

BULK TERMINALS

AUTUMN 2021 *international*

THE OFFICIAL MAGAZINE OF THE ASSOCIATION OF BULK TERMINAL OPERATORS



GRABBING ATTENTION

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THE COMEBACK KING

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UNDER PRESSURE

BY SANDRA SPEARES

Dealing with the fallout from the pandemic has highlighted the many issues that ports and dry bulk operators are currently facing

Crews and those operating in ports have continued to be under pressure as they face a range of short- and longer-term measures relating to the pandemic.

As the International Association of Classification Societies' chairman Nick Brown said at the association's recent annual press conference, efforts have been focused on keeping supply chains operating effectively and making sure that essential goods reach their intended end-users.

Brown mentioned in his presentation the different segments of the industry that have needed to work together more cohesively than they have perhaps done in the past.

It is clear that as the demands of decarbonisation make themselves increasingly felt, and governments announce further measures going forward, industry co-operation will be vital if any of the ambitious climate targets are to be reached.

It is also worth remembering that there are already regulations in place, such as those relating to ballast water, that need to be followed through and not merely forgotten about as operators face new regulatory challenges.

What is clear is that a tick box mentality with regard to the new eco

challenges is not an option and those in the industry need to ensure that not only do they meet requirements, but that they have put in place practices that will stand the test of time.

Industry practices have also come under the spotlight recently with high-profile incidents, such as that involving *Ever Given*, shining a light on safety and manoeuvrability of vessels in restricted areas. Questions have been raised, among other topics, on the safety issues relating to the carriage of containers on bulk carriers.



Industry practices have come under the spotlight recently, with high-profile incidents shining a light on safety

With this in mind, the use of new forms of propulsion for the industry will continue to gather pace – although one wonders if these will develop at the speed at which many expect them to do so. There will also be a need for shoreside facilities to keep pace with the demands of using new fuels and different types of propulsion.

Meanwhile, the pandemic has led to many working in a virtual way, which has brought with it several advantages, for example remote survey use can cut down the risk of accidents for surveyors when visiting ships or accessing dangerous spaces.

That said, there still remains a role for the surveyor on the ground, with better opportunities to assess responses to requests for information, for example.

It must be said that getting several people together in the same room has much to offer – in particular in a highly sociable industry such as ours. Let us hope there will soon be more opportunities for industry members to meet in person.

We face a challenging time and there will be much to play for when the industry meets in Glasgow for COP26.

In the meantime, we hope you enjoy this edition of *Bulk Terminals International* and look forward to seeing many of you in person soon.



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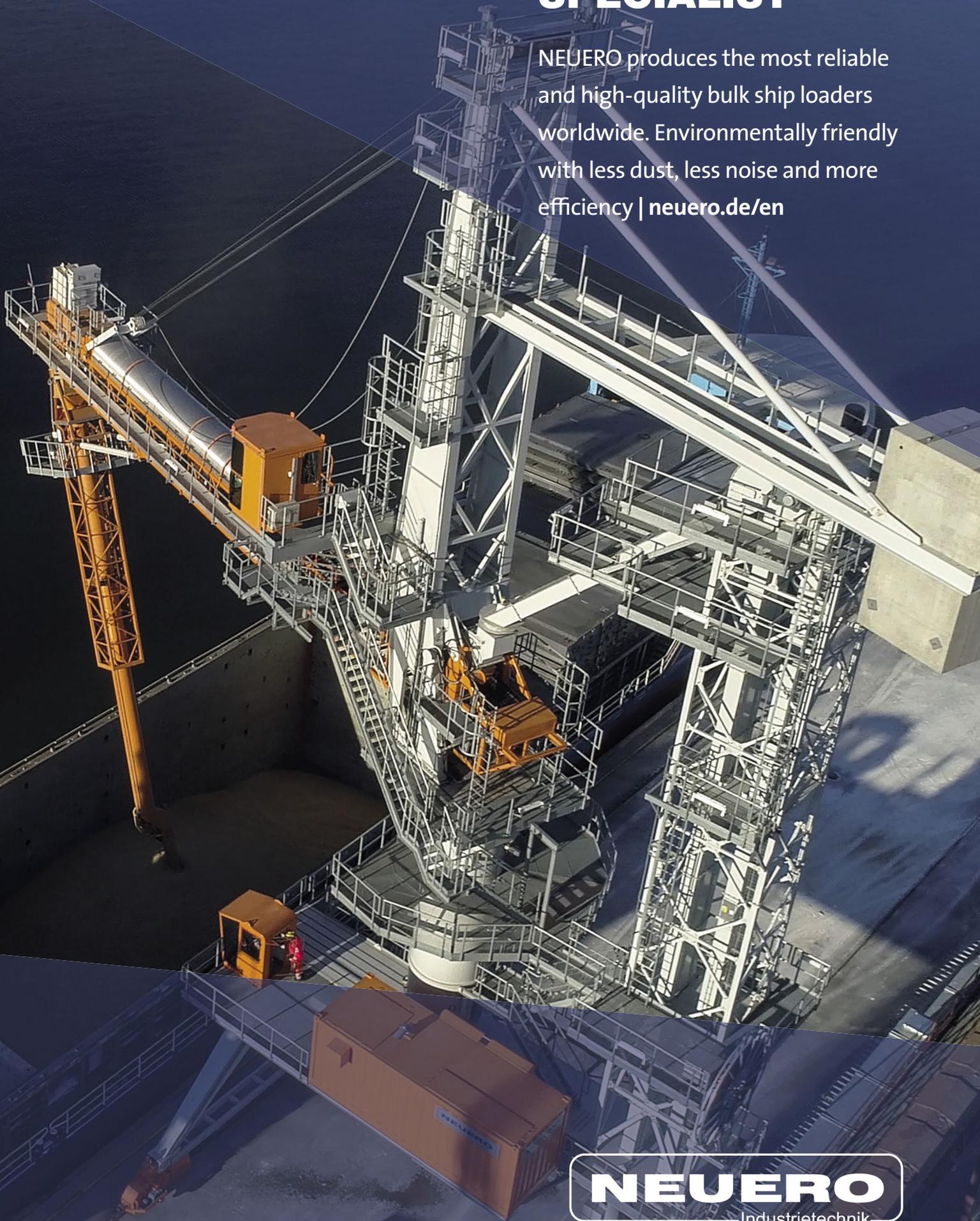
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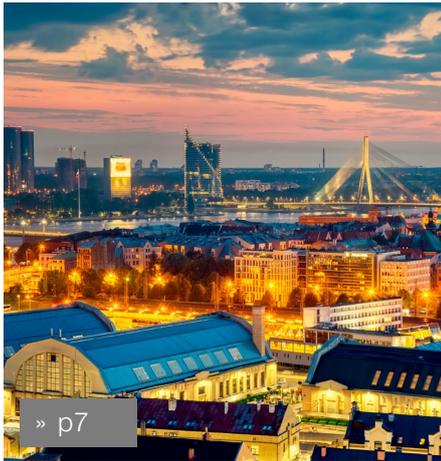
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CONTENTS



1 EDITOR'S LETTER

The fallout from the pandemic has highlighted the many issues that ports and dry bulk operators are currently facing

7 WELCOME

ABTO CEO Simon Gutteridge

10 WORLD NEWS ROUND-UP

Supply chain issues continue to dominate across the globe



15 CRANES AND GRABS

A new technical committee focused on port handling, plus plenty of new orders, sees the sector booming

22 VIEWPOINT

Basil M Karatzas on how the demise of coal has been somewhat exaggerated

26 GRAINS

Carriage of grain cargoes has continued to be upbeat in recent months, with ports experiencing an increase in demand

32 CEMENT

In line with other industry players, the cement sector is tackling the issue of carbon emissions

37 STORAGE

Storage has been vitally important for ports during the pandemic, but safety and security have been paramount



40 BAGGING

Demand for bagging equipment is growing across the globe, with a number of new innovations improving systems

42 SAFETY

A number of issues have come under the spotlight in recent months as a result of the pandemic

46 BIOMASS

Using wood biomass as a carbon-neutral fuel is gaining ground globally, with several big players making their mark

48 SPOTLIGHT: GREAT LAKES

The Great Lakes Seaway Partnership has undergone a busy time, with movements through the ports on the up

51 SPOTLIGHT: MIDDLE EAST

With investment increasing, Middle East ports are experiencing an uplift

54 SPOTLIGHT: NETHERLANDS

Ports in the area have been pursuing a green strategy

57 SPOTLIGHT: AUSTRALIA

Australia's trade spat with China has continued to affect bulk trades this year

60 LAST WORD

Terminal tales from around the globe

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VIRTUAL REALITIES

SIMON GUTTERIDGE, CHIEF EXECUTIVE ABTO

I have just had the pleasure of welcoming many of you to
ABTO Bulk Terminals Conference 2021 in Riga – albeit virtually



Each year, the high-value programmes for the Annual ABTO Bulk Terminals Conference are designed for all those involved in the transportation, storage and handling of bulk commodities. This year, the effect of covid-19 on terminal operations and measures to minimise its impact featured. Some of these measures, such as digitalisation, are already very much on the agenda of operators. Given the importance to Riga – as well as other ports in Latvia and the rest of the Baltic region – of transit cargoes, there was also a focus on rail and transport connectivity.

It is with great regret that we have had to postpone physically going to Riga for the past two years. Last year, to bring everybody together, we ran two 90-minute webinars in October on *The Impact of covid-19 on Bulk Markets and Terminal Operations*.

So, this year despite still not being able to travel to Riga, we decided to run a full conference free and online in three-hour sessions over the course of a week and maintaining a Baltic and Latvian flavour. The effect of covid-19 on terminal operations and measures to minimise its impact featured, as well as our regular coverage of operational, environment and safety matters. Some measures such as digitalisation are already very much on the agenda of operators. Given the importance to Riga – as well as other ports in Latvia and the rest of the Baltic region – of transit cargoes, there was also a focus on rail and transport connectivity.

The conference chairman was Professor Mike Bradley, director of The Wolfson Centre for Bulk Solids Handling Technology at the University of Greenwich, who sits on the ABTO Members' Advisory Panel.

Viesturs Zeps, chairman of the board, Freeport of Riga Authority welcomed the delegates on behalf of our host port.

As in previous years, we opened the conference with a strategic look at the markets. Like every other area of trade activity, the past two years have been hugely impacted by covid-19 so we examined both the short-term

and potential continuing effects of the pandemic on bulk markets.

Dry bulk specialist at Drewry's Rahul Sharan opened the session looking at short-term prospects in the post-covid world, observing that the dry bulk market has seen some unprecedented highs and that the spike in charter rates has sustained for quite some time. Has this been due to a sharp recovery in demand in the post-covid world, or is it only because of operating inefficiencies?

POSITIVE NOTES

Peter Sand, chief shipping analyst, BIMCO spoke on a positive note with an insightful focus on the dry bulk market – spot and outlook. On the shipping side, owners have already enjoyed a very profitable year with temporary factors helping the market stay strong. These are expected to continue providing support into 2022. Of course, a strong market for shipping does not always directly translate into increased terminal throughput, but is a good indicator.

The session chairman Basil Karatzas, a regular contributor to *Bulk Terminals International*, further explored the future outlook, striking a note of caution that while the future prognosis remains positive, we should not expect the recovery graph to be a straight line.

Anthony van der Hoest, director of commerce at MTBS explained that energy transition has played a large role in the increased M&A activity that has been seen with dry bulk and breakbulk terminals.

Markets may be strong, but operation have been affected. Edgars Suna, deputy CEO for Port Development, Freeport of Riga Authority was our chairman for day two, looking at operations and the ongoing impact of covid-19. Frank Robertson, vice-president, operations at Logistec opened, explaining how the company managed to keep things moving during a pandemic.

VITAL FACTORS

Rail and hinterland connectivity is a vital factor in the success of port operations – and none more so than at Latvia and Riga, given the importance

of transshipment business to them, as Gundars Ābols from Latvijas Dzelzceļš (Latvian Railways) explained.

Energy transition has seen biomass volumes increase, but as Axel Dahl, sales manager at Bruks Siwertell explained, biomass can be a difficult material to handle. There are things that can be done to minimise the risk – not least choosing the right systems.

Whether to choose a mobile (tyre-mounted) or travelling (rail-mounted) shiploader? With mobile shiploaders in operation around the world for at least 50 years, this technology is still less known than travelling models. Yet in many cases, mobile shiploaders make more technical or commercial sense. Lev Evangulov from Samson Materials Handling compared the timings and efficiencies of both systems.

Garry O'Malley was unfortunately unable to join us with a case study of the Teesworks development, so Mike Bradley stepped in with a selection of case studies of costly failures at bulk ports, from The Wolfson Centre forensic engineering case-book.

Day three considered how digitalisation and artificial intelligence could improve operations and the degree to which the pandemic has speeded up their adoption – together with the need to improve cyber security. It opened with a presentation from Captain Ben van Scherpenzeel, chairman, International Task Force Port Call Optimization, which looked at how covid-19 will affect future operations and speed up the adoption of digitalisation – and, in the process, the need to be compliant with IMO, BIMCO clauses and Port Authorities.

Although not a digitalisation subject, for scheduling reasons the next presentation was an introduction to the concept of understanding the total cost of ownership, given by Mike Bradley. He explained that, all too often, the operational requirements of the equipment to be supplied to bulk terminals is not properly understood by either the buyers or the sellers.

He explained how purchase decisions purely based on price or a lack of knowledge of the characteristics of the material to be handled – or frequently

both – will fail to understand the true cost of a bulk solids handling system to a business in terms of downtime, energy, maintenance and manning.

SHORT COURSES

Understanding the Total Cost of Ownership is the subject of a short course that ABTO is running with the Wolfson Centre and the Solids Handling and Processing Association on Tuesday 23 and Wednesday 24 November. Details of this and our other courses, Biomass Handling Technologies next February and Port and Terminal Operations for Bulk Cargoes in March are on the ABTO website: bulkterminals.org

The next presentation returned to the subject of digitalisation and artificial intelligence. Session chairman Richard Morton, secretary general International Port Community Systems Association spoke on the strategic drivers for the electronic exchange of information in ports. Today's ports have significantly increased their focus on digitisation and technologies since the beginning of the pandemic. However, it is not just about technology – as Morton explained, technology is just the enabler, with change management being the biggest challenge all ports face.

The session continued with a case study covering the digital solutions implemented in the Riga Universal Terminal. This presentation was given by Raitis Tukans and Artrus Zanderson from the Freeport of Riga Authority, plus Janis Kasalis, CEO of Riga Universal Terminal.

Before the discussion session, the final presentation of the day was given by David Nordell, maritime security expert and director, Synapse Cyber Strategy. As port community systems are growing around the world, the risk of cyber attacks has become greater, both because the targets are bigger and more tempting and because they are more complex and therefore more difficult to design and set up securely, he explained. There will be an operational cost to better security, but to get better security you must accept some inconvenience.

Improving the environmental impact of bulk terminals has had a high priority

in all our previous conferences. This year was no exception. Presentations on day four looked at ways to achieve reductions for all types of emissions and how terminal developments can be achieved at the same time as protecting the environment.

The session started with ABTO's technical director, Ian Adams, discussing how to reduce shipping greenhouse gas emissions in ports.

Sustainable operations are the goal. This can only be achieved by considering efficiency, seamlessness, dust limitation and sustainability as a single, integrated target rather than unrelated and independent issues, explained Bedeschi's sales director Asia Pacific Lodovico Bernardi.

The electrification of terminal operations is clearly an immediate and major reducer of emissions. Justin Leonard, director at igus UK, emphasised in his presentation that the most benefits from this are achieved if planning takes place early in the design stage, rather than, as often happens, it is left too late in the process.

The Freeport of Riga is on the way to becoming a modern port that implements innovative digitalisation and environment-related solutions. In his case study, Deniss Bickovs from the Port of Riga demonstrated how it is achieving development with environmental protection

Our final session on day five looked at the perennial issues of risk and safety across the board. Two explosions last year – at Tilbury Grain Terminal and Beirut Port – have highlighted the dangers. Richard Steele, the new head of ICHCA International, was the chairman of this session.

Our annual conference is always grateful to the TT Club for highlighting risk issues as they affect terminal operations. Peregrine Storrs-Fox pointed out that long-, medium- and near-term risks – climate change, abandonment of cargoes and enclosed space fatalities respectively – present very different characteristics. The one thing they all have in common is that steps can be taken to prevent them or minimise their impact.

Professor Peter Wypych of the International Solids Handling Research Institute (ISHRI) joined us at a very unsociable hour from Australia to give us the results of research into the application of new dust control technologies for bulk loading and unloading operations. The key takeaway from this for me was: treat the root cause not symptoms of the problem. The presentation described some of the technologies that are being researched and developed to overcome these problems. Dr Jon Roberts, also from ISHRI, and Dr Renhu Pan from Fujian Longking Co in China also contributed to the research.

The explosions at Tilbury and Beirut showed that in spite of understanding and regulation, accidents continue to happen – and not just in failed states. But for every headline-grabbing event, there are thousands of small events that together cause much larger losses of productivity and money. Mike Bradley's presentation on explosive atmospheres and fires included investigative case studies and examples, together with ways to reduce the risks.

WITH THANKS

The presentations will all be available shortly on our website in the Previous Events sub-folder of the Events folder for any of you who were not able to join us – or for those who would like to hear anything again.

I would like to say a big thank from myself and my ABTO colleagues to our conference chairman, Professor Mike Bradley, plus all our session chairmen and speakers. Also, our sponsors who made the conference possible: igus; Bruks Siwertell; Bedeschi; Buttimer Engineering and Samson Materials Handling. Finally, I am very grateful for the support from everyone at the Freeport of Riga – we all hope conditions allow us to visit Riga in 2022.

Enjoy our autumn edition of *Bulk Terminals International*. Keep in touch and stay safe.

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WORLD NEWS ROUND-UP

Supply chain issues have been much in the news in recent months and the International Maritime Organization has been under pressure to come up with speedy solutions for the industry



The pandemic has proved a challenge for operators seeking to keep supply chains running, but market players have been stepping up to the plate.

The International Association of Classification Societies (IACS) has been focusing its efforts on keeping global supply chains flowing and ensuring that food, fuel and medicines continue to reach societies during the pandemic.

IACS is proud of its efforts in this respect, Nick Brown chief executive of Lloyd's Register and new chairman of IACS told a recent press conference.

Flag states and port state control authorities are among those contributing to keeping supply chains running. "Things can spiral into panic very quickly," he said, taking as example the recent fuel crisis.

In terms of current conditions, there is a increased acceptance and use of remote surveys. "We see that as a trend we should hold on to, to supplement traditional methods," he told journalists.

During the pandemic, IACS has continued to attend remote meetings to ensure the industry's voice is heard, he explained. IACS teams have been involved in a number of publications to support the industry.



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"We have seen the biggest shockwave with the pandemic, but are now seeing strong economic growth," he added. Recovery will be uneven, with supply chains being stretched both with regard to container business and now bulk segments.

The world will need to co-exist with covid-19, he said, with necessary national or local lockdowns. On crew changeovers, he believes more governments need to support the industry.

Recent events have concentrated everyone's minds on supply chain resilience as well as the need to raise awareness of the importance of the industry. Decarbonisation is dominating the headlines, with regional initiatives such as Fit for 55 taking place, he said.

Digitalisation has also brought new risks around the cyber issues and the industry needs to understand those risks

and ensure that new technology did not result in introducing new problems. "Class is a tried and tested mechanism and collaboration with IACS is only going to become more important," he said.

There is a greater need for collaboration and a growing independence of different industries. "We have been working very hard to ensure IACS is a robust organisation and allowed a voice," he said.

IACS's new governance model allows for higher visibility of long-term strategy, including looking for synergies. It is very critical to create a high visibility strategic roadmap to support industry through the challenge of decarbonisation, he said.

At the same time, there needs to be an increased assessment of the human element. Safety during the decarbonisation transition is vital as the process does bring significant safety risks

with it, not least explosive risks with new fuels. A unified approach is necessary and as systems are becoming more complex on ships, and new technology is introduced, the necessary skill sets on board need to be reconsidered.

"Seafarers are at the core of shipping's future," he added, and all IACS rules are based on having fit, healthy and competent crew on board. "That is not a given if we can't deliver crews on board," he said.

He stressed the importance of recognising crew as key workers. "Governments need to make sure that they facilitate crew changeovers." IACS also welcomes input in order to make sure "roadmaps are agile".

Local lockdowns have been impacting surveyors' attendance on ships. As far as remote surveys are concerned, these look set to continue and there is no intention to replace

physical surveys. Using remote surveys could mean these could be scheduled at less intensive periods of work.

“Remote surveys can smooth out peaks and troughs of activity and not create an additional burden,” he said. They could also be streamed and recorded so that others could watch them and avoid duplication of effort.

It was down to classification societies to ensure that the clarity of the survey was suitable for the task in hand, he added. Sharing information with other parts of the industry, as between class and flag state, will also be important.

“Regulation in general can be seen as a barrier to change and regulation needs to be agile enough to enable change,” he said. Feedback needed to come back from trials of new equipment and processes and investment in land-based infrastructure was also needed.

IACS is planning to provide its input to COP26. “We have not slowed down as a result of the pandemic,” he said, but incentives were needed to close the commercial gap to support first movers.

There will also be a focus on the human element and the evolution of the International Convention for the Safety of Life at Sea and how the role of the seafarer might evolve going forward.

BALLAST WATER EXTENSION

BIMCO, together with other industry bodies, has submitted a proposal to the upcoming Marine Environment Protection Committee (MEPC) 77, due to take place in November, with the aim to extend the experience-building phase (EBP) associated with the international convention for the control and management of ships’ ballast water and sediments.

The extension is deemed necessary due to slow progress of the data collection phase.

“It was envisaged at the time of starting the EBP that countries and port state control (PSC) organisations would have been gathering significant levels of data, and that this would be fed into the IMO GISIS system for proper collection and analysis,” BIMCO said in a statement. “However, so far, only five member states have submitted data, which represents

approximately 200 ships. In BIMCO’s view, this is insufficient to proceed to the next stage if a proper data analysis must be conducted.”

“It is reasonable to assume that the covid-19 pandemic may have significantly impacted on planned numbers of onboard inspections and their scope relating to the Ballast Water Management Convention over the past two years.”

DRY BULK MODULE

The Signal Ocean Platform has a new Dry Bulk module. The move follows nearly two years of development in close partnership with shipbroker Simpson Spence Young (SSY) and detailed beta testing with more than 30 shipowners and charterers.

The Signal Ocean Platform is already successfully used in the tanker market by shipbrokers, shipowners, traders and energy majors who manage around half of the world’s crude oil spot tonnage and cargoes.

Launched by Signal Group in 2018, the Signal Ocean Platform continuously processes and combines streams of private and public data such as AIS, tonnage lists, cargo lists, vessel positions, port costs, port line-ups and freight rates.

Using advanced algorithms and artificial intelligence, data is transformed into private and actionable insights on the freight market. Users can optimally match vessels to cargoes, run profitability comparisons, make CO2 estimates, and use Signal’s patented technology to forecast vessel movements and availability across the globe.

Signal Group Chief Executive Officer Ioannis Martinos says: “Adapting our tanker technology to dry bulk was not straightforward. Working with the dry desk at one of the world’s leading shipbrokers, and a few select clients, helped us develop a dry bulk solution which is relevant and simple to use. We now look forward to engaging commercial teams around the world to extend and improve the product further.”

Stanko Jekov, SSY’s Global Head of Dry Cargo comments: “Data driven insights are critical to our success and help us support our clients more effectively than

ever before. Signal’s technology gives our brokers an instant and unique view of the market and has greatly enhanced our competitiveness.”

Early adopters of the Dry Bulk Module include Starbulk and Seenergy Maritime.

INNOVATION IN SAFETY

The International Cargo Handling Coordination Association (ICHCA) International has opened the 2021 TT Club Innovation in Safety Award, which aims to highlight the importance of safety at a time of increased operational demands on cargo handling infrastructure and operations worldwide.

The aim of the award is to champion and celebrate the many companies and individuals around the world who are 100% dedicated to “making it safe” every day, and to acknowledge and foster innovation to improve safety in cargo operations and logistics.

Both ICHCA International and the TT Club have a fundamental commitment to risk reduction throughout the supply chain, in particular to safety within cargo handling operations. Promoting such safety advice is paramount to the philosophy of the two organisations and the award reflects this commitment.

The award is open to anyone – an individual, team or company – involved in cargo logistics. Entrants are required to show that a product, idea, solution, process or scheme has resulted in a demonstrable improvement to safety. *The deadline for entries is 12 November 2021 and full details of the entry process and judging criteria can be found in both English and Chinese at tinyurl.com/safety-awards*

FREPORT GUIDANCE

With the publication of guidance for operators on the responsibilities of operating a Freeport customs site by HM Revenue and Customs (HMRC), the British Ports Association (BPA) has welcomed the development of the UK Freeport model.

However, this is held in stark contrast to developments in the devolved administrations and raises new calls for parity of the Freeports process for all nations of the UK.



HMRC has now published guidance for “Operating a Freeport customs site”, or “free zone” for the eight winning bids in England, who were designated Freeport status in March earlier this year.

The BPA has been supportive of the concept of Freeports across the UK and believes they can be a force for immense good, thus advancements in piecing together the structural elements of UK Freeports have been hailed by the BPA.

However, since the winning English bids were announced before any agreement on Freeports in the devolved administrations, there have been legitimate fears among ports that they will miss out and be left behind, which have not since been alleviated.

The BPA represents 43 out of the 50 major port locations in the UK and membership accounts for 86% of all tonnage and includes all the major port operators in Scotland, Wales and Northern Ireland and many more.

LAUNCH OF NEW COUNCIL

There was a gathering on board *HQS Wellington* in London recently to launch the Maritime Professional Council of the UK, which will aim in the future to ensure that policy makers are aware of the range of expertise and considered opinions the maritime industry can provide.

Shipping is going through huge technological changes and the industry’s professional bodies say their expertise needs to be utilised more fully when policy decisions are made in this vital sector.

For generations, professional organisations have provided a key source of expertise helping to maintain the right standards across industrial sectors. In the maritime sector, this is often not the case meaning regulators and employers are missing out on years of experience leading professionals can bring to the table.

The MPC will aim to get industry expertise on display to provide informed advice on the many policy decisions that need to be made. The aim is to get the message across to government, preferably in advance of decisions that need to be made on maritime issues, including the green debate.

This year’s Merchant Navy Day also provided an opportunity to reflect on the sacrifices the industry has made in the past – it was the 80th anniversary of the first Arctic Convoys – and deprivations suffered by those at sea. This topic is, of course, relevant today, given the dire situation faced by many seafarers in recent times because of the pandemic, irrespective of where they come from.

The pandemic has resulted in a number of initiatives by individual companies and governments to address the difficulties faced by seafarers through the pandemic, not least the problem of getting vaccinated against coronavirus.

NEUERO: KICK-STARTING INNOVATION

COMPANY NEWS

French agri-food group Soufflet in Rouen recently took delivery of the new Neuero Kiko (kick-in kick-out) shiploader, which has a loading capacity of up to 1,200t/h of grain with minimal dust emission. After four successful installations in the region, the Neuero Kiko DSH (dust suppression head) has impressed port operators with its efficient operation and high dust suppression, due to mass flow control.

The shiploader was assembled in Germany and transported using a heavy lift ship to France. The most significant advantage of this means of transport is the short downtime of the terminal. However, such transport is not easy and requires a lot

of planning and preparation. Therefore Neuero and Soufflet already agreed on this shipment method at the beginning of the project so that lifting points and lashing points could be integrated into the machine design.

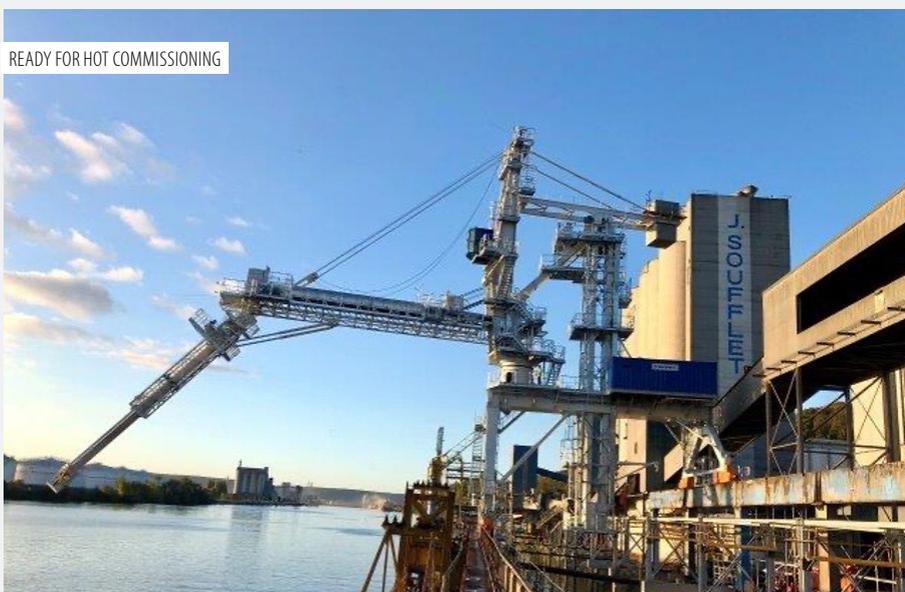
Heavy lift cranes set the shiploader into position at the site and Neuero was able to begin dry testing. The next step was hot commissioning after the site conveyor was ready.

So what is the difference that makes the Kiko DSH operate so efficiently and with the highest environmental standards available today? The answer is a combination of mass flow and pendulum movements. The mass flow allows loading

of the cargo at low speeds, reducing dust emission. The shiploader does not eliminate dust completely, but reduces it significantly, therefore avoiding product segregation and slow material discharge speed. Older systems throw the product at boom height and try to stop it at arrival, especially during hatch trimming work where it is needed to fill all gaps.

The pendulum movement that we call Kiko allows the loading head to move simultaneously with the vertical telescope and enclosed system. Additionally, the slewing movement allows all areas of the hold to be reached, including the corners.

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READY FOR HOT COMMISSIONING



DEPARTING FROM GERMANY

INDUSTRY UPLIFT

With a new technical committee focused on port handling, plus plenty of new orders, the crane and grabs sector is booming



The Port Equipment Manufacturers Association (PEMA) has launched a new technical committee focusing on port bulk handling, following huge interest from members in the segment of the port business.

“PEMA represents the interests of equipment and technology suppliers on a worldwide basis, providing a platform to inform, educate, and promote best practice within the industry it serves and externally with port and terminal operators and other key stakeholders,” says Achim Dries, PEMA president.

“We want to ensure that PEMA continues to build its unique role in establishing dialogue and promoting best practice in the seaport, marine and intermodal terminal space worldwide.”

The new committee will add to the current work of PEMA’s existing technical committees and will look into producing industry-wide information papers and tackle some of the pressing issues within the business. It will be chaired by Andrea Prevedello, Beumer Group’s chief executive in Austria. Andrea Vitturi, chief R&D and engineering officer at Bedeschi, will act as vice chairman.

To join the Committee, contact: Petar Karaivanov, PEMA Head of Administration at petar.karaivanov@pema.org

BATTERY POWER

PEMA has published an information paper, *Battery & Charging Solutions in Ports and Terminals*. The paper is intended to provide an overview of battery solutions for equipment used in ports and terminals, such as rubber-tired gantry cranes, straddle carriers and automated guided vehicles.

The content is intended to provide ports, terminals and other interested parties with practical advice on the selection and implementation of battery solutions both for new-build equipment and for retrofit installations.

KONECRANES CONTRACTS

Crane and grab orders have continued apace during the pandemic as port operators continue to try and improve efficiency and cut costs.

Lomé Container Terminal (LCT) in Togo, West Africa, has ordered five more Konecranes Rubber-Tired Gantry (RTG) cranes. The order was placed in June 2021 and the cranes will be delivered in the second half of 2022.

Antoine Bosquet, vice president of regional sales Europe, Middle East and Africa at Konecranes Port Solutions, says: "When these new cranes are delivered and commissioned, LCT will operate a fleet of 32 Konecranes RTGs. Today, there are more than 200 Konecranes RTGs at work across West Africa."

The Konecranes RTGs on order are identical to those already operated by Lomé. They are 16-wheel machines lifting containers one-over-six, seven containers wide plus truck lane, with container anti-sway provided by the Dynapilot system. They are fully electric ecolifting machines powered by busbars and equipped with auto-steering and stack collision prevention.

Auto-steering is with a differential global positioning system: it keeps the RTG on a pre-programmed, straight-drive path. Stack collision prevention helps the crane operator to prevent container collisions and knock-downs when a container is moved in the bay direction.

Meanwhile, Terminal Flavio Gioia (TFG) has ordered two eco-efficient Konecranes Gottwald mobile harbour

cranes for its terminal in Naples, bolstering its material handling capacity to keep up with demand. The first order was placed in March 2021, and the option for a second was exercised in August, reflecting the need to quickly ramp up business. The first crane is already in operation and the second will start in early 2022.

TFG is the main terminal of Gruppo Bucci, specialists in international logistics based in Naples. The company provides manufacturers in Italy with import and export services including the management and handling of container shipments, and multimodal connections to and from local destinations.

"The cranes we've ordered in 2021 are central to our long-term growth plan to expand and improve our logistics offering. We've had a strong partnership with Konecranes for nearly 20 years, and they've always shown us a humble, reliable and professional commitment that we value," says Roberto Bucci, chairman of Gruppo Bucci.

LIEBHERR ORDERS ON THE UP

Liebherr Container Cranes has been awarded the contract for the supply of three ship-to-shore (STS) container cranes for Maher Terminals at the Port of New York and New Jersey. The cranes will take their place alongside the existing eight Liebherr STS cranes at Maher's terminal.

Maher is a champion of sustainable port infrastructure and the Liebherr STS cranes are a key component of Maher's comprehensive energy and environmental management programme. The cranes will assist Maher in becoming a net-zero emissions facility by 2040.

The Liebherr STS cranes include many additional environmental benefits. Manufactured using high-tensile steel and with a lattice main beam and boom, the resulting lightweight and stiff crane requires less energy to operate than traditional cranes. The crane drives include an active front end, which returns electricity to the grid, while the Liebherr Liduro drive systems optimise energy requirements and power

management. Ultra-high efficiency LED floodlights reduce energy consumption by 70% over traditional fixtures, provide better light quality to the longshoremen, and are designed to reduce glare and light pollution.

Liebherr's managing director of sales Gerry Bunyan says: "With these latest technically advanced machines working alongside the other Liebherr STS cranes at the port, we are confident Maher Terminals will be able to offer improved services and faster turnarounds to their customers and continue to grow as North America's largest marine container terminal."

Further investment has been taking place in Uruguay where Corporación Navios replaced a Liebherr long-duty cycle crane with a permanently installed harbour crane type FCC 300. The recently erected harbour crane will be used for dry bulk handling of barges in hoppers at the terminal in Nueva Palmira.

As a result of the investment, the three harbour cranes are expected to increase the terminal's handling rates and generate operating synergies, as the crane operators will work with the same type of crane on all operations.

The Liebherr products are used to handle bulk cargo on narrow piers. For terminals with little space but a high workload, the space-saving design of the fixed cargo cranes series by Liebherr has been demonstrated over the past six years. Between 600 and 700 tonnes of iron were handled per hour throughout this time. They were supported by a Liebherr HS 871 HD long duty cycle crane, which is now being replaced by a FCC 300, the third of its kind at the terminal.

"With the investment in another FCC 300, we are taking a decisive step towards higher turnover rates," says Rosina Lurato, project and certification manager of Corporación Navios. "We handle around five million tonnes of dry cargo per year and need fast as well as reliable equipment. Based on our positive experience with the two permanently installed cargo cranes, it was quickly clear to us that another crane of the same type was the right choice."

About half of the five million tonnes are exported from Uruguay, the other half is imported dry cargo from other countries. The FCCs handle various grains such as soy, maize and wheat, as well as minerals such as iron and manganese. The new FCC 300 is mainly used for soy handling and can handle up to 1,000 tonnes of soy per hour.

In addition to the space-saving design, the higher handling capacity was also a decisive feature for choosing the third permanently installed harbour crane. Furthermore, the higher flexibility due to the interchangeability of the grabs played an important role. With the two FCCs already in place, the crane operators now always work with the same type of equipment. This increases safety during operations and facilitates routine operation. Another advantage of the identical cranes is a more efficient maintenance and procurement of spare parts. All three units can be maintained in one service loop.

Meanwhile, Bornheim, Germany-based Viktor Baumann has taken delivery of a new Liebherr LTM 1150 5.3 mobile crane.

"We wanted to close the gap between 130 and 200 tonnes of lifting capacity in our fleet", explains managing director Sabine Baumann-Duvenbeck. "With its 66m telescopic boom, the LTM 1150-5.3 has a very long mast with good lifting capacity values, yet is also very compact."

Liebherr first unveiled the new LTM 1150-5.3 to the public in autumn last year as the successor to the LTM 1130-5.1. The telescopic boom on the new crane is six metres longer. At the original length of 60m, the new five-axle crane can hoist 12 tonnes when fully raised – 1.5 tonnes more than its predecessor. When fully extended to 66m, the new crane has a lifting capacity of more than nine tonnes.

As a result of its long boom, the new LTM 1150-5.3 will be used for erecting and dismantling construction cranes and for jobs in chemical plants where high hoisting heights are required.

Baumann-Duvenbeck says the LTM 1150-5.3 is "ideal for versatile, flexible use. The new crane also features some

fantastic technical equipment such as ECOMode and ECOdrive to save on fuel consumption and CO₂ emissions and also to reduce noise."

Over in China, Liebherr-Component Technologies has started construction work on a new plant in Dalian.

"In order to meet the increasing demand of Chinese plant manufacturers for components for the wind industry and construction machinery sector, we are expanding our local production capacities. In the coming years, we will also supply other industries and applications," explains Fabian Wahl, managing director of Liebherr Components (Dalian).

KALMAR SCOOPS DEALS

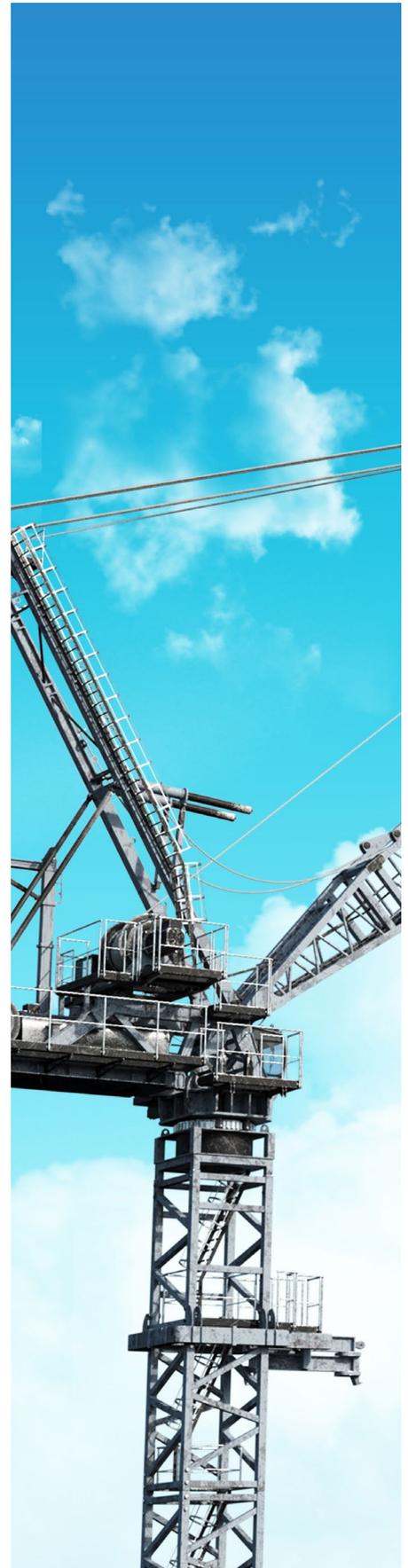
Kalmar has secured a deal with PT Riau Andalan Pulp and Paper, to supply the Port of Buatan in Indonesia with two new-generation zero-emission rubber-tired gantry cranes (RTGs), two essential container handlers and an essential reachstacker.

The new machinery will add to the port's current fleet of four Kalmar SmartPower RTGs delivered in 2018 and 2019 and is scheduled to be delivered in the third quarter of 2022.

"We have worked with Kalmar since 2018. The company's fuel-efficient SmartPower cranes have helped us achieve significant efficiencies in managing our fuel costs and emissions, improving productivity, and increasing safety as well as simplifying our maintenance processes," says Refnil Dodi, logistic operation manager at PT RAPP.

Daniel Ho, vice president of sales at Kalmar Asia-Pacific, adds: "Kalmar zero-emission RTGs are ideal for businesses that want to significantly reduce their carbon footprint, and our new generation cranes offer an intelligent, optimised solution with a stronger, modular, lighter and simpler design, making them even more eco-efficient, cost-effective and easier to maintain."

Kalmar is also supplying the Kenya Port Authority with three forklift trucks and eight reachstackers. The new orders are expected to arrive in the first quarter of 2022.



NEGRINI: ADDING REMOTE ASSETS

COMPANY NEWS

Negrini has introduced a new tool to further enhance its extensive range of electro hydraulic grabs. Remote Control Industria 4.0 is ideal for routine maintenance, as well as to improve the efficiency and operation of customers' production processes.

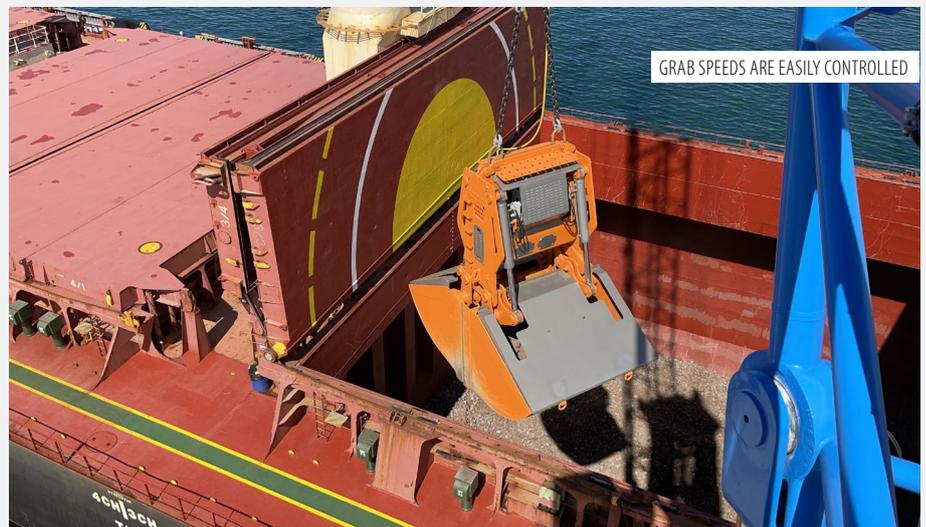
STATE-OF-THE-ART FEATURES

- » Monitoring and control of processes in electro-hydraulic equipment
- » Real-time scans and diagnostics
- » System communication via wi-fi or data sim
- » Notifications via email, sms or smartphone, tablet and PC
- » Preliminary production analysis
- » Routine maintenance alert
- » Failure prediction
- » Immediate alarm in case of failure or malfunction

THE SMART GRAB

With Remote Control Industria 4.0 installed, the grab parameters automatically adapt to the type of material being handled without the need for human intervention, therefore maximising production and reducing costs.

In the presence of high-density materials such as mineral, the grab speed is reduced and the hydraulic pressure is increased – parameters that are not suited to lighter materials such as coal or cereals, where we see a change in speed



and reduction in hydraulic pressure – thereby reducing energy wastage and wear.

The most important advantage offered by the Remote Control Industria 4.0 device installed on Negrini's equipment concerns the processing of data, thus allowing preliminary production analysis and failure prediction. Notifications are sent via email and sms and each time an event occurs, either an incident, arrest or maintenance request is recorded.

Costly machine downtime is therefore avoided while maximising production, reducing periods of non-activity and minimising expenses normally incurred by corrective maintenance works. The client and Negrini Srl have total control over the condition of the equipment via wi-fi or a data sim, using a smartphone, tablet or PC, and will receive all notifications sent by the system so as to always be informed of machine requests and events.

For more information, visit negrini.org



Negrini company, established in 1967, specializes in engineering and manufacturing a comprehensive range of grabs and buckets for rope machines and crawler mounted cranes; they are employed to do many jobs. Negrini buckets and grabs are very well-known for quality as well as for the very accurate and skilful engineering work; in fact Negrini supports their clients by analyzing the job to be done and, if needed, by adjusting the standard design of grabs and buckets to enhance their performance once in operation.

VIA TORRICELLI 4 - CASTELFRANCO E. (MO) - ITALY



www.negrini.org

TELESTACK: A MORE MOBILE APPROACH

COMPANY NEWS

The operational success achieved within the mobile sector has gone a long way to highlight the rigidity and limitations of traditional “fixed” operations. The ability to achieve flexibility, efficiency and compliance within any given multi-cargo port along with the ability to meet all the necessary operational metrics with ease, has prompted a definitive global trend towards mobile equipment in the port.

The introduction of the Telestack All-Wheel Travel direct “truck-to-ship” ship-loading system has transformed the flexibility and rapidity given to operators, not only in terms of speed (achieved by faster loading rates), but also the agility achieved through the ability to operate and move large scale shiploaders within the limited space on current jetty/docks.

The surge in demand for this type of system encouraged Telestack to develop this concept further with the introduction of a high-rise chassis that enables the unloading truck to drive under the system, opening up a host of options for jetties that are restricted in width (<25m-wide jetty/dock). The demand for such a system is particularly strong in regions with a developed infrastructure that would not allow for expansion, but where the desire to “move to mobile” exists, based on the level of success achieved by fellow multi-purpose ports.

Telestack International sales manager Carl Donnelly, explains: “Before the development of the ‘high-rise’ system, mobile solutions would not be a viable option for those operations loading handymax

or panamax-type vessels. This would render the operator’s equipment selection limited to typical fixed conveyor systems or grab/mobile harbour crane systems. In modern developed ports around the world, where space is such a commodity, certain infrastructures could only consider fixed systems as there was not enough space to allow for mobile operating systems, until the high-rise design eliminated this issue.

“The TB range of radial telescopic shiploaders from Telestack offers a range of mobility features including in-line, parallel travel, radial and steering. This results in the most mobile all-wheel travel system in the market ensuring the unit can move with speed, ease and accuracy from ‘hold to hold’ during the loading operation. The high-rise design allows the unloading truck to drive underneath the shiploader chassis with ease marking a host of options for the compromised jetty.”

These all-wheel travel high-rise mobile ship-loading systems represent a new generation of mobile solutions, offering the performance of traditional systems, but with the added benefits of mobility, flexibility and, ultimately, a lower cost per tonne achieved by increased production rates, reduced cycle times and reduced labour costs – now within a restricted jetty. The added ability to truly customise the product to the specific needs of the customer, the locality, the commodity and the quayside is yet another reason why the sector was so keen to push for a mobile solution within the restricted jetty.

Telestack offers a level of customisation that is relatively unmatched in the business and it is this level of personalisation that makes it so successful in this area. The ability to incorporate a host of dust containment / extraction options to meet the needs of the local and regional environmental regulations, while ensuring that it can work with



THE INTRODUCTION OF THE TELESTACK ALL-WHEEL TRAVEL DIRECT “TRUCK TO SHIP” SHIPLADING SYSTEM HAS TRANSFORMED THE FLEXIBILITY AND RAPIDITY GIVEN TO OPERATORS, NOT ONLY IN TERMS OF SPEED (ACHIEVED BY FASTER LOADING RATES), BUT ALSO THE AGILITY ACHIEVED THROUGH THE ABILITY TO OPERATE AND MOVE LARGE SCALE SHIPLADERS WITHIN THE LIMITED SPACE ON CURRENT JETTY/ DOCKS

more than one material (taking into consideration their differing weights, densities and flow) has meant a truly tailored solution is offered to the customer.

In a recent installation of the high-rise design in South America, the unit was designed with double-sealed dust covers, fully sealed transfer points, dust extraction filters at transfer points, undertrays to prevent any spillage on the jetty, and a 20m telescopic discharge chute to allow controlled trimming of the hold during the loading process. This level of customisation ensures that the system is fully tailored to the environmental needs of the operation.

Telestack is also at the leading edge of electrical sophistication and has a growing and highly skilled electrical team dedicated to ensuring that any Telestack unit can fully integrate into the port's operating system successfully. In the same installation in South America, the unit was fitted with a customised IP 66-rated diagnostic control panel complete with easy-to-use touch screen. For the operator, who will have to manage several different elements of the shiploading process, the Telestack solution offers the ability to monitor and control the plant from a single location using radio remote control. The integrated generator manages all functions of the shiploader resulting in an autonomous and independent unit with the ability to switch to shore power as and when required.

Telestack's electrical engineering team is one of the fastest growing departments within the business and the company is continually invested in working with clients to meet their electrical needs. This level of personalisation can also extend to guarding, handrails, dust containment and more.

The need for flexibility to adapt to differing operational needs in the handling of any dry bulk in pit to port, pit to plant or port to plant is important. One of the main reasons for the growth within the mobile sector is the ability to use the same equipment along several parts of the logistics chain. The mobility factor ensures that a company can use the equipment as required in one area of the operation and move to another area with ease and speed,

or, indeed, move the units to storage areas, as and when required. This is flexibility that simply cannot be achieved by a traditional fixed infrastructure.

In the current climate where the nature of any given business may have to change in response to changing commodity demands, mobile equipment allows the owner to react quickly. The smart design means that the unit can be easily dismantled, packed into containers and relocated to another site or country as required. The versatility and multi-faceted use in a variety of global applications (sea ports, river terminals, mines, quarries, power plants, cement plants, steel mills, and so on) coupled with excellent resale values ensures there is always a high demand for mobile products.

Mobile equipment often helps reduce initial capex as they are typically significantly cheaper to buy than mobile harbour cranes and stationary systems. Such equipment also means there are significantly lower civil engineering and infrastructure costs, and it can easily link into existing material-handling systems. Customers can be generating revenue streams very quickly.

Typically designed to not require any onsite welding, a standard shiploading unit can be transported in several 12m containers and be operational within a few weeks – all with limited/no planning requirements or restrictions as found with stationary solutions. Moreover, the operating costs are significantly less than traditional systems.

The ease of use means that all machines are simple to operate, maintain and troubleshoot as there are no complicated electrics/electronics to manage, and hydraulics can be kept to a minimum.

With more than 35 years of experience under its belt and thousands of global installs, Telestack has earned its reputation in the international marketplace for well-designed and no-nonsense mobile bulk material handling equipment. This reputation as the innovator within the industry is as a result of its long history of bringing real solutions to problems that have long-plagued the industry. As Telestack is part of Astec Industries Group, its customers in South America can rely on local support from Astec-owned facilities in Chile (Santiago) and Brazil (Minas Gerais), as well as a growing network of experienced material handling agents that are focused on supporting the sea ports and river terminals in that and other international regions.

In addition, Telestack's customers are also benefiting from support from the Telestack helpdesk. With the help of the optional integrated Telematics feature, the helpdesk can support the operation to remotely help troubleshoot any issue in real time. This provision has proved invaluable in the current climate where covid-related restrictions have prevented travel and access to some sites and the operation has benefited greatly from having the additional support from Telestack remotely.

The engineering acumen within Northern Ireland is renowned globally and the expertise within Telestack has grown and developed significantly over their tenure. Its equipment is involved in some of the most ground-breaking and forward-thinking projects across the globe, with the company gaining serious traction in other industries such as rail, power, cement and steel plants.

For more information, contact: telestack.com



THE HIGH-RISE DESIGN OF THIS ALL-WHEEL TRAVEL SHIPLOADING SYSTEM ALLOWS THE UNLOADING TRUCK TO DRIVE UNDERNEATH THE SHIPLoader CHASSIS WITH EASE OPENING A HOST OF OPTIONS FOR THE COMPROMISED JETTY

WHY COAL REMAINS THE COMEBACK KING

■ BY BASIL KARATZAS

Currently one of the hottest commodities around, it seems that the news of coal's death was greatly exaggerated



In the past couple of years, “coal” has become the epitome of a four letter word. Given its disproportionately large share of carbon emissions, coal has become an anathema in the “cancel culture” rippling through the US, but also having knock-on effects in the rest of the world. From pension funds to commercial banks to rich endowments coming under pressure to divest of their fossil fuel portfolios, coal has been on the top of the list.

Minimising carbon emissions, or more aspirationally, eliminating them altogether, is a highly desirable goal, and our planet is in desperate need of such a goal. Climate change and global warming have visibly been impacting human life and hopefully there is still time for changes to move away from “dirty” fuels and to newer technologies and renewables. And again, the coal industry seems to have run its whole course with history.

However, at present, coal is one of the hottest commodities around, having increased in price by more than 40% this year – a price increase in line with the rally in all commodities this year. It has been rather surprising, watching on TV and reading in the press just how bad coal is while investors – but mostly consumers – do not seem to be able to get enough of it.

There are a couple of explanations for the current state of the market: first, the news of coal’s death was greatly exaggerated. It’s one thing to wish to do away with coal, but another thing finding alternative sources of energy in the short term.

Energy shifts are known for their glacial speed and typically take decades to complete. Indeed, coal is one of the dirtiest fossil fuels around, but replacing it with clean solar or wind energy on a massive and sustainable scale is something our economies and societies are not ready for just yet.

Second, while the world was bashing coal and slowly shifting to cleaner fuels, the covid-19 pandemic threw a curveball for our society and the world economies. World supply chains have

been disrupted in a massive scale and empty supermarket shelves is just the tip of the iceberg. Raw material is needed to produce what we buy at the supermarkets and online, but also it takes energy input in any production line.

And here is what went wrong globally, which explains the rally of crude oil pricing, natural gas and, of course, coal.

As the world started recovering from covid-19, factories were found with low raw material inventories and had to start buying commodities in 2021. However, port operations and congestion have been curtailing smooth transport, which further exacerbated the supply chain disruptions.

And, not only transport has been complicated, but production of raw materials has gone down in 2020 due to the pandemic, and also lower investment in production, mining and drilling.

With the bashing of fossil fuels and coal in the past few years, there has been an under-investment in production, even for fossil fuels – thus, when factories looking for raw materials and energy sources, not only the supply chains for transport were disrupted, but also for production.

And manufacturing and production of goods are not the only drivers for energy sources, including coal. Heating and air-conditioning also require energy. Between changing weather patterns with warmer summers and hurricanes, more energy is needed for non-manufacturing uses – which, in a complementary fashion, makes energy sources for production less available.

Countries and industries and companies worldwide do not seem to respond in a co-ordinated way to supply chain challenges, driven by both internal political demands and also by profit, and the problems have been compounding. Fearing late deliveries, many buyers are now front-loading their orders in order to keep a balanced supply, which boosts prices and demand for the underlying material.

And energy sources, including coal, are just your average commodity: when there is no heating available, citizens vote governments out. Likewise, when there are power outages to factory floors, governments pay extra attention given the multiplier effect on the economy.

There have been extensive reports of power outages in China at the time of writing. Likewise, the country has been keeping very low energy reserves (natural gas mostly) going into a winter season that is predicted to be colder than usual. And, committed to lowering emissions that the Chinese government has been working on implementing, demand for energy is much more pressing.

As such, demands for coal have increased and coal mining permits that were revoked in earlier 2021 have been reinstated. Coal mining in China is going ahead at full steam, literally and figuratively.

China is not the only main driver at this time. Caught with short energy inventories in the EU and UK, energy prices have skyrocketed. The easiest way to fill the energy shortfall in the short term is “king coal”, which includes massive imports of coal from the US. The last time the US exported coal was in 2008, at the peak of a once-in-a-generation bull market.

The news of the coal rally and high coal demand has been surprising. Although many people doubted that the world would move to renewables in a timely fashion, few people had expected that an unforeseen unknown, namely a global pandemic, could provide such a market disruption to the energy markets.

For the time being, coal mining companies and related industries have been given a second (or third, or possibly more?) lease of life.

Basil M Karatzas is the founder and CEO of Karatzas Marine Advisors & Co in New York.

For more information, please visit: karatzas.auction

VIGAN: LESSENING THE LOAD

COMPANY NEWS

In the vast sector of cargo logistics, grain handling takes a particular place. With few exceptions, grains are consumed either in human food or in the animal feed sector, but both destinations require a final premium quality that are be safeguarded by strict regulations to ensure nutritional quality.

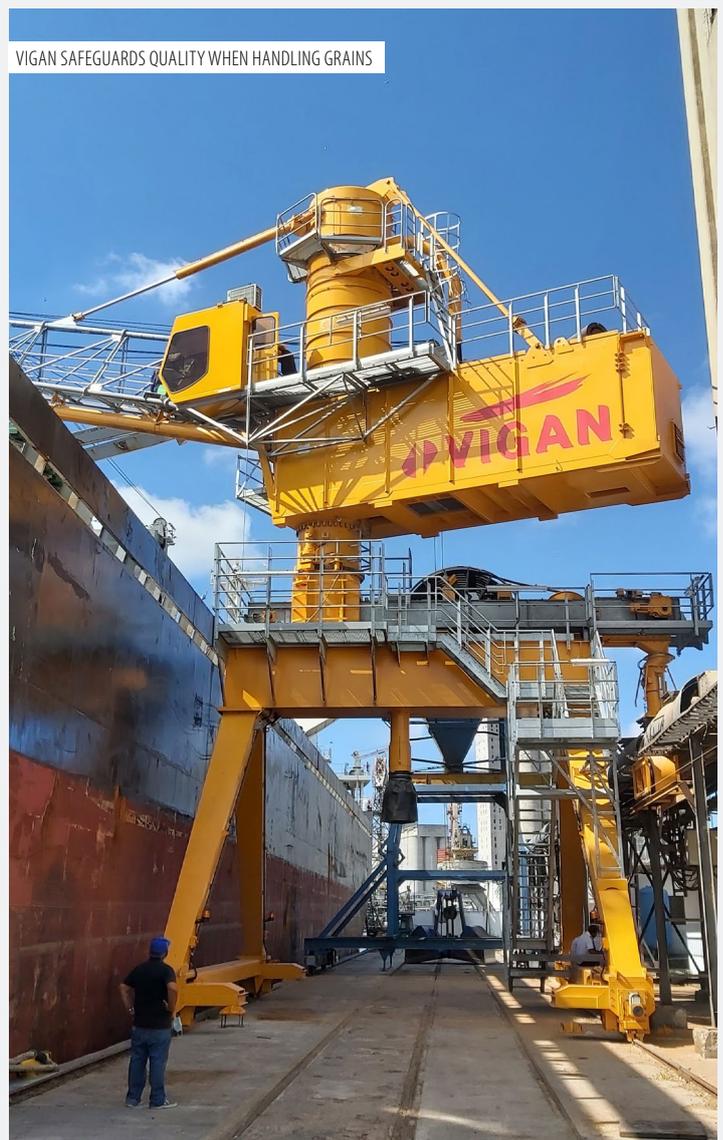
Being organic, grains are vulnerable to microbial infestation on the field, during storage and also during transport. In addition, there are rigorous technical specifications in place depending on their final application (bread types such as baguette, chapatti and so on) – mills require certain specifications such as a given falling number, wet gluten, and so on.

Final customers such as Nestlé, Cargill and CP apply very stringent specifications to their raw materials: aflatoxins, heavy metals and microbial counts all have to be within safe limits. Humidity through air or condensation, old vessels or heat can all cause deterioration of grains and seeds.

During the loading of vessels in grain-exporting countries, silo managers must select the appropriate types of grains for their customers. Top-quality grains go for premium prices, and that applies to wheat, corn, barley, malt and oil seeds. Each has distinct qualities to maintain.

The safeguarding of that quality is an important business. Official laboratories measure the required parameters of outgoing and incoming ships, and penalties can be applied if the quality is below the agreed specification. Wheat quality is sometimes reassessed on ships to allow users to mix grains to maintain a minimal good quality.

It therefore follows that the loading and unloading of large vessels with these raw materials must align with the quality standards. But it is obvious that filling and emptying ships





VIGAN OFFERS EXPERTISE IN GRAIN HANDLING

rate ratio (during full heap discharge as well as during hold cleaning).

It is probably the reason why companies involved in grain and seeds handling go for pneumatic unloading – and why Vigan is generally at their site and at their side. Our expertise in grain handling speaks for itself: quality, robustness and reliability are ensured.

MOVING INTO LOADING

Although loading is a completely different ball game, we have been able to transfer our expertise to loading systems. Having built conveyor and loading systems for numerous malting plants, there is a lot to say about the design of conveyers and loading chutes, the conveying speed, and the choice of synthetic materials in transport systems for delicate cargo – which in a way, all grains and seeds are.

For more information, visit:
vigan.com

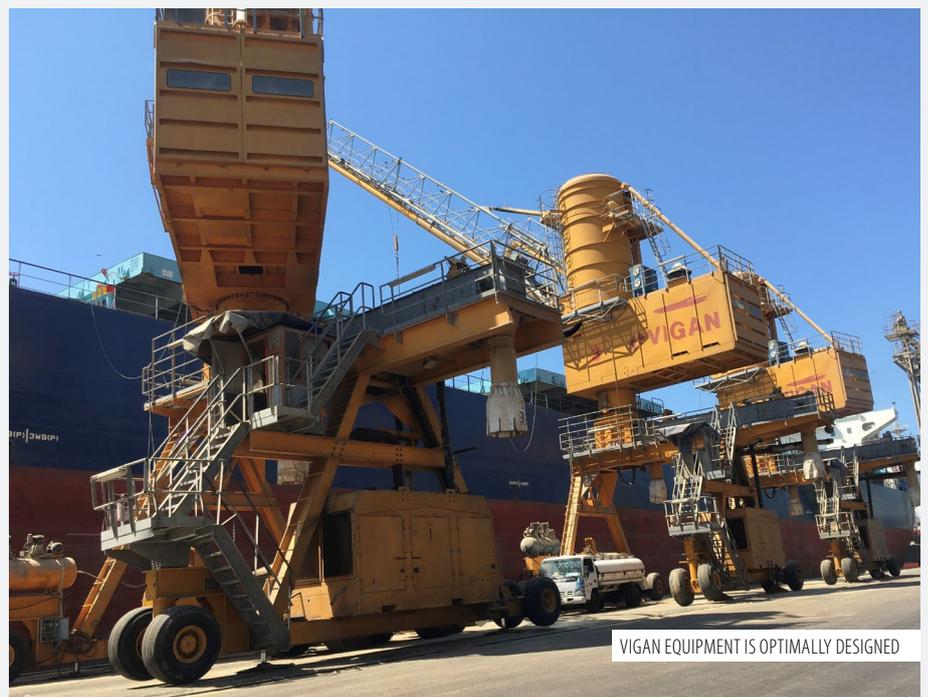
can present an extra risk. In some ports, the same equipment is used to load and also unload vessels with different cargo. Even though special cleaning procedures are implemented and work is carefully scheduled, there is always a risk. Mills often require the use of food grade oils in the hydraulic system – or no hydraulic system at all.

METHOD OF CHOICE

It is not a coincidence that pneumatic unloading has become the method of choice to unload vessels carrying grains and seeds. As the unloading movement is created by vacuum, there is a minimal number of movements during the unloading process. Moreover, there is no direct contact between the cargo and the moving and greased parts. The contamination risk in such a closed circle operation is nil. Pneumatic unloaders are used in a very dedicated way, so there is no spillage left in the equipment or vessel; cross contamination is therefore eliminated.

Next to cargo contamination, end users are also keen to ensure the grains or seeds are undamaged at the start of their process. Vigan has numerous official test reports that prove that cargo was undamaged using its unloaders.

The reason for this is the design of its equipment: the unique suction nozzle, the perpendicular suction principle, the minimised surface/volume ratio in the piping, optimised and treated alloy surfaces, the round elbow connecting vertical and horizontal telescopic pipes, the use of cushion polymers in the receiving bin to minimise impact, oversized and therefore slow-turning airlocks to minimise friction and finally, the optimal energy consumption/discharge



VIGAN EQUIPMENT IS OPTIMALLY DESIGNED

GOING FOR GOLD

Carriage of grain cargoes has continued to be upbeat in recent months, with ports experiencing an increase in demand compared with last year's figures for the same period



Major exporters such as Australia have seen grain supplies to be at near record levels, which means the supply chain has to maintain a high level of efficiency at every level of the process, including transport, storage and shipping for export.

ANZ's *Commodity Insights* for October says that poor forecasts for northern hemisphere grains crops will provide good news for Australian exporters, although challenges to be dealt with going forward include a surge in fertiliser prices that could last into next year.

Some northern hemisphere ports have been seeing good performance in recent months, however.

RIGA ON THE UP

In the first three quarters of this year, 15.2m tons of cargo was transshipped through the port of Riga, Latvia, in September 2021, some 8% more cargo in comparison with the same period last year. In total, most of the handled cargo was forestry products, at 4.6m tons, with 3m tons of containerised cargo and 2m tons of grain products, the volume of which has increased by more than 10% compared to 2020.

Grain production in Latvia and transshipped via the port of Riga is significant, as is the volume of agricultural product from outside the country shipped through the port. In

2020, 32% of grain cargo transshipped through the port was delivered directly from Lithuania, Russia, Estonia and elsewhere. Grain shipments have thus proved good business for the Latvian port as it has been selected ahead of local ports as a more advantageous port for transshipment.

“The competitiveness of the provided service is determined by several factors – port dues and charges, cargo handling efficiency, inland connections, geographical location, infrastructure, as well as the range and quality of services available in the port,” says Viesturs Zeps, chairman of the port’s board.

One of the important elements in the cargo handling process in the port is the service provided by cargo quality inspectors, the port says. “Over the years, we have tested more than 300m tons of various cargo in our laboratories. Products such as coal, solid biofuels, manganese and ore, ferrous alloys, as well as grain, oilseed and bean crops are mainly tested in the laboratory,” explains Julians Strods, senior cargo inspector at Incolab Services.

The company he represents is one of the five surveyor service providers working in the port of Riga. “The results of the tests and inspections determine the price of the products and probability of claims to be made against the trader as a seller of products or a provider of services. High-quality services, provided by laboratories such as Incolab Services, can mitigate various risks in the cargo transportation chain both when receiving and sending cargo,” comments Arturas Rimkevičius, chairman of Agrobosas. This is a Lithuanian-based company that transports grain products grown in the neighbouring country to the port of Riga, where they are stored in the newly built closed-in warehouses at the SIA Streck terminal on Krievu Island. Grain testing is performed there and later, using deep-water berths on Krievu Island, the grain cargo is loaded on to panamax vessels and sent to Africa by sea.

“Transportation costs are calculated evaluating the entire portfolio of services available in the port”, says Rimkevičius.

He adds that according to entrepreneurs’ calculations, cost savings when handling grain in the port of Riga can reach €7 per ton.

Meanwhile in the first nine months of 2021, Ukrainian seaports handled 31.5m tons of cereals, of which 31.1m tons is grain – down 10% on last year. Only three Ukrainian ports managed to increase the volume of transshipment.

Among the ports that managed to increase the volume of transshipment were Ust-Dunaisk seaport at 35,000 tons; Reni seaport at 442,000 tons and specialised seaport Olvia at 1.6m tons.

In September, grain accounted for 29.3% of the total transshipment of port enterprises.

RECORD HIGHS IN CANADA

The Vancouver Fraser Port Authority, has released the 2021 mid-year statistics for goods moving through the Port of Vancouver in September. From 1 January to 30 June 2021, overall cargo volumes through Canada’s largest port reached a record high of 76.4m tonnes, up 7% from 2020 mid-year, and 5% above the previous record set in 2019. Sectors that experienced strong growth included grain and containers, both of which hit new records in 2021.

Strong overseas demand for Canadian grain products – a main driver of the overall record mid-year cargo volumes – resulted in record mid-year volumes of bulk grain, up 20% to 16.5m tonnes compared to mid-year 2020 and up 35% from 2019. Total foreign tonnage and foreign exports resulted in 60.3 and 52m tonnes, up 4% respectively, compared to mid-year 2020 volumes, due to strong increases in grain and coal.

Increases in wheat, up 23%, barley, up 151%, and animal feed, up 30%, contributed to this new bulk grain record. Metallurgical coal increased by 11%, while thermal coal remained flat. In fertilisers, potash exports increased by 0.3% from last year and sulphur decreased by 20%.

“Record grain volumes through the Port of Vancouver once again over the first half of the year demonstrate the continued growth in the global demand

for Canadian agricultural products,” says Robin Silvester, president and chief executive officer at the Vancouver Fraser Port Authority. “Over many years, we have worked with partners to support the growth of the agricultural sector, and over the past decade there has been a very significant amount of investment in the port and the surrounding gateway by grain terminals, governments, railways, port customers, and the port authority, with much of that investment directly benefitting the grain sector.”

MOBILE ALERT SYSTEM

Having the right equipment to maintain quality of grain supplies and to check moisture content is key to good operations in the sector. Companies such as BDC Systems have been working hard in this area to ensure that moisture content of grain is checked as it enters storage. BDC Systems moisture monitoring system (MMS), for example, now sends text message to mobile phones, including alerts if pre-defined limits for moisture content are exceeded.

BDC’s managing director Andrew Head says that the MMS concept has been well received since it was first introduced in 2019. The passing of information on moisture levels direct to mobile devices means that there is now no longer need for someone to be at the gain plant to manually check levels and make adjustments.

“The ability to remotely adjust dryer settings enables farmers/grain store operators to be confident that the dryer is optimised to ensure that grain enters storage at the right moisture content which ultimately leads to a significant decrease in energy costs,” Head says. Should the moisture content not be within acceptable levels, it is possible to make adjustments remotely.

SHIPLoader SUPPLY

Bedeschi has won a contract to supply two shiploaders with a capacity of 100,000 bushels per hour each, for one of the major grain providers in the US. The Italian company is a market leader in the design and manufacturing of systems for grain handling and storage.

BEDESCHI: ALWAYS ON TRACK

COMPANY NEWS

A very good example of Bedeschi capabilities is the shiploader designed, engineered, built and commissioned for Cargill facility in Adelaide Port (Australia).

It is a complete pre-processing mobile unit rather than a conventional shiploader, featuring a double track drive over hopper, grains sampling, weighing and scalping able to load ships up to panamax size at a capacity of 1000 t/h on grain and oilseeds.

The machine moves on rubber tyres and it is fully independent, thanks to a diesel generator able to power the equipment up to 20 hours at peak performance without refuelling.

The system has been designed to fully meet Australian standards (from a structural and electrical point of view) and Cargill's best practices rules. To comply with Cargill's safety requirements, for instance, instead of using traditional bucket elevators, Bedeschi designed a special version of its chain elevator (normally applied to ship unloading), which gives superior safety and dust-tight operations.

With this application of a known technology in a completely different scenario, we have also provided a solution to the very narrow quay, which would have allowed for loading just small barges and concentrate in a single machine, requiring several individual pieces of equipment, resulting in a decrease of operational efficiency.

The drive over a hopper is a special application equipment, which is able to receive simultaneously from two separate tracks and is suspended on a dedicated steel rope system to quickly move the shiploader into position.

Coarser impurities or foreign objects are removed from the product stream by two drum separators. Rejects are brought to a big bag conveniently located on the ground and easily removable for disposing.

A legal belt-weighing system, with a precision of 0.5%, monitors the flow on the material.

A dedicated sampling room has been positioned on the lower level to store and manage all samples according to Australian regulations.

All material transfer points are aspirated to control dust emissions.

A shuttle type boom grants perfect hold trimming, minimising the need for downtime for the machine and allowing the highest net loading rate possible, with concern for the environment in which the machine will be operating.

A telescopic spout with ceramic liner and dedicated aspiration system gives minimal dust emissions, longer equipment efficiency and gentle handling of any material.

The travelling system is engineered to provide a comprehensive solution to the low strength of the existing quay and to maximise the shiploading efficiency. Fourteen twin-wheel bogies, all steering, give unparalleled manoeuvrability and



CARGILL SHIPLoader FULLY ERECTED



CARGILL SHIPLOADER'S RUBBERTYRES

LEADING THE WAY IN THE GRAIN SECTOR

In the grain sector, Bedeschi is Italy's leading company well-known for its expertise in the design and manufacture of integrated systems for grain handling and storage.

The machinery developed by the company includes conveyors, shiploaders and ship unloaders for onshore and off-shore logistics, crusher, circular and longitudinal storage and vertical wall-blending storage.

Thanks to its solid structure and its strong team of engineers and sales agencies working worldwide, the company is able to tailor projects to every customer's needs, covering each step of the project execution, from the feasibility studies and basic design to the assembly, installation, start up and after commissioning, while the plant is in operation.

allow the shiploader to move in any direction, as well as pivoting the machine around its rotation centre. When not in operation, the machine will be moved to a dedicated parking area designed to tie it down during storms and allow easy access for maintenance and cleaning.

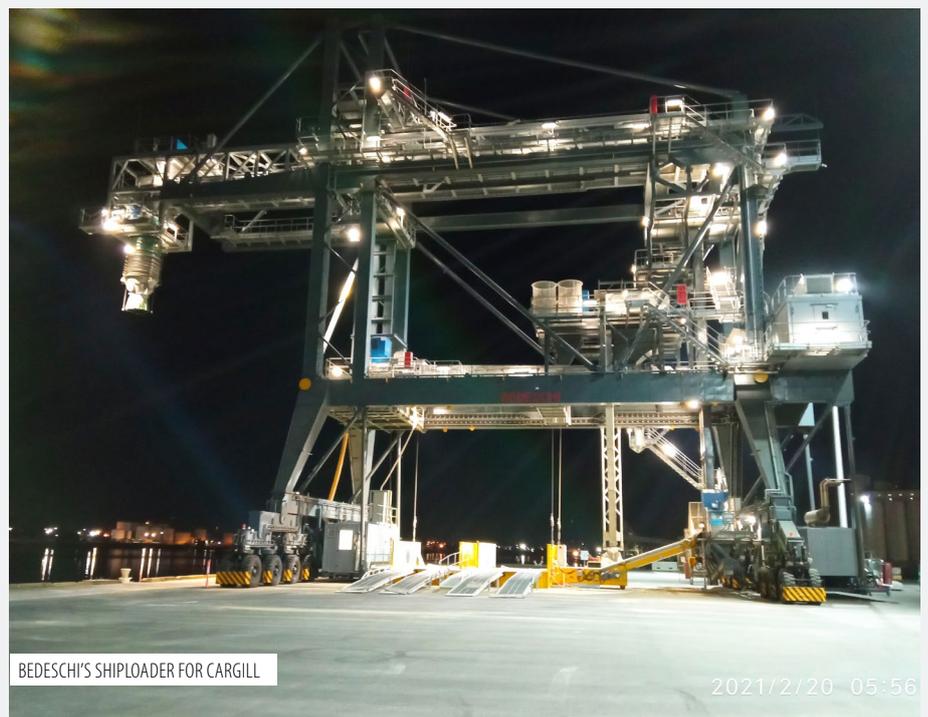
To overcome the restrictions on the quay and the lack of space (making a conventional erection on the quay itself impossible), the shiploader has been delivered fully assembled and pre-tested. Although this system can be more expensive in comparison to site erection, this solution has been provided by Bedeschi for many different projects around the world for these main reasons:

- » Unavailability of the quay
- » Possibility to pre-test all the main systems before the machine is delivered, minimising the commissioning period
- » Avoids keeping the quay busy for many months for the erection phase.

The machine as a whole is unique, but each sub system (chain elevators, rubber tyres mounting, and so on) have already been used by Bedeschi in other projects. The integration of third-party components or equipment is aimed to answer customers' demands in terms of performance. It also allows for smoother operations and maintenance, as well as close support to their daily work, regardless of where the machine will be installed.

Bedeschi has been continuously diversifying its range of equipment, as well as developing its capacity to operate worldwide. The acquisition of companies and market expansion – complementary and functional to our core business – has created a network of branches and subsidiaries across the US, Russia and India, which fully support Bedeschi's activity in every part of the world.

For more information, visit:
bedeschi.com



BEDESCHI'S SHIPLOADER FOR CARGILL

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BEUMER: PROVIDING LOW-ENERGY, ENVIRONMENTALLY FRIENDLY TRANSPORT

COMPANY NEWS

Recovered raw materials have to be transported from the quarry to the factory or port, often over uneven ground and across populated areas. Companies often choose trucks for transportation. As an alternative, system supplier BEUMER Group offers open-troughed belt conveyors or closed pipe conveyors. These solutions are much more environmentally friendly and can be considerably more economical.

BEUMER Group's belt conveyors, closed pipe conveyors and open-troughed belt conveyors are particularly suited for transporting bulk material through rough terrain. The overland conveyors come with horizontal and vertical curves, depending on the topography, and can be more than 10km long. Angles of inclination of up to 15° are possible, depending on the characteristics of the material to be transported. The throughput capacity of BEUMER Group conveying systems can be up to 10,000 tons per hour.

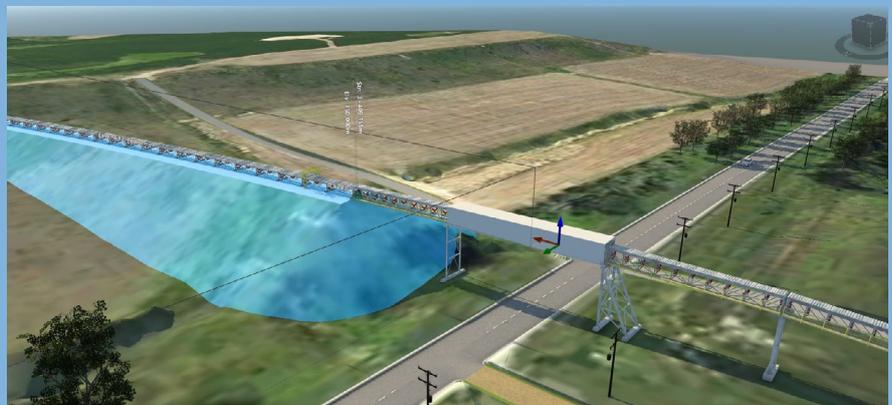
Trucks are still frequently used for greater distances. Depending on the nature of the terrain, however, they can rapidly reach their limits as they require well-developed roads and fuel, for example. The costs arising for construction, maintenance and possible extension of these roads are not insignificant. In addition, all of this implies serious landscape changes. The emissions caused by truck traffic are high, both with regard to toxic substances and to noise and dust.



VIRTUAL TOOLBOX

To plan the conveyor for the individual application, the BEUMER Group uses its virtual toolbox. This allows the complete routing of the system to be put together and discussed with the customer as a 3D plan. During planning, the software almost automatically generates a digital 3D model of the conveyor in the virtual landscape. The topography data required for this is either publicly available or provided by the customer. Not infrequently, drones are also used.

The aerial photographs taken contain topographical information that is then processed into digital terrain models. In the simulation environment, the experts can optimally adapt the conveyor to the route. The almost photo-realistic representation of the conveyor in the landscape also serves to identify any obstacles and take them into account accordingly in the planning.



BEUMER Group belt conveyors are provided with environmentally safe electric drives and low-energy belts. Therefore, especially in times of climate change and increasing greenhouse gas emissions, they are considered a "preferred option". The motors – which, depending on the topography are run in motor-driven and regeneration mode – are mostly adjustable.

This permits an optimum load distribution on the drive unit in different operating conditions. If the belt conveying system conveys downhill, the system works in generative operation. The generated electric energy is fed back into the public network by a regenerative feedback unit. This way the operating costs of the complete system can be further reduced.

For more information, visit:
beumer.com



CUTTING OUT CARBON

In line with other industry players, the cement sector is tackling the issue of carbon emissions



Estimates show that some 7-8% of all global carbon emissions come from cement production and therefore cement producers are under pressure to meet increasingly demanding environmental regulations.

One such company, CEMEX, claims to have the most ambitious 2030 targets for the cement industry, with a reduction of the net greenhouse gas direct emissions of 40% against a 1990 baseline, meaning an expected reduction in direct greenhouse gas emissions of 20% per ton of cement-based material by 2030 from a 2020 base year.

The company has also committed to reduce its indirect electricity greenhouse gas emissions by 42% by 2030 from a 2020 base year. "Climate action is the biggest challenge of our times," says Fernando Gonzalez, chief executive of CEMEX. "CEMEX is taking decisive action to address it by defining ambitious emissions reduction targets in line with the Science-Based Targets initiative and executing against those targets.

"We commit to continue leading the industry in climate action. CEMEX is building a better future and that future must be sustainable."

RISING COSTS

Cement producers have been warning about the mounting costs of clinker and how this is affecting the industry as a whole.

According to George Dawson-Amoah, executive secretary of the Chamber of Cement Manufacturers Ghana, the cost of clinker grew by 55% in the first half of 2021 and it is expected to nearly double, according to GhanaWeb. Cement prices have risen subsequently.

Congestion at local ports is also adding to clinker import costs as importers potentially face demurrage fines.

CLINKER FACTOR CUT

According to Danish engineering company FLSmidth, replacing 30% of clinker with calcined clay means up to a 40% reduction in CO₂ emissions. Steven Miller, global process line manager at FLSmidth, has recently outlined an initiative that the company hopes will accelerate cement's transition to a more green future.

While switching from fossil fuels to alternative fuels may cut emissions substantially, cutting carbon emissions resulting from limestone calcination is another matter.

According to Miller: "In the future, we hope these emissions will be captured before entering the atmosphere, but right now that technology is still some way off wide-scale availability. Instead, we have a much more accessible solution: cut the clinker factor – the quantity of clinker used in the cement mix."

Cutting the clinker element has been in use for a number of years, with the use of fly ash from coal fired power plants, blast furnace slag from iron and steel manufacturing, and a range of other natural and manmade products.

However, using alternatives to clinker depends on local availability, or simply having alternative by-products, which themselves may

drop away as coal-fired power is phased out.

"Fortunately, we have an alternative. A widely available, naturally-occurring mineral can be activated into a supplementary cementitious material that can replace 30% of clinker and eliminate up to 40% of CO₂ emissions," says Miller. "In some cases, an even higher percentage of clinker replacement is possible. Best of all, the technology to incorporate it into processes already exists. It has a low return on investment and it's actually cheaper to manufacture than clinker. We are we talking about calcined clay.

"With the right treatment, it makes an excellent replacement for clinker. Manufacturers may even be able to use some of the equipment they already have on site, further reducing their investment."

INDIAN EXPANSION

Cochin Port Trust has announced plans for expansion projects to the Port of Cochin in Kerala worth around US\$420m. The new plans include a cement terminal and bagging facility. Other initiatives include a hospital, an oil refinery, a petrochemical terminal and a multi-modal logistics hub. The projects are scheduled for completion by the end of 2023.

NET-ZERO FUEL MIX

In the UK, the Mineral Products Association (MPA) has announced the successful completion of a trial of cement production using a net-zero fuel mix consisting of hydrogen and refuse-derived fuel (RDF) at Hanson's Ribblesdale, Lancashire, cement plant. The RDF in the mix consists of meat and bone meal from the food industry and glycerol from biodiesel production.

Increased alternative fuel substitution is one of seven key elements in the MPA's Roadmap Beyond Net Zero emissions reduction strategy. The association says that

the fuel will eliminate 180,000 tonnes per year of CO₂ emissions from the Ribblesdale plant's operations when fully implemented.

Hanson's environmental sustainability manager Iain Walpole says: "We are delighted to be involved with this world-leading project, which is a further example of our commitment to cutting CO₂ emissions. It will also contribute to our ambition of supplying net zero carbon concrete by 2050."

CEMENT INCREASE

In Spain, Tudela Veguín says that an upgrade to a conveyor belt connecting its Aboño cement plant in Asturias to a terminal at the Port of El Musel will allow it to dispatch 5% more cement. The increase represents more than 100,000 tonnes per year-worth of additional cement shipments, it is estimated. Ship loading time has also been reduced by nearly half.

The €532,000 conveyor was completed in 2020. The El Musel terminal has shipped cement for export to several new countries, including the US.

POWER PROJECT

Asia Cement Corporation in Taiwan has completed its US\$1.3m full shore power project for its cement vessels.

Following the upgrade its cement carriers use the 'Taipower' power supply when berthed at port, instead of using on-board generators. The project has been implemented at the ports of Kaohsiung, Taichung, Keelung and Hualien. The cement producer currently operates four cement carriers.

The shipping upgrade is expected to save more than 1,474 tonnes per year of fuel oil and effectively reduce 5,329 tonnes per year of CO₂ emissions. The cement producer added that it would improve the unloading efficiency of cement carriers, decreasing the unloading time by 50%, and reduce wear on the ship generators.

ELME™
Swedish Spreader Systems

SPREADING THE WORD

COMPANY NEWS

As the world's leading independent spreader manufacturer, Swedish ELME Spreader supports companies worldwide with container handling solutions to make their work easier and more profitable. Over a period of four decades, its customers have attached more than 23,000 ELME spreaders to lift trucks, reach stackers, straddle carriers and cranes.

ELME Spreader was established in December 1973 by Gösta Karlsson, a 25-year-old mechanical engineer with a dream of running a business of his own. That dream has turned into a multi-million dollar organisation employing >200 qualified people who develop, design, produce, market and service more than 1,000 spreaders annually.

What hasn't changed is that every spreader is still built at the plant in Älmhult in Sweden – from start to finish, it's completely in-house. That concept might be rather unique in northern Europe, but the benefit it brings is simple and easy to understand – it gives ELME 100% control over production and final product quality. In addition, at the age of 72, President Gösta Karlsson is still very much active in the daily operations and strategic development of this family-run company.

While all production remains in Sweden, two subsidiaries in Shanghai and the US enable ELME to give a high-quality service to customers on seven continents – both recognised original equipment manufacturers and end users.

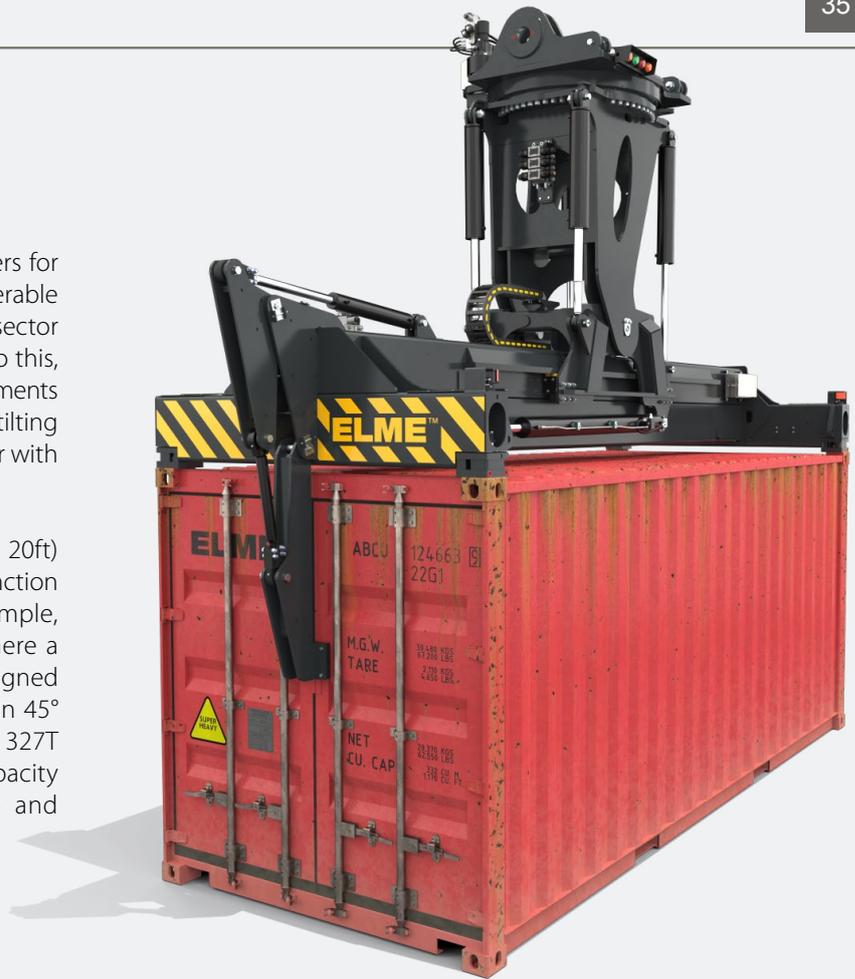


AN EXTENSIVE PRODUCT LINE

The ELME spreader product line covers spreaders for truck, crane and straddle carriers, with a considerable share of the business related to the mobile truck sector for most trucks and reach stackers. In addition to this, ELME offers a wide range of piggyback slave attachments and special equipment, such as spreaders with a tilting function, tool changer and slab handler, together with approved spare parts – ELME Genuine Parts.

The ELME top lift spreader models 327T (fixed, 20ft) and 817T (telescoping, 20-40ft) have a tilting function for handling of laden containers with, for example, grain, wood chips and other bulk material where a tilt operation is required. Both models are designed for mounting on reach stackers and available in 45° and 60° versions. Standard capacity for model 327T is up to 32 tonnes (lifting/tilting); standard capacity of model 817T is up to 45 tonnes (lifting) and 32 tonnes (tilting).

For more information, visit:
elme.com



elme.com

327T | Tilting Top Lift Spreader



One of our hard-working container spreaders

Dedicated Top Lift Spreader with tilting function for bulk material handling. Meet the rest of the team at elme.com

ELMETM
Swedish Spreader Systems

UNDERSTANDING THE TOTAL COST OF OWNERSHIP

HOW TO AVOID FUTURE PROBLEMS AND BUY BULK SOLIDS HANDLING EQUIPMENT INTELLIGENTLY

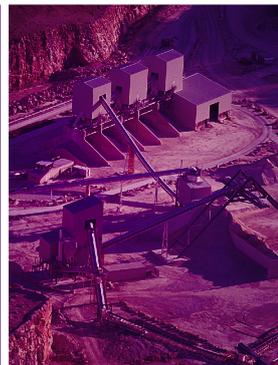
The **OBJECTIVE OF THE COURSE** is to raise awareness amongst bulk terminal buyers of the need to behave in a better-informed way and equipment suppliers to understand the operational needs of the equipment they are supplying.

KEY TAKAWAYS: The course will give both terminal operators and equipment manufacturers an insight into what should be on the one side be specified, and on the other side supplied.

23-24 NOVEMBER 2021

SUBJECTS COVERED INCLUDE:

- Nature of the problem
- The Hall of Shame – examples of projects that have gone off the rails to greater or lesser degree
- Quantifying how high the risk is – a review of the Rand Report findings
- Understanding why technical risk is so high with bulk solids handling projects
- Know your enemy – materials for design and for controlling technical risk
- Practical approach to design to accommodate material characteristics
- The virtue of the bespoke suit over prêt-à-porter
- A project management approach is not enough – understanding the true cost of a bulk solids handling system to a business
- CASE STUDY: Drax Power Ecostore Project – a challenging project where some of the best practice techniques were used
- DISCUSSION GROUPS – delegates break into groups under the supervision of the course tutors to discuss how well they currently apply best practice, what they can improve for the future and the difficulties to be overcome



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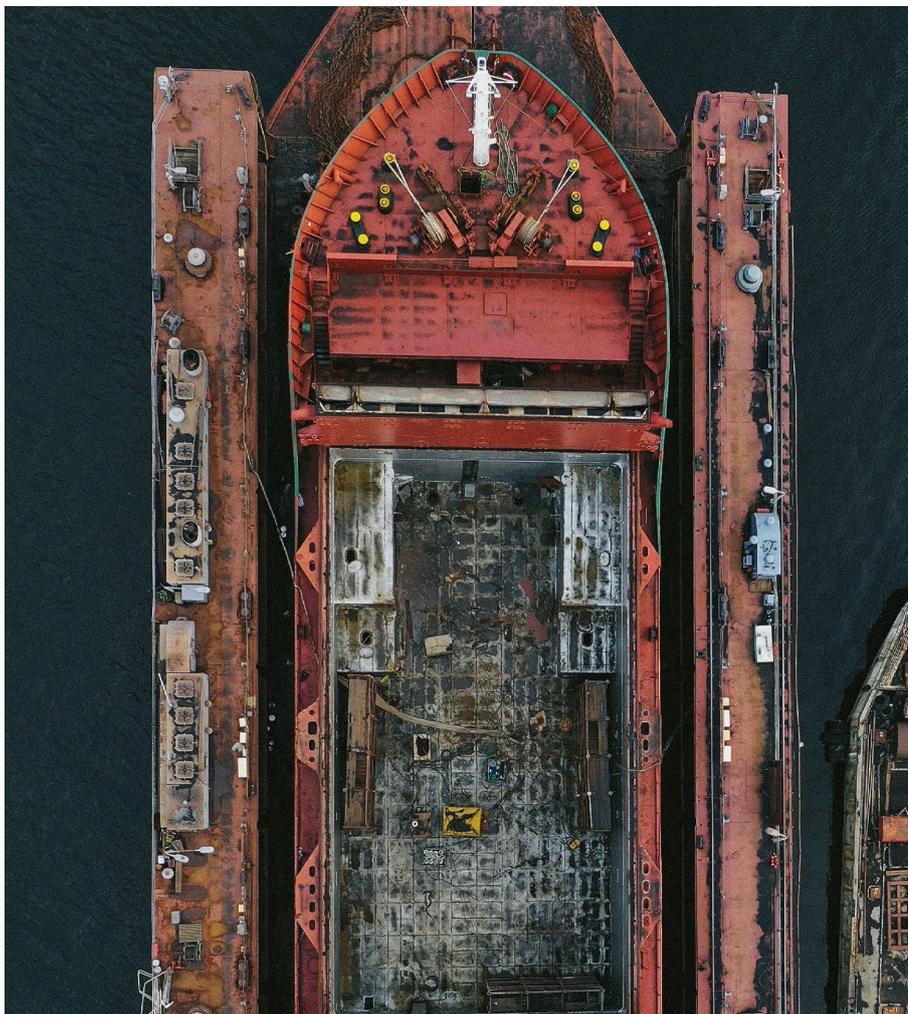
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REGISTER NOW

SPACES TO GROW

Storage has been vitally important for ports during the pandemic – at times overloaded – but safety and security have been the most important elements to consider



Container ship fires and explosions in port storage facilities continue to be the result of poorly packed and misdeclared hazardous materials as they move through the global supply chain. A memorandum of understanding recently signed by the International Cargo Handling Coordination Association (ICHCA) International and the International Vessel Operators Dangerous Goods Association (IVODGA) adds impetus to disseminating effective guidance on the correct safety procedures that need to be employed.

The collaboration of these two expert bodies, whose influence spans the globe, will be significant in producing clearly defined guidelines to best practice based on years of practical experience in handling dangerous goods. They will work closely on joint projects to improve standards across numerous common safety issues affecting the transport of dangerous goods.

Richard Steele, CEO of ICHCA International notes: "The extraordinary disaster in Beirut last August was an all too unwelcome wake-up call to everyone involved in the transport, storage and distribution of dangerous materials. However, similar incidents,

smaller in proportion, yet damaging to life and limb as well as property happen across the supply chain on a frequent basis. The mutual co-operation of IVODGA and ICHCA will be aimed at the universal understanding and application of measures for the safe handling and storage of a range of goods with potential to cause explosions, fires and noxious gas emissions, and so on."

Uffe Ernst Frederiksen, of AP Moller – Maersk, vice chairman of IVODGA and special adviser to ICHCA International, comments: "The mutual goals and the shared respect of our two organisations will quickly result in a positive contribution to a clear and efficient communication between not just our respective members, but crucially across all stakeholders in the supply chain whose interests touch any and all hazardous materials."

TIMBER SEES GROWTH

In the first few months of this year, Associated British Ports (ABP) saw timber volumes double as demand in the UK has increased for timber for use in construction, manufacturing and DIY, such as home offices, decking, home and garden improvements.

Typically imported from Sweden, Finland and Latvia, over 88,800 tonnes of timber was handled by ABP's Port of King's Lynn, which is more than twice the quantity that was handled in the first half of 2020.

The port handles a diverse mix of imports and exports, including forest products, minerals, aggregates, fertilisers, scrap metal and various types of grain. Grain is both imported and exported, depending on the quality of both the UK and European harvests, but the trend in rising timber

volumes is estimated to continue with demand.

ABP has invested about £1.25m in new undercover storage provisions for forest products, including a Dutch barn storage facility. ABP has also recently invested in surfacing improvements for timber, demolished redundant and time-expired warehousing, and replaced a number of pieces of handling equipment, as well as introducing new access control arrangements.

NORTH CAROLINA PORTS

A developer is planning to add cold storage warehouse space on property near the Port of Wilmington in North Carolina (NC). Cold Summit Development looks to bring nearly 460,000sq ft of cold storage space in two buildings to property owned by the port.

The NC Ports Authority board recently approved a 30-year lease agreement with the developer for nearly 35 acres on two lots.

"This partnership represents continued investments in our strategy to become a leader in cold chain logistics," says NC Ports executive director Brian Clark.

"We are particularly excited that this announcement gives more options and capacity to North Carolina's business, including agriculture, grocery sector and life sciences."

The project includes two phases. In the first phase, Cold Summit plans to develop a 300,000sq ft refrigerated warehouse. The facility will have a multi-suite, multi-temperature building with three rooms and 40,000 to 50,000 pallet spaces with the ability to handle frozen or chilled products.

"This represents substantial progress to provide cold chain solutions to exporters and importers, not only in North Carolina but the entire East Coast market," says Bob Blackburn, director of refrigerated business development.

The developer has 15 months to begin construction on the first phase of the project. The first building is to be completed "no later than 25 months from now", Passaretti says.





AMMONIA BOOST

Horisont Energi, a company working to develop its blue ammonia project in Norway, has signed a deal with liquid bulk storage company Koole Terminals to develop an ammonia terminal and storage facility at the Port of Rotterdam.

The two companies will explore the establishment of a strategic and collaborative relationship for the storage of ammonia produced and shipped from Norway to Rotterdam.

The agreement will also cover technical and commercial conceptual models for storage of ammonia products, services solutions and technologies for further distribution, to meet forecast demand in Northwest Europe.

Horisont Energi has said that clean ammonia is one of the most promising fuels for the decarbonisation of parts of the maritime sector. "Koole Terminals will play an important role in facilitating and supporting the distribution of ammonia from the Barents Blue production plant in Hammerfest, Northern Norway."

"We are eager to work with Horisont Energi to materialise its European distribution hub for blue ammonia. We consider ammonia as one of the important future liquid energy carriers, and, as such, this project fits very well with Koole's sustainable energy strategy," says John Kraakman, CEO of Koole Terminals.

IRON AND STEEL STORAGE

The Port of Saint Petersburg says it has put into operation a new covered warehouse of 3,600m². The new facility is intended for storing iron and steel products.

With its additional covered storage, the port is able to ensure the best possible conditions for storing cold-rolled steel. The new facility will contribute to improvement of port logistics.

"The new storage yard can accommodate about 20,000 tonnes of cold-rolled coils," says Andrey Zubarev, managing director of the port.

"Now we are seeing the growth of this cargo flow, the port's current task is to arrange careful storing and protection of this cargo against atmospheric precipitation."



EBS UPS WAREHOUSING SPACE

Specialising in the storage and transshipment of all types of bulk goods, Rotterdam-based EBS has a new storage facility in Europoort in the Netherlands.

EBS has two terminals, one in Botlek for non-agricultural products and one in Europoort for agricultural products, where the new warehouse is located.

The warehouse has a storage capacity of 50,000m³ for, among other things, grains and derivatives and consists of seven different compartments. "This allows us to store different products and also smaller batches for multiple customers," says the company.

The design of the warehouse is flexible, which is ensured by the conveyor belt built according to the latest techniques. The warehouse is also ATEX-proof, which means it meets the highest European safety guidelines for explosion hazards.'

UAE ACCOLADE

Abu Dhabi Ports' Logistics, a subsidiary of AD Ports Group, has been awarded the Good Distribution Practice (GDP) accreditation by Bureau Veritas, which certified AD Ports' advanced pharmaceutical cold and ultra-cold storage facility in the Khalifa Industrial Zone Abu Dhabi (KIZAD) and its related logistical services, against both European Union and World Health Organisation (WHO) guidelines.

The announcement marks the first instance a United Arab Emirates (UAE) organisation has secured accreditation for both standards, and is one of the few in the Middle East to hold that distinction.

The GDP accreditation certifies that all required measures designed to safeguard product quality and reduce risk have been implemented and are being followed along the entire pharmaceutical and non-cold chain journey.

Ultimately, adherence to such high standards ensures customers that pharmaceutical products they receive through the healthcare vertical of Abu Dhabi Ports Logistics can maintain their quality and efficacy.

Captain Mohamed Juma Al Shamisi, group chief executive, AD Ports Group, says: "Since its founding, AD Ports Group has worked to establish itself as a world leader in trade, industry, and logistics. Today's announcement represents an important building block in helping realise our government's vision of making Abu Dhabi a major global healthcare and life sciences hub.

"We now hold the distinction as being the first healthcare organisation in the UAE to be GDP certified against the EU and WHO standards for pharmaceutical and medical supply distribution, and one of the few in the Middle East to hold both."

BOOM IN THE BAGGING AREA

Demand for bagging equipment is growing across the globe, with a number of new innovations improving systems

As Asia outside China takes the lead in terms of new cement capacity additions, with a significant number of greenfield and brownfield projects in the pipeline, India, Vietnam and Indonesia are expected to drive demand for new equipment in the next five years, according to CW Research's analysis of the world cement bag and bagging industry.

Other markets installing a significant amount of new capacity include the Philippines, Pakistan, Myanmar and Nepal. "Asia ex-China greenfield projects have been losing relative importance compared to brownfield and upgrades, with the volume of new greenfield capacity only expected to grow by more than 2 million tons per annum between 2016 and 2026 in the region," explains Prashant Singh, associate director at CW Group.

"In these markets, new facilities and rising labour costs create several opportunities for bagging equipment," he says.

Automation remains a key trend in the long term in Asia outside China, with major markets including India, Indonesia, and the Philippines relying heavily on bagged cement manual labour, which means that many dispatch lines are only partly automated.

Greenfield and brownfield investments are expected to drive

demand for new dispatch equipment, sustaining a tendency for automation in the long term. In Asia outside China, the dispatch market is expected to see a decline between 2021 and 2026.

Cement bagging capacity in Africa, says CW, will remain sluggish over the forecast period 2026, including for new and upgraded cement bagging capacity. Once a buoyant market in terms of capacity expansions, the African cement market is now becoming over-saturated, with expansion slowing down.

Nevertheless, ageing cement plants, particularly in South Africa and in big northern African markets, are likely to provide demand for upgrades, while some particularly strong markets, such as Ethiopia, will be responsible for both brownfield and greenfield projects.

In Brazil and Argentina, the law requires cement bags to be palletised before dispatch. Dispatch equipment market size is expected to grow, led by palletisers, which is likely to increase at a compound annual growth rate of almost 3% in the period, the report suggests.

In Latin America, meanwhile, cement demand is witnessing an increase led mostly by housing works. New capacity is expected to be installed mostly in markets that have traditionally relied on imports and are thus focusing on becoming self-sufficient.

AFRICAN ACTIVITY

Nectar Group has sold a set of three bagging machines to ENEPA Ventures and AMG Fertilizers, located in the West African country of Ghana.

Nectar has been working alongside ENEPA Ventures and AMG Fertilizers for more than 12 years, providing quayside bagging services to tie in to the logistics chain.

As Enepa Ventures and AMG Fertilizers contributions within Ghana's agricultural sector have expanded, volumes of their imports have increased. As a consequence, Enepa Ventures and AMG Fertilizers see the need for additional bagging capacity in covered warehouses, to expand operations.

"Enepa Ventures and AMG Fertilizers prioritises building the capacity and transforming the livelihoods of farmers, mainly through training programmes, field demonstrations, supply of effective and high-yielding crop nutrition products, at the districts, community, regional and national levels in Ghana and other African Countries," AMG managing director Ernest Akwasi Appiah says.

"We are therefore confident that, the Nectar equipment will enhance, expand and scale up their operations going forward. This investment will further ensure that Ghana's agricultural development cycle continues to receive equal attention and direction."

HYGIENIC BAGGING LINE

Concetti's new IGF PURA, an automatic filling and closing machine for powders in 5-50kg bags at speeds up to 750 bags per hour, was created to ensure the highest product quality in modern food packaging.

Concetti has redesigned the IGF, following the latest international machinery hygiene guidelines. From avoiding product retention, using specific contact-part materials and providing convenient access for cleaning, everything is geared towards safeguarding the final product.

The monobloc structure has transparent panels, electrical and pneumatic connections sealed in the machine frame and generous internal space to aid cleaning and maintenance operations. A touchscreen panel with easy-to-use graphic interface permits easy control and supervision while the redesigned bag magazine is more operator-friendly, both for loading and accessing coding, printing, and labelling devices.

DUSTING DOWN

Reducing the amount of dust generated is key to safe operations. Flexicon has introduced a new sanitary mobile tilt-down flexible screw conveyor with an integral bag dump station and compactor which allows the transfer of material manually dumped from handheld bags into elevated process equipment, and the disposal of empty bags, dust-free.

Mounted on a mobile frame with locking casters and a fold-down step, the bag dump station is secured to the floor hopper with quick-release clamps, and features a gasketed bag disposal chute through the side wall of the hopper hood, allowing the operator to pass empty bags directly into the bag compactor.

Dust generated from both dumping and compaction is drawn onto the system's two cartridge filters. An automatic reverse-pulse filter cleaning system releases short blasts of compressed air inside the filters at timed intervals. This causes any dust built up on

the outer surfaces to fall into the hopper, conserving useable product. Filters are readily accessed by removing the interior baffle, and replaced using quick-disconnect fittings.

The compactor employs a pneumatic air cylinder to compress 50 to 80 empty bags into a removable bin lined with a plastic waste bag for dust-free tie-off and disposal. The main door, and a flapper door within the bag infeed chute, are equipped with safety interlocks that prevent operation of the compactor unless both doors are closed.

The hopper discharges into an enclosed, 4.5m flexible screw conveyor that handles a broad range of materials including free- and non-free-flowing bulk solids ranging from large pellets to sub-micron powders, including products that pack, cake, seize, smear, fluidize, or crumble, with no separation of blended products.

The flexible screw is the only moving part contacting material, and is driven by an electric motor beyond the point at which material is discharged, preventing material contact with seals.

The bag dump station, support boom and conveyor assembly can be tilted down to manoeuvre through standard doorways and aisles, and around corners for use anywhere in the plant. The entire unit can be rolled to a cleaning station where a lower clean-out cap on the conveyor tube can be removed to flush the smooth interior surfaces with steam, water or cleaning solutions, or remove the flexible screw for cleaning and inspection.

Meanwhile, a new Flexicon mobile bulk bag discharger equipped with a

mobile flexible screw conveyor allows dust-free discharging of bulk solid materials and conveying to downstream process equipment or storage vessels throughout the plant.

Mounted on locking casters, the Bulk Out BFF Series discharger has four adjustable extension posts to accommodate bulk bags 36 inches to 84 inches tall. The removable bag-lifting frame with Z-clip strap holders allows bulk bags to be attached at ground level, then forklifted into receiving cups on the discharger frame.

A spout lock clamp ring atop a pneumatically-actuated telescoping tube secures the clean side of the bag spout to the clean side of the equipment, and exerts continuous downward tension on the bag as it empties and elongates, promoting flow and evacuation. A vent port with filter sock contains dust.

Additional flow is afforded by bag activators that raise and lower opposite bottom sides of the bag at timed intervals into a steep V shape, and top-mounted extension devices that elongate the entire bag, promoting total discharge with no manual intervention.

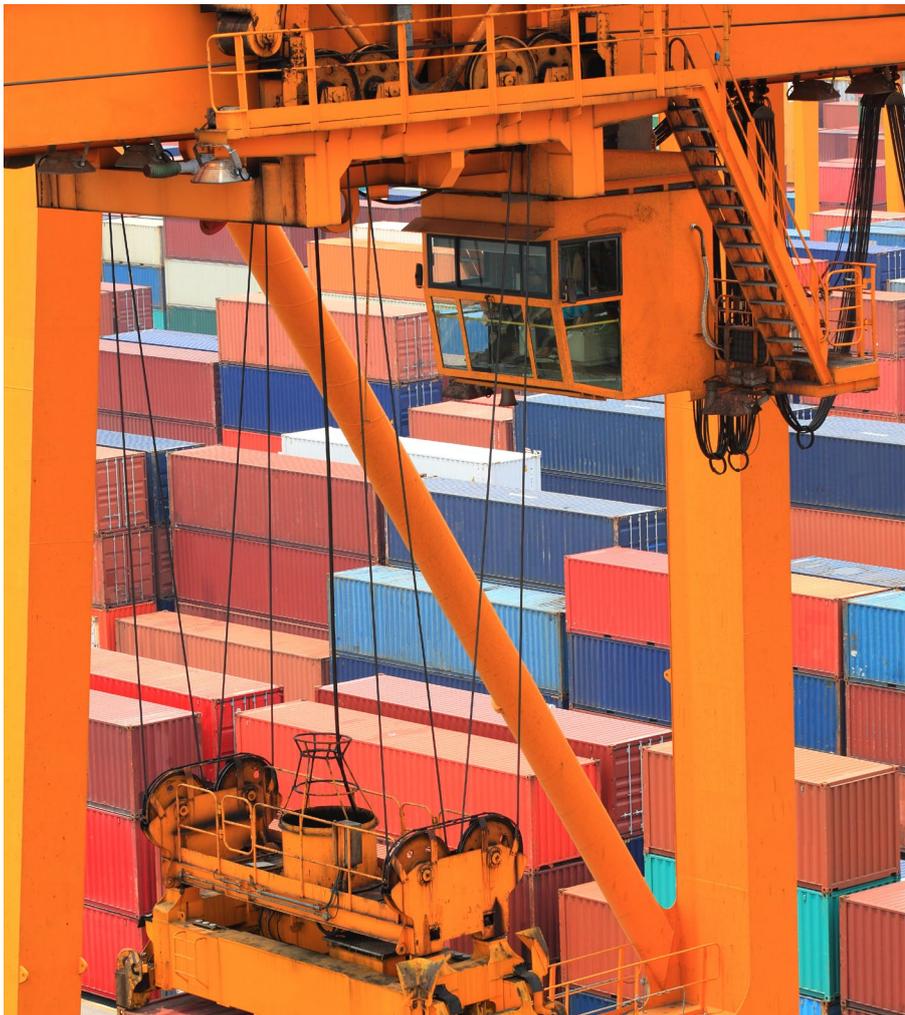
The discharge housing of the mobile flexible screw conveyor is supported by a mast fixed to the mobile discharger frame, allowing the transfer of free- and non-free-flowing bulk materials to multiple destinations.

The flexible screw is the only moving part contacting material and is driven by an electric motor beyond the point at which material is discharged, preventing material contact with seals.



SAFE AND SOUND

A number of safety issues have come under the spotlight in recent months, as a result of the pandemic and on-going concerns resulting from increased activity in certain shipping segments



Fuel cells, fuel flashpoints, draft amendments to the International Maritime Dangerous Goods and International Maritime Solid Bulk Cargoes Codes and more were on the agenda for the seventh session of the International Maritime Organization's (IMO) Sub-Committee on Carriage of Cargoes and Containers in early September.

Draft interim guidelines aimed at providing international standard provisions for ships using fuel cell power installations have been agreed by IMO's Sub-Committee on Carriage of Cargoes and Containers (CCC 7).

The draft interim guidelines cover issues including fire systems and gas/vapour detection. The guidelines are intended to ensure the safe and reliable delivery of electrical and/or thermal energy through the use of fuel cell technology. Fuel cells can operate using hydrogen (which has the potential to be explosive) as the fuel source.

Draft amendments to guidelines and codes in relation to ships using or carrying fuels such as liquefied natural gas, which is cooled to very low (cryogenic) temperatures for carriage, were agreed. The draft

amendments relate to the utilisation of high manganese austenitic steel, including corrosion testing for ammonia compatibility. The sub-committee agreed to initiate the development of guidelines for the safety of ships using hydrogen as fuel and an updated work plan for the development of safety provisions for new low-flashpoint fuels under the International Code of Safety for Ship Using Gases or Other Low-flashpoint Fuels Code.

The plan also envisages future discussions on the development of mandatory instruments regarding the use of methyl/ethyl alcohols as fuel and the development of mandatory instruments regarding fuel cells.

The sub-committee agreed the next set of draft amendments to the International Maritime Dangerous Goods Code and the International Maritime Solid Bulk Cargoes Code.

The matters related to safe transport of charcoal and reviewing on maritime special provisions will be continued inter-sessionally by a correspondence group established by the sub-committee.

Also agreed were revised inspection programmes for cargo transport units carrying dangerous goods in order to broaden the inspection programmes for cargo transit units (CTUs).

The objective of the guidelines is to assist in the implementation of a uniform and safe inspection programme for the inspection of CTUs carrying goods for international transport by sea, and to provide guidance relating to such inspections in accordance with applicable IMO instruments.

CALL FOR SEAFARERS' AID

The Secretary-General of the International Maritime Organization (IMO) and the Director-General of the International Labour Organization (ILO) are calling for port and coastal states to facilitate the prompt disembarkation of seafarers for medical care as a matter of "life or death"; to prioritise seafarers for the covid-19 vaccination; and to designate seafarers as key

workers, recognising seafarers' valuable contribution to world trade.

IMO secretary-general Kitack Lim and ILO director-general Guy Rider said seafarers are facing difficulties in accessing medical care and highlighted the "moral obligation to ensure seafarers can access medical care ashore without delay, whenever they need it, and to extend medical assistance on board should the need arise by allowing qualified doctors and dentists to visit ships. It is also important that a medical assessment be conducted prior to administering any treatment, which could include telemedicine assessment provided by international health providers," they said.

"Receiving such care can be a matter of life or death for seafarers who fall ill while working on ships. The international community should do its utmost to support those who have maintained the global supply chain under pandemic conditions over the last 18 months and keep carrying on often despite enormous personal hardships."

"Almost 14 months after issuing *Recommendations for Port and Coastal States on the Prompt Disembarkation of Seafarers for Medical Care Ashore* guidelines during the covid-19 pandemic, seafarers are still struggling to access such care when needed. Advocacy from member states, the maritime industry, social partners and seafarers has once again brought the plight of seafarers to the fore."

As enshrined in ILO's 2006 Maritime Labour Convention, it is incumbent upon member states to ensure seafarers onboard ships in their territory are given access to medical facilities ashore, should they require immediate medical care, including dental care. The legal obligation to render assistance to seafarers in distress, including medical assistance, is also an intrinsic component of IMO conventions.

Governments need to recognise the strategic importance of the maritime sector and to designate seafarers as key workers and to treat them as such by providing access to medical care, the two men said.

ABANDONED CARGO CONCERNS

TT Club has issued a StopLoss document to provide practical guidance on the issue abandoned cargo. The club says: "The potential catastrophic impact arising from the deterioration of abandoned cargo cannot be disregarded as a remote risk. However, the considerable costs accruing from container demurrage, detention, storage and disposal regularly result from cargo that, for a variety of reasons, is no longer required by the original receiver or consignee, and is simply abandoned at a port terminal or cargo facility. Increased risks of safety and regulatory infraction are inevitably consequent, as well as significant demand on management and operational resources to resolve individual cases."

"Levels of cargo abandonment have always been problematic to forwarders, NVOs, logistics operators and, of course container terminals," comments Peregrine Storrs-Fox, TT's risk management director. "The surge in container demand over recent months has, however, compounded container ship capacity issues, port congestion and consequent severe transit delays. These factors will do little to alleviate the practice of cargo interests, in circumstances of loss of market for goods or bankruptcy, simply relinquishing ownership of consignments."

The club's abandonment of cargo guidance identifies "red flags" that forwarders, logistics operators and carriers should consider – certain commodities such as waste, scrap, materials for recycling and personal effects – previously unknown shippers, particularly individuals rather than companies. Furthermore, once the cargo is defined as abandoned, the StopLoss outlines the role of enforcement agencies and the responsibilities of others involved in the supply chain.

SAFETY REVIEW

Allianz Global Corporate & Specialty (AGCS) has recently issued its *Safety & Shipping Review 2021*, which revealed that 49 large ships were lost worldwide

last year, with total losses down 50% over 10 years.

The report highlights the consequences of the crew change crisis, pointing to delays due to the pandemic and a surge in demand for shipping as increasing the cost of claims. Inadequate ship maintenance could bring future claims.

It also warns that the ever-increasing size of vessels continues to pose a high risk as far as costs of groundings and salvage operations are concerned. The point was driven home during the *Ever Given* incident in the Suez Canal.

The international shipping industry continued its long-term positive safety trend over the past year, but has to master covid challenges, apply the learnings from the *Ever Given* Suez Canal incident and prepare for cyber and climate change challenges ahead, the report suggests.

"The shipping sector has shown great resilience through the coronavirus pandemic, as evidenced by strong trade volumes and the recovery we are seeing in several parts of the industry today," says Captain Rahul Khanna, global head of marine risk consulting at AGCS. "Total losses are at historic low levels for the third year running. However, it is not all smooth sailing. The ongoing crew crisis, the increasing number of issues posed by larger vessels, growing concerns around supply chain delays and disruptions, as well as complying with environmental targets, bring significant risk management challenges for ship owners and their crews."

The South China, Indochina, Indonesia and Philippines maritime region remains the global loss hotspot, accounting for one in every three losses in 2020 (16), with incidents up year-on-year. Cargo ships (18) account for more than a third of vessels lost in the past year and 40% of total losses over the past decade. Foundered (sunk/submerged) was the main cause of total losses over the past year, accounting for one in two vessels. Machinery damage/failure was the top cause of shipping incidents globally, accounting for 40%.

Despite the devastating economic impact of covid-19, the effect on

maritime trade has been less than first feared. Global seaborne trade volumes are on course to surpass 2019 levels in 2021 after declining slightly in 2020. However, the recovery remains volatile. Covid-19-related delays at ports and shipping capacity management problems have led to congestion at peak times and a shortage of empty containers. In June 2021, it was estimated there was a record 300 freighters waiting to enter overcrowded ports.

Although covid-19 has resulted in limited direct marine claims to date, the sector has not been spared significant loss activity. "Overall, the frequency of marine claims has not reduced. We are also seeing an increased cost of hull and machinery claims due to delays in the manufacture and delivery of spare parts, as well as a squeeze on available shipyard space," says Justus Heinrich, global product leader, marine hull, at AGCS. "Costs associated with salvage and repairs have also increased."

In future, insurers could potentially see an uptick in machinery breakdown claims if covid-19 has affected crews' ability to carry out maintenance or follow manufacturers' protocols.

According to the report, the South China, Indochina, Indonesia and Philippines maritime region is also the major loss location of the past decade (224 vessels), driven by high levels of local and international trade, congested ports and busy shipping lanes, older fleets and extreme weather exposure. *Visit [agcs.allianz.com](https://www.agcs.allianz.com) to download the report*

IRON ORE FINES WARNING

West of England P&I has highlighted the risks arising from the carriage of mineral ores from certain jurisdictions, including possible liquefaction of such cargoes and the lack of a regulatory oversight at the loading ports.

Iron ore fines are of increasing concern, particularly shipments from Sierra Leone arising from a phased restart of iron mines in the region and with vessels loading such cargoes in the port of Pepel.

CONTAINER CARRIAGE SAFETY

Classification society Bureau Veritas (BV) has developed a formalised approach to support the safe carriage of containers in bulk carriers, a trend that has grown in recent months due to container shortages.

The guidance from BV, which specialises in testing, inspection and certification, provides operators with pathways based on analysis and a thorough understanding of safety, regulatory and operational requirements.

Paillette Palaiologou, BV Marine & Offshore's vice president for the Hellenic, Black Sea and Adriatic Zone, says: "We have significant experience and knowledge of bulk carrier design, classification, and operations across BV and particularly here in Greece, where we have numerous clients in the dry cargo market."

"Additionally, our class rules for container lashing and our own associated lashing software are highly sophisticated. The combination of bulker and boxship capability and understanding has enabled our teams to rapidly provide a framework to meet market requirements as demand emerges for bulkers to be able to carry boxes."

In particular, the guidance outlines two main pathways for stowing containers in holds, either as a "block" of lashed cargo without retrofitting of special container securing fittings, or as more conventional stacks of containers, in which case such equipment may need to be fitted permanently or temporarily.

The International Maritime Organization (IMO) Code of Safe Practice for Cargo Stowage and Securing for ships that are equipped with a Cargo Securing Manual, provides a key reference point in its Annex 1: "Safe stowage and securing of containers on deck of ships which are not specially designed and fitted for the purpose of carrying containers."

However, the fact that bulk carriers are "not specially designed and fitted for the purpose of carrying containers", combined with the potential need to maximise the intake of containers, may raise concerns related to the integrity of

the vessel's structure and the cargo itself, as well as the safety of the crew and the stevedores.

Palaiologou adds: "In many ways, we are going back to the future, as general cargo and multi-purpose ships have always been able to carry containers. In the context of today's market demands, the capacity to move containers in bulk carriers is a key advantage.

"With our guidance, we wish to ensure that modern analysis tools and techniques can be applied to support safety as well as modern operational efficiency."

PANDEMIC ADVICE

The International Chamber of Shipping (ICS) has published a range of new and updated guidance to protect seafarers and shipowners against the challenges of the coronavirus pandemic.

The free resources include guidance on vaccinations, manning agents, mental health issues, and shore leave.

Despite noted improvements in rates of vaccination for seafarers, only 25% are fully vaccinated and most are not in line to receive a vaccine through their national programmes until at least 2022. Meanwhile, severe travel restrictions across the world have led to seafarers being stranded on board, some for more than 18 months. This deterrent to existing workers and potential new recruits has stretched global supply chains to breaking point, with shortages of key goods reported and shipping costs approaching all-time highs.

Guy Platten, secretary general of the International Chamber of Shipping, comments: "Throughout the pandemic, the shipping industry has time and again come together to support its own.

"The sector has been more united and effective in its response to the pandemic than most sectors. But we must ensure that we maintain this spirit of collaboration and all pull together to anticipate and meet the needs of the world's hidden key workers – seafarers.

"The new seafarer guides address acute issues faced by seafarers during the pandemic.

"Seafarers are required by the nature of their job to travel across the world to

locations that have different levels of covid-19 infections. *Coronavirus (COVID-19) Vaccination for Seafarers and Shipping Companies: A Practical Guide* answers pressing frequently asked questions in an approachable and informed way.

"A reality of the pandemic is that shore leave has been heavily impacted and crews have been forced to remain on board their ships for extended periods without relief. *Coronavirus (COVID-19): Seafarer Shore-Leave Principles* sets out principles for providing shore leave while navigating draconian travel restrictions across the globe.

"Recruiting for non-existent jobs at sea is on the rise, as dubious manning agents take advantage of the current environment. Losing seafarers to poor manning experiences is something that must therefore be stamped out. *Manning Agency Guidelines* was produced to help shipping companies choose reputable manning agencies and to ensure that

seafarers are recruited in line with the requirements of the International Labour Organization.

"Tragically, seafarers have suffered more from mental health struggles during the crew change crisis. The pandemic has also increased job stress that can impact seafarers' mental health, including family pressures and limited shore leave. *Handling a Mental Health Crisis or Emergency and Spotting Suicidal Behaviour in Seafarers* lays tools out for companies to create a caring on-board culture to address mental health matters.

Platten concludes: "Seafarers have made enormous personal sacrifice over the past 18 months. While admirable, it has put enormous pressure both on them as individuals and on the global supply chain. ICS and our partners hope that our new guidance will provide protection and assurance to seafarers around the world, and help improve their experience on board and on shore."



FUEL FOR THOUGHT

Using wood biomass as a carbon-neutral fuel is gaining ground in countries across the world, with several big players making their mark

Some countries have been benefitting from demand from abroad for biomass, even if its use within the individual countries remains problematic. One of the issues is whether wood biomass can be considered as a carbon-neutral fuel and opinions differ on this issue within the industry and among environmentalists.

One country involved in the trade is the US, where there is a flourishing biomass fuel production industry that is serving foreign customers – although US federal and state policy has yet to catch up and classify biomass as a clean energy source.

Companies such as Enviva Partners are continuing to invest in production of wood biomass and benefit from the expansion in demand from abroad.

“If governments and industry are genuine about tackling net-zero, we need to deploy negative emissions technologies urgently and at scale,” Enviva chairman and

chief executive John Keppler said in an interview recently.

“The only way to get there is with sustainably sourced bio-energy with carbon capture and storage, which doesn’t just offer opportunities to decarbonise the energy sector, but also heavy industries such as steel, lime and cement, making it an overarching tool to achieve our climate goals.”

Sustainable biomass production and supply company Drax, meanwhile, has started construction on the second of three satellite pellet plants in Arkansas.

Work is underway at the site in Russellville, Pope County in northwestern Arkansas, with commercial operations expected to begin at the plant in 2022. The move is part of a \$40m investment by UK-based Drax in the state.

Arkansas secretary of commerce Mike Preston says: “The investment that Drax is making throughout Arkansas is proof that the state’s timber industry is poised for a bright future and is a great example of how a global economy works.”

“Through this partnership, these three Arkansas communities will experience further growth and opportunities, and Drax will be able to continue working toward its mission to provide renewable electricity for millions across the pond.”

The three pellet plants are expected to produce a total of around 120,000 metric tons of sustainable biomass pellets a year from sawmill residues, supporting the renewable energy company’s plans to increase self-supply to its power station in the UK.

The development of the “satellite” pellet plants, which are situated near sawmills, is part of Drax’s strategy to increase biomass self-supply to five million tons by 2027, improving supply chain resilience while reducing pellet costs.

Matt White, Drax Biomass senior vice president, says: “Drax has made great progress in delivering our \$40m investment in Arkansas, with the second of three satellite pellet plants now under construction.”

Drax has transformed its power station in the UK to become the largest decarbonisation project in Europe by converting it to use sustainable biomass instead of coal.

The company announced recently that it aims to source 80% of the construction materials and services needed to deliver its climate saving negative emissions technology bioenergy with carbon capture and storage (BECCS) from the UK supply chain.



DRAX POWER STATION, NORTH YORKSHIRE, UK

The 80% ambition includes all construction materials needed as part of the deployment of the multi-billion-pound project, such as steel, pipes, heat pumps, electricals, and insulation, as well as the support services involved in delivering such a large project.

Will Gardiner, Drax chief executive, says: "BECCS will play a vital role in enabling the UK to reach its legally binding net-zero target, as well as saving the energy system billions of pounds in the process.

"Our ambition is to put the UK supply chain at the heart of delivering this crucial climate-saving technology and by doing so we'll create and protect thousands of new jobs, kick-start new industries and help level up the UK."

A formal public consultation on Drax's BECCS plans will take place in November, when stakeholders, including local communities, will be able to learn more about the proposed project and provide their feedback as part of the planning process.

Work to build BECCS at Drax could get underway as soon as 2024, with the first BECCS unit operational in 2027 and a second in 2030. In the first half of the year, the company took forward its plans for BECCS – selecting Mitsubishi Heavy Industries (MHI) as its technology partner and kick starting the planning process to develop BECCS at Drax this decade.

It also started to explore overseas opportunities for BECCS with Bechtel, including in North America, and next-generation BECCS technologies with Phoenix BioPower, creating further potential opportunities for the UK to export a critical technology that will be needed around the world.

Subject to the right government support, the first BECCS unit at Drax Power Station could be operational in 2027, with a second in 2030, removing at least 8 million tonnes of CO₂ from the atmosphere each year.

Drax also secured additional biomass production capacity and reduced costs through the acquisition of Canadian biomass producer Pinnacle Renewable Energy.

Drax recently teamed up with the National Farmers Union in the UK

SUSTAINABLE BIOMASS WOOD PELLET STORAGE DOME AT DRAX POWER STATION



to identify opportunities to scale up perennial energy crop production and help the UK meet its climate goals.

The Climate Change Committee has previously stated that if the UK is to meet its decarbonisation objectives, a substantial area of energy crops must be planted each year to deliver the low-carbon, renewable fuel required over the coming decades.

Formerly the largest coal power station in Western Europe, Drax has this year ended commercial coal generation, sold its existing gas assets and transformed itself into one of the region's primary decarbonisers – it is now a purely renewable power generator.

CO-FIRING TO CUT POLLUTION

The Indian government has asked thermal power plants located within 300km of Delhi to co-fire biomass with coal to reduce pollution. Some 11 such power plants have been earmarked to use 5%-10% biomass with coal to cut pollution.

State-owned utility NTPC's Dadri coal-fired power plant was the first such facility to test co-firing with biomass in 2017. The pilot project included mixing up to 10% biomass with coal. NTPC plans to buy biomass supplies through a tendering process to partially replace coal at its power plants.



PINNACLE'S LAVINGTON, BRITISH COLUMBIA WOOD PELLET PLANT

SURGE IN THE SEAWAY

The Great Lakes Seaway Partnership has undergone a busy few months, with movements throughout the ports on the up



FEDNAV FEDERAL DART LOADING AGRICULTURE CARGO IN DULUTH, MINNESOTA

Ports in the Great Lakes and St Lawrence network have handled 20.7m tonnes through the St Lawrence Seaway since it opened in March this year to the end of August, according to the Great Lakes Seaway Partnership. This is a 5.21% increase compared to figures for the same period in 2020. Total transits for the period totalled 2,146 vessels, a 4.6% increase compared to transits last year.

Commodities seeing a significant increase include iron ore, steel, as well as cement.

“At the midpoint of the Seaway’s navigation season, iron ore and steel products continue to be the standout commodities moving through the Great Lakes Seaway System,” says Craig Middlebrook, deputy administrator, Great Lakes St Lawrence Seaway Development Corporation.

“Multiple vessels loaded with an array of steel products from more than a dozen different countries arrived at US Great Lakes ports in August, while iron ore exports to high-demand countries including China, Japan, and South Korea saw a 29% tonnage increase compared to this time last year.

“July was a good month for project cargo moving through the Seaway System, with a notable resurgence in shipments of windmill components. The wind energy supply chain continues to be strong, with vessels bringing these cargoes from five different countries last month. Exports of iron ore remain

strong due to sustained worldwide demand, and steel tonnage continues to be robust, driven by activity in the manufacturing and construction sectors.”

Farmers across the country are experiencing an increase in production, the organisation says. For several key Great Lakes states, it is predicted that corn and soybean yields will surpass 2020 results. “Traditionally, in the coming months, we should expect to see an uptick in grain movement for export primarily to Europe, South America, and Asia,” says Middlebrook.

TOLEDO LUCAS-COUNTY

Cargo handling of grain at US Great Lakes ports is expected to increase through the season. “We are home to several very active grain terminals, including one of the largest flour mills in the world operated by Mondelez,” says Joe Cappel, vice president of business development at Toledo-Lucas County Port Authority.

In August 2021, the Toledo-Lucas County Port Authority experienced a significant milestone, powered by the cargo movement of iron ore to the Cleveland Cliffs HBI operation in Toledo, Ohio.

“Registering at 6,159,559 short tons, cargo through the Port of Toledo remained strong through August 2021 exceeding 2020 totals by over 25%. Looking back, we have not surpassed six million tons through August since 2011,” says Cappel. “The additional iron

ore tonnage attributed to the Cleveland Cliffs HBI operation has really helped elevate the port to the next level and we continue to focus on updating our infrastructure to accommodate additional throughput. It’s exciting to think about the potential of this port as we look toward the future.”

DULUTH-SUPERIOR

Total maritime tonnage through the Port of Duluth-Superior topped 3.8m short tons in August 2021. For the season, more than 19.1m short tons transited the port in August, which ranks slightly ahead of the five-season average and more than 40% ahead of the 2020 pace.

Driven by strong demand for US steel, the port’s August iron ore float exceeded 2.3m short tons. This pushed the seasonal total to 11.9m short tons to the end of August, which is 13.2% above the five-season average.

“August serves as the unofficial halfway mark of the Great Lakes shipping season, and with total tonnage through Duluth-Superior closing the month almost 5% ahead of the five-season average, it certainly qualifies as a good first half,” says Deb DeLuca, executive director, Duluth Seaway Port Authority. “Amid ongoing disruption in the global supply chain, the Great Lakes-St. Lawrence Seaway System has been, by comparison, an oasis of consistency so far in 2021.”

INDIANA-BURNS

“Vessel tonnage increased 18.5% compared to last August 2020,” says Ryan McCoy, port director, Ports of Indiana-Burns Harbor. “Year to date, Burns Harbor is still up 86% in our seaway/maritime business. Overall, all Burns Harbor tonnage is up 22.5%. August was a big month for project cargo and steel uploads. We are expecting an increase in bulk unloads for September and October as we close out the season.”

MINNESOTA

Steel continues to be on the positive side of cargo tonnage for the Great Lakes-St Lawrence Seaway region. One



CLEVELAND CLIFFS HBI OPERATION IN TOLEDO, OHIO.



THE INTERLAKE STEAMSHIP COMPANY, HON JAMES L OBERSTAR IN DULUTH, MINNESOTA.

Great Lakes state that experienced significant activity was Minnesota. Ports in the Great State of Minnesota saw 24 Laker vessels export iron ore to the Port of Quebec, for transshipment primarily to Asian countries.

"This validates what we've long known – that the Great Lakes-St Lawrence Seaway System is crucial to the US economy," says Middlebrook. "The binational waterway not only provides a multitude of well-paying jobs – on land and at sea – it offers a cost-effective, safe and fuel-efficient means of moving goods to and from domestic and global markets."

VANCOUVER

The Vancouver Fraser Port Authority says that from January 1 to June 30, 2021, overall cargo volumes through Canada's largest port reached a record high of 76.4m metric tonnes (MMT), up 7% from 2020 mid-year, and 5% above the previous record set in 2019. Sectors that experienced strong growth include grain and containers, both of which hit new records in 2021.

Strong overseas demand for Canadian grain products – a main driver of the overall record mid-year cargo volumes – resulted in record mid-year volumes of bulk grain, up 20% to 16.5 MMT compared to mid-year 2020 and up 35% from 2019. Total foreign tonnage and foreign exports resulted in 60.3 and 52.0 MMT, up 4% respectively, compared to mid-year 2020 volumes, due to strong increases in grain and coal.

Increases in wheat, up 23%, barley, up 151%, and animal feed, up 30%,

contributed to this new bulk grain record. Metallurgical coal increased by 11% while thermal coal remained flat. In fertilisers, potash exports increased by 0.3% from last year and sulphur decreased by 20%.

"Record grain volumes through the Port of Vancouver once again over the first half of the year demonstrate the continued growth in the global demand for Canadian agricultural products," says Robin Silvester, president and chief executive officer at the Vancouver Fraser Port Authority.

"Over many years, we have worked with partners to support the growth of the agricultural sector, and over the last decade there has been a very significant amount of investment in the port and the surrounding gateway by grain terminals, governments, railways, port customers, and the port authority, with much of that investment directly benefitting the grain sector."

The record overall cargo volumes at mid-year in 2021 reflect the continued growth in the agriculture and container sectors. This trend is expected to continue as the long-term outlook for Canadian trade is growing.

"We are encouraged to see the record mid-year cargo volumes through the Port of Vancouver," adds Silvester. "These cargo volumes were made possible due to the dedicated work and commitment of the port terminal operators, marine carrier customers, railways and drayage companies, labour, governments, and the many service providers that support

the Port of Vancouver's importers and exporters."

Overall cargo was up 7%, an increase to 76.4m metric tons compared to mid-year 2020. Breakbulk cargo increased 36% to 10m metric tons. Log volumes increased 60%, while wood pulp decreased 6% compared to 2020.

Bulk dry cargo increased 6% while coal volumes increased 7%. Grain volumes were up 20%, potash up 0.3% and sulphur down 20%. Bulk liquid tonnage was down by 18% over mid-year 2020 due to a 24% decrease in petroleum products and a 7% decrease in chemicals.

PILOTAGE RATES ADJUSTMENT

The US Coast Guard announced in the Federal Register that in accordance with the statutory provisions enacted by the Great Lakes Pilotage Act of 1960, the Coast Guard is proposing new base pilotage rates for the 2022 shipping season.

This proposed rule would adjust the pilotage rates to account for changes in district operating expenses, an increase in the number of pilots, and anticipated inflation.

In addition, this proposed rule would make a policy change to always round up in the staffing model.

The Coast Guard is also proposing methodology changes to factor in an apprentice pilot's compensation benchmark for the estimated number of apprentice pilots with a limited registration.

The Coast Guard estimates that this proposed rule would result in a 12% increase in pilotage operating costs compared to the 2021 season.

INVESTMENT IN PLACE

Earlier this year, the American Great Lakes Ports Association proposed a list of Great Lakes navigation infrastructure investment priorities totalling more than \$2.9bn. These included dredging and breakwater repair projects, modernisation of port infrastructure, work on the Soo Locks and the construction of a new ice breaker.

All the projects targeted for proposed funding have already been authorised by Congress.

GOING FOR GROWTH

With investment increasing rapidly in the region, Middle East ports are experiencing an uplift in their fortunes



Middle East ports have been in competition in recent years to develop their positions as regional hubs for the shipping industry and the Iraqi Al Faw port project looks like being a contender when completed.

The project, which was originally mooted over a decade ago, has now completed its first stage with the construction of five main piers. Daewoo Engineering & Construction won a \$2.7bn contract at the end of 2020 for the port's construction, which will include a tunnel linking the new port to Umm Qasr, the construction of which is expected to take about four years.

Roads linking the port with Basra are also part of the plan, which includes nearly 100 new berths, giving the port a greater number of ports than those available at Jebel Ali, currently the largest port in the Middle East.

The port will be located along the Kawr Abdallah Channel, near the mouth of the Shatt Al Arab waterway that runs between Iraq and Iran.

By 2028, the port is expected to shift about 36m tonnes of containerised freight – around 4m 20ft-equivalent containers – and about 22m tonnes of dry bulk. By 2038, this will reach 7.5m containers and 33m tonnes of dry bulk,

according to current estimates and provided further funding in pumped into the project.

There will also be a dredged channel 400m wide and 24km long, protected by rubble breakwaters approximately 15km long.

Iraq is hoping that the project will provide a foundation for the growth in the rest of the country's economy. Minister of planning Khaled Battal Al-Najm told the Iraqi News Agency in July that Grand Faw represented "a real start for Iraq's economic renaissance" and would open "broad trade horizons, between Iraq and the world".

Also in Iraq, AD Ports Group recently signed a memorandum of understanding with the General Company for Ports of Iraq (GCPI) to promote increased co-operation in the transport and maritime sectors. The plan is for AD Ports to carry out feasibility

studies on the management and operation of GCPI's ports and economic zones, as well as developing road and rail links which will connect ports in Iraq with markets in Jordan and Turkey.

INCHCAPE EXPANSION

Inchcape has expanded its team of BQS surveyors working from Fujairah in the United Arab Emirates and is now rolling out a similar service at other UAE locations including off Ras Al Khaimah and Jebel Ali.

Atul Shukla of Inchcape Shipping Services and the company area manager for marine survey and inspection in the Middle East and Africa says clients have a global single point of contact and can benefit from "significant cost savings" through being able to access BQS and the wider range of Maritime Survey and Inspection (MSI) services from Inchcape as their one-stop supplier.

Credibility is also the keyword when it comes to marine warranty surveys that include reviewing the condition of vessel equipment and approval of marine operations for insurance purposes, and Inchcape are agents for Lloyd's of London in the Middle East.

The company is also the regional claims adjuster for a leading insurance provider and the average agent for French insurance market CESAM in Abu Dhabi. In addition, it acts as the correspondent and surveyor for the majority of the International Group P&I clubs and represents a number of hull and machinery underwriters.

"We are seen as a credible player in the insurance market as we can act independently in reviewing method statements, providing recommendations and overseeing the operations end to end, in line with KPIs from Lloyds of London, which means that clients can



EXPERIENCE IS A KEY ELEMENT OF INCHCAPE'S MARINE SURVEY AND INSPECTION SERVICES. © INCHCAPE SHIPPING SERVICES

rest assured they are in good hands,” Shukla explains.

Inchcape has provided marine warranty survey services for a number of prestigious projects with high-value cargoes, including transport of the spindle-and-hub section of the Dubai Eye (Ain Dubai) – the world’s largest and tallest observation wheel – which marked a world record for the highest and heaviest lift.

The package of MSI services provided by Inchcape ranges from breakbulk port captain entailing surveys to determine the condition of cargo at load and destination port, crane/wire inspections and inspections for hatch cover integrity to hull and machinery surveys and vetting of vessels and crew to determine efficiency.

Shukla points out that such monitoring is vital to mitigate commercial, as well as safety and environmental, risks for the shipowner by preventing mishaps such as water ingress in cargo holds or water pollution that can result in costly insurance claims.

Another key service area is underwater hull surveys facilitated by Inchcape’s fleet of battery-driven ROVs.

Inchcape has established a strong presence across the Middle East and Africa including in the UAE, Oman, Qatar, Saudi Arabia, Kuwait, Iraq, Kenya and Mauritius. Shukla says it is now expanding in Africa and South Asia by setting up shop to offer its services in Tanzania, Nigeria, Rwanda Djibouti, India, Pakistan, Sri Lanka, Bangladesh and other countries in these regions.

AQABA AGREEMENT

AD Ports Group, through its digital arm Maqta Gateway, will manage the implementation of an advanced Ports Community System (PCS), which will oversee communication between Aqaba ports and terminals operators, Aqaba Special Economic Zone Authority (ASEZA), Aqaba Development Corporation, Jordan Maritime Commission, customs, support services and on-land connections for the Port of Aqaba.

AD Ports Group will work closely with the Aqaba Development Corporation to deploy the digital system to expand

the technical capacity and capabilities of Aqaba ports.

AD Ports Group has also signed an agreement with the Aqaba Development Corporation that will see the group take on the establishment of a cruise terminal at Marsa Zayed in Aqaba. It will be the first facility to be developed by AD Ports Group in Jordan and its first cruise facility outside of the United Arab Emirates.

The agreement was signed during a visit by a senior delegation from Jordan headed by Nayef Ahmad Bakheet Altheeb, chief commissioner, Aqaba Special Economic Zone Authority to Abu Dhabi, and is the first of a series of strategic partnerships with AD Ports Group.

Captain Mohamed Juma Al Shamisi, group chief executive, AD Ports Group, says: “As part of our continued commitment to support the growth of Jordan’s maritime industry, AD Ports Group, through its digital arm, Maqta Gateway, is leveraging its digital expertise to implement a robust Port Community System at the Aqaba ports ecosystem that will accelerate the exchange of goods and elevate commerce to new heights.”

Hussein Alsafadi, CEO, Aqaba Development Corporation says: “We are pleased to be joining forces with AD Ports Group with this agreement, which falls in-line with the wider cooperation between the Hashemite Kingdom of Jordan and the United Arab Emirates. Through their ambitious development of ports in Abu Dhabi and around the world, they have demonstrated their ambition and ability to evolve and drive growth in the maritime sector.

“Developing the cruise terminal in Aqaba will significantly support the growth of the tourism sector in the Kingdom, which will expand of the scope of onsite facilities and services.

“We are confident that through our co-operation with AD Ports Group and Maqta Gateway, we will be able to keep pace with the rapid developments of digitisation in the transport and logistics sectors, as well as enhance our digital systems with the aim to provide world class services for port users in Aqaba”.

NAVIGATIONAL AIDS

The International Foundation for Aids to Navigation (IFAN) is planning a \$1.2m investment in the Middle East Gulf, including recapitalisation of the differential global positioning system (DGPS) sites it operates in the region, as well as the construction of a new vessel that will assist in maintaining aids to navigation in the area.

The investment is being made through the the Middle East Navigation Aids Service (MENAS), and work will include upgrading of the four DGPS sites in the Gulf, starting with Ras Al Khaymah, to ensure against redundancy in case any site fails, or has to be shut down for maintenance.

The vessel, which is being built in the United Arab Emirates, should be operational in October and will have a range of more than 40Nm, enabling it to reach offshore waters in the Gulf.

Operated through MENAS, the workboat will have a shallow draft allowing it to access inshore areas to maintain light beacons. Its overall size and the size of the cabin will allow for a much wider weather window for operations. Being able to accommodate more workers and spares, it is an altogether more fuel-efficient vessel than the vessel that it is replacing.

The new vessel is fully equipped with radar to check the Racons signal, automatic identification system (AIS) receiver to monitor AtoNs, as well as AIS functionality and other standard navigation aids such as DGPS receivers.

Welcoming the announcement, Peter Stanley, CEO of IFAN, says the investment would greatly enhance MENAS’s ability to undertake its important maintenance work in the region.

“Investment in the DGPS sites is crucially important if we are to upgrade ageing equipment,” he says. “And the enhanced capabilities of the new workboat will strengthen our maintenance of AtoNs in the region.

“It is part of our overall strategy of renewing our equipment and systems in the region to ensure continued safe navigational aids for ships using this important trade lane.”

GREEN GIANTS

Ports in the Netherlands have been pursuing a green strategy in recent times, as the shipping industry transitions to more environmentally friendly forms of energy



Energy company Uniper has entered into an agreement with the Port of Rotterdam Authority for production of green hydrogen at the Uniper location on Maasvlakte.

These plans build on the findings of a recent feasibility study and are in line with the new hydrogen infrastructure that has been planned and the growing demand for sustainable hydrogen from the Rotterdam petrochemical industry.

No less than half of all Dutch important projects of common European interest (IPCEI) hydrogen projects are developed in Rotterdam.

A recently completed joint feasibility study shows that the Uniper site on Maasvlakte is well suited for large-scale production of green hydrogen, with the use of power generated by North Sea wind farms.

The Uniper hydrogen plant is to be connected to the HyTransport.RTM pipeline that runs through the Port of Rotterdam. The pipeline also connects the Uniper plant to the national hydrogen infrastructure and the Delta Corridor pipeline bundle. The intention is to deliver hydrogen to chemical clusters in Moerdijk and Geleen (Chemelot) and further away in North Rhine-Westphalia.

Hydrogen is currently produced from

natural gas, so-called grey hydrogen, resulting in CO₂ emissions that amount to 19m tonnes in the Netherlands.

The transition from grey hydrogen to sustainable green hydrogen in the Rotterdam industry for producing cleaner fuels and as a raw material in the chemical sector is a major step towards carbon neutrality, the authorities believe. In combination with importing sustainable hydrogen, sufficient storage capacity, and a national and international hydrogen transport network this may lead to phasing out the production of grey hydrogen altogether.

"We have the strong ambition to convert our Maasvlakte location into a major link in the new European hydrogen value chain in close collaboration with the Port of Rotterdam Authority and other partners," says Yolande Verbeek, director of Uniper Benelux. "There is a host of opportunities, not only for Uniper, but also for other players in the chain. Together we can use sustainable hydrogen to reduce CO₂ levels in Rotterdam significantly."

Currently, about 13% of the European energy supply enters the European Union via Rotterdam. The port has the ambition to be carbon neutral by 2050, while retaining its central role in the European energy system. By then, according to port authority estimates, approximately 20m tonnes of hydrogen will flow through the port to consumers in the Netherlands and beyond.

"The industry has to go through a massive change in making its business processes more sustainable," says Allard Castelein, port chief executive. "Hydrogen will play a central role in this process. We are working with partners towards the introduction of a large-scale hydrogen network across the port complex, making Rotterdam an international hub for hydrogen production and import and for the transit of hydrogen to other countries in Northwestern Europe. This explains why initiatives like this Uniper project are so important for the future of Rotterdam and the Netherlands."

Rotterdam port authority has also been strengthening its co-operation

with DeltaPort Niederrheinhäfen, enabling this grouping of inland ports in the northern Ruhr area to be a regional hub for importing green hydrogen through Rotterdam.

Other players involved include German companies Thyssengas, energy company Eon, cold store operator Nordfrost, and regional development company Kreis Wesel. Green hydrogen can play a valuable role in the energy transition, which in turn is indispensable for meeting the Paris Climate Agreement objectives. Like the Netherlands, Germany will have to import hydrogen if it serious about meeting the expected rising demand for green hydrogen.

DeltaPort considers the partnership an excellent opportunity to combine activities and integrate these with the hydrogen strategy of North Rhine-Westphalia. "The significance of this project goes way beyond our region," says Andreas Pinkwart, minister of economic affairs, innovation, digitisation, and energy of North Rhine-Westphalia.

Emile Hoogsteden, commercial director at the Port of Rotterdam, explains: "There are two essential projects that make this partnership interesting to the port authority. In the first place, we see splendid opportunities for becoming a hub in the supply and transit of green hydrogen. After all, there are many competent parties in the region that are highly interested in this clean energy carrier.

"If locally produced hydrogen is insufficient to meet demand, hydrogen can be imported via Rotterdam. Inland shipping and rail have a central role in this context. Second, we want to help developing a cool corridor, a regular inland shipping connection for reefer containers between Rotterdam and the Ruhr area.

"With Nordfrost's investment in a new centre for refrigeration logistics that can run on clean energy, we can help develop emission-free inland shipping connections with the deep-sea terminals in Rotterdam. You can compare it with the Alphenaar, which acts like a shuttle between Alphen aan den Rijn and Moerdijk for beer brewery Heineken."

Undercover operation

A new covered warehouse facility for agricultural products at Rotterdam at the port is proving an asset both for European Bulk Services (EBS) and the port. "The size of the warehouse, in combination with its design and location, is unique for Rotterdam," says André Brussé, sales manager at EBS.

EBS specialises in the storage and transshipment of all types of bulk goods and has two terminals: in Botlek for non-agricultural products and one in Europoort for agricultural products, where the new warehouse is also located. The warehouse has a storage capacity of 50,000 m³ for, among other things, grains and derivatives and consists of seven different compartments.

"This allows us to store more different products and also smaller batches for multiple customers. The design of the warehouse is aimed at flexibility, which is ensured by the conveyor belt, built according to the latest techniques. The warehouse is also ATEX-proof, which means it meets the highest European safety guidelines for explosion hazards," says Brussé.

With the new warehouse, EBS has a total storage capacity of 700,000m³, an important step in a larger plan for the future. "In the coming years, we will be investing heavily in closed storage to strengthen our position as a market leader. For example, a new warehouse with a capacity of 66,000 m³ will be built in Botlek. And in Europoort, we still have an area where we can build a 50,000m³ warehouse. To this end, we work closely with the Port of Rotterdam Authority to achieve this as effectively as possible," Brussé explains.

The company is focusing heavily on sustainability. "Reducing emissions is a top priority. We want to minimise the use of diesel and electricity as much as possible. We use LED lamps for lighting, also in the warehouses.

"EBS's terminals are located directly on deep water, which means large bulk carriers with a draught of 16m can moor directly at us. From the terminal, we have direct connections by road, rail and inland shipping to the hinterland."

GRONINGEN

J Wildeman Storage & Logistics, specialising in the storage of hazardous goods and associated logistics services, has expanded its location at Farmsumerpoort businesspark, Groningen with its own loading and unloading quay.

The finishing touches to the 135m-long quay were completed recently and Wildeman received its first inland shipping vessel, the Deltatrans.

The new quay is suitable for ships of up to 110m and is located at Eemskanaal on J Wildeman Storage & Logistics' 20-hectare site. Only inland navigation vessels will moor there at first, but in the future small seagoing vessels will also be arriving.

The company will mainly receive container ships, which will be loaded and unloaded with a reach stacker. This reach stacker is specifically designed to handle containers equipped with an extended spreader.

Farmsumerpoort owner Groningen Seaports chief executive Cas König says: "It is a great asset for our port in general and for business park Farmsumerpoort in particular. Extra loading and unloading capacity in the increasingly busy ports is a welcome and necessary addition.

"It's also good to see that the current business community is doing well. We welcome investment and development among businesses that have been in our area for many years just as much as we welcome new ones."

Wildeman has a spacious storage location on IJzerweg in Farmsumerpoort for the goods of various companies in the region. Eight of the 20 hectares are sheltered. In view of its location at Eemskanaal and Farmsumerhaven in the immediate vicinity of Chemiepark Delfzijl, Wildeman expects to develop into an important transshipment point for containerised goods. The company focuses on the transfer of cargo flows from road to water and is responding to the trend in which companies expand, but concentrate more and more on production.

Storage is more likely to be moved or outsourced. J Wildeman also has storage locations in Hoogezand and at Chemie Park Delfzijl.

AMSTERDAM

Earlier this year, Rijkswaterstaat started preparatory work to remove the contaminated dredged material from Averijhaven depot, near Amsterdam.

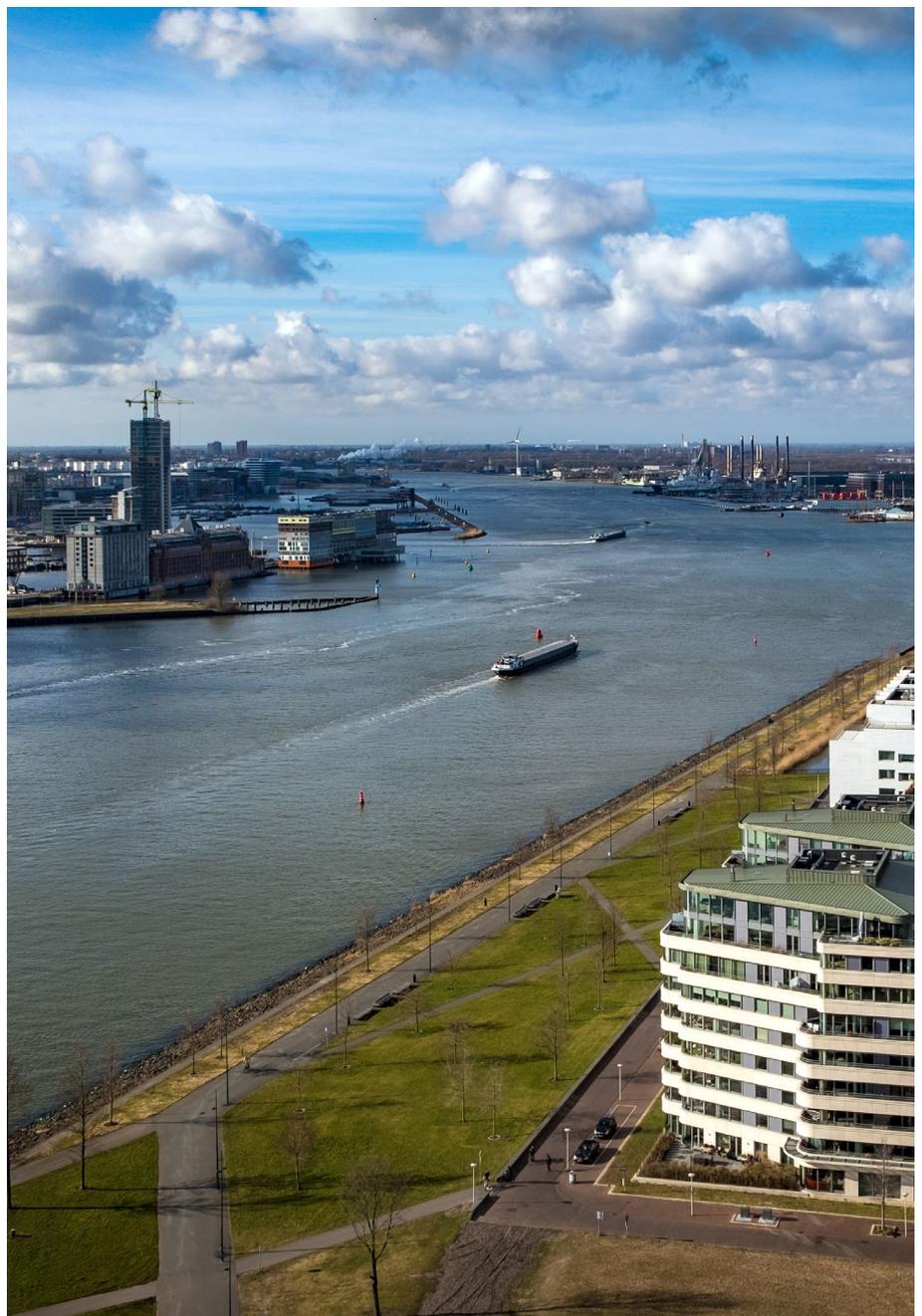
This is necessary to transform the site on the sea side of the North Sea Canal into the Energiehaven, offering further opportunities for energy transition.

After removing the dredged sediment, the Averijhaven site will be transferred to the province of North Holland, the municipality of Velsen, Port of Amsterdam and Zeehaven IJmuiden.

This consortium will develop the Averijhaven site and the adjacent Tata Steel site into the Energiehaven.

The new Energiehaven will make a significant contribution to the energy transition. The public port site is focused on offshore wind activities and will be a base for the construction of wind farms that will be built in the North Sea in the coming years.

Its development is a collaborative project between the parties in the consortium, the Ministry of Infrastructure and Water Management and Tata Steel.



STAND-OFF LINGERS

Australia's trade spat with China has continued to affect bulk trades during the course of the year – not least with the price of some essential commodities that China has been obliged to purchase in the open market at higher prices than would be available through a trade deal

While the trade standoff between Australia and China has been continuing in recent months, Australian wheat is still heading towards China despite the latter's anti-dumping duties on Australian wine and barley. Although there were recent reports of Australian coal being landed in China, few analysts are expecting an early ending to the dispute.

China has also cut back on purchases of Australian coal and beef as the dispute has been running, but wheat purchases are continuing. Wheat supplies have been under pressure as northern hemisphere suppliers have been affected by weather conditions. Australia, meanwhile, has been experiencing good conditions for the harvest.

"It is all about availability of good-quality wheat supplies at the right price when it comes to food security for China, or any other country," Phin Ziebell, an agribusiness economist at National Australia Bank in Melbourne told Reuters.

"Chinese buyers have cancelled some cargoes of French wheat on quality issues and they are turning to Australia in a big way," one Singapore-based trader at an international food-supply company was quoted as saying.

"We are, indeed, expecting a bumper Australian wheat harvest and China will definitely import as Aussie wheat seems like the only better choice globally," a Beijing-based trader with an

international trading house told Reuters, adding that French wheat this year is "basically doomed" due to quality issues.

Dry bulk trades have obviously continued to be affected by tensions between Australia and China, partly due to Australian moves to acquire nuclear submarine tonnage. China has been banning imports of Australian coal since the last quarter of 2020 and has had to increase coal imports from Russia and other suppliers such as the US and Canada, with all the implications for dry bulk fleets and ton-miles.

The Chinese ban on Australian coal has been costing Chinese steel mills substantial amounts as it has needed to pay a premium to secure coal from other suppliers; it is estimated to consume about two million tonnes of coal every day in its mills. The ban on Australian coal has caused distortions in the coal market because of the premium China has to pay against coal costs elsewhere in the world.

EYRE PENINSULAR

As T-Ports has been expanding its facilities in South Australia's Eyre Peninsular, the company has announced plans to provide grain growers on upper Eyre Peninsula with an alternative delivery option at a T-Ports bunker site at Kimba.

T-Ports has announced that it will build a new facility at the Eyre Premium Hay premises east of Kimba. The facility is

set to be completed in time for this year's harvest, while capacity at the company's Lock site will also be expanded.

Chief Executive Officer Kieran Carvill says the expansion projects highlights T-Ports' commitment to working in partnership with growers and are part of the company's plan to continue increasing grain throughput and give South Australian growers choice. The model has been followed with port developments that give grain growers a stake in the port end of the equation.

"Growers at both Kimba and Lock have been strong supporters of our grain supply chain, as have many others across the Eyre Peninsular. Given current harvest predictions, we're now able to offer an alternative storage option for this part of the catchment zone," he says.

"While upper EP growers have had the opportunity to deliver direct to our port at Lucky Bay since it opened in 2019, the Kimba site will give them a delivery option much closer to home so they can move tonnes from the paddock more efficiently and cost-effectively at the peak of the harvest.

"We will continue to monitor other opportunities to support our grower customers right across the catchment area in the future as we know they recognise and support the benefits of competition in the EP grain supply chain."

The T-Ports facility at Kimba will

consist of four bunkers with a total storage capacity of more than 70,000 tonnes. Grain intake will be via high-capacity drive-over hopper (DOH) stackers and existing IT systems will be in place to ensure seamless receival data capture. T-Ports will utilise the site's existing weighbridge and partial roadways.

At Lock, a new 300m long bunker and additional DOH stacker access road will be built, while an existing 150m bunker will be upgraded in time for the upcoming harvest.

Both sites, as well as the bunker site at Lucky Bay, will receive major wheat and barley grades, with active binning in place to capture additional value.

"As the first and only part-grower-owned alternative supply chain on the Peninsula, T-Ports is committed to delivering value to grain growers through competition," Carvill says.

PORT OF NEWCASTLE

The Port of Newcastle has been enhancing its capability to handle commodities with the purchase of a TAKRAF double jib level luffing ship unloader, which arrived recently.

The machine will operate at the port's Kooragang 2 berth, one of the busiest and most diverse common user berths in the port. Handling a wide range of bulk commodities, it will greatly increase the efficiency of cargo operations.

Features of the ship unloader include:

- » A hydraulic jib luffing system, which reduces maintenance requirements as there are fewer mechanical parts, and which also provides more precise control over luffing movements.
- » Integrated truck load-out (loading) station as an alternate discharge besides the wharf conveyor.
- » Ex-class rating, which means that the machine is approved to unload hazardous classified bulk material.
- » Maximum wheel loads in line with site constraints of the existing wharf.

Designed for 1,200m³ free digging capacity of super phosphate, the ship

unloader will also handle fertilizers, potash, urea, soda ash, gypsum, grains and magnetite.

Park potential

Port of Newcastle has also opened an expressions-of-interest campaign to gauge the potential for establishing an empty-container park in the Mayfield Precinct of the port.

The port is the world's largest coal exporter and is home to two of New South Wales' four bulk grain export terminals, and also handles dry bulk, bulk liquids, ro-ro, general and project cargoes and containers.

It currently handles 4,400 ship movements and 164m tonnes of cargo annually, but its deepwater shipping channel operates at only 50% of capacity.

The port is therefore looking to diversifying trade, particularly as global demand for thermal coal wanes in the longer term, and in July it announced it was spending \$28.4m on two Liebherr L550 mobile harbour cranes and associated infrastructure at the port's Mayfield 4 berth.

The cranes are expected to be operational by September 2022, and will assist the port's current capacity.

"With access to rail sidings and upgraded internal roads able to handle oversized trucks, the new cranes are capable of handling a diverse mix of project cargo, including wind turbines, mining equipment, timber, steel coils and transformers," the port said.

"The cranes will also have the capability to work in tandem for heavy lifts and lift two 20-foot or one 40-foot container in a single move."

In the background is the port's wish to build a multi-purpose deepwater terminal, development of which was stymied by a Federal Court ruling, which has been appealed by the Australian Competition and Consumer Commission (ACCC).

A port spokesperson says that since the crane order has been announced, its business development team has been in conversation with shipping lines, importers and exporters in

regards to containerised trade volumes to support the acquisition and associated infrastructure.

Port chief executive Craig Carmody says the building of a container terminal in Newcastle would increase the global competitiveness of regional New South Wales (NSW), and allow congested supply chains to be avoided.



PORT OF NEWCASTLE CEO CRAIG CARMODY.

"Port of Newcastle is confident that it has the ability to compete in the same market as Port Botany and NSW state government policy is the major constraint to this," Carmody says.

"Port of Newcastle continues to monitor the progress of the Federal Court proceedings and awaits the determination of the ACCC v NSW Ports appeal date with a keen interest.

"Port of Newcastle remains of the view that an appeal is necessary as development of another container terminal in NSW, even while Port Botany still has capacity, would provide a viable alternative and more cost-effective export routes for regional NSW farmers and manufacturers."

The port says grain exporters would benefit from increased efficiency in grain handling at the port from next year with a \$35m upgrade to its bulk-handling services at the Newcastle Bulk Terminal.

Located across the channel at Kooragang berths 2 and 3, the terminal will have be able to unload bulk cargo such as fertiliser and meal at up to 1,200 tonnes per hour when the second phase of the project is completed.

It will link the berth directly to nearby customer storage and load-out facilities.

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TERMINAL TALES

GROUNDHOG DAY?

It will be interesting to see exactly who makes the grade in Glasgow at COP26 and how much industry players can project how they plan to move forward over the next few years in order to meet decarbonisation targets.

As the industry seeks to meet the new deadlines, one concern is that those regulations already in place may have been put on the sidelines in favour of racing to meet new deadlines. Ballast water treatment systems provide one example as, after a rush to try and meet industry deadlines, there remains a good deal of uncertainty about how systems are performing in practice.

As Craig Eason points out in his online Fathom World newsletter, as the deadline for non-compliance with ballast water treatment rules comes to an end, some are saying that the pandemic has made testing systems for compliance impossible.

There has also been a lot of interest in systems that can be used to improve the performance of those put in place to meet legislative requirements. Let us hope we are not seeing another regulatory Groundhog Day for the industry.

FACTORING IN THE HUMAN ELEMENT

The Oil Companies International Marine Forum (OCIMF) has released a new paper providing a framework to integrate human factors into management systems. *Human Factors: Management and Self Assessment* is intended to help companies and leadership teams address the conditions and systems that influence human actions and decisions, and so promote safety and excellence across all operations.

OCIMF managing director Rob Drysdale says: "Human factors is an integral part of the OCIMF strategy. It is a key enabler to further reduce safety, environment, security and health impacts within our industry. That means that it has to be part of any management system. However, a human factors element cannot

be implemented overnight – it takes time for companies to become familiar with the concepts and understand how to apply them practically. Publishing this information paper will provide companies with an opportunity to trial the ideas and provide feedback to OCIMF on potential improvements.

"The intention is to eventually integrate a human factors element into our suite of Management Self Assessments and we very much encourage feedback from users."

UNIQUE NOTATIONS

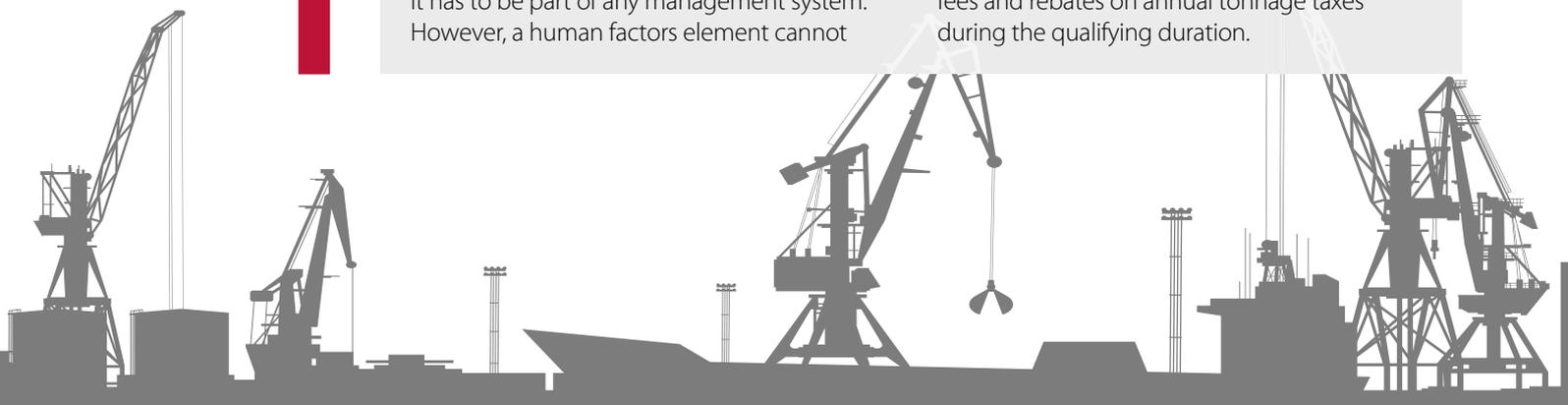
Singapore is launching a new accreditation system. The first of its kind, the SRS notation initiative aims to recognise shipowners and operators who voluntarily incorporate solutions to drive digital transformation, strengthen cyber security, enhance well-being of seafarers and pursue sustainable shipping.

The new system was announced by Chee Hong Tat, senior minister of state for transport, at the 2021 SRS Forum. Chee says that the Singapore registry has come a long way from its humble beginnings in 1966 and had since grown into one of the largest, youngest and highest-quality fleets in the world.

"Looking ahead, we aspire for the SRS Notation to be universally recognised as an assurance of a vessel's quality and future-readiness," he says.

The SRS is the first ship registry in the world to introduce "smart", "cyber", "welfare" and "green" notations for vessels, and the new notations are due to be rolled out on 1 November 2021.

Singapore-flagged vessels that fulfil the requirements for each of the categories will be issued a certificate of recognition and their details will be published on the Maritime and Port Authority of Singapore website to enhance their commercial attractiveness. Qualifying vessels will receive additional benefits from 2022, such as a reduction in initial registration fees and rebates on annual tonnage taxes during the qualifying duration.





Designed to help delegates identify and resolve common problems when handling various biomass materials.

This new course is aimed at the manufacturers and suppliers of biomass materials, at the users – particularly those responsible for maintenance and management on site – and at the manufacturers and installers of equipment used to transport and store biomass materials.

BIOMASS OPERATIONS AND HANDLING TECHNOLOGIES

SHORT COURSE – ONLINE

21-25 FEBRUARY 2022

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- » Ship unloading
- » Biomass potential and possible future trends

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