the IMO. Nevertheless, most if not all of these topics are likely to be the subject of further domestic or international regulations sooner or later during the next decade.

Source: DNV GL, Bulk Carrier Update

Aux Cadets de la Ligue Maritime Belge pendant la guerre.

Jean Rigot.

Petit, j'allai parfois avec Papa à la rue de la Croix de Fer où était le premier siège de la Ligue Maritime Belge, pour y écouter les leçons - conférences sur la navigation et le yachting que donnait Monsieur Constant Vander Meer (qui a suscité, à une époque, une piété quasi filiale des milieux maritimes belges). J'étais fasciné par la maquette assez grande d'un trois mats barque et un grand dessin d'Hergé qui montraient l'ancêtre du Capitaine Haddock sur la "Licorne". La ferveur des assistants était perceptible et j'y participais. Je commençai à rêver de la mer et des bateaux et je dévorais tout ce qui était lisible et à ma portée, sur la marine et son élément. En 1942, le Larousse sur la Mer, prêté par Monsieur Réquilé, l'ami de Papa, devint mon livre de chevet. Je fis ma première maquette de voilier et j'entrepris aussi de fabriquer un sextant en bois et meccano que j'ai retrouvé chez mes parents et qui est une des pièces de ma collection. A la fin de l'année, ayant l'âge minimum requis, je me présentai aux Cadets de la Ligue Maritime Belge. Cela tenait du scoutisme, de l'école professionnelle de matelotage et de réserve pour les équipages de la marine marchande lorsque la guerre ne l'interdisait pas. Le peu de temps (quatre ans) que j'y passai marqua ma vie.

Le siège du Corps était une grande baraque de bois au dessus d'un ponton situés le long du canal de Willebroeck, juste après le B.R.Y.C.. On y remisait notre matériel, mats, voiles, avirons, etc. . Nous nous y réfugions lorsque le temps était trop mauvais. Au fond de la remise se trouvaient une cuisine et sa cuisinière au charbon (denrée rare) et des toilettes.

En ce temps de vaches maigres, les uniformes étaient du domaine de la mémoire collective. Parfois, un calot ou un chandail à col roulé avec son écusson LMB (ou BZB) rappelait que c'était tout de même de l'histoire proche. Mais ce n'était pas notre première préoccupation sinon que notre invention personnelle nous faisait coudre sur des chandails ou des blousons de circonstance les insignes de grade, la barrette rouge ou verte de la bordée à laquelle nous appartenions et le chevron simple ou double pour montrer que nous étions un cadet de seconde ou de première classe.

Les cadets étaient répartis en deux bordées, la bordée "tribord" et la bordée "bâbord". Toutes nos tâches étaient divisées selon la bordée à laquelle on appartenait. Ma bordée, les "tribordais" était commandée par un quartier-maître. C'était Albert De Roeck, homme plein d'allant, savant en manoeuvres, doué pour le dessin qui était sa profession, bouillant d'idées qui nous ravissaient. L'autre bordée, les bâbordais avait pour quartier-maître Georges Lefèbvre, un ingénieur technicien passionné et aussi valable que nôtre mentor. Le Commandant du Corps était Monsieur Haussman, ingénieur à la Société des Transports Vicinaux. Il était en même temps Scout-Master des Scouts Marins qui étaient nos voisins le long du canal de Willebroeck. Nous entretenions d'excellents rapports avec eux, avec invitations mutuelles aux grandes festivités.

Une autre personnalité commune aux deux organisations était l'Aumônier, dont j'ai perdu le nom. C'était un Monsieur très actif et de bon conseil. Il avait bien compris que je me détachait de la pratique de la religion et n'en a jamais fait état pour tenter d'en parler. La seule façon de me distinguer parmi les autres était de me choisir pour installer son autel le dimanche quand nous étions loin de Bruxelles, lorsqu'il allait dire la messe en plein air, ce que je faisais avec plaisir, étant bricoleur. Ce qui est très curieux, c'est que à la Force Navale, à bord de la frégate "Lieutenant de Vaisseau Victor Billet", j'eus le même genre de

rapport avec l'aumônier du bord. Je montais son autel dans la cafétéria, le dimanche matin, puis je me laissais enfermer dans les douches avec les non catholiques du bord pour nous laver avec délice pendant que la messe se déroulait.

Les Cadets de la Ligue Maritime avaient plusieurs bateaux à leur disposition. L'un était un grand voilier à fond plat et dérives latérales, un vrai hooghaars. Il s'appelait le "Courlis". La corvée la plus commune que nous subissions était de pomper ses bouchains avec un appareil antique mais efficace. Il fallait être sept pour le manoeuvrer à la voile. Le Commandant Haussman était toujours à la barre et je pense encore qu'il fallait être fin manoeuvrier et sérieusement culotté pour tirer des bords serrés dans le canal de Willebroek avec cet engin bourré de gamins passionnés.

Nous logions une quinzaine à bord. Il y en avait jusque dans la soute à voiles tout à l'avant! Nous y étions comme des chatons dans un panier.

Puis il y avait une grande chaloupe à six bancs de nage, le "4". Ses avirons étaient fort lourds et avaient des longueurs diffé-rentes selon le banc auquel ils étaient destinés. Elle pouvait être gréée en sloop, mais alors il fallait que l'équipage fasse continuellement du rappel parce qu'elle était survoilée. C'était du sport, mais nous l'aimions bien parce que l'exercice à l'aviron était pénible. Le tout était dimensionné pour des adultes et nous étions des gosses mal nourris. Une autre chaloupe à quatre bancs de nage (le "3") était infiniment moins lourde mais moins jolie. J'en fut longtemps le "patron", c'est à dire le responsable. Enfin, la perle du lot était le "un". C'était un dériveur fin et racé pour la mode de l'époque. Il avait une voile à houari et une dérive centrale, et c'est à son bord que nous apprîmes les uns après les autres à jouer avec le vent.

De temps en temps, l'un de nous disparaissait des rangs. Personne ne demandait où il était passé, mais il était évident qu'il avait trouvé le moyen de rejoindre l'Angleterre. Jean-Marie van Groenendael y fut à la suite d'une aventure rare en ce temps. Ses parents avaient une maison à Ostende et l'été, lorsque la famille y résidait, les deux fils étaient pris alternativement comme mousse sur une barque de pêche par un patron de leurs amis. Comme il avait droit à une part, cela améliorait l'ordinaire de la famille. Un jour où ce fut le tour de Jean-Marie, la barque entra soudain dans un banc de brouillard intense qui les rendit invisi-bles des patrouilleurs allemands qui les surveillaient. Les trois hommes du bord intimèrent au gamin l'ordre de se tenir à l'avant et discutèrent un moment entre eux. Puis, sans l'avertir de leur décision, ils mirent le cap sur l'Angleterre. Arrivé là, il fut remis aux autorités anglaises et, comme il n'avait pas quinze ans, il fut placé dans une famille locale et fut admis à l'école. La Croix-Rouge avertie fit en sorte qu'un officier allemand se présenta dès le lendemain chez ses parents pour leur apprendre que leur fils n'était pas perdu en mer et leur dire où il se trouvait.

Lorsqu'il eut quinze ans et demie, âge minimum à cette époque, il s'engagea dans la Royal Navy comme un petit Anglais moyen et fit une guerre parsemée de péripéties rocambolesques ou tragiques. Il fut coulé deux fois et participa aux opérations du 6 juin 1944, aux commandes d'une barge de débarquement. Son frère Michel resta seul représentant de la famille chez nous et s'engagea à la force Navale où il devint officier.

Jean Vloeberghs disparut aussi, qui termina les opérations seul Belge sur une frégate anglaise.

Un dernier, dont j'ai volontairement oublié le nom se présenta au Corps, après une absence de quelques semaines. Il était en uniforme de l'Organisation Todt! Nous le reçûmes poliment. Il faut dire à sa décharge que la propagande allemande était redoutable. Je me souviens d'une vitrine du Boulevard Anspach qui présentait les avantages d'un engagement dans la Kriegsmarine et je regrettais presque d'être embringué si à fond dans la lutte (j'étais courrier dans un service de renseignements) parce que c'était tellement alléchant!

Deux ou trois fois par an, toute la troupe des Cadets gréait tous les bateaux, en faisait une traîne, les uns derrière les autres et attendait le passage du remorqueur qui quittait Bruxelles avec son train de péniches. Au passage de la dernière, nous passions une remorque et nous mettions à la file jusque vers l'écluse de Wintham puis le Ruppel et l'Escaut. C'était un très beau plan d'eau avec ses marées, ses petits ports, ses hauts fonds. Nous sillonnions ces rivages à la voile ou à l'aviron en chantant à tue-tête des chansons de marin et en faisant la course avec nous-mêmes. "Cassez les avirons !", nous criait le patron d'embarcation. Il ne nous était pas permis de remonter jusqu'à Anvers parce que les Allemands l'interdisaient, mais nous avions là un terrain d'exercice merveilleux. Nous allions jusqu'à Saint-Amand, où nous allions nous incliner cérémonieusement sur le tombeau de Verhaeren.

Lorsque ces escapades avaient lieu, chacun de nous devait apporter une ration d'aliments, de quoi fournir la popote pendant huit jours: tant de kilos de pommes de terre, tant de centaines de grammes de pois cassés, de fayots, de margarine. La cuisine était éminemment végétarienne en ces temps de vaches maigres et chacun était responsable de son pain et de quoi garnir ses tartines. Cela me valut d'être un jour malade comme un toutou parce que ma miche, au lieu de rassir comme un honnête pain, prit des allures équivoques. Je la consommai tout de même car rien n'arrêtait mon appétit.

En 1943, lorsque les bombardements se firent violents, tout le Corps de Cadets, en bloc, devint une section de l'A.R.F.E.G.. Je ne sais plus ce que cela veut dire, mais chacun reçut un casque, une salopette et un brassard. A chaque bombardement, une pyramide téléphonique fonctionnait et nous nous précipitions vers l'endroit atteint. Nous nous efforcions, par petits groupes de trois ou quatre, de dégager les personnes ensevelies et aidions celle qui étaient sinistrées à récupérer le plus de biens possibles. Nous fîmes des folies. Je me vois encore, à Forest, étançonner le plancher d'un premier étage pour récupérer ce qu'il y avait à sauver, puis retirer les étançons et tout se retrouvait par terre. J'avais quinze ans!

A Pâques, à Pont Brûlé, une maison et une péniche étaient la proie de flammes. Un femme hurlait que son enfant était à l'étage. J'entrai dans la maison et montai la volée d'escalier.

Presque aveuglé, je ne trouvai rien ni personne. La chaleur et les flammes me repoussèrent et je sortis, bondissant.. et toussant comme un chat. La Maman avait le bébé dans le bras. il n'avait pas été là-haut et personne ne fit attention à mon pull-over brûlé. La volée d'escalier s'effondra peu après. Je me consolai en aidant les trop rares pompiers de Vilvorde à éteindre la péniche bourrée de ballots de paille.

Le Maître Charles van Straelen nous est arrivé vers cette époque, un merveilleux conducteur de jeunes. Il avait le feu du chevalier preux. Son exemple était un plaisir à imiter. Il incarnait le bien, le bon, le courage. Il levait le doigt et nous courions nous mettre à son service. Il devait avoir vingt-trois ans, pas plus.

Pendant l'hiver qui suivit, il ne fut plus question de se rendre au canal tellement les bombardements étaient fréquents et concentrés à cette zone. Les réunions des Cadets se firent dans la maison que la famille Solvay avait mise à notre disposition, rue du Prince Royal. C'était un vrai palais. Nous y organisâmes des cours théoriques et c'est là que j'appris ce qu'il y a dans un moteur à explosion. On y fit aussi une exposition de nos travaux et mon sextant y trouva bonne place.

Nous allâmes en cortège visiter le seul Musée de la Marine que Bruxelles a eu pendant un temps malheureusement restreint. C'étaient les collections de Messieurs Chauveaux, antiquaires, qui étaient exposées dans une petite maison ancienne face à l'Ecole de Médecine du Boulevard de Waterloo (actuellement Ministère de le Justice). J'y serais resté des jours entiers à admirer les sextants, les maquettes anciennes, le bateau de cheveux qui dût surmonter une coiffure " à la Belle-Poule " de l'époque de Marie-Antoinette. J'ai revu, il y a peu, un reportage qui montraient une demeure merveilleuse des environs de

Saint-Malo, une " malouinière ", qui appartenait à un certain Monsieur Chauveaux! J'y reconnus une bonne partie des grandes maquettes anciennes que j'avais admirées à Bruxelles. Quel dommage que ce patrimoine ne nous soit pas resté.

La Ligue Maritime nous suivait de près et chaque fois qu'un Cadet se sentait prêt, il se rendait à l'avenue des Arts, au deuxième siège de la Ligue, et y présentait l'examen qui faisait de lui un cadet de première classe ou breveté. Cela comportait le matelotage, la navigation estimée, la conduite d'un bateau à voile ou à moteur, etc. Nous étions très fier de coudre à notre manche le chevron qui nous était attribué. Toutes ces progressions étaient consignés dans un livret comparable au "Livret de marin". Je regrette de l'avoir perdu, mais je conserve encore l'insigne brodé que l'on appliquait sur son pull. Les lettres qui sont dessus sont les initiales flamandes parce qu'il n'y avait déjà plus d'insignes en français.: B.Z.B., Belgische Zeevaertbond.

En fait de matelotage, je n'appris rien de plus par la suite et je fus même désigné à l'Ecole des Candidats Gradés de la Force Navale comme répétiteur du cours d'Apparaux de Mouillage et Matelotage.

En 1945, aux environs de Pâques, on demanda des volontaires pour conduire à Desteldonck, sur le canal de Gand à Terneuzen, une péniche traditionnelle hollandaise dénommée "'tchalk", dont nous avions pris livraison à Willebroek. Nous fûmes quatre à être d'accord pour l'aventure. Comme j'étais le plus âgé, ce fut mon premier commandement. On me donna une enveloppe comptée très juste, avec de l'argent pour les remorquages et les éclusages. La péniche était un gros bateau de fer, fortement corrodé dont tous les apparaux étaient très fatigués. Il y avait déjà pas mal de temps qu'il pourrissait à Willebroeck. Il n'y avait pas de local pour s'y reposer car la cambuse classique était par trop insalubre par sa malpropreté et nous avions établi notre campement dans une partie de la cale plus ou moins protégée par le pont.

Dès que nous prîmes la traîne d'un convoi de péniches, les choses se gâtèrent. La remorque que l'on m'avait donnée était en sisal et dès que l'on commença à la choquer pour prendre de la vitesse, elle cassa. Heureusement, le remorqueur, averti, ralentit et tout le train de péniches s'égailla dans tous les sens. Le patron du bateau auquel je devais m'accrocher m'envoya sa propre remorque.

Nous partîmes donc, mais dès les premières centaines de mètres parcourus, je sus que la chose ne serait pas facile. Le safran de la barre que je manoeuvrais de toutes mes forces avait perdu sa rigidité par la vieillesse et se tordait dans un sens puis dans l'autre. Il n'avait presque plus d'efficacité. Ce fut à tel point que, arrivés dans l'Escaut, et devant en suivre les méandres, je n'y parvins plus. Je fouettais d'une rive à l'autre et le remorqueur, de nouveau dût s'arrêter. On me passa une deuxième remorque que nous croisâmes et ce fut le skipper de la péniche de devant qui pris la responsabilité de me gouverner.

Les choses allaient enfin d'une façon correcte quand, au moment où personne ne s'y attendait, une des deux bittes d'amarrage sur laquelle était tournée une remorque céda avec un bruit de canon et partit dans la campagne, propulsée par la détente du câble. Re-arrêt de la traîne et on me repassa de nouveau la remorque, sans la bitte, que je parvins à tourner sur un autre point d'amarrage. Je commençais à être gêné, mais tous ces mariniers m'aidaient gentiment d'un air apitoyé.

Arrivés enfin à Gand, le remorqueur nous abandonna et il fallut passer tous les canaux de la ville pour arriver au grand bassin qui débouche sur le canal de Terneuzen. Heureusement, nous étions quatre et tirant, poussant, suant, nous arrivâmes après une journée dans cette darse, mais entre-temps, nous allâmes aborder une passerelle de bois qui faillit s'étaler dans l'eau! Elle oscilla sous le choc, puis reprit heureusement sa position initiale et ses occupants aussi! Bien qu'il fît froid, j'avais chaud.

Nous étions transis, affamés et fatigués et le patron d'un remorqueur nous proposa de passer la nuit dans la salle de chauffe de son bateau. Il y faisait plutôt sale de charbon et de cambouis, mais le température y était délectable. Merci Patron. Enfin apparut, comme le Messie, un remorqueur de l'armée qui nous prit en charge jusqu'à notre but final.

Aventure banale, direz-vous, mais que je suis loin d'oublier.

L'un des Cadets qui m'accompagnaient était Pierrot Heerinckx.

Un peu plus jeune que moi, il était doué et agile comme un ouistiti. L'année suivante, il plongea d'un peu haut dans le canal et se fendit le crâne sur l'épave du Courlis qui n'avait pas encore été renflouée depuis qu'un conard avait ouvert un robinet de vidange du bateau et l'avait envoyé par le fond. Ce fut un mauvais moment car Pierrot était plein de vie et de feu et laissa un vide qui ne s'est pas encore comblé puisque je m'en souviens avec peine.

Vers la même époque nous recûmes en visite les Cadets de la Section de Liège menée par un certain .. Lieutenant Planchart que je retrouvai plus tard sur le "Billet".

Après la libération, nous pûmes pousser nos investigations jusque dans l'embouchure de l'Escaut. Nous avions amarré le "'tchalk" rénové, devenu notre base, dans l'adorable petit port de Lillo. J'étais alors commissaire et je devais me débrouiller avec l'argent de la communauté pour les nourrir. Je payais aussi les autres frais, éclusages, remorquage, etc.. J'étais assez ennuyé de porter une assez grosse somme sur moi et je demandais ce qu'ils feraient tous s'ils me perdaient! Je me donnai à fond et profitai tout mon saoul de cette escapade, mais ce fut la dernière fois que je les accompagnai.

Je garde de mon séjour sous la houlette de la Ligue Maritime Belge un très beau souvenir, plein de reconnaissance et je serais tellement heureux que cette association reprenne la place qui lui revient. Son histoire et les lourdes responsabilités qu'elle a assumées lui donne ce droit.

Inséré 22/03/19 NIEUWS NOUVELLES Enlevé 22/04/19

Euronav to Deploy ULCC for LSFO Storage

Euronav, one of the largest tanker companies in the world, will deploy one of its two ultra large crude carriers (ULCC) to store cleaner marine fuel ahead of a major regulatory change in 2020, the Belgium-headquartered group said on Friday From January 2020, the International Maritime Organization (IMO) will ban ships from using fuels with a sulphur content above 0.5 percent, compared with 3.5 percent now, in one of the biggest changes in the oil market in decades. Only ships fitted with sulphur-cleaning kits known as scrubbers will be allowed to continue burning high-sulphur fuel. The Oceania tanker has been off the coast of Malta since Jan. 12, Refinitiv Eikon shiptracking data shows. ULCCs typically have a capacity to carry around 400,000 tonnes of fuel oil Euronav said it has hired veteran fuel oil trader and blender Rustin Edwards, who has been head of fuel oil procurement for the company since last month, according to his LinkedIn page. He has worked for Australian bank Macquarie, commodities trader Cargill and U.S. oil major Chevron. Euronav added that the use of the ULCC is just one of its IMO 2020 initiatives "as part of our focus on quality and quantity of compliant fuel supply for next year". Euronav, which owns nearly 70 tankers according to its website, has been vocal in not opting for scrubbers so far. "If [Euronav's] fleet burns globally a million tonnes a year, that's a potential bill of over half a billion dollars of 0.5 percent bunkers next year," senior trading specialist at oil analytics firm Vortexa, Cosmo Kedros, said. "With the hiring of an experienced fuel oil trader, well-

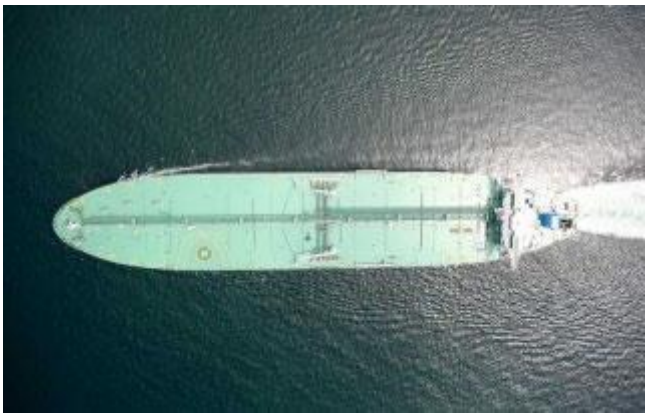
versed in blending economics, and a ULCC that can be used as an offshore blending platform, they can almost certainly reduce their bill," he added.

Source : Marinelink

Inséré 23/03/19 NIEUWS NOUVELLES Enlevé 23/04/19

Euronav: Scrubbers a Loophole Likely to Facilitate Sulphur Ban Non-Compliance

Belgian tanker shipping company Euronav doesn't seem to be on board the scrubber team due to numerous concerns related to the installation of the technology on board its ships.



The company said that it sees very low returns on upfront capital investment of USD 5 million per very large crude carrier (VLCC), despite market reports that ships with scrubbers are likely to reap the fruits from higher charter rates come 2020.

"Promoters of scrubbers have used marine gas oil (MGO) as a proxy for the price of compliant fuel. Some refiners including Sinochem have recently confirmed that they will sell clean compliant fuel at a price likely to be half the difference between dirty HFO and MGO. So the investment case now has half the returns being promoted and it is still 14 months before implementation and nothing suggests this price gap will not further narrow in that time," Euronav said.

The company also believes that there is a risk of pollution from scrubbers, especially when considering the open-loop option, as seawater used to remove sulphur from exhaust gases is returned to the sea jeopardizing natural buffering capacity of the water.

As explained, there is unknown cumulative impact of increasing sulphur content in world's oceans, the most likely outcome being the increase in ocean acidity over time.

Furthermore, the company cited additional Capex and Opex costs of operation and unproven application of this technology in a large volume tanker environment as argumentation against the installation, pointing to the known risk of corrosion.

"Promoters of this technology argue that the open oceans dilute waste water, rendering it harmless. But the solution to pollution is not dilution. Like plastic contamination over the years, we don't know what the cumulative effect of this waste water will be or how it will interact with existing seaborne pollutants, particularly in congested sea-lanes like the English Channel, Malacca Straits or Baltic Sea," the company added.

Finally, Euronav argues that so far flag states appear ill-equipped to ensure regulatory compliance.

"Installing a scrubber enables regulatory compliance with the continued use of non-compliant high sulphur fuel. But weak regulatory oversight means non-compliance in the open sea, whether through breakdown or malfeasance, cannot be effectively controlled.

" Refiners and oil producers have increasingly made clear that sufficient compliant fuel will be available. Scrubbers are therefore a loophole which makes enforcement of the sulphur ban extremely complex, difficult to enforce and likely to facilitate non-compliance," the company concluded.

Inséré 24/03/19 DOSSIER Enlevé 24/04/19

Smart Shipping

Introduction

Smart shipping is the term on everybody's lips at the moment, much as the smartphone has revolutionised the way we do many things in our daily lives, smart shipping is, we are told, going to radically alter the shipping industry. If some people are to be believed, we will rapidly have an industry of autonomous vessels driven efficiently by decisions made with big data.

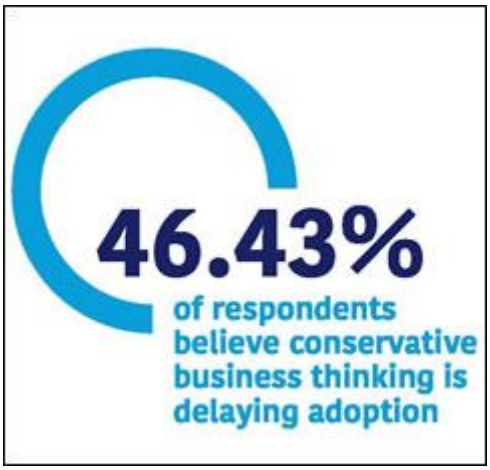
However, it is also a veritable minefield of buzzwords and flashy marketing videos of visions of ships of the future. But these leave the questions of what does the industry want? What is it willing to pay for and sees as cost effective? And what is really possible within technical and regulatory guidelines.

To try and understand what people in the industry really think about smart shipping and what they believe will be the areas most affected Seatrade Maritime News undertook a survey of its readers recently, the conclusions of which are presented in this white paper, along with related opinions from senior industry executives.

So just how important is smart shipping?

Close to 88% of respondents believe there will be a serious impact on much, if not all, of the industry. Some 53.4% believed that smart shipping is extremely important and will have a major impact on the industry while 34.9% saw it as fairly important with it set to impact many areas of the industry. A further 10% are rather more circumspect, believing its impact would be slight only affecting specific areas of operation. A much smaller percentage just 1.44% expect the status quo to prevail with no impact from smart shipping.

What is delaying the transformation to smart shipping?

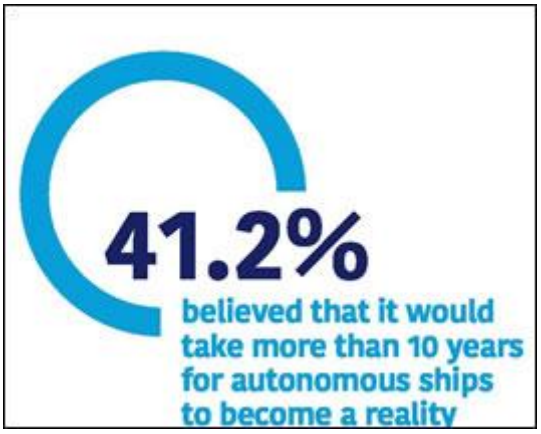


While nearly 88% of respondents saw smart shipping as having a serious impact on most of the industry this is not really reflected in the pace at which companies have been adopting smart shipping. While there are certainly some leaders in the field it has not had the sweeping disruption that some technology and supplier companies might be hoping for, or claiming it will. The top reason for this according to some 46.43% of respondents to the survey should come as little surprise – conservative business thinking. Shipping in terms of how it operates is a notoriously conservative business, something which many tech companies have found out the hard way when they have tried to introduce "revolutionary" new ways of doing business. The next reason, which in some ways can be seen as linked, is the cost and scale of the investment required which was chosen by 24% of respondents. With owners investing over a 25 year timeline in a vessel, ensuring that they are not investing in technologies that will either become redundant or fail to take off is a key concern, particularly when budgets are as tight as they have been in recent years.

The failure to develop relevant technologies for the industry is seen as the main factor by 15.82%, and regulatory issues, which feature elsewhere in this white paper by 13.78%

Autonomous ships

The single most emotive and controversial aspect of smart shipping has to be autonomous ships. Shipping is a dangerous industry and there is a shortage of senior trained crew so why not automate the ships? If you believe the likes of Rolls-Royce VP Oskar Levander the days of robotic ships sailing the world's oceans with sleek hi-tech control centres staffed by humans, only there to intervene if there is a problem, are not far off. While the disruption argument does seem to be gaining favour it is fair to say the majority believe autonomous shipping will take some time to become a reality if at all.



In the survey, 41.2% believed that it would take more than 10 years for autonomous ships to become a reality, while a further 35.1% thought it would take between five and 10 years.

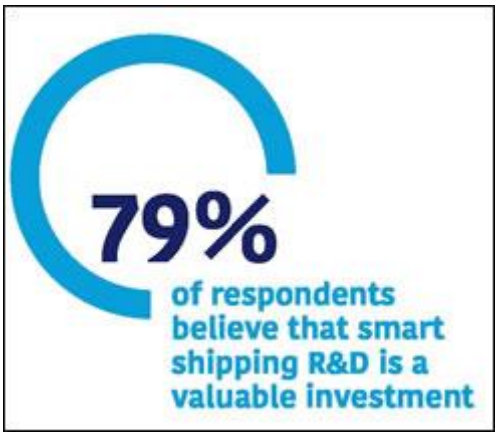
The fairly cautious view would seem to match with the opportunities for autonomous shipping in the near term lying with shortsea shipping, and regular, predictable routes. A perfect example of this is the project by global fertilizer group Yara and Kongsberg Group, the Yara Birkeland, which will be the world's first fully electric and autonomous container ship due for delivery in second half 2018.

It is shortsea voyages where Geir Håøy, CEO of Kongsberg Group sees the opportunity. "This is a huge opportunity for shortsea shipping, I am not so sure about the long haul, it will take a while before we see fully autonomous ships going across the oceans."

Is the research into autonomous shipping valuable?

While autonomous shipping may be some way off becoming a reality on any scale in ocean shipping, it cannot be denied that many organisations are investing serious amounts of

money into the concept and pilot projects. On the simple question as to whether research into autonomous shipping is valuable in terms of the results it provides, the overwhelming majority, some 79.19% of respondents believe that the R&D from autonomous shipping is valuable, while just 17.26% felt that the research was not of value.



It was notable that while some respondents saw no actual benefit in unmanned or autonomous vessels in themselves, the gains made in technology would have benefits for safety and efficiency of existing shipping operations. Further R&D was seen as crucial and would broaden applications and lead to future automation and digital integration even if not necessarily the end goal of fully autonomous or unmanned vessels.

The developments on the road to autonomous shipping are something classification society ABS is eyeing in its research into the area, which includes the Unmanned Cargo Ship Development Alliance.

"We see it as a process where autonomy is the target but there are a number of intermediate steps to get there. To get to autonomy you have to work on reliability and redundancy, there are a number of things that need to fall into place to get to autonomy, so I think there will be these intermediate advances that will benefit the industry," Kirsi Tikka, ABS EVP for Global Marine, said recently.

A similar view has been previously expressed by Remi Eriksen, CEO of classification society DNV GL. "Many steps will be needed before fully unmanned ships can become a reality, however some sort of autonomy is also relevant and would greatly improve safety through smart position support," he said.

What are the biggest hurdles facing autonomous shipping?

There is certainly no shortage of companies pushing the autonomous ship concept including equipment manufacturers, classification societies, shipyards, and indeed some shipowners such as Mitsui OSK Lines (MOL) in Japan. However, with over 40% of respondents saying it will take over 10 years for autonomous shipping to become a reality what do they believe are the main issues facing the shift to unmanned shipping.

Topping the list of issues facing autonomous shipping is the ability of technology to handle complex conditions and navigation at sea, with some 46.9% of respondents citing this area. It is one thing for an automated vessel to cope with a calm sea state in relatively uncrowded waters, but quite a different story when it comes to dealing with extreme weather conditions and the seemingly random actions of other smaller vessels in crowded waters. It is difficult and dangerous situations where there can be an added value to the human element, which can make decisions outside of the parameters that a machine could be taught or learn to calculate within. Recently Lloyd's Register HK and Taiwan area manager James Forsdyke cited the case of the car carrier Hoegh Osaka which was deliberately grounded on the Bramble Bank in the Solent, Southampton, UK just over two years ago to save the vessel when it suddenly developed a serious list. If the vessel had not been grounded, a much more serious and difficult casualty to salvage could have occurred.

The next biggest issue facing autonomous shipping was that of regulation which was cited by 19.39% of respondents. As with developments in other areas of smart technology, regulations in the maritime sphere for autonomous shipping run short of the potential

technological developments, and to these new maritime regulation is notoriously slow to be formulated and implemented.

Autonomous shipping is now on the IMO agenda from June this year, the Maritime Safety Committee will start to establish a new international legal framework for the safe operation of these vessels. "Despite some concern, it was generally agreed that the IMO needs to start its work now. There was also general agreement that the IMO must take into consideration how developments will affect the seafarers," the Danish Maritime Authority said at the time.

To an extent and linked to regulation is the issue of liability and insurance in the event of an accident, which 14.29% saw as the top issue facing autonomous shipping. Much as with self driving cars whose fault an accident would be is very much up in the air in the case of autonomous shipping, and as to how insurers would cover and rate such a risk.

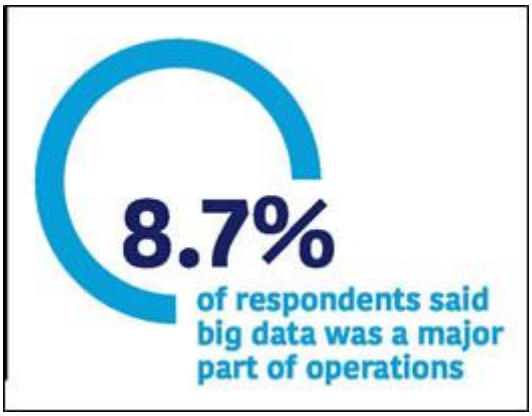
Just under 10% of respondents, 9.69% saw cost as the main issue with it being easier and less costly to employ seafarers. It is a view that not surprisingly Stephen Cotton General Secretary of Global Union, the International Transport Workers Federation agrees with. "If you look at the cost, wage cost is a very small part of operating a ship. But in reality the investment to build fully autonomous ships is an issue I struggle to see quite how it will implement itself," Cotton said recently.

Meanwhile 7.14% saw remote maintenance and repair as the top issue facing autonomous shipping. Indeed some in the industry have seen a scenario which reversed that of the airline industry where engineers onboard planes were phased out but the pilots remained, with navigation becoming automated onboard ships replacing the bridge crew, but a engineering team remaining to deal with technical and maintenance issues shipboard while out on the ocean.

Big data

Big data is arguably one of those topics that everybody talks about but it would seem rather less are actually sure what it means, particularly in a maritime context. It is being posed as a transformative opportunity for the industry and a number of parties such as classification societies are putting themselves forward as a neutral party that can both be a custodian of the data and conduct analysis of it to improve operations. "We know many of our customers struggle to manage their data supply chains. Many times the users of the data do not know the origin of the data, the context in which it was born, the legal and contractual frameworks and the obligations that goes with the data," said Remi Eriksen CEO of DNV GL, speaking about the launch of its new data management platform Veracity. In our survey some 56.85% of respondents saw big data as having a major transformation impact on the industry, and 40.1% as having somewhat of an impact. Just 3% saw it as having no impact.

But are companies actually utilising big data?



The survey revealed a disparity between what people believe will be the impact of big data on shipping and its current level of usage. The majority of respondents said their companies were either not using big data or in the process of planning to explore opportunities. Some 37% of respondents said the companies they worked for were not using big data while a further 25.6% are in the process of planning to use big data or exploring the opportunities it offers. Of those using big data, just 8.7% said it was a major part of operations, and 28.7% are using it to some extent. So while the majority believe big data usage will transform the shipping industry in the future, it still remains a relatively untapped marketplace.

What is most important?

In terms of what is most important to the industry from smart shipping at the moment, some 42.6% of respondents said optimisation of operations at sea. With companies faced with slim to non-existent profit margins depending on the sector, as well as a regulatory push for more environmentally friendly transport it is not surprising to see this top the current agenda.

Egil C. Legland, Country Manager of ABS Norway, stated last year: "We have to deal with the issues that owners are really looking at – managing costs, improving productivity, and creating value, as well as thinking about the future. We are taking elements of that future and bringing them together to enable new technologies to be used safely and efficiently."

The other thing that the industry in looking for from smart shipping is digitisation of processes and the customer experience. In the sector of the industry with the largest number of customers – container shipping – it has taken some 15 years for 49% of container shipping instructions to be digistised meaning that the majority of bookings are still made by traditional means rather than digitally.

Dovetailing with this conclusion the sector of shipping that smart shipping was seen as most important for is container shipping according to 46.19% of survey respondents to the survey followed by 24.1% saying it was ports and terminals.

Inséré 26/03/19 NIEUWS NOUVELLES Enlevé 26/04/19

Euronav highlights scrubber concerns

Large tanker owner Euronav has reiterated its concerns over scrubbers outlining three areas of concern in its Q3 results including that they are and "likely to facilitate non-compliance" with the 2020 sulphur cap.

While scrubbers have become a popular option with large vessel owners, such as John Fredriksen's Frontline, given the potential cost savings of being able to burn cheaper high sulphur heavy fuel (HSHFO) and low sulphur fuel oil (LSFO), Euronav warned of economic and regulatory uncertainties.

The shipowner questioned the price assumptions being with the Marine Gas Oil (MGO) price being used as a basis to forecast the price of compliant low sulphur fuel oil, and the lack of visibility of returns for an investment of up to $5m for a VLCC.

"Some refiners including Sinochem have recently confirmed that they will sell clean compliant fuel at a price likely to be half the difference between dirty HFO and MGO. So the investment case now has half the returns being promoted and it is still 14 months before implementation and nothing suggests this price gap will not further narrow in that time," the company warned.

Most of the scrubbers fitted to-date have been open loop systems and Euronav highlighted pollution and regulatory risks, although in terms of forward orders the majority of owners are now reported to be opting for hybrid systems.

"Open-loop scrubbers (OLS) use seawater brought on board to remove sulphur from exhaust gases, but the wastewater produced contains a toxic cocktail of sulphuric acid constituents, polycyclic aromatic hydrocarbons and heavy metals which are pumped into the open ocean, essentially transferring pollution from air to sea," Euronav stated.

Risks include greater regulation of scrubbers in future, operational risks such as corrosion and lack of long term scrutiny of the technology.

"Promoters of this technology argue that the open oceans dilute waste water, rendering it harmless. But the solution to pollution is not dilution. Like plastic contamination over the years, we don't know what the cumulative effect of this waste water will be or how it will interact with existing seaborne pollutants, particularly in congested sea-lanes like the English Channel, Malacca Straits or Baltic Sea," the company said.

The third concern raised the tanker owner is over regulatory compliance and how this will be enforced. "So far flag states appear ill-equipped to ensure regulatory compliance. Installing a scrubber enables regulatory compliance with the continued use of non-compliant high sulphur fuel. But weak regulatory oversight means non-compliance in the open sea, whether through breakdown or malfeasance, cannot be effectively controlled," it said.

Euronav concluded it wanted a universal adoption of the 2020 low sulphur regulations without delay. "Refiners and oil producers have increasingly made clear that sufficient compliant fuel will be available. Scrubbers are therefore a loop hole which makes enforcement of the sulphur ban extremely complex, difficult to enforce and likely to facilitate non-compliance."

The popularity of scrubbers as a way to comply with the IMO's 2020 sulphur cap has grown rapidly over the last six months with over 1,000 systems ordered in that period, according to classification society DNV GL.

In a webinar on Wednesday DNV GL said that 1,850 vessels had either been fitted with scrubbers or had installations confirmed a steep rise from numbers in the region of 1,300 being quoted just a month ago. In the last six months over 1,000 systems have been ordered primarily for retrofits.

The biggest three manufacturers – Wartsila, Alfa Laval and Yara Marine - hold over a 50% share of the market, but as the orderbook grows and lead times get longer some of the smaller manufacturers have started to receive major orders the classification society noted. By ship type bulkers make 38% of orders, tankers 20% and containerships 14%. With concerns over possible restrictions on open-loop scrubber use the majority are opting for hybrid systems that can operate in both open and closed modes.

While scrubbers can make a good choice for owners to comply with the sulphur cap, with improved reliability and designs of scrubbers, DNV GL highlighted a number of areas owners need to be aware of and consider in the decision making process.

The driving force behind scrubber uptake has been the expected fuel price spread between high sulphur fuel oil (HFSO) and low sulphur compliant fuels come 2020. The bigger the spread the higher the cost savings and the shorter the payback period.

Based on a 20MW scrubber with a price spread of $175 per tonne between HFO and low sulphur fuel DNV GL said the payback period would be 1.3 years for an open loop scrubber and 1.7 years for a hybrid unit. Should the fuel spread drop to just $40 per tonne there would be no business case for a 20MW scrubber, while a $100 spread would see a payback period of less than two years.

It is worth noting a scrubber system would increase a vessel's fuel consumption by around 2%. There will also be increased maintenance costs one of the biggest challenges scrubbers coming from corrosion with the low pH wash water highly corrosive. For closed loop systems there will also be the costs of sludge disposal.

Despite these additional costs a 40MW scrubber could see accumulated cost savings of $13.3m over five years versus using compliant fuel and $5.1m in cost savings for the same period for a 20MW scrubber.

Another factor DNV GL highlighted was the complexity of managing the large scale retrofitting of fleet of ships saying, "Installing one scrubber in 1.5 years is easy, installing 32 in 1.5 years is difficult". The latter example of 32 ships in four sister series could see the owner dealing with 11 different stakeholder across the manufacturer, design house, class and shipyard.

As to whether scrubbers were a long-term solution this remains an unknown, but over the next five – 10 years DNV GL they could significantly reduce cost of compliance with the sulphur cap and were a safe solution.

For owners still sitting on the fence on whether to install scrubbers the classification society said "the decision to invest should be made yesterday.

Owners warned of operational and regulatory challenges with scrubbers

Scrubbers have become flavour of the month for large vessel owners to comply with the 2020 sulphur cap, however, ensuring compliant operations could prove difficult with Euronav chief Paddy Rodgers drawing a parallel with the oil water separator record book issue in the US.

The issues of having compliant scrubber operations and concerns over open loop scrubbers, the type fitted by most shipowners, were highlighted at seminar entitled – 2020: Challenge or opportunities – held by ABS in Hamburg on Monday.

For the shipowner hoping to simply fit a scrubber and then be able to burn high sulphur heavy fuel oil wherever they like with no questions asked there were warnings it would not be that easy.

"This isn't a type approval, this isn't a license to burn heavy fuel oil," stated Euronav ceo Paddy Rodgers. "You are obliged to monitor and ensure that your emissions are maintained on three or four parameters at all time and a failure to keep a record is itself a non-compliance.

"I think we are headed to a territory that to my mind is a lot more like the oily water seperator book where a lot of people running scrubbers may find they get detained in port. and they could get detained in port because actually the computer recording instruments failed during the voyage, not the actual scrubber stopping functioning," he warned.

The result could be an owner being hit with a penalty simply because records were wrong regardless of what the actaul level of emissions were. In the case of the oily water separator record book owners and managers have found themselves slapped with hefty penalities in recent years.

Questions were also raised on possible restrictions of open loop scrubbers with the German Shipowners Association (VDR) highlighting restrictions in an increasing number of ports.

Wolfgang Hintzsche said, "We are getting more and more inputs from owners that there are increasing restrictions for open loops, at least in the ports... there is an increasing list in North European, if you look at Norway, Sweden, Germany."

Although owners can switch to using compliant fuels in port this was not seen as ideal solution. "For sure you could be compliant by using MGO (marine gas oil) but most of the owners we talk to are looking forward to only having one fuel, which would be the best alternative for long term discussion."

Euronav's Rodgers also questioned whether open loop scrubbers would really be acceptable if looked at closely by the world at large rather than just the IMO.

Lars Robert Pedersen, deputy secretary of Bimco responded that, "One would expect what comes out of IMO in terms of what is criteria is actually acceptable to those countries or else I would not expect them to approve it."
He added: "We have a wash ater criteria from IMO, yes it can be changed over time, but I don't think it will be changed that it will basically outlaw open loop scrubbers."

Inséré 26/03/19 BOEKEN LIVRES BOOKS Enlevé 26/04/19

Engels-Nederlandse oorlogen

Door een zee van bloed in de Gouden Eeuw

Doedens, A. en L. Mulder: Walburgpers, softcover 192 blz., geillustreerd. Engels-Nederlandse Oorlogen is het tweede deel van de reeks Oorlogsdossiers. Een drama in drie bedrijven, binnen een kwarteeuw: 1652-1674. Over moordende concurrentie tussen Engeland en Nederland en hevige zeeslagen tussen beide mogendheden. De ondertitel Door een zee van bloed in de Gouden Eeuw duidt op de harde en wrede werkelijkheid van deze zeeoorlogen. Aan de hand van eigentijdse bronnen wordt aandacht gegeven aan de vele duizenden slachtoffers, de vernietiging van honderden schepen en de zorg en verdriet bij het thuisfront. Ooggetuigen doen daarover verslag. Ook wordt ingezoomd op techniek en tactiek van de oorlog: de inzet van grote aantallen scheepskanons, nieuwe typen oorlogsschepen, andere strategieën bij het manoeuvreren en de oprichting van het Korps Mariniers. Uiteraard komen zeehelden als De Ruyter en vader en zoon Tromp nadrukkelijk in beeld. Maar ook een onderbelichte zeeheld als Witte de With krijgt aandacht. Hij was het die tijdens de slag bij Ter Heijde in 1653 de vloot van de Republiek en het land zelf van de ondergang redde. De beroemde tocht naar Chatham (1667) wordt in perspectief

geplaatst, onder meer door de relatie met de verwoesting van een grote koopvaardersvloot bij Vlieland in 1666 en de daarop volgende brand van West-Terschelling te leggen. De Waddeneilanden waren op Texel na onverdedigd. Chatham was niet het einde van de vijandelijkheden, maar de opmaat naar het (ramp)jaar 1672, toen ook Frankrijk zich bij de oorlogvoerenden voegde. Weer werd het land op en door het water gered. Oorlogspropaganda kreeg in deze kwarteeuw aan beide kanten vorm in gedichten en pamfletten. Informatie over verraad, spionage en politieke manoeuvres completeren het verhaal. Het boek bevat afbeeldingen van (pen-)schilderijen van vader en zoon Van de Velde, die als ware oorlogsfotografen gebeurtenissen tijdens deze drie oorlogen vastlegden. Aan het slot van het boek is een lijst van monumenten en musea opgenomen die de drie zeeoorlogen in herinnering brengen.

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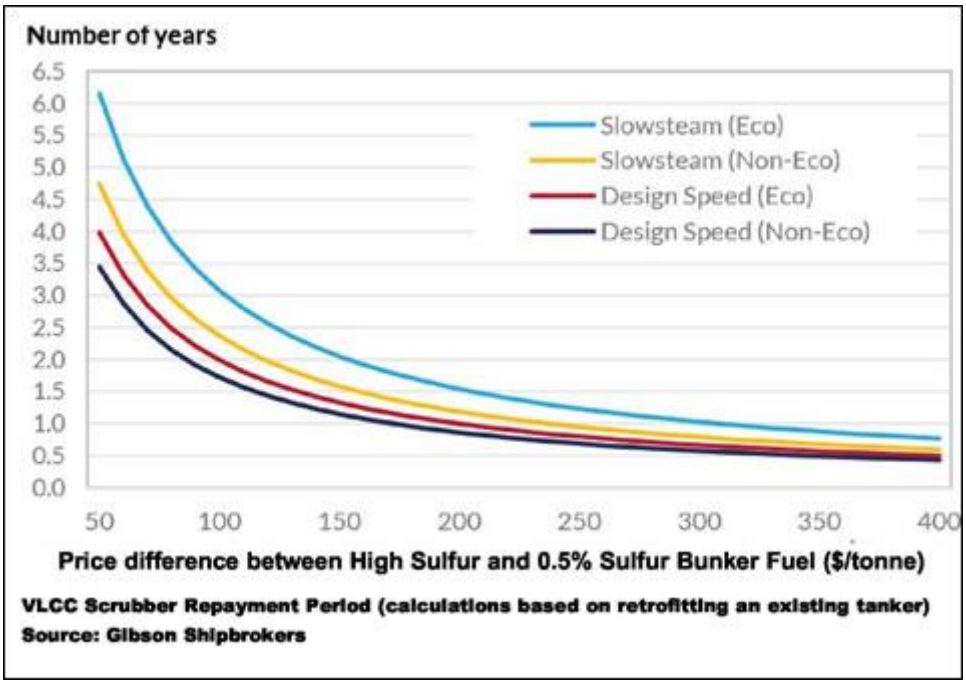
Charterers prefer scrubbers

Tankers charterers (operators) are prepared to pay significant premium in order to secure tonnage fitted with scrubber technology, ahead of IMO's 2020 rule, shipbroker Gibson said.

One of the most hotly debated subjects in the shipping markets this year has been the approaching IMO global sulfur cap of 0.5% on marine bunker fuels in 2020. In particular, a lot of discussions were focused on scrubbers. Many owners appeared sceptical and hesitant to embrace the technology and for very good reasons, as the technology is largely unknown and unproven.

According to BIMCO, only around 450 vessels have scrubbers installed – less than 1% of a global merchant fleet of around 60,000 ships. The costs of installation are also sizeable, at around $2.7 mill for an open loop scrubber on a newbuilding VLCC, according to a South Korean shipyard. Retrofit costs could be considerably higher, depending on the ship's specification.



Another concern is that the environmental legislation could also evolve over time, possibly making the investment in scrubbers obsolete. For example, suggestions have been made that open loop systems could face further regulations in Europe, as they discharge waste

sulfur directly into the sea. Finally, there are question marks about high sulfur fuel oil availability in distant and small ports, with limited storage capacity, said Gibson.

Despite these concerns, charterers are showing strong interest to timecharter tonnage fitted with this technology. Recently, there have been several T/C deals with oil majors, where a notable premium has been paid for tonnage fitted with scrubbers compared to tankers without the technology on board.

A new trend is starting to emerge where newbuild tankers are being ordered fitted with scrubbers or being 'scrubber ready', meaning that the equipment could be installed at the later stage. Three major tanker owners have recently declared their commitment to install scrubbers on some of their existing vessels and newbuilding tonnage.

DHT Holdings has revealed plans to install scrubbers on a sizeable number of its VLCCs (including several of their older units).

Frontline has also announced its investment in a scrubber manufacturer, with plans to install scrubbers on the company's VLCC fleet. TORM has also confirmed that scrubbers will be fitted on some of its product tankers.

At present, over 30% of the current VLCC orderbook has been reported to include scrubbers, while another 9% is 'scrubber ready'. However, the actual number of vessels being fitted with scrubbers could be even higher as some deals have been concluded privately.

Gibson thought the the latest announcement by two major VLCC players could well be the game changer when it comes to owners' perception and strategy going forward with regards to the approaching IMO global sulfur cap.

Financial sense

On paper, installation of scrubbers makes perfect financial sense. Not only are charterers willing to pay a significant premium over prevailing market rates to secure tonnage ready for 2020 but also the cost of a VLCC scrubber retrofit could be repaid in under 18 months, if the spread between high sulfur fuel oil and compliant 0.5% sulfur bunker fuel is at $200 per tonne.

The repayment period will be even shorter if the price differential is at 3.5% and 0.5% sulfur bunker fuel is over $200 per tonne. After the cost of investment is repaid, an owner can achieve significant savings, enjoying a strong competitive advantage compared to tonnage without scrubbers.

This of course represents an attractive investment case but only if an owner can secure a slot at a shipyard for installation/ retrofit over the next couple of years. Longer term there are other concerns, such as a potential narrowing of the spread between high and low sulfur bunkers.

Also, uncertainty surrounds the ongoing issue of CO2 emissions – how they will be addressed and what new regulations the shipping markets will then have to face?

Favoured fuel

Agreeing with this scenario, Marc Sima, founder and CEO of Germany-based FuelSave said; "High sulfur fuels will remain the industry's favoured fuel until methanol and hydrogen-based alternatives have attained commercial viability. Until then, the pursuit of LNG is just throwing good money after bad."

He cited the cases of more shipowners opting to install marine exhaust gas cleaning systems (scrubbers) on their fleets, together with the publication of a UMAS report, which puts paid to the notion that LNG is a viable way of meeting emissions rules.

Agreeing with the UMAS findings that there would be no significant reduction (if not a potential increase) in CO2 emissions through the wider take-up of LNG, he refutes the suggestion that low sulfur fuels will become the industry's primary fuel source by 2020. "I really can't see the global fleet switching across to low sulfur fuel in little under two years' time. Not only would shipowners have to make sure their engines are compatible with the fuel in time, but assuming they are, they would also have to revise their supply chains, evaluate compatible lubricating oils, and then sit back and watch their operating costs increase.

"It just won't happen. Low sulfur fuels may be today marginally more expensive than LNG, but should the industry make the switch en masse, what are the refiners going to do, reduce the cost? I doubt it," he said.

To meet the 2020 global sulfur cap, Sima advocated the continued use of HFO/ MDO/MGO with the appropriate emissions abatement technology – a scrubber – as the only cost-effective and proven solution for emissions reduction. If a scrubber is opted for, its economic and emissions-reducing efficiency can be further optimised by using FuelSave's patented FS Marine+ solution, he claimed.

This is ostensibly a fuel additive that can be used with almost any type of 2- and 4-stroke engine running on HFO, MGO or MDO. It uses an on board hydrogen synthgas generator to inject a gas and liquid water/ methanol solution into an engine's combustion chamber to significantly improve efficiency. In pilot tests aboard a heavy lift type ship, fuel consumption was reduced by 25% equating to net savings of 15%.

"When a scrubber is used in concert with FS Marine+, higher fuel efficiencies can be achieved since the scrubber has less work to do, which equates directly to a greater reduction in fuel consumption. With a scrubber working with our process, we found shipowners can reduce the amortisation rate for the scrubber which, currently does not provide a great return on investment. FS Marine+ provides a real solution to emissions reduction, and without the kind of high investment the use of LNG or low sulfur fuels would require."

It is also thought that use of the FuelSave solution could allow for the installation of a smaller scrubber, due to the improved exhaust gases, reducing installation volume and costs. This makes it possible to install a scrubber on ships where space is limited.

As a simple-to-install retrofit solution, with or without a scrubber, FuelSave is claimed to add a different dimension to the emissions debate, providing shipowners with an alternative solution.

In addition, the system has shown to have a beneficial impact on engine performance, as it cleans up the combustion process, resulting in fewer carbon deposits and a reduced lubricating oil requirement.

This has been confirmed by Hamburg-based engine service company Carl Baguhn, which reported less soot on engine cylinders and less wear and tear, due to the cleaner combustion process.

Following the FS Marine+ installation on board the SAL heavy lift ship, Carl Baguhn technical advisor Carsten Körbelin, said: "It is a matter of fact. We have been maintaining the owner's Mitsubishi auxiliary engines for some years. They run on MDO, have always been well maintained and operated under normal conditions. But since we installed the FuelSave system, the engine has become much cleaner. There is no visible soot and engine running is much smoother, with reduced levels of noise and vibration. The improvement is astonishing. This is something very special."

Use of FS Marine+ also extended the times between lubricating oil changes from 500 hour to 1,500 hours, thus reducing engine maintenance and service costs.

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Redding van een bulkcarrier van 87.000 tdw gestrand in de Wester — Schelde

door E. CUYPERS

SAMENVATTING

Onderhavige studie omvat hoofdzakelijk een ooggetuigeverslag van de redding van een bulkcarrier van 87.000 tdw, welke bij de afvaart van de Schelde in ballast bij opkomende tij strandde op de Middelplaat ter hoogte van de drempel van Borssele.

Een eerste reddingspoging zonder sleepboothulp mislukte.

Bij de 2e poging werd sleepboothulp bekomen en kwam het schip zonder moeite vrij.

Daarnaast worden de maatregelen onderzocht welke na stranding in gelijkaardige omstandigheden dienen genomen te worden voor de veiligheid van het schip en welke eventueel de redding van het schip kunnen verzekeren zonder sleepboothulp.

INLEIDING

In juli 1980 had ondergetekende, als raadgevend ingenieur van een rederij, de gelegenheid deel te nemen aan de redding van een bulkcarrier van 87.000 tdw, welke gestrand was in de Wester-Schelde op de Middelplaat ter hoogte van Borssele.

Dergelijke strandingen zijn typisch voor getijstromen als de Schelde en doen zich vrij veelvuldig voor. Zij veroorzaken groot nadeel aan de scheepseigenaars t.g.v. het tijdverlies en de hoge kostprijs van sleepboothulp. Bovendien kan de stranding nog aanzienlijke bodemschade en zelfs de breuk van het schip veroorzaken.

Aangezien er weinig literatuur bestaat over dergelijke ongevallen moge het nuttig zijn een gedetailleerde beschrijving ervan te geven en als besluit de maatregelen te bespreken welke zouden dienen genomen te worden voor de veiligheid en de redding van een schip dat in gelijkaardige omstandigheden is gestrand.
Het probleem is niet gemakkelijk, daar het op de grens ligt van het vakgebied van de scheepsbouwkundige, de hydrografische en de nautische deskundige.

2. STRANDING VAN HET SCHIP EN EERSTE HOGE TIJ.

De voornaamste gegevens van het schip bevinden zich in tabel 1.

TABEL 1

Voornaamste kenmerken van het schip

Hoofdafmetingen:	265/250 x 36 x 20/13,50 m
Laadvermogen:	87.000 tdw
Aantal ruimen:	8
Eigen gewicht:	19.000 t
Waterverplaatsing per cm inzinking:	80 t
Capaciteit der ballasttanks:	zie tabel 6

Het schip had de haven van Antwerpen verlaten in de voormiddag, in ballast, met een diepgang van 8,00 m ongeveer.

In de namiddag bevond het schip zich ter

hoogte van de drempel van Borssele, tussen de pas van Terneuzen en de Honte. (Zie fig 1, positie 1).

De vaargeul op deze plaats heeft een breedte van 300 m en een diepte van ongeveer 13 m. Het behoud van deze minimale afmetingen vergt op de drempel, intensief baggerwerk, dit in tegenstelling tot de pas van Terneuzen en de Honte, waar de stroming een natuurlijke waterdiepte van 40 tot 60 m verzekert.

Het was vloed en er stond een sterke stroming van mogelijk 2 knopen.

In deze omstandigheden is de breedte van de vaargeul maar juist toereikend.

Immers, zodra het waterpeil een zekere hoogte boven de zandbanken bereikt, gaat de vloedstroom naar het Oosten, over de Spijkerplaat en de Middelplaat en kruist de vaargeul welke in Noordelijke richting loopt. Om afdrijven te vermijden, moeten de schepen zich schuin opstellen t.o.v. de vaargeul, met de boeg naar de stroming toe. Hetzelfde probleem stelt zich overigens bij alle drempels in de Scheldemonding.

Op dat ogenblik naderde uit de tegenovergestelde richting een grote tanker, welke een zeer groot gedeelte van de beschikbare breedte van de vaargeul in beslag nam (zie fig 1).

De bulkcarrier week zoveel mogelijk uit naar SB een raakte hierdoor ongelukkig met het achterschip de rand van de vaargeul, met het gevolg dat het schip niet meer aan het roer gehoorzaamde en door de getijstroom onmiddelijk met grote kracht werd omhooggeduwd op de Middelplaat aan stuurboord.

De kracht van de stroming op de scheepswand kan berekend worden bij middel van de formules in annex 1. Voor het gegeven schip en een stroomsterkte van 1 m/ sec bedraagt zij meer dan 400 ton.

Deze kracht is zo aanzienlijk dat het op dat moment geen enkele zin heeft om het schip trachten vrij te maken, met of zonder hulp van sleepboten.

Het moge volstaan volgende mogelijk beschikbare krachten te vermelden:

1. Stuwkracht eigen schroef: 146 t
2. Dwarskracht eigen roer: 50 t
3. Tressentrek sleepboot 5000 Pk: ongeveer 70 t

Bij het einde van de vloed valt de stroming weg, maar ongelukkig is op dat moment het waterpeil reeds ongeveer 5 cm gedaald.

Het schip rust bijgevolg op de bodem met een druk van 5 cm x 80 t/cm = 400 ton.

Wanneer het water verder daalt, oefent de ebstroom een kracht uit in de goede richting, maar de druk op de bodem wordt nu zo groot, dat ook door de ebstroming het schip niet meer los komt.

De beste methode om het schip te bevrijden bestaat erin, bij hoog water, wanneer er nog een weinig vloedstroom is, het schip tegen de vloedstroom in opzij te bewegen naar diep water.

Algemeen wordt aanvaard dat dit niet op eigen kracht kan geschieden. Zich baserend op de opgedane ervaring is de auteur het hiermede echter niet eens.

Wat er ook van zij, bij de eerste hoogwaterstand na de stranding was de auteur niet aan boord, was er ook geen sleepboothulp beschikbaar, en werd er niets ondernomen om het schip vrij te maken.

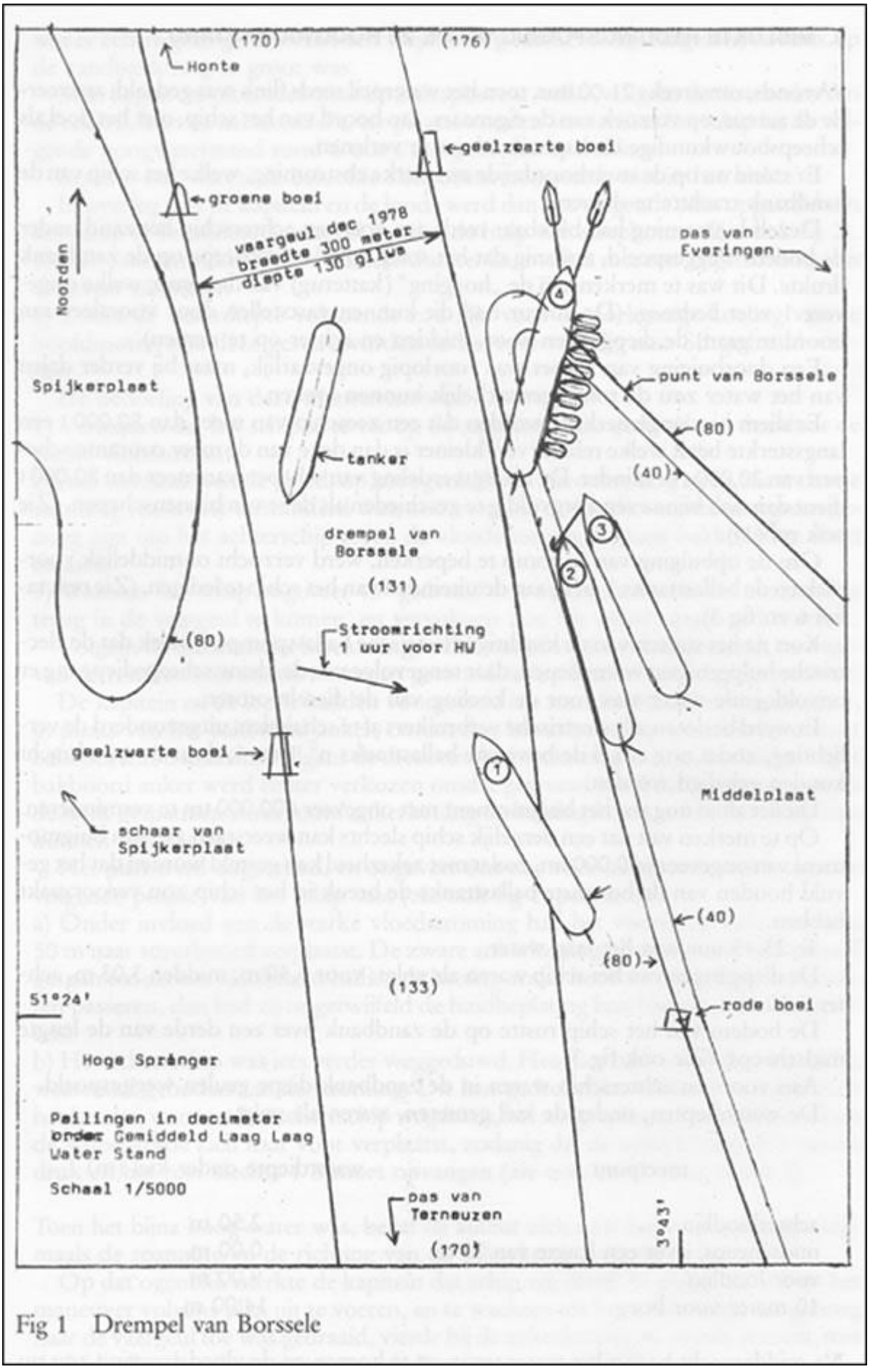


Fig 1 Drempel van Borssele

3. MISLUKTE REDDINGSPOGING BIJ DE 2E HOOGWATERSTAND.

s'Avonds, omstreeks 21.00 uur, toen het waterpeil reeds flink was gedaald, arriveerde de auteur, op verzoek van de eigenaars, aan boord van het schip, met het doel als scheepsbouwkundige de kapitein advies te verlenen.

Er stond nu op de stuurboordzijde een sterke ebstroming, welke het schip van de zandbank trachtte te duwen.

Dezelfde stroming had blijkbaar reeds aan voer- en achterschip het zand onder de bodem weggespoeld, zodanig dat het schip enkel midscheeps op de zandbank drukte. Dit was te merken aan de „hogging" (katterug) van de romp, welke ongeveer 1 voet bedroeg. (De auteur had dit kunnen vaststellen door vooraleer aan boord te gaan, de diepgangen voor, midden en achter op te nemen).

Een doorbuiging van 1 voet was voorlopig ongevaarlijk, maar bij verder dalen van het water zou de romp gemakkelijk kunnen breken.

Er dient hier opgemerkt te worden dat een zeeschip van meer dan 80.000 t een langssterkte bezit welke relatief veel kleiner is dan deze van de meer courante schepen van 20.000 t of minder. De ladingsverdeling van schepen van meer dan 80.000 t dient dan ook bijna even zorgvuldig te geschieden als deze van binnenschepen. (Zie ook ref (1)).

Om de opbuiging van de romp te beperken, werd verzocht onmiddellijk voorpiek en de ballasttanks 1 en 4, aan de uiteinden van het schip te ledigen. (Zie ook tabel 6 en fig. 3) .

Kort na het starten van de krachtige electrische ballastpompen, bleek dat de electrische hulpgroepen warm liepen, daar tengevolge van de kleine scheepsdiepgang er onvoldoende water was voor de koeling van de dieselmotoren.

Er werd besloten alle electrische verbruikers af te schakelen, uitgezonderd de verlichting, zodat nog enkel de bovenste ballasttanks n° 1 en 4, door zwaartekracht konden geledigd worden.

Dit liet altijd nog toe het buigmoment met ongeveer 600.000 tm te verminderen.

Op te merken valt dat een dergelijk schip slechts kan weerstaan aan een buigmoment van ongeveer 650.000 tm, zodat met zekerheid kan gesteld worden dat het gevuld houden van de bovenste ballasttanks de breuk in het schip zou veroorzaakt hebben.

Te 23.45 uur was het laag water.

De diepgangen van het schip waren als volgt: voor 3,50 m, midden 3,03 m, achter 3,30 m.

De bodem van het schip rustte op de zandbank over een derde van de lengte midscheeps. (Zie ook fig 3).

Aan voor- en achterschip waren in de zandbank diepe geulen weggespoeld. De waterdiepten, onder de kiel gemeten, waren als volgt:

meetpunt	waterdiepte onder kiel (m)
achterloodlijn	2,50 m
midscheeps, over een lengte van 80 m	0,00 m
voor loodlijn	9,00 m
10 meter voor boeg	14,00 m

Na middernacht begon het water terug op te komen en de vloedstroming zou nu opnieuw het schip tegen de zandbank drukken met toenemende kracht. Voorlopig was er echter geen gevaar vooreen verplaatsing van het schip aangezien de druk op de zandbank nog te groot was.

Men begon nu uit te zien naar de 2 sleepboten, welke, volgens de instructies van de rederij, kort na middernacht, ter plaatse zouden komen om het schip bij de volgende hoogwaterstand rond 6 uur s'morgens, los te trekken.

Rond 3 uur waren de beloofde sleepboten nog steeds niet in het zicht.

In overleg met de kapitein en de loods werd dan het volgende plan opgesteld om het schip te bevrijden, eventueel zonder de hulp van sleepboten. (Zie ook fig 2).

- Men zou onmiddellijk het bakboord anker later vallen met een lengte ketting van ongeveer 60 meter.
- Zodra de waterdiepte voldoende zou zijn voor de doelmatige koeling van de hoofdmoter, zou deze gestart worden en het roer volledig naar SB gedraaid worden.

De bedoeling van deze maneuvers was:

1. Vermijden dat het schip al te ver op de zandbank zou geduwd worden door de sterke vloedstroom.
2. Aan het einde van de vloed, op het ogenblik dat het water nog steeg, maar dat de stroming reeds veel verminderd was, zou mogelijk de kracht van het roer groot genoeg zijn om het achterschip tegen de vloedstroming in, naar bakboord te doen draaien.
3. Wanneer het schip ongeveer 45° gedraaid zou zijn, zou men achteruitslaan om terug in de vaargeul te komen, en vervolgens zou het anker opgehaald worden.

Volgens de theoretische berekening, welke naderhand werd uitgevoerd, en waarvan de resultaten in annex 1 worden getoond, is het beschreven plan uitvoerbaar.
De kapitein en de loods hadden voorgesteld het stuurboord anker te gebruiken, in plaats van het bakboord anker, omdat dan het achterschip gemakkelijker naar bakboord zou draaien. Volgens de theoretische berekening is dit inderdaad zo. Het bakboord anker werd echter verkozen omdat gevreesd werd dat bij de maneuvers de sterk gespannen stuurboord ankerketting de huidbeplating in het voorschip zou kunnen beschadigen.
Het plan werd uitgevoerd, en ongeveer één uur vóór hoogwater stelde men de volgende positie van het schip vast (zie ook fig 1, positie 3).

- Onder invloed van de sterke vloedstroming had het voorschip zich minstens 50 m naar stuurboord verplaatst. De zware ankerketting, diameter 100 mm, stond gespannen als een vioolsnaar. Indien de ketting onder het voorschip door had moeten passeren, dan had zij ongetwijfeld de huidbeplating beschadigd of doen scheuren.
- Het achterschip was iets verder weggeduwd. Het roer had, beter dan verwacht, weerstand geboden aan de stroming. Dit kan gedeeltelijk verklaard worden door het feit dat, wanneer het achterschip wegdraait, het aangrijpingspunt van de druk op de scheepszijde zich naar voor verplaatst, zodanig dat de ankerketting 2/3 van de druk en het roer slechts 1/3 moet opvangen (zie ook berekening annex 1).

Toen het bijna hoog water was, begaf de auteur zich naar het voorschip om nogmaals de spanning en de richting van de ankerketting vast te stellen.

Op dat ogenblik merkte de kapitein dat schip vrij dreef. In plaats van echter het maneuver volgens plan uit te voeren, en te wachten tot het achterschip ver genoeg naar de vaargeul toe was gedraaid, vierde hij de ankerketting en vaarde vooruit, met de bedoeling het diepe water van de Everingenpas te bereiken.

Het schip ging inderdaad zonder moeite meer dan 200 meter vooruit waarbij het over de diepe put voer welke door de stroming voor de boeg was gegraven.

4. BESLUIT

In het licht van de beschreven ervaring meent de auteur, als scheepsbouwkundige,

volgende aanbevelingen te mogen doen in geval van de stranding van een schip in een getijde stroom.

1. Bepaal onmiddelijk en daarna met regelmatige tussenpozen de diepgangen van het schip. Gebruik hiervoor een motorboot, want een roeiboot is misschien niet opgewassen tegen de sterke getijstroming.
2. Peil regelmatig alle ledige compartimenten voor eventuele lekken. Houd de mangaten van alle bodemtanks gesloten.
3. Wanneer het waterpeil daalt, houd rekening met het feit dat het zand onder voor- en achterschip wordt weggespoeld. Het schip kan breken door opbuiging. Controleer regelmatig de „hogging". Deze mag nooit meer dan 1/500 van de scheepslengte bedragen. Maak eventueel gevulde ballasttanks aan de uiteinden van het schip ledig.
4. Wanneer het waterpeil stijgt, maakt het schip zo mogelijk zwaarder door waterballast te pompen in eventueel ledige tanks, want hoe zwaarder het schip, hoe minder ver het op de zandbank wordt geduwd.In het algemeen is er ruimschoots voldoende tijd voor het uitvoeren van de berekeningen vermeld in annex 2.
5. Het voordeel hiervan is dat men zich zekerder voelt, dat de tijd vlug passeert en dat men zich in een sterkere positie bevindt als er over sleepboothulp moet worden onderhandeld.
6. Ongeveer 3 uur voor hoogwater, laat het anker vallen, aan de zijde van waar de stroming komt. Bereken de lengte van de ketting zodanig dat de helling niet meer dan 1/4 zal bedragen, opdat het anker goed zou houden.
7. Zodra de ankerketting gespannen is en zodra het waterpeil het starten van de hoofdmotor toelaat, draai het roer en start de hoofdmotor met halve kracht, teneinde tegendruk te geven tegen de stroming.
8. Ongeveer een kwartier voor hoogwater, laat de hoofdmotor op volle kracht draaien en ledig alle ballasttanks welke nog water bevatten.
9. Na korte tijd zal het schip los komen en het achterschip tegen de stroming in draaien. Dit zal zeer traag gebeuren aangezien bij deze beweging het aangrijpingspunt van de druk van de stroming zich meer en meer naar achter verplaatst.
10. Wanneer het schip een hoek van ongeveer 45° vormt met de rand van de zandbank, houdt het in deze richting, totdat de stroming ze klein is geworden dat door achteruitslaan en eventueel vieren van de ankerketting het schip zonder gevaar kan vrij komen. Haal het anker op, eventueel nadat de richting van de stroming is omgekeerd en alle gevaar geweken is.

Inséré 01/04/19 NIEUWS NOUVELLES Enlevé 01/05/19

DEME lands Elia cable job

€130m contract for installation work at new offshore wind grid hub DEME has won a €130m contract to install submarine power cables for a new modular offshore grid hub in the Belgian North Sea The work was awarded by Belgian grid operator Elia, which is investing €400m in the hub to create an export route for more than 1GW of offshore wind projects, including Rentel, Northwest 2, Mermaid and Seastar DEME said it will deploy a new fleet

to carry out the work, including cable installation vessel LIVING STONE and hoppers MINERVA and SCHELDT The grid is scheduled for completion in the third quarter of 2019.

source: Renews

Inséré 02/04/19 NIEUWS NOUVELLES Enlevé 02/05/19

China shifts to Iranian tankers to keep oil flowing amid U.S. sanctions – sources

Chinese buyers of Iranian oil are starting to shift their cargoes to vessels owned by National Iranian Tanker Co (NITC) for nearly all of their imports to keep supply flowing amid the re-imposition of economic sanctions by the United States. The shift demonstrates that China, Iran's biggest oil customer, wants to keep buying Iranian crude despite the sanctions, which were put back after the United States withdrew in May from a 2015 agreement to halt Iran's nuclear program. The United States is trying to halt Iranian oil exports to force the country to negotiate a new nuclear agreement and to curb its influence in the Middle East. China has said it is opposed to any unilateral sanctions and has defended its commercial ties with Iran. The first round of sanctions, which included rules cutting off Iran and any businesses that trade with the country from the U.S. financial system, went into effect on Aug. 7. A ban on Iranian oil purchases will start in November. Insurers, which are mainly U.S. or European based, have already begun winding down their Iranian business to comply with the sanctions. To safeguard their supplies, state oil trader Zhuhai Zhenrong Corp and Sinopec Group, Asia's biggest refiner, have activated a clause in its long-term supply agreements with National Iranian Oil Corp (NIOC) that allows them to use NITC-operated tankers, according to four sources with direct knowledge of the matter. They spoke on condition of anonymity as they were not allowed to speak publicly about commercial deals. The price for the oil under the long-term deals has been changed to a delivered ex-ship basis from the previous free-on-board terms, meaning that Iran will cover all the costs and risks of delivering the crude as well as handling the insurance, the sources said. "The shift started very recently, and it was almost a simultaneous call from both sides," said one of the sources, a senior Beijing-based oil executive. In July, all 17 tankers chartered to carry oil from Iran to China are operated by NITC, according to shipping data on Thomson Reuters Eikon. In June, eight of 19 vessels chartered were Chinese operated. Last month, those tankers loaded about 23.8 million barrels of crude oil and condensate destined for China, or about 767,000 barrels per day (bpd). In June, the loadings were 19.8 million barrels, or 660,000 bpd. In 2017, China imported an average of 623,000 bpd, according to customs data. Sinopec declined to comment on the change in tankers. A spokesperson with Nam Kwong Group, the parent of Zhenrong, declined to comment. NIOC did not respond to an email seeking comment. An NITC spokesman said it would forward a request from Reuters for a comment to the country's Ministry of Culture and Islamic Guidance. Iran used a similar system between 2012 and 2016 to circumvent Western-led sanctions which were effective in curtailing exports because of a lack of insurance for the shipments. It was not immediately clear how Iran would provide insurance for the Chinese oil purchases, worth some $1.5 billion a month. Insurance usually includes cover for the oil cargoes, third-party liability and pollution. "This is not the first time companies exercised the option… Whenever there is a need the buyers can use that," said another of the sources, also a senior Beijing-based oil executive. Term buyers of Iranian submitted their

plans to NIOC earlier this month of how much crude they will lift in September, said two trade sources. It typically takes about a month for Iranian crude to reach China. With the new shipping arrangement, Iranian oil cargoes to China are expected to stay at recent levels through October, said the four sources with knowledge of the tanker changes.

Source: Reuters (Reporting by Chen Aizhu in Beijing and Florence Tan in Singapore; additional reporting by Parisa Hafezi in Ankara; Editing by Henning Gloystein and Christian Schmollinger)

Inséré 04/04/19 DOSSIER Enlevé 04/05/19

Fixed and Floating Object Incidents whilst under Pilotage

For many years the number of Fixed and Floating Object (FFO) claims notified to the Club remained fairly constant, as did the resulting claims, however, in the past couple of years, although the total number of claims has not appreciably changed, the number of high value claims has risen alarmingly. The Club has seen a succession of extremely costly FFO claims occurring whilst vessels are in harbours or rivers and proceeding under pilotage. Incidents seen in the recent past have included:

Ø Vessels underway and making way striking vessels secured alongside berths.

Ø Vessel underway and making way, and those attempting to come alongside to make fast, making hard contact with berths, dolphins and walkways causing significant damage to the structures.

Ø Vessels attempting to come alongside to moor making contact with container gantry cranes.

Often these FFO claims cause significant damage to third party vessels or take a facility and / or infrastructure out of commission, with large loss of use claims levelled against the vessel, alongside the costs of making good the often-substantial damage and associated survey and legal fees.

Incident Causation

Examination of the circumstances surrounding the claims has identified, as is usually the case with a major incident, a litany of errors and / or failings in the build up to the occurrence, the sum total of which have led to the incident.One overriding issue, however, has been identified as being prevalent in the majority of the large FFO claims occurring under pilotage in recent years; the lack of action on the part of the vessel's bridge team to intervene in the navigation and manoeuvring of the vessel whilst the pilot has control of the steering and propulsion, until the situation has deteriorated such that an incident is imminent, and intervention by bridge team, if any, is largely ineffective. The importance of a pilot, as a source of extensive knowledge of a port and its approaches, and a conduit thought which information and instructions are passed to facilitate the entry / departure of a vessel cannot be overestimated. Having reviewed the Voyage Data Recorder (VDR) data, in particular the audio, following an incident, it is often apparent that bridge team interaction with the pilot is limited. It is a well-established process that the pilot is on the bridge to offer advice. The responsibility for the safe navigation of the vessel remains with the bridge team at all times, with the Master retaining responsibility for the navigation of the vessel whilst under pilotage apart from when this responsibility is passed to the officer of the watch, usually while the Master rests during long pilotage operations. Far too often,

we are encountering evidence that pilots are being given free rein over the navigation of the vessel, such that the bridge team appear to step back, and to a degree, switch off from closely monitoring the actions of, and orders given by the pilot. A further probable issue, albeit more difficult to quantify, are cultural differences and an unwillingness on the part of junior officers to question the pilot's actions and / or orders, even when it may be apparent that the navigation of the vessel is not being conducted according to the pre-agreed pilotage passage plan. In some cases, it is apparent that the bridge team, including the pilot, have completely lost their situational awareness to the detriment of the safety of navigation of the vessel. We have examined numerous cases where the bridge team only step in to either question the actions and / or orders of / from the pilot, or issue steering and / or propulsion orders, far too late, or not at all, and actions taken to reduce the speed and / or alter the course of the vessel, where made, are either too late or insufficiently robust to avert the subsequent incident.

Navigational Best Practice under Pilotage

The Master / pilot information exchange and bridge team briefing are crucial in ensuring that all parties on the bridge have an appreciation of the agreed pilotage passage plan. This is to ensure that when monitoring the navigation of the vessel whilst under pilotage, they are all in a position to question the actions and / or orders of a pilot when some aspect of the navigation or manoeuvring of the vessel does not appear to be in accordance with what was previously agreed, or best practice.

Deck officers need to remember that the pilot is present on the bridge to offer advice in relation to the navigation of the vessel, although it is accepted that the pilot will ordinarily issue steering and propulsion orders, and, in this regard, it should be clear, at all times, who has control of the steering and propulsion. When under pilotage all orders given by the pilot should be checked to ensure that (a) they are in accordance with the pre-agreed pilotage passage plan, (b) they are reasonable in the circumstances, and (c) that they have been carried out correctly. If there is any doubt as to the actions and / or orders of the pilot (including those that may be given in a language other than previously agreed, to tugs for example), these should be questioned, and if necessary actions as may be necessary for the safety of the vessel taken without delay. If the Master is not on the bridge, and the officer of the watch is any doubt as to the actions and / or orders of the pilot, these should be questioned, if the officer is still in doubt he / she should immediately call the Master to the bridge and take any such actions as may be necessary to place the vessel in a position of safety before the Master arrives. When approaching a berth, it should be ensured that sufficient tugs in accordance with port / terminal requirements are made fast in good time. The angle of approach to a berth should also be monitored, such that prior to coming alongside the vessel is made parallel to the berth. Considerable damage to shore container gantries has been caused by vessels coming alongside at a large angle to the berth, with the flare of the bow hanging a significant distance over the top of the berth such that it makes contact with container gantries situated many metres back from the berth frontage. In these situations, further damage is usually caused to the face of the berth and associated fendering by the stem, and to the support structure underneath the berth by the bulbous bow. The speed of approach towards the berth should be closely monitored, both in a fore and aft direction, and athwartships both at the bow and stern, and all way taken off in good time prior to manoeuvring alongside. It should be considering that the kinetic energy imparted by a vessel in a fixed structure increases exponentially with the vessel's speed, and that an average design velocity for a vessel coming alongside a berth is only 0.3 knots, for reference, normal walking speed is approximately ten times faster. In several cases significant damage has been caused due to excessive athwartships speed when vessels have been moving bodily sideways toward a berth, with rotation of the

hull around the pivot point due to tug action / the use of thrusters exacerbated the speed at one end of the vessel, causing high point loadings when contact has been made between the hull in way of the shoulder or quarter and the berth.

When action is taken to place the vessel in a position of safety, following a deterioration in the navigational situation, the following factors need to be considered:
· The position of the vessel's pivot point should be considered when moving ahead and astern at slow speed, and how external forces, including tugs and tidal streams will affect the hull and turn the vessel, depending on the location of the pivot point.
· It should be remembered that at slow speeds rudder action will be ineffective, and the ship will mostly have to rely on attendant tugs to manoeuvre.
· At higher speeds thrusters will be ineffective. And their effectiveness will also be a function of draught / immersion.
· In case the speed has to be reduced there is always a time lag between the telegraph order being given, the action of the main engine and the actual reaction of the vessel's hull.
· For the ships with the fixed pitch propellers, reversing of the engine will take additional time.
· If running at a speed above manoeuvring full ahead, there may be a delay before the engine is available for use in manoeuvring.
· The number of main engine starts is not infinite, rather it is limited by the amount of compressed air available.

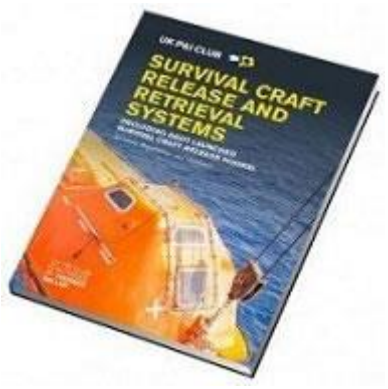
It can be seen from the foregoing that bridge team and bridge resource management are very important facets in ensuring that operations involving a pilot are conducted satisfactorily. Training in bridge team and bridge resource management have been part of the training regime for deck officers at many companies for some time. The importance of such training should not be underestimated, and it is recommended that deck officers undertake these training courses periodically. This is to ensure that their skills are maintained in relation to navigational procedures, effective communication, the use of all navigational and bridge equipment, an understanding of bridge resource management and interacting as an effective bridge team whilst considering cultural issues.

Voyage Data Recorders

The Club continues to encounter situations where VDR data has not been backed-up following an incident. Although it is appreciated that following a serious navigational event the bridge team may be more focussed on remedial actions necessary to mitigate the effects of such an incident and to place the vessel in a position of safety, it should be ensured that emergency response checklists and best practices instil the need and reflect on the importance of saving the data on the VDR for future analysis following a serious navigational occurrence. Members requiring further guidance should contact the Loss Prevention department.

Source: West of England

Survival & Rescue crafts - a training guide for crew



Accidents involving survival and rescue craft are a continuing source of concern within the maritime industry. Various regulatory amendments have been made in recent years, many of which have addressed on-load release mechanisms in an attempt to prevent further occurrences.

In the last 10 years there have been at least 60 fatalities and 145 serious injuries around the world from testing of lifeboats. Lifeboat accidents occur most often during training and drills and involve not just the hooks, but also the entire lifeboat release and retrieval system (LRRS), including the wires, the gripes and pennants. In many cases, the cause is unsound procedures. Identified causes of lifeboat accidents include:

- Lack of adequate training and knowledge
- Unfamiliarity with equipment
- Inadequate risk assessment and planning
- Systems that are not yet modified in accordance with SOLAS Regulation III/1.5
- Systems with design issues
- Incorrectly or poorly maintained systems
- Communication problems
- Complacency and failure to follow safety procedures

It is essential that the safety lessons learned from accidents involving lifeboat systems are passed on both to those serving at sea and to management ashore. An awareness of the current regulatory requirements and the available guidance concerning the use of lifeboats is important, as it ensures that appropriate onboard procedures and training are applied and carried out.

The Club's Loss Prevention team have therefore been working in conjunction with Witherby Publishing to produce the book "Survival craft release and retrieval systems." The team hope the publication of this book will help to reduce the numbers of accidents involving survival and rescue crafts in future.The book is intended as a teaching aid for crew and contains 20 incident case studies and detailed explanations of the regulations regarding survival craft release and retrieval systems. It also contains up to date guidance on a variety of issues relevant to lifeboat safety, including crew welfare measures that should be taken, explanations of how to operate and launch lifeboats, and instructions around best practice in maintenance and repair of lifeboats and related appliances. All Members will be receiving a copy of the book, but if additional copies are required they can be ordered from Witherbys here.

Inséré 06/04/19 NIEUWS NOUVELLES Enlevé 06/05/19

Investigators board Viking Sky as questions are raised over engine failure

By: Richard Meade

TEAMS of investigators, local police and class surveyors boarded the cruise ship Viking Sky

on Monday shortly after the final passengers were disembarked in Molde, west Norway, having narrowly escaped disaster when the ship's engines failed during a storm. Both Norway's Accident Investigation Board and Norwegian police have confirmed that they will be conducting separate investigations into the incident. Rescue services airlifted 479 people after the VIKING SKY sent out a mayday signal on Saturday as it drifted in rough waters in the Norwegian Sea to within 100 metres of land. Rescue teams hoisted passengers — many of them senior citizens — one by one on to helicopters before the weather subsided on Sunday and the ship could be towed to port. With the rescue operation now over questions are being asked about why theViking Skywas sailing through storm conditions and how all four engines on a 2017-built cruise ship could fail simultaneously. A spokesperson for Viking Cruises, owners of the VIKING SKY, stressed to Lloyd's list that the vessel had been built to the highest standards, but said that it was too early to speculate about the causes of the engine failure. Viking Skyis equipped with four MAN 32/44CR engines and manufacturer MAN Energy Solutions has already dispatched a team to Molde to assist in the various investigations. According to reports, possible explanations for the cause of the incident include overheating of the engines caused by air being sucked into the cooling system, which in turn could have been caused by waves as high as 15 metres. The waves could have also led to precipitates in the fuel tanks meaning the engines were not getting enough fuel "Prior to any assessment onsite we don't want to indulge in any guesswork on what may have caused the incident," a spokesman for MAN told Lloyd's List. "We will do a thorough analysis and take the next steps together with our customer, Viking Cruises The Norwegian Maritime Authority also has a team of surveyors on board, together with representatives from classification society Lloyd's Register, who are authorised to carry out surveys and inspections and issue statutory certificates on VIKING SKY on behalf of the Norwegian Maritime Authority "The main goal for us is to find out what caused the ship to lose the engine power," a spokesperson for the Norwegian Maritime Authority told Lloyd's List. The VIKING SKY is flagged by the Norwegian International Ship Register. Norway's Accident Investigation Board have confirmed that they will carry out a full investigation of the incident, together with the participation of the UK and US national maritime accident investigation branches due to them being classed as "significantly interested states". The UK Marine Accident Investigation Branch confirmed they have dispatched a two-man team to the vessel with expertise in marine engineering and voyage data recorders as part of its "supporting role" in Norway's investigation. "We all want to know how this could have happened," said Torstein Hagen, the billionaire chairman of Viking Sky's owners, Viking Ocean Cruises. "Something like this shouldn't happen, but it has," he said talking to Norwegian media network TV2 on Saturday.In a statement issued to Lloyd's List, Mr Hagen said: "The past few days have been stressful and hectic for both guests and crew alike. I would like to personally apologise for what our guests experienced. I would also like to say how impressed and grateful I am for the efforts of the national rescue services, rescue personnel, local authorities and the people along the Møre coast, and thank them for the concern and generosity they have shown our guests. I would also like to express my thanks to the crew on board the VIKING SKY for their efforts and dedication. A spokesperson for Viking Cruises added: "We have already begun our own internal investigation and our goal is to establish a complete and thorough understanding of what happened, and we welcome the investigations that have been launched, and will fully support them." Viking Cruises expects the VIKING SKY to be back in service in April.

Source : lloydslist

Norway cruise ship engines failed from lack of oil

By JAN M. OLSEN

A cruise ship that was the focus of a daring rescue operation off Norway's frigid North Sea coast became disabled because its engines didn't have enough lubricating oil, the country's top maritime official said Wednesday. Low oil levels were the "direct cause" of the engine failure that stranded the ship during a storm Saturday, Lars Alvestad, the acting director general of the Norwegian Maritime Authority, said. Sensors detected the oil shortage and automatically shut down the VIKING SKY 's engines to prevent a breakdown, he said. The ship's harrowing weekend ordeal injured dozens of people, including 36 who were admitted to hospitals. Four people from the ship remained hospitalized Wednesday, including one being treated in an intensive care ward in critical but stable condition, Norwegian health officials said. Alvestad said the amount of oil was "relatively low" but still "within set limits" as the VIKING SKY neared Hustadvika, a shallow area known for shipwrecks that has many reefs but no larger islands to offer boats shelter from pounding waves. "The heavy seas probably caused movements in the tanks so large that the supply to the lubricating oil pumps stopped," Alvestad said during a news conference. "This triggered an alarm indicating a low level of lubrication oil, which in turn, shortly thereafter, caused an automatic shutdown of the engines." VIKING SKY "suffered power 'blackout' in challenging weather conditions," he said. The ship's operator, Viking Ocean Cruises, said it welcomed "the prompt and efficient investigation" of the weekend emergency and accepted the findings. "We have inspected the (oil) levels on all our sister ships and are now revising our procedures to ensure that this issue could not be repeated," the company said in a statement. The VIKING SKY ended up in a dangerous situation when the engines stopped Saturday. With the ship carrying 1,373 passengers and crew members rocking violently, the crew sent out a mayday call. Passengers would recall a large wave crashing through glass doors and knocking people across the floor of an area where they were instructed to gather as a muster point. The crew anchored the VIKING SKY in a bay as it came close to hitting rocks and the airlift to get passengers off the ship began. Five helicopters winched passengers off one-by-one as winds howled in the dark of night. Waves up to 26-feet- (8-meters-) high were smacking into the ship, ruling out an evacuation by boat. The rescue operation ended Sunday when the engines restarted, after 479 passengers had been airlifted to land. The ship traveled under its own power to a Norwegian port with nearly 900 passengers and crew members remaining onboard.The ship was on a 12-day cruise along Norway's coast before its scheduled arrival Tuesday in Britain. The passengers were mostly an English-speaking mix of American, British, Canadian, New Zealand and Australian citizens. Alvestad said his agency has issued a new safety notice about crews making sure boats have a continuous supply of lubricating oil to engines and other critical systems in poor weather conditions. The VIKING SKY was being towed to a shipyard in another port Wednesday for repairs.
Source : Startribune

Inséré 07/04/19 NIEUWS NOUVELLES Enlevé 07/05/19

Changing on-board bunkers safely

Challenges and risks arise when changing from one fuel to another on board. We have handled many cases in which a new fuel was mixed with the fuel already in use, but proved incompatible. A critical moment occurs each time fuel runs out and a new batch is started, but the risk is minimised when the operation is carried out properly according to best practice. This article identifies some of the challenges on-board crew may face, and provides guidelines to reduce the risks of possible engine and fuel-equipment damage. Numerous bunker disputes over the years reveal that these challenges and risks do not begin at the time of changeover on board. They may arise at the time of the request for fuel oil, so the risk management process for bunker changes should be considered in chronological order from the moment of ordering to the time of consumption. Fuel changeover is necessary typically in one of two situations:
Ø The vessel is consuming fuel oil or gas oil and needs to change to a new batch
Ø The vessel is consuming fuel oil, approaches a Sulphur Emission Control Area (SECA or SEC area), and must change to low-sulphur gas oil

The actual change-over procedure from fuel oil to gas oil is similar for every vessel, and engine manufacturers provide specific instructions on how to complete the process. They may not have done so for changeovers from one batch of fuel to a fresh supply of the same type, whether Intermediate or Heavy Fuel Oil (IFO or HFO), Marine Diesel, or Gas Oil (MDO or MGO). The following steps should be followed.First and most important is to order, and to ensure you receive, the quality of fuel that is required by the engine's manufacturer. This starts with a proper description of the required specification (quality) of the fuel in the charterparty, but we have seen several cases where the charterparty leaves too much room for interpretation. Quality is normally referred to in the standard specification ISO8217, with the year of the subject standard as an extension. The most recent standard is 2017, but is not yet commonly in use. Most often used are 2005, 2010, and 2012; the older years' standards are most prevalent.

Five or more parties may be involved in the ordering process from the time the request is made by the charterer or owner to the time it reaches the physical supplier. It is quite common for these divergent parties to apply different standards. In one case, for example, the fuel originally ordered was ISO8217:2010, with some additional requirements, but the fuel delivered was ISO8217:2005, without the additional requirements. An on-board inspection of the supplying barge should be made before receiving new fuel, including its void tanks, which must be dry. Another inspection should be carried out when bunkering is complete, especially in cases of difference between the quantity that the barge believes to have supplied and what the vessel claims to have received. The on-board sampling methodology used by the barge should be checked, since the chief engineer eventually signs for the fuel. On board the receiving vessel, a continuous drip sample should be taken from beginning to end of the delivery. It is best to invite the barge crew to witness the set-up of the sampler, and to monitor it during delivery. After bunkering is complete, the continuous drip sample collected should be divided into four sample bottles, all properly labelled and sealed, and one of them handed over to the barge. A second sample should be sent to the laboratory which all fuel samples are normally sent to; the new fuel should not be used until the analysis results are known and indicate that the fuel is within spec. This should be done as soon as possible, because suppliers normally have a time bar of 10 to 14 days, after which any claims are waived. The standard rule on board is (and has always been) that mixing fuels is to be prevented, which begins when new bunkers are received. They must therefore be taken into empty bunker tanks. When transferring new fuel from the bunker tanks to the settling tank, the latter will preferably contain less than 10% of its full volume. Bunker tanks, settling tanks, service tanks, heaters, viscosity controllers, filters, pumps, and piping should be maintained as prescribed. Tanks should

normally be cleaned every five years (and sometimes more often) to prevent too much build-up of settled components, which can easily be disturbed during periods of bad weather and taken along to the engines. We have seen instances where the sludge on settling tank bottoms contained over 10,000 ppm of aluminium and silicon. The sludge which collects in bunker tanks should also be collected and disposed of at regular, normally five-year, intervals. However, the necessity of this process can be considered and informed by inspection and the analysis of absolute-bottom samples sent for analysis. Viscosity controllers, which adjust fuel viscosity upon its injection into the engine, also require attention. Not all IFO and HFO fuels have the same viscosity, even when they are the same grade. For example, RMG 380 has a maximum viscosity of 380 cSt at 50 degrees Celsius, but may be less. Optimum viscosity for combustion is between 10 and 15 cSt, and the majority of engine manufacturers require between 10 and 13 cSt. Viscosity depends on temperature, and declines as fuel is warmed. Most viscosity controllers can be set to one of two modes, temperature control or viscosity control. Viscosity control is the easier mode to manage. In temperature control mode, actual fuel viscosity must be known to set the correct temperature. In several instances vessels have received fuel oil with a viscosity lower than 380 cSt at 50 degrees, and sometimes have received 180 cSt when 380 cSt was ordered but not available. If the temperature setting of the viscosity controller is not adjusted, problems with engines and eventually with the propulsion can result. Changing from one supply of fuel to another on board should not be a cause of problems, as long as the following points are carefully considered. Be sure that:
Ø The correct fuel quality is ordered, according to the correct specification.
Ø The vessel receives what is ordered. Take proper samples and check the supplying barge.
Ø Analysis confirms that the fuel is within specification and can be consumed.
Ø New bunkers are received in empty tanks.
Ø New fuel is transferred to a settling tank containing less than 10% of its volume.
Ø Maintenance of fuel equipment is carried out at the required intervals.
Ø Tanks are cleaned regularly.
Ø Viscosity controllers are correctly set.

Source: Skuld Dredging

Inséré 08/04/19 DOSSIER Enlevé 08/05/19

A Case for 20/20 Vision?

IMO's Low Sulphur Fuel Limit Under Marpol Annex VI which comes into force on 1st January 2020 in Marine Insurance P&I Club News 02/10/2018

The implementation of the global 0.5% sulphur cap for bunker fuel under MARPOL Annex VI in just under 18 months' time has been well publicised. Concerns about the cost of complying with this low sulphur cap and whether there will be sufficient availability of low sulphur fuel oil (LSFO) have also been well publicised. In this article we focus on some of the compliance and practical considerations, as well as legal issues that may arise, together with indications as to the charter party issues that both ship owners and charterers will need to consider.

Options for compliance and practical considerations

There are, broadly speaking, two main options available for compliance: burning compliant fuel or utilising so-called "approved equivalent methods". The choices available in order to comply with the latter can be further narrowed down with each option carrying respective advantages and disadvantages. Some of these methods of compliance are briefly explored below:

Burning compliant fuel

Marine Gas Oil (MGO) / distillate fuel

However, issues arise concerning:

Fuel treatment plant's ability to effectively deal with lighter / less viscous fuel
Lower lubricity / acidity

Engine lubricating oil choice

Low sulphur compliant blended hybrid fuels (ECA hybrid fuels)

However, issues arise concerning:

Engine lubrication
Limited experience
Availability worldwide
Quality related issues*

*The International Organization for Standardization (ISO) released the statement on the ISO 8217:2017 standard reassuring that the characteristics included into the ISO standard cover 0.50% sulphur fuels. 2020 Sulphur cap guidelines on how to manage distillate fuels and fuel oil blends are being developed by IMO in preparation for approval by IMO MEPC 74 in May, 2019. Additionally, OCIMF and IPIECA in cooperation with CIMAC, the Energy Institute and ISO are working on an industry guidance that will assist crews and ship operators to prepare for the potential impact on fuel and machinery systems. The document dealing with new fuel blends or fuel types will include guidance on the handling, storage and use of such fuels.

Liquefied Natural Gas (LNG)

Using LNG bunkers has the benefit of being less susceptible to future environmental regulation (for example, the inevitable regulations that will be implemented to achieve the IMO's target of reducing greenhouse gas emissions by 50% by 2050). However, re-fitting the vessel will present physical and practical challenges, such as a decrease in cargo carrying capacity and the need to ensure that crew are adequately trained to operate the vessel safely. The global availability of LNG is also uncertain.

Alternative fuels

A number of other alternative fuel sources have been mooted including methanol, biofuels, liquefied petroleum gas (LPG) and hydrogen fuel cells. However, these are, at present, underdeveloped technologies which have been less well researched than other options.

Onboard desulphurisation

Onboard desulphurisation of fuel may be available (see Ultrasonic Catalysis; Filtering), although these systems are less developed/ less researched in comparison with other options.

Approved equivalent methods – Exhaust Gas Cleaning System (EGCS or "Scrubbers")

An alternative is for owners to install a scrubber system. These are systems designed to clean the emissions before they are released into the atmosphere and consist of broadly two types: an open-loop scrubber and a closed-loop scrubber. The former involves spraying the exhaust gas with sea water which, through its natural alkalinity, cleans the emissions and the sea water is discharged back into the sea in line with all applicable environmental

legislation; the latter uses a combination of fresh water and chemicals to similar effect but with the option of retaining the recycled water and by-products on board.

This option will require capital outlay by owners, as well as time spent in dry-dock and, potentially, a reduction in cargo carrying capacity. The EGCS will also require regular maintenance, together with suitably trained crew, and provision will need to be made for disposal of the waste by-products (such as scrubber sludge).

Legal Issues

Cost

Compliance with the new sulphur cap will bring with it unavoidable cost consequences, the extent of which will depend upon both the method of compliance that owners elect to adopt (i.e. compliant fuel or "approved equivalent methods" – see above) and the contractual apportionment of liability that each party has adopted under the terms of individual charter parties.

By way of example, the installation of an exhaust gas cleaning system (or "scrubber") will require a more significant up-front cost for a ship owner but may also attract an increased rate of hire from charterers on the basis that charterers will be able to make use of cheaper HSFO.

Furthermore, with the higher price of low sulphur fuel or alternatives such as LNG, there is likely to be more focus on a vessel's performance and the parties should have clear charter party clauses to govern how the vessel's performance and fuel consumption is to be assessed.

Quantity and quality of bunkers

Bunker specification clauses will be of paramount importance in minimising the scope for potential disputes, particularly in the context of liability for non-compliance with MARPOL Annex VI, and these should therefore not only require that bunkers comply with MARPOL Annex VI but also detail the exact maximum sulphur content permitted for any bunkers stemmed during the charter party. It also worth noting that existing standard form clauses, such as the BIMCO Bunker Quality and Liability Clause, may not be suitable in their current format.

Note that a BIMCO sub-committee is due to meet on 19 September 2018, the aim being, after consultation with the shipping industry, to publish a BIMCO low sulphur clause. It is hoped this will be available by the end of 2018.

Liability

There has been discussion within the industry as to whether there will be adequate global availability of low sulphur fuel. If there are availability issues and time is lost waiting for bunkers or the vessel loses time during a time charter in order to bunker low sulphur fuel, the charter party should clarify who is liable to pay for the time lost and expenses/bunkers burned (usually time charterers).

If the vessel is delayed reaching her laycan under a voyage charter, owners should bear in mind that they may be liable in damages to charterers for a failure to reach the laycan with "reasonable despatch" if the delay is caused by owners not having sufficient compliant bunkers on board when the charter party was fixed. Also, where cargo on board is damaged due to delays in the voyage or other consequences of the vessel deviating or waiting for bunkers where the vessel had insufficient compliant bunkers at the commencement of the voyage, this may constitute a deviation under the contract of carriage which could, depending on the circumstances, give rise to liabilities which fall outside Club cover.

Where the vessel is detained by Port State Control (PSC) for a suspected breach of MARPOL Annex VI Regulations, owners and charterers should clarify in the charter party whether

any fines imposed and time lost are owners' or charterers' responsibility. Often it may be unclear which party (the owner or the time charterer) is liable for the time lost and this will depend upon the reason for the PSC's detention and the outcome of the PSC's investigation. It is also recommended to insert a charter party clause that hire is payable during any PSC detention and investigation, with hire repayable to charterers depending upon the outcome of the PSC investigation.

EGCS or "scrubbers"

In circumstances where owners have elected to install a scrubber a number of additional considerations may arise. Owners should ensure that the particular characteristics of the scrubber are detailed in the charter party and be aware that this will likely attract an additional performance warranty, the breach of which may permit charterers to bring a claim in damages.

Owners should also note the additional costs associated with maintaining the scrubber and the likelihood that the vessel will be off-hire in circumstances where the scrubber system breaks down or is defective. This will likely be covered by existing provisions such as the maintenance, off-hire and dry-docking clauses within a charterparty. Additional clauses may also need to be included in the charter party in order to apportion liability for the time and cost for removing any by-products produced by the EGCS.

Long term charter parties

Particular questions can arise under long term charter parties that have already been fixed and which are due to span the 1 January 2020 MARPOL Annex VI implementation date. In several respects these issues are likely to be similar to those that arose in pre-existing charter parties with the implementation of the MARPOL requirement for double hulled tankers, although the issues arising from the low sulphur fuel regulations are more nuanced since there are alternative methods by which to gain compliance. As detailed above, these include the use of low sulphur fuel (likely to be charterers' responsibility), alternatively, "approved equivalent methods" such as installing scrubbers (likely to be owners' responsibility) or making use of alternative fuels.

The quantity of bunkers on delivery and redelivery is also likely to gain more prominence, particularly for those charters that span the 2020 implementation date. At present, many time charter parties stipulate that the vessel should be redelivered with approximately the same quantity of bunkers as on delivery. This could lead to a number of disputes between owners and charterers, not least in circumstances where non-compliant bunkers are retained on board after the implementation date. The parties should therefore make provision for who is liable for the time and cost of removing these or, in circumstances where bunkers on redelivery are worth significantly more (on the basis of the increased cost of LSFO) whether a bunker price adjustment clause should be included.

It is hoped that BIMCO's charter party clause, which is aimed to be published by the end of 2018, and IMO's guidelines, due to be finalised in February 2019, will assist ship operators and bunker suppliers in complying with Annex VI. Approval by MEPC is expected in May 2019. However, these guidelines are unlikely to answer all the issues that may arise, nor will they eliminate the types of dispute that are outlined above.

Source: West Of England

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De Belgen in Engeland 1940-1945 - Geef ons een slagveld!

Piloten en matrozen

In Tenby en andere Britse legerkampen werd er tijdens het hele jaar 1941 ‘gewerkt’ aan de wederopstanding van de landmacht. Al die tijd echter voerden honderden Belgische zeelui en vliegtuigbemanningen effectief strijd en werkten ze zich geregeld in de kijker.

Ook de zeelieden hielden de eer van België hoog. De gesprekken tussen Britten en Belgen over de inzet van de koopvaardijvloot sleepten lang aan. Maar hoewel mensen als luitenant-ter-zee Billet het behoorlijk op hun zenuwen begonnen te krijgen en op eigen houtje stappen zetten, kwam er eind juli 1940 toch schot in de zaak. Ofschoon de Belgische regering nog altijd in Frankrijk zat, werd er op 20 juli een akkoord gesloten tussen het Belgian Shipping Advisory Committee van baron Boël en het Britse Ministry of Shipping. Het akkoord bepaalde dat de schepen mét hun bemanning door de rederij verhuurd werden aan de Britten. Die zouden maandelijks een vergoeding betalen, berekend volgens de tonnenmaat, en ze zouden ook de verzekering voor hun rekening nemen, iets wat lange tijd een discussiepunt met de reders was geweest. Brandstof en havenkosten ten slotte moest de bevrachter betalen.

Alles bij elkaar ging het om een honderdtal schepen, waarvan ongeveer de helft vrachtschepen, een vijftal passagiersschepen en negen tankers. Bovendien stelde de dienst van baron Boël de Britten nog enkele Kanaalferry’s ter beschikking, zij het wel op basis van een zogenaamd *bareboat charter* (zonder bemanning). Het was beduidend minder dan wat de Nederlanders en de Noren hadden aangeboden, maar aangezien de trans-Atlantische tochten medio 1940 elke week toenamen – evenals de verliezen! – was voor de Belgische koopvaardij een toch niet onbelangrijke rol weggelegd.

Hoewel de koopvaarders stricto sensu geen oorlogsschepen waren, zaten ze wél voortdurend in het heetst van de strijd. Al in 1939 was, door het drieste optreden van de Kriegsmarine, het tekort aan scheepsruimte zo nijpend dat de Britten genoodzaakt waren te zoeken naar snelle en bruikbare oplossingen. Dat resulteerde in scheepsbouwprogramma’s waarbij in relatief korte tijd grote aantallen kant-en-klare vrachtschepen werden gefabriceerd op Britse én Amerikaanse werven. Tegelijk kocht het Ministry of Shipping een groot aantal oude Amerikaanse cargo’s op. Al die schepen kregen de naam Empireschepen. Zeven van die vaartuigen deden tijdens de oorlog dienst bij de Belgische koopvaardij. Vanaf 1941 ontwikkelden de Amerikanen bovendien een type vrachtschip dat al na acht maanden inzetbaar was, een tot dan toe ongekende recordtijd. Ook van deze Libertyschepen voeren er een aantal onder Belgische vlag: de *Belgian Dynasty*, de *Belgian Tenacity*, de *Belgian Equality* en de *Belgian Amity*.

Samen met de vele andere soorten vrachtschepen speelden de Empire- en Libertyschepen een cruciale rol in de bevoorrading van de geallieerde legers, die vooral over het water verliep. De Duitsers beseften duidelijk het immense belang van de geallieerde konvooien, want ze zetten het grootste deel van hun oppervlaktevloot en U-boten in op de Atlantische Oceaan en de Noordzee. De Kriegsmarine werd geassisteerd door langeafstandsvliegtuigen, zoals de viermotorige Focke Wulf 200, die de schepen honderden

kilometers buiten de kust opspoorden en met bommen en boordgeschut bestookten. Gezien hun belang voor de bevoorrading van strijdkrachten én burgers in Groot-Brittannië, mag het enige verbazing wekken dat de konvooien tot eind 1940 vrijwel zonder escorte en met een povere bewapening uitvoeren. De marinetop in Londen was lange tijd van mening dat het grootste gevaar van vrij makkelijk te detecteren Duitse oppervlakteschepen kwam, en hij onderschatte de capaciteiten van het U-bootwapen. Ook het opperbevel van de Kriegsmarine zelf gaf lange tijd prioriteit aan zijn slagschepen, waaronder giganten als de *Bismarck* en de *Tirpitz*. Om het gevaar van de U-boten te limiteren en het gerichte afvuren van torpedo's te bemoeilijken, kregen de geallieerde konvooien het consigne om zigzag te varen. Daar bestonden een twaalftal varianten van. Daarnaast waren er nog een hele reeks andere veiligheidsvoorschriften. Om de kans op detectie te beperken mocht er geen vuilnis gedumpt en zéker geen olie geloosd worden. Ook moest de uitstoot van rook zo gering mogelijk zijn. Milieubeschermende maatregelen dus om het vege lijf te redden.

De realiteit was dat de konvooien, zodra ze zich in volle zee bevonden, een makkelijke prooi werden. Maandenlang richtten Duitse bommenwerpers, U-boten en slagschepen haast ongestraft ravages aan. Vooral de U-boten, die ongemerkt en overal op de oceaan konden opereren, beleefden de laatste vijf maanden van 1940 hoogtijdagen of, in het jargon van de Kriegsmarine, een 'Glückliche Zeit'. Hoewel er toen nog niet zo veel operationeel waren, kelderden de U-boten in die tijd meer dan zestig geallieerde vrachtschepen, waarvan zes Belgische.

Een van die schepen was de *Ville d'Arlon*, die op 21 november 1940 vertrokken was uit Halifax, Canada. Tien dagen later werd konvooi *HX*-90, waarvan de *Ville d'Arlon* deel uitmaakte, ontdekt en achternagezeten door een groep van een achttal U-boten. Deze joegen eerst op de achterblijvers en ze ondervonden daarbij niet de minste tegenstand. Het enige escorteschip, de hulpkruiser *Laconia*, had immers kort voor de aanval begon, rechtsomkeert gemaakt zonder op aflossing te wachten. In de vroege ochtend van 2 december werd de *Ville d'Arlon*, die het vluchtende konvooi niet kon bijhouden, zwaar getroffen, waarschijnlijk door de *U*-47 van kapitein Prien, de meest gevierde duikbootcommandant van de Kriegs-marine. Hij had in 1939 het Britse vlaggenschip *Royal Oak* getorpedeerd, in de haven van Scapa Flow nog wel. Net zoals bij al zijn vorige aanvallen leverde Prien geen half werk: de *Ville d'Arlon* zonk snel en alle 56 opvarenden kwamen om. Het was het tweede hoogste dodental op een Belgisch koopvaardijschip tijdens de Tweede Wereldoorlog en samen met de *Portugal* was de *Ville d'Arlon* het enige schip onder Belgische vlag waarvan alle bemanningsleden omkwamen. De *Portugal* werd echter niet gekelderd door een U-boot, maar door een *summergibile*, een Italiaanse onderzeeër, op 20 januari 1941.

Een ander Belgisch schip dat ten prooi viel aan een summergibile was de *Kabalo*, die vanuit Groot-Brittannië op weg was naar Ghana en Sierra Leone in West-Afrika. Op 15 oktober 1940 werd het vaartuig in de buurt van de Azoren opgemerkt door de *Commandante Alfredo Cappellini*, de onderzeeër van kapitein Salvatore Todaro. Hoewel België nog niet officieel in oorlog was met Italië, gaf Todaro toch het bevel tot de aanval. De *Kabalo* was immers verduisterd, had boordgeschut en voer dus in dienst van de Britten, zo redeneerde Todaro. Al bij al was het een faire strijd, voor zover dat natuurlijk kan in oorlogsomstandigheden. Naar gewoonte gebruikte Todaro geen torpedo's, maar opende hij het vuur met zijn boordkanon – hij werd trouwens vanwege zijn 'softe' aanpak door de Duitse admiraal Dönitz spottend de 'don Quichote van de zee' genoemd. De *Kabalo* werd meermaals getroffen, maar het schip deed er haast een uur over voor het in de golven verdween. Tijd genoeg dus voor kapitein Georges Vogels en zijn 42-koppige bemanning om de twee reddingssloepen uit te zetten en zich in veiligheid te brengen. Op één man na, een Kongolese stoker die getroffen werd door een rondvliegende metaalscherf, overleefden alle opvarenden van de *Kabalo* hun ontmoeting met de Italiaanse onderzeeër. Een aantal

zeelieden werd de dag na het gevecht opgepikt door een Panamese tanker en de overige bemanningsleden waren overgeleverd aan de genade van de Italianen. Todaro gaf het bevel enkele zeelui aan boord te nemen, waar ze overigens behoorlijk goed verzorgd werden. De anderen werden in hun sloep op sleeptouw genomen. In de vroege ochtend van 19 oktober werden de bemanningsleden van de *Kabalo* allen netjes gedropt op Santa Maria, het oostelijkst gelegen eiland van de Azoren… waar ze enkele weken vakantie namen. Nadien scheidden hun wegen. Sommigen trokken opnieuw richting Groot-Brittannië, anderen, onder wie de kapitein, verkozen naar België terug te keren.

De meeste bemanningen echter hadden niet het geluk te worden aangevallen door een duikboot die onder het bevel stond van een man met humane principes. Vanaf begin 1940 vielen de onderzeeërs van de Kriegsmarine de koopvaarders aan zonder waarschuwing en bijgevolg zonder dat de bemanning de kans kreeg het schip te verlaten. Dat was nochtans wél gebeurd op 1 oktober 1939 met de Belgische koopvaarder *Suzon*. Omdat de *Suzon* mijnhout vervoerde – door de Duitsers als *contrabande* (verboden goederen) beschouwd – besloot de commandant van de *U*-35het schip te vernietigen, maar niet voor hij de opvarenden in de sloepen had laten stappen.

Een half jaar na het begin van de Tweede Wereldoorlog maakten de matrozen en officieren van de koopvaarders alsmaar minder kans de confrontatie met een U-boot nog te kunnen navertellen. Dat de Duitse onderzeeërs ongrijpbaar en onaantastbaar leken en snel en zonder mededogen aanvielen, veroorzaakte bij de geallieerde scheepsbemanningen een bijzonder grote angst. Roger Machielsen, auteur en zelf veteraan van de Belgische koopvaardij tijdens de Tweede Wereldoorlog, schreef hierover:
'Over het gevaar, over de steeds aanwezige doch onzichtbare dreiging van mijnen en U-boten, werd nooit gesproken – dit onderwerp was taboe! In feite had iedereen, op een of ander ogenblik, de bibber maar men liet dit niet merken. Iedereen hield zijn vrees voor zich. Men wilde zeker niet de indruk opwekken bij de collega's dat men een bange haas was en dus hield iedereen zich stoer.
Indien er dan toch iemand zich niet kon beheersen of zelfs opbiechtte dat hij schrik had, dan was zijn reputatie naar de bliksem en hij verloor alle vertrouwen bij zijn kameraden.
De vrees werd er niet minder om, zo men die schaamteloos ten toon spreidde of aan het klokzeel hing.
Het was een ongeschreven wet dat, op zee, een deur altijd moest openblijven. Er was geen beter middel om de mannen te ergeren dan een deur achter zich dichtklappen! Teveel treurige verhalen deden de ronde over schepen die getorpedeerd waren en waarbij de mannen de deur niet meer openkregen omdat deze door de spanning in de romp dichtgeperst zat.
Allerlei snufjes werden aangewend om een deur open te houden: houten wiggen tussen de scharnieren, deurkruk vastgesjord met een stuk touw aan de wand, houten plankjes vastgenageld op de trede – een deur moest openblijven!'(3)

Het alsmaar driester wordende optreden van de U-boten dwong de Britten om de konvooien beter te beschermen. Kort voor het uitbreken van de Tweede Wereldoorlog was de D.E.M.S.-sectie (Defensively Equipped Merchant Ships) opgericht, die de bewapening van de koopvaardijschepen moest organiseren en coördineren. Maar de sectie kreeg al vlug te maken met een probleem waar ook de landstrijdkrachten midden 1940 mee kampten: een acuut gebrek aan materieel. Dat de Britten de koopvaarders lange tijd vrijwel zonder bescherming lieten uitvaren was dus niet het resultaat van cynisme of onverschilligheid, maar bittere noodzaak.

Tot eind 1940 moesten de meeste koopvaardijschepen het stellen met enkele mitrailleurs, waarvan vele van het type Lewis, een degelijk wapen dat echter al dateerde van de Eerste Wereldoorlog. Zelfs als ze aan elkaar gekoppeld werden, boden deze mitrailleurs alleen een zekere bescherming tegen vliegtuigen. Pas vanaf begin 1941 werden de eerste

Oerlikons, makkelijk te bedienen lichte kanonnen, op de koopvaardijschepen gemonteerd. Daarmee konden ook duikboten die aan de oppervlakte kwamen, worden beschoten. De bediening van al dat geschut gebeurde door de D.E.M.S.-gunners, een bont allegaartje van inderhaast opgeleide matrozen tot goed getraind Royal Navypersoneel.

Begin augustus 1940 besloten de Britten ook de Belgische koopvaarders te bewapenen, op voorwaarde dat er genoeg geoefende schutters waren. Daarom richtten baron Boël en militair attaché Wouters zich tot Tenby, maar ze kwamen van een koude kermis thuis. De enigen die onmiddellijk inzetbaar waren, namelijk de kanonniers van het vooroorlogse Corps de Marine, waren maar met enkelen naar Groot-Brittannië kunnen ontsnappen. Bovendien had hun bevelhebber, majoor de Carpentrie, het niet nodig geacht de oversteek te maken. Behalve dit handjevol artilleristen, bood zich een groepje vrijwilligers aan. Het waren weliswaar militairen, maar ze hadden niet de minste ervaring met luchtdoel- en ander geschut. Dankzij de goodwill van de Royal Navy kregen deze 'amateurs' een degelijke opleiding en waren de eerste Belgische D.E.M.S.-gunners eind 1940 klaar voor de actie.

Omdat de Britten zelf met een ernstig tekort aan getrainde scheepskanonniers kampten, vroegen ze minister Gutt om 150 man uit Tenby te detacheren. Het verzoek werd echter afgewimpeld, ook al omdat de regering en de legerleiding vreesden dat het afstaan van personeel aan de Britten ertoe zou leidden dat ze de greep op hun kleine operetteleger, geschikter voor parades dan voor de strijd, nog meer zouden verliezen. Door die weinig solidaire houding hadden de Belgische koopvaarders heel het jaar 1941 te weinig schutters en bewapening. Pas in de loop van 1942 kwam daar verandering in. Toen ging de Belgische koopvaardij de opleiding van haar kanonniers meer ter harte nemen en ze stelde onder meer instructeurs ter beschikking van het Royal Navy-opleidingscentrum in Liverpool. Het jaar daarop kregen de Belgische D.E.M.S.-gunners bovendien versterking uit onverwachte hoek, namelijk van een groep landgenoten die in het Franse Vreemdelingenlegioen hadden gediend. Deze uitstekend getrainde en ervaren militairen hadden na de bevrijding van Noord-Afrika door de geallieerden niets meer omhanden en waren maar wat blij dat ze opnieuw in actie konden komen.

De toestroom van al dat nieuwe volk maakte het leven aan boord van de Belgische koopvaarders nog kleurrijker en gevarieerder dan het al was, en niet alleen de leeftijden lagen vaak erg ver uit elkaar – van de vijftienjarige bootsjongen tot de zestigjarige kok. Al van voor de oorlog was de Belgische koopvaardijvloot een smeltkroes van volkeren en talen. Machielsen vertelt daarover:
'Zo waren er – sinds voor de oorlog – een zeker aantal Wit-Russen op Belgische schepen. Het waren vroegere zeelui van de Keizerlijke vloot die uit Rusland waren gevlucht voor de bolsjevieken en die een bloedige burgeroorlog achter de rug hadden. Ze dreven onbewogen mee door de oorlog alsof het hen niet aanging.
Voor de Engelsen waren ze in 1940 niet erg betrouwbaar maar in juni 1941 werden ze plots gepromoveerd tot dappere bondgenoten. Onze Nicolaï's en Alexeï's haalden de schouders op en glimlachten eens geringschattend – niets kon hen nog verbazen…
Daarnaast had men de Spaanse republikeinen, die eveneens een gruwelijke burgeroorlog

hadden meegemaakt en in 1939 aan de klauwen van Franco waren ontsnapt door over de Pyreneeën te vluchten. Dit waren de mannen van "abajo Franco" en "arriba Espana" en die onvoorwaardelijk trouw bleven aan hun republikeinse principes.

Ze behoorden natuurlijk niet tot het geallieerde kamp, maar gezien zij de allereersten waren die tegen de "fascisten" hadden gestreden, werden ze door de Engelsen welwillend beschouwd als "friendly Aliens" en met rust gelaten.

De Britten waren wegwijs in alle havenbuurten van Albion en wisten steeds waar de goeie pubs waren. Ze kenden ook de winkels waar je kleding kon aanschaffen zonder "clothing-coupons".

Als men een amalgaam van Engelsen, Schotten, Ieren en Welshmannen aan boord had, ging alles best want dan speelde de nationale trots een neutraliserende rol. Het nadeel was dat ze soms uren konden redetwisten over de meest frivole onderwerpen of anders bleven ze dan maar de ganse avond kaartspelen. Het waren gebrevetteerde kroeglopers met het logisch gevolg dat ze chronisch in geldnood verkeerden… In het logies waren ze niet erg zindelijk en lieten alles rondslingeren. Het waren anders bovenste beste kerels en flinke zeelui.

De Kongolezen vormden een gesloten clan en hadden, buiten het dienstverband, weinig contact met de rest van de bemanning, temeer daar ze weinig of geen Frans spraken en, a fortiori, geen woord Engels. In de haven gingen ze steeds in groepjes aan wal en kwamen dan terug aan boord met allerlei gekke dingen, gaande van potten en braadpannen tot fietsen, grammofoons en naaimachines.'(4)

Behalve de vermelde nationaliteiten waren er bij de Belgische koopvaardij ook nog mensen uit tal van andere landen: Jemen, Marokko, Algerije, Martinique, Frans-Guyana, Senegal, Djibouti, Turkije, Zuid-Afrika, Australië, Brazilië, Cuba… Op de tanker *Lubrafol* golden het Nederlands en het Frans zelfs als minderheidstalen, aangezien de helft van de 44-koppige bemanning Amerikanen waren, die met hun medematrozen uit Ierland, Canada, Zweden en Noorwegen wellicht Engels spraken.

Het hoge dodencijfer bij de koopvaardij bevatte dan ook vele mensen die niet de Belgische nationaliteit hadden. In totaal overleefden 885 zeelui van de Belgische koopvaardij de oorlog niet: 90% overleed als gevolg van een vijandelijke aanval of een nautisch ongeval. Dat de zeelieden zelfs aan wal gevaar liepen, bleek begin mei 1941, toen de Luftwaffe verschillende keren de havenstad Liverpool bestookte. Bij die aanvallen werd ook het Belgisch Zeemanshuis getroffen, dat op 2 september 1940 was ingehuldigd door ambassadeur Cartier de Marchienne en minister De Vleeschauwer. Er vielen tientallen slachtoffers. Machielsen geeft daarvan de volgende akelige beschrijving: *'Op 4 mei rond 23 uur werd Great George Square grotendeels in puin gelegd waarbij het Belgisch zeemanshuis volledig werd vernield door een luchtmijn. De A.R.P. had twee dagen nodig om al de doden uit het puin te graven. Sommige lijken zagen eruit als vuile, bloederige poppen, maar de meeste lichamen waren verminkt of uiteengerukt. Armen, benen, rompen met opengebarsten buiken, werden eerst opzij gelegd en vervolgens werd de macabere puzzel gesorteerd tot men tot iets kwam dat ongeveer tot dezelfde persoon behoorde. De grijs-gele en kwalijk riekende lichaamsresten werden dan in een lijkzak*

geduwd waaraan een etiket werd geknoopt met de melding: "Remains of one body – Great George Square 5" – soms stond er op het etiket: "Remains of two bodies"; steeds werd de straat en het nummer genoteerd, dit voor verdere identificatie.'(5)

De Belgische koopvaardij betaalde dus vanaf het begin van de oorlog een hoog gelag voor de vrijheid. Terwijl de nagenoeg weerloze vrachtschepen probeerden om in de 'Atlantische jungle' te overleven, liep een aantal Belgische zeelieden met plannen rond om de vijand effectief te bestrijden. En zo belanden we weer bij Victor Billet, die, na zijn mislukte onderhoud met admiraal Dickens in augustus 1940, was blíjven zoeken naar mogelijkheden om een aparte Belgische marine-eenheid op te richten in de schoot van de Royal Navy.

Toen de deelname van de koopvaardij aan de geallieerde oorlogvoering op de sporen was gezet, ontstond er ook bij de Belgische regering enige interesse op dat vlak. Op 27 september 1940 kreeg Billet van André Van Campenhout, kabinetschef van minister van Economische Zaken Gutt, de toestemming om een dertigtal vissers te rekruteren en samen met hen een opleiding te volgen bij de Britse marine. Het was een hele heksentoer om dat kleine contingent samen te stellen, ook al omdat de Britten buitenlandse zeelui ronselden op individuele basis, voor dienst bij de Royal Navy en de Balloon Barrage, de afdeling sperballons. Hoe dan ook, op 22 oktober 1940 bevonden Billet en zijn manschappen zich in het kuststadje Skegness, 60 km ten oosten van Lincoln, om er een basisopleiding te volgen in het kamp HMS Royal Arthur, bijgenaamd Skeggy. Zes weken later mochten ze naar Lochinver in het noordwesten van Schotland, waar ze de knepen van het mijnenvegen leerden. En op 31 januari 1941 konden de 'stagiairs' eindelijk de zee op. Aan boord van de *Quentin Roosevelt*, een vijfentwintig jaar oude 'aviso' (verbindingsschip), bewapend met twee kanonnen, voerden ze maandenlang escorte- en patrouilleopdrachten uit tussen Schotland en de Faroereilanden. Tijdens deze vrij ongevaarlijke missies raakten de Belgen beetje bij beetje gewoon aan het leven op een Brits oorlogsschip.

Na dat eerste contingent kwamen andere groepen vrijwilligers via Skeggy aan op de *Quentin Roosevelt*. Onder hen bevonden zich trouwens opnieuw heel wat West-Vlaamse vissers. Met deze eerste contingenten zouden in 1942 de bemanningen van de twee Belgische korvetten worden samengesteld – daarover hebben we het meer uitgebreid in het volgende deel. Behalve de Quentin Roosevelt waren er nog enkele kleine patrouilleschepen waarop Belgen het zeemansbedrijf leerden, zoals de *HMS Phrontis*, die vanuit Scapa Flow diverse opdrachten uitvoerde: mijnenvegen, bevoorrading, oppikken van piloten…

Terwijl de gewone zeelui op de zeeën rond Schotland ronddobberden, liepen de officieren elders stage. Billet monsterde midden april 1941 aan op de *HMS Brilliant*, een destroyer die samen met onder meer de kruiser *HMS London* op Duitse kaperschepen joeg. Zo maakte de voormalige officier van de ferrydienst Oostende-Dover begin juni 1941 de interceptie mee van twee bevoorradingsschepen van de groep Scharnhorst-Gneisenau: de *Esso Hamburg* en de *Egerland*, beide door de eigen bemanning tot zinken gebracht. Andere Belgische officieren bevonden zich in 1941 als 'trainees' aan boord van Britse oorlogsbodems, zoals onder meer R. Jonckheere op de *HMS Broke* en M. Larose op de *HMS Verity*, een escorteschip van de machtige *HMS Rodney*. Larose had trouwens al in 1939 stage gelopen bij de Royal Navy. Een groepje officieren volgde tijdens de zomer van 1941 ook cursussen aan het prestigieuze Naval College in Greenwich en aan de Chatham Gunnery School. Onder hen bevond zich de 42-jarige Oostendenaar Georges Timmermans, een veteraan van Duinkerke en voormalig medewerker van Boël. Zijn contacten met hooggeplaatste Belgische regeringsambtenaren in Londen zouden Timmermans geen windeieren leggen.

Hoewel de opleiding van de eerste contingenten vrijwilligers nog niet voltooid was, achtten de Belgische autoriteiten begin 1941 de tijd rijp voor de oprichting van de Belgische Sectie bij de Royal Navy. Die kreeg officieel bestaansrecht door de Admirality Fleet Order van 3

april 1941. Wellicht tegen de verwachting van vele gewone zeelui in, kreeg niet 'pionier' Billet het commando, maar wel Timmermans. Hij werd begin juni aan de Britten voorgedragen door de invloedrijke Van Campenhout en enkele weken later bevorderd tot *lieutenant commander*, het equivalent van majoor bij de landstrijdkrachten. Met die graad maakte Timmermans aan boord van een Brits korvet tweemaal de overtocht tussen Groot-Brittannië en de VS, voor hij in april 1942 zelf op de commandobrug mocht staan van de Belgische *HMS Buttercup*.

Billet zou van Timmermans' benoeming pas officieel op de hoogte worden gebracht op 8 augustus 1941, en nog wel door de Britse admiraal Dickens. Voor de diep teleurgestelde Billet was het overduidelijk waarom hij naast de hoofdprijs had gegrepen. De regering mocht hem niet en nam hem zijn uitgesproken sympathie voor de koning kwalijk. Ook Billets brief aan premier Churchill, waarin hij impliciet de lethargie van de Belgische regering op de korrel nam, zou wel niet in goede aarde zijn gevallen. Die beweringen werden door de Belgische ministers in alle toonaarden ontkend, ook nog lang na de dood van Billet en na de oorlog, zoals onder meer in een brief van Pierlot van 27 juni 1960. Had de regering zich bewust van deze nogal eigenzinnige officier ontdaan, zoals ze dat wellicht ook bij Legrand had gedaan? We weten het niet met zekerheid. Maar Billets 'Belgische' carrière was in elk geval afgelopen. Hij vervolledigde zijn stage bij de Royal Navy en zou weldra aan de zijde van de Britten ten strijde trekken.

Eind 1941 as de Belgische Sectie klaar voor de strijd: 200 matrozen, officieren en onderofficieren zouden begin 1942 twee korvetten bemannen. Voor honderden Belgische zeelui en piloten was het inderdaad volop oorlog. Maar hoe zat het met de 'landmachters'?

Inséré 12/04/19 BOEKEN LIVRES BOOKS Enlevé 12/05/19

Op reis met pen en penseel

B O E K B E S P R E K I N G door Auteur : Frank NEYTS

Als nummer 116 in de reeks 'Werken van de Linschoten-Vereeniging' verscheen recent bij Walburg Pers het boek "Op reis met pen en penseel. Frans en Jan Hendrik Lebret als toerist naar Java, 1863". Bezorgd en ingeleid door Anne Leussink en Wyke Sybesma. Op 15 januari 1863 begon de Dordtse kunstenaar Frans Lebret, samen met zijn broer Jan Hendrik, aan een reis naar Java. Het doel hiervan was een bezoek aan hun broer Gerrit, suikerfabrikant te Pasuruan op Oost-Java. De broers Lebret ondernamen deze reis als toeristen. Ze reisden per trein naar Marseille, vervolgens met de Franse maildienst vanuit Marseille naar Alexandrië en via de zogenaamde overland route per trein naar Suez. Van daar gingen de broers per schip via Singapore naar Batavia. Het verblijf bij Gerrit op Kedawung werd door Frans en Jan Hendrik benut om diverse tochten in de omgeving van Persuruan te maken. Alvorens terug te gaan naar Nederland maakten de Dordtse broers in gezelschap van Gerrit en diens vrouw een rondreis van drie weken over Java, om 'alzoo een geheel overzigt van Java te hebben'. Op 15 juni 1863 kwamen ze, na vijf maanden van huis geweest te zijn, weer in Dordrecht aan. Frans Lebret hield een reisdagboek bij van deze onderneming. Op levendige wijze deed hij verslag over de dagelijkse beslommeringen aan boord en de diverse avonturen onderweg. Daarnaast legde Frans in meer dan honderd tekeningen, aquarellen en schetsen de voor hem onbekende wereld vast. Het reisverslag en de tekeningen worden door de Linschoten-Vereeniging voor het eerst integraal gepubliceerd. Een uniek exponent van een in de negentiende eeuw snel in populariteit toenemend fenomeen: het toerisme.

"Op reis met pen en penseel" (ISBN 9 789462 492752) telt 524 pagina's, werd als hardback uitgegeven. Het boek kost 65,68 euro. Aankopen kan via de boekhandel of rechtstreeks bij Uitgeversmaatschappij Walburg Pers, Postbus 4159, 7200BD Zutphen. Tel. +32(0)575.510522, Fax +31(0)575.542289. . In België wordt het boek verdeeld door Agora Uitgeverscentrum, Aalst/Erembodegem. Tel. 0032(0)53.78.87.00, Fax 0032(0)53.78.26.91, www.boekenbank.be , E-mail: admin@agorabooks.com.

Inséré 12/04/19 NIEUWS NOUVELLES Enlevé 12/05/19

Pas de fumée blanche pour le Caribbean d'Exmar

Le Caribbean FLNG est la première usine de liquéfaction flottante au monde.

Exmar, qui affiche des résultats trimestriels en recul, n'a toujours pas trouvé de locataire pour son unité flottante de liquéfaction.

Exmar , la compagnie spécialisée dans le transport maritime de gaz, a publié jeudi des résultats trimestriels en recul. L'EBIDTA de ses activités opérationnelles, consolidées selon la méthode proportionnelle est de 8,5 millions de dollars au troisième trimestre, contre 12,8 millions de dollars sur la même période en 2017. Et sur les neuf premiers mois de l'année, Exmar affiche une perte nette consolidée de 16,4 millions de dollars.

Ce sont ses activités dans le GNL (gaz naturel liquéfié) qui pèsent: leur EBIT est de - 9,4 millions de dollars au troisième trimestre 2018, contre +4,1 millions de dollars sur la même période en 2017.

Concernant son unité flottante de liquéfaction, le Caribbean FLNG, qui est toujours sans locataire, Exmar déclare prospecter plusieurs opportunités d'exportations de GNL, notamment pour YPF en Argentine. Mais rien n'est encore signé. "Le management est

convaincu que le démarrage des opérations aura lieu en 2019" indique toutefois l'entreprise dans son communiqué.

Inséré 14/04/19 DOSSIER Enlevé 14/05/19

Marine Bunkers: The end of the world as we know it

The world of bunkers is heading for rapid and fundamental changes and not just because of the 0.50% sulphur cap in 2020. While IMO and stakeholders are working hard to deal with this unprecedented global fuel specification change, discussions have moved on to just how soon we should phase out the use of fossil fuels altogether. By the time you read this, the key outcomes of the 72nd session of the Marine Environment Protection Committee will have been well publicised, but not necessarily well understood. Misunderstandings have been rife with regards to what the approval of a carriage ban of fuel oil exceeding 0.50% sulphur actually means. Has it changed anything? And what does it mean if the IMO agrees to ban the use and carriage of heavy fuel oil (HFO) as bunkers in the Arctic? And how on earth can we cut CO2 emissions from global shipping by at least 50% by 2050 to keep the world safe from catastrophic climate change?

Carriage ban set for adoption

As expected, MEPC 72 agreed to amendments to MARPOL Annex VI to prohibit the carriage of bunkers above 0.50% sulphur in bunker tanks on ships. It is set for adoption at MEPC 73, which should allow it to take effect on 1 March, 2020. The intention of this regulatory change is clear and simple, but has lent itself to a surprising amount of misinterpretation. The only thing that has actually changed is that the text of MARPOL Annex VI now prohibits not just the use of bunkers above 0.50% sulphur content, but also makes it an offence for ships to carry it in their fuel tanks. Nothing else is new. From January 1, 2020, only ships with an approved "equivalent arrangement" such as scrubbers are allowed to use high sulphur fuel oil (HSFO) and from March 1, 2020 they will also be the only ships allowed to keep HSFO in their bunker tanks. Strangely, some think the carriage ban means all ships, even those without scrubbers, can carry on buying and using HSFO until 1 March 2020. The reality, however, is that while all ships can still legally carry it until 1 March 2020, seeing as they are not allowed to use it after January 1, why would they?

Another common misunderstanding is that the carriage ban could prevent ships with scrubbers from carrying HSFO, or for ships to carry it as cargo. Neither is true, but it's easy to see how semantics could give rise to such beliefs. Part of the problem is that MARPOL Annex VI is split into separate parts which are interlinked, but the links between them aren't explicitly spelled out. The one we know best is Regulation 14, which, following the amendment to include a carriage ban, should read as follows from 1 March 2020: "The sulphur content of fuel oil used or carried for use on board a ship shall not exceed 0.50% m/m."

Other parts of MARPOL Annex VI deal with the exemptions from this general requirement. Scrubbers are allowed under Regulation 4 on equivalent means of compliance. Any ship with a scrubber will have this reflected its International Air Pollution Prevention (IAPP) Certificate. Moreover, it is possible for a ship to be given an exemption to conduct trials for sulphur emission reduction and control technology research under regulation 3.2 of MARPOL Annex VI. There could also easily be semantic misunderstandings about what fuel

oil actually means. In the global commodity market "fuel oil" is typically understood to refer to residual fuel oil from refineries, which is also the main ingredient in most bunker fuel today. In IMO-speak, however, it is defined in Regulation 2.9 of MARPOL Annex VI as follows: "Fuel Oil means any fuel delivered to and intended for combustion purposes for propulsion or operation on board a ship, including distillate and residual fuels." Hence, when IMO regulations talk about fuel oil, it is only talking about fuel intended for combustion purposes, or bunkers. This does not include fuel oil carried as cargo. However, at MEPC 72, IBIA co-sponsored a document with IPIECA to ensure the regulatory text amendment would not unintentionally prevent bunker barges from carrying HSFO for delivery to ships with scrubbers. Originally, the text proposed for approval read: "The sulphur content of any fuel oil used or carried for use on board ships shall not exceed 0.50% m/m." IPIECA and IBIA pointed out that this could be read as not allowing bunker barges to carry high sulphur bunker products as this would in fact be "fuel oil for use on ships". Our proposal received strong support as the need for a clear, unambiguous text was recognised, and the text eventually agreed specifies "fuel oil used or carried for use on board a ship," which should prevent the interpretation from including bunkers carried as cargo. So, if the carriage ban changes nothing regarding what ships should be doing to comply with the 0.50% sulphur limit, why bother? The purpose is to enable more effective enforcement of the 2020 sulphur cap and hence reduce the risk that operators will be tempted to cheat and gain a competitive advantage. It means port State authorities only need to prove carriage of non-compliant bunkers, whereas the current regulatory text means they would have to prove that it has been used in their jurisdiction in order for them to be able to sanction the ship.

Unprecedented fuel spec change

Global marine fuel test data provided to the IMO's sulphur monitoring programme are reported MEPC annually. They hint at the magnitude of the change that will need to happen in the global bunker supply chain in 2020. Test data for 2017 showed that only 1.61% of the residual fuels tested in 2017 were below 0.50%, while a further 3.25% of the samples tested in the 0.50% to 1.00% sulphur range. This suggests that supply of residual fuel meeting the upcoming 0.50% sulphur limit without significant blending is very limited. By contrast, prior to the global limit falling from 4.5% to 3.50% sulphur, only 13% of all residual fuels in the IMO sulphur monitoring programme tested above the new limit versus close to 98% at present. There's no such issue with marine distillates, where 95.02% of the tested fuel was below 0.10% sulphur content, meaning the vast majority of distillate fuels supplied at present meets the emission control area (ECA) sulphur limit. However, the IMO sulphur monitoring report also shows that the volume of residual fuels tested was 10 times that of distillate fuels, so come 2020, the vast majority of fuels supplied today will have to be replaced with fuels that are much lower in sulphur. That will be quite an undertaking in the supply chain and we will likely see many unfamiliar blends as the market strives to find the most cost-effective fuel solutions. MEPC 72 also heard that the International Organization for Standardization (ISO) has been given the green light to develop a Publicly Available Specification (PAS) in response to a request from the IMO to provide an ISO standard that can better reflect the quality of fuels with no more than 0.50% sulphur. Work is underway on PAS 23263: "Guidelines for fuel suppliers and users regarding marine fuel quality considering the implementation of maximum 0.50%S in 2020" and looks like it will be ready by the end 2019. The intention of PAS 23263 is to provide detailed guidance to fuel suppliers and users on the type of fuel blends that are anticipated to dominate the global bunker market in 2020.

Arctic HFO ban on the cards

MEPC 72 agreed that work will begin to develop a ban on the use and carriage of heavy

fuel oil (HFO) for combustion purposes by ships in Arctic waters, but first it needs to define what is meant by 'HFO'. Fuel blends complying with the upcoming 0.50% sulphur limit may contain both distillate and HFO blend components, so it will be critical to have a clear definition. A group of countries put forward a proposal to ban HFO use and carriage as fuel by all ships to which MARPOL applies when operating in Arctic waters no later than 2021, with a five-year delay in implementation for ships that have fuel tank protections in place. The ban would not apply to HFO carried as cargo.

The proposal was resisted by some countries which were ready to identify measures to reduce and mitigate the risk of HFO fuel spills, but not a carriage ban. There was also discussion on the potential impact of such a ban on maritime trade, in particular on Arctic communities and economies. MEPC 72 agreed that this should be assessed before adopting a future ban. MEPC 72 agreed on the scope of work for the Sub-committee on Pollution Prevention and Response (PPR), which meets for its 6th session in February 2019. PPR 6 has been tasked to develop a definition of HFO; prepare a set of guidelines on mitigation measures to reduce risks of use and carriage of heavy fuel oil as fuel by ships in Arctic waters; and on the basis of an assessment of the impacts, develop a ban on HFO for use and carriage as fuel by ships in Arctic waters, on an appropriate timescale. It has been widely reported that the use and carriage of HFO is already banned in the Antarctic (including as cargo). This is not strictly speaking correct: the Antarctic ban in Regulation 43 of MARPOL Annex I applies to heavy grade oil (HGO), which is defined as follows: . 1 crude oils having a density at 15°C higher than 900 kg/m3 ; . 2 oils, other than crude oils, having a density at 15°C higher than 900 kg/m3 or a kinematic viscosity at 50°C higher than 180 mm2/s; or . 3 bitumen, tar and their emulsions

PPR 6 has been instructed to take Regulation 43 of MARPOL Annex I into account when developing a definition of HFO. The key would be .2 in Regulation 43 (above). The current HGO ban in the Antarctic means all the marine fuel grades meeting current ISO 8217 marine distillate (DM) specifications would be allowed for carriage and use. Residual grades (RM), although several of them have a kinematic viscosity at 50°C below 180 cSt, all have a maximum density limit in excess of 900 kg/m3, which would not be allowed.

With extensive blending of various components anticipated to meet the 0.50% sulphur limit in 2020, it is anticipated that many blends classified as RM products will have viscosity below 180 cSt. Density may also be lower than we see for most RM grades today, though it seems unlikely that fuels designated as RM would be below the 900 kg/m3 at 15°C threshold. If the IMO agrees to use the current HGO definition for the Antarctic ban to define what constitutes 'HFO', density would become the key differentiator between fuels that can be used or carried for use in the Polar regions and those that would be banned. Ships equipped with scrubbers would still be able to transit Polar waters, but only if they empty out HFO from all their fuel tanks first, rendering scrubbers rather obsolete in Polar regions.

GHG: The beginning of the end

The heat was on for MEPC 72 to adopt an initial IMO strategy on the reduction of GHG emissions from ships. The world was watching. There were almost daily demonstrations outside and a warning emblazoned across the embankment of the River Thames facing the building: "IMO Don't Sink Paris". MEPC 72 was preceded by an intersessional working group (WG) to develop a draft text to be finalised by the Committee. It was clear that consensus would not come easy, but after two weeks of tough negotiations, during which many countries set out incompatible positions threatening to undermine the chances of arriving at an agreement, a compromise text was adopted. This sends a strong signal about the

IMO's commitment to phasing out greenhouse gas emissions from international shipping as soon as possible, consistent with the Paris Agreement temperature goals. The agreed overall "level of ambition" to reduce the sector's total GHG emissions by at least 50% by 2050 compared to 2008 levels was the most hotly contested point. It was viewed as far too weak for many, while a large number of countries objected to defining a figure at this stage as they felt it is premature and not Addressing MEPC 72 toward the end of the week, IMO Secretary-General Kitack Lim encouraged member states to adopt the compromise text although, as he conceded, it may not be completely satisfactory to everyone. Failing to adopt the Initial IMO GHG Strategy was "not an option," he stressed, reminding the Committee that the Initial Strategy is a key starting point; it is not the final outcome. IMO has agreed to present a revised GHG Strategy in 2023, when it has data from its mandatory fuel consumption data collection and a new IMO GHG Study to better define shipping's actual contribution to global GHG emissions. The Initial IMO GHG Strategy includes a vision statement: "IMO remains committed to reducing GHG emissions from international shipping and, as a matter of urgency, aims to phase them out as soon as possible in this century." It sets out objectives highlighting IMO's role in addressing GHG emissions and identifying what actions to take, while supporting the continued development of global trade and maritime transport services.

The controversial "levels of ambition" include not just the overall "at least 50%" sector reduction goal by 2050, but also a stated aim to reduce CO2 emissions per transport work, as an average across international shipping, by at least 40% by 2030, pursuing efforts towards 70% by 2050, compared to 2008. their impact on states" to be further developed. These start off with technical and operational energy efficiency measures, before transitioning to low-carbon and eventually zero-carbon fuels. The purpose is to make sure international shipping contributes its fair share in the global effort to keep climate change in check by limiting temperature rises to "well below" 2°C above pre-industrial levels and to pursue efforts to keep them to no more than 1.5°C. If this fails, the world as we know it could change dramatically and for some of the Pacific island states represented at the IMO, due to rising sea levels, it would literally mean the end. To achieve this aim, however, the use of fossil fuels would have to be phased out completely and replaced with carbon neutral energy sources. Just what the fuels of the future might be is not yet clear. We are a long way away as current supply of carbon-neutral options and technologies fall well short of global energy demand. The lyrics of 1987 hit from the rock band R.E.M. concludes: "It's the end of the world as we know it, and I feel fine." The task ahead of us, then, is to find the energy solutions that will make us feel fine. That means the end of the world as we know it for oil-based bunkers.

Source: International Bunker Industry Association (IBIA)

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London P&I Club issues ECDIS management guide

The London P&I Club has co-operated with London Offshore Consultants (LOC) to produce a guide to the proper management of ECDIS on board ships.

The driving force behind the publication, 'Is your ECDIS contributing to safe navigation or introducing risk?' is the increasing number of negative findings recorded by the club during

ship inspections, which are attributable to the manner in which the introduction of ECDIS on ships is being managed.

In the latest issue of its 'StopLoss Bulletin', the club noted that the more common failings identified include a lack of ECDIS content in the watch handover checklist, a lack of familiarity on behalf of bridge-watchkeeping officers with the manual position-fixing method, a lack of GPS position cross-checking, a lack of understanding of the safe application of deep-contour, safety-depth, shallow contour and safety contour, and a failure to revise the Safety Management System (SMS) to include ECDIS.

The club said, "The introduction of ECDIS can easily be assumed to be a simple application of beneficial technology. Indeed, it is a powerful navigational tool which, when well-managed and in the hands of well-trained and motivated users, can bring various enhancements to navigational safety. However, managers should ensure that the users of such systems, while potentially experienced navigators, are able to apply vital navigation skills such as manual position-fixing and parallel indexing in the ECDIS environment.

"While the skills of an experienced navigator can be presumed, familiarity with the electronic method of applying the ECDIS equivalent cannot. The importance of type-specific quality training cannot be overstated in ensuring that staff can perform their fundamental navigational tasks. Also, the 'at a glance' constantly updated nature of a GPS position, making progress along a planned course line in ECDIS, whilst a useful feature, can encourage the watchkeeping officer to neglect to cross-reference the satellite-derived position with visual and radar fixes.

"It has become evident that a strong management-of-change policy at the heart of SMS reduces the likelihood of such issues arising. A well-structured SMS policy and a good-quality, type-specific training programme can help avoid navigational safety shortcomings caused by the introduction of technology which ought to enhance safety," it concluded.

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Euronav upbeat on pre-IMO 2020 tanker market opportunities

Dirty tanker owner Euronav believes it "should have the market rocking on our side" in 2019 and 2020, even without scrubber-fitted tonnage in the global 0.5% sulfur bunker fuel environment, a senior executive said during its third-quarter 2018 earnings call. Although 2019 is expected to be a challenging year — as the market will face headwinds from the delivery of dirty tanker tonnage equivalent to 66 VLCCs, rising oil prices and geopolitical concerns — demand forecasts remain resilient and ton mile demand is expected to get a boost from the dislocation of sweet and sour crude grades from new low-sulfur fuel regulation, according to Euronav CEO Paddy Rodgers. "The freight market was challenging in Q3, but with a twist," added Chief Financial Officer Hugo de Stoop. "While freight rates were under pressure, they were higher than in Q2. The last time this happened was in 2014 and it preceded a very strong freight market."

Euronav indicated its average Q3 time charter rates for company-owned ships in the Tankers International pool was $31,374/d for VLCCs and $29,624/d for Suezmaxes, up 16.2% and 54.3% compared with Q2 rates, respectively. According to S&P Global Platts spot market data, freight on runs from the US Gulf Coast to Singapore improved 45% for VLCCs in October over the September average rate and 56% for Suezmaxes.

Euronav estimates the 2019 dirty tanker orderbook of the equivalent of 66 VLCCs will be absorbed through 18 VLCC equivalent units in scrapping, 4.9 units in IMO drydocking, 14 VLCCs in Iran floating storage, 8.4 vessels in Middle East exports and 22.2 VLCC equivalents in US crude exports, according to the company's Q3 results presentation. Supportive factors cited for the dirty tanker market in 2019 include robust oil demand growth of 1.4 million b/d during the winter of 2018/2019, per International Energy Agency forecasts; no new VLCC orders since May; an increase in trade routes and ton mile demand; storage opportunities for bunker fuel; as well as a growing need for the segregation of crude and bunker fuel at terminals and during transportation as the market prepares for the start of the global low-sulfur regime in January 2020. "Demand for and supply of crude has continued to improve as OPEC production has increased and the dislocation from Iranian sanctions has boosted and will continue to boost commercial tanker operators," Rodgers said. "[…] active recycling has kept net fleet growth negative so far" in 2018. New trade routes will arise from cross trades of low-sulfur crudes to regions with simple refining capacity where sour crude grades are available, such as in the Mediterranean and Black Sea region, Rodgers said, as well as from increased ton mile demand as US low-sulfur crude will be exported globally in increasing volumes. "A lot of the lifting coming out of the Gulf is not just a China story and Iranian sanctions are taken a bit more seriously," Rodgers said. "This feels like it's got legs." Rodgers believes that the analysis of IMO 2020 "has been completely monocular" and has been focused predominantly on scrubbers during the past six to seven months. Euronav opted not to install any scrubbers on the company's 69 tankers, which includes VLCCs, VPlus vessels, Suezmaxes and LR1s, as the company believes the promoters of scrubbers have been talking up a marine gas oil/high-sulfur fuel oil spread that will be irrelevant. According to Rodgers, refiners are not proposing that they will blend MGO with HSFO in a 7:1 ratio to produce low-sulfur fuel oil grades, instead he believes the nature of HSFO will change as it will become much more sour and will no longer have a 3.5% sulfur limit. In fact, anything could be dumped into the HSFO, as the IMO will no longer regulate 3.5% sulfur fuel and the sulfur could far exceed the current limit, he said. Rodgers cautioned that the use of high-sulfur bunker fuel with scrubbers may cause more engine problems than compatibility issues between low-sulfur blended fuels.

Source: Platts

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Ship Energy Efficiency as Competitiveness Factor for Revamping or Scrapping Decisions

Many vessels have been dismantled based on energy efficiency considerations, becoming an environmental problem and contributing to the non-sustainability of materials. Revamping of existing ships in view of improving their operational costs may be seen as a sustainable approach. The article focuses on the use of a specific procedure to determine and evaluate the ship energy improving actions and their technical and economic evaluation, therefore allowing the support to the revamping or scrapping decision. This article uses a number of existing ships as examples.

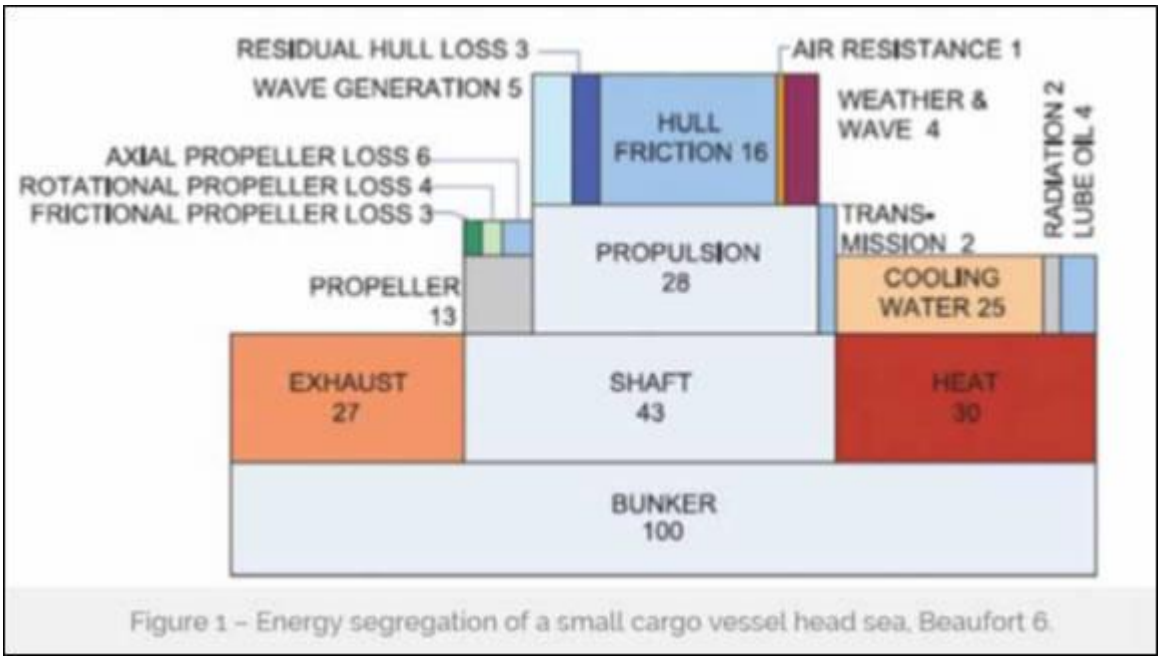

Figure 1 – Energy segregation of a small cargo vessel head sea, Beaufort 6.

Energy efficiency is intimately connected with fuel costs and these with the ship competitiveness in a market as well as with its environment. In 2007 shipping was responsible for approximately 3.3 per cent of global carbon dioxide emissions (1 billion tonnes). If shipping were a nation that amount would make it the sixth largest emitter of carbon dioxide in the world, surpassed only by China, the United States, Russia, India and Japan.

International shipping, excluding domestic shipping and fishing vessels, emitted 2.7 per cent of global emissions (870 million tonnes) that same year. The majority comes from cargo vessels, which account for 89 per cent of total gross tonnage of the global fleet. Ship emissions are not only limited to carbon dioxide and other pollutants including SOx, NOx, PM, VOCs and CO are also emitted and responsible for a costly impact on the societies such as cardiorespiratory and oncologic diseases. On average global shipping has grown by 3 per cent annually over the last three decades and emissions are projected to grow by more than 20 per cent by 2020 and 50 per cent by 2030, above 2007 levels. In the absence of emission reduction policies, emission scenarios predict a doubling to tripling of 2007 emission levels by 2050. However, a sizable portion of the current fleet is relatively young and will potentially be in service for many years to come. Approximately half of the world fleet is 20 years old or younger. However, by gross tonnage about half the fleet is 10 years old or younger.

Since the average life of a ship is 30 to 40 years, these ships will foreseeably be on the water for decades to come. Consequently, reductions in emissions that result from phasing in of more efficient vessels will be very slow. Having said that what can the industry do to overcome this problem? The answer is not straightforward as there is a number of limiting factors that may be contrary to directions not allowing for an easy solution. Despite the nowadays technical advances on ships systems, most of the ship-owners are still ordering their vessels with a minimum of energy saving systems, they are usually looking at the cheaper and not necessarily the most efficient. In fact, the cost of not investing in ship energy systems can cost many times their investment through the ship life. On the other hand, market freight rates are not helping shipping to order energy efficient ships, by the contrary, they push for cheap vessels and while constraining the left money to a minimum, so that no money for investment is available.

Finally, despite all the technological advances in the main and auxiliary machinery, the thermal efficiency of a slow speed two-stroke engine is just about 50%, which means 50% of the fuel is wasted. The overall thermal efficiency of a typical small feeder vessel of 6000 TDW is only about 33% efficient, which means that 67% of the energy is wasted.Summarising it can be said, that the solution does not fall over the ship-owners, but also over the market player's freighters and authorities that can implement a CO2 trading scheme, similar to the one existing for the shore industry. During the recent years, ships have been scrapped due to their alleged impossibility of not being sufficiently efficient in terms of energy, and have been replaced by vessels that unfortunately have only slightly higher energy efficiency. In fact, since about one and a half century ship energy efficiency have been just around 25 to 35%, this means that in the best, 65% of the energy is wasted in its heat form. Only a fraction of the fuel energy used by the ship's main engines actually ends up generating propulsion thrust. Due to further losses in the propeller and transmission system, only 28% of the energy from the fuel that is fed to the main engine generates propulsion thrust in this example. The rest of the energy ends up as heat, as exhaust, and as transmission and propeller losses. The majority of this remaining 28% is spent overcoming hull friction, while the remaining energy is spent in overcoming weather resistance and air resistance, as residual losses and for generating waves. Additional to this is the fuel energy for operation of auxiliary engines.

Why are the companies considering the problem of a ship replacement?

In particular, nowadays, ships are assets that need to generate a return on investment higher than the banks offered interest rates. Only when a ship is not generating the envisaged rates of profitability the investor may think about replacement of the unit. The costs of a vessel may be grouped into three main types: capital costs, fixed costs and operational costs, and the essential four parameters for the investing in a ship is the Cash flow generated, Costs to keep the vessel in operation, Duration of investment and Rate of return of the invested capital So, the vessel profitability depends heavily from its fixed costs (crewing, maintenance and insurances, and ship management in a proportional weight) and the operational costs (fuel, lube oils and port taxes). Therefore, the variation of the rate of profitability is controlled mainly by the vessels fixed and operational costs, in a way that maintenance depends from the vessel age as well as its insurance but also from its fuel efficiency.

However, the market is continuously setting new freight rates, based on the offer of transportation and economic performance of the various societies and markets. Considering, that crew's costs are optimised as well as ship management and port taxes, then the only optimisable variables are the fuel consumption and the maintenance. Typically ship owners are weighing the following possibilities to decide:
a) The first possibility is to keep the vessel owned for an additional period of time, but to do so it must be revamped in such a way that it becomes again profitable on the existing market ahead for n years;
b) Acquisition of a replacing vessel that will ensure for the next X years ahead the desired profitability this means that must be a highly efficient vessel. Although most of the times this will ask for extra investment in energy recovery optimisation systems. This decision is quite difficult to support in view of the market volatility and increased deal risk, at least in some marine transportation sectors.

Existing

Duration and magnitude of cash flows are characterized by Low Capital costs and high Operating costs. These ships need to have a sufficiently long remaining life to recover the revamping investments. The decision of investment on a revamping project must consider the following aspects:
a) That the existing ship in service is in satisfactory condition in terms of hull and machinery and machinery can be upgraded;
b) Identify which are the requirements of a revamping to bring the vessel to acceptable international environmental and operational standards;
c) The cost of money for the revamping project;
d) The expected rate of return on the revamping investment;
e) Future market requirements that ensure the desired occupancy;
f) Image of freighters;
g) The value of the vessel as it is, and its value after the revamping.

New vessels

Assuming the shipowner can invest in a new vessel in terms of energy efficiency to reduce the operational costs, and a more suitable design specification for the intended market where it will operate, like cargo volume, draft, type of hull more suitable, such investment decision must consider the following aspects:
a) High Capital costs and Low Operating costs;
b) The actual value of the ship to be replaced (that in the limit is it's scrapping value);
c) The unpredictability of the present market.

It is important to make a clear difference of what the situation is, during the replacement – revamping study of a vessel. It is important to clearly identify if we have a case of obsolescence or physical impairment.

By definition, obsolescence is used to describe the effects of changes in the environment external to a vessel. It occurs as a result of the continuous improvement of science and technology of the equipment on board, or the vessel itself. Usually when a ship is not any more capable to deliver or operate according to the new market requirements.

For example, structural oil tankers were replaced by double hull oil tankers. Whereas, physical impairment by definition refers only to changes in the physical condition of the vessel itself. It may lead to a decline in the value of service rendered, increasing operating cost, or a combination.
Passenger vessels may be refurbished and updated, and become very profitable, as these type of vessel have their particular type of client. This is the example of S.S. DELPHINE, which was launched in 1921, and is still in operation.

S.S.DELPHINE

For the investment analysis criteria, it is not usual to consider the physical life of the vessel to coincide with the period of investment, as it is usually assumed that the period of investment is sufficiently short to neglect possible random market changes that are usually considered before the investment on the vessel itself, although this may not any more acceptable for certain types of trades. Considering that a vessel has T years and it's expected useful life is E, then it is recommended to establish a time for investment:

n = E – T

But E needs to be set based on technical grounds by experienced technical personnel as this value varies with the type of vessel, within the type, dimensions, technical sophistication, operation scenarios, etc.

New Vessel		Revamping Existing Vessel	
Advantage	Disadvantage	Advantage	Disadvantage
Made to spec	Bank loan	Possibly no bank loan	May not fully satisfy market requests
Lower operational costs	Unpredictable markets	Revamping of existing machinery may be economically matched	Will need some tailor-made engineering
Longer life	Unpredictable interest rates	No need to implement the revamping actions at once	Vessel useful life shorter than a new vessel
Lower maintenance costs	Fuel uncertainty	Moderate investment	
Warranties		Better image	
Better image			Lower asset value
Higher asset value			

Table 1 – Comparison between a new and an existing revamped vessel.

How to evaluate to make a decision?

In reference to the figure 3 and 4, the shipowner needs to know exactly what to do to optimise the operational costs (fuel, Lubes) and in how much fuel cost may be reduced to make the vessel competitive on the market again. After a detailed energy audit evaluation of the existing vessel, a number of energy saving actions may be prescribed and simulated, and a budget may be developed. Such a budget needs to be prepared carefully as the investment needs to be realistic and looking for a number of years ahead. One other factor is the actual value of the ship as it is, and the money the shipowner can make, investing for example in another vessel.

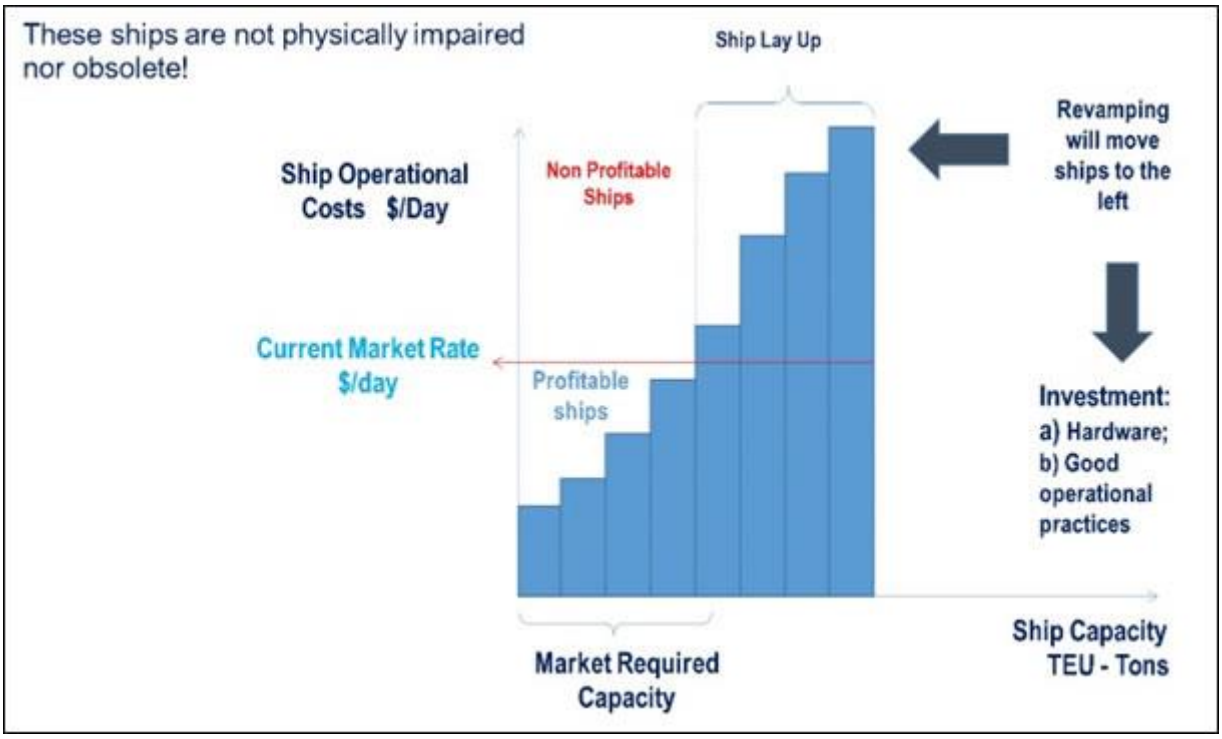

Figure 3 – Market exclusion of ships with excessive costs

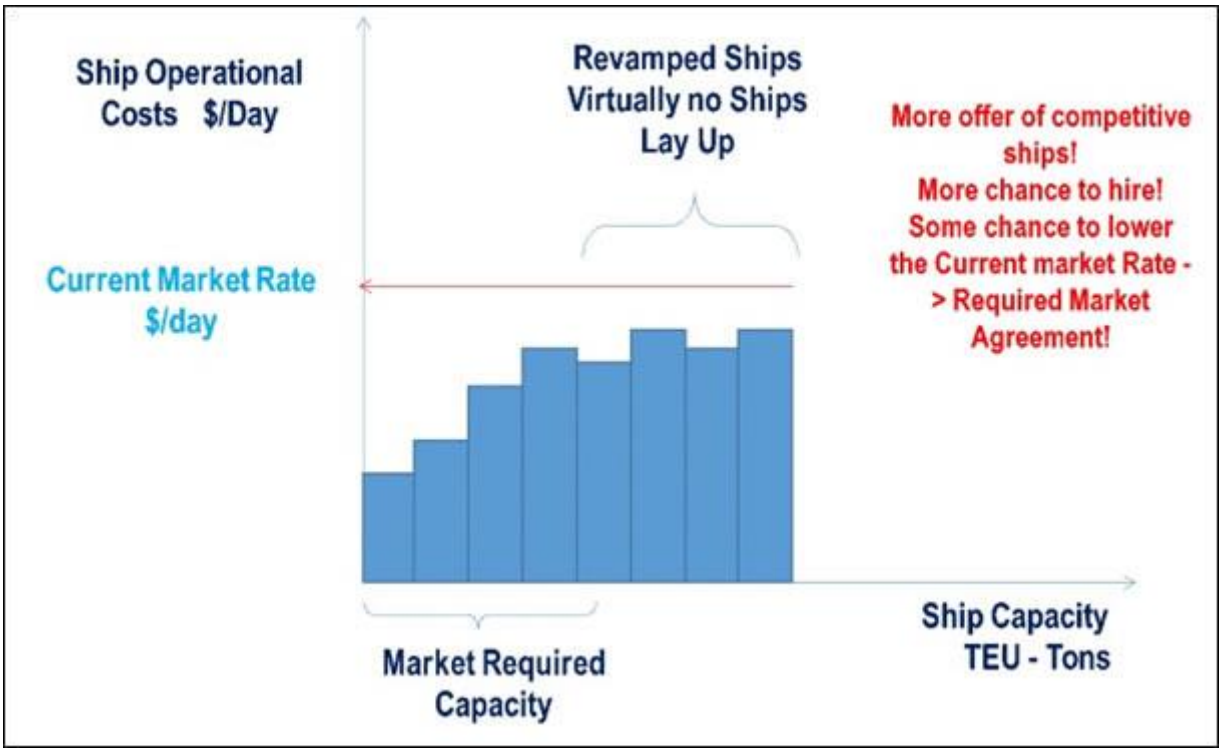

Figure 4 – Market acceptance of revamped ships

What can be done

Despite the introduction of EEDI (Energy Efficiency Design Index), the decision of investing in a new vessel is based on economic grounds. The new vessel must meet a certain specification, i.e., the buyer is looking to purchase a vessel for the least price as possible, that must satisfy all its needs in terms of business and regulations. Although, the offers must include a comprehensive package not only of machinery but also a package of energy recovery systems. In fact, considering figure 1, it can be said that 57% of the fuel energy content is wasted in the form of heat through the exhaust gases and cooling systems (water and oil). If the vessel is considered altogether, i.e. considering not only the main

propulsion system but also the auxiliary generators and boiler, then the vessel overall efficiency is even less.2Considering that hull, as well as other items, are in acceptable condition, the ship may have a market for a number of years to come and assuming that all operational good practices are in practice, let us concentrate on some examples of optimisation and recovery of energy on board.

Main engine adjustment to vessel operation. A low-cost optimisation action.

One of the most efficient ways of saving fuel is by implementing the called slow steaming. Although most main engines were not tuned to do so, it is important that a proper characterisation of engine running conditions, to check if the engine is being operated on its best running conditions. From the log books and in reference to engine shop test protocol or sea trial records, a graph showing the SFOC as a function of engine load is plotted, together with the running hours, as it can be seen on figure 5, the engine runs most of the time at 85% load, however its optimised SFOC is optimised for 75% load, therefore the engine adjustment should be made in such a way that optimum SFOC coincides with the engine load that occurs during a bigger number of hours of operation. In this case, a saving of 4g/kWh was achieved. For diesel generators, the same procedure applies, so the SFOC (g/kWh) curve minimum must match the engine load at which the engine operates most of the time. In the case illustrated in figure 5, the curve minimum should match the 85% MCR instead of 90% MCR, therefore saving some 3g/kWh. If possible the SFOC curve may be optimised for other points of load.

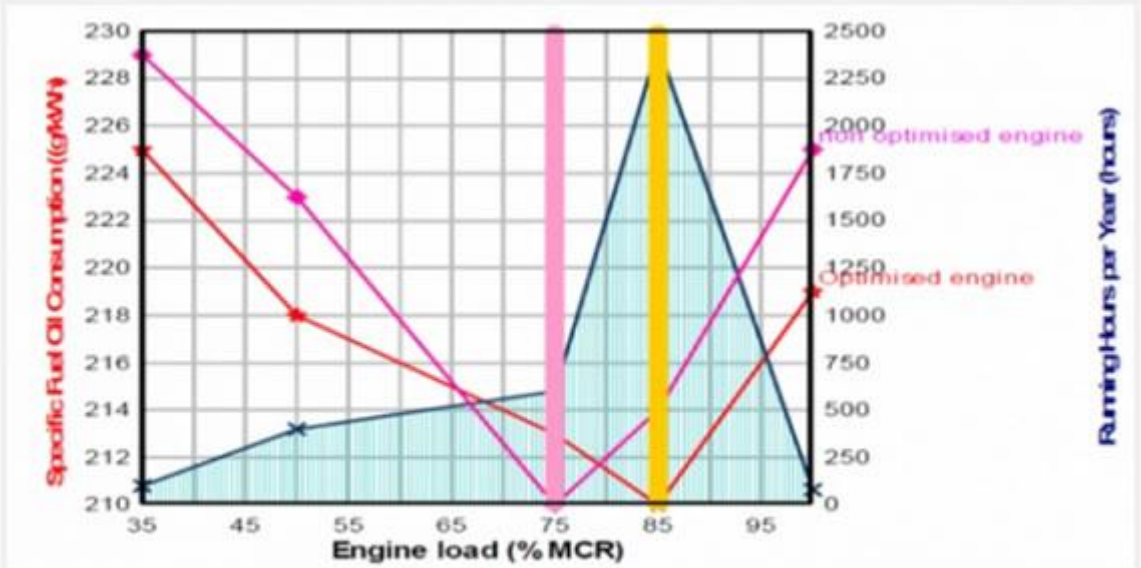

Figure 5 – Graph showing SFOC (g/kWh) and Running hours a year as a function of engine load.

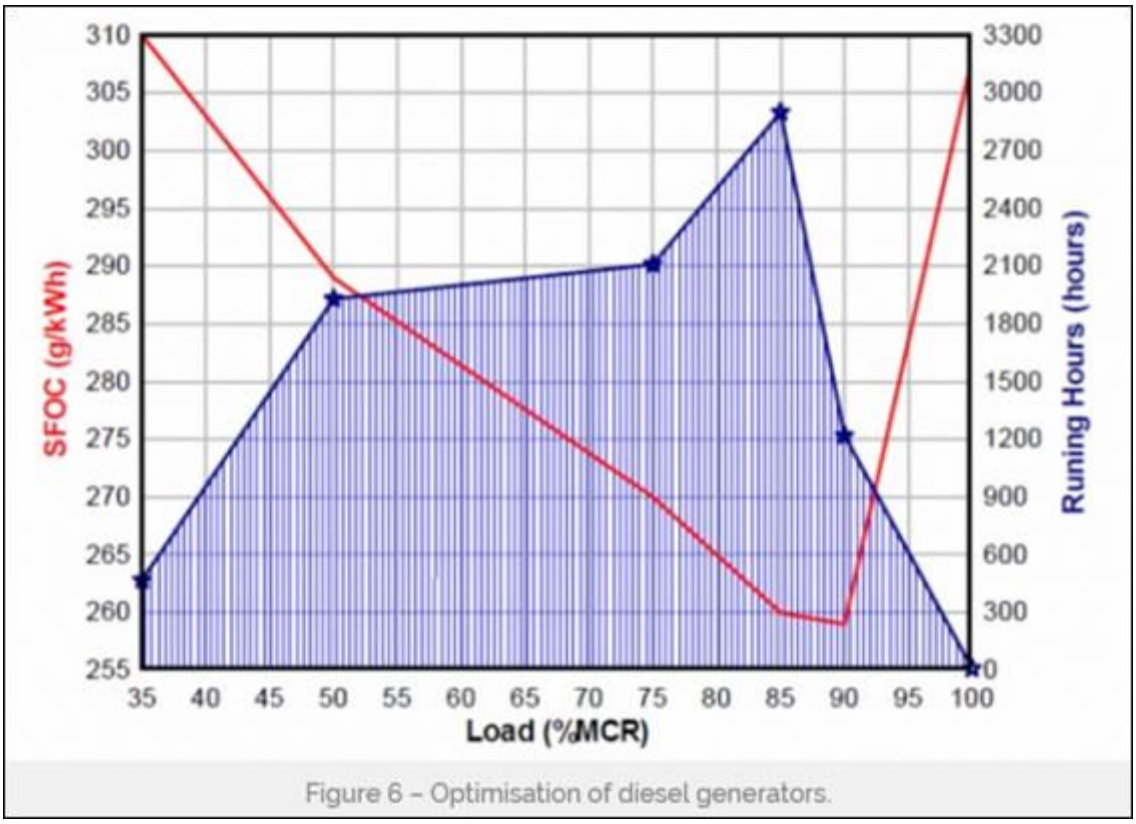

Figure 6 – Optimisation of diesel generators.

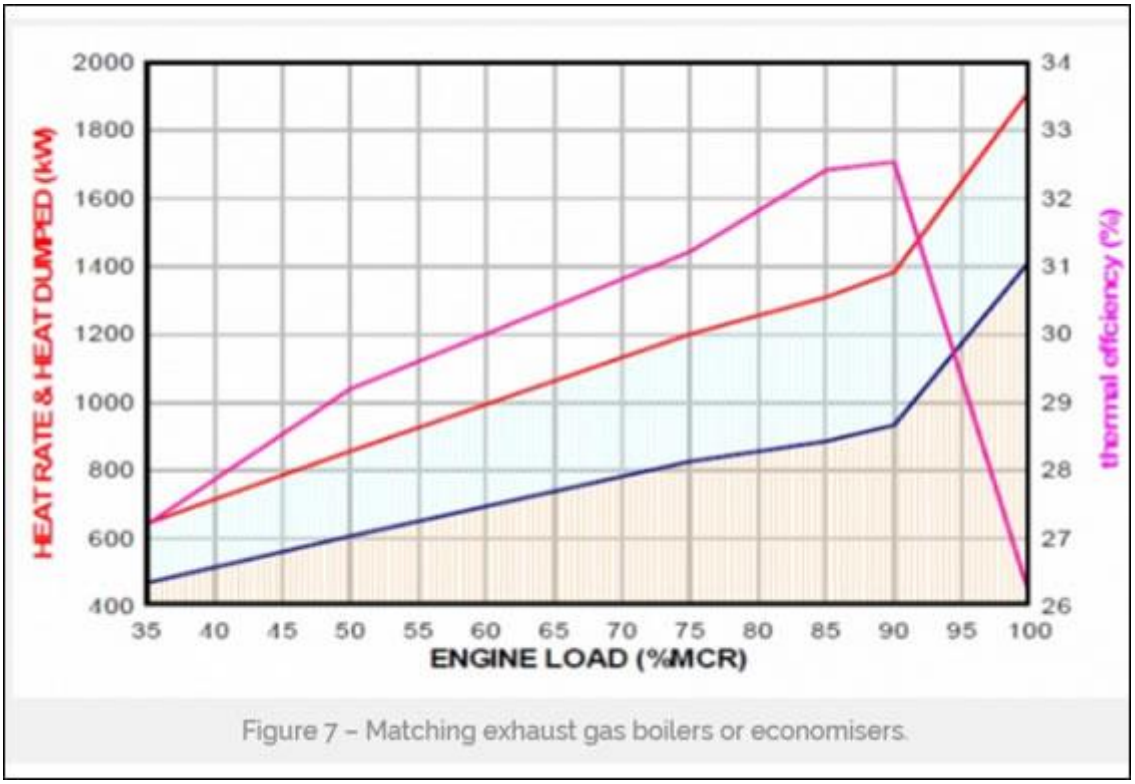

Figure 7 – Matching exhaust gas boilers or economisers.

Heat availability & thermal efficiency as a function of load and SFOC

Similarly, the matching of the economisers with the engine is absolutely crucial to optimise the heat recovery in a plant. The figure 7, represents the heat available for recovery (area under the blue curve), and the heat used for energy production corresponding to the area between the red and blue lines and finally the resulting diesel engine thermal

Cooling water system optimisation

In this system the Variable Speed Drives are controlled via a temperature sensor fitted, at the cooling water engine inlet, therefore seawater flow is adjusted as a function of engine need. One of the most important power consumers on board is the cooling water system, as they are systems that run most of the time, and very often, in particular, if they are in titanium, have a reduced heat transfer area (fewer plates, lower cost) equipped with a high flow rate pump. A 5000 TEU container vessel with a conventional cooling system for the generators, was based on two seawater pumps that run all the time at full capacity corresponding to 80 kW electric load, 340 days/year making the temperature regulation based on a thermostatic valve. Assuming HFO cost of US$350/Ton. The specific fuel oil consumption of the generators is 0.235kg/kWh. It is known that a VSD when fitted and properly adjusted, will produce an average energy saving of 20%, and the cost of acquisition, installation and commissioning of a double VSD (one for each SW pump) is US$130.000.

Uses of heat on board.

Particularly interesting for passenger's vessels, is the use of exhaust heat from the main engines to produce chilled water. Using an absorption chiller of Lithium Bromide (BrLi), the use of mechanical chillers for Air conditioning may be greatly minimised as per the following example. Use of auxiliary waste heat from exhaust gases of auxiliary generators for hotel and engine room requirements of a 350 passenger cruise vessel. The vessel has four electrical driven chillers each of 96kW electrical running with an average COP of 3, therefore delivering chilled water to 7ºC. The project considered the use of a marinised absorption chiller with an average COP equal to 1. Also from operation logbook, it is known that two out of the three electromechanical chillers are usually in operation, starting the third unit very often. Two out of the four diesel generators are always running no matter it is in port or at sea, therefore using exhaust gas boilers for the two generators, it is possible to drive the absorption chiller using the exhaust gas heat that is added to the existing auxiliary boiler drum. Using a WHRS (waste heat recovery system) to recover exhaust heat from the generators as hot water at 95ºC, it is possible to run one absorption chiller making possible to stop at least one electromechanical chiller of 130 kW electric power, and stop one of the diesel generators. The solution calls for one gas to water heat exchanger per generator. The savings achieved by this WHR action are in the order of US$ 394.000 a year avoiding the emission of 2693 tons of CO2 and payback time is only 0.9 months.

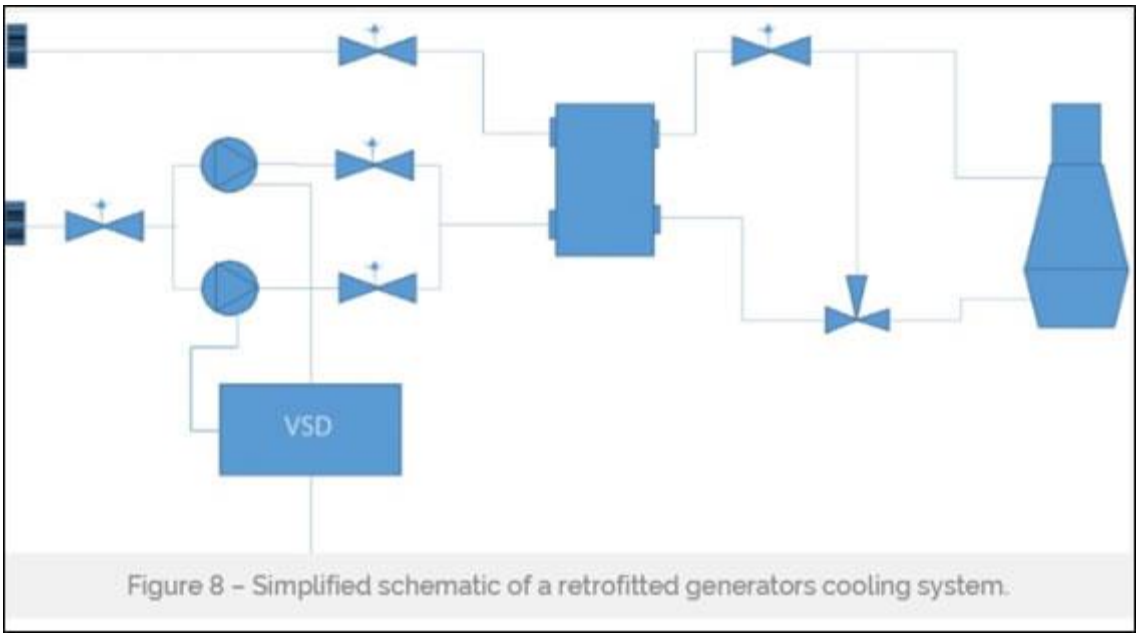

Figure 8 – Simplified schematic of a retrofitted generators cooling system.

Future work on advanced waste heat recovery systems and energy storage

The use of unconventional waste heat recovery, conversion and accumulation systems compatible with ship space and environment it is greatly desired, as diesel engines have a major reliability, torque and power which are unbeatable by any of the possible technology alternatives. The capture and storage in a useful form of the diesel engines wasted energy, is fundamental to improve the ships overall energy efficiency, namely the storage of energy in one energy vector such as hydrogen, that can be used as fuel on diesel engines, so it can be used as a fuel in port, virtually without pollution. The conversion system, maybe an ORC (Organic Rankine Cycle) that converts the thermal energy rejected at relatively low temperatures using organic fluids like R245fa with low boiling temperatures, and expanding it in a turbine, produce electric power that driving an electrolyser can produce hydrogen, that after being stored may be used as a fuel on diesel engines on board. This ORC solution maybe not the most efficient, but it is a way to recover about 10% of the wasted energy, so, there is room for its improvement.

Figure 9 – Aspect of the SW circulation cooling pumps and respective Variable Speed Drives (left).

Other propulsion devices

There are other systems that can prove effective, like the wave propulsion, i.e., the installation of one or two hydrofoils to help to decrease the required effective power. These devices can contribute to 30% of the propulsion power required.

Conclusions

One of the objectives of the present article is to make decision people think about the reasons that drive ship-owners to scrap ships that have many years of operation to go, some with less than their half operation life. Such decisions can hardly be supported in terms of operational costs, as most of those ships are upgradable, becoming again competitive in the today's markets. Today's markets are extremely volatile, and the buy of new decisions must be well supported on long-term contracts that do not exist anymore, therefore raising the risk of investment on a new ship, instead of revamping an existing one. Most of the Eco-ships do not bring, a wealth of improvements and therefore do not warrant the aimed competitiveness, but bring with them a great deal of investment risk. The adjustment of the main engines to the actual power-speed profile, in particular, if slow steaming or super slow steaming is being performed can reduce the SFOC in as much as 10%, contributing for lower fuel costs, lower emissions and lower maintenance costs. Depending on the type of vessels, cargo electric loads may be important, that is the case of container vessels. So, it is important to ensure that containers on deck are in good working order, but also that diesel alternators cooling systems are optimised in terms of their consumption. This can be assured by using VSD (Variable speed drives) Focus on energy optimization but also on energy recovery, it is a must for any type of vessel, so some given examples are just illustrative of what may be such an energy recovery system. The use of hydrogen technology may be a way to go, to store the recovery. As a final conclusion, a detailed ship revamping study must be based on a detailed energy audit and characterisation of the vessel under study, based not only on the existing systems but also on the log books. To make the correct decision it is fundamental to evaluate the advantages of revamping a vessel.

Source: Tecnoveritas

Inséré 20/04/19 HISTORIEK HISTORIQUE Enlevé 20/05/19

MICHEL (Jules-Achille), Officier de Marine

(Givet, 6.3.1821 - Saint-Gilles, Bruxelles, 13.9.1911).

À l'âge de douze ans, Michel fit ses débuts dans la vie comme dessinateur surnuméraire au bureau des Travaux Publics de la ville de Bruxelles. Le 1" décembre 1836, il est admis comme aspirant de 2e classe dans la Marine royale et embarqué à bord d'une canonnière-école de l'Escaut. Le 25 mai 1837, on le retrouve à bord de la Clotilde; ce trois-mâts barque de 380 tonneaux, appartenant à l'armateur anversois Spillaert, avait été nolisé en vue de l'instruction des futurs officiers de marine.

Le 17 juin 1837, la Clotilde appareillait d'Ostende pour les côtes d'Afrique; le voilier était commandé par le lieutenant de vaisseau Nuewens qui avait sous ses ordres 10 officiers de marine, 12 aspirants, 2 administratifs et 40 sous-officiers et matelots. La veille, pour rendre plus solennel le départ de la première tentative de navire école belge, le capitaine-lieutenant Lahure inspecta le bâtiment et fit prêter par le personnel serment de fidélité au pays.

Le voyage fut assez monotone et le commandant faisait régner une discipline de fer afin d'initier les jeunes marins à leur métier. Il fallut lutter contre le vent, les tempêtes et le

scorbut et seules les festivités du passage de L'Équateur, le 6 août, rompirent le train de vie coutumier. Le retour eut lieu à Ostende le 2 octobre 1837 ; les officiers durent rallier Anvers par chemin de fer, tandis que le bateau fut conduit sous pavillon neutre jusqu'à la Métropole, car la Hollande ne reconnaissait pas encore le pavillon belge. Michel suivit alors les cours de navigation, d'astronomie et de constructions à l'école navale instituée pour les aspirants de Marine. Ardent à l'étude, avec ses amis Dufour et Jacquot, il obtint l'autorisation de s'engager, à ses frais, à bord du voilier français l'Hydrographe ; le capitaine français Lucas avait organisé ce navire en une école flottante pouvant embarquer environ 75 adolescents.

Des prospectus alléchants annonçaient que le voyage durerait 2 ans et 3 mois ; on ferait escale dans de nombreux ports de l'Atlantique, du Pacifique et de l'Océan Indien. A l'issue du périple, les élèves seraient officiers de marine, ingénieurs, commerçants et diplomates accomplis.

L'Hydrographe quitta Paimbœuf le 24 septembre 1839, ayant à bord une soixantaine d'élèves. Le voyage très mouvementé conduisit les jeunes marins à Lisbonne, Funchal, Ténériffe, Gorée, Pernambouc, Bahia, Rio de Janeiro, La Plata, Montévidéo, puis le détroit de Magellan. Après des semaines de navigation difficile et un échouement de huit jours sur un banc de sable au port de Famine, on longea la côte de Patagonie et, le 23 juin 1840, le navire se brisa sur les rochers, à la sortie du port de Valparaiso.

Au cours du naufrage, Michel et ses compagnons eurent une conduite digne d'éloges; s'étant procuré quelques hardes, les jeunes gens rentrèrent à Anvers à bord de l'Industrie. De nouvelles déceptions les attendaient.

Michel, qui avait été nommé aspirant de première classe le 1°' avril 1840, fut réintégré dans la flottille belge le 18 janvier 1841.

On sait que d'une façon générale, les politiciens belges de l'époque n'étaient pas très favorables à la Marine royale. Cependant, en 1842, l'État put faire un arrangement avec la firme J.-B. Donnet d'Anvers dont le trois-mâts Macassar de 740 tonneaux put partir en Indonésie avec un équipage composé uniquement de militaires belges payés et nourris aux frais du pays. Le bateau était commandé par le lieutenant de vaisseau Van den Broecke et Michel faisait partie de l'Etat-Major avec le rang d'aspirant de 1ere classe.

Le voilier quitta Anvers le 18 juin 1842, croisa au large de Plymouth et se rendit à Singapour ; si le voyage se passa bien au point de vue maritime, il ne fut pas un succès commercial, car les hommes d'affaires belges n'avaient pas osé confier des marchandises intéressantes pour les pays visités. Le Macassar revint au pays après une année d'absence.

Le 31 décembre 1842, le ministre des Affaires étrangères, comte de Briey, avait signé un programme règlement établissant à partir de 1843 un service à voiles régulier entre Anvers, Singapour et Batavia. Aussi, le I1 novembre 1843, le Macassar toujours commandé par Van den Broecke repartit pour Batavia ; Michel était encore du voyage. Le début du périple fut assez mouvementé et ce n'est que vers l'Equateur qu'on trouva le beau temps. Au cap de Bonne-Espérance, la mer devint si houleuse que la vergue du grand perroquet fut brisée ; néanmoins, le détroit de la Sonde fut atteint sans difficulté. Le Macassar arriva à Singapour le 3 avril 1844. Là, des relations d'amitié s'établirent avec les officiers des navires français de la division navale de la mer de Chine. Les commandants français admiraient les efforts des marins belges pour faire connaître au loin les produits de l'industrie de leur pays.

Cependant, les résultats financiers de ces voyages étaient médiocres car, à part le verre à vitres, les autres produits intéressaient peu ces pays lointains. Le Macassar quitta Singapour le 15 avril pour arriver à Manille le 19 mai 1844; il y mouilla jusqu'au 17 juin, puis se rendit à Batavia pour y recueillir l'équipage du navire belge Charles qui avait été

pillé et incendié par des pirates près de l'île de Bornéo. Le retour eut lieu à Anvers le 22 novembre 1844.

Après un interim de quelques mois sur une canonnière, Michel fut à nouveau désigné pour participer à bord du Macassar à un voyage en direction de Batavia. Le 22 mai 1845, le trois-mâts partait d'Anvers sous les ordres de I 'enseigne Swarts; malheureusement, les commerçants belges, faisant preuve de manque d'audace et d'imagination, chargèrent le navire avec une cargaison identique à celle des voyages précédents. Ce fait entraîna un séjour de près de deux mois à Manille pour tenter de satisfaire aux exigences des commerçants. Pendant ce long séjour, un typhon mit le navire en péril.

Au retour, le Macassar toucha les rochers et dut se réfugier à Sourabaya pour faire la réparation par la délicate opération d'abattage en carène.

Pendant ce séjour, les nombreux Belges de Java qui n'avaient plus quitté l'île depuis 1830 accueillirent chaleureusement l 'équipage du Macassar.

Mais alors que le bateau était déjà redressé et amarré au quai, un grain le coucha sur le flanc, au point que sa quille émergea ; le navire faillit se perdre, cependant, il se redressa, l'ouragan passé, et fut de retour à Anvers le 3 août 1846.

Le 23 novembre 1846, Michel était promu au grade de lieutenant de vaisseau. Le 21 mars 1847, un arrêté ministériel le désignait pour la Louise-Marie chargée de la surveillance de la pêche en mer du Nord et, ensuite, d'un voyage pour la côte occidentale d'Afrique. Un peu avant ce départ, Michel, en compagnie de l'aspirant Olivier, vint souhaiter bon voyage à l'équipage du Macassar en partance pour Batavia. Olivier, glissant sur le givre, tomba dans l'Escaut; malgré l'obscurité, Michel plongea dans l'eau où le courant charriait des glaçons et sauva son ami d'une mort certaine.

Le voyage à la côte occidentale d'Afrique dura du 17 décembre 1847 au 19 mai 1848; après divers voyages de surveillance de pêche aux îles Feroë et au Doggerbank, Michel passa à la réserve le 29 décembre 1848.

En 1849, un envoyé de la Confédération germanique, le docteur Drakenfeld, bien au courant du marasme de la Marine royale, vint racoler une série d'officiers belges; il fit des propositions à Michel qui les refusa, désirant rester au service de la Belgique. Rappelé en activité le 20 avril 1849, Michel servit à bord de divers navires faisant du service à la côte d'Europe.

Par arrêté royal du 21 octobre 1855, un congé fut accordé à Michel qui servit pendant deux ans sur les navires des firmes Spilliaert et Notteboom; par son esprit d'organisation et sa connaissance profonde du métier, il rendit les plus grands services aux armateurs belges et, cela, dans des conditions souvent difficiles.

A partir du 28 septembre 1857, Michel repassa au service de l'Etat et fut nommé lieutenant de vaisseau de 1ère classe le 21 juillet 1860.

A la suite d'une entrevue avec le Duc de Brabant, Michel et l'ingénieur Félix Eloin furent chargés d'explorer I'Océanie en vue d'y créer une e Nouvelle Belgique e quelque part dans les archipels des Nouvelles Hébrides ou des îles Fidji. C'est ce même Eloin qui devint ultérieurement secrétaire de Maximilien 1er, empereur du Mexique.

Quoi qu'il en soit, le 23 février 1861, Eloin et Michel partirent aux frais du Roi pour Melbourne ; Eloin faillit périr en débarquant. C'est un certain Byrne, un aventurier, qui avait lancé l'idée de cette colonie. Il s'était associé avec un ancien diplomate belge, de la Hault, qui avait rédigé une Note sur l'établissement d'une colonie belge dans l'Océan Pacifique. Mais ils furent incapables de réunir les fonds nécessaires et on eut de la peine à reprendre à Byrne les documents relatifs à cette expédition.

Michel et Eloin tentèrent néanmoins de réussir l'entreprise ; les deux hommes quittèrent Sydney le 11 août et y revinrent le 30 novembre 1861 ayant visité les Nouvelles Hébrides,

l'archipel des Salomon et la Nouvelle Calédonie. Eloin repéra des mines intéressantes et rédigea un rapport favorable ; mais la tentative échoua. Il y eut trois raisons à I 'échec: par ses faillites antérieures, Byrne ne jouissait d'aucun crédit à Melbourne; de plus, la mission arriva au moment d'une crise économique dans cette ville; enfin, par méconnaissance du monde des affaires d'Australie, les conditions offertes n'étaient pas assez alléchantes pour attirer les industriels et les commerçants. Les deux envoyés retournèrent en Belgique, ayant quitté Melbourne le 26 décembre 1861.

Le 15 mai 1862, Michel fut attaché à la station d'Ostende. Le 31 juillet 1870, il devint directeur intérimaire de la Marine. Il fut promu capitaine de vaisseau le 1°' septembre 1870 et directeur de la Marine le 25 juillet 1871. Le 14 février 1877, il devint capitaine de vaisseau honoraire. Le 10 octobre 1878, il est nommé membre de la commission d'étude du canal Bruges-Zeebrugge. Inspecteur général le 31 mai 1879, il fut admis à la pension le 30 octobre 1887 et mourut à Saint-Gilles le 13 septembre 1911.

Michel fut un officier de marine exemplaire qui servit au loin le renom du pays et participa aux efforts d'expansion de la Belgique outre-mer.

Il était porteur des distinctions honorifiques suivantes: Commandeur de l'Ordre de Léopold; Commandeur de l'Ordre du Christ du Portugal; Chevalier de la Légion d'Honneur; Chevalier de l'Ordre du Lion néerlandais; Croix commémorative de la Marine; Médaille commémorative du règne de Léopold II.

30 avril 1971. A. Lederer.

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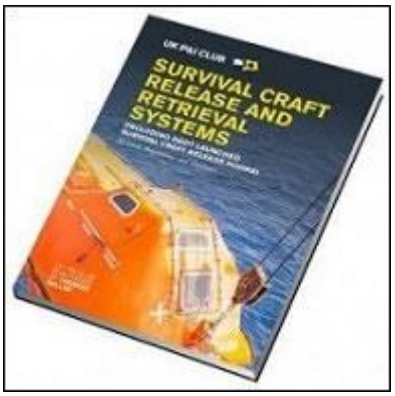
Inséré 20/04/19 BOEKEN LIVRES BOOKS Enlevé 20/05/19

Survival & Rescue crafts - a training guide for crew



Accidents involving survival and rescue craft are a continuing source of concern within the maritime industry. Various regulatory amendments have been made in recent years, many of which have addressed on-load release mechanisms in an attempt to prevent further occurrences.

In the last 10 years there have been at least 60 fatalities and 145 serious injuries around the world from testing of lifeboats. Lifeboat accidents occur most often during training and drills and involve not just the hooks, but also the entire lifeboat release and retrieval system (LRRS), including the wires, the gripes and pennants. In many cases, the cause is unsound procedures.

Identified causes of lifeboat accidents include:

- Lack of adequate training and knowledge
- Unfamiliarity with equipment
- Inadequate risk assessment and planning

- Systems that are not yet modified in accordance with SOLAS Regulation III/1.5
- Systems with design issues
- Incorrectly or poorly maintained systems
- Communication problems
- Complacency and failure to follow safety procedures

It is essential that the safety lessons learned from accidents involving lifeboat systems are passed on both to those serving at sea and to management ashore. An awareness of the current regulatory requirements and the available guidance concerning the use of lifeboats is important, as it ensures that appropriate onboard procedures and training are applied and carried out.

The Club's Loss Prevention team have therefore been working in conjunction with Witherby Publishing to produce the book "Survival craft release and retrieval systems." The team hope the publication of this book will help to reduce the numbers of accidents involving survival and rescue crafts in future.The book is intended as a teaching aid for crew and contains 20 incident case studies and detailed explanations of the regulations regarding survival craft release and retrieval systems. It also contains up to date guidance on a variety of issues relevant to lifeboat safety, including crew welfare measures that should be taken, explanations of how to operate and launch lifeboats, and instructions around best practice in maintenance and repair of lifeboats and related appliances.

All Members will be receiving a copy of the book, but if additional copies are required they can be ordered from Witherbys here

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Inséré 22/04/19 NIEUWS NOUVELLES Enlevé 22/05/19

Jan De Nul orders its third offshore jack-up installation vessel in China

Jan De Nul Group says it has placed order for its third Offshore Jack-Up Installation Vessel (the Voltaire) with COSCO Shipping Heavy Industry in China. With an unrivalled crane capacity of over 3,000 tonnes, this jack-up vessel will be able to support the renewable energy industry to build the future wind farms at sea. The vessel is set to be delivered in 2022. The global offshore wind industry is developing the next generation of offshore wind turbines. These turbines can be more than 270 metres high and are fitted with blades of 120 metres long. Offshore installation vessels currently available on the market are facing increasing difficulties to install these types of turbines due to the turbines' sizes and installation heights, as well as the ever-increasing foundation dimensions. Not only will this vessel be ready for the future of offshore renewables, the Voltaire will also be deployable for the oil and gas industry, and for decommissioning of offshore structures. The Offshore Jack-Up Installation Vessel is named after the French writer, historian and philosopher François-Marie Arouet, known by his pseudonym Voltaire and as an icon of the European Enlightenment of the 18th Century. Both Voltaire and our Jack-Up Vessel are pioneering within their field of expertise. Philippe Hutse, Offshore Director at Jan De Nul Group: "Upon her delivery in 2022, we will be capable of efficiently installing the next generation of offshore wind turbine generators and foundations. This investment is a logical step forward in the development of our offshore wind capacities. The third jack-up vessel will enable us to cope with our increased number of offshore wind projects worldwide. In addition, we

recognize the global trend towards larger wind turbines for increased green energy demands. The **VOLTAIRE** will have all the required specifications to meet the upcoming challenges." The Voltaire will be environmentally compliant by taking the same highly advanced emission control technology on board as all other Ultra-Low Emission vessels in the Jan De Nul fleet.

Breaking new ground in emission control technology

Jan De Nul Group faces environmental challenges by focusing on minimalizing its footprint of maritime activities on ambient air quality and climate. Air pollution is one of the biggest dangers to public health. Marine construction activities are mostly situated in the vicinity of coastlines, ports and harbours, and densely populated areas. Being a worldwide leader in marine construction, Jan De Nul Group breaks new ground in emission control technology. The latest generation of Jan De Nul vessels are equipped with a filtering technique for exhaust gases which complies with the stricter European land and inland waterways emission regulations EURO STAGE V. Whatever fuel or engine technology you use to run your equipment, you always have to filter the exhaust gases. Jan De Nul Group therefore designed the Voltaire running on gasoil but fitted with a highly advanced exhaust gas filtering system by means of a Selective Catalytic Reduction (SCR) system and a Diesel Particulate Filter (DPF). Jan De Nul already applied this pioneering emission control technology on two trailing suction hopper dredgers and three more, currently under construction. The Voltaire will be the very first seagoing installation vessel of its kind to be such an Ultra-Low Emission vessel (ULEv) and, moreover, EURO STAGE V certified!

Key features of this future-proof Jack-Up Vessel

The Voltaire is specifically designed to transport, lift and install offshore wind turbines, transition pieces and foundations. The vessel will have better operational limits compared to the existing Jack-Up installation vessels. Key features include a main crane of over 3,000 tonnes, an operating depth of approximately 80 meters, a payload of about 14,000 tonnes and accommodation for 100 persons. The vessel has four legs to lift itself above the sea level for stable working conditions and is equipped with a DP2 system. Compared to Jan De Nul's two other jack-up vessels, the Vole au vent and the Taillevent, this new vessel has almost 100 percent more deck space. Not only is this vessel capable of loading the

next generation of wind turbines and foundations, the larger deck space will also enable Jan De Nul to optimize installations at sea and to lower the fuel consumption and emissions.

Offshore wind experience worldwide

Jan De Nul Group can rely on its extensive European experience in executing offshore wind farm projects in Belgium, England, Sweden, Denmark, Finland and Germany. This European track record will be further expanded in 2019 with amongst others the construction of the Northwester 2 offshore wind farm in Belgium. This project entails the installation of the world's largest offshore wind turbines currently available on the market: 9.5 MW with a rotor diameter of 164 metres. An important milestone, not only for Jan De Nul and its Clients, but also for the offshore wind industry. Jan De Nul Group is not only active in Europe but operates worldwide. Mid-2018, Jan De Nul Group entered the Asian offshore wind farm market as the first European contractor, signing contracts for two major offshore wind farm projects in Taiwan: the Formosa 1 Phase 2 OWF project for Formosa Wind Power Co. (construction in 2019) and the Changhua OWF project commissioned by Taiwan Power Company (construction 2020). Both projects are currently under execution.

Source : Portnews

Inséré 24/04/19 DOSSIER Enlevé 24/05/19

Our FUTURE - Our OCEAN : Environmental & Commercial Benefits of SEAWATER LUBRICATED PROPELLER SHAFTS

A White Paper Published by Thordon Bearings Inc.

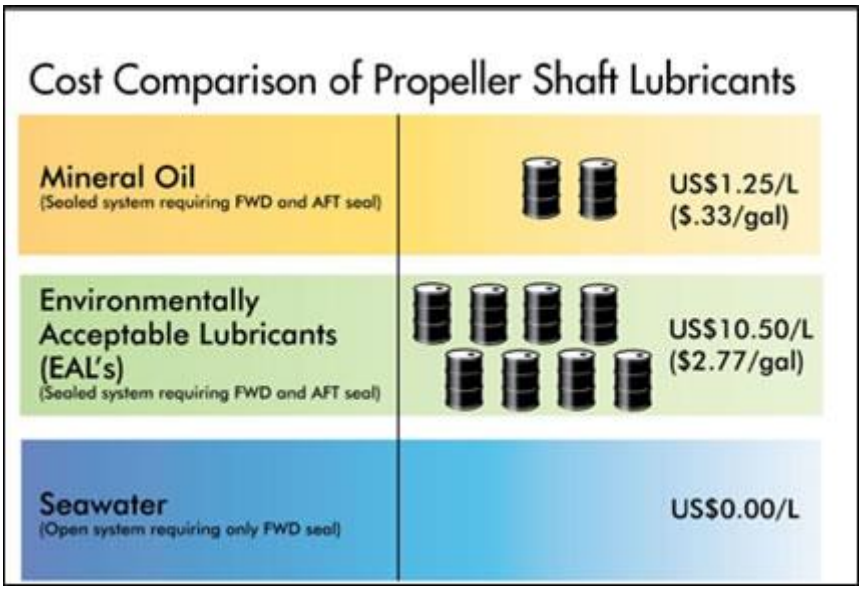
Despite the introduction of legislation to reduce shipping's impact on the oceans, together with shipowners' ever-present need to reduce operational costs; it is quite staggering that over 95% of all new commercial ships continue to be built with oil lubricated propeller shafts – a system that is not only operationally expensive but environmentally questionable.

While the low capital expenditure of this technology is an obvious attraction to shipyards and shipowners, this financial advantage is lost on operation. Firstly, the aft seal of an oil lubricated propeller shaft system is inherently prone to failure, resulting in a number of ships having to pay for drydock or in situ emergency repairs and seal replacements. And although it is difficult to put a definitive figure on the total number of vessels affected, regular reports in the international maritime press of commercial vessels undergoing propeller shaft seal repair is indicative of the scale of the problem.1 Keeping an oil lubricated system in good order means high operating costs spent on aft seal maintenance and replenishing the lubricant.

Indeed, according to a Lloyd's Register Classification Society report: "Defect statistics over the last 20 years indicate that the aft stern bush represents 10% of all shaft line failures, with the forward stern bush representing 4% of total failures. Interestingly, the aft stern gland (seal) and forward stern gland (seal) represent 43% and 24% of failures respectively. 2

While the repeated failure of this component is an obvious boon for ship repair yards and underwater hull maintenance companies, for the shipowner such unscheduled and unbudgeted drydocking fees and maintenance, along with any financial loss from vessel downtime and potential fines including financial impact on reputation, can render any savings gained from the initial expenditure of an oil lubricated propeller shaft as immaterial. An additional operating expense that shipowners need to budget for when selecting an oil lubricated propeller shaft bearing system is the amount of oil required to carry onboard to replenish the system as oil discharges occur.

A typical 'sealed' oil system, where the bearings supporting the shaft are mounted inside a hollow tube sealed with a lip type seal at each end, is filled with about 1500 litres (396 U.S. gallons) of mineral or synthetic oil. But rather than being considered a closed system, as it is designed to be, lubricating oil is commonly viewed as a consumable, with some shipowners accepting propeller shaft seal oil leakage as "normal operational consumption" and acceptable practice.

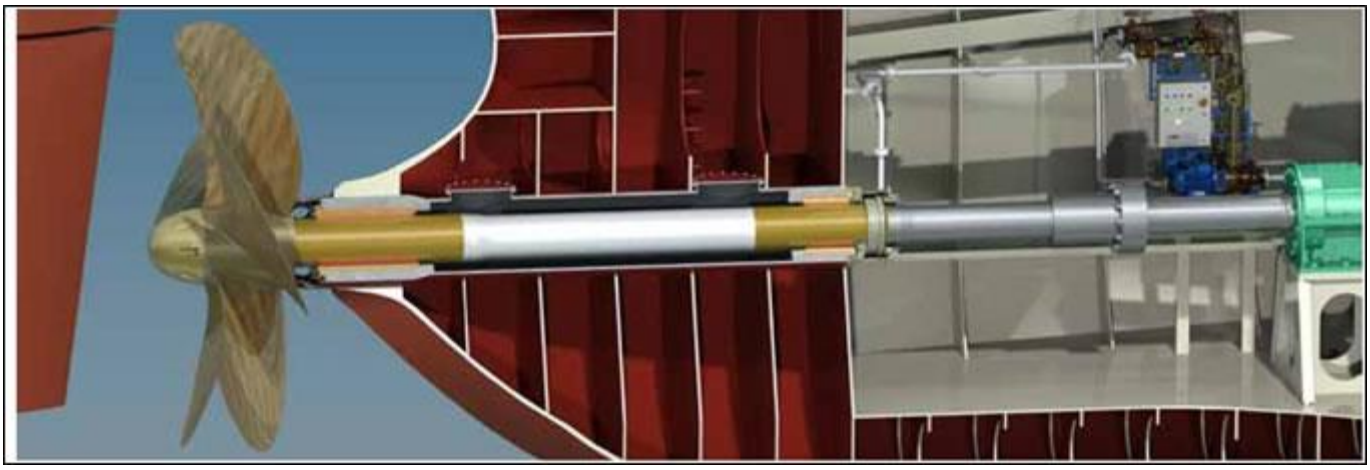


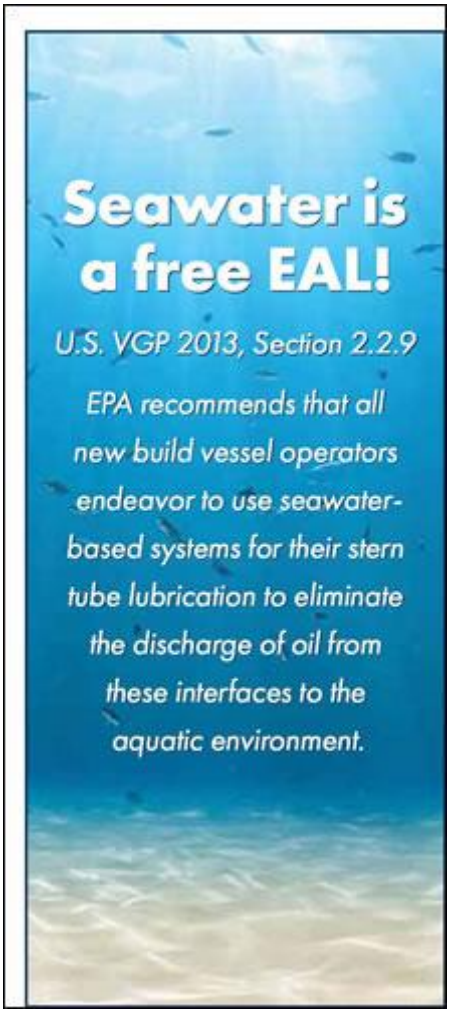
In the past, some Classification Societies provided Type Approvals that listed oil discharge rates of between 6 to 12 litre (1.6 to 3.2 U.S. gallons) per day3, which adds up to a colossal 244 million litres (64.5 U.S. gallons) of operational oil being discharged by commercial ships annually. That is equivalent to about five Exxon Valdez events every year. In 1989, the tanker spilled 41.6 million litres (11 million U.S. gallons) of oil into the Alaskan environment.

Aside from the environmental impact of this currently "legal and acceptable practice", which will be covered further in this paper, the cost of constantly topping up an oil lubricated system combined with the regularity of aft seal failure is estimated to cost the shipping industry in excess of US$6.5 billion over a twenty-five-year period. Such needless expenses can be completely negated or re-invested in the purchase and installation of, say, a couple of ballast water treatment systems or, indeed, a new asset for the ship owner.

The intention of this White Paper is not only to raise awareness of the commercial disadvantages and environmental damage created from the continued use of oil lubricated propeller shaft bearing systems, but also to offer a more cost-effective and more environmentally acceptable solution:

AN OPEN SEAWATER LUBRICATED PROPELLER SHAFT BEARING ARRANGEMENT.





With more than 90% of world trade carried by about 50,000 oceangoing ships of 1000dwt or more, the threat of oil pollution is a real and growing international concern. However, in the past ten years, there has been a seismic shift in attitudes towards our environment and in some parts of the world, stricter legislation is intended to reduce the impact of shipping on the marine environment.

Legislation is now in force to reduce ship-to-air and ship-to-sea emissions, yet while the discharge of, say, oily bilge waters has been heavily regulated, operational oil leakage remains 'legal', despite some 244 million litres (64.5 million U.S. gallons) of oil being discharged annually from ships operating oil lubricated propeller shaft systems .4 It is widely believed that this type of pollution will also fall under the regulatory gavel. A prime mover in reducing the impact of operational oil on the marine environment was the U.S Environmental Protection Agency, which in 2013 mandated that all vessels trading in U.S waters use an environmentally acceptable lubricant (EAL) in all oil-to-sea interfaces. However, as many seal manufacturers attest, it is not a case of simply replacing mineral oil with an oil-based EAL.

While compliant with revised Vessel General Permit (VGP) rules, a major concern is that not all oil-based EALs are compatible with traditional propeller shaft seals. Some EALs can be used based upon the seal supplier's recommendation, but it is often the case that shipowners need to upgrade the sealing rings or the seal itself. And if an alternative seal is required, then third party certification is recommended to determine oil-tight integrity which, of course, further adds to the cost of an oil lubricated propeller shaft system.

Another concern is that oil-based EALs absorb a major amount of water, which can place the longevity of the EAL into question. It could also affect the performance of system components, resulting in greater wear and tear due to corrosion. A question raised by one shipowner was "if an equipment [seal] manufacturer indicates that the working life of a

conventional seal is reduced when used with EALs, is it possible to use a non-EAL lubricant based on technical infeasibility?" The EPA says no .5

From an environmental perspective, the effect of these new EALs on marine life and birds must be considered the same as mineral oil-based lubricants in that their chemical composition can be toxic, with a viscosity that coats the feathers and fur of marine life causing hypothermia and death.6

What's more, the use of an EAL in a conventional oil lubricated propeller shaft system is not a cure-all to meeting corporate social responsibility goals, since the system's aft seal – the only barrier between the oil and the sea – can be damaged allowing lubricant discharges, if rope or fishing line wraps around the rotating shaft or if the propeller itself is affected by ice impact or grounding.

Not only can major seal damage cause the entire shaft lubricating oil (whether mineral or vegetable) to leak and pollute, but seawater ingress can corrode the shaft and bearings. Seawater dilutes the lubricant, reduces the viscosity and may cause damage to the bearing and possibly the shaft. It could also result in civil or criminal lawsuits being issued for unlawful pollution and an increase in insurance premiums.

It was reported in Britannia P&I Club's RiskWatch7 magazine that Brazil's Federal Prosecution Office is now treating even the slightest oil spill as seriously as larger pollution incidents, with the Club warning that "small spills do not necessarily correspond to small [insurance] claims".

In the article, Brazilian law firm Siano & Martins Advogados Associados advised shipowners to treat even a small spill with care, since 'contamination of habitats or organisms' can result in civil lawsuits and significant punitive damages. Britannia also reported that there could be no time limit on civil public actions due to the long-term effects of oil pollution on the environment.

THE SEAWATER LUBRICATED PROPELLER SHAFT

To prevent oil pollution, reduce ship operational costs, and to simplify installation and maintenance procedures, shipowners can now adopt an alternative oil/EAL-free shaft bearing lubricating system that uses seawater as the lubricating medium. The technology, common place in ships prior to the introduction of oil lubricated systems in the 1950s, uses seawater pumped through non-metallic polymer bearings before discharge back into the sea.

NON-METALLIC BEARINGS

Non-metallic bearings are at the heart of the award-winning8 seawater lubricated propeller shaft bearing system. The polymer alloy bearing is homogeneous (there are no layers of differing materials) with properties that are consistent throughout the wall thickness. The polymer alloy bearing is also highly abrasion resistant and designed with no grooves in the bottom half of the bearing to reduce running friction and improve low speed hydrodynamic film development. And although start-up friction is initially higher than an oil system, at rated shaft speeds, viscous friction acting on the rotating shaft is lower with seawater than with oil. This has been shown to lead to fuel savings9 and thus reduced emissions. A key benefit of the seawater system is that it negates the need for a damage-prone aft seal, while new developments in forward seals provides a level of system redundancy up to this time unknown with seawater lubricated bearing systems.

SHAFT CORROSION PROTECTION

A key difference between the oil and seawater lubricated system is that the latter technology requires a means to protect the propeller shaft against seawater corrosion. Fortunately, shaft coating technologies have significantly improved since the early days of water lubricated bearings. And today, two-part polymer coatings have been developed to keep the propeller shaft corrosion free. Typically, bronze liners, InconelTM or welded cladding are used in way of the bearings.

New developments of shaft coatings for seawater lubricated propeller shafts prevent completely the cracking of shaft coatings and subsequent saltwater corrosion. A homogenous shaft coating offers a much higher level of corrosion protection and is three to nine times more flexible than traditional wrapped propeller shaft coatings. The effectiveness of the coating system was confirmed in extensive tests subjected to a harsh 180 degree bend. It failed to crack. The development in new shaft coatings was a major factor in the decision by Classification Societies to extend shaft withdrawal periods of seawater lubricated propeller shafts making them technically equivalent to oil lubricated propeller shafts.

Corrosion protection may mean higher up-front costs than an oil lubricated system but the elimination of the aft seal and associated maintenance, together with the obsolescence of oil/EAL and the requisite storage, sampling and disposal, these costs are recouped with a three to five year return on investment.

WATER QUALITY PACKAGE

The quality of the seawater supplied to the shaft bearings is critical in ensuring long predictable bearing wear life. With this in mind, a self-contained supply, conditioning and monitoring package is available to ensure that clean water is consistently delivered to both the forward seal and the bearings.

Designed for full integration into the ship's control and monitoring systems, the Water Quality Package uses centrifugal forces to remove particulate from the water stream. Suspended solids with a specific gravity of 1.2 or higher and greater than 100µm are removed.

The system also incorporates a flow alarm to alert the operator of low water flow. The Water Quality Package supplies seawater to the propeller shaft bearings for lubrication and cooling at a minimum flow rate of 0.15 litres/minute/mm (1 USGPM/inch) of

shaft diameter. This conditioning and monitoring package controls the bearing environment similar to an oil lubricated system.

FORWARD SEAL

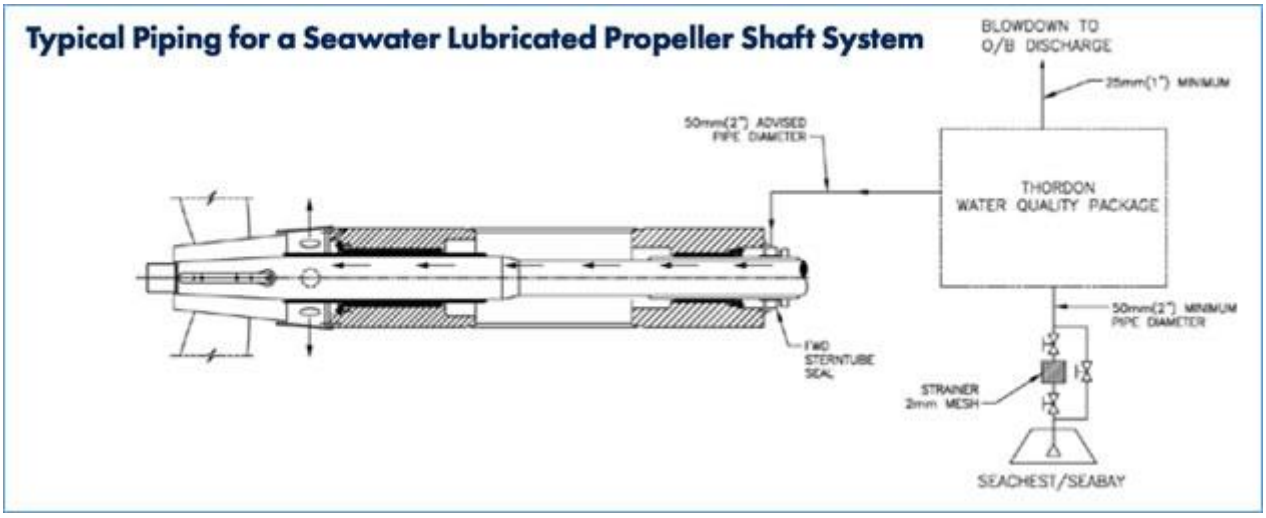
In a seawater lubricated system, there is only one seal, to prevent seawater from entering the engine room. New forward seals are designed for a maintenance free life meaning that they are able to provide no visible or minimum leakage, long life and high operational reliability. Seal faces of silicon carbide are intended to last the life of the vessel. If there is a face failure, a Safe Return to Port Emergency Seal can be engaged. The seal is not meant to be completely water tight, but unlike other "maintenance seals", the shaft can be rotated and the vessel can proceed to a repair facility on its own power, at 50% of shaft rpm.

BEARING CONDITION MONITORING SYSTEM

In an open seawater lubricated system, Class rules may require a bearing monitoring system that enables real time observation of propeller shaft bearing behaviour by measuring the displacement of the shaft position in time due to bearing wear, and comparing it with the initial value at installation. The measured data is then displayed on the Control Panel located remotely in the vessel's engine room or bridge.

There has been substantial growth in the newbuild and retrofit market for seawater lubricated propeller shaft bearings, with references on more than 2000 vessels, ranging from cruiseships, tankers and containerships to naval vessels and workboats. Yet still the vast majority of the global commercial fleet continues to operate with older technology that is costly to maintain and operate and detrimental to the environment and corporate reputations.

One of the primary reasons for the industry's slow adoption lies, unfortunately, with the shipbuilder. While shipowners drive any equipment decision, shipbuilders' unfamiliarity with the technology is placing a premium on the newbuild or retrofit cost of a seawater lubricated alternative. In fact, when shipowners have inquired about it, many have been discouraged by the shipbuilders unfamiliarity of a new open seawater lubricated propeller shaft system that ultimately is less complex and time-consuming to install than the oil-based system. The industry will need to provide further education to the shipyards that building a ship with seawater lubricated propeller shafts actually takes less time to build and has fewer components than a ship with an oil lubricated system.



While seawater lubricated propeller shaft bearings have a long history in the shipping industry, the problems associated with traditional seawater lubricated bearings had created a barrier to the wider adoption of seawater lubricated systems, despite the development of new bearing materials, shaft coatings and water conditioning technologies.

Today, a seawater lubricated propeller shaft bearing system offers considerable advantages to shipowners and shipbuilders, not only in bearing wear life predictability and reliability, but they are also much cheaper to maintain and operate.

The equipment cost to build a new ship with an open seawater lubricated bearing system is typically 15-20% higher than an oil lubricated system. The higher cost is related to the corrosion protection of the shaft and stern tube. Shaft liners are typically an expensive part of a shipowner‘s decision to use a seawater lubricated system at the newbuild stage. Bronze liners are used in way of the bearings although welded cladding and InconelTM have also been used.

To operate a seawater lubricated bearing system, there is no oil/EAL replenishment required; no AFT seal lip replacement; no AFT liner adjustments, machining or replacement; no oil sampling, processing or record keeping; and no oil or oily water disposal. The concerns of oil discharges and any pollution risk are eliminated. The water lubricated shaft line is a simple solution and not complicated by the oil system’s compressed air multi-lip seal system with different storage tanks for offshore disposal of oil.

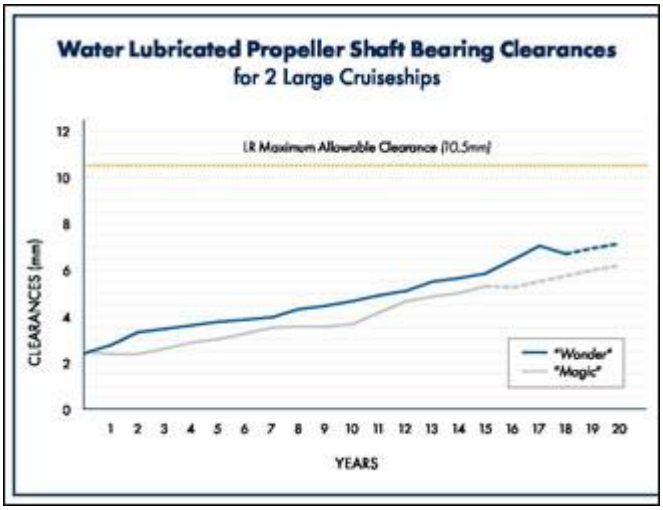
The higher up-front costs are recouped, as the maintenance costs to operate a seawater lubricated bearing system are much lower than an oil system along with being compliant with all pollution regulations such as the U.S. Vessel General Permit (VGP).

Typical Ship Life Cycle Cost Comparison

Bulk Carrier *(650mm shaft diameter)*	Seawater Lubricated Propeller Shaft Bearing System	Oil Lubricated White Metal Propeller Shaft Bearing System
Cost of Acquisition *(Bearings & Related Shaft Line Equipment)* & Installation	$240,000	$205,875
Cost of Ownership *(25 years)*	$130,000	$400,050
Total	**$370,000** *+ Zero Pollution to our Seas*	**$605,925**

No Oil Leakage - Zero Pollution Risk

A seawater lubricated propeller shaft bearing system eliminates oil, as the lubricant is seawater. There is no aft seal, no storage of oil, no sampling of oil, no disposal of oil or costly EALs and no worry of seawater ingress contaminating the oil.



Controlled Bearing Environment

Advances in seawater lubricated shaft bearing technology have resulted in an adequate supply of clean water consistently delivered to both the forward seal and the propeller shaft bearings. A controlled supply of clean water allows long predictable bearing wear life that is guaranteed for 15 years.

No Expensive Seal Repairs

A seawater lubricated shaft bearing system eliminates expensive aft seal repairs resulting from a damaged aft seal. Emergency seal repairs can cost anywhere from US$150,000 to US$300,000 or may even require a drydocking.

Future Compliance

A seawater lubricated propeller shaft bearing system meets current and anticipated environmental requirements. It is more economical to adopt the technology at the newbuild stage rather than having to convert your vessel mid-life when more stringent regulations enter into force.

Shaft Withdrawal Periods

Most Class Societies consider a seawater lubricated propeller shaft bearing system to be technically equivalent to an oil lubricated system. Based on monitoring criteria, shaft withdrawal periods for seawater lubricated systems can now be extended similar to oil lubricated systems.

Survivability

If a serious bearing failure occurs with a white metal or reinforced plastic bearing, significant heat is often produced and there can be damage to the shaft as well as the bearing. A seawater lubricated polymer bearing softens at a lower temperature than

metallic or other non-metallic bearing materials, excessive amounts of heat are not produced in failure mode and shaft damage is avoided.

Globally Supported

In-house design and engineering support is available for seawater lubricated propeller shafts systems with a global after-sales service capable of providing on-site installation and technical support wherever it is required.

Classification Society Approvals

ABS (American Bureau of Shipping) BKI (Bureau Klasifikasi Indonesia) BV (Bureau Veritas) CCS (China Classification Society) CRS (Croatian Register of Shipping) DNV GL IRS (Indian Register of Shipping) KRS (Korean Register of Shipping) LR (Lloyd's Register) ClassNK
RINA (Registro Italiano Navale) RRS (Russian Register of Shipping)

Proven Operational Performance

Current ship owners using seawater lubricated propeller shaft bearing systems include:

Princess Cruises (USA)
BP Shipping (UK)
Groupe Desgagnés (Canada)
Carisbrooke Shipping (UK)
Seacor Marine (USA)
ConocoPhillips (USA)
CSL Group (Canada)
COSCO (China)
NY Staten Island Ferries (USA)
Tropical Shipping (USA)
BC Ferries (Canada)
Lomar Shipping (UK)
Grimaldi Group (Italy)
Viking Cruise Lines (UK)
Alaskan Ferries (USA)
Polsteam (Poland)
Erik Thun Group (Sweden)
Algoma Corp. (Canada)
Blue Star Ferries (Greece)
+ Over 40 Navies worldwide

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Inséré 26/04/19 NIEUWS NOUVELLES Enlevé 26/05/19

Analysis of fuel samples

2018 saw a huge increase in bunker quality disputes, starting around March/April with bunkers stemmed in Houston and gradually spreading to different regions and countries. It is also predicted that there may be issues regarding fuel quality due to blending in order to provide IMO 2020 Sulphur Cap compliant fuel. Whilst the purpose of this article is not to discuss either the Houston bunker problems or the 2020 Sulphur cap, inevitably, if there is a dispute as to the quality of the stemmed bunkers, it will be necessary to have those bunkers tested and analysed by a laboratory. The purpose of this article is to bring into focus the need for a proper fuel testing and analysis regime to be in place.

Testing fuel samples on board is possible but there are limitations as to these findings which generally are limited to density, viscosity, pour point, water content and

compatibility. Whilst on-board testing is useful to get early indications of problems, it is not sufficient to test for some of the issues we have seen in recent times, for example the presence of contaminants such as phenolic compounds. Increasingly we understand that Owners routinely send bunker samples for laboratory testing for the presence of these compounds.

Samples

Correct sampling and which samples are to be tested and analysed are just as important as the analysis itself. In most cases the relevant contract between the parties specifies which samples are to be used for analysis (and be binding) and how those samples are to be collected. For example, the BIMCO Bunker Terms 2018, stipulate at Clause 4 (a) that:
– "…. a primary sample shall be drawn at a point, to be mutually agreed between the Sellers and the Buyers…. closest to the Vessel's bunker manifold and otherwise in accordance with the procedures set out in IMO Resolution MEPC.182(59) Guidelines for the Sampling of Fuel Oil for Determination of Compliance with MARPOL 73/78 Annex VI or any subsequent amendments thereto…"

In terms of quality claims, at Clause 9(b)(ii):
– "In the event that a claim is raised…. the Parties hereto shall have the quality of the Marine Fuel analysed by a mutually agreed, qualified and independent laboratory"

For time charters, the BIMCO Bunker Quality Control Clause for Time Chartering provides that:
– "(3)… during bunkering representative samples of the fuel(s) supplied shall be taken at the Vessel's bunkering manifold and sealed in the presence of competent representatives of the Charterers and the Vessel…(4)…and any dispute as to whether the bunker fuels conform to the agreed specification (s) shall be settled by analysis of the sample(s)….whose findings shall be conclusive evidence as to the conformity or otherwise with the bunker fuel specification(s)"

The MEPC.182(59) Guidelines for the Sampling of Fuel Oils are benchmark guidelines to ensure the integrity of the sampling process and sets out details such as sample location, handling and storage. In relation to the sampling method used to take samples from the manifold, as set out in the above clauses, the guideline recommends that the sample should "…be drawn continuously throughout the bunker delivery period".

Occasionally, it may be necessary to obtain a representative sample from the bunker tanks, although there may be question marks as to whether this is truly representative of the bunkers as stemmed due to the presence of previous bunkers or the presence of sludge in the tank, for example. Various methods of tank sampling are possible, but some are more representative than others. It is important in this regard to include on the sample bottle a label which details the method used.

In all the examples above, it is important to seal and label the bottles correctly. The MEPC.182(59) guidelines provide details of how to do this and this guide should be consulted. It is also important to ensure that a sufficient volume of sample is collected. From the collecting device it is usually recommended that five samples are collected; the MARPOL sample, supplier's sample, vessel's own retained sample, on-board analysis sample and sample for independent analysis.

Testing

A suitable testing laboratory should be agreed upon in advance and set out in the contract. For example, in the BIMCO Bunker Quality Control Clause for Time Chartering there is a provision to stipulate in the contract the agreed testing laboratory. If this has not been done then the parties should agree on a laboratory to test the agreed, binding, sample.

Such a laboratory should be qualified, independent and accredited and capable of undertaking the specific tests and analysis required. It should also be noted that not all laboratories allow the testing to be witnessed and the parties will need to bear in mind if that is acceptable to them. It should also be noted that where there are samples to be tested under both a charterparty and a bunker supply contract then the same laboratory should be used for both samples in order to ensure the same methodology and processes are applied. There should also be an agreed testing protocol as agreed between the parties' experts as this will avoid any later arguments between the parties as to method of testing.

Typically, we see the following testing undertaken: –

- ISO 8217 Table 2 testing
- GC-MS of neat fuel by direct injection
- Headspace GC-MS of neat fuel
- FTIR analysis of neat fuel
- Solid phase extraction followed by GC-MS and FTIR analysis of polar extracts

The results of the analysis will then be measured against specifications of the fuel as stipulated under the relevant charterparty or bunker supply contract i.e. typically ISO 8217 (and whichever version is agreed e.g. 2012, or 2017). The results will show whether the fuel was on specification under the ISO 8217 "Table 2" requirements, which set out limits for, amongst other things, sulphur, water and aluminium. Further gas chromatography testing, combined with mass spectrometry (GC-MS) will provide analysis of the fuel for the purposes of the remainder of Clause 5, such as indicating whether the fuel is "free of any material that renders a fuel unacceptable for use in marine applications". In summary, there are many potential pitfalls with fuel sampling and testing. Ideally, issues around sampling and testing should be agreed upon in advance and set out in the charterparty or bunker supply contract and ahead of any issues arising. With limited samples available it's important to get it right the first time.

Source: Skuld

Inséré 27/04/19 NIEUWS NOUVELLES Enlevé 27/05/19

Seafarers still have a role to play - MSC100

Autonomous and remote-controlled ships are being trialled but seafarers remain indispensable to safe shipping. This was the key message from a special session of IMO's Maritime Safety Committee (MSC) held on 3rd December.

"Are seafarers indispensable?" - was the question posed by Branko Berlan, ITF accredited representative to IMO. His message was that seafarers are still key to safe and secure ship operations.

The accident/incident rate for international merchant ships is less than 5% of all ships per year, he pointed out.

Seafarers are prepared for new technologies and automation. "It is happening: it is not revolution, it will not come tomorrow or next week; it is evolution," he said, adding that seafarers are ready to accept technologies, if they are proved to be safer than what we have now.

In a debate, delegates raised questions about search and rescue operations, which might involve autonomous or remote controlled ships and how collision regulations would be

complied with. Most believed that remote controlled or autonomous vessels would initially operate close to shore.

The MSC is carrying out a regulatory scoping exercise looking at how the safe, secure and environmentally sound operation of maritime autonomous surface ships (MASS) may be introduced in IMO instruments.

Although not affecting the tanker segment, Kevin Daffey, Director Ship Intelligence and Engineering & Technology, Commercial Marine, Rolls-Royce, showed a video of the trial – earlier the same day – of a fully autonomous ferry on a voyage between Parainen and Nauvo, Finland, while Timo Koponen, Vice President, Processing Solutions, Wärtsilä Marine Business, showcased the remote control operation of an offshore vessel which took place in August, 2017.

More recently, in 2018, the Norwegian hybrid powered car ferry 'Folgefonn' underwent successful auto-docking/undocking/dock-to-dock tests. Automation, intelligent routing, voyage optimisation and just-in-time operation had the potential to provide significant fuel savings and contribute to improved environmental performance, Koponen said.

Inséré 28/04/19 DOSSIER Enlevé 28/05/19

Swallowing the anchor: How not to choke when making the transition from ship to shore

October 9, 2018

The prospect of coming ashore to progress their career can be daunting to many working at sea, according to a survey into the experiences of those who had made the ship-to-shore transition conducted by the Institute of Marine Engineering, Science & Technology (IMarEST). Many, understandably, reported feeling apprehensive about climbing the ladder.

Those who found the transition relatively straightforward stressed the importance of studying for certain qualifications before leaving the sea. As one engineering superintendent explained, sea-going qualifications are acceptable for operational level roles, but not the managerial roles that senior sea staff are aiming for: "For that they need degree and postgraduate qualifications."

Many of those who struggled cited the practicalities of arranging interviews as a major frustration. It often proved hard for seafarers to schedule interviews whilst on leave and then persuade a potential employer to wait until they returned from their next voyage for the next step. One respondent warned that recruitment processes can take 'longer than your leave', whilst another was forced to take more drastic action by resigning from their current role in order to be ashore long enough to see the process through.

Another common difficulty was adjusting to working in an office environment, where the pace of work lacked the urgency ex-seafarers are used to. A typical comment was at sea

"things have to be done and the results of them not happening are far more immediate and obvious. Ashore, people go home at 5pm. They are not living the job." There were other culture shocks: a need for greater diplomacy and patience and adjusting to a less hierarchical management structure. Management onshore tends to be much flatter, but, as one respondent noted, this can actually complicate relationships: "Sometimes the boundaries are unclear." For the uninitiated, it can take time to learn and adapt to the slower pace and bureaucracy of this new environment.

Life at sea, away from friends and family, is often described as lonely. However, moving to shore means this loneliness can take on a new shape, particularly if the new role is away from home ties. "It took time to come to terms with living in a new place and not knowing many people outside of the work environment," said another technical superintendent. Nevertheless, on reflection, he added, it was worth persevering as "in the end because it opened up many opportunities for career advancement and promotion."

Technical skills and competence are only part of the story, when it comes to stepping ashore. They must be accompanied by a mixture of 'soft skills' needed for effective people and project management, such as leadership, communication (verbal and report writing), negotiating and networking, and administration skills such as budgeting, finance, logistics and procurement. While the administration tasks done on ship are a sound foundation for developing the latter group, it can take longer to build the requisite people skills.

One chief engineer who came ashore to work as a class surveyor advised seafarers considering a transition to achieve as much as possible while at sea: "That additional rank could turn out to be really crucial. The difference between serving as a chief engineer compared to 2nd or 3rd engineer is immense." The management and responsibility skills needed on land, he continued, generally come with higher ranks. A comprehensive understanding of the roles of class, P&I, flag and how they interact is imperative.

Several respondents said that secondments ashore during their seagoing careers would have (or had) helped prepare them to 'swallow the anchor'. An overwhelming 88% believed that the right sort of education or training would assist the transition. Two-thirds said they would have benefited from either management/business training or gaining a higher education qualification such as a Bachelor's or Master's degree, or both.

"Leadership and management skills are essential to prove your worth to an employer and to complement the range of engineering skills that you have acquired at sea" said one chief engineer who came ashore to take on a management role in gas processing. Gaining these qualifications involves a lot of hard work. For this reason, many seafarers like to get ahead by studying for a degree or similar qualification through distance learning.

A chief engineer who rarely felt outside his 'comfort zone' working on ship said his new role as a senior technical manager overseeing a wide range of projects demanded a totally different approach and attitude to seeing and doing things. "Getting to grips with the interactions between all the different disciplines really made me appreciate the variety of the maritime world," they commented, adding that it was 'a quantum leap from the (relatively) routine business of running a ship'.

The IMarEST has developed a qualification in Sustainable Maritime Operations to answer precisely this type of need. The distance learning programme can be studied whilst at sea, leading to either a post-graduate qualification or a BSc/MSc degree.

"Upskilling whilst at sea allows seafarers to stay at sea longer whilst still helping them move up the career ladder. Those who don't feel the urge to come ashore are not forced to do so before they really want to" David Loosley, Chief Executive, IMarEST.

Over half (56%) of those surveyed were promoted to a higher position when they came ashore. However some saw a salary drop, which was often attributed either to a lack of formal qualifications or else a difficulty in communicating [the relevance of] their skills. As

one respondent more plainly put it: a person working on board is always considered a fresher when moving ashore.

Many of the seafarers surveyed reached the conclusion their skills were not properly recognised or valued by their shore-based colleagues. "I was seen as a jack-of-all-trades and insufficiently specialised rather than a flexible employee with broad engineering experience who could work independently," was a typical response.

A common predicament was explaining how skills gained at sea would carry over to roles on land. As one respondent pointed out, the diversity of skills in the maritime environment is largely unrecognised: "I had to stop describing my experience for positions using maritime roles, instead everything needs to be communicated in terms of transferable skills". Another added that this was compounded by the fact that some skills acquired at sea don't translate readily to a commercial, shore-based setting.

One seafarer confessed that his post-nominals, "CEng MIMarEST" denoting Chartered Engineer and Member of the IMarEST, were his main entry route to gaining employment ashore. Apparently few recruiters could relate to his marine qualifications and experience. He was eventually appointed as a senior lecturer at a marine academy. "I wholeheartedly believe that 'CEng' was my passport to most of the interviews I attended, more so than the years of maritime experience in a senior position," he elaborated. This experience spurred him to become a FIMarEST or Fellow of the IMarEST.

This indicates a certain reverence within the industry for professional registration, whether Chartered, Registered/Incorporated or Technician status. David Loosley concludes: "That status functions as a simple indicator of professional excellence, especially in those without formal academic qualifications. The opportunity for seafarers to gain professional registration is one that should be taken by all those setting their sights on a promotion."

Inséré 28/04/19 BOEKEN LIVRES BOOKS Enlevé 28/05/19

Liners 04: Normandie

B O O K R E V I E W By : Frank NEYTS

Recently the Dutch publisher Lanasta presented the newest title in the series 'Liners': "**Liners 04: Normandie**" The SS 'Normandie' was an ocean liner built in Saint-Nazaire, France, for the French Line Compagnie Générale Transatlantique (CGT). She entered service in 1935 as the largest and fastest passenger ship afloat; she is still the most powerful steam turbo-electric-propelled ship ever built Her novel design and lavish interiors led many to consider her the greatest of ocean liners. Despite this, she was not a commercial success and relied partly on government subsidy to operate. During service as the flagship of CGT, she made 139 westbound transatlantic crossings from her home port of Le Havre to New York. 'Normandie' held the Blue Ribon for the fastest transatlantic crossing at several points during her service career, during which the RMS 'Queen Mary' was her main rival.

During World War II, 'Normandie' was seized by U.S. authorities at New York and renamed USS 'Lafayette'. In 1942, the liner caught fire while being converted to a troopship, capsized onto her port side and came to rest on the mud of the Hudson River at Pier 88, the site of the current New York Passenger Ship Terminal. Although salvages at great expense, restoration was deemed too costly and she was scrapped in October 1946. "**Liners 04: Normandie**" (ISBN 978-90-8616-254-3), a 52 pages softback book is highly illustrated, full color and costs 14,95 euro. It can be bought via the good bookshop or

through the Publisher; Lanasta, Slenerbrink 206, 7812 HJ Emmen, Holland. Website : **www.lanasta.com** , Tel. +31 (0)591 618747, e-mail: **info@lanasta.com**.

De admiraals en de eigen marine van de Bourgondische hertogen 1384 - 1488 (I)

door Roger DEGRYSE

Voordracht gegeven op 5 november 1965

1. DE ADMIRAAL EN DE MARINE ONDER LODEWIJK VAN MALE EN DE EERSTE HERTOGEN (1384 - 1419)

De term admiraal is afgeleid van « admiratus », de verlatijnsing van het Arabisch-Magrib voor « amir », d.i. emir, wat commandant of officier betekende. Deze titel werd in de 12e eeuw in het Normandisch koninkrijk Sicilië door een territoriaal ambtenaar gedragen. Omstreeks 1178 zien we voor de eerste maal zulk een gezagdrager tot "admiratus stolii" of hoofd van de Koninklijke Siciliaanse oorlogsvloot aangesteld worden. Genua, de handelsrepubliek, die samen met Venetië de Middellandse Zee beheerste, volgde in 1226 dat voorbeeld, toen het de « capitaneus » of kapitein van zijn galeien eveneens "admiratus" begon te noemen. De kruistochten droegen het hunne bij tot de verdere verspreiding van deze titel over gans het bekken van de Middellandse Zee en ook daarbuiten, meer bepaald in de meeste Italiaanse staten, Byzantium, de Arabische wereld, Castilië, Frankrijk en Engeland. Alhoewel oorspronkelijk gesteund op een contract van associatie met de vorst, werd het ambt van tijdelijk admiraal er overal permanent en gaf er ontstaan aan een nieuwe instelling, die van de vorst afhing en tegelijk militair, maritiem. en rechterlijk was: de admiraliteit. Deze werd door de koningen definitief ingericht in Sicilië in 1239, in Castilië in 1265, in Frankrijk en Engeland in de loop van de 14de eeuw, maar in de Nederlanden pas in 1488.

Evenwijdig of tegelijk met de ontwikkeling van de admiraalsfunctie in de oorlogsmarine verliep in de staten en republieken van Italië en de Middellandse Zee de organisatie van het commando over de handelsvloot. Deze vaarde meestal in groepsverband onder de leiding van twee door de schippers verkozen en erkende kapiteins met de titel van admiraal. Dit noemde men e in admiraalschap » of « gezworen varen », een gebruik, dat in de 14de. eeuw ook in zwang was in de westvaart of Vlaamse koopvaardij tussen de golf van Biskaje en het Zwin, de enige toen nog overblijvende uiting van onze actieve scheepvaart. Aldus zien we tot 1377 de Vlaamse westvloot door twee of meer e amiraelz van der vlote » geleid worden. Dat jaar zien we evenwel ook voor het eerst een kapitein van der vlote van Vlaenderen » in de naam van de graaf optreden. Deze kapitein ruilde in 1382 zijn titel voor die van " admiral van der Vlaemscher vloten". Ongetwijfeld was het optreden van 1377 tot 1382 van een grafelijk officier, belast met de leiding van de Vlaamse westvloot, alleen maar een tijdelijke maatregel, ingegeven door de bekommernis de westvaart in de Engelse wateren tegen de Gentse rebellen te beschermen.

Niettegenstaande de graven van Vlaanderen reeds in de 12de en 13de eeuw er toe gekomen waren in tijd van oorlog of voor hun kruistochten een vloot bijeen te brengen, moeten we toch tot 1356 wachten vooraleer we aan het hoofd van dergelijke formatie een officier met de rang van admiraal zien aangesteld worden. Dat jaar inderdaad benoemde

graaf Lodewijk van Male Jacob Buuc tot "amirael van der vloten", samengesteld uit 8 grote en 4 kleine koggen en bemand met zowat 1.300 bezoldigde zeelieden en boogschutters, die hij op de Westerschelde ter verovering van Antwerpen zou uitsturen. Na afloop van de expeditie, die van augustus 1356 tot juni 1357 duurde, diende Jacob Buuc een rekening in, waaruit we heel wat vernemen betreffende de samenstelling, bemanning en bewapening van de grafelijke vloot, die uit gecharterde vaartuigen bestond, geleverd door de Duitse Hanze en waarvan de effectieven door manschappen uit de Vlaamse kuststreek aangevuld geworden waren. Dit alles deed reeds afbreuk aan de tot dan toe geldende gebruiken in zake aanwerving van schepen en bemanningen geschoeid op de feodale gebruiken.

Een tijdelijke admiraal, aangesteld door Lodewijk van Male, trad ook op in 1378 nadat, als gevolg van de groeiende onveiligheid op zee, de graaf besloten had enkele e uitleggers », bemand met gemobiliseerde zeelieden van de kust, uit te sturen, ten einde de zeewegen op het Zwin te beveiligen. Twee jaar later, op het einde van 1380, zag de graaf zich verplicht in zijn strijd tegen de oproerige Gentenaars op de Schelde vóór Dendermonde vijf schepen, bemand met zowat 250 koppen, in te zetten. Deze kleine vloot stelde hij onder het bevel van Pieter Zoete, die als admiraal fungeerde, en van Pieter Moerman, die als hoofd van de vijf stuurlui of meesters van de schepen optrad. Van de expeditie zelf, die in oktober en november 1380 plaatsgreep, bleef een rekening bewaard, waaruit blijkt, dat, zoals in 1356, zowel de schepen als de manschappen door de graaf tegen betaling van soldij in dienst genomen geworden waren. Een andere nieuwigheid was het aanblijven naderhand van Pieter Zoete als admiraal met standplaats te Sluis, waar hij de beschikking over een grafelijke roeiboot had, dit gedurende de jaren 1381 en 1382 en misschien ook nog in het begin van 1383, toen de krijgsverrichtingen te water tegen de oproerige Gentenaars en hun trawanten hervat werden. Dat jaar werd er op de Westerschelde vóór het Land van de Vier Ambachten en het Land van Saaftinge met coghescepen ende balenghieren », verdeeld over een drietal smaldelen, gepatrouilleerd. De bevelhebber van een van deze smaldelen was Pieter Zoete. Vanaf maart 1383 stond hij, evenals de twee andere bevelhebbers, onder het gezag van Jan Buuc, de eerste « amierael van der zee », die de totale zeemacht tellende 200 « scipmannen », waaronder 60 « scatters » aanvoerde. Over deze expeditie worden we door de rekening van de waterbaljuw van Muide of van het Zwin ingelicht. Daarin lezen we ook, dat de voor de oorlog uitgeruste schepen van « ghescut, bussepoeder ende lood » voorzien waren. Van 1356 af werd inderdaad, naast de traditionele bewapening, ook wat geschut aan boord van de schepen meegevoerd.

De titel « admiraal van de zee », die in de plaats trad van de vroegere betiteling «admiraal van de vloot», wijst ongetwijfeld op een uitbreiding van bevoegdheden. Jan Buuc had niet alleen strijd te voeren tegen de Gentse rebellen door het afsnijden van hun bevoorradingswegen, hij moest ook het Zwin en Sluis langs de zeezijde tegen mogelijke aanvallen verdedigen, dit in samenwerking met de kapitein of plaatscommandant van die versterkte stad. Bovendien kreeg hij de kaapvaart onder zijn toezicht en mocht hij, waarschijnlijk krachtens een contract van associatie met de graaf, op de gekaapte goederen de tiende penning heffen en dus ook handlangers en dienaars als kapers uitsturen. Dezen moesten evenwel in het bezit van een hertogelijke kaperbrief zijn. Onder de mom van dit kapersbedrijf, dat vooral gericht was tegen de kooplieden, die Engeland aangedaan hadden, trad Jan Buuc in werkelijkheid zeer dikwijls als het hoofd van een bende zeerovers op, iets waarover de Duitse hanze zich ten zeerste verontrustte, wat blijkt uit haar klaagbrieven dienaangaande . We mogen dan ook Jan Buuc, die oud-burgemeester van Sluis was en op een zeker ogenblik, vóór of na 1384, tot ridder geslagen werd, als de eerste waarachtige admiraal van Vlaanderen beschouwen.

In 1384 beklom Filips de Stoute, hertog van Bourgondië, de troon in Vlaanderen. Jan Buuc bleef verder in dienst, ditmaal met de officiële titel van « admiral de Flandre », wat wijst

op een vernieuwing van zijn contract. Weldra zou dan ook de kaapvaart hervat worden. De hertog droomde er inderdaad van een eigen zeemacht te verwerven en van Sluis een machtig strategisch bolwerk ter verdediging van het Zwin te maken. De stad zou worden ommuurd en voorzien van kastelen, waarvan met de bouw reeds onder Lodewijk van Male begonnen geworden was. Filips de Stoute verleende inderdaad in 1385 en 186 aan de Franse koning Karel VI, zijn neef, alle hulp toen het er op aan kwam, door het verzamelen van een groot aantal schepen, vanuit Sluis een invasie in Engeland voor te bereiden. Deze onderneming, waaraan zowel de admiraal van Frankrijk, als die van Vlaanderen mede-werkte, was nog grotendeels op feodale leest geschoeid. Weliswaar beschikte de Franse vorst over een arsenaal en een scheepstimmerwerf te Rouen en over een krijgshaven te Harfleur aan de monding van de Seine, evenals over een admiraliteit geleid door zijn admiraal, Jean de Vienne, maar hij bezat nog geen eigenlijke oorlogsvloot, die permanent kon optreden. Het waren Franse en Bourgondische edellieden, evenals talrijke vreemde kooplui, komende van de kusten van Spanje tot die van Pruisen, die het hunne bijdroegen tot de levering, optuiging en bemanning van de schepen. Wat aan vaartuigen en bevoorrading samengebracht werd, was volgens de tijdgenoten nog nooit gezien geworden. De schattingen omtrent het aantal schepen, dat voor de overtocht klaar lag, zijn dan ook zeer uiteenlopend en gaan van 900 tot 1.600 eenheden, waaronder heel wat met twee zeilen. Filips de Stoute zou in eigen persoon aan de expeditie deelnemen met een groot schip van het « nef »-type, dat hij voor dit doel had laten aankopen, optuigen en beschilderen. Nog in december van het jaar 1386 bekostigde hij de bevoorrading van veertien vaartuigen, die door Jan Buuc, zijn admiraal, in samenwerking met Arend van der Mare, oudburgemeester van Sluis, als vennoot in de onderneming, uitgerust geworden waren. Op dat ogenblik evenwel was de expeditie, als gevolg van het lange talmen, uitgesteld geworden. Van de overtocht zelf zou er ten slotte niets meer in huis komen.

Voor Jan Buuc zelf was het avontuur nog niet afgelopen. De admiraal van Vlaanderen blijkt in het begin van het jaar 1387 de opdracht te hebben gekregen, aan het hoofd van een Spaans smaldeel, de zee te gaan verkennen, om te zien of er geen onraad vanwege de Engelsen was en tevens de Vlaamse westvloot tegemoet te zeilen, ten einde haar veilig naar het Zwin te loodsen. Hij moest dus, wellicht krachtens een nieuwe overeenkomst met de hertog, de taak van admiraal van deze vloot, die in admiraalschap vaarde, op zich nemen en door het verschaffen van « gheleede » de koopvaardijschepen beveiligen. Deze werden evenwel einde maart in het Nauw van Calais door de Engelsen opgewacht en aangevallen. Jan Buuc, die, terugwijkend naar de Vlaamse kust, Sluis poogde te bereiken, was met zijn 700 schutters en een drietal donderbussen niet opgewassen tegen de aanvallers, wie eerst 56 en daarna nog 70 vaartuigen beladen met wijn en andere goederen in handen vielen. Hij streed moedig gedurende vier uren, maar werd ten slotte in het zicht van Sluis gevangen genomen, niettegenstaande op het laatste ogenblik zijn vennoot Arend van 'der Mare vanuit het Zwin met een «baerdse» kwam toegesneld om hem te redden. Na aldus het grootste gedeelte van de wijnvloot te hebben gekaapt, ondernamen de Engelsen een landing in de streek van het Zwin met het oog op de vernietiging van de schepen van de aldaar gelegen expeditievloot, waarin ze niet slaagden, zodat ze zich moesten terugtrekken.

Dat de admiraalsfunctie onder Filips de Stoute op weg was permanent te warden, blijkt uit de opeenvolging van de eerste admiraals van Vlaanderen. Na ridder Jan Buuc, die in 1389 in gevangenschap te Londen overleed (1383-1389), traden na elkaar nog twee Vlaamse ridders uit de streek van het Zwin in de hoedanigheid van admiraal op. Het waren Jan van Cadzand, heer van Koksijde bij Sluis (1391-1396), die de dood vond in de slag bij Nicopolis aan de Donau, tijdens de kruistocht van Jan zonder Vrees tegen de Ottomanen, en Jan Blankaerd, kapitein-baljuw van Biervliet, die eveneens tot aan zijn dood in dienst blijkt te zijn gebleven (1401-1406). Beiden droegen de titel van admiraal van Vlaanderen.

Ridder Jan van Cadzand oefende zijn functie uit gedurende een periode van vrede, zodat we hem op zee of op de Schelde niet zien optreden. In zijn hoedanigheid van raadsheer en van admiraal vervulde hij nochtans verschillende opdrachten, die met de maritieme bekommernissen van de hertog verband hielden. Aldus ontving hij in oktober 1395 het bevel, samen met de baljuws van Veurne en Nieuwpoort, langs de Vlaamse kust tussen Sluis en Grevelinge, een onderzoek naar het gebruik van netten met te nauwe mazen, de zogenaamde "ebbezet ter", in de kustvisserij in te stellen. Hij hield zich dat jaar, samen met andere raadsheren, ook bezig met de zaak van de Sint-Christoffel, een schip, dat de hertog sinds 1388 verhuurde en dat wegens zeeroverij te Sluis aan de ketting gelegd geworden was.

Ridder Jan Blankaerd, de derde admiraal van Vlaanderen, blijkt eerst in 1401, na de hervatting van de vijandelijkheden, ongetwijfeld nogmaals na het afsluiten van een contract van associatie, in die hoedanigheid aangesteld te zijn geworden. In 1402 beschermde hij, op verzoek en op de kosten van de stad Brugge, met twee bewapende vaartuigen de Brugse kooplui, die langs de waterweg van de Antwerpse jaarmarkt terugkwamen. In 1403 en 1404 hield hij zich bezig met de kaapvaart van de "oorvers" of Vlaamse haringvissers, zodat de havenstad Biervliet, waar hij zijn standplaats had, een gevaarlijk zeeroversnest werd. Wel is waar gebeurde deze kaapvaart met de toelating van de hertog in het kader van een strijdplan tegen de Engelsen, maar dit juist lokte hevig verzet uit van de stad Brugge en de andere Leden van Vlaanderen, die steeds opkwamen voor de neutraliteit van het graafschap. Te veel "oorvers" vaarden immers uit zonder in het bezit van de daartoe nodige kaperbrieven te zijn. Brugge eiste dan ook telkenmale van de Vlaamse vissershavens, dat die het geroofde goed, evenals de gevangen genomen kooplui, zouden « delivreren ». Dit alles verklaart waarom we in genoemde jaren Jan Blankaerd deze havens zien afreizen.

Jan zonder Vrees volgde in 1404 zijn vader als hertog van Bourgondië en graaf van Vlaanderen op. Alhoewel de vredeshandelingen met Engeland waren ingezet, bleef de Bourgondische kaapvaart, ditmaal geleid door Victor en Hector van Vlaanderen, twee bastaardzonen van wijlen Lodewijk van Male, voortduren, wat represaillemaatregelen vanwege de Engelsen uitlokte. Deze landden inderdaad in het begin van 1405 in de streek van het Zwin en beroofden er de kleine steden, zonder dat de hertog daar veel kon tegen doen. Jan Blankaerd was toen nog steeds kapitein van Biervliet en admiraal en moet het jaar nadien gestorven zijn.

Na 1406 horen we geruime tijd van de admiraal van Vlaanderen geen gewag meer maken. Wel is waar was er dat jaar een tijdelijk wapenbestand gesloten, maar toch bleef de kaapvaart van de Vlaamse korvers voortduren en dit tot 1419, toen de sinds lang aanslepende bestandsonderhandelingen eindelijk hun beslag kregen. Wellicht daarom kwam Jan zonder Vrees dat jaar ertoe opnieuw een admiraal aan te stellen. Het was Victor van Vlaanderen, heer van Oostburg en sinds 1418 kapitein van Biervliet. In verband met zijn nieuwe taak zien we Victor in 1419 de Vlaamse kust afreizen en er in de verschillende havensteden zijn commissiebrief aan de schepenen voorleggen. Dit is evenwel ongeveer ook alles wat we over hem als admiraal vernemen. Op 10 september 1419 werd Jan zonder Vrees op de brug te Montereau door de Armagnacs, zijn tegenstrevers in Frankrijk, vermoord. Met zijn dood eindigt de eerste faze in de geschiedenis van de admiraals van Vlaanderen.

2. DE ADMIRAAL EN DE MARINE ONDER FILIPS DE GOEDE (1419 - 1467)

Filips de Goede, die in 1419 zijn vermoorde vader opgevolgd had, sloot reeds het jaar nadien met de Engelse koning een verdrag, dat tot 1435 nageleefd zou worden. De bijzondere gunstige toestand, die daardoor gedurende vijftien jaar in de betrekkingen

tussen Vlaanderen en Engeland heerste, verklaart waarom de hertog alsdan de organisatie van zijn zeemacht verwaarloosde. Van de admiraal van Vlaanderen horen we gedurende gans deze periode geen gewag maken. Toch manifesteerde zich ook bij Filips de Goede weldra de belangstelling voor het schip. Tijdens de Hollandse oorlog, toen hij het tegen zijn kinderloze nicht Jacoba van Beieren, gravin van Henegouwen en Zeeland-Holland, opnam, werd hij voor het eerst geconfronteerd met de kwestie van de zeemacht. In 1426 en 1427, vóór en na de slag bij Brouwershaven, diende de hertog op de schepen van de Vlaamse zeesteden beroep te doen om een vloot samen te stellen. In oktober 1426 kocht hij een « balengier » of oorlogsroeiboot, die hij te Sluis liet optuigen en bewapenen en nadien sturen naar zijn zegevierende veldheer in Holland, de befaamde Jean de Villiers de l'Isle-Adam. Hij zelf deed zijn verplaatsingen op de Hollandse wateren door middel van een « pleite », die door zijn hofschilder met zijn blazoen beschilderd geworden was . In 1433, met de troonsafstand van Jacoba, trad Filips de Goede definitief in het bezit van het door hem reeds bezette Zeeland en Holland. Daardoor strekte het maritiem gebied, waarover hij heerste, zich voortaan uit van Friesland tot nabij Boulonnais. Alleen de kleine Engelse enclave rond Calais ontsnapte nog aan zijn gezag.

De Franse vooruitgang in de strijd tegen Engeland bracht Filips de Goede er in 1435 toe met dat land te breken na het sluiten van een voordelige vrede met de Franse koning. Deze stond hem de steden langs beide oevers van de Somme en het graafschap Boulogne af. Reeds het jaar nadien, in juli 1436, ging de Bourgondische hertog over tot het beleg te land en te water van Calais door middel van een leger van stedelijke milities en van een kleine vloot van Vlaamse en Zeeuwse schepen. Tot « amirael van der zee » had hij ridder Jan van Hoorn, heer van Baucignies en sinds 1429 kapitein van Nieuwpoort, aangesteld en zich tegenover hem door contract verbonden tot de uitkering van niet minder dan 15.000 gouden « ridders » in ruil voor de obstructie van de havengeul van Calais. Tot de vloot van zowat dertig gecharterde eenheden behoorden ook negen schepen, die op kosten van de hertog gewapend geworden waren, waaronder het hertogelijke schip, het admiraalsschip, het schip van ridder Alure de Brith en de « talengier » van ridder Pierre de Beffroymont, heer van Chargny. Laatstgenoemd vaartuig was reeds enkele maanden voordien vanuit Nieuwpoort, standplaats van de admiraal, voor de kaapvaart ingezet geworden en dit heel waarschijnlijk met de toestemming van Filips de Goede. Het was overigens op kosten van de hertog door de heer Chargny aangekocht en uitgerust geworden. Op 25 juli kwam de hertogelijke vloot, na haar vertrek uit Sluis, vóór Calais, dat reeds te land door de Vlaamse milities belegerd werd. Jan van Hoorn slaagde er evenwel niet in de havengeul door middel van vier tot zinken gebrachte schepen te blokkeren. Wat erger was, hij moest zich reeds de volgende dag voor de Engelse vloot terugtrekken. Zijn smadelijke terugtocht had ook die van de Vlaamse milities voor gevolg. Weldra verscheen de Engelse vloot voor de Vlaamse kust, waar ze Sluis bedreigde en een landing wou ondernemen. Te midden van de algemene ontevredenheid werd Jan van Hoorn op 13 augustus 1436, tijdens een opstootje, in de nabijheid van Oostende zo zwaar verwond, dat hij een week later aan de opgelopen kwetsuren overleed. Feitelijk verdween met hem niet een admiraal van Vlaanderen, maar een tijdelijk vloothoofd.

De dood van de admiraal en de Engelse bedreiging brachten de Vier Leden van Vlaanderen er toe, door de mobilisatie van de kustbevolking en van schepen, zelf de verdediging van de kust op zich te nemen. Toch ging ook de hertog over tot de uitrusting en de bewapening van een galei, die hij te Sluis had laten bouwen. Bovendien stelde hij ditmaal een permanente admiraal van Vlaanderen aan. Het was een ridder van de orde van het Gulden Vlies, Simon de Lalaing, heer van Saintes en later van Montigny, afkomstig uit Henegouwen. Reeds op 30 september 1436 bood zich te Nieuwpoort bij de schepenen Simon filius Clais aan « met ziner commissie als stedehoudre van mijn heere den admirael». Alhoewel de admiraal zelf ook op 2 januari 1437 in deze stad aankwam, moeten we tot mei van dat

jaar wachten vooraleer we hem, die maand de Vlaamse kust zien afreizen, waarschijnlijk met het oog op het uitrusten van schepen en het ronselen van vrijwilligers voor een kaperstocht in de Engelse wateren, meer bepaald tegen Calais, waaraan hij persoonlijk zou deelnemen. Simon de Lalaing leidde ook, zoals vroeger zijn voorganger Jan Buuc, vanuit Sluis de kaapvaart te nadele van de kooplui, die op Engeland vaarden. Daarbij werden door zijn dienaars of vennoten niet alleen Engelse, maar ook hanzische schepen en goederen buit gemaakt. Deze activiteit, die nogmaals wijst op een associatiecontract tussen hertog en admiraal, werd kortstondig onderbroken in juli 1437, toen Filips de Goede Simon de Lalaing tot kapitein van Sluis aanstelde, ten einde die stad tegen de rebellerende Bruggelingen, die haar belegerden, te verdedigen. Ze werd tenslotte einde augustus 1438 stopgezet, toen de hertog, op verzoek van de Vier Leden van Vlaanderen. alle kaperbrieven schorste of terug introk. Vóór die tijd reeds hadden de Vier Leden zich met het kapen van een Keulens schip door de admiraal bezig gehouden, terwijl een scheidsrechterlijke commissie, samengesteld uit hertogelijke raadsheren, dezelfde functionaris verplicht had de Duitser Jorg von Schauenberg, die hij als gijzelaar gevangen hield, terug in vrijheid te stellen. De schorsing van de vijandelijkheden met Engeland in 1438 werd dan ook reeds het volgend jaar door het herstel van de goede betrekkingen en het afsluiten van een handelsakkoord met dat land gevolgd.

Na de oorlog met Engeland werd Filips de Goede in 1438 betrokken in het conflict tussen Holland en de Wendische steden, die tot 1441 zou blijven duren. Tijdens deze vijandelijkheden zagen de hertog en zijn admiraal van Vlaanderen zich door de zeelui van Amsterdam van twee schepen beroofd worden, wat wijst op het voortbestaan van de hertogelijke koopvaardij en kaapvaart door middel van associatie. Alhoewel gedwongen voor zijn Zeeuwse en Hollandse onderdanen partij te kiezen, nam de hertog zelf geen actief deel aan de oorlog. Er is dan ook in die tijd geen sprake van een hertogelijke admiraal voor Zeeland en Holland, alhoewel Hendrik van Borsel, heer van Veere, die door het bezit van schepen machtig op zee was, alsdan van zich deed spreken Simon de Lalaing was toen als admiraal van Vlaanderen blijkbaar nog steeds de enige functionaris van die aard in de Nederlanden. In 1439 en 1440 zie we hem in deze hoedanigheid nog een bezoek brengen aan de Vlaamse kuststeden. Daarna, van 1441 tot 1445, trad hij er nog op als hertogelijk commissaris voor de controle van de stadsrekeningen en de vernieuwing van de schepenmandaten. Hij was ook van 1441 tot 1449 baljuw van Amiens en werd daarna terug kapitein van Sluis, ambt dat hij tot 1477 zou blijven uitoefenen. Gezien de langdurige vrede, die tot 1464 heerste, horen we na 1440 van Simon de Lalaing, als admiraal, niet veel gewag meer maken. Dezes functie bleefs nochtans bestaan en was nog steeds voor het toezicht op het naleven van de gebruiken en ordonnantiën in zake de kaapvaart en de verdeling van de opbrengst van de gekaapte goederen van belang. Wie we vanaf 1445 over de wettelijkheid van deze gebruiken zien waken, was de « stedehoudere van edelen ende weerden mer Simoen de Lalaing, admirael van der zee in Vlaendren ». Dit stellen we althans vast te Duin-kerke in 1443 (66) en te Sluis in 1455.

Dat de admiraal van Vlaanderen voortaan een hofdignitaris was, die weliswaar in het genot van bepaalde prerogatieven in zake de kaapvaart bleef, waaronder de heffing van de tiende penning op de gekaapte goederen, wijst op een nieuwe faze in de ontwikkeling van zijn functie. In dezelfde periode stellen we overigens het bestaan van een tweede admiraalsambt vast, namelijk dit van « general admiral de la mer d'Artois, de Boulenois, de Hollande, Zeelande et Frise ». Deze titel werd gedragen en dit blijkbaar voor de eerste maal, aangezien er in genoemde gewesten tot dan toe geen admiraal gefungeerd had — door Jan van Luxemburg, bastaard van Saint-Pol en heer van Hautbourdin. Evenals Simon de Lalaing, was hij ridder van de orde van het Gulden Vlies en lid van de grote hertogelijke raad, die in 1446 door Filips de Goede in het leven geroepen geworden was. Voordien reeds had hij zich met andere raadsleden, leden van de private raad van de hertog, met

geschillen betreffende de kaapvaart bezig gehouden. Wanneer juist Jan van Luxemburg tot admiraal-generaal van alle maritieme gewesten, uitgezonderd Vlaanderen, aangesteld werd, weten we niet, maar het kan kort na de oprichting van de Grote Raad geweest zijn. In de loop van het jaar 1448 zien we hem inderdaad als hertogelijk afgezant te Calais deelnemen aan onderhandelingen met de Engelsen betreffende de klachten tegen zeeroverij. In verband daarmee kan ook gebracht worden een schrijven van Filips de Goede aan zijn audiencier van 3 april 1449 met het bevel aan de heer van Hautbourdin vrijgeleiden te overhandigen bestemd voor twee Engelse ridders. Dat jaar werd inderdaad de Honderdjarige oorlog, die in 1445 onderbroken geworden was, door Frankrijk hervat. Drie jaar later, in 1452, wordt er in een vrijgeleide, die de hertog aan zijn wapensmid, met het oog op een reis naar Milaan, gaf, melding gemaakt van de « admiraulx » en « visadmiraulx » naast allerlei andere militaire gezag-dragers, tot wie het paspoort gericht was. Met deze vermelding, die we maar éénmaal aangetroffen hebben, werden misschien de beide admiraals van de Bourgondische maritieme gewesten en hun luitenanten bedoeld, tenzij er sprake was van vreemde admiraals. Van één enkele admiraal-generaal voor al de Nederlanden samen kan op dat ogenblik dus nog steeds niet gesproken warden.

De eindfaze van de Honderdjarige Oorlog, gaande van 1449 tot 1453, tijdens dewelke de Engelsen overal uit Frankrijk, uitgezonderd Calais, verdreven werden, was ook van belang voor de eigen marine van Filips de Goede. In 1448 en 1449 liet de hertog te Antwerpen vijf galeien bouwen en uitrusten voor de reis van Maria van Gelder, zijn nicht, naar Schotland, waar ze met koning Jacob II in het huwelijk zou treden. De reis en het huwelijk grepen inderdaad in 1449 plaats. Het was evenwel niet een van de beide admiraals, die de prinses naar haar nieuw vaderland begeleidde, maar wel Hendrik van Borsel, heer van Veere, die daartoe zijn kraak ter beschikking gesteld had. Toch vinden we op het ogenblik, dat de overtocht plaats greep, namelijk in juni 1449, de hertogelijke galeien in het Kanaal vóór de kust van Bretagne. Wat ze daar deden, is ons niet zeer duidelijk, aangezien de kraak van de heer van Veere langs de Noordzee Edinburgh bereikt had. Wellicht lagen ze in het Kanaal om diens terugkeer te beveiligen, aangezien Engelsen en Fransen de vijandelijkheden juist opnieuw ingezet hadden. Hendrik van Borsel was overigens sinds 1445 « lieutenant general sur le fait de la guerre de la mer » van de Franse koning. Naderhand, in 1450, liet Filips de Goede voor zijn galeien te Duinkerke, Nieuwpoort en Sluis en wellicht ook te Antwerpen galeihuizen bouwen. Te Duinkerke werd de galei « la Gaillarde » ondergebracht (") , te Nieuwpoort de « groote galeye » en te Sluis eveneens een of meerdere van die vaartuigen. Misschien was het in verband met het onderdak brengen van deze schepen tij dens de wintermaanden, dat we op 23 januari 1451 Simon de Lalaing en de graaf van Etampes Nieuwpoort zien bezoeken.

Filips de Goede kwam ook tussen in de strijd om Bordeaux. Daarheen stuurde hij in 1451 zijn « busse de Neufport », een klein vaartuig van het buistype met open dek, dat toen zowel voor de koopvaardij, als voor de zeevisserij gebruikt werd. De stuurman van dat schip was de Nieuwpoortnaar Antheunis Pleyte, die in december 1450 door de hertog tot zijn « sergent d'armes aux honneurs » aangesteld was. Bordeaux viel evenwel in de loop van het jaar 1452 terug in de handen van de Engelsen. Na in deze stad bij een Genuees wisselaar een zeeverzekering « a l' aventure » te hebben gesloten, keerde stuurman Pleyte met de hertogelijke buis in het voorjaar van 1453 naar Nieuwpoort terug. Dat de hertog dat jaar mede de hand had in de uiteindelijke bevrijding van Bordeaux door het sturen van een vijftiental Zeeuwse en Hollandse hulken, die zich aansloten bij de Franse vloot, geleid door de admiraal van Frankrijk, staat vast. Toch is het ook mogelijk, dat zowel de buis van Nieuwpoort, als de vijftien hulken tevens met commerciële doeleinden, meer bepaald in het kader van de westvaart, uitgestuurd geworden waren. De hertog had immers ook in 1452 zijn « balengier », de « Sainte Marie de Bouloigne », die toen te Sluis lag, laten herstellen, uitrusten en bemannen met het oog op handelsreizen door middel van

associatie. Het vaartuig werd zelfs enkele jaren later tijdens een dergelijke reis door de Katalanen beroofd, zodat het in 1456 volledig hersteld, opgekalfaterd en uitgerust diende te worden.

De slotfaze van de Honderdjarige Oorlog had ook in Vlaanderen een belangrijke weerslag, namelijk de Gentse opstand. Geoffroy de Thoisy, de commandant van de hertogelijke galeien, kreeg onder zijn bevel nog verschillende andere schepen met als standplaats Antwerpen. Van daaruit ondernam hij in 1452 en 1453 verschillende expedities ten einde de voedseltoevoer langs de Schelde in de richting van Gent af te snijden. Op te merken is, dat de hertogelijke galeien sedert 1444 met galeiboeven bemand waren, wat een grote nieuwigheid was, welke door de Fransen overgenomen werd. Zo werden in 1452 te Antwerpen boeven uit Mechelen ingescheept.

Eigenlijk was de belangrijkste maritieme activiteit van Filips de Goede op het einde van de Honderdjarige Oorlog aan het kruistochtideaal gewijd. De hertog stuurde in 1441, 1444 en 1464 naar de Middellandse Zee telkens expedities uit, hetzij om er het bedreigde Rhodos bij te staan, hetzij om hulp te bieden aan Constantinopel tegen de Turken, hetzij om na de val van die stad weerwraak te nemen. Het resultaat van deze initiatieven, die tot 1430 opklommen, was de vorming van een schare dappere ridders ter zee, die als het ware hun sporen op het schip verdiend hadden. Onder hen vinden we niet alleen Sanche de Lalaing, Geoffroy de Thoisy en Bertrandon de La Brocquière, die reeds omstreeks 1432 in Palestina op verkenning geweest waren, maar ook Walerand de Wavrin, die van 1444 tot 1449 kapitein-generaal van de Bourgondische vloot in de Middellandse Zee was en dus als een soort admiraal fungeerde, dit nogmaals na een associatieakkoord met de hertog. In 1464-1465 was het Simon de Lalaing, die Antoon van Bourgondië naar Ceuta en Marseille vergezelde.

Indien we over de verschillende schepen, die door Filips de Goede voor allerlei doeleinden gebruik werden, zo weinig te weten komen, dan is het omdat de hertog meestal op eigen houtje tewerk ging. Over het algemeen charterde hij zelf de nodige vaartuigen of deed hij ze voor eigen rekening bouwen. De uitgaven daartoe werden zeer dikwijls door zijn «heymelicke tresor» of private schatkist gedragen. De archieven van deze private financiële dienst, die in het Frans « l'Epargne » genoemd werd, gingen in 1793 grotendeels door brand verloren, wat verklaard waarom slechts weinig documenten in verband met de hertogelijke scheepsbouw of vlootuitrustingen bewaard bleven. Dat dit spijtig is, blijkt alleen reeds uit de schaarse gegevens over de bouw van hertogelijke schepen te Antwerpen. Volgens de Antwerpse annalen en kronieken zouden in de Scheldestad in de periode lopende van 1439 tot 1464 niet minder dan tien vaartuigen, vooral galeien, gebouwd geworden zijn.

De kruistochtplannen van Filips de Goede en de langdurige vrede verklaren waarom het admiraalsambt meer en meer een waardigheid, opgedragen aan een ridder van de orde van het Gulden Vlies, werd, terwijl als waarachtige bevelhebber over een vloot of een smaldeel een kapitein of een luitenant-generaal fungeerde. In 1466 stierf Jan van Luxemburg, bastaard van Saint-Pol, die tot aan zijn dood admiraal van Artezië, Boulonnais, Zeeland, Holland en Friesland was, maar die we nooit op zee zagen optreden. Toch was de admiraalsfunctie niet zonder inhoud gebleven.

Op het einde van de Honderdjarige Oorlog, in 1453, kwam Filips de Goede er eindelijk toe de bevoegdheid van zijn Grote Raad op maritiem gebied nauwer te doen omschrijven. Volgens de Bourgondische rechtsgeleerde Wielant, kreeg dit lichaam in 1454 bij haar reorganisatie alles wat betrof de represailles op zee, de kaapvaart, de « prijzen », de admiraalsfunctie, de koopvaardij en de vredesverdragen in zijn competentie. Dit hield dus wel degelijk in, dat het admiraalsambt permanent geworden was en dat de Grote Raad als een soort admiraliteitsraad kon optreden en vrijgeleiden uitreiken. Na eerst een rond-reizend lichaam te zijn geweest, werd de Grote Raad in 1464 gevestigd te Mechelen, waar

hij zou blijven bestaan en functioneren tot 1504. Het ligt dan ook voor de hand, dat deze nieuwe stap een verdere ontwikkeling van de admiraalsfunctie betekende, maar daarover vernemen we niets meer. De raadsheren hielden inderdaad aanvankelijk hun archieven niet bij. Dat ten slotte de admiraalsfunctie was blijven voortbestaan zonder erfelijk te zijn geworden, is een vaststelling, die zeker niet zonder belang is.

Wordt gevolgd

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Zuiveringsinstallatie voor ontlasting verplicht aan boord

Geschatte investering zo'n 2500 euro

Als het aan minister Van Nieuwenhuizen ligt dan zullen eigenaren van pleziervaartuigen die geen vuilwatertank aan boord hebben, verplicht een zuiveringsinstallatie moeten aanschaffen als ze onlasting willen lozen op het oppervlakte water. Sinds 2009 is het verboden om ongezuiverd toiletwater te lozen, maar deze regel wordt volgens het ministerie van Infrastructuur en Waterstaat 'op grote schaal' overtreden. ,,Lozing vindt via een afsluitklep onder het wateroppervlak plaats, en dus is dit vrijwel onzichtbaar en is het verbod nauwelijks te handhaven.'' De lozingen in oppervlaktewater leveren volgens de minister een gezondheidsrisico op voor de mensen die daarin recreëren. Daarom moet de afsluitklep/kraan verzegeld worden, zodat direct lozen in het oppervlakte water niet meer mogelijk is. Alleen bij speciale afzuiginstallaties op onder meer jachthavens kunnen de tanks dan nog geleegd worden. Eigenaren van pleziervaartuigen die geen vuilwatertank aan boord hebben worden nu gedwongen een zuiveringsvoorziening te laten installeren. Het kostenplaatje: ongeveer 2500 euro per installatie. Naar verwachting zal dit alternatief door velen als aantrekkelijk worden beschouwd, onder meer omdat de opslagtank veel ruimte inneemt, extra ballast vormt en soms geuren verspreidt, of omdat men knelpunten ervaart met het gebruik van de ontvangstinstallaties in jachthavens. Aldus het ministerie. Het besluit is het directe gevolg van een motie die D66 Kamerlid Tjeerd de Groot eind vorig jaar indiende. Watersport-TV sprak na goedkeuring van zijn motie toen met De Groot. Het interview deed onder booteigenaren veel stof opwaaien. Minister Van Nieuwenhuizen; ,,Dit besluit dat media 2019 moet ingaan zal naar verwachting leiden tot een vermindering van lozingen van ongezuiverd toiletwater in oppervlaktewater, hetgeen weer positief is voor de gezondheid van degenen die in dat oppervlaktewater zwemmen.'' Er zijn overigens in Nederland nog geen zuiveringsinstallaties voor toiletwater aan boord van pleziervaartuigen verkrijgbaar. Volgens het ministerie omdat er momenteel nog geen vraag naar is. Fabrikanten en leveranciers van zuiveringsvoorzieningen voor toiletwater krijgen met de regeling de mogelijkheid om apparatuur op de markt te brengen. Dit onder de voorwaarde dat het gezuiverde water voldoet aan de Europese normen voor zwemwater en voor de apparatuur een typegoedkeuring is afgegeven, zoals beschreven in de regeling. Fabrikanten lijken vooralsnog terughoudend te zijn. Het verkrijgen van een typegoedkeuring zal tussen de 40.000 tot 50.000 euro kosten. Daarnaast lijkt de branche eerst meer duidelijkheid te willen over de eisen waaraan installaties moeten voldoen. Anderzijds de inhoud van de regelgeving.

Bron : Watersport

Inséré 04/05/19 DOSSIER Enlevé 04/06/19

Impact on Charterparties – Time to Act Now

The challenges introduced by the global sulphur cap are not exclusively technical. The new limits are likely to impact contracts and charterparties. Forward planning now could help to avoid painful disputes in the future.

Time charterparties will require particularly close attention, with more challenges anticipated for vessels already in long-term charterparties that span the enforcement date of 1 January 2020. Unfortunately, there is no single "magic" charterparty clause to deal with all of the issues that might arise. All bunker clauses will almost certainly need to be reviewed but other clauses might also need to be considered, depending upon the chosen method of compliance. Below, we look at some of the issues that we anticipate will more commonly arise.

Carriage of non-compliant fuel

It is likely that a prohibition on the carriage of non-compliant fuels will come into force on 1 March 2020 for vessels not fitted with Exhaust Gas Cleaning Systems ("EGCS" or "scrubbers"). Non-compliant fuels will have to be removed to avoid fines or the vessel being detained. Assuming such fuel is not consumed before 01.01.2020, who is obliged to arrange or pay for the removal of such fuel will depend upon the wording of the charterparty, so it will be important for this to be considered at the drafting stage. There may be significant logistical difficulties in removing non-compliant fuel and it is likely that the re-sale value will be less than the original purchase price. Issues might also arise over who owns the non-compliant fuel and who therefore has the right to remove it.

Definition of 'high sulphur' and low sulphur'

At the moment, vessels burn either 'low sulphur' (0.1%S max) fuel in ECAs or 'high sulphur' (3.5%S max) fuel outside ECAs. In 2020, there will be three sulphur types (<0.1%S, <0.5%S and >0.5%S). This raises the question: what will 'low sulphur' mean in 2020? Will it be <0.1% or <0.5%? It is therefore advisable to move away from the use of terms such as 'high' and 'low' sulphur but instead to specify the exact sulphur limit of fuel e.g. <0.5% sulphur content; <0.1% sulphur content etc.

Bunkers on redelivery ("BOR")

When a vessel is redelivered by a time charterer, the charterparty usually requires that the vessel is redelivered with approximately the same quantities of 'high sulphur' and 'low sulphur' fuel as on board at delivery. The owner will usually be required to buy this fuel back at a certain price (often the same price as at delivery). 'High sulphur' fuel bought from the charterer at redelivery will have little value to the owner unless the vessel is fitted with scrubbers. BOR requirements in the charterparty might mean that the charterer can redeliver the vessel with insufficient compliant fuel on board to reach a bunker port. Therefore, Owners might want to ensure that BOR clauses are adjusted accordingly.

Bunker quality clause

Some bunker quality clauses require the charterer to provide fuel that complies with the international quality standard ISO 8217. However, not all fuels are covered by ISO 8217 (e.g. hybrids) so the bunker quality clause might need to be amended to ensure that the charterer is obliged to provide fuel of the correct specification, which is safe and suitable for the vessel, and in compliance with MARPOL and any other relevant regulations.

Fuel availability

cally fragmented. So a vessel might trade in areas where compliant fuel cannot be supplied or even be unable to trade in such areas, such that trading limit clauses might need to be reviewed. The same is likely to be true for new hybrids/blends, and LNG is already known to have limited availability.

Bunker tank cleaning

Bunker tank cleaning will be needed if switching from heavy fuels to hybrid/blends/ distillates. Tank cleaning might also be needed before switching between different products, depending upon the advice given by the relevant fuel provider. Cleaning products will be needed, waste will need to be disposed of and time might be lost during the cleaning. Responsibility for all of this will depend upon the charterparty wording.

Performance warranties

Different fuels have different calorific values and energy densities. The performance of the vessel could be affected by any of the chosen compliance methods so the performance warranties might need to be amended. Owners should check with engine manufacturers.

Costs of installing an EGCS

It is unlikely that existing charterparties will expressly say who is to pay for a vessel to have an EGCS installed. If the charterer is likely to benefit in fuel cost savings then there may be scope for a commercial agreement as to who will pay.

Can owners be compelled to install an EGCS?

The Court of Appeal considered this type of issue in the Elli and the Frixos [2008] 2 Lloyd's Rep. 119. In 2005, new MARPOL regulations came into force, which made it unlawful for any ship to carry fuel oil as cargo unless it was either double-hulled or double-sided. Expensive modifications would be required to the ships in question to allow them to comply with the new regulations. The Court found that the owners were in breach of certain clauses in the particular charterparties for not having carried out the necessary modifications, namely; a warranty relating to compliance with MARPOL and a clause requiring the vessel to have on board documents required by any applicable law to allow the vessels to trade. Installation of an EGCS is only one option for compliance and, as things currently stand, it will be possible to meet the new sulphur requirements without installing an EGCS. Therefore, the absence of an EGCS on a vessel will not necessarily put the vessel or its owner in breach of MARPOL or impact on the vessel's documentation. Hence it seems likely that the Elli and the Frixos will not apply but it will depend on the facts of the individual case.

Fines for non-compliance

In the first instance, the owner will be responsible for paying any incurred penalties but they might be entitled to be indemnified by the charterer depending upon the charterparty

terms. It might be less clear who will be responsible for lost time and costs if the vessel is detained by port state control.

Looking ahead

Early consideration of the above issues will be key to avoiding future headaches. The solutions will not be the same in every case and will be best considered in the context of the trade that the vessel is going to perform. Additional issues could arise as technologies develop and as we get an idea about availability of compliant fuels etc, which might necessitate further review of charterparties from time to time.

Source: North P&I Club

Inséré 05/05/19 NIEUWS NOUVELLES Enlevé 05/06/19

The lonely seafarer

You are the boatswain of a large containership, operating in long-haul routes. You are contracted to a nine-month tour of duty, from which you know there can be no relief. Your fellow ratings are similarly contracted, although the ship's officers will be relieved every four months.

One can imagine your emotions as you help the departing officers down the gangway with their gear. Morale among your mates will probably not be particularly high as the officers depart for their well-earned leave, knowing that they, the ratings, will not even be half way through their contracts.

The annual review of the Seafarers International Research Centre (SIRC) at Cardiff University notes, in its director's overview, that "loneliness is one of the most prevalent emotions amongst contemporary seafarers". Nothing new about that, you might think, stifling a yawn. Indeed, complaints about this problem and all the mental angst and high suicide rates among seafarers have been talked about, researched and been the subject of earnest conferences, for years. And if you drill down, just a little way into the responses of seafarers to survey questions, the issue of "length of tour" invariably comes up.

There was both good and bad news in the SIRC director's review. It was positive, she noted, that during the period 2011-16, some "forward-thinking companies" had reduced the length of their standard per-voyage contracts. Perhaps they were at last recognising that this was one positive move to a better "work-life balance" – something that people ashore are always banging on about.

The bad news swiftly followed and revealed that a major container line which had previously reduced the length of their ratings contracts to six months were returning to a nine-month norm. Doubtless the number-crunchers, who have been trained from an early age to discount any human consequences of their actions, saw this as a low hanging fruit in their quest to counter the negative effects of their own stupid over-tonnage.

There would have been no negotiations with trade unions that you might find in more enlightened industries. It would have been take it or leave it, and if you don't like it, there are plenty more seafarers who will be happy to take these jobs. Savings must be made where they can, and these ones can be made at the stroke of a pen.

Director Helen Sampson observes that "this is bad news for crews living in the shadow of isolation and solitude and it tarnishes the reputation of the global shipping industry".

Of course it does, but you could argue that it has always been the poor bloody infantry that has carried the burdens, because they are the easiest to push around. You might argue that a nine-month contract is at least a finite length of tour and better than what used to happen when ships went to sea with all hands on two-year articles and a three-month voyage could be doubled or quadrupled, with no notice, to suit the management. But in those bad old days, you had ships adequately manned, with enough people aboard to form a cohesive community and "loneliness" was not something most of us would have recognised. And you were all in the muck together, from the master to the deck boy and the ratings wouldn't have to see their officers disappearing down the gangway rejoicing, less than half way through their tour.

Hearing about the realities of seafaring today, it tends to make you a bit cynical about all these earnest conferences, mostly involving the welfare organisations, but with their token representatives of shipping companies who will utter encouraging noises about the problems of mental health.

The facts were somewhat brutally spelt out a few years ago at a conference on manning by a ship manager who, when commenting on the connection between loneliness, mental health, the length of contracts, lack of shore leave and a generally joyless seaborne life, told his audience that "this was what was on offer". He was probably being honest, although I seem to recall it was during the IMO "Year of the Seafarer" and it didn't seem that it was much of an advertisement for the profession.

Seatrade

Inséré 06/05/19 NIEUWS NOUVELLES Enlevé 06/06/19

750 days after dramatic sinking, report finally published into Stellar Daisy's hull failure

by Sam Chambers

It's taken fully 750 days but finally over the Easter weekend the Marshall Islands flag issued its report into the sinking of the Stellar Daisy very large ore carrier, citing a catastrophic structural failure of the ship's hull for the deadly disaster that killed 22 seafarers. The keenly awaited report into how the very old converted tanker sank has immediately attracted criticism from the ship's class society, Korean Register (KR). The **STELLAR DAISY**, owned by Korean owner Polaris Shipping, sank in the South Atlantic on March 31,2017 with the loss of 22 of the 24 crew onboard. The Marshall Islands's investigation suggests the likely direct cause of **STELLAR DAISY** foundering was a rapid list to port following a catastrophic structural failure of the ship's hull that resulted in a loss of buoyancy and uncontrolled flooding.

The structural failure and flooding are thought to have begun in the No. 2 port water ballast tank (WBT) and then progressed rapidly to include structural failure and flooding in multiple WBTs, voids and cargo holds. The structural damage on the 1993-built ship was likely due to a combination of factors, the flag report stated, including the strength of the ship's structure being compromised over time due to material fatigue, corrosion, unidentified structural defects, multi-port loading and the forces imposed on the hull as a result of the weather conditions the vessel encountered in the South Atlantic. **STELLAR DAISY** was converted from a VLCC to a VLOC in 2008 at a shipyard owned by Cosco in China. The design of the converted ship contributed to the ship's demise, the Marshall Islands's investigation posited. The large port and starboard wing tanks increased the potential for a major structural failure and loss of buoyancy in the event that one or more of these tanks flooded while the ship was in a laden condition, with the flag also noting a gap in the additional safety measures for bulk carriers contained in SOLAS, Chapter XII, regulation 5 which does not require an assessment to ensure bulk carriers of 150 m or more in length of double-side skin construction, designed to carry solid bulk cargoes with a density of 1,000 kg per cu m and above, constructed on or after July 1, 2006 with any part of the longitudinal bulkhead located within B/5 or 11.5 m, whichever is less, inboard from the ship's side at a right angle to the centerline at the assigned summer load line can withstand the flooding of any one wing tank in all loading and ballast conditions. The flag went on to detail what it described as "ineffective assessments" of structural damage identified when the ship was in drydock in 2011, 2012 and 2015. Potential contributing factors to the sinking cited by the Marshall Islands include inconsistent compliance by Polaris Shipping with both KR requirements for reporting structural defects; ineffective enforcement by KR of the classification society's rules to ensure Polaris Shipping was reporting identified damage; non-compliance by KR with the requirements in the 2016 RO Agreement to notify the flag administrator of, among other things, "any dangerous occurrences, accidents, machinery or structural breakdowns, or failures that they are aware of on a Vessel". Responding to the damning report, Busan-based KR agreed with much of the findings, including the likely catastrophic structural failure, but took issue with claims its structural analysis was conducted improperly as well its failure analysis. KR has said it plans to review its reporting procedures to avoid any future misunderstandings. The sinking was the most high profile dry bulk casualty this decade, thanks to the tireless work of the families of the

victims who fought hard for answers, culminating in an expensive, daring submarine trip to the bottom of the Atlantic earlier this year to retrieve the vessel's voyage data recorder (VDR). The much delayed findings of the Marshall Islands concur with the first hand reports of the **STELLAR DAISY**'s two survivors – Renato Daymiel and Jose Cabrahan – who more than two years ago detailed how the ship went down very rapidly after listing to port. In January this year a court in South Korea granted the arrest warrant for the former head of maritime affairs at Polaris Shipping. The court however dismissed the arrest warrants sought by the Busan Coast Guard for the head of Polaris as well as an inspector from KR and two other men who worked for a private survey firm. Further court rulings are now likely as data from the VDR is analysed and the Marshall Islands' report is evaluated.

Source : Splash 247

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