Issue 50 | July 2024

#### PACKED AGENDA FOR INTERCARGO

The International Association of Dry Cargo Shipowners (Intercargo) met in Tokyo recently and high on the agenda were quality, sustainability, greenhouse gas emissions' reduction, and, in particular, the Carbon Intensity Indicator (CII) rating system.

The location of Tokyo was chosen specifically to highlight the importance of Japan to the dry bulk sector. Japanese economic growth has contributed hugely to trade in dry bulk, a sector that has supported one of the world's largest network of shipbuilders, with many shipyards across Japan including the world's leading ship builders and designers of dry bulk vessels. Japanese shipowners have been prominent players in supplying the world's economy with dry bulk products such as iron ore, coal, raw materials and grain.

Numerous members and guests from both Japan and abroad attended the Association's functions. Intercargo's executive committee and technical committee discussions focused on issues affecting the dry bulk sector. Its members represent about one-third of the global dry bulk fleet tonnage. While they are supportive of the International Martitime Organization's (IMO) decarbonisation aims, they expressed serious concerns that the CII, in its current form, will unfairly penalise the sector.

Dimitrios Fafalios, Chairman of Intercargo said: "The issue of the CII again featured heavily in discussions with members at our meetings in Tokyo. Our members feel very strongly that the CII, in its current format, needs a fundamental reconsideration to account for the operating conditions in our sector."

He added: "While we are, of course, supportive of the IMO's environmental aims, they must be enforced in a fair and equitable manner across the maritime spectrum. They also need to be applied in way that is not potentially damaging to the shipping industry, as well as to avoid the wider adverse effects on economies and on end consumers."

Also prominent on the agenda were discussions on:

- Safety and quality operations;
- Intercargo's messaging on environmental, social and governance;
- Recommendations on Port State Controls; and
- Macro-economic impacts on the dry bulk shipping, such as conflicts leading to re-routing of vessels and increased insurance costs.

The next calendar dates for Intercargo's members are the organisation's annual general meeting, executive committee and technical committee meetings in London on 24-25 October 2024.

### MOU FOCUSES ON AMMONIA

KR has announced a
Memorandum of Understanding
(MoU) with Hanwha Ocean,
Amogy and Hanwha Aerospace.
The MoU focuses on the technical
collaboration and certification for
the application of ammonia
reformers and ammonia fuel cell
systems to ships. The ammonia
reformers, used to produce gas
with hydrogen as the main
component and supply it to fuel
cell stacks, are essential
equipment for the adoption of fuel
cell systems.

Amid the increasing global decarbonisation regulations, ammonia is emerging as a highly efficient alternative fuel. This agreement aims to apply reformers and fuel cell systems to ships, enhancing energy efficiency and reducing carbon emissions, thereby lessening the environmental burden.

The MoU encompasses collaboration across various technological areas related to the application of reformers and fuel cell systems in ships. This includes design, development, testing, and certification of ammonia reformers and fuel cell systems. Ultimately, the safety and suitability of these systems will be verified based on KR's rules, international conventions and standards, with KR planning to issue a New Technical Qualification (NTQ) certificate.

For further information about ABTO

Email: info@bulkterminals.org

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#### SAFETY NOTE ON HEAVY LIFT CARGOES

P&I Club Skuld has written a piece on the *safe stowage of heavy lift cargoes* and the insurance and legal implications of getting it wrong.

The project cargo trade, as with many segments of the shipping industry, experienced a boom during the pandemic owing to the constraints on available tonnage to match demand. This development emphasised the importance of careful stowage of multifaceted cargoes, as contracting parties sought to optimise cargo space on vessels.

While market conditions may have changed somewhat, correct stowage remains vital to charterers involved in this trade. Strict compliance with the vessel's cargo securing manual is essential.

#### IMO AND UN JOIN FORCES TO CELEBRATE SEAFARERS

Safety and seafarers rights have been high on the shipping agenda in recent times, and the International Day of the Seafarer was celebrated on 25 June.

On the International Day of the Seafarer, International Maritime Organization (IMO) Secretary-General Arsenio Dominguez paid tribute to the two million seafarers who keep global markets functioning and supply chains going.

In a video message to seafarers, Dominguez said: "Seafarers have been sorely tested in recent years – facing hostile acts from piracy or in conflict zones. I humbly acknowledge seafarers' resilience and sacrifice in the name of work."

Without seafarers there would be no shipping. And shipping is a lifeline for global trade.

United Nations Secretary-General, António Guterres marked the day, saying: "Seafarers are vital in ensuring a seamless flow of essential goods that eventually make it into markets, homes, and on to our tables. But their own lives have been put on the line in the face of grave threats. Let us together salute them for their essential work and support their safety."

Since November 2023, innocent seafarers have been targeted in ongoing attacks on ships travelling through the Red Sea, stemming from geopolitical tensions. Too many attacks have been launched, damaging or sinking vessels, and resulting in at least four deaths, with many others injured.

IMO calls for the immediate and unconditional release of the *Galaxy Leader* and its crew, seized by Houthi rebels and held for more than eight months.

IMO Secretary-General Dominguez said: "On this Day of the Seafarer, let us remember those who have lost their lives while simply doing their jobs, serving on these ships. Their dedication and sacrifice must not be overlooked. Attacks on the innocent can never be justified, and I will continue to advocate incessantly for the safety and well-being of seafarers."

To raise awareness about the safety of seafarers, an IMO social media campaign has been launched, focusing on safety at sea.

Seafarers are invited to share photos and top tips for safety at sea, using the hashtag, #SafetyTipsAtSea on Facebook, LinkedIn, X or Instagram.

KC Abigail Chin-Sood, a seafarer from the Philippines, shared her tips for women in the sector: "Safety at sea involves not only adhering to the highest standards of work safety but also, for women, establishing and maintaining clear boundaries with male colleagues. Preserving your dignity on board is crucial for ensuring your personal safety. By maintaining professionalism and setting boundaries, you can protect yourself from potential scandals and preserve your mental well-being, contributing to a safer and more positive experience on the ship."

Yrhen Bernard Sabanal Balinis, also from the Philippines, added: "Communication is key onboard ships. Whether it be anchoring, pilot boarding, or mooring, the officers need keen situational awareness to ensure that things are running safely. But effective shipboard communication is not only limited to those. Is a crewmate feeling down, homesick, or anxious? Is abruptly agitated or constantly isolated? Has their performance drastically plummeted? Tactful communication plays an instrumental role in seafarers' psychological safety."

Follow the conversation using **#SafetyTipsAtSea** or **#DayOfTheSeafarer**.

#### **REMINDER OF PORT LIMITS**

The recent High Court decision of Afra Oak serves as a timely reminder of how risky it can be to anchor outside port limits. Owners should make sure to obtain the necessary permissions from local authorities when anchoring in these waters. Gard P&I Club has *put pen to paper to discuss the issues*.

#### INITIATIVE FLEVATES AWARENESS IN NAVIGATION

Navigation Project, known as OCEAN Project, in this part of the project aims to shape the future of maricollaboration with The Nautical Institute, has announced the release of a series of seven free training videos designed to elevate maritime education and training (MET) standards. These videos address evolving gaps in navigational awareness and maritime safety, providing mariners with the tools they need to navigate today's dynamic and technologically advanced maritime environment.

The OCEAN Project is an initiative funded by the European Union, focused on augmenting navigators' capabilities to improve safety, reduce incidents, and mitigate whale strikes. Part of the initiative is dedicated to advancing maritime education and training by addressing gaps in current maritime navigation practices and providing innovative, high-quality resources to enhance the skills and knowledge of maritime professionals tion, automatic updates, and the ability to reach a global worldwide. The project consortium comprises members from seven European countries: Norway. Greece, Spain, Denmark, Portugal, Ireland, and the UK.

The Operator-Centred Enhancement of Awareness in Through a collaborative and comprehensive approach, time training in alignment with emerging trends and technological advances. The OCEAN Project's free training videos were developed in response to identified knowledge gaps between industry best practice and minimum training standards and represent a significant advance in maritime training, promoting industry best practice. Through extensive academic research. interviews, surveys and workshops, the project pinpointed areas where existing MET could be enhanced to better prepare seafarers for contemporary challenges. The training videos are available on the OCEAN Project's website and on the OCEAN Project's You Tube channel, ensuring easy access for mariners, companies, MET institutions, flag states, and industry stakeholders. These platforms allow for quick distribu-13 audience. The training videos can also be downloaded for offline viewing, ensuring accessibility even without internet access.

#### REPORT SHEDS LIGHT ON CARGO CRIME

Loss of purchasing power across the globe continues to fuel cargo crime according to the recently published Annual Cargo Theft Report 2023 by TT Club and BSI SCREEN Intelligence, which pinpoints high inflation as a primary macroeconomic driver of cargo crime patterns. The rise in food and beverages as a stolen commodity is one such indicator.

Key findings of the 2023 report include:

Increase in food and beverages (including alcohol) stolen, from 16% to 24% of global total;

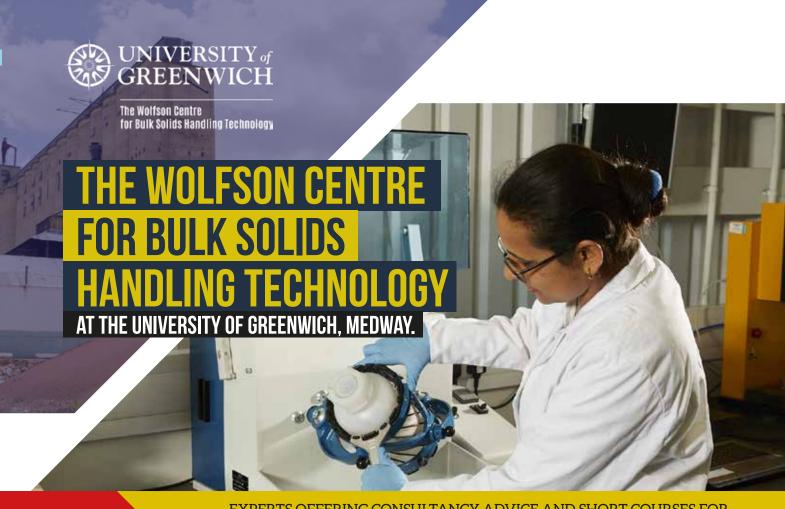
- most common mode remains road at 71%:
- facilities as a location for theft down from 30% to 23%:
- top countries include Mexico, USA, South Africa, Germany and Italy;
- electronics slightly down at 9% of incidents, but still significant in terms of value; and
- modus operandi differs by region: examples include 'Blue light crime' in South Africa and 'insider activity' in Asia.

BSI and TT's report is intended to serve as cautionary advice to all concerned with supply chain security and also to provide mitigation recommendations to combat these threats which are likely to persist into the current year.

Tony Pelli, practice director at BSI, says: "Cargo theft is a problem that costs companies tens of billions of dollars each year and can cause significant disruption to important supply chains, from pharmaceutical products to semiconductors. Having accurate and up-to-date intelligence is the first step in combating this problem and pinpointing the locations and types of theft that are most likely to harm global supply chains."

"In identifying shifting crime patterns in terms of new fraudulent methodologies and a focus on both historic and current geographic risk, we seek to assist operators in tightening their security processes," explains TT's managing director loss prevention Mike Yarwood. "In addition to the details of the global trends in commodities stolen and the types of theft we have provided a series of case studies drawing attention to prevalent regional or country specific dangers.

The 2023 Cargo Theft Report can be downloaded free of charge.



EXPERTS OFFERING CONSULTANCY ADVICE AND SHORT COURSES FOR ENGINEERS HANDLING POWDER AND BULK MATERIALS

#### >>> ONLINE COURSES NOW AVAILABLE

#### **CONSULTANCY SERVICES**

Some of our Consultancy services include advising on:

- » Storage and Discharge of bulk materials
- » Pneumatic Conveying of bulk solids
- » Spoiling of materials in storage and in transit
- » Plant and Equipment design/redesign
- » Ship Unloading/ quayside operations
- » Control of plant wear
- » Dust control

- » Bulk Materials characterisation
- » ATEX/DSEAR compliance
- » Expert Witness services

#### SHORT COURSES FOR INDUSTRY

We also provide a range of short courses to help delegates identify potential bulk materials handling problems and advise on how to avoid and/or overcome these issues. They fall under 4 main categories

#### **Pneumatic Conveying:**

- » Pneumatic Conveying of Bulk Materials
- » Pneumatic Conveying System Design
- » Rotary Valves; Design, Selection and Operational Issues
- » Commissioning and Troubleshooting 'Hand's On' Pneumatic Conveying Systems

#### General bulk materials handling:

- » Overview of Particulate Handling Technology
- » Port and Terminal Operations for Bulk Cargoes
- » Measurement of the Properties and Bulk Behaviour of Particulate Materials
- » Dust Control in Processes

#### Storage of Bulk Materials:

- » Storage and Discharge of Powders and Bulk Solids
- Design of Equipment for Storing and Handling Bulk Materials
- Biomass Handling, Feeding and Storage (can be adapted to other materials such as waste, recycled goods, pellets)

#### Specialist areas of concern:

- » Caking and Lump Formation in Powders and Bulk Solids
- » Undesired De-blending and Separation in Processes and Equipment
- » Electrostatics in Powder Handling
- » Numerical Modelling of Solids Handling and **Processing**
- » Powder Handling and Flow for Additive Manufacturing

#### SIGNING UP TO SIMULATORS

Kongsberg Digital has announced a new simulator contract with Höegh Autoliners, a player in the transportation and logistics sector. The agreement involves the delivery of state-of-the-art K-Sim Navigation and K-Sim Engine simulator models, specifically designed for training crew on environmentally friendly Höegh's Aurora Class vessels.

The company claims Höegh's new vessels will be the largest and most environmentally friendly pure car and truck carriers ever built, accelerating its decarbonisation efforts and setting a new standard for more sustainable deep-sea transportation. Kongsberg Digital will develop a customised bridge simulation model of the *Aurora* vessel, including a new engine simulator model for crew training in future sustainable and hybrid fuel types. With this, Höegh is marking a pivotal step in training its crew to meet the stringent demands of the green shift in maritime operations.

#### WHITE PAPER HIGHLIGHTS FIRE SAFETY

Global Survival Technology solutions provider Survitec has highlighted the dangers of inadequate maintenance, testing, and inspection of ship fire safety systems in a new **white paper**, which points to an alarming increase in fire-safety-related deficiencies found during port state control inspections and subsequent ship detentions.

Survitec highlights that fire continues to be a leading cause of major shipping incidents, accounting for more than 20% of total losses, and the most expensive cause of marine insurance claims. The highest level of fire safety deficiencies in a decade was recorded by the Paris MoU in 2022, and the Tokyo MoU also reported an increase in detentions, with a staggering 15,562 deficiencies reported in 2023.

"Analysts report a 17% year-on-year rise in shipboard fires, which correlates with an increasing number of reports and testimonies from our network of certified service technicians and engineers that document serious faults requiring immediate corrective measures," says Metkel Yohannes, director of service and rental solutions. Survitec.

Survitec has found that the economic downturn and the emphasis on cost reduction post-covid have had a negative impact on fire safety, with some shipowners and operators maintaining and inspecting safety equipment themselves in an attempt to save costs.

As Yohannes explains: "We're finding basic errors and oversights that do not become apparent until either the ship fails an inspection and is detained – or there is a fire."

He quotes an example: Survitec was called out to a vessel after an engine room fire. The crew had managed to extinguish the fire, but suspected there was a fault with their high expansion foam firefighting system. The cause of the fault was a blockage in the system. The crew had installed a new foam pump and forgotten to remove one of the protective caps from the inlet.

Survitec also finds wrong parts being used or poorly fitted, or low-quality parts that deteriorate rapidly and

fail. For example, in  $\mathrm{CO}_2$  firefighting systems, hydraulic hoses are often mistaken for high-pressure hoses, but they are not designed for  $\mathrm{CO}_2$  applications and may burst under pressure.

"We see evidence of a slip in standards regarding basic safety practices but also a wide disparity in service quality between service providers. Approval stamps are being applied to fire systems and appliances that would or should not pass inspection. Some issues are self-evident; for example, rust on a valve or fire extinguisher is clear to see, but other issues are less obvious and can have catastrophic consequences," says Yohannes.

The white paper highlights an incident involving a bulk carrier. The vessel had completed a fire safety inspection and received full certification from a local service provider. Shortly after leaving port, a fire broke out in the engine room. Over half of the cylinders failed to activate despite the CO<sub>2</sub> system having been inspected and approved. While the fire was eventually extinguished, it caused significant damage to the vessel, resulting in off-hire and repair costs estimated between US\$2-3m.

Yohannes states: "The development and introduction of alternative fuels, including the use and transportation of lithium-ion batteries, brings new fire risks and safety challenges that can't be ignored. Fire systems and equipment must be maintained and tested as mandated by SOLAS, the IMO and the FSS code.

"Shipowners and operators need accredited service partners they can trust. They must have confidence in the system of approvals. It is clear there are substandard inspections taking place, which is worrying. Although service providers may boost many approvals, they may not be suitably equipped or resourced to perform all the required tests."

Yohannes concludes: "As an industry, current practice should be reviewed to determine if more oversight and governance, and more quality control procedures are required to protect crew and vessel safety."

#### CARGOES OF CONCERN

The industry bodies of the Cargo Integrity Group have identified a number of cargoes commonly carried in containers that can, under certain conditions, cause dangerous incidents. They urge everyone handling these goods to follow all applicable regulations, the CTU Code and industry best practices.

In addition to promoting sound packing and shipping practices, the Cargo Integrity Group aims to increase awareness about the types of goods, often less obvious, that can compromise safety in the container supply chain under certain conditions.

The Group has identified 15 such 'Cargoes of Concern' that are commonly transported by sea and intermodally. While these are usually transported safely when regulations and guidelines are followed, the group has created a list to highlight cargoes that can become hazardous if handled incorrectly. They emphasise that cargoes that are mis-declared or have incomplete or incorrect information about their identity are more likely to be involved in incidents.

This list is not exhaustive, but each item illustrates a common type of hazard, divided into three categories:

Reactive hazards: these cargoes can catch fire and cause significant damage and casualties under certain conditions. They are generally subject to Dangerous Goods regulations. Examples are:

- Charcoal / carbon
- Calcium Hypochlorite
- Lithium-ion batteries
- Cotton and wool
- Fishmeal and krill
- Seed cakes

Spill or leak risks: these commodities can present a risk if not packed properly or if they are damaged. Spills or leaks from these cargoes can harm the health of people cleaning up the spill as well as the environment. Examples are:

- Hides and skins
- Wine
- Bitumen
- Cocoa butter
- Waste recycled engines and engine parts
- Vegetable and other oils, particularly when packed in flexitanks

Improper packing consequences: cargoes that are poorly or incorrectly packed or secured in the container can lead to injuries to personnel or damage to nearby containers, property, or other cargo. Such incidents can cause severe accidents at sea or on land, such as truck rollovers and train derailments. Examples are:

- Logs and timber
- Steel coils
- Marble and granite

In the coming months, the Cargo Integrity Group will publish additional guidance on the identification and safe handling of these cargoes.

Dedicated to improving the safety, security and environmental performance throughout the containerised supply chain, a primary goal of the Cargo Integrity Group is to increase awareness and wider use of the IMO/ILO/UNECE Code of Practice for Packing of Cargo Transport Units – the CTU Code.

As part of this effort, the group has developed a quick guide to the CTU Code, together with a checklist of actions and responsibilities for the guidance of those undertaking the packing of cargoes in freight containers. These are now available in all six official International Maritime Organization languages, as well as Italian, and are available HERE

#### V GROUP AND ERASMUS FORM STRATEGIC PARTNERSHIP

Global ship management and marine services provider V Group has entered into a strategic partnership with international shipping group Erasmus Shipinvest Group (ESI) for the management of commercial vessels, including the provision of crewing and marine services.

Under the agreement, V Group will take a number of ESI's vessels of various types into management during the course of the year. The partnership gives ESI access to Oceanic's vessel catering and GMT's crew travel services, membership of V Group's supply chain solution, Marcas, and ShipSure, its proprietary digital ship management platform.



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The war in Ukraine had a serious impact on bulk trade flows and the attacks on shipping in the Red Sea add to the disruption. Antwerp will examine the impact of both on bulk terminal operations – both short term and in the future

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#### ADVANCED SHIP LOADING SYSTEM FOR ANGLO AMERICAN

The mining group Anglo American relies on a ship loading system from FAM, member of BEUMER Group, for the sustainable and efficient loading of mined copper ore from the Peruvian plant Quellaveco. Thanks to the system's special construction, no material can enter the environment.

The surging demand for lithium-ion batteries in the electromobility sector is increasing the need for copper. One of the world's largest and best-known deposits with estimated reserves of 1.1 billion metric tons of copper ore is the Quellaveco mine located near the port city of Ilo, Peru, and operated by Anglo American, one of the world's largest mining companies.

#### Ready for the increasing demand for copper

The plant is expected to mine 1.1 million metric tons of copper annually. To ship this enormous amount of raw material to the target countries, Anglo American searched for a suitable partner to supply the ship loading system at the new port terminal. Choosing FAM, now part of BEUMER Group since 2022, signifies a strategic partnership with a global supplier for innovative bulk materials handling, processing, and conveying solutions, renowned for comprehensive customer support and a robust portfolio.

#### **Dust-free to the destination**

The Quellaveco open pit mine harnesses advanced automation technology to ensure worker safety and minimize dust pollution. Copper ore is efficiently transported via a belt conveyor to a truck loading station, where automated

systems, including gates and dust extraction mechanisms, ensure a clean, seamless transfer. After loading, the hermetically sealed trucks pass through a sensor-activated tire wash, ensuring no trace of dust leaves the facility.

Advanced systems designed to capture airborne particles during ore receipt, storage, and shipment act as powerful air purifiers, maintaining environmental integrity. Real-time data monitoring via sensors provides information for the operations center, enabling the plant to be controlled automatically.

#### From the mainland on to the ship

Upon arrival at the port, the ore is securely stored in a warehouse before a sophisticated conveyor system transports it to the new ship loader. This loader has a swiveling superstructure and a telescopic tube designed for efficient, emission-free loading, capable of reaching every corner of a ship's cargo hold and handling around 1,320 t/h.

FAM expertly commissioned this advanced system by the end of 2022, overseeing the installation of mechanical components and managing the electrical and control engineering, project planning, production, and transportation. Their expertise in providing a high-capacity, dust-free ship loading system underscores the synergy between Anglo American's mining excellence and FAM's technological prowess, setting a new standard in sustainable mining practices.

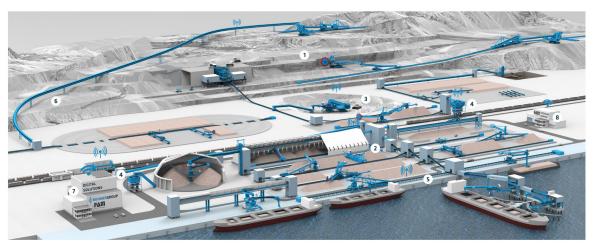
For more information, visit:

www.beumergroup.com/pd/port-technology/ship-loader/





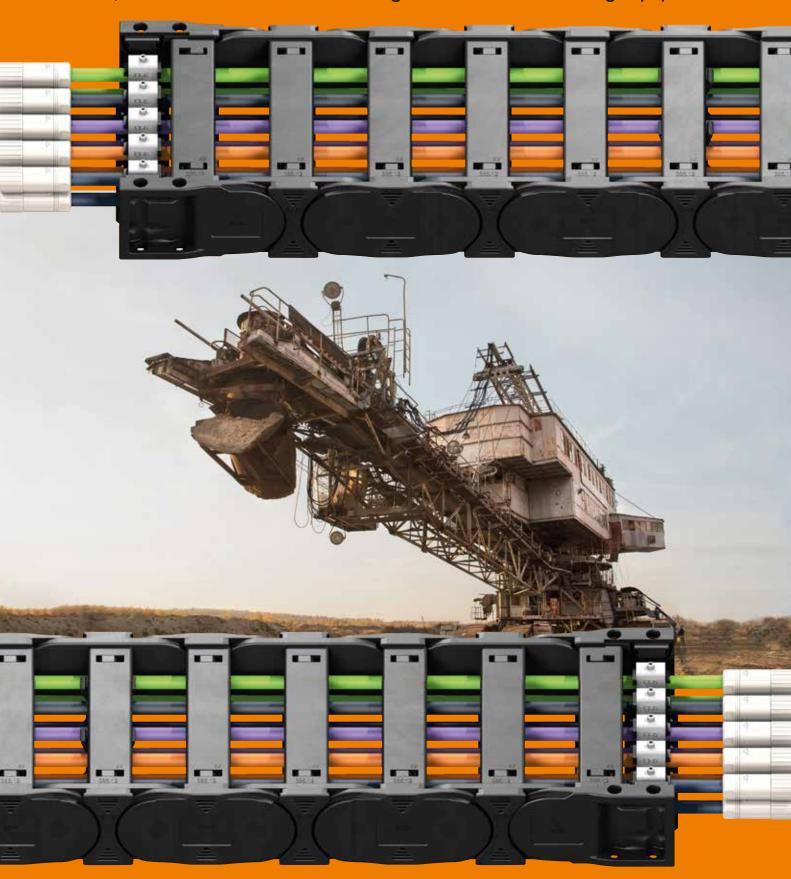
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