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Issue 26 | October 2020

CHINESE RECOVERY GIVES BOOST TO EXPORT TERMINALS

The strong recovery in Chinese major dry bulk imports has been good news for export terminals supplying that market. Indeed, as BIMCO's Chief Shipping Analyst Peter Sand reported in a September post: "These are up across the board, breaking previous records, not just for monthly imports, but also accumulated over the first seven months of the year."

This is particularly the case with Chinese iron ore imports, where the growth is due only in part to higher steel production levels and infrastructure investment, with the rest presumably being stockpiled.

As iron ore production recovers from Vale's Brumadinho dam collapse, China is once more importing from Brazil. Australian imports are down, presumably for political reasons. When the Brumadinho dam collapsed, China turned to second-tier iron ore producers to replace the shortfall, such as South Africa, Canada, Sweden and Russia. China would prefer to import from Brazil given the cheaper shipping rates for capesizes able to load from terminals located there, rather than from some of the other counties that cannot. The interesting speculation is whether Brazil will be able to supply China's increased demand — if not, terminals from these and other smaller exporters will continue to enjoy the increased work.

Steel production is falling in the rest of the world. The predictable drop in European steel production continues driven by the collapse of many manufacturing sectors, in particular Germany's car production.

In the US, the Energy Information Administration (EIA) expects exports of both metallurgical and thermal coal to drop by 30%, driven by the lower electricity demand caused by the pandemic.

Chinese coal imports are still up, although not seeing the same rise. However, the trend is that Chinese electricity generation coal's share of primary energy sources is declining.

There is a bright spot in some of the minor trades because of the rise in agricultural exports, such as Brazilian soya bean exports.

These and other market trends will be discussed on day one of the ABTO Bulk Terminals Webinar: The Impact of covid-19 on Bulk Markets and Terminal Operations. The webinar will consist of 90-minute sessions on Wednesday 28 and Thursday 29 October, starting at 13:00 GMT.

The two presentations on day one's focus on bulk markets will consider both current conditions and the future outlook, followed by a panel when the moderator, presenters and panellists will discuss and take questions from registrants. I am delighted that Peter Sand has agreed to be our moderator for day one. Our two presenters are Rahul Sharan, Lead Research Analyst Dry Bulk, Drewry Shipping Consultants, and Basil Karatzas, CEO, Karatzas Marine Advisors & Co. Basil is a regular contributor to ABTO's Bulk Terminals International magazine and also spoke at our Amsterdam conference last year.

GRAIN HANDLING GEARS UP IN AUSTRALIA

A new bulk grain handling facility at CQ Inland Port in Yamala is now up and running in a move that it is hoped will save farmers substantial freight costs at Northern Australia's first inland intermodal port.

The new facility is expected to cut waiting times for exports out of the port of Gladstone GrainCorp Queensland, regional operations manager Brad Foster said recently. The bulk grain handling facility cost \$18.5m and should result in substantial reductions in supply chain costs per tonne.

The existing GrainCorp site at Emerald will be closed and replaced by the new facility, which will be the second largest GrainCorp handling centre in the region.

The entire CQ Inland Port is expected to be complete by June 2021.

For further information about ABTO

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Captain Richard Brough OBE, Head of ICHCA International and Director, Brough Marine Limited, will be our moderator for day two, with the focus on the impact of covid-19 on operational matters. Richard is a regular speaker and session chairman at our annual conference. He is joined by presenters Frank Robertson, Vice President Operations, Logistec (who are members of ABTO) and Captain Ben van Scherpenzeel, Chairman, International Task Force Port Call Optimization, who will present a session on the ongoing impact on operational practice and efficiency, and coping now and accelerating the pace of change.

Panellists over the two days will include Professor Mike Bradley, Director, The Wolfson Centre for Bulk Solids Handling Technology, Chairman, Solids Handling & Processing Association and ABTO Members' Advisory Panel, ABTO; Anthony van der Hoest, Director Commerce, Maritime & Transport Business Solutions; and Garry O'Malley, Site Operations Director, Teesworks and Chairman, ABTO Technical Committee.

Congratulations are in order to Garry. He joined Redcar Bulk Terminal in 2012, prior to the re-opening of the steel works, to oversee the resumption of iron ore imports. After only three years of production, the steel works entered liquidation and closed again in October 2015 resulting in terminal throughput falling by almost 95%. He then successfully restructured the business and guided the bulk handling terminal through its transition from a bulk import facility for raw materials used in steel making to a more diverse multi-modal terminal operation handling a wide variety of bulk materials for a number of

clients. This was the subject of a fascinating and positive presentation at Bulk Terminals Amsterdam conference last year.

Garry left Redcar recently and has been appointed Site Operations Director at Teesworks, the largest industrial development in the UK. This will see the development of up to 4,500 acres of port land on the South Bank of the River Tees, including a 1km quay. Garry is also the vice chair of the Tees and Hartlepool Port Users Association so his experiences both before and after joining Teesworks will certainly bring a useful perspective to the webinar panel discussions.

As a result of the ongoing covid-19 pandemic, ports and terminals across the world are facing substantial operational, technical and financial challenges. However, many of ABTO's members have faced these challenges head on and this webinar will give members the opportunity to share their experiences and the measures they have put in place to enable them to continue to operate despite the ongoing restrictions. Most importantly, it will highlight how they have kept their employees and ships' crews safe.

Good luck in your new role, Garry. I look forward to welcoming you and all our readers to the Bulk Terminals webinar on Wednesday 28 and Thursday 29 October. Register for your free place here

Keep safe

Simon Gutteridge Chief Executive, ABTO

DIGITAL SOLUTION SIMPLIFIES IHM REPORTS

Verifavia Shipping has launched the world's first "3-Way Plug & Play" Maintenance Dashboard to ensure efficient and continuous maintenance of Inventory of Hazardous Materials (IHM) reports. The digital system ensures the IHM can be updated accurately, effectively and in real-time to comply with the EU Ship Recycling Regulation (EU SRR) deadline of 31 December 2020, as well as its ongoing maintenance requirements.

On 31st December 2018, the EU SRR came into force, prohibiting or restricting the use of hazardous materials onboard EU-flagged newbuildings and EU-flagged vessels heading for demolition at recycling yards. From 31 December, it will be further extended to cover all other EU-flagged ships, as well as ships trading under the flag of a third country that call at an EU port or anchorage.

The regulation prohibits or restricts the installation and use of hazardous materials (such as asbestos or ozone-depleting substances, among others) on board ships, as well as making it mandatory for ships to carry onboard a certified and maintained IHM specifying the location and approximate quantities of those materials. The EU SRR also requires the IHM to be continuously updated with relevant suppliers documents such as Material Declarations (MDs) and Suppliers Documents of Conformity (SDoCs) throughout the ship's operational life and renewed every five years. It covers all items and equipment that are installed, modernised or replaced.

Julien Dufour, chief executive of Verifavia Shipping, comments: "Launching shipping's first IHM Maintenance Dashboard ensures the industry has access to a simple, reliable, digital solution to maintaining a vessel's IHM. The regulations dictate the IHM must be constantly up-to-date and this system will ensure done efficiently and accurately, and also helps to facilitate the renewal survey which is required every five years."

BULK TERMINALS 2020 WEBINAR

THE IMPACT OF COVID-19 ON BULK MARKETS AND TERMINAL OPERATIONS

28-29 October 2020, 13:00 - 14:30 GMT*

* Please check your time zone against GMT - UK British Summer Time will finish on 25 October

In the three years that the international annual ABTO Bulk Terminals conference had been held, it rapidly established itself as the only event all those concerned with the bulk terminals industry needed to attend.

The high-value programmes of the Bulk Terminals conferences were designed for all those involved in the transportation, storage and handling of bulk commodities. Indeed, from our first and very well received gathering in London, delegates represented all sectors of the bulk terminals industry.

Therefore, it is with great regret that we have had to postpone out next full conference in Riga this year to October 2021.

So to bring everybody together this year we have put together two 90 minute webinars on Wednesday 28 and Thursday 29 October.





BULK MARKETS will be the focus of DAY ONE

PRESENTATION - Current conditions

What has been and is the continuing impact on the volumes and throughput of bulk terminals and how are different bulk trades being affected? Are there regional differences?

PRESENTATION - The future outlook

Looking to 2021 and beyond, how will covid-19 affect future volumes and the profitability of bulk terminals? Will there be a return to pre-coronavirus normality, or will the effects of the pandemic be to hasten the structural market changes that were already taking place? What will be the effect on planned developments?

PANEL - The present state of play and looking forward

The moderator, presenters and panellists will discuss and take questions from registrants

SPEAKERS:

PETER SAND, Chief Shipping Analyst, BIMCO (Moderator)

RAHUL SHARAN, Lead Research Analyst Dry Bulk, Drewry Shipping Consultants

BASIL M. KARATZAS FICS, ASA, CEO, Karatzas Marine Advisors & Co

ANTHONY VAN DER HOEST, Director Commerce,

Maritime & Transport Business Solutions (MTBS)

GARRY O'MALLEY, Site Operations Director, Teesworks and Chairman, Technical Committee, ABTO

THE IMPACT OF COVID-19 ON OPERATIONS will be the focus of DAY TWO

PRESENTATION - Ongoing impact on operational practice and efficiency

This session will examine the how covid-19 is continuing to impact on operations, such as supply chain issues — both regionally and for different bulk products. To what extent is the problem of crew changes for ships still affecting terminal operations, as what are the ongoing welfare issues for shore-side workers?

PRESENTATION - How will covid-19 affect future operations?

Is there going to be a long-term effect on the way operations are undertaken? For example, before the virus struck the benefits of new technology and better communications were being widely discussed and already to some extent implemented as a means to enhance operational efficiency, both in terminals themselves and the rest of the supply chain. Will this be accelerated? What, if any, will be the other effects of the virus on the way we operate?

PANEL - Coping now and accelerating the pace of change

The moderator, presenters and panellists will discuss and take questions from registrants

SPEAKERS:

CAPTAIN RICHARD BROUGH OBE, Head of ICHCA International and Director, Brough Marine Limited (Moderator)

GARRY O'MALLEY, Site Operations Director, Teesworks and Chairman, Technical Committee. ABTO

PROFESSOR MIKE BRADLEY BSC HONS, PhD, Director, The Wolfson Centre for Bulk Solids Handling Technology, University of Greenwich; Chairman, Solids Handling & Processing Association and ABTO Members' Advisory Panel

CAPTAIN BEN VAN SCHERPENZEEL, Chairman, International Task Force Port Call Optimisation

FRANK ROBERTSON, Vice President Operations, Logistec

PLEASE CLICK HERE TO SECURE YOUR FREE REGISTRATION

For future speaking, sponsorship opportunities please contact me directly SIMON GUTTERIDGE, Chief Executive, ABTO events@bulkterminals.org +33 (0)3 21 47 72 19

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MARITIME INDUSTRY UNITES TO SUPPORT SEAFARERS

Challenges faced by the seafaring community during the ongoing covid-19 crisis have led to initiatives to encourage countries to support good crew change policies.

A number of industry players, as well as trade associations and unions, are now signing up to schemes to encourage best practice in crew changes.

The International Transport Workers' Federation (ITF) and the International Maritime Employers' Council have jointly contributed US\$500,000 to the Singapore Shipping Tripartite Alliance Resilience (SG-STAR) Fund to support countries that adopt best practices for crew change. This adds to the S\$1m SG-STAR Fund established by the Maritime and Port Authority of Singapore, Singapore Shipping Association (SSA), Singapore Maritime Officers' Union and Singapore Organisation of Seamen. The total fund now amounts to S\$1.68m (approximately US\$1.2m).

The International Chamber of Shipping will also lend support to the SG-STAR Fund, including technical expertise in shipping. The fund, based in Singapore, will be disbursed for use upstream in countries where seafarers come from.

ITF general secretary Stephen Cotton comments: "For more than six months, the crew change crisis has seen

hundreds of thousands of seafarers either trapped on ships or unemployed at home, desperate to get to work. For the world's seafarers, they need practical solutions now, not tomorrow, to end this humanitarian crisis and get seafarers to and from ships in a safe manner. This joint initiative, working with tripartite partners to promote practical solutions to the crew change crisis, will be key to breaking the current deadlock."

"We need to see progress especially on ways seafarers can show authorities and employers their negative covid-19 Polymerase Chain Reaction (PCR) test results from verified medical institutions, so that quarantine times can be reduced on board and while waiting to join vessels."

A task force has been formed to work with stakeholders on solutions for safe crew change. Led by SSA Council Member and Chair of SSA Services Committee Nitin Mathur, the task force will first work with seafarer-supplying countries such as the Philippines and India on key initiatives, which include the accreditation of quarantine and isolation facilities, covid-19 PCR testing certification, "white-listing" of clinics for PCR testing, digital solutions for tracking crew change and interactive training sessions for crew to help them understand crew change procedures and guidelines.

IUMI UNVEILS CLAIMS DATABASE

During this year's annual International Union of Marine Insurance (IUMI) conference, initial findings from the organisation's major claims database were made available for the first time.

Following three years of development, the database is now sufficiently reliable for IUMI to publish a set of global cargo claims data.

Dave Matcham, Chief Executive, International Underwriting Association, and project leader and secretary to IUMI's Facts & Figures Committee explains: "We began this initiative by establishing and proving the concept three years ago. Since then we have recruited 22 national insurance associations who are all IUMI members and together we have made a significant investment in gathering reliable and consistent data on both hull and cargo losses. This year, we have received 6,800 records of major (greater than US\$250,000) losses totalling US\$10.2bn. Because cargo underwriting tends to be more evenly spread geographically than hull, we have more robust data for that insurance line and we are now ready to make public our initial major cargo claims conclusions."

Sufficient information dating back to 2013 has now been collected on a range of metrics and from this, five specific data fields have been identified where the data is reliable enough to be published: year of accident; underwriting year; loss amount; type of loss; mode of transport

Working in close partnership with the Boston Consulting Group, IUMI has been able to undertake and publish some early analysis of this information. Examples include a year-on-year comparison of numbers of major cargo claims versus their average value; number of losses categorised by value range; value of different types of claims; and claim numbers and values attributed to various transport modes.

"This is a unique database that is beginning to give a meaningful global insight into major cargo claims. Information of this breadth cannot be found elsewhere and it will allow underwriters to benchmark their own activity against global performance to better inform future decisions,, said Matcham.

IUMI will publish the initial cargo analysis in its annual Stats Report later this year. More information can be found at **iumi.com**



INSURANCE SECTOR URGED TO KEEP PACE WITH DIGITALISATION

Digitalisation in the marine insurance sector came under the spotlight at the International Union of Marine Insurance (IUMI) annual conference. IUMI Data and Digitalisation Forum chair Patrizia Kern discussed big data, the use of digital technologies and how the covid-19 pandemic has put digitalisation on the fast track.

insurance sector needs to keep pace," she said. "For some time now, the shipping industry has been seeking cost-effective ways to operate and key logistics players have already begun to partner and digitalise the global marine supply chain. The current pandemic has accelerated this process and marine insurers and underwriters need to upgrade their skills and embrace digitalisation to minimise the risk of becoming redundant in the future."

Historically, traditional underwriting practices have relied on scant risk data and manual processes which have resulted in inadequate risk assessment in many instances. Digitalisation can address this, Kern said.

"Digitalisation optimises the supply chain and offers a more sustainable future. It allows for a total re-thinking of the way that the logistic industry operates. Thanks to evolving client data lakes and the adoption of advanced technologies, new opportunities have opened up also for insurance companies to improve the service we deliver to our customers. Our industry is a people- business, with personal relationships at the heart of what we do, but covid-19 has shown us that we can still maintain these relationships whilst embracing new technologies."

She also highlighted how the use of big data and digitalisation is not without its risks and pitfalls. The insurance industry is highly regulated and marine insurers must operate within many legal and compliance frameworks.

ALLIANCE OFFERS TURNKEY SOLUTION TO EQUIPMENT PROCUREMENT

Two global leaders in maritime procurement and project management have joined forces to offer port and terminal operators a turnkey solution that cuts procurement costs and overheads while also increasing staff productivity.

Lifecycle contract management specialist and iSpec creator Remy InfoSource and Trent Port Services, an international port services and solutions company, will offer port companies a combined service solution that enables the easy establishment and oversight of a single capital expenditure (capex) budget for all equipment procurement, third-party factory inspections and project management requirements.

"By outsourcing complex equipment projects to our new partnership, large and small port companies can reduce the in-house time, costs and resources usually allocated to manage a complex expansion project from idea to completion," says Pieter Boshoff, chief executive of Remy InfoSource.

"Under this new business model we are offering with Trent Port Services, we can take on all turn-key equipment procurement, taking away these additional costs and distractions for a small percentage of the overall capex budget, enabling customers to outsource projects, reduce management costs and free up in-house resources for core operations."

The turnkey product offered by Remy InfoSource and Trent Port Services combines the deployment of iSpec, Remy InfoSource's innovative web- and mobile-based software procurement solution for buyers of capital-intensive equipment, with the renowned port project management expertise of Trent Port Services.

"This solution enables port operators and their employees to focus on what they do best – managing ports, operations and their customers," says Jon Arnup, chief executive of Trent Port Services. "We take on the entire project using a single capex budget approach. This cuts down management and procurement costs with payment milestones aligned to the deliverables of each project.

"When a port is not buying equipment, it therefore has zero overheads and costs. In other words, you only pay when you need something. This reduces corporate costs on labour, systems maintenance, corporate server farms and other overheads.

"For larger port operators, this improves project visibility and collaboration between corporate, regions and terminals, while reducing costs. For smaller ports, the overhead and manpower savings are substantial."

KR GRANTS A WORLD FIRST FOR VERY LARGE LPG CARRIERS

Hyundai Heavy Industries (HHI) has been issued with the world's first Cyber Security (CS Ready) class notation for a very large liquefied petroleum gas (LPG) carrier by the Korean Registry (KR).

KR granted the notation after completing successful document and field inspections, which included Kongsberg Maritime's ship alarm and monitoring system (AMS) and Hyundai Global Service's Integrated Smart ship Solution (ISS).

This is the first time the KR cyber security notation has been awarded to a very large LPG carrier, The notation is issued to newbuilding ships that have successfully passed 49 inspection items in a total of 12 categories, including risk and asset management, cyber incident response and recovery.

The four companies have been collaborating on joint research and developments for the past eight months, while working to apply and verify KR's cyber security rules for newbuilding ships. HHI and Korea Shipbuilding & Offshore Engineering have built a cyber security network encompassing the main systems, conducting risk assessment and vulnerability diagnosis for cyber security threats and KR has carried out and completed cyber security inspections across the network. As part of the comprehensive technological testing, KR conducted its first MITRE ATT&CK [1]* based penetration test to verify the safety of the cyber security system

Newbuilding vessels increasingly need cyber security notation as the application of digital technologies, such as advanced automation and integrated control systems, become more common, in addition, the IMO is expected to strengthen its demands for cyber security risk management as from 2021.

MARINE CARGO INSURANCE MARKET IS ON THE MEND

The majority of marine cargo markets geographically can best be described as "hard" or "improving" amid significant change, according to Sean Dalton, chair of the International Union of Marine Insurance Cargo Committee.

Speaking at the IUMI annual conference, Dalton pointed out that in its annual statistical update, IUMI reported global cargo insurance premiums to be US\$16.5bn in 2019. Although a 1.5% reduction on the previous year, exchange rates, trade and other market conditions make direct comparisons with previous years challenging. However, there are indicators that loss ratios in 2019 are starting to improve.

The challenges facing cargo insurers include addressing the impact of the covid-19 pandemic on their business, as well as continued changes in exposures ranging from increased accumulations to unprecedented shipboard fires, as well as new and evolving exposures such as cyber. At the same time, underwriters continue efforts to improve results and return to profitability.

The covid-19 pandemic has caused unprecedented disruption to the global economy and world trade affecting manufacturing, supply chain and demand. This has a direct impact on exposures insured including volume, accumulations in port and aboard vessels. However, to date there has been minimal loss activity as cargo insurance policies provide coverage for physical loss or damage and most policies do not provide coverage for delay, loss of market, or inherent vice.

Cargo insurance professionals, including underwriters, brokers, claims and risk engineering have responded extremely well to the challenges of covid-19 while working

through significant market corrections that pre-dated the pandemic, said Dalton.

Changes in the cargo insurance market include a return to exposure underwriting. This has resulted in underwriters improving technical rate adequacy and better matching coverage offerings with exposures. Insurers, meanwhile, are more judicious in deploying their capacity as they seek to better balance their portfolios, while the quality and relevance of information is markedly improved.

"In the past 12 months there have been a number of large cargo losses," said Dalton. "These include the tragic explosion in the Port of Beirut, a significant loss to a distribution facility impacted by the Nashville tornadoes, and the total loss of 4,200 vehicles aboard the Golden Ray. The Beirut Port explosion is troubling on many fronts and it is important to note that this is the second time in five years [Port of Tianjin explosion in 2015] that a port has been destroyed by an explosion involving hazardous materials. These underscore the important work that IUMI is doing to drive for improvements in the transport of dangerous goods and comes after the record number of cargo vessel fire losses in 2019," Dalton commented.

"Opportunities are also on the horizon as cargo returns to specialised underwriting. There will be an economic recov-

ery and global trade will play a major role. Cargo insurance is a key enabler and insurers in this line will emerge healthier and in a position to provide the solutions their customers need. The changes taking place are not about 'going backwards', but rather finding a sound way forward in the 'new normal' and to contribute to making our business better and sustainable."



Sean Dalton

PORT AND TERMINAL OPERATIONS FOR BULK CARGOES 2021 - Online delivery



Subjects covered include:

- » Ship unloading technologies
- » Conveying technologies
- » Storage and discharge technologies
- » Loading and unloading control
- » Rail and road out loading equipment and control
- » Explosion and fire risks and management
- » Mobile plant and safety
- » Developments in automation and autonomous vehicles
- » Dust control and environmental protection
- » Controlling cargo damage
- » Wear protection and maintenance
- » Cargo characterisation for handleability and other issues

For anyone concerned about or responsible for the safe handling and storage of bulk materials in ports and on the sea

Course Leader: Mike Bradley, Professor of Bulk and Particulate Technologies and Director of The Wolfson Centre, University of Greenwich





The Wolfson Centre for Bulk Solids Handling Technology

BIMCO AND ASBA GIVE BLESSING TO GAS CARRIER CHARTER PARTY

A new voyage charter party specially created for gas carrier use has been approved by BIMCO and the US Association of Ship Brokers & Agents (ASBA).

The two bodies said ASBAGASVOY is specifically aimed at the LPG, chemical gas and hydrous ammonia gas trades, a spokesperson for ASBA says.

The charter party is based on its tanker equivalent, ASBATANKVOY, which has been used previously in an amended form for gas carrier fixtures. Its new gas equivalent introduces gas specific terminology and replaces clauses relating to product tanker trades.

"An important feature of ASBAGASVOY is the introduction of a presentation clause," the two associations say. "The clause is at the heart of any gas tanker charter party and describes how the cargo tanks and lines are to be presented for loading upon arrival of the ship at a terminal."

The form is accompanied by a standalone bill of lading form, ASBAGASBILL.

Both will soon be available on BIMCO's secure contract editing system SmartCon and on ASBA's website.

BIMCO will also be pushing for international guidelines on ship/shore communications and has co-authored a proposal (FAL 44/18/2) for developing international guidelines for the electronic interface between ship and shore, and for all actors in the port call operation.

The proposed guidelines will ensure interoperability

between port stakeholders and ships and facilitate electronic interaction between ports worldwide. This will optimise the efficiency of both ports and ships, and in turn, benefit the global supply chain.

"Although a bit technical, such guidelines should provide the necessary information on authentication of the users, integrity and confidentiality, but also include technical requirements," Jeppe Skovbakke Juhl, manager for maritime safety and security at BIMCO, explains. This could be service interface descriptions, data structures used by the service(s), dynamic behaviour of the service(s) and sequence of operations. This also covers technical issues like choice of protocols and technology for data exchanges, taking due consideration of international standards developments

"A positive side effect of the covid-19 pandemic is that we have been forced to re-examine our daily routines in shipping, taking a gigantic leap forward by establishing digital solutions. The International Maritime Organization (IMO) framework is a huge step forward for harmonising the machine-to-machine data exchange communication," Juhl says.

Timing is extremely important to avoid local or regional standards being implemented. Therefore, BIMCO also calls for the establishment of a robust roadmap and time plan for the completion of an electronic information exchange framework in general, allowing all stakeholders to aligning national projects with the IMO progress. The schedule should also include completion of IMO's reference data model and guidance.

SWANSEA WORKS GEAR UP

Associated British Ports (ABP) has announced the commencement of construction work to repair Swansea West Pier, which plays an important part in preventing coastal erosion in the City of Swansea.

Located near to the Tawe Barrage in Swansea Bay and owned by ABP, the pier suffered structural damage from adverse weather and storms in recent years. The inner section of the pier provides wave protection to the navigation channel and the Tawe Barrage. It also holds the beach area to the west of the pier in its current position.

Robert Gray, ABP Port manager for Swansea and Port Talbot, says: "By making this significant investment in the repair of Swansea West Pier, we are not only preventing coastal erosion, but also hope that we will create an opportunity for Swansea Council and others to develop public access on top of the rebuilt structure to benefit the local community in future."

Construction work on Swansea West Pier will include the building of a new retaining wall to support the existing pier structure and was preceded by a range of engineering and environmental surveys to ensure that disturbance to the marine and operational environment will be minimised. As part of this, an important goal was to also make sure that work is organised in a way that will help protect the safe navigation of vessels.

Leo Martin, managing director of GRAHAM's Civil Engineering division, says: "The new retaining wall we are constructing is the result of our solution-led approach to engineering challenges and has been specially developed to accommodate working within a tidal environment.

"This is a vital project for the City of Swansea and its historic port and we're proud to have been chosen to deliver it on behalf of ABP."

PERFECT FOR COAL STORAGE

Hard coal is temporarily stored in stockpiles and then continuously fed to be processed, as needed. The design of the depositories must ensure constant filling and reliable emptying. The required capacity is determined based on the incoming and outgoing conveying flow. Different stacking and reclaiming options as well as various layouts for the stockpiles are also needed. BEUMER Group provides the engineering for handling stockpiles and offers the required components to coal mine operators, such as stackers and reclaimers.

BEUMER Group offers a comprehensive product and system solutions portfolio to customers from the coal mining industry. Conveying technology includes closed Pipe Conveyors and open troughed belt conveyors that can be adjusted to the respective situation. As a system supplier, BEUMER Group also provides extensive know-how and the necessary components for storing hard coal, e.g. stackers and bridge reclaimers. "We support our customers immediately from the design phase," says Andrea Prevedello, system technology global sales director, BEUMER Group, Germany. Drone technology is used more and more frequently during project planning, implementation and documentation to optimise the design phase. The recorded aerial photos are rectified with regard to their perspective and evaluated photogrammetrically. The software calculates a point cloud in order to generate 3D models from the two-dimensional views, i.e. digital terrain models. Stockpiles can now be greenfield and brownfield developments.

"We have some major customers with very interesting projects in this sector," explains Prevedello. This most certainly includes Prairie Eagle Mine in Illinois, the largest coal mine of Knight Hawk Coal. This is one of the most efficient underground mining plants in the US. It produces approximately five million tons of coal annually, of which more than 80% is processed and delivered in Prairie Eagle.

Management was looking for a more sustainable operating solution. "We provided an overland conveyor that transports the coal from the mine to the main processing plant," says Prevedello. "Our conveyor helps the company to considerably reduce its ecological footprint. With this technology, Knight Hawk can significantly reduce its long-term environmental impact compared to using truck transportation." BEUMER Group not only supplied the conveying solution. As a system supplier, the company also supported the mining group in building a stockpile for hard coal. "The requirements for storing coal are obviously very different from other materials," explains Prevedello. Some of the important requirements are changing if the stockpile is covered and if explosion-proof specific equipment is needed. Hard coal is very susceptible to spontaneous combustion, which is why the height of the

stockpile must be in certain cases limited.

The Prairie Eagle Mine in Illinois is the largest coal mine of Knight Hawk Coal. It produces approximately five million tons of coal annually, of which more than 80 % is processed and delivered in Prairie Eagle. Photo credit: BEUMER Group GmbH & Co. KG



